

CRANE CREEK

M-1 CANAL FLOW RESTORATION

VOLUME 2

PREPARED FOR:

**ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT**

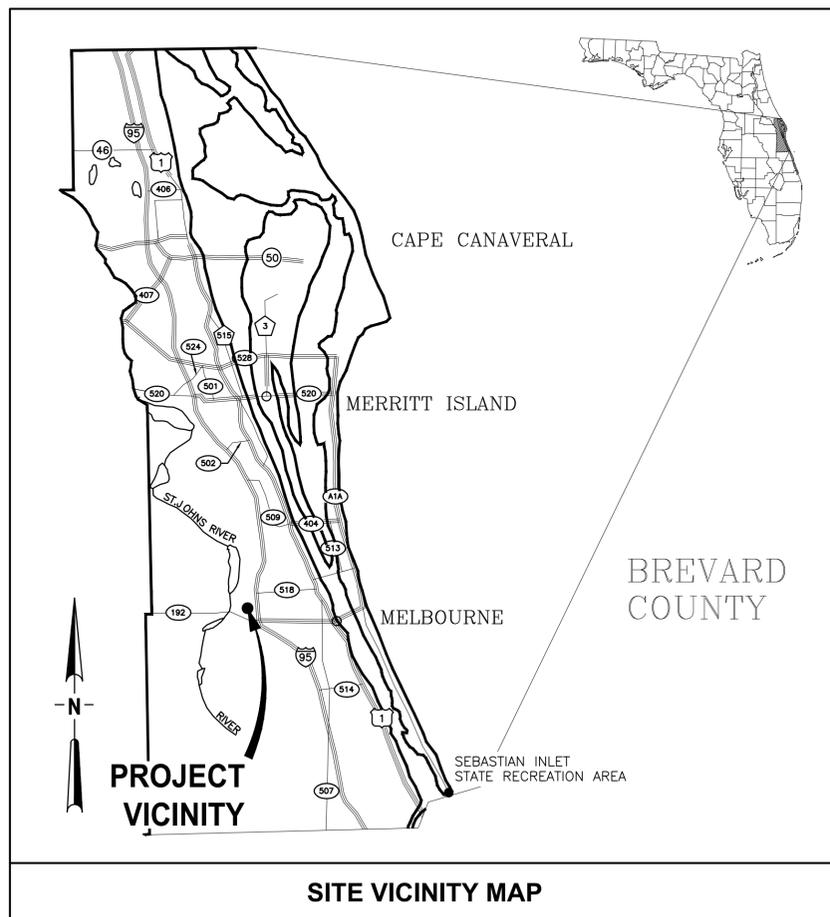


PREPARED BY:

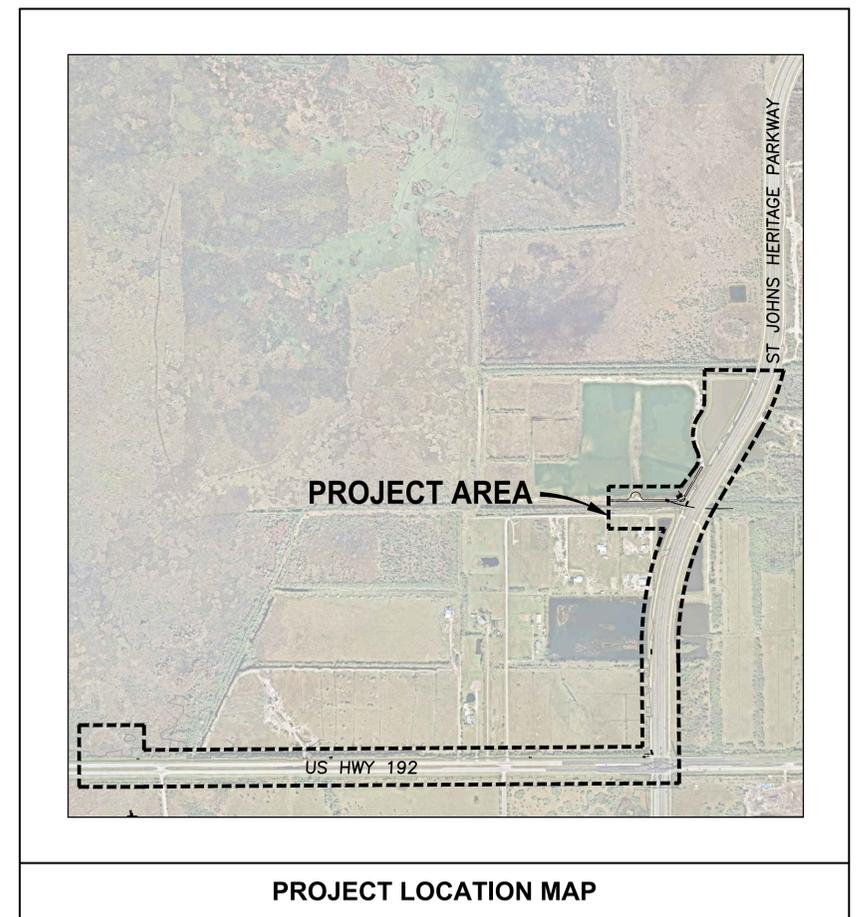


CERTIFICATE OF AUTHORIZATION #1841
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

Always call 811 two full business days before you dig to
have underground utilities located and marked.



SITE VICINITY MAP



PROJECT LOCATION MAP

CONTRACT NO: 32116

PROJECT NO: 19750-066-01

BID DOCUMENTS

JULY 2022

BREVARD COUNTY RIGHT-OF-WAY REVIEW AND APPROVAL DOES NOT CONSTITUTE COUNTY APPROVAL OR REVIEW OF ANY PRIVATE PARTY DEED RESTRICTIONS, COVENANTS, PRIVATE EASEMENTS, OR OTHER PRIVATE AGREEMENTS. ANY CHANGES TO THE APPROVED MUST BE COORDINATED THROUGH THE PUBLIC WORKS ENGINEERING PROGRAM. THE APPLICANT ASSUMES THE RISK THAT THE RIGHT-OF-WAY PERMIT MAY REQUIRE ADDITIONAL COUNTY REVIEW INCLUDING ENGINEERING REVISIONS OR OTHER APPLICABLE COUNTY REVIEW PROCESSES SHOULD ANY ACTION TO ENFORCE ANY SUCH RESTRICTIONS REQUIRE REDESIGN OF THE PROJECT.

22x34

LAST SAVED: 7/13/2022 9:40 AMBY:JALLEN PLOTTED:7/15/2022 12:52 PMBY:JON W. ALLEN, JR.

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Amy Liane Goodden, State of Florida, Professional Engineer License No. 60097.

This item has been digital signed and sealed by Amy Liane Goodden on the date indicated here.

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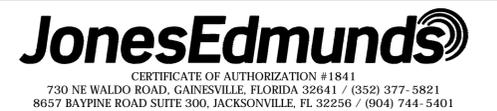
Donald J. Sheldon, State of Florida, Professional Engineer License No. 90306.

This item has been digital signed and sealed by Donald J. Sheldon on the date indicated here.

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DESIGNED	A. GOODDEN			
DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.



CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2

DRAWING INDEX & ABBREVIATIONS

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO:	DATE:
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.	19750-066-01	JULY 2022
	INDEX NO:	DWG NO:
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.		G2

BID DOCUMENTS

GENERAL NOTES

ABBREVIATIONS

- TOPOGRAPHIC SURVEY INFORMATION FOR ALL AREAS EXCEPT THE STA SITE WAS PROVIDED BY SJRWMD REGISTERED PROFESSIONAL LAND SURVEYOR. THE EXISTING POND ON THE STORMWATER TREATMENT AREA IS SHOWN USING AS-BUILT DATA PROVIDED TO BREVARD COUNTY BY JR DAVIS. THE ST JOHNS HERITAGE PARKWAY PONDS, ROADWAY, AND SIDEWALKS ARE SHOWN USING AS-BUILT DATA PROVIDED TO BREVARD COUNTY BY DRMP.
- THE HORIZONTAL DATUM IS BASED ON FLORIDA STATE PLANE EAST, NORTH AMERICAN DATUM 1983 (NAD83), 2011 ADJUSTMENT. VERTICAL INFORMATION SHOWN REFERS TO NATIONAL GEODETIC SURVEY (NGS) POINT NGS B712 2008 HAVING A RECORDED ELEVATION OF 16.36 FEET (NAVD 88).
- INFORMATION SHOWN HEREIN REPRESENTS CONDITIONS AS THEY EXISTED ON THE SURVEY DATE OR AS RECORDED IN THE AS-BUILT DATA AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
- ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION INCLUDING BUT NOT LIMITED TO SOD, LANDSCAPING, ETC. NEW SOD SHALL MATCH ADJACENT SOD OR IF NONE IS PRESENT IT SHALL BE A BAHIA/ BERMUDA MIX.
- EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN, UNLESS OTHERWISE NOTED.
- EXISTING PAVEMENTS DAMAGED DUE TO CONSTRUCTION ARE TO BE REPLACED IN-KIND AT THE SAME LOCATION, WIDTH, AND GEOMETRY UNLESS OTHERWISE SHOWN IN THE PLANS. CONTRACTOR SHALL RECONSTRUCT ROADWAY AND DRIVEWAY PAVEMENT TO EXISTING GRADES UNLESS OTHERWISE SPECIFIED. REPAIRS SHALL BE MADE IN ACCORDANCE WITH REQUIREMENTS OF THE ROW OWNER
- CONTRACTOR WILL REMOVE BURIED OUT OF SERVICE UTILITY LINES WITHIN THE LIMITS OF ALL EXCAVATION. THE COST OF THIS WORK WILL BE INCIDENTAL TO AND INCLUDED IN THE COST OF THE WORK BEING PERFORMED WHEN THE LINES ARE ENCOUNTERED.
- ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
- THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA, INC. (1-800-432-4770) TWO BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.
- CONTRACTOR SHALL NOTIFY SJRWMD IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR OMISSIONS IN CONSTRUCTION PLANS THAT WOULD AFFECT THE CONSTRUCTION OF THE PROJECT.
- DISPOSAL OF ALL EXCESS EARTHWORK MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. DISPOSAL SITES SHALL BE AS DIRECTED BY SJRWMD, AS THE OWNER.
- CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE FLORIDA STATE TRENCH SAFETY ACT.
- CONTRACTOR SHALL OBTAIN A TEMPORARY DEWATERING PERMIT PRIOR TO ANY DEWATERING ACTIVITIES. CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO SJRWMD FOR APPROVAL. DURING DEWATERING OPERATIONS, CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO EXISTING WETLAND SYSTEMS, CANALS OR DITCHES.
- CONTRACTOR TO ESTABLISH ALL LINES, GRADES, AND REFERENCE POINTS AS REQUIRED FOR WORK UNDER THIS CONTRACT. ALL PROJECT LAYOUTS SHALL BE DONE USING A PROFESSIONAL SURVEYOR & MAPPER LICENSED IN THE STATE OF FLORIDA.
- CONTRACTOR TO PROVIDE ALL LABOR, INSTRUMENTS, STAKES AND OTHER MATERIALS NECESSARY FOR MARKING AND MAINTAINING ALL LINES AND GRADE.
- ALL EXISTING TREES OUTSIDE THE GRADING LIMITS ARE TO REMAIN.
- CONTRACTOR SHALL KEEP ALL SPOILS AND EQUIPMENT OUTSIDE OF THE TREE DRIPLINE FOR ALL TREES NOT DIRECTLY AFFECTED BY CONSTRUCTION
- BURNING OF MATERIAL AND/OR DEBRIS IS PROHIBITED WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LEGALLY DISPOSE OF ALL CLEARED/GRUBBED MATERIAL OFFSITE.
- UNLESS OTHERWISE SPECIFIED ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2022), AND FDOT STANDARD PLANS (2022/2023).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A STAGING AREA FOR MATERIAL AND EQUIPMENT STORAGE. THIS MAY INCLUDE LOCATING A SITE, OBTAINING PERMITS, AND MAKING THE SITE SUITABLE FOR USE. THE CONTRACTOR SHALL NOT USE RIGHT-OF-WAY FOR STAGING MATERIAL AND EQUIPMENT.

- THE CONTRACTOR SHALL PROVIDE MATERIAL AND CONSTRUCTION TESTING BY A FLORIDA QUALIFIED GEOTECHNICAL TESTING FIRM. ACCEPTANCE TESTING INCLUDES BUT IS NOT LIMITED TO CONCRETE, ROADWAY STABILIZATION AND BASE, ASPHALT DENSITY, AND LIMEROCK. RESULTS SHALL BE SUBMITTED TO THE DISTRICT.
- AS-BUILT PLANS TO BE PROVIDED BY THE CONTRACTOR TO SJRWMD AND CERTIFIED BY A FLORIDA REGISTERED LAND SURVEYOR.
- ANY EXISTING FENCING THAT IS DAMAGED OR TEMPORARILY REMOVED DURING CONSTRUCTION MUST BE REPLACED IN-KIND. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER REGARDING ANY FENCE REMOVAL OR REPLACEMENT.
- FENCE ADJACENT TO US 192/SR 500 AND FENCE ADJACENT TO ST. JOHNS HERITAGE PARKWAY MUST BE IN PLACE AT ALL TIMES.
- CONTRACTOR TO COORDINATE REMOVAL OF SALVAGE EQUIPMENT. PROVIDE SJRWMD MINIMUM OF 30 DAYS NOTICE TO REMOVE/RELOCATE EQUIPMENT.
- THE CONTRACTOR WILL STABILIZE ALL EARTHWORK TO PREVENT EROSION.
- ALL FLAT BERM TOPS WILL BE STABILIZED WITH SEED.
- ALL SLOPES 4H:1V OR STEEPER SHALL BE STABILIZED WITH STAKED SOD.
- CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE EXISTING DRAINAGE SHALL NOT BE BLOCKED OR ADVERSELY AFFECTED BY CONSTRUCTION.
- IF PREHISTORIC OR HISTORIC ARTIFACTS, SUCH AS POTTERY OR CERAMICS, PROJECTILE POINTS, DUGOUT CANOES, METAL IMPLEMENTS, HISTORIC BUILDING MATERIALS, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN, EARLY EUROPEAN, OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME WITHIN THE PROJECT SITE AREA, THE PERMITTED PROJECT SHALL CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE VICINITY OF THE DISCOVERY. THE APPLICANT SHALL CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, COMPLIANCE AND REVIEW SECTION AT (850)-245-6333. PROJECT ACTIVITIES SHALL NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK SHALL STOP IMMEDIATELY, AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 872.05, FLORIDA STATUTES.

@	AT	HDD	HORIZONTAL DIRECTIONAL DRILL	STD	STANDARD
&	AND	HOPE	HIGH DENSITY POLYETHYLENE	STRUC	STRUCTURE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	HORIZ	HORIZONTAL	STL	STEEL
ADF	AVERAGE DAILY FLOW	HP	HORSEPOWER	STS	STORMWATER SYSTEM
ADJ	ADJUSTABLE	HR	HOUR	SY	SQUARE YARD
ALUM	ALUMINUM	HWL	HIGH WATER LEVEL	TBM	TEMPORARY BENCHMARK
ALT	ALTERNATIVE	ID	INSIDE DIAMETER	TH	TOTAL HEAD
AISI	AMERICAN IRON STEEL INSTITUTE	IE	INVERT ELEVATION	THD	THREADED
AMPS	AMPERES	IF	INSULATED FLANGE	THK	THICK
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	IPS	IRON PIPE SIZE	TOB	TOP OF BERM
AR	AIR RELEASE	JT	JOINT	TOC	TOP OF CONCRETE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LB	POUNDS	TOS	TOE OF SLOPE
AV	AIR VACUUM	LBR	LIMEROCK BEARING RATIO	TS	THICKENED SLAB
AWWA	AMERICAN WATER WORKS ASSOCIATION	LF	LINEAR FEET	TYP	TYPICAL
BLD	BLIND	LIDAR	LIGHT DETECTION AND RANGING	UE	UTILITY EASEMENT
BLDG	BUILDING	LOC	LIMITS OF CONSTRUCTION	ULC	ULTRASONIC LEVEL CONTROLLER
BF	BLIND FLANGE	LR	LONG RADIUS	VERT	VERTICAL
BFOC	BURIED FIBER OPTIC CABLE	LWL	LOW WATER LEVEL	W	WEST
BFP	BACKFLOW PREVENTOR	M/F	MALE/FEMALE	W/	WITH
BFV	BUTTERFLY VALVE	MAX	MAXIMUM	WM	WATER MAIN
BMP	BEST MANAGEMENT PRACTICES	MES	MITERED END SECTION	WSE	WATER SURFACE ELEVATION
BO	BLOW-OFF	MFR	MANUFACTURER	WT	WEIGHT
BTM	BOTTOM	MH	MANHOLE	WWF	WELDED WIRE FABRIC
BTM/	BOTTOM OF	MIN	MINIMUM	YR	YEAR
BV	BALL VALVE	MJ	MECHANICAL JOINT		
BW	BLENDED WATER	MNPT	MALE NATIONAL PIPE THREAD		
BYP	BY-PASS	N	NORTH		
CD	CENTER OF DITCH/POND CENTER OF DITCH	NAD	NORTH AMERICAN DATUM		
CEN	CENTER	NAVD	NORTH AMERICAN VERTICAL DATUM		
CL	CENTERLINE	NC	NORMALLY CLOSED		
CC	CENTER TO CENTER	NEC	NATIONAL ELECTRIC CODE		
CI	CAST IRON	NHW	NORMAL HIGH WATER		
CO	CLEAN OUT	NIC	NOT IN CONTRACT		
CIP	CAST IRON PIPE	NLW	NORMAL LOW WATER		
CISP	CAST IRON SLIP PIECE	No, #	NUMBER		
CJ	CONSTRUCTION JOINT	NOM	NOMINAL		
CLR	CLEAR	NPT	NATIONAL PIPE THREAD		
CMF	CONCRETE MONUMENT, FOUND	NRS	NONRISING STEM		
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE		
CONSTR	CONSTRUCTION	NSF	NATIONAL SANITATION FOUNDATION		
CONT	CONTINUOUS	NW	NORTHWEST		
CONC	CONCRETE	OC	ON CENTER		
CON	CONCENTRIC	OD	OUTSIDE DIAMETER		
CORP	CORPORATION	OHE	OVERHEAD ELECTRIC		
CS	CARBON STEEL	OS&Y	OUTSIDE STEM & YOKE		
CV	CHECK VALVE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION		
DIA, Ø	DIAMETER	PE	PLAIN END		
DBI	DITCH BOTTOM INLET	PI	PRESSURE INDICATOR/GAUGE		
DI	DUCTILE IRON	PL	PLATE		
DIV	DIVISION	P/L	PROPERTY LINE		
DWG	DRAWING	PP	POWER POLE		
EA	EACH	PRV	PRESSURE REDUCING VALVE		
ECC	ECCENTRIC	PSF	POUNDS PER SQUARE FOOT		
EF	EACH FACE	PSI	POUNDS PER SQUARE INCH		
EG	SUCH AS	PV	PLUG VALVE		
EL	ELEVATION	PVC	POLYVINYL CHLORIDE		
ELB	ELBOW	PVMT	PAVEMENT		
EOP	EDGE OF PAVEMENT	R	RADIUS		
EOR	ENGINEER OF RECORD	RCP	REINFORCED CONCRETE PIPE		
E/R	EDGE OF ROAD	RED	REDUCER		
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE	REINF	REINFORCED		
EW	EACH WAY	REQ, REQ'D	REQUIRED		
FAB	FABRICATED	RF	REDUCING FLANGE		
FAC	FLORIDA ADMINISTRATIVE CODE	RJ	RESTRAINED JOINT		
FCA	FLANGED COUPLING ADAPTER	RPM	REVOLUTIONS PER MINUTE		
FCV	FLOW CONTROL VALVE	RPOJ	RESTRAINED PUSH ON JOINT		
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	RST	REGIONAL STORMWATER TREATMENT		
F/F	FINISHED FLOOR	RTU	REMOTE TELEMETRY UNIT		
FG	FIBERGLASS	RW	RAW WATER		
FIN	FINISHED	ROW	RIGHT-OF-WAY		
FJ	FLANGE JOINT	S	SOUTH		
FL	FLOOR	SAN	SANITARY		
FLEX	FLEXIBLE	SCH	SCHEDULE		
FLG	FLANGE(D)	SE	SOUTHEAST		
FM	FORCE MAIN	SEC	SHOULDERED-END COUPLING		
FND	FOUNDATION	SIM	SIMILAR		
FNPT	FEMALE NATIONAL PIPE THREAD	SJRWMD	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT		
FRP	FIBER REINFORCED PLASTIC	SP	STANDARD PLANS (FDOT)		
FS	FLORIDA STATUTES	SPI	STANDARD PLANS INDEX (FDOT)		
GALV	GALVANIZED	SQ	SQUARE		
GPM	GALLONS PER MINUTE	SR	SURGE RELIEF		
GR	GRADE	SRV	SURGE RELIEF VALVE		
GRU	GAINESVILLE REGIONAL UTILITIES	SS, SST	STAINLESS STEEL		
GS	GALVANIZED STEEL	STS	STORMWATER GRAVITY PIPE		
GV	GATE VALVE	STA	STORMWATER TREATMENT AREA		



City Hall
2240 Mission Road
West Melbourne, FL 32904
Phone: (321) 722-7700
Fax: (321) 768-2390
www.westmelbourne.org

Development Closeout Checklist

- Complete all required construction inspections.
- Submit test results for compaction for pipe backfill, structure backfill (manholes and drainage structures) and for the road structural section (AC pavement and concrete).
- Submit materials tickets for concrete and AC pavement delivered to the project for public improvements.
- Provide As-builts for water, sewer, drainage, roads and site finish grades (note: city requirements exceed FDEP requirements). Please note that there are specific things the City requires for As-builts that are different than that required by other agencies. See the City's As-built drawing checklist.
- FDEP clearances for water and sewer improvements
- Schedule a final construction walk through (submit as-builts prior to scheduling walk through)
- Prepare bill(s) of sale for public improvements constructed by the developer that are being transferred to the city (include only the cost of portion transferred). Provide separate accounting for road improvements, drainage improvements, water improvements and wastewater improvements. Bill of sale shall be signed and sealed by the engineer of record.
- Using the cost(s) from above provide a 2 year maintenance bond for 20% of the value, for improvements transferred to the city
- Transfer easements for public improvements (min. 20' wide centered on improvements) to the city
- Coordinated submittal of performance bonds, maintenance bonds, and bills of sale with the City Clerk, City Planning Department and City Attorney's office.

SAVED: 7/20/2022 7:13 AM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK_M-1_FLOW RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G03.DWG

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

JonesEdmunds
CERTIFICATE OF AUTHORIZATION #1841
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2**

GENERAL NOTES AND ABBREVIATIONS

ANY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO:	DATE:
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ANY LIANE GOODDEN ON THE DATE AT THE RIGHT.	19750-066-01	JULY 2022
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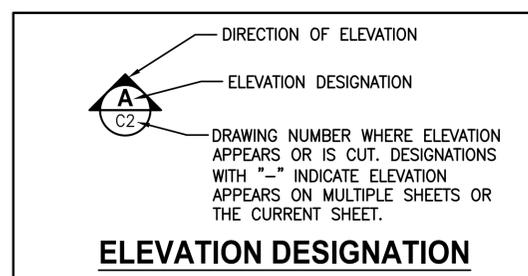
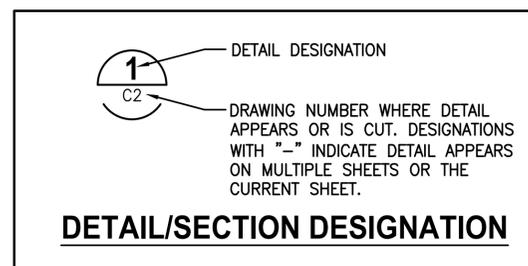
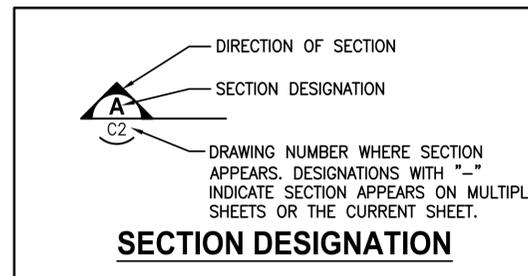
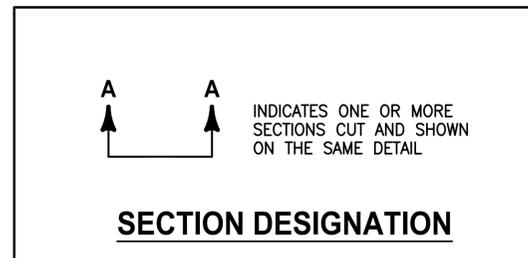
CIVIL LEGEND

	MATCHLINE
	UTILITY EASEMENT
	RIGHT-OF-WAY BOUNDARY
	CENTERLINE
	LIMITS OF CONSTRUCTION
	SILT FENCE
	TURBIDITY CURTAIN
	LIMITS OF PLANTING
	GRADE BREAK
	WETLAND LINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	FENCE
	STORMWATER FORCE MAIN (HORIZONTAL DIRECTIONAL DRILL)
	STORMWATER FORCE MAIN (OPEN CUT)
	GRAVITY STORM PIPING
	REINFORCED CONCRETE PIPE (RCP)
	DITCH BOTTOM INLET
	MITERED END SECTION
	STRUCTURE/PIPE DESIGNATION
	STABILIZED DRIVE SURFACE
	ASPHALT SURFACE
	LIMITS OF MILLING AND RESURFACING
	LIMEROCK
	CROSS HATCHING INDICATES REMOVAL/DEMOLITION
	CONCRETE
	RIPRAP
	HEDGE, BUSH, SHRUBS, WOODS
	SPOT ELEVATION
	PROPOSED SIGN
	DRAWING DESIGNATION
	COORDINATE POINT
	DRAINAGE FLOW DIRECTION
	WATER LEVEL
	EXISTING CONCRETE MONUMENT, FOUND
	SLOPE INDICATOR
	ELEVATION TAG
	NORTHING AND EASTING COORDINATE STATE PLANE EAST
	SUBSURFACE UTILITY TEST HOLE LOCATION

N: 1364188.52
E: 748399.55

SURVEY LEGEND

	= CHAINLINK FENCE		= AIR RELEASE VALVE
	= WOOD FENCE		= BUSH
	= WIRE FENCE		= BURIED TELEPHONE PEDESTAL
	= BARBED WIRE FENCE		= CONCRETE MONUMENT
	= BURIED ELECTRIC LINE		= CLEAN OUT
	= BURIED TELEPHONE LINE		= COMBINATION UTILITY POLE
	= COMMUNICATION LINE		= DRAINAGE MANHOLE
	= GAS LINE		= ELECTRIC SERVICE METER
	= OVERHEAD UTILITY LINE		= FLAT GRATE INLET
	= WATER LINE		= FIRE HYDRANT
	= FORCE MAIN		= DOWN GUY
	= OVERHEAD TRAFFIC CONTROL		= WATER SPIGOT
	= TREE LINE		= HAND HOLE
	= GUARDRAIL		= IRON PIPE
	ABS = ACRYLONITRILE BUTADIENE STYRENE PIPE		= IRON ROD
	BFOC = BURIED FIBER OPTIC CABLE		= IRRIGATION VALVE
	CMP = CORRUGATED METAL PIPE		= LIGHT POLE
	CPP = CORRUGATED PLASTIC PIPE		= MAILBOX
	PVC = POLYVINYL CHLORIDE PIPE		= MITERED END SECTION
	RCP = REINFORCED CONCRETE PIPE		= NAIL W/DISC
	LB = LICENSED BUSINESS		= UTILITY POLE
	PLS = PROFESSIONAL LAND SURVEYOR		= POST/BOLLARD
	RLS = REGISTERED LAND SURVEYOR		= PUMP
	PSM = PROFESSIONAL SURVEYOR AND MAPPER		= RAILROAD SPIKE
	R/W = RIGHT OF WAY		= NON-TRAFFIC SIGN
	GR SILT = TOP OF SILT ELEVATION		= SPRINKLER
	DB = DEED BOOK		= SEWER VALVE
	ORB = OFFICIAL RECORDS BOOK		= TRAFFIC CONTROLLER CABINET
	PG = PAGE		= TRAFFIC SIGN
	ID = IDENTIFICATION		= TRANSFORMER ON SLAB
	EOI = END OF INFORMATION		= TRAFFIC SIGNAL SPAN POLE
	NAD = NORTH AMERICAN DATUM		= UTILITY MARKER
	NAVD = NORTH AMERICAN VERTICAL DATUM		= VAULT
	TRAV.PT. = TRAVERSE POINT		= WELL
	SSMC = SOUTHEASTERN SURVEYING & MAPPING CORPORATION		= WATER METER
	TELE = TELEPHONE		= WATER VALVE
	FGTC = FLORIDA GAS TRANSMISSION COMPANY		
	FPL = FLORIDA POWER & LIGHT COMPANY		



NOTES

- IN GENERAL, EXISTING FACILITIES AND UTILITIES ARE NOTED AS EXISTING AND/OR SHOWN IN LIGHT LINE WEIGHT (SCREENED). PROPOSED CONSTRUCTION IS SHOWN IN HEAVY LINE WEIGHT AND/OR IDENTIFIED AS PROPOSED. SCREENING IS ALSO USED IN ORDER TO CLARIFY DRAWINGS. FOR EXAMPLE, STRUCTURES ARE SCREENED ON MECHANICAL DRAWINGS TO HIGHLIGHT PIPING AND EQUIPMENT. THIS DRAFTING CONVENTION IS TYPICAL THROUGHOUT THE SET OF PLANS.
- THIS IS A STANDARD LEGEND DRAWING. SOME ITEMS MAY APPEAR IN LEGENDS AND NOT ON THE DRAWINGS.

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BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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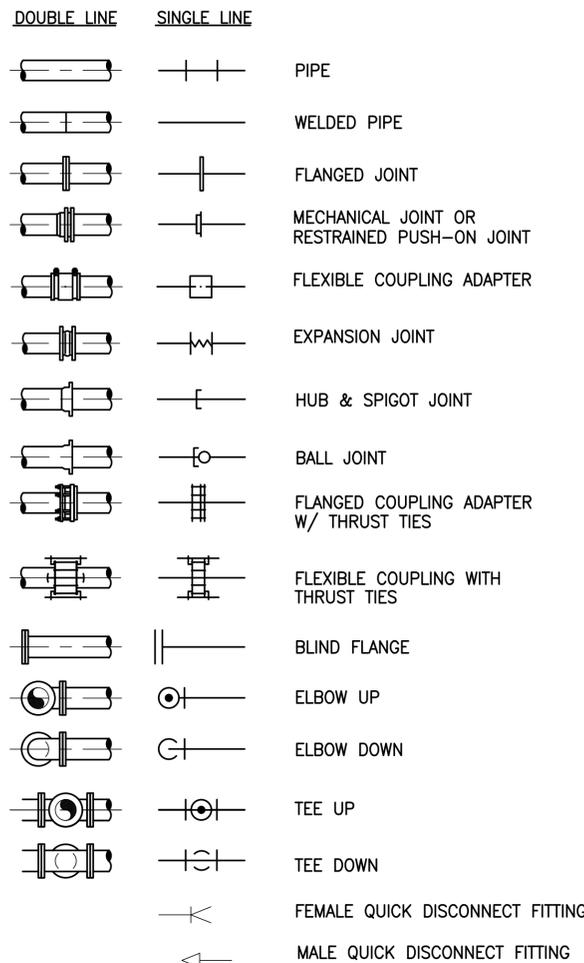
**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

LEGENDS AND SECTION DESIGNATIONS

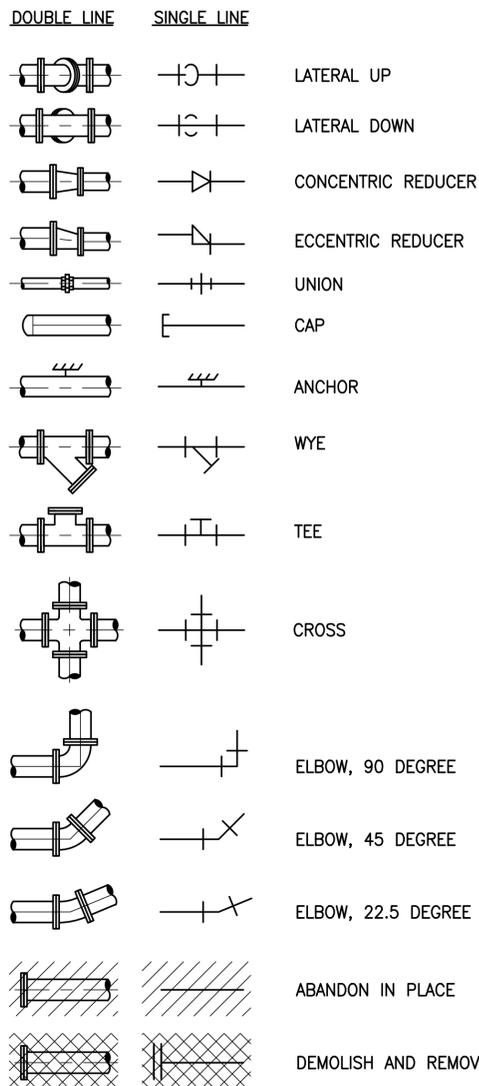
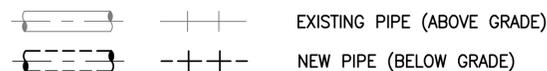
<small>AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097</small> <small>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.</small> <small>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.</small>	PROJECT NO: 19750-066-01	DATE: JULY 2022
	INDEX NO:	DWG NO: G4

MECHANICAL LEGEND

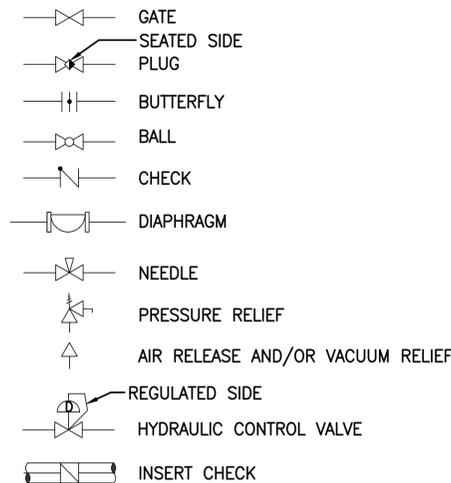
PIPING SYMBOLS



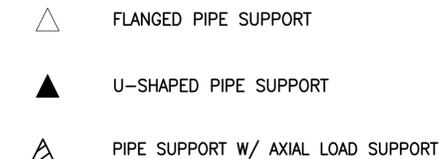
NOTE:
EXISTING PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS LIGHT-LINED AND/OR SCREENED. PROPOSED PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS HEAVY-LINED. ABOVE GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS SOLID-LINED EXCEPT FOR PIPELINE PLANS AND PROFILES. BELOW GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS DASHED-LINED. SEE BELOW EXAMPLES:



VALVE SYMBOLS



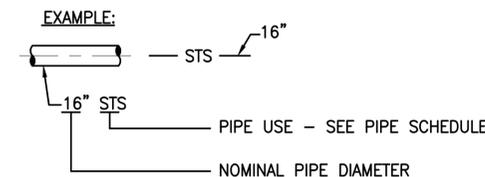
PIPE SUPPORT SYMBOLS



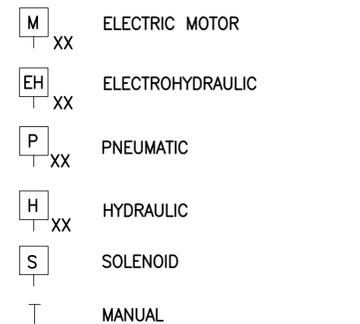
NOTE

1. THIS IS A STANDARD LEGEND DRAWING. SOME ITEMS MAY APPEAR IN LEGENDS AND NOT ON THE DRAWINGS.

PIPING DESIGNATION



ACTUATOR SYMBOLS



NOTE:
ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL OR HYDRAULIC)
XX: FO = FAIL OPEN
FC = FAIL CLOSED
FLP = FAIL TO LAST POSITION

PIPE SCHEDULE

FLOW STREAM IDENTIFICATION	PIPE/DUCT MATERIAL	PIPE MATERIAL ABBREV	SPECIFICATION NUMBER	PIPE LINING	NORMAL MAX OPERATING PRESSURE (PSIG)	FIELD TEST PRESSURE (PSIG)	EXPOSED PIPE PAINT SYSTEM	COLOR CODE	SPECIFIC NOTES	RESTRAINT SYSTEM NOTES
FM-1	DUCTILE IRON	DI	15155	CERAMIC EPOXY	25	100	12	BROWN STRIPE	(A)	(1)
FM-2	HIGH DENSITY POLYETHYLENE (DI PIPE SIZE)	HDPE, DR11	15146	N/A	25	100	N/A	BROWN STRIPE	N/A	(2)
STS-1	REINFORCED CONCRETE (CLASS III)	RCP		N/A	5	N/A	N/A	N/A	N/A	N/A

GENERAL NOTES:

- COAT BURIED AND SUBMERGED PIPE PER PIPE SPECIFICATIONS.
- TEST LINES PER SECTION 15144 UNLESS NOTED OTHERWISE.
- ALL TRANSITIONS FROM HDPE TO DUCTILE IRON PIPE OR FITTINGS SHALL USE A WELDED HDPE TO MJ ADAPTER, AND SHALL BE FULLY RESTRAINED.

RESTRAINT SYSTEM NOTES:

- RESTRAIN EVERYTHING (FITTINGS, VALVES, PIPE JOINTS, ETC.) INCLUDING NEW TO EXISTING.
- RESTRAIN AT FITTINGS AND VALVES.

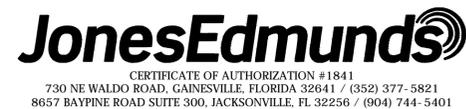
SPECIFIC NOTES:

- APPLY ABOVE GRADE PAINT SYSTEM ONLY TO PIPING EXPOSED TO SUNLIGHT. PIPING UNDER FACILITY CANOPY STRUCTURE SHALL BE CLASSIFIED AS EXPOSED TO SUNLIGHT.

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BID DOCUMENTS

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DRAWN J. ALLEN
CHECKED R. KOLLER



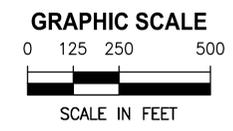
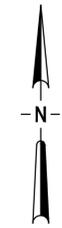
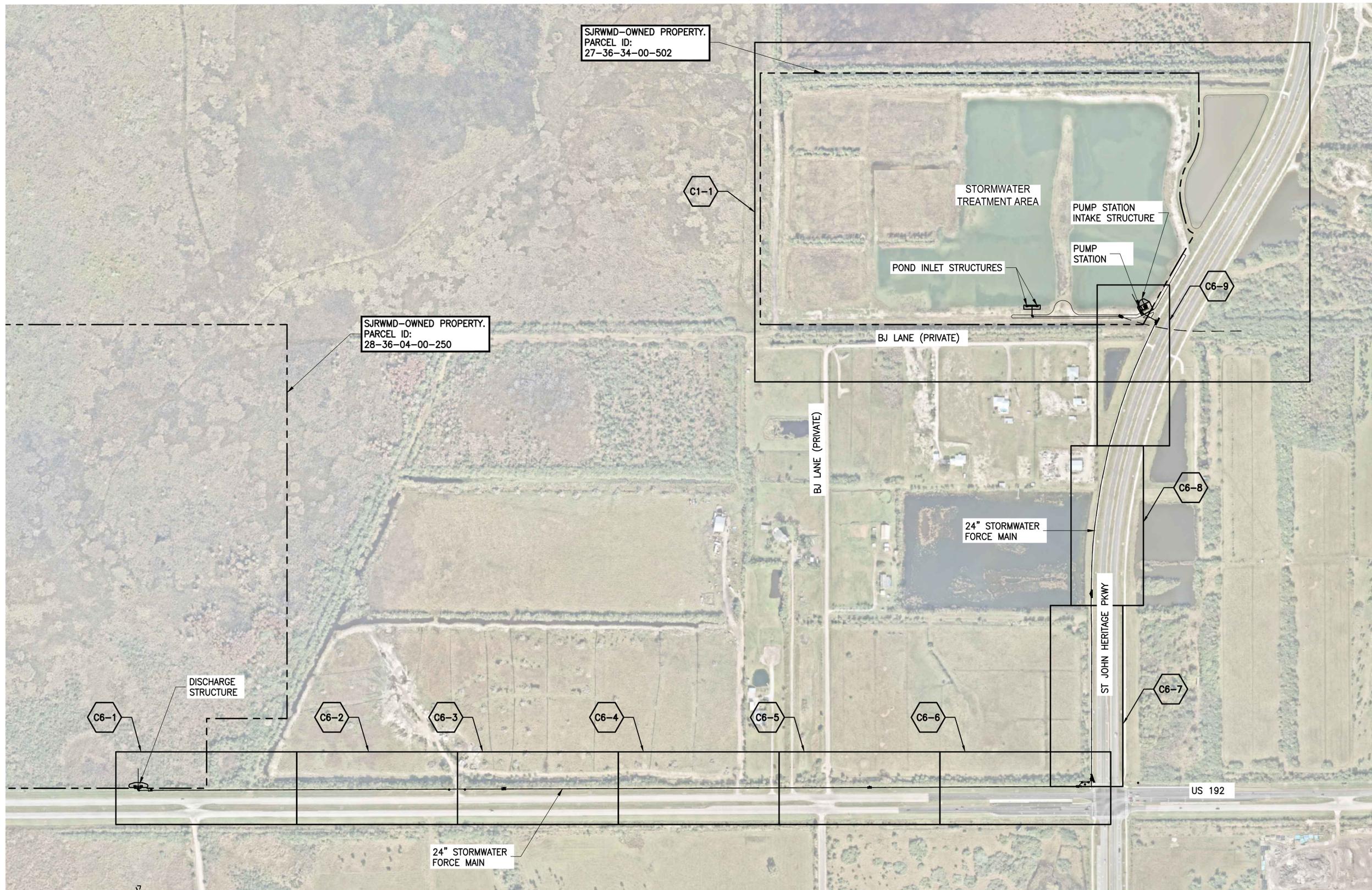
**CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2**

**MECHANICAL LEGEND & PIPE
SCHEDULE**

DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA,
LICENSE NUMBER 90306
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DONALD J. SHELDON, JR. ON THE DATE INDICATED.
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 4/19/2022 9:58 AM PBOLLINGER



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

KEY MAP

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097
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BID DOCUMENTS

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

GENERAL

- ALL CONSTRUCTION SHALL CONFORM TO FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION (LATEST EDITION), BREVARD COUNTY UTILITY SERVICES CRITERIA FOR WATER AND SANITARY SEWER SYSTEMS, AND BREVARD COUNTY CODE OF ORDINANCES.
- ISSUANCE OF CERTIFICATE OF COMPLETION: UPON COMPLETION OF CONSTRUCTION OF THE PROJECT AND PRIOR TO SCHEDULING OF THE FINAL INSPECTION, THE APPLICANT OR THEIR AUTHORIZED REPRESENTATIVE, SHALL PROVIDE THE FOLLOWING DOCUMENTATION TO BREVARD COUNTY PUBLIC WORKS ENGINEERING:
 - A CERTIFICATE OF COMPLETION - REQUEST FOR FINAL INSPECTION FORM. THE FORM MUST BE FROM A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA WITH THEIR SEAL AFFIXED. THE FORM CERTIFIES THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS.
 - A COMPLETE SET OF TESTING REPORTS FOR ALL TESTS PERFORMED ON THE PROJECT WITHIN THE COUNTY RIGHT-O- WAY AND/OR FOR ALL SUBDIVISION CONSTRUCTION REGARDLESS OF PUBLIC OR PRIVATE.
 - THREE SETS OF AS-BUILT DRAWINGS MEETING THE REQUIREMENTS OF SECTION 61G17, F.A.C., AND SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA. AT A MINIMUM, ALL AS-BUILT DRAWINGS MUST INCLUDE:
 - ROAD/PAVEMENT ELEVATIONS; ROADWAY CROSS SLOPES; PAVEMENT WIDTH; PAVEMENT SPOT ELEVATIONS NECESSARY TO CONFIRM STORMWATER DRAINAGE PATTERNS AT INTERSECTIONS AND SIDEWALKS; CURB SLOPES;
 - STORMWATER PIPE SIZES AND INVERT ELEVATIONS; LOCATION OF OUTFALL STRUCTURE(S) WITH AS-BUILT ELEVATIONS FOR ALL CONTROL STRUCTURE & SKIMMER ELEVATIONS SHOWN ON THE APPROVED PLANS; TOP OF BANK, GRADE BREAKS, BOTTOM ELEVATIONS FOR ALL STORMWATER PONDS OR BERM AREAS;
 - ANY OTHER ADDITIONAL AS-BUILT DATA THAT IS APPLICABLE TO THE PROJECT TO ENSURE COMPLETION IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
 - PIPE INSPECTION VIDEO PER FDOT REQUIREMENTS. (IF APPLICABLE PER NOTE 4 OF DRAINAGE NOTES)
 - IF A MUNICIPALITY IS ACCEPTING A PUBLIC WATER AND/OR SEWER SYSTEM, THERE MUST BE DOCUMENTATION INDICATING MUNICIPAL ACCEPTANCE OF THE CONSTRUCTION OF THE WATER AND/OR SEWER SYSTEM.
 - PUBLIC WORKS ENGINEERING WILL NOT SIGN OFF ON A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) FROM THE BREVARD COUNTY BUILDING DEPARTMENT UNTIL THE AS-BUILT DRAWINGS AND OTHER DOCUMENTATION LISTED ABOVE HAVE BEEN SUBMITTED AND REVIEWED BY PUBLIC WORKS ENGINEERING.
 - PROJECTS CONNECTED TO THE BREVARD COUNTY WATER, SANITARY SEWER, AND/OR RECLAIMED WATER SYSTEMS MUST OBTAIN FINAL APPROVAL FOR THE PROJECT DIRECTLY FROM BREVARD COUNTY UTILITY SERVICES AS OUTLINED IN THE BREVARD COUNTY CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS.
- UPON APPROVAL OF FINAL INSPECTION, AN ENGINEER'S CERTIFIED COST ESTIMATE WILL BE REQUIRED ALONG WITH A 2-YEAR MAINTENANCE BOND FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY AS REQUIRED BY CHAPTER 86 OF THE BREVARD COUNTY CODE OF ORDINANCES. THE MAINTENANCE BOND SHALL BE 25% OF THE ENGINEER'S CERTIFIED COST ESTIMATE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO THE COUNTY INFRASTRUCTURE DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE STRUCTURAL INTEGRITY OF THE ROADWAY ASPHALT, BASE, AND STABILIZED SUB-BASE, SIDEWALKS, STORMWATER DRAINAGE SYSTEM, DRAINAGE STRUCTURES, CURBS, GROUND COVER, WATER SYSTEMS, SANITARY SEWER SYSTEMS, AND RECLAIMED WATER SYSTEMS. ALL REPAIRS SHALL BE COMPLETED IN ACCORDANCE WITH FDOT AND BREVARD COUNTY STANDARDS. ALL REPAIRS SHALL BE COMPLETED PRIOR TO THE FINAL INSPECTION OF THE PROJECT. SIDEWALK PATCHING WILL NOT BE ACCEPTABLE.
- A VISUAL OR MECHANICAL INTERIOR INSPECTION OF EXISTING CULVERTS WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION.
- ALL DISTURBED AREAS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE SODDED. SEED & MULCH IS NOT ACCEPTABLE. SOD SHALL MATCH EXISTING SOD TYPE. BAHIA SOD SHALL BE USED IN AREAS ADJACENT TO VACANT PROPERTY. DISTURBED AREAS OUTSIDE THE CONSTRUCTION LIMITS WILL BE SODDED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTATION. ANY SURVEY MONUMENTATION DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A FLORIDA LICENSED SURVEYOR PRIOR TO ISSUANCE OF A CERTIFICATE OF COMPLETION FOR THE PROJECT.
- REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE SHALL BE NO UTILITY CONNECTIONS OR METER BOXES WITHIN PROPOSED OR EXISTING SIDEWALKS OR DRIVEWAY AREAS.
- ALL DIRECTIONAL BORES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 555, DIRECTIONAL BORES AND THE FDOT UTILITIES ACCOMMODATION MANUAL.
- ALL DIRECTIONAL BORES MUST EXTEND A MINIMUM OF EIGHT(8) FEET PAST THE EDGE OF PAVEMENT OF ANY ROADWAY OR COMMERCIAL DRIVEWAY. FOR RESIDENTIAL DRIVEWAYS AND SIDEWALKS, THE BORE MUST EXTEND THREE (3) FEET PAST THE EDGE ON EITHER SIDE.
- THE CONTRACTOR SHALL CONTROL DUST GENERATED BY THIS PROJECT AT ALL TIMES, SHALL PROVIDE STREET SWEEPING AS REQUIRED, AND PREVENT SEDIMENT FROM ENTERING INTO THE EXISTING DRAINAGE SYSTEM AT ALL TIMES.
- THE CONTRACTOR SHALL NOT EXCEED NOISE LEVELS AS SPECIFIED IN BREVARD COUNTY CODE OF ORDINANCES SECTION 62-2271.
- ALL STRIPING AND PAVEMENT MARKINGS IN THE COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND SHALL NOT BE APPLIED UNTIL A MINIMUM OF 30 DAYS AFTER THE PLACEMENT OF THE FINAL ASPHALT SURFACE. IN THE INTERIM, STRIPING SHALL BE PAINT AND ANY REQUIRED RPM'S INSTALLED PER THE PLANS. DO NOT STRIPE ACROSS MAN-HOLE LIDS OR DRAINAGE GRATES.
- REFLECTIVE PAVEMENT MARKINGS (RPM'S) SHALL BE INSTALLED IN ALL LOCATIONS AS REQUIRED BY FDOT DESIGN STANDARD.(LATEST EDITION)
- ANY PAVEMENT MARKINGS AND RPM'S THAT ARE DESTROYED, DAMAGED, OR DIMINISHED BY CONSTRUCTION ACTIVITIES FOR UP TO 500 FEET IN EITHER DIRECTION BEYOND THE LIMITS OF CONSTRUCTION SHALL BE REPLACED OR REFINISHED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE COUNTY RIGHT-OF-WAY FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, THE CONTRACTOR SHALL MOW THE RIGHT-OF-WAY ON AN AS NEEDED BASIS AND MAINTAIN THE DRAINAGE CONVEYANCE SYSTEM. ADDITIONAL MAINTENANCE MAY BE REQUIRED ON A CASE BY CASE BASIS.

TRAFFIC CONTROL

- MOT PLAN REVIEW:** A PROJECT-SPECIFIC MAINTENANCE OF TRAFFIC (MOT) PLAN OR ROADWAY CLOSURE MOT/DETOUR PLAN MUST BE SUBMITTED TO BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) FOR APPROVAL A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. THE MOT PLAN SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARD INDEX 600 SERIES.(LATEST EDITIONS). PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS OR VMS) MAY BE REQUIRED TO SUPPLEMENT THE STANDARD MOT SIGNAGE.
- ROAD CLOSURES:** THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. FOR EACH PHASE OF CONSTRUCTION, IF APPLICABLE. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. CERTAIN LOCATIONS MAY REQUIRE WORK IN THE RIGHT-OF-WAY TO BE PERFORMED AT NIGHT ONLY.

- LANE CLOSURES:** THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF ONE (1) WEEK IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. NO LANE CLOSURES WILL BE PERMITTED DURING PEAK HOUR TRAFFIC VOLUMES.
- ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MUTCD FOR STREETS AND HIGHWAYS, FDOT STANDARDS (LATEST EDITIONS), AND BREVARD COUNTY LAND DEVELOPMENT EXHIBIT #26.

DRAINAGE - ROADWAYS

- ALL DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS AND FDOT DESIGN STANDARDS,(LATEST EDITIONS).
- ALL RETICULINE STEEL GRATES SHALL BE HOT DIPPED GALVANIZED AND HAVE A TRAFFIC BEARING H-20 LOAD RATING.
- ALL GRATES UTILIZED WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE TRAFFIC BEARING H-20 LOADING.
- ALL STORMWATER PIPING WITHIN THE ROAD RIGHT-OF-WAY, REGARDLESS OF PUBLIC OR PRIVATE, OR STORMWATER PIPING THAT CONVEYS STORMWATER UNDER THE ROADWAY BETWEEN STORMWATER TREATMENT PONDS, SHALL BE INSPECTED PER SECTIONS 430-4.8, 430-4.8.1, AND 430-4.8.2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, (LATEST EDITION), A COPY OF THE PIPE VIDEO SHALL BE PROVIDED TO THE COUNTY AS PART OF THE SUBMITTAL OF THE CERTIFICATION OF COMPLETION REQUEST FOR FINAL INSPECTION. THE COUNTY SHALL BE NOTIFIED ONE WEEK PRIOR TO THE START OF THE PIPE VIDEO INSPECTION PROCESS.
- ALL OPEN CUTS SHALL CONFORM TO LAND DEVELOPMENT EXHIBIT #25. FOR ALL OPEN CUTS, THE FLOWABLE FILL AND TEMPORARY ASPHALT SHALL BE INSTALLED WITHIN TWO (2) DAYS OF THE EXCAVATION (UNLESS OTHERWISE APPROVED IN WRITING BY BREVARD COUNTY PUBLIC WORKS ENGINEERING). PERMANENT ASPHALT INCLUDING MILLING AND RESURFACING, IF NEEDED, SHALL BE COMPLETED WITHIN THIRTY (30) DAYS OF EXCAVATION.
- THE CONTRACTOR SHALL REMOVE THE SHOULDER OF THE ROADWAY TO A POINT WHERE THE BASE MATERIAL OF THE EXISTING ROADWAY MEETS THE MINIMUM THICKNESS OF THE PROPOSED ROADWAY/COMMERCIAL DRIVEWAY CONNECTION.

CONCRETE PAVING AND SIDEWALK

- ALL DRIVEWAYS SHALL BE CONSTRUCTED PER FDOT INDEX 515 AND/OR BREVARD COUNTY STANDARD EXHIBITS UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL MEET FDOT DESIGN MIX AND SPECIFICATIONS. CURING METHOD SHALL BE IN ACCORDANCE WITH THE FDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION).
- ALL SIDEWALKS WITHIN THE COUNTY RIGHT-OF-WAY OR WITHIN A PUBLIC SIDEWALK EASEMENT SHALL BE CONSTRUCTED OF 6-INCH THICK, 3000-PSI CONCRETE WITH FIBER MESH REINFORCEMENT. CONCRETE SIDEWALKS (OR PEDWAYS) AND CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED OVER SOILS COMPACTED TO 98% DENSITY, OF AASHTO T -180. SHOULD EXISTING SOILS BE FOUND UNSUITABLE FOR COMPACTION, ADDITIONAL COMPATIBLE MATERIALS SHALL BE BROUGHT TO THE SITE FOR USE AS SUBGRADE. ALTERNATE METHODS OF COMPACTION MAY BE REQUIRED TO AVOID DAMAGE TO SURROUNDING PROPERTIES.
- CONSTRUCT SIDEWALK JOINTS PURSUANT TO FDOT INDEX 310 (LATEST EDITION). EXPANSION JOINTS SHALL BE EVERY 50 FEET, AND BETWEEN NEW AND OLD CONCRETE.
- TWO BY FOUR FORM BOARDS SHALL NOT BE USED FOR SIDEWALK/DRIVEWAY CONSTRUCTION. FORM BOARDS SHALL MATCH PROPOSED CONCRETE THICKNESS. SLIP FORMS SHALL NOT BE USED FOR SIDEWALK CONSTRUCTION. FIXED FORMWORK SHALL BE REQUIRED PER FDOT INDEX 300.
- THE CONTRACTOR SHALL PROVIDE A 3-FOOT CURB TRANSITION AT ALL CURB TERMINATIONS.
- ALL SIDEWALK AND ACCESS RAMP CONSTRUCTION SHALL COMPLY WITH THE DEPARTMENT OF JUSTICE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, FDOT DESIGN STANDARDS (LATEST EDITION), AND BREVARD COUNTY DEVELOPMENT REQUIREMENTS.

ASPHALT PAVING AND TESTING

THE FOLLOWING TESTING REQUIREMENTS APPLY TO:

- ALL PUBLIC AND PRIVATE SUBDIVISION PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT;
 - ALL SITE PLAN PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT REQUIRING WORK IN THE COUNTY RIGHT-OF-WAY;
 - ALL PROJECTS PERMITTED THROUGH BREVARD COUNTY PUBLIC WORKS FOR WORK WITHIN THE COUNTY RIGHT-OF-WAY.
- SECTIONS WITHIN THE FDOT STANDARD SPECIFICATIONS LIMITING TESTING REQUIREMENTS BASED ON LOT SIZE, SUB-LOT SIZE, TONNAGE, MINIMUM THICKNESS, OR SPREAD RATE WILL NOT APPLY TO THE PROJECTS LISTED ABOVE. AT A MINIMUM, ONE SET OF TESTS WILL BE REQUIRED FOR ALL PAVING PROJECTS LARGER THAN 50 TONS TOTAL AND ADDITIONAL TESTING MAY BE REQUIRED ON A CASE BY CASE EVALUATION OF THE PROJECT. TESTING REQUIREMENTS AT THE ASPHALT PLANT WILL NOT APPLY.

FOR S-TYPE ASPHALT AS SPECIFIED IN THE 2000-2004 FDOT STANDARD SPECIFICATION :

- THE CONTRACTOR SHALL PROVIDE A DESIGN MIX SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 331-4 (2000). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS WILL NOT BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE EXTRACTION/GRADATION TESTS IN ACCORDANCE WITH SECTION 331-4.2 (2000).
- THE CONTRACTOR SHALL PROVIDE MARSHALL STABILITY TESTING IN ACCORDANCE WITH SECTION 331-5.5.1 (2000).
- PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-13 (2000).
- THE CONTRACTOR SHALL PROVIDE SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-13.3 (2000).
- QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS PER SECTION 330-2.2 ROADWAY, (2004) AND DENSITY PER SECTION 330-11, TABLE 330-3 (2000).
- ASPHALT TEST RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.

FOR SUPERPAVE (SP) ASPHALT AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATION :

- THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 334-2 & 334-3 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 334-5. (2010) HOWEVER, THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
- THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 334-3, 334-4, 334-5, AND 334-5.2.3 (2010).
- ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2010) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
- PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
- THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2010).

FOR FRICTION COURSE FC-5 AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATION :

- THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2010). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
- PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
- QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS TESTING USING SECTION 334-5.2.3 (2010).
- THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-12 (2010).

FOR SUPERPAVE FRICTION COURSES FC-9.5 & FC-12.5 AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATIONS:

- THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
- THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2010). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT, AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
- THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 337-1, 337-3, 337-4, 337-6, 337-8, AND 334-5.2.3 (2010).
- ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2010) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
- PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
- THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2010).

CONCRETE BOX CULVERT NOTES

- ALL CONSTRUCTION SHALL COMPLY WITH FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND BREVARD COUNTY STANDARDS.
- PRIOR TO START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STRUCTURAL ENGINEERING DRAWINGS (SIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED & REGISTERED IN THE STATE OF FLORIDA) FOR ALL COMPONENTS OF THE CONCRETE BOX CULVERTS, INCLUDING WINGWALLS, TOE SLAB & CUTOFF WALLS, AND HEADWALLS. THE DRAWINGS SHALL INCLUDE QUANTITIES TABULATIONS FOR CLASS IV CONCRETE (CUBIC YARDS), AND REINFORCING STEEL (POUNDS). THE DESIGN MUST BE BASED ON FDOT'S LOAD & RESISTANCE FACTOR DESIGN (LRFD) PROGRAM. SEPARATE DRAWINGS ARE REQUIRED FOR ALL WINGWALLS, TOE SLABS & CUTOFF WALLS, AND HEADWALLS, WHICH MUST BE CAST-IN-PLACE PER FDOT SPECIFICATIONS.
- ALL BOX CULVERT MATERIALS THAT ARE TO BE INSTALLED UNDER ROADWAYS AND/OR DRIVEWAYS ARE TO BE DELIVERED TO SITE (AND PASS INITIAL INSPECTIONS) PRIOR TO START OF DEMOLITION OF EXISTING SYSTEM.
- CONCRETE (PRECAST OR CAST-IN-PLACE) REQUIREMENTS: CLASS IV (5500 PSI).
- REINFORCING STEEL REQUIREMENTS: ASTM A615 GRADE 60 DEFORMED BAR UNLESS OTHERWISE NOTED, WITH A MINIMUM CLEARANCE OF 3" (THREE INCHES), UNLESS OTHERWISE SHOWN. EQUAL AREA SUBSTITUTION OF WELDED WIRE (WWW) REINFORCEMENT IS PERMITTED.
- REFER TO FDOT INDEX 292 FOR PRECAST CONCRETE BOX CULVERT SLAB & WALL THICKNESSES, REINFORCEMENT AREAS, GENERAL NOTES (SHEET 2 OF 14), AND WELDED WIRE REINFORCEMENT BENDING DIAGRAMS (SHEET 14 OF 14).
- REFER TO FDOT INDEX 289 FOR CONCRETE BOX CULVERT DETAILS RELATED TO LRFD.
- REFER TO FDOT INDEX 291 FOR SUPPLEMENTAL DETAILS FOR PRECAST CONCRETE BOX CULVERTS.
- IF REQUIRED, BY-PASS PUMPING AND/OR PIPING SHALL BE APPROVED BY BREVARD COUNTY PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION.

THESE NOTES APPLY ONLY TO WORK WITHIN BREVARD COUNTY RIGHT-OF-WAY AND OTHER AREAS COVERED BY THE BREVARD COUNTY RIGHT OF WAY PERMIT. IN CASE OF CONFLICT BETWEEN THESE NOTES AND OTHER PARTS OF THE CONTRACT DOCUMENTS, THESE NOTES SHALL GOVERN UNLESS APPROVED OTHERWISE BY THE OWNER AND BREVARD COUNTY.

PROJECT NAME/DWG DESIGNED/DRAWN BY: JB CHECKED BY: RBS		DATE: 1. FOR DISTRIBUTION 10-10-12	REVISION:	BY:	PREPARED BY: PUBLIC WORKS DEPARTMENT ENGINEERING PROGRAM BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS 2725 JUDGE FRAN JAMIESON WAY, RM. 204, BLDG. A, VIERA, FL 32940 Ph. (321) 637-5437, Fx. (321) 633-2083	DATE: OCTOBER 2012	APPROVED BY: RICHARD B. SZPYRKA, P.E. ENGINEERING PROGRAM MANAGER	BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES		SHEET 1 OF 1			
DESIGNED A GOODDEN		DRAWN J ALLEN		CHECKED R KOLLER		 CERTIFICATE OF AUTHORIZATION #1841 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401		CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2		BREVARD COUNTY PUBLIC WORKS ENGINEERINGS STD DEVELOPMENT NOTES	ANY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ANY LIANE GOODDEN ON THE DATE AT THE RIGHT. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01 DATE: JULY 2022	INDEX NO: DWG NO: G7
LTR.	DATE	REVISIONS	BY	APPRD.									

Y:\19750-SJRMD\PROJECTS\066-01_CRANE_CREEK_M-1_FLOW_RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G07.DWG
SAVED: 7/20/2022 6:59 AM JALLEN

BID DOCUMENTS

NOTE: IN ADDITION TO THE PROPOSED GRADING SHOWN, THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE 50,000 SF OF SLOPE GRADING REPAIRS AT VARIOUS LOCATIONS IN THE STA AS DIRECTED BY THE DISTRICT. THE GRADING REPAIRS WILL INCLUDE WORK BELOW THE WATER LINE TO APPROXIMATE ELEVATION 11.5-FT NAVD 88, APPLYING STAKED SOD TO REPAIRED SIDE SLOPES, AND HYDROSEEDING TOPS OF BANKS AND ALL OTHER AREAS DISTURBED BY THE REPAIR WORK.

ZONING: P-1 INSTITUTIONAL

NW CORNER OF SW 1/4 OF SW 1/4 SECTION 34-27-36
 FND 3"x3" CM "LB 7426" (0.91'N, 7.34'E)
 FND 5/8" IR NO ID (1.84'N, 5.02'E)
 FOUND 5/8" IR NO ID (0.41'N, 4.12'E)

NOTE: ADDITIONAL SURVEY INFORMATION IS INCLUDED IN THE PROFESSIONAL BOUNDARY SURVEY PERFORMED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. PLAN DATED FEB. 17, 2022. THIS SURVEY IS ALSO PART OF THE BREVARD COUNTY DEED, CFN 2022013940 FOR THIS PROPERTY.

DEED AND FLOODPLAIN/STORMWATER TREATMENT AREA EASEMENT FOUND IN ORB 9388 PG 2361-2364.

PROJECT INFORMATION:

- NO BUILDINGS
- NO AUDIBLE ALARMS
- ABOVE GROUND EQUIPMENT UNDER 8 FEET HEIGHT
- ALL PIPING IS UNDER-GROUND OR UNDER-SLAB EXCEPT THE PUMP STATION VALVE ASSEMBLY ADJACENT TO THE WETWELL. SEE DRAWING C1-2 AND C1-3
- THE PUMP STATION IS SUBMERSIBLE TYPE. WETWELL AND PUMPS ARE BELOW GRADE.

SUBJECT PROPERTY
 PARENT PARCEL 27-36-34-00-502
 EXISTING ZONING: R-1A SINGLE FAMILY RESIDENTIAL
 PROPOSED ZONING: P-1 INSTITUTIONAL
 ACERAGE FOR REZONING: 59.24

SW CORNER OF SECTION 34-27-26
 FND 4"x4" CM STAMPED
 SMITH AND ASSOC "PRM LB 7426"
 (1.86'S, 4.00'W)

PROPERTY BOUNDARY

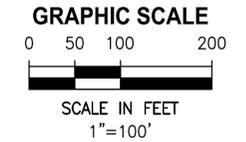
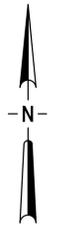
RECOVERED 5/8" IRON ROD
 "SSMC LB 2108"
 FENCE (4.3'W)

FP-24: CONC ENDWALL

OF-11: CONC ENDWALL

BEGIN STABILIZED DRIVE ALONG TOP OF BANK

24" RCP
 FL = 11.3'



PERMANENT ACCESS EASEMENT THROUGH COUNTY-OWNED PROPERTY ORB 9388 PG 2366-2369.

24" RCP
 N IE = 9.2'

OF-1: DBI TYPE-C
 BOTTOM = 9.2'
 WEIR EL = 15.7'

BREVARD COUNTY PROPERTY

POND I

SITE ACCESS EASEMENT

ST JOHN'S HERITAGE PARKWAY

EXISTING PERMANENT COUNTY-OWNED ACCESS DRIVE WAY AND ENTRANCE

STABILIZED DRIVEWAY SEE TYPICAL SECTION C1-4

FENCE MODIFICATIONS SEE SHEET C1-3

RIGHT OF WAY

PUMP STATION INTAKE STRUCTURE SEE C1-7

PUMP STATION SEE C1-6

CONCRETE SLAB

STORMWATER FORCE MAIN SEE VOLUME 2

TEMPORARY CONSTRUCTION ENTRANCE, SEE C1-3

TEMPORARY DRIVEWAY CROSS CULVERT, SEE C1-3

18' DOUBLE SWING GATE PER FDOT SPI 550,, SEE C1-3

FP-13: CONC ENDWALL
 FL = 8.9'

STORMWATER FORCE MAIN SEE VOLUME 1

ZONING: R-1A SINGLE FAMILY RESIDENTIAL

POND INLET STRUCTURES, SEE SHEET C1-5

END STABILIZED DRIVE ALONG TOP OF BANK..

OF-7: CONC ENDWALL

24" RCP
 N IE = 10.0'
 S IE = 10.0'

OF-H: DBI TYPE-C
 BOTTOM = 9.7'
 WEIR EL = 15.7'

BREVARD COUNTY PROPERTY

POND H

BREVARD COUNTY ZONING: AGR - AGRICULTURAL (GRAZING LAND)

BJ LANE (PRIVATE DRIVE)

EXISTING BREVARD COUNTY 20' ROW

MUNICIPAL OWNED LAND, MITIGATION BANK

BID DOCUMENTS

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DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD ESMT INFO, MISC NOTES	JWA	RNK

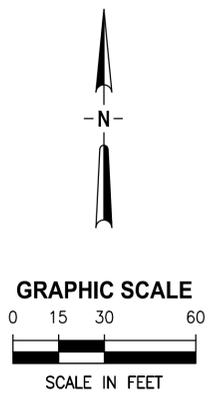
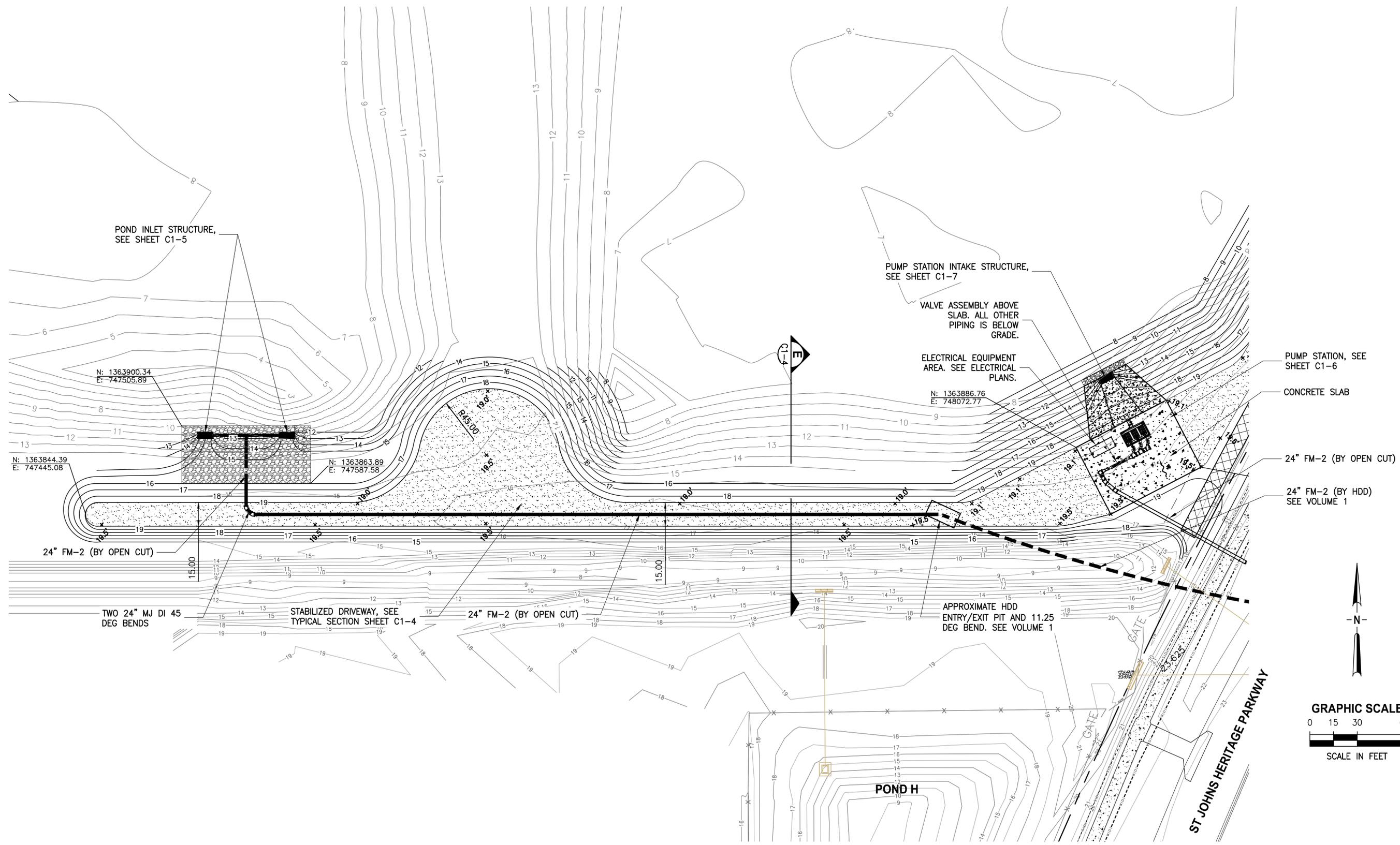
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CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2

STORMWATER TREATMENT AREA
 OVERALL SITE PLAN

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO:	DATE:
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.	19750-066-01	JULY 2022
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		C1-1

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 7/20/2022 7:55 AM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	MISC REVS PER CITY COMMENTS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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 CERTIFICATE OF AUTHORIZATION #1841
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

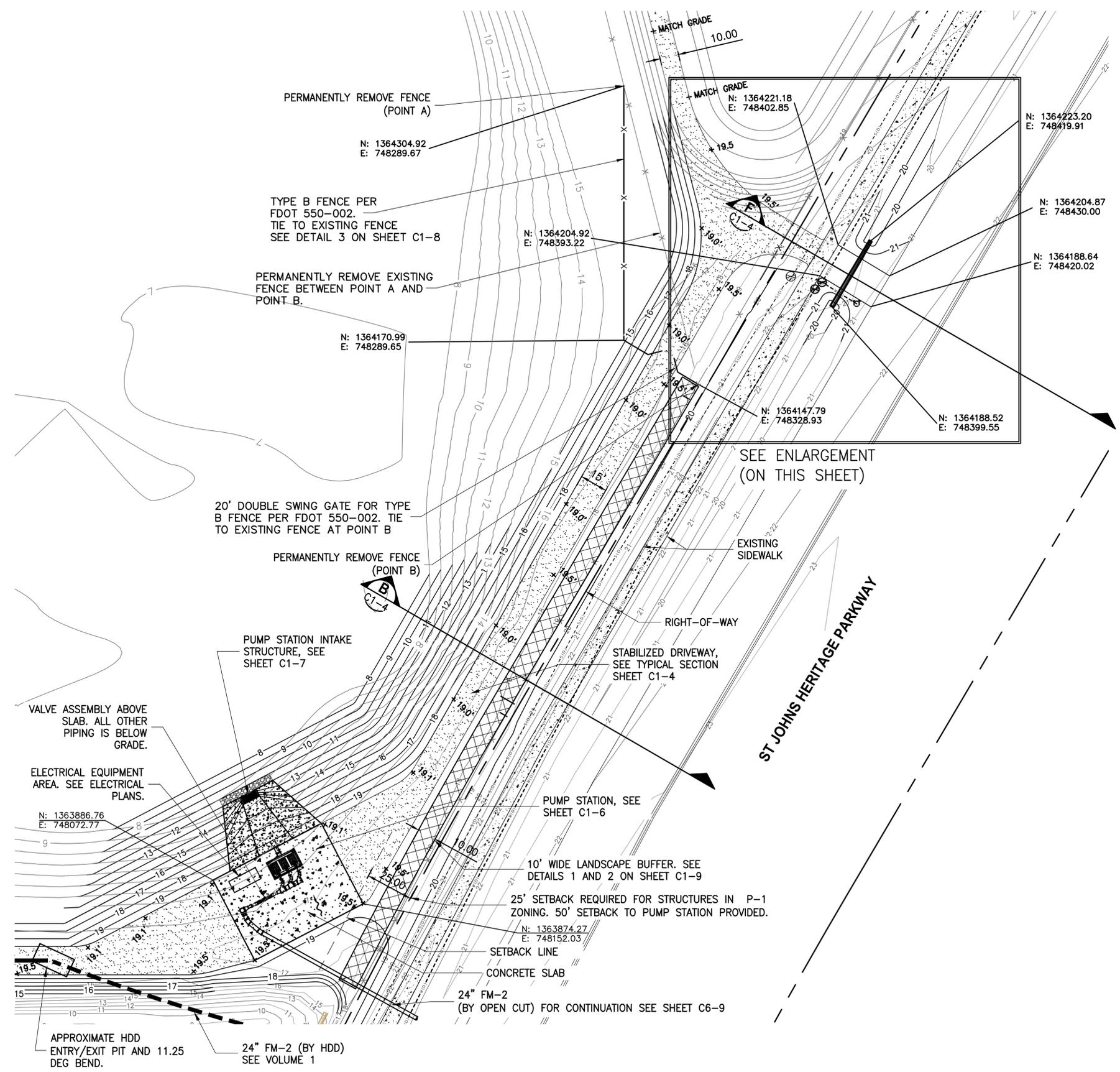
**STORMWATER TREATMENT AREA
 GRADING PLAN WEST**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097
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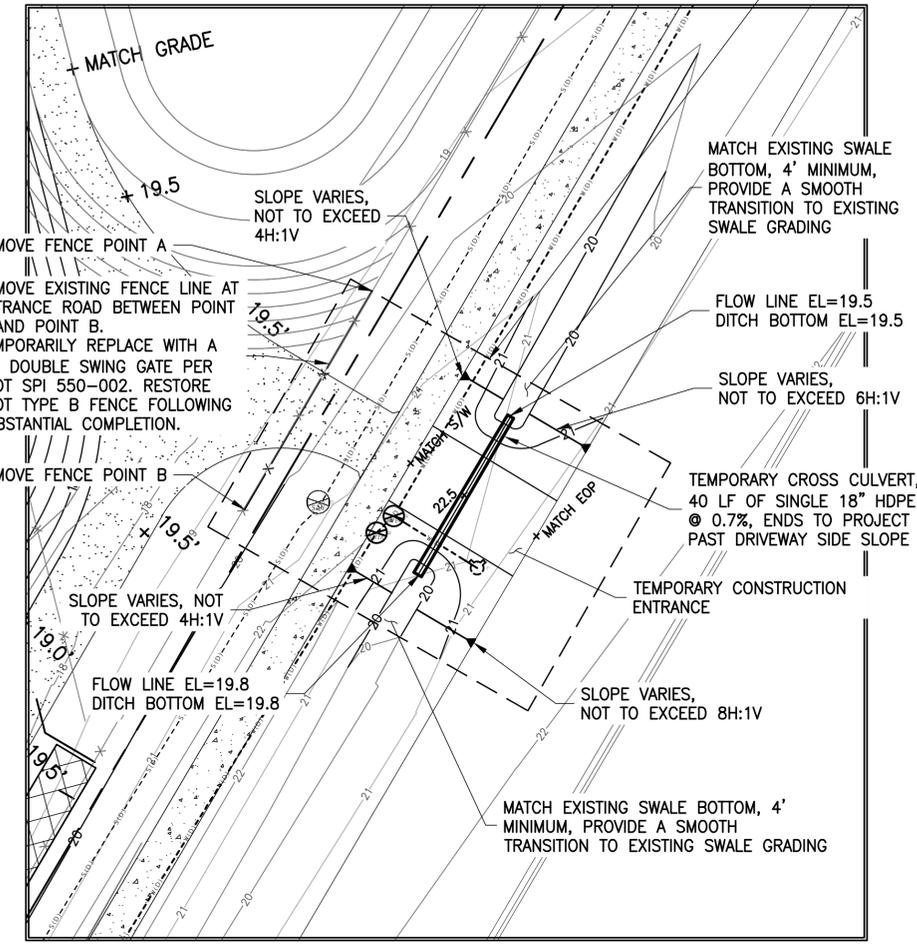
PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:		DWG NO:	C1-2

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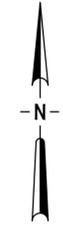
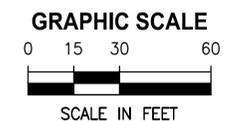
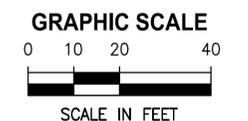
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 7/20/2022 7:55 AM ALLEN



LIMITS OF TEMPORARY IMPROVEMENTS, DEMOLISH OR REMOVE ALL EXISTING IMPROVEMENTS WITHIN LIMITS EXCEPT FOR SIDEWALK. AFTER SUBSTANTIAL COMPLETION OF PROJECT, RESTORE SWALE, ROADWAY AND SIDEWALK WITHIN THE ST JOHNS HERITAGE PARKWAY ROW TO ITS ORIGINAL CONDITION, SOD ALL DISTURBED AREA WITHIN THE ROW, ROADWAY RESTORATION SHALL BE IN ACCORDANCE WITH BREVARD COUNTY LAND DEVELOPMENT (B.C.L.D.) EXHIBIT 4, SEE SHEETS G9 AND G10



ENLARGEMENT



BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD LANDSCAPING AND MISC REVS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

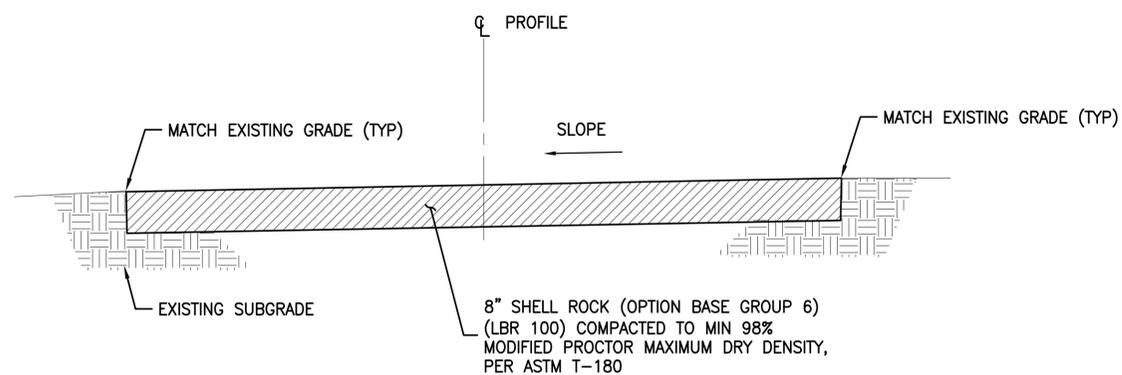
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

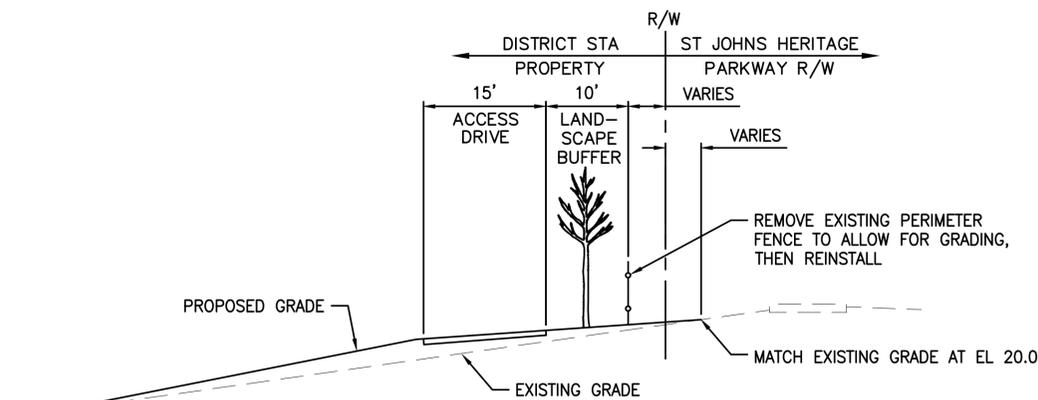
**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**STORMWATER TREATMENT AREA
 GRADING PLAN EAST**

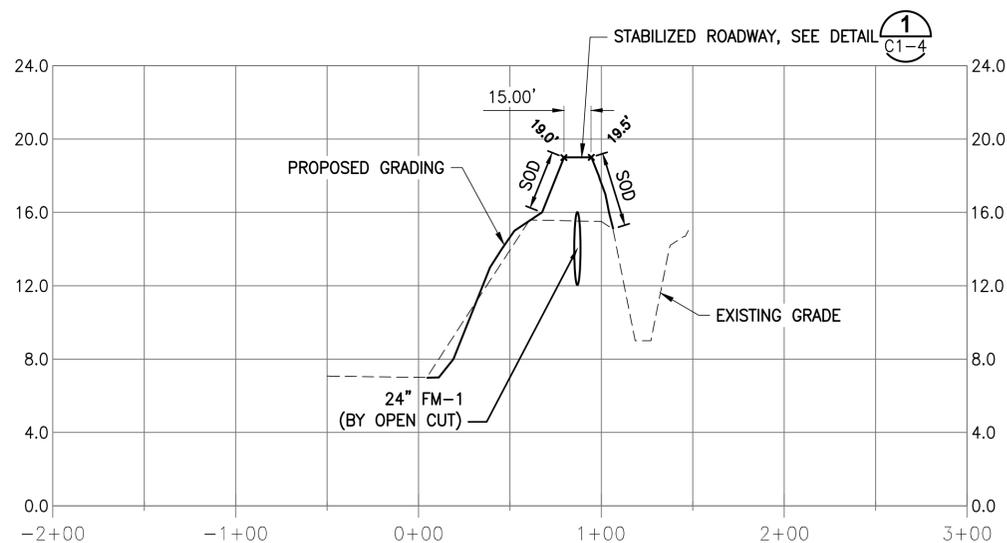
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	INDEX NO: C1-3	DWG NO: C1-3



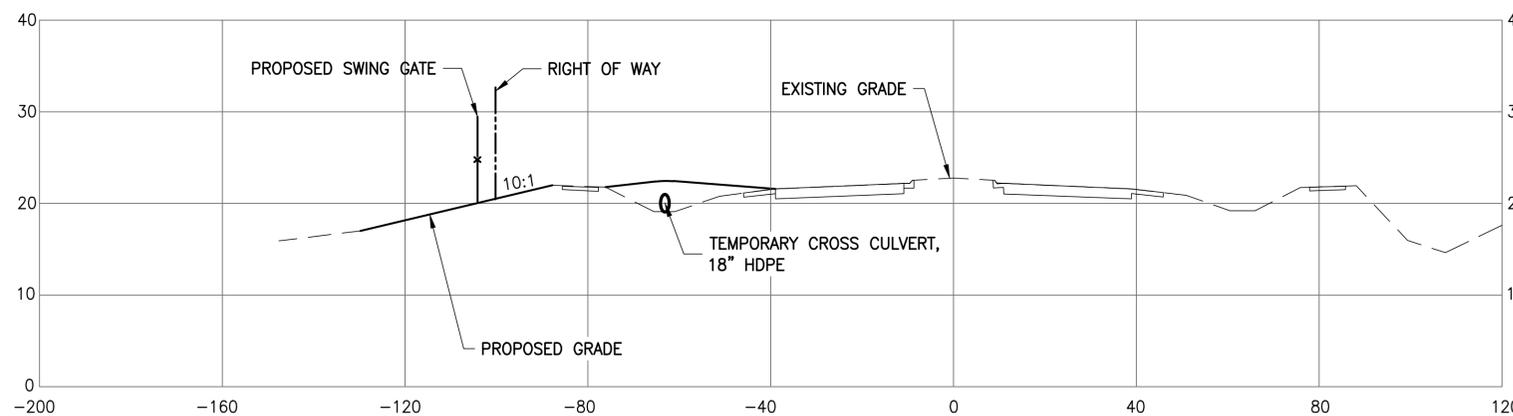
TYPICAL STABILIZED DRIVEWAY SECTION **1**
NTS C1-4



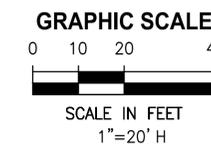
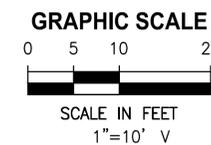
TYPICAL EAST PERIMETER GRADING SECTION **B**
NTS C1-3



SECTION E **1**
1"=100' H C1-2
1"=10' V



SECTION F **1**
1"=20' H C1-3
1"=10' V



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A	6/14/22	ADD PERIMETER SECTION	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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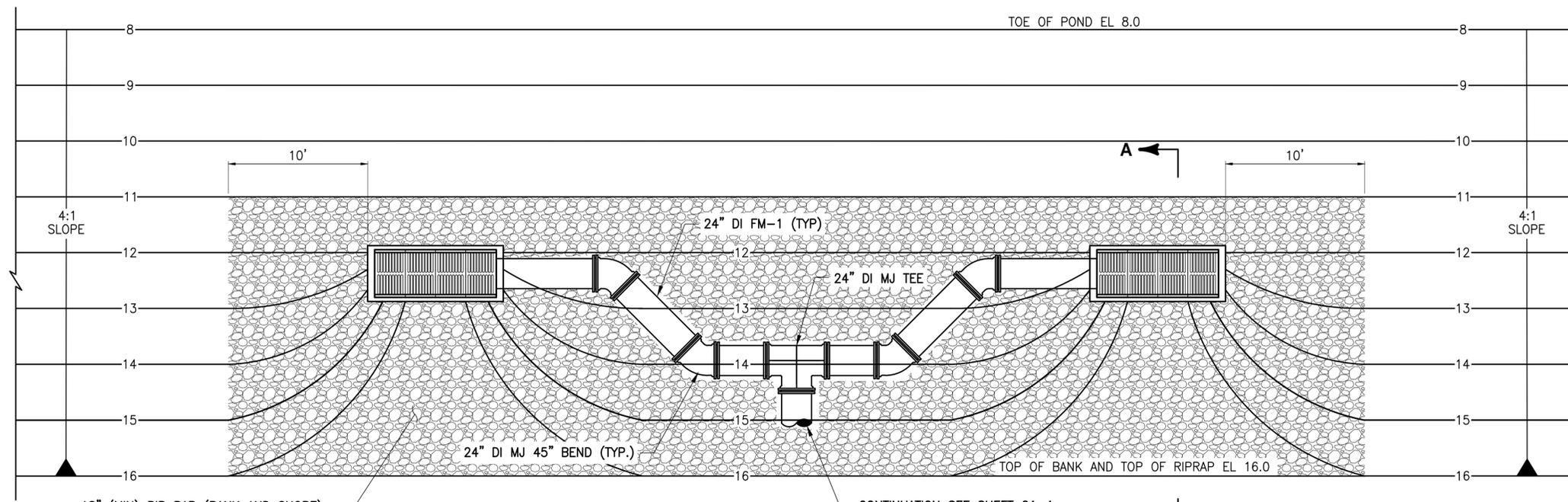
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8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2**

**STORMWATER TREATMENT AREA
SECTIONS**

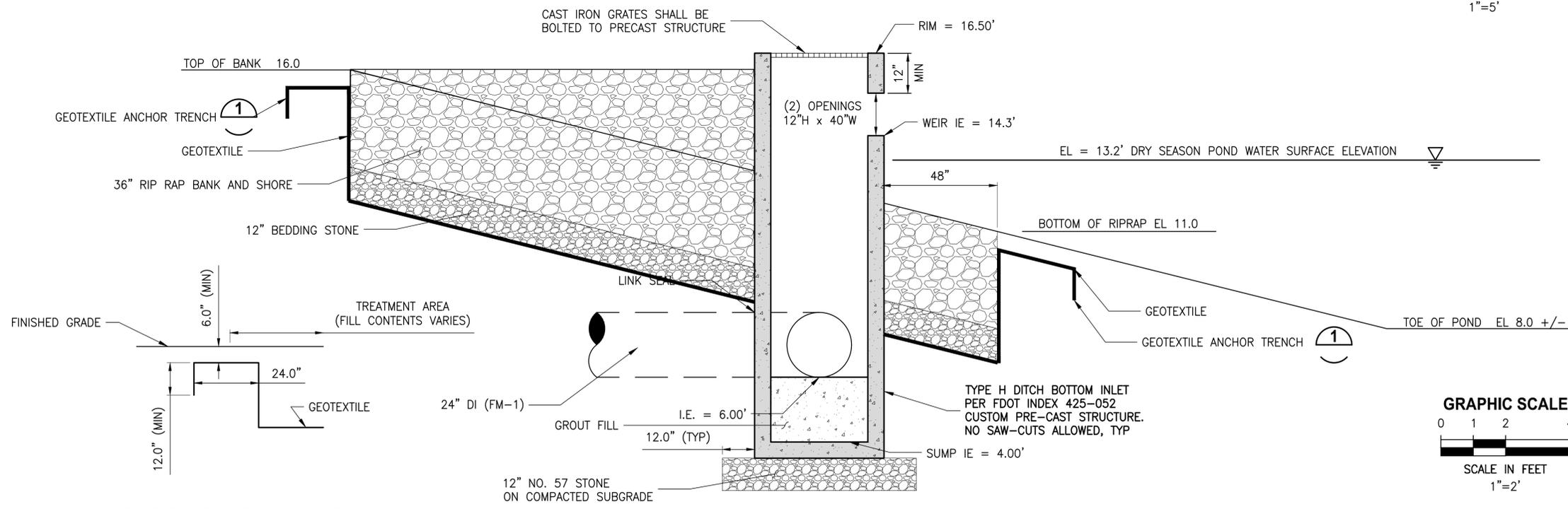
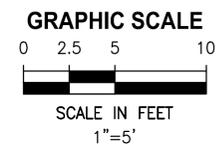
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INDEX NO:		DWG NO:	C1-4

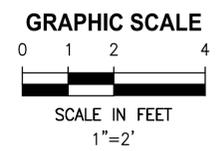


18" (MIN) RIP RAP (BANK AND SHORE)
OVER 6" (MIN) BEDDING STONE PER
FDOT SPECIFICATION 530 AND GEOTEXTILE
TYPE D-2 PER FDOT SPECIFICATION 985

PLAN VIEW
1"=5'



ANCHOR TRENCH DETAIL
1"=2'



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CHECKED	R KOLLER

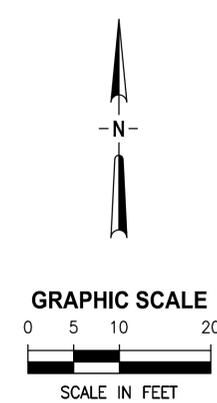
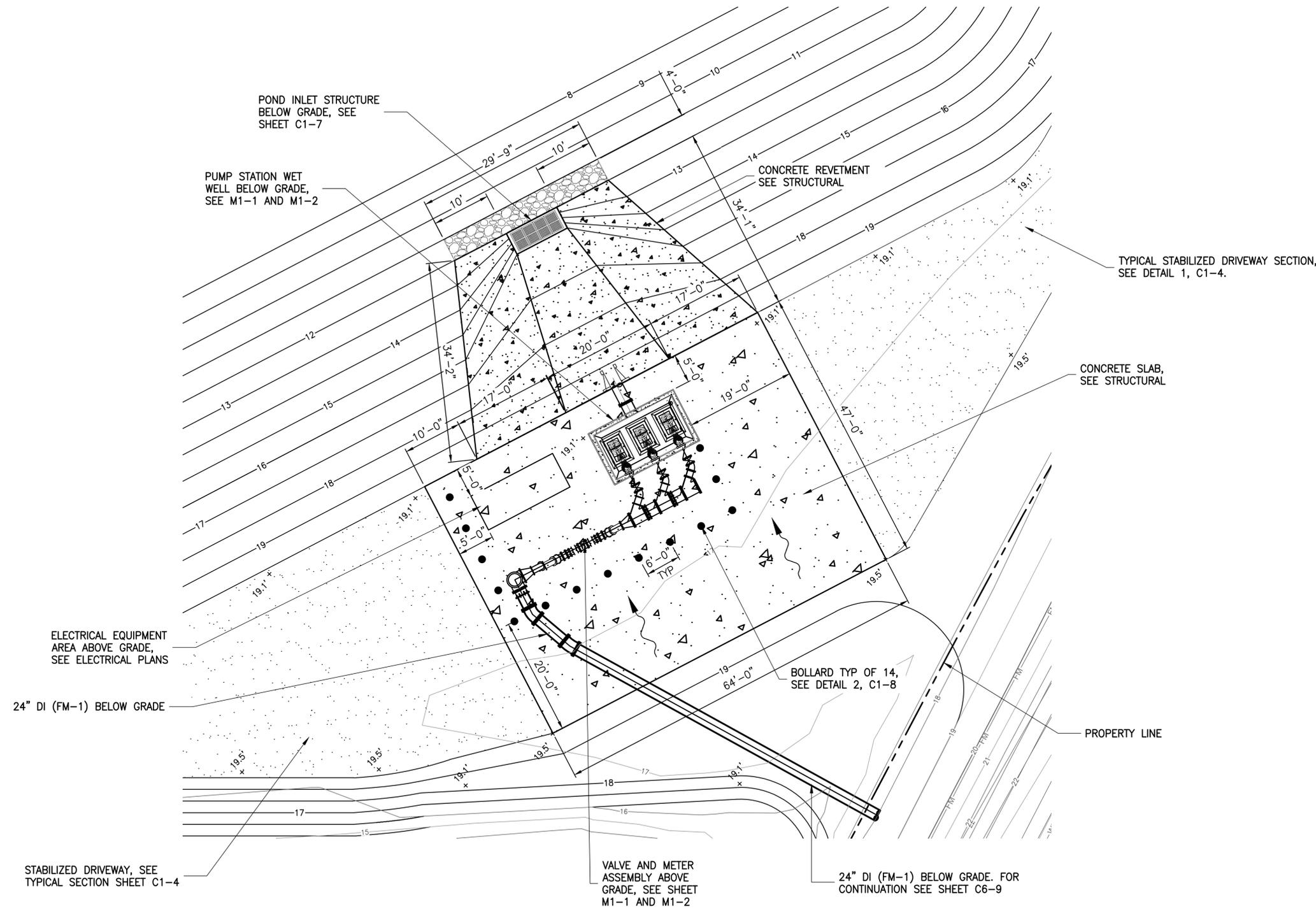
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**STORMWATER TREATMENT AREA INLET
 DETAILS**

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	INDEX NO: C1-5	DWG NO: C1-5

Y:\19750-SJRWD\PROJECTS\066-01_CRANE_CREEK_M-1_FLOW_RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-06.DWG
 7/20/2022 8:24 AM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	MISC LABELING REVISIONS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

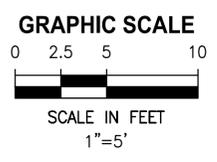
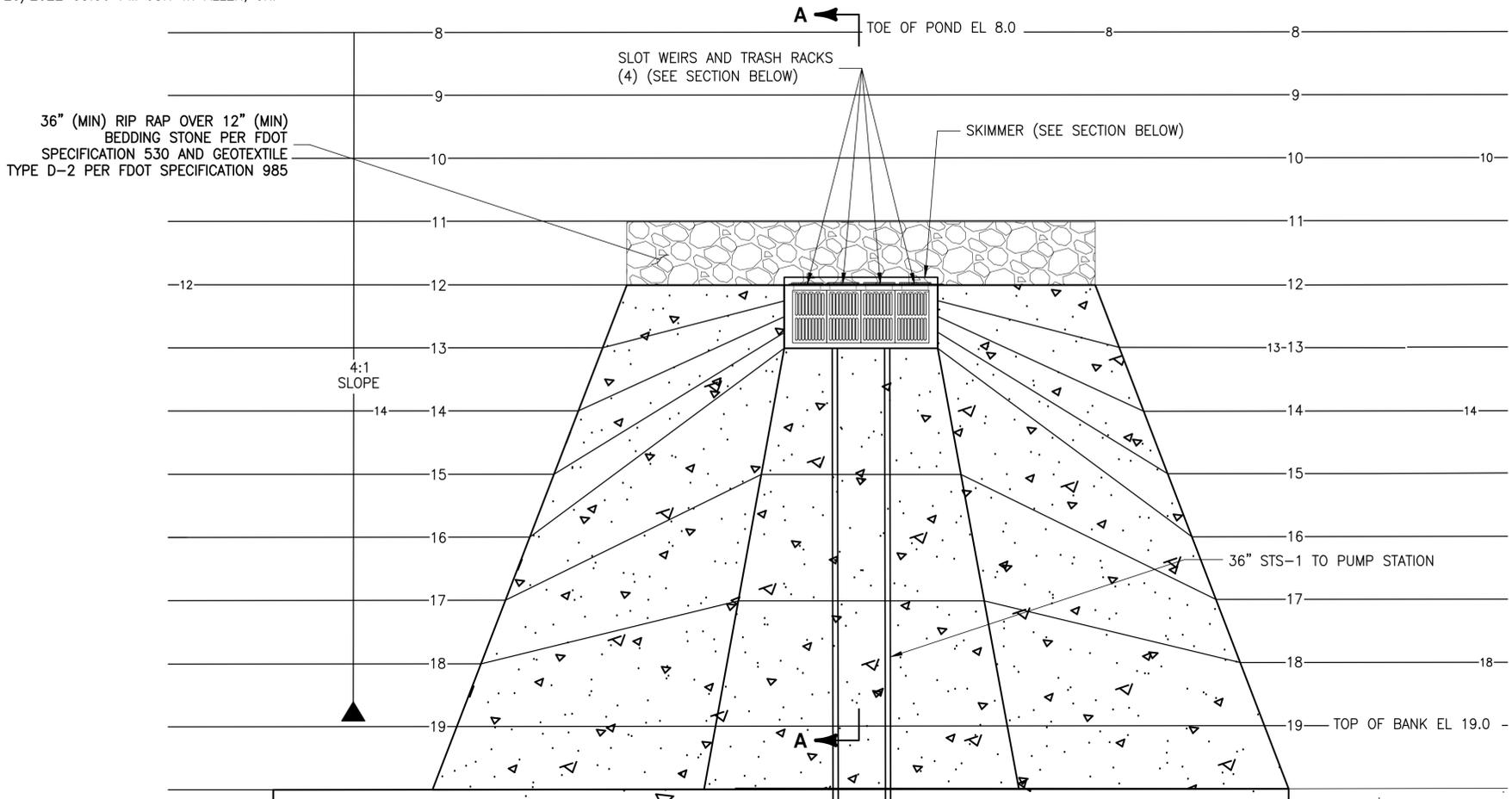
PUMP STATION SITE PLAN

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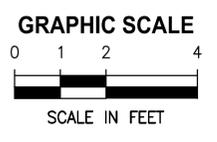
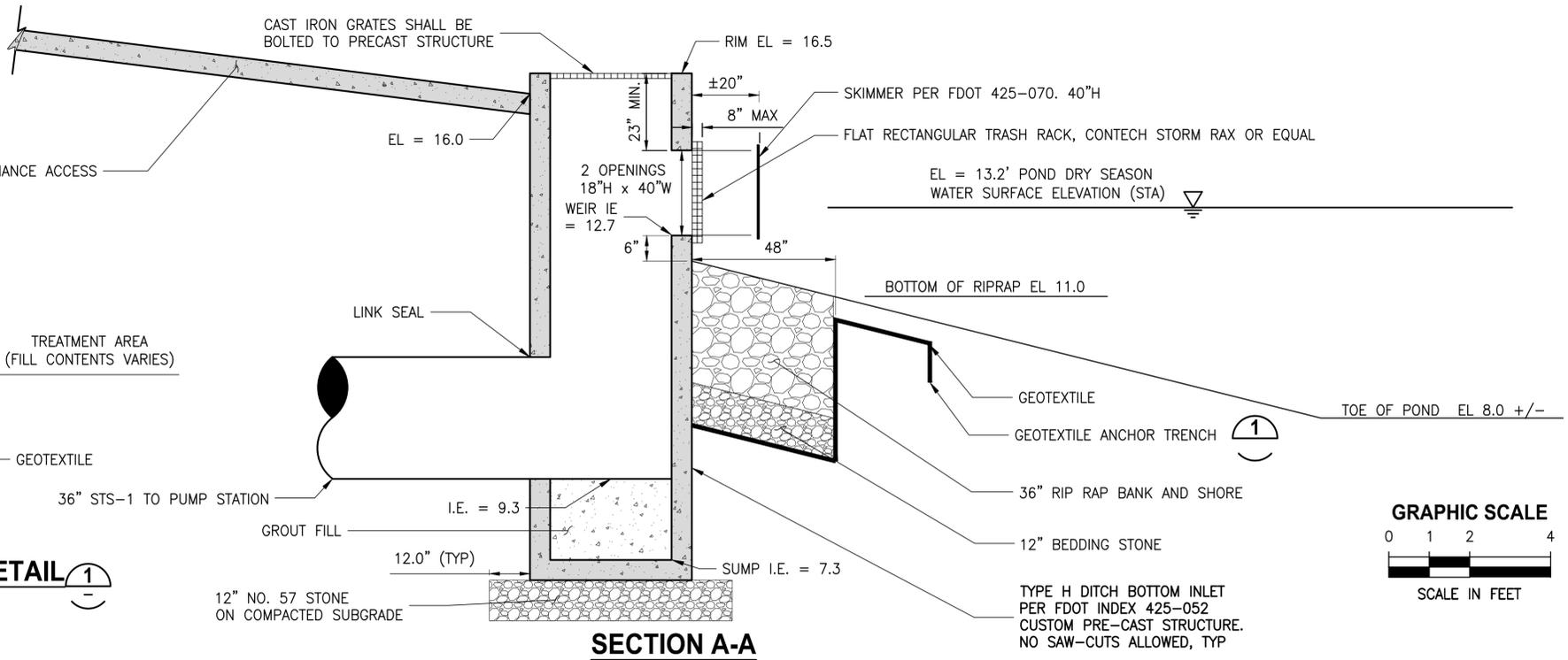
PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:		DWG NO:	C1-6

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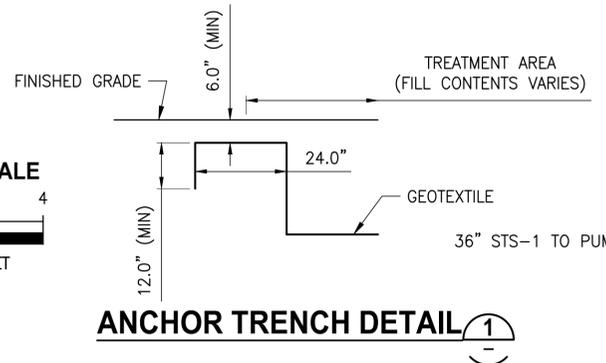
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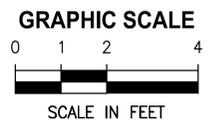
PLAN VIEW



SECTION A-A



ANCHOR TRENCH DETAIL



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	D. SHELDON
DRAWN	J. ALLEN
CHECKED	R. KOLLER

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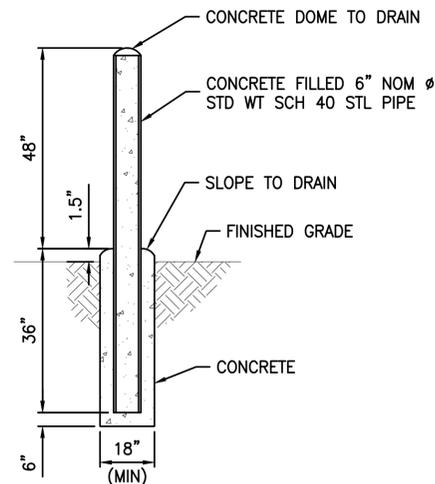
CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2

PUMP STATION INTAKE PLAN AND SECTION

DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA,
 LICENSE NUMBER 90306
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INDEX NO:		DWG NO:	C1-7

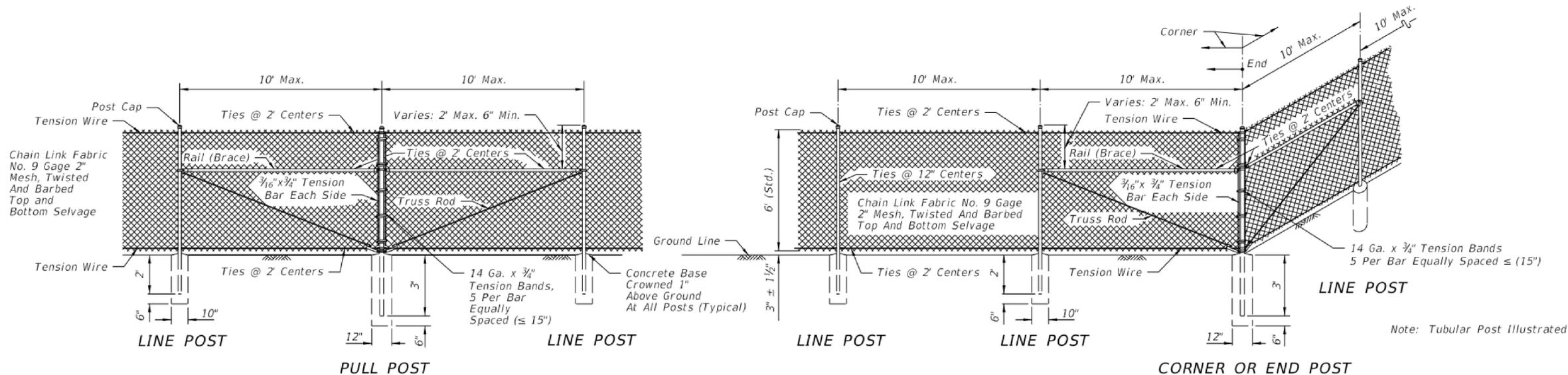
BID DOCUMENTS



- NOTES:**
- A. ACTUAL INSTALLATION LOCATION OF EACH BOLLARD SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED IN THE FIELD.
 - B. PAINT ALL PIPING MATERIALS OSHA SAFETY YELLOW.

BOLLARD DETAIL 2
NTS

C1-6



FDOT TYPE B FENCING ILLUSTRATIVE DETAIL 3
REFER TO FDOT STANDARD INDEX 550-002 FOR COMPLETE REQUIREMENTS C1-3, C1-6

SAVED: 7/8/2022 2:59 PM PBOLLINGER Y:\19750-SJRWMD\PROJECTS\066-01_CRANE_CREEK_M-1_FLOW_RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-08.DWG

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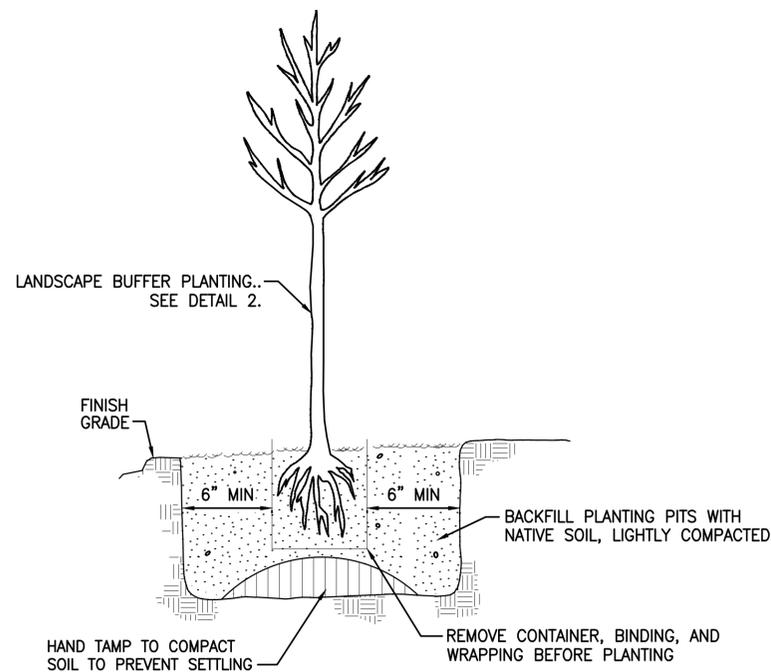
DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD FENCE DETAIL	JWA	RNK

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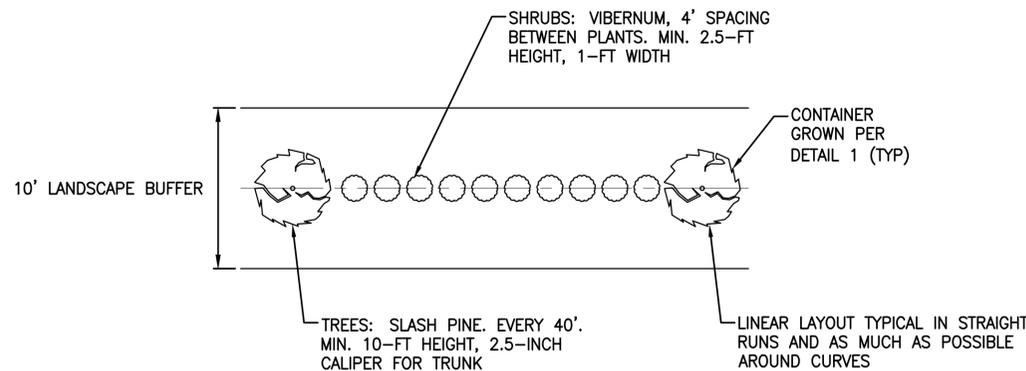
**CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2**

CIVIL DETAILS

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO:	DATE:
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		C1-8



TREES AND SHRUBS PLANTING DETAIL 1
 NTS C1-3



- PLANTING PLAN NOTES:**
1. ALL PLANT MATERIAL SHALL BE CONTAINER GROWN FLORIDA #1 OR BETTER AS OUTLINED BY NURSERY PLANTS, DIVISION OF PLANT INDUSTRY, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
 2. PLANTING WILL NOT BE CONDUCTED UNTIL THE AS-BUILT SURVEY HAS BEEN REVIEWED AND ACCEPTED BY THE OWNER AND ENGINEER.

LANDSCAPE BUFFER LAYOUT DETAIL 2
 NTS C1-3

SAVED: 6/16/2022 4:17 PM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01_CRANE CREEK_M-1_FLOW RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-09.DWG

BID DOCUMENTS

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD LANDSCAPE DETAIL	JWA	RNK

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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

CIVIL DETAILS

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Y:\19750-SURMWD\PROJECTS\066-01_CRANE_CREEK_M-1_FLOW_RESTORATION\DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC1-2.DWG

CONTRACTOR REQUIREMENTS

Table with 4 main columns: SITE DESCRIPTION, GENERAL, SPILL CONTROL PRACTICES, and MAINTENANCE/INSPECTION PROCEDURES. Includes sub-sections like SEQUENCE OF MAJOR ACTIVITIES, CONTROLS, SPILL PREVENTION, and HAZARDOUS WASTE.

Revision table with columns: LTR., DATE, REVISIONS, BY, APPRD. Includes entries for DESIGNED, DRAWN, and CHECKED.

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CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

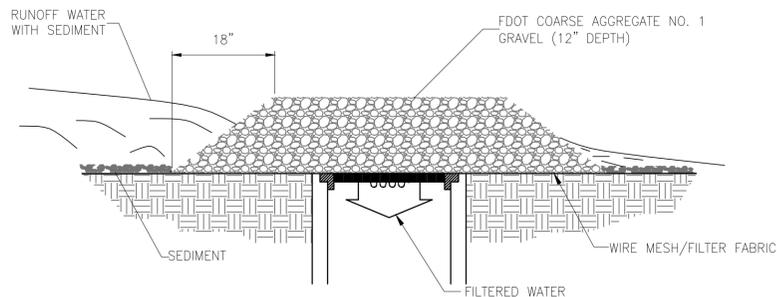
STORMWATER TREATMENT AREA EROSION CONTROL NOTES

Project information table including: PROJECT NO: 19750-066-01, DATE: JULY 2022, INDEX NO, and DWG NO: EC1-2.

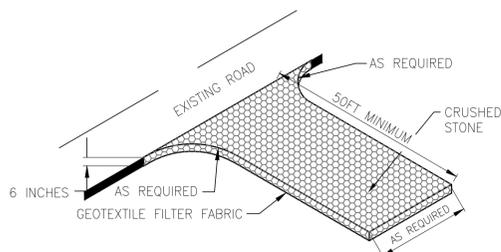
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SEDIMENT AND EROSION CONTROL NOTES

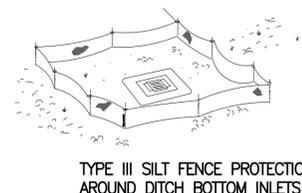
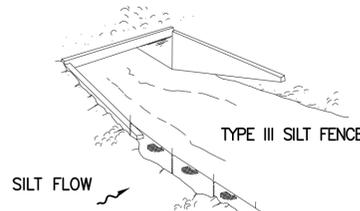
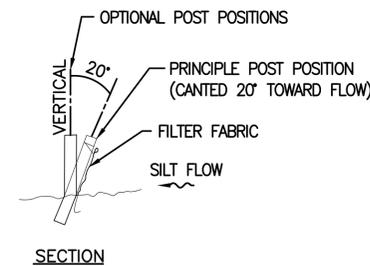
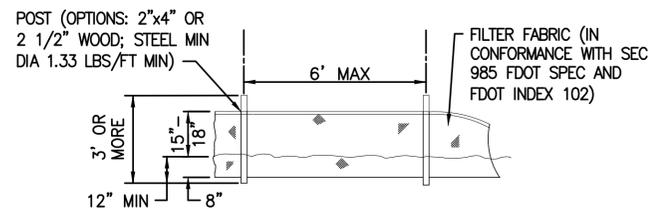
1. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
2. BEST MANAGEMENT PRACTICES IN ADDITION TO THE ONES SHOWN ON THE PLAN SHEETS MUST BE PROVIDED IN ORDER TO PREVENT SILT FROM LEAVING THE PROJECT SITE DUE TO UNSEEN CONDITIONS AND ACCIDENTS.
3. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
4. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM IF 12" BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 3/8" OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
5. FDOT NO.1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12" OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18" ON ALL SIDES.
6. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
7. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4". THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
8. NECESSARY REPAIRS TO BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
10. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR SHOULD BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
11. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
12. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND SWALES AS WELL AS PROVIDE MEASURES TO PREVENT SILTATION OF STORMWATER TREATMENT SYSTEMS AND CONTROL STRUCTURES DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL MANAGE STORMWATER SUCH THAT IMPACT TO CONSTRUCTION IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK, INCLUDING PROVIDING EQUIPMENT, LABOR, FILL, ETC. NECESSARY TO REMEDIATE AND/OR RESTORE ALL AREAS IMPACTED BY EROSION, RUNOFF, AND STORMWATER.
13. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL" AVAILABLE AT [HTTP://WWW.FDOT.GOV/ROADWAY/DRAINAGE/FILES/EROSION-SEDIMENT-CONTROL.PDF](http://www.fdot.gov/roadway/drainage/files/erosion-sediment-control.pdf) AND "FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL" AVAILABLE AT [HTTPS://WWW.DEP.STATE.FL.US/WATER/NONPOINT/DOCS/EROSION/EROSION-INSPECTORS-MANUAL.PDF](https://www.dep.state.fl.us/water/nonpoint/docs/erosion/erosion-inspectors-manual.pdf).
14. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL DOWNSTREAM AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL CONSTRUCTION.
15. SOD SHALL BE PLACED IN AREAS WHICH REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITIES ARE MAINTAINED.
16. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
17. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
18. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO THE OWNER FOR ALL FDEP INQUIRES, RELATIVE TO PERMIT COMPLIANCE, INCLUDING EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
19. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS AND SPECIFICATIONS AND THE SJRWMD AND FDEP RULES AND REGULATIONS.



GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER DETAIL (Sd2)
NTS



STABILIZED CONSTRUCTION ENTRANCE (Co)
NTS



TYPE III SILT FENCE

NOTES:

- DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

TYPICAL SILT FENCE (Sd1)
NTS

STORMWATER POLLUTION PREVENTION PLAN

INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.50 INCHES OR GREATER

INSPECTOR: _____ FDEP NPDES STORMWATER IDENTIFICATION NUMBER: _____

LOCATION	RAIN DATA	TYPE OF CONTROL (SEE BELOW)	DATE INSTALLED / MODIFIED	CURRENT CONDITION (SEE BELOW)	CORRECTIVE ACTION / OTHER REMARKS

CONDITION CODE:
 G = GOOD
 C = NEEDS TO BE CLEARED
 M = MARGINAL, NEEDS MAINTENANCE OR REPLACEMENT SOON
 P = POOR, NEEDS IMMEDIATE MAINTENANCE OR REPLACEMENT
 O = OTHER

CONTROL TYPE CODES

1. SILT FENCE	10. STORM DRAIN INLET PROTECTION	19. REINFORCED SOIL RETAINING SYSTEM	28. TREE PROTECTION
2. EARTH DIKES	11. VEGETATIVE BUFFER STRIP	20. GABION	29. DETENTION POND
3. STRUCTURAL DIVISION	12. VEGETATIVE PRESERVATION AREA	21. SEDIMENT BASIN	30. RETENTION POND
4. SWALE	13. RETENTION POND	22. TEMPORARY SEED / SOD	31. WASTE DISPOSAL / HOUSEKEEPING
5. SEDIMENT TRAP	14. CONSTRUCTION ENTRANCE STABILIZATION	23. PERMANENT SEED / SOD	32. DAM
6. CHECK DAM	15. PERIMETER DITCH	24. MULCH	33. SAND BAG
8. PIPE SLOPE DRAIN	16. CURB AND GUTTER	25. WATTLES	34. OTHER
9. LEVEL SPREADERS	17. PAVED ROAD SURFACE	26. GEOTEXTILE	
9. LEVEL SPREADERS	18. ROCK OUTLET PROTECTION	27. RIP-RAP	

INSPECTOR INFORMATION:

NAME: _____ QUALIFICATION: _____ DATE: _____

THE ABOVE SIGNATURE ALSO SHALL CERTIFY THAT THIS FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IF THERE ARE NOT ANY INCIDENTS OF NON-COMPLIANCE IDENTIFIED ABOVE.

I, CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NAME (RESPONSIBLE AUTHORITY) _____ DATE _____

Y:\19750-SURWMD\PROJECTS\066-01_CRANE_CREEK_M-1_FLOW_RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC1-3.DWG
 4/18/2022 6:16 PM AGOODDEN

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED A GOODDEN
 DRAWN J ALLEN
 CHECKED R KOLLER

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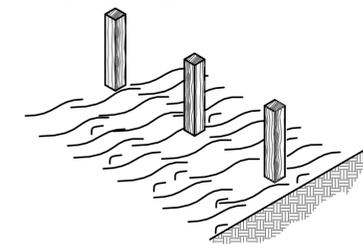
**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

DETAILS

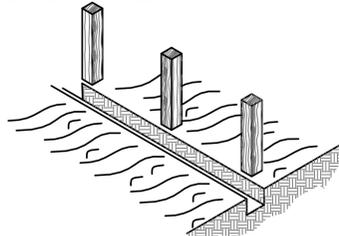
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	INDEX NO: EC1-3	DWG NO: EC1-3

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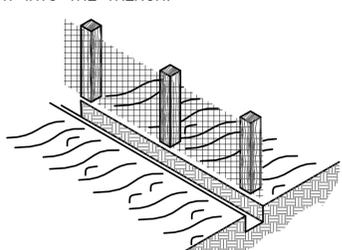
A. SET THE STAKES.



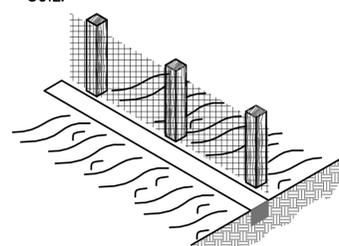
B. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



C. STAPLE SILT FENCE TO STAKES AND EXTEND IT INTO THE TRENCH.

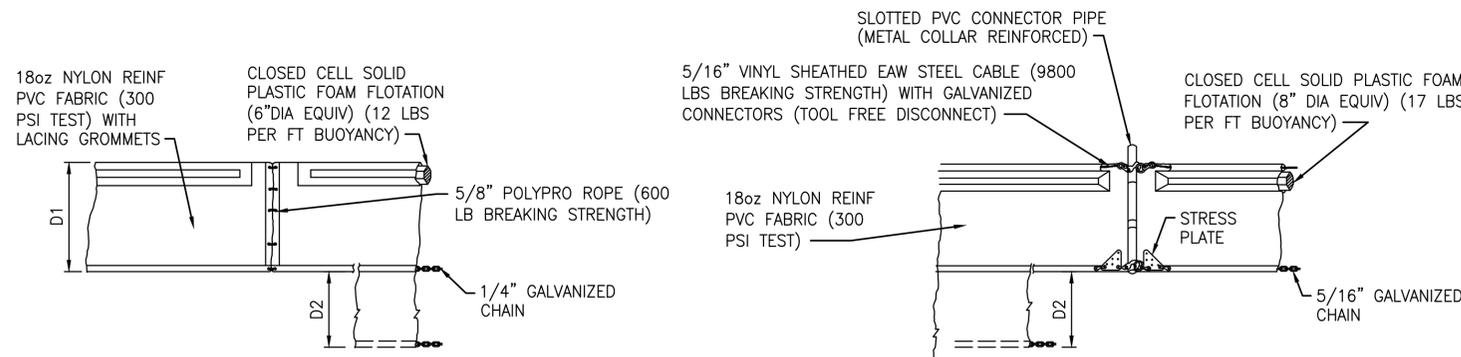


D. BACKFILL AND COMPACT THE EXCAVATED SOIL.



CONSTRUCTION OF A SILT FENCE DETAIL 1

NTS



TYPE 1

D1 = 5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)
D2 = 5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

TYPE 2

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

TYPICAL FLOATING TURBIDITY BARRIER DETAIL

POST (OPTIONS: 2"x4" OR 2 1/2" WOOD; STEEL MIN DIA 1.33 LBS/FT MIN)

3' OR MORE
12" MIN

ELEVATION

6' MAX

15" 18"

8"

12" MIN

3' OR MORE

12" MIN

3' OR MORE

12" MIN

ELEVATION

6' MAX

15" 18"

8"

12" MIN

3' OR MORE

12" MIN

3' OR MORE

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3' OR MORE

12" MIN

3' OR MORE

12" MIN

ELEVATION

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3' OR MORE

12" MIN

ELEVATION

6' MAX

15" 18"

8"

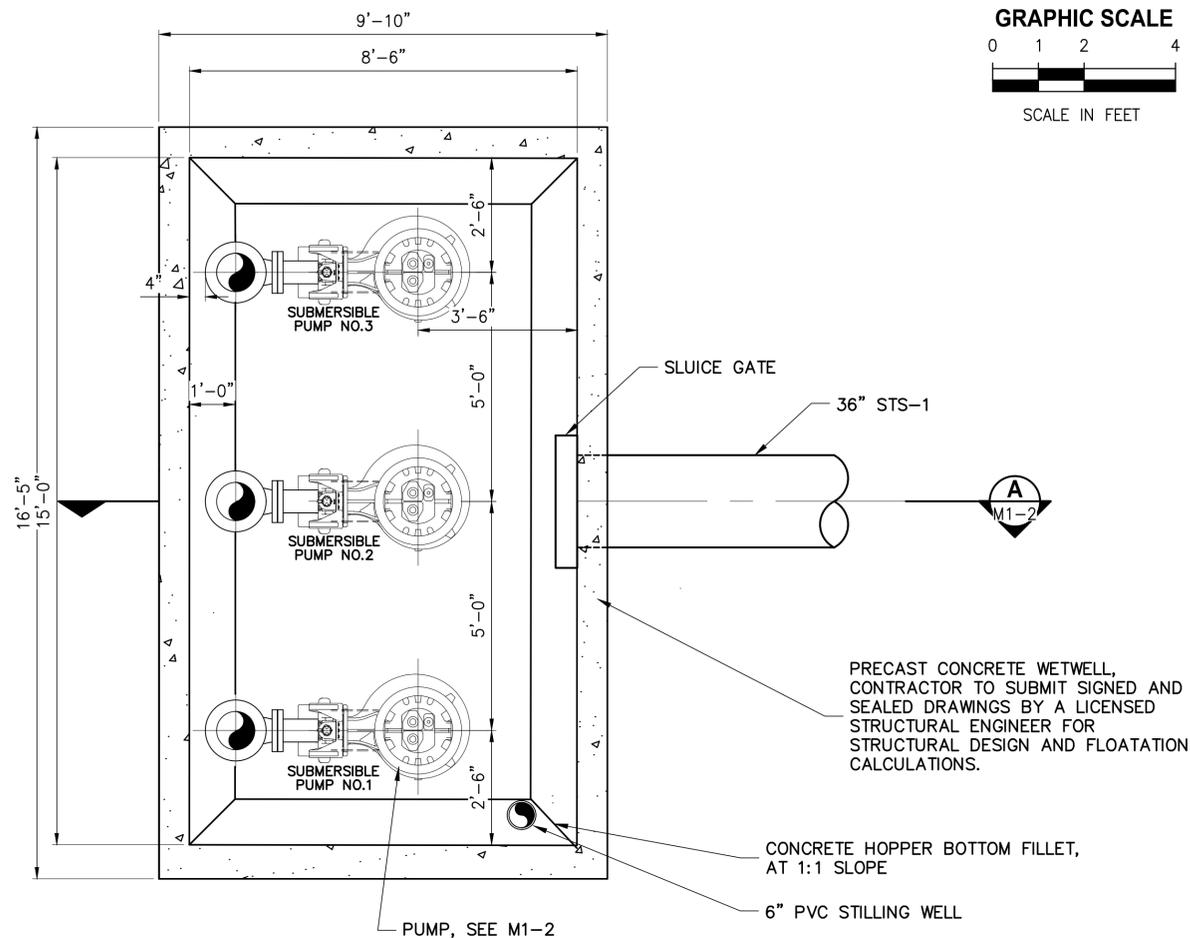
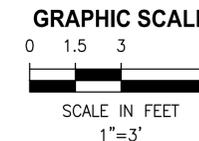
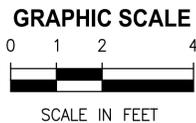
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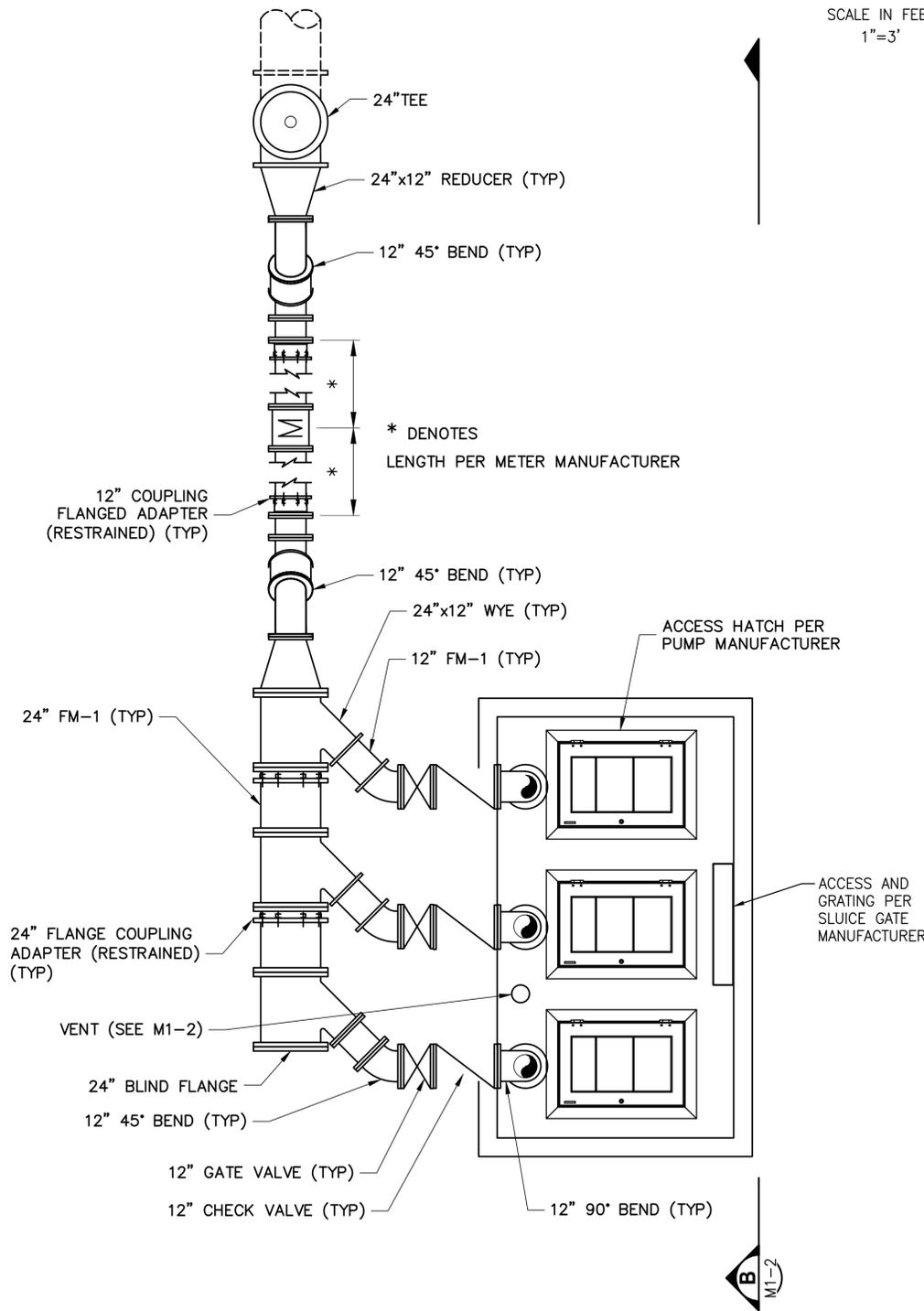
12" MIN

3' OR MORE

12" MIN



LOWER PLAN 1



UPPER PLAN 1

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 7/20/2022 11:18 AM JALLEN

BID DOCUMENTS
 A
B
C
D
E
F

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	D. SHELDON
DRAWN	J. ALLEN
CHECKED	R. KOLLER

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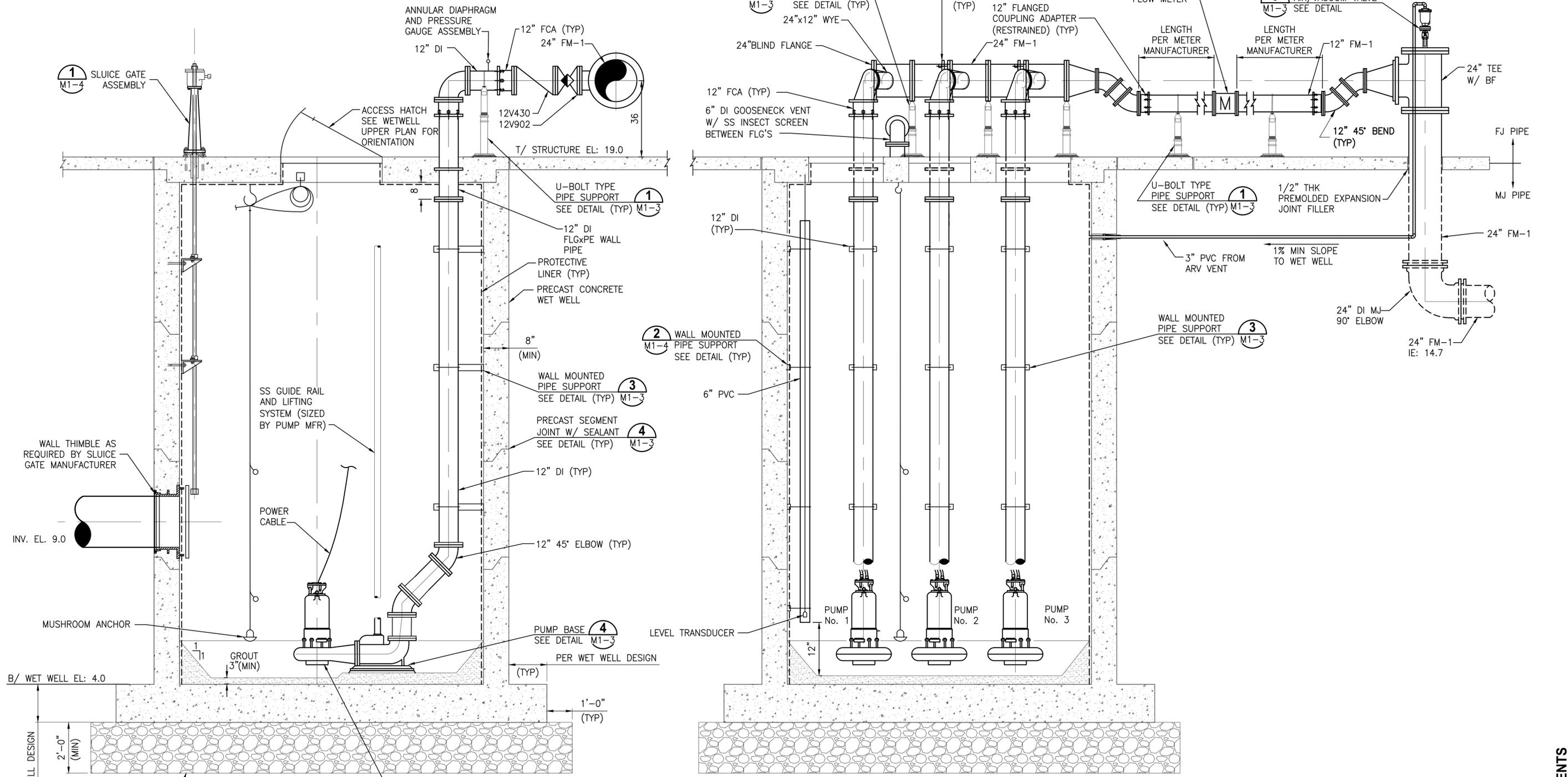
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

PUMP STATION PLAN

<small> DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. </small>	PROJECT NO: 19750-066-01	DATE: JULY 2022
	INDEX NO: M1-1	DWG NO: M1-1

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 7/20/2022 10:06 AM JALLEN



PUMP LEVEL CONTROL		
FUNCTION	CONTROLLED BY	ELEVATION
HIGH LEVEL ALARM - ALL PUMPS OFF	FLOAT	15.1
LAG - LAG PUMP ON	TRANSDUCER	14.5
LAG PUMP ON	TRANSDUCER	13.9
LEAD PUMP ON	TRANSDUCER	13.5
ALL PUMPS OFF	TRANSDUCER	13.0
LOW LEVEL ALARM - ALL PUMPS OFF	FLOAT	12.8

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DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

PUMP STATION SECTIONS

DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01	DATE: JULY 2022
	INDEX NO.:	DWG NO.: M1-2

BID DOCUMENTS

**PIPE SUPPORT
DIMENSION TABLE**

PIPE SIZE	A	B	C		D
			MIN	MAX	
INCHES					
4	4	9	9 1/4	14	3
5	4	9	10	14 3/4	3
6	4	9	10 1/2	15 1/4	3
8	4	9	11 3/4	16 1/2	3
10	4	9	13 1/2	18 1/4	3
12	4	9	15	19 3/4	3
14	4	11	16 1/4	20 3/4	3
16	4	11	17 3/4	22 1/4	3
18	6	13 1/2	19 1/2	24	4
20	6	13 1/2	21	25 1/2	4
24	6	13 1/2	23 3/4	28 1/4	4

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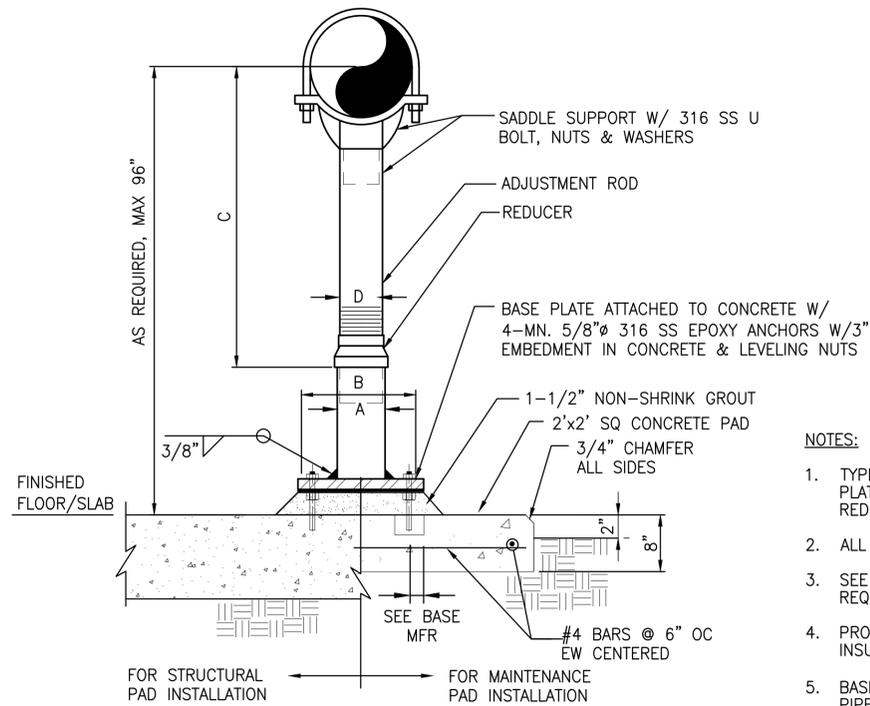
- TYPE 1 PIPE SUPPORT: PIPE SADDLE, ADJUSTMENT ROD, BASE PLATE, ETC. SHALL BE HOT DIP GALVANIZED CARBON STEEL. REDUCER SHALL BE CAST IRON.
- ALL HARDWARE SHALL BE 316 SS.
- SEE PLANS AND SECTIONS FOR PIPE CENTERLINE ELEVATION REQUIREMENTS.
- PROVIDE RIGID INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
- BASE PLATES SHALL BE SQUARE AND BE 3/8-INCH THICK FOR PIPE SIZES THROUGH 10-INCH. FOR ALL LARGER PIPES BEING SUPPORTED, THE BASE PLATES SHALL BE 1/2-INCH THICK.

**PIPE SUPPORT
DIMENSION TABLE**

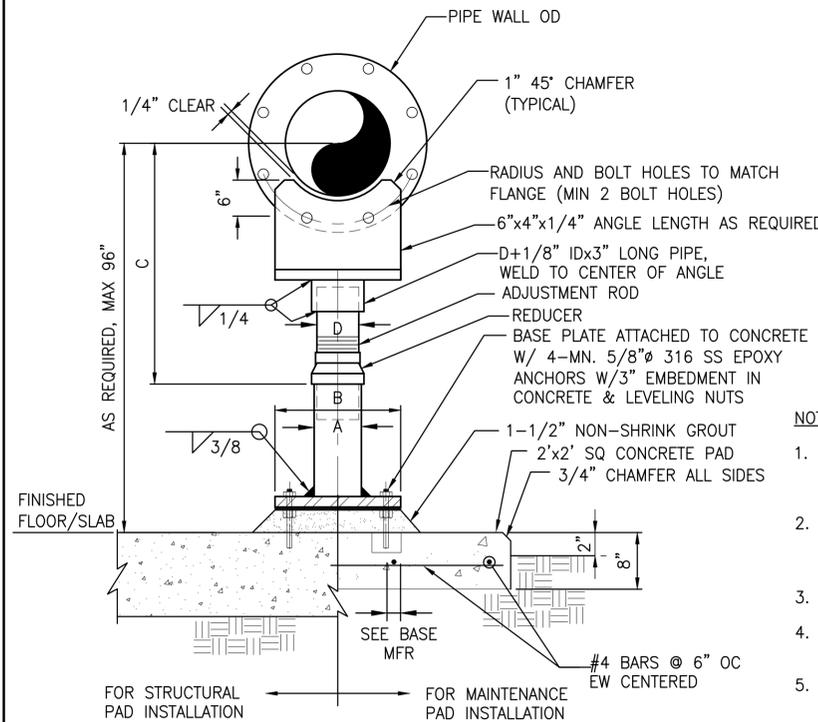
PIPE SIZE	A	B	C		D
			MIN	MAX	
INCHES					
4	4	9	9 1/4	14	3
5	4	9	10	14 3/4	3
6	4	9	10 1/2	15 1/4	3
8	4	9	11 3/4	16 1/2	3
10	4	9	13 1/2	18 1/4	3
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14	4	11	16 1/4	20 3/4	3
16	4	11	17 3/4	22 1/4	3
18	6	13 1/2	19 1/2	24	4
20	6	13 1/2	21	25 1/2	4
24	6	13 1/2	23 3/4	28 1/4	4

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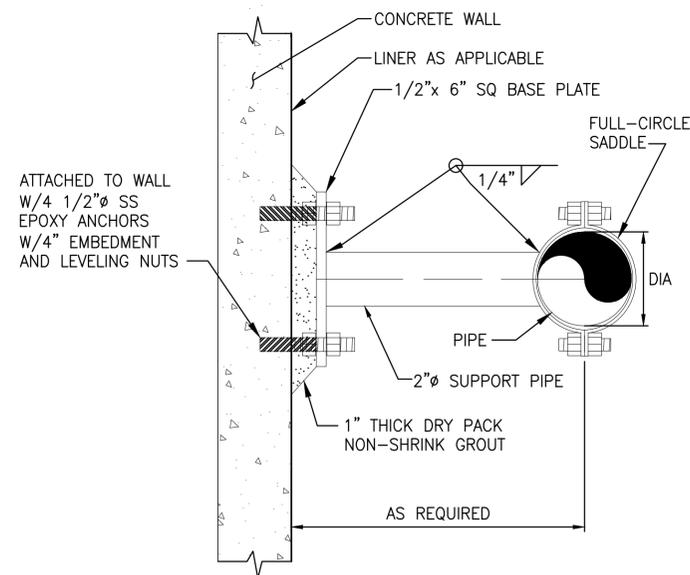
- TYPE 1 PIPE SUPPORT: PLATE, PIPE SADDLE, ADJUSTMENT ROD, BASE PLATE, ETC. SHALL BE HOT DIP GALVANIZED CARBON STEEL. REDUCER SHALL BE CAST IRON.
- HOT DIP GALVANIZE ENTIRE PIPE SUPPORT AND STEEL BASE PLATE AFTER FABRICATION (EXCEPT FOR STAINLESS STEEL FASTENING HARDWARE).
- ALL HARDWARE SHALL BE 316 SS.
- SEE PLANS AND SECTIONS FOR PIPE CENTERLINE ELEVATION REQUIREMENTS.
- PROVIDE RIGID INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
- BASE PLATES SHALL BE SQUARE AND BE 3/8-INCH THICK FOR PIPE SIZES THROUGH 10-INCH. FOR ALL LARGER PIPES BEING SUPPORTED, THE BASE PLATES SHALL BE 1/2-INCH THICK.



PIPE SUPPORT - U-BOLT TYPE 1
NTS

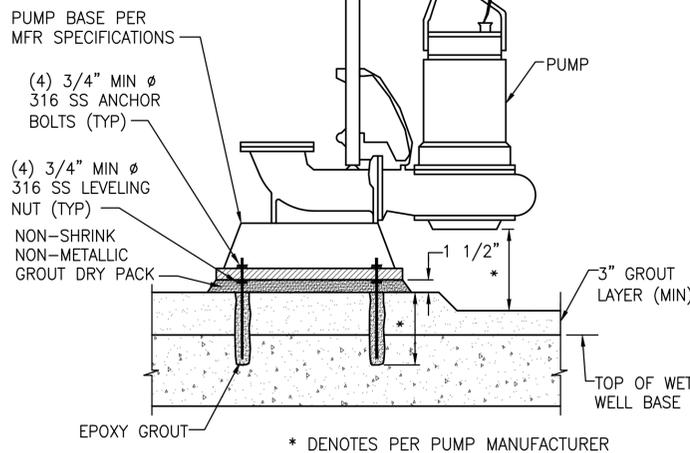


FLANGE TYPE PIPE SUPPORT DETAIL 2
NTS



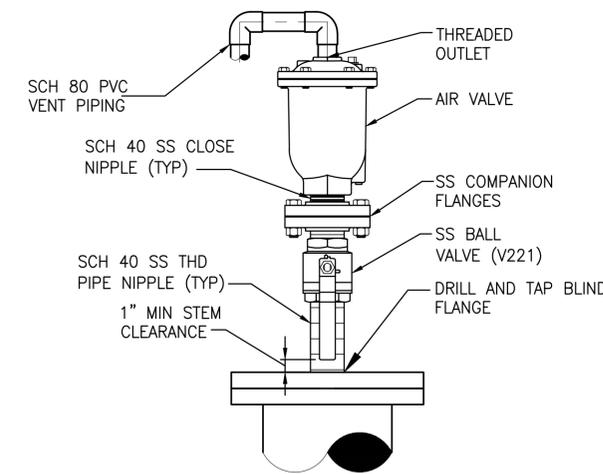
- NOTES:**
- ALL HARDWARE, PLATE, SADDLE, PIPE SUPPORT, ETC. SHALL BE 316 SERIES SS.
 - SUPPORT PIPE SHALL BE SCH 40.

PIPE SUPPORT - WALL MOUNTED 3
NTS



- NOTE:**
- FORM BENCH AS DIRECTED BY PUMP MANUFACTURER.

PUMP BASE DETAIL 4
NTS



- NOTES:**
- SEE DRAWINGS FOR AIR VALVE TYPE AND INLET DIAMETER.
 - BALL VALVE AND NIPPLES SHALL HAVE THE SAME DIAMETER AS THE AIR VALVE INLET.
 - VERIFY SIZE OF VALVE PRIOR TO ORDERING ANCILLARY PARTS, DRILLING OR TAPPING.
 - VENT PIPING SHALL BE DRAINED TO WET WELL AS SHOWN ON THE PLANS.

FLANGE MOUNTED AIR VALVE 5
NTS

SAVED: 12/17/2021 4:22 PM PBOLLINGER Y:\19750-SURWMD\PROJECTS\066-01-CRANE CREEK_M-1_FLOW RESTORATION DESIGN\CAD\VOLUME 2\DWGS\MECHANICAL\19750066-VOL2-M1-3.DWG

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DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

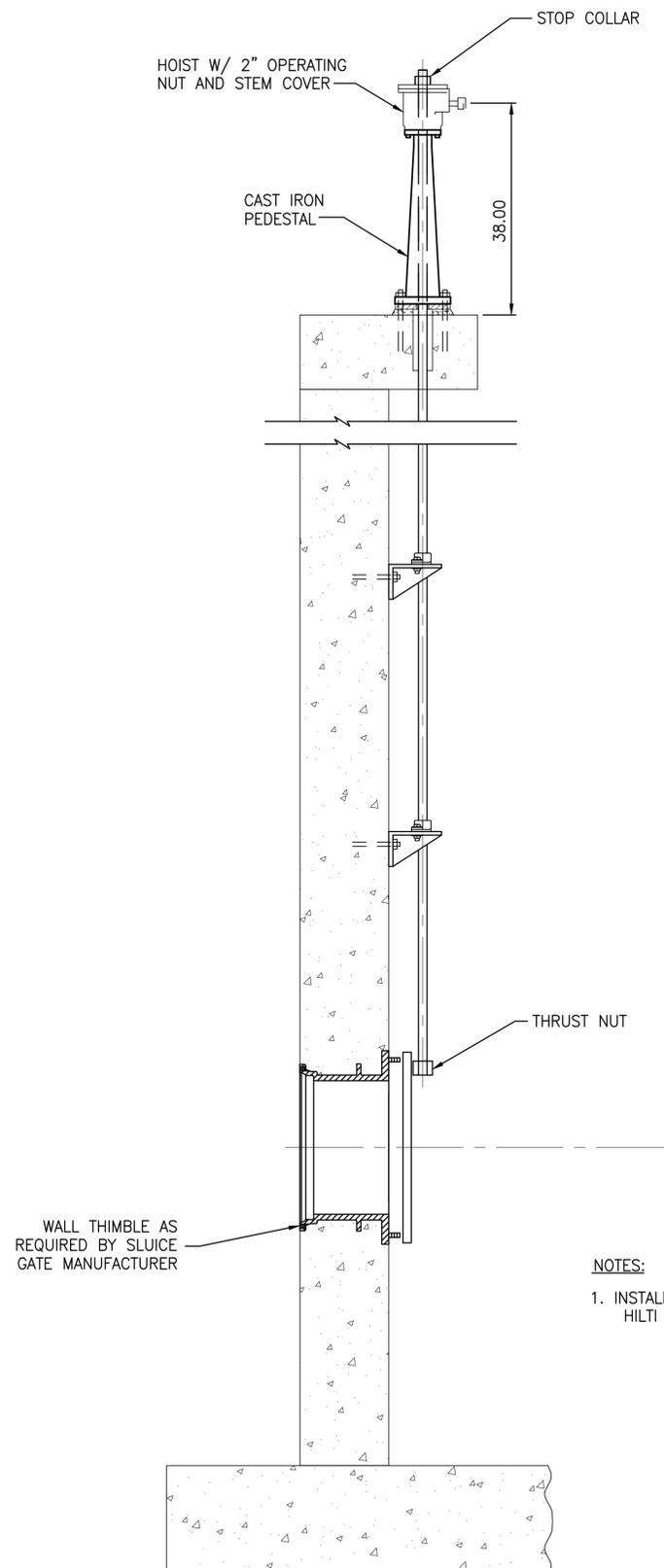
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**CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2**

PUMP STATION DETAILS

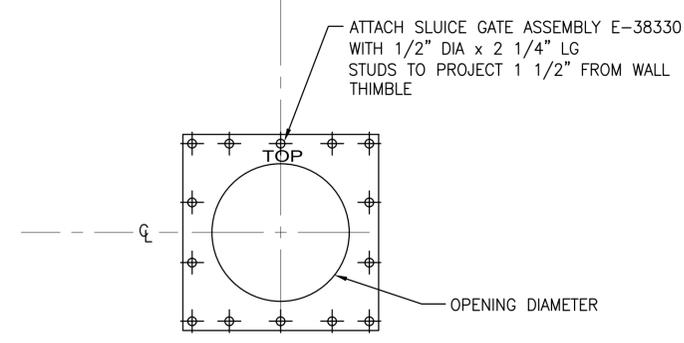
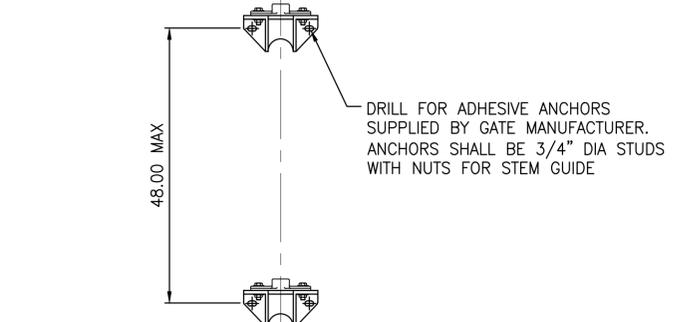
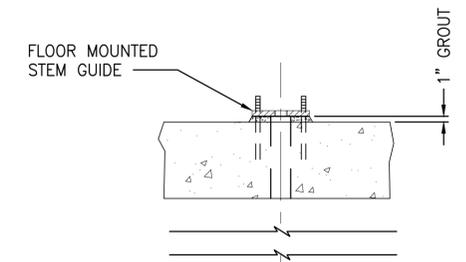
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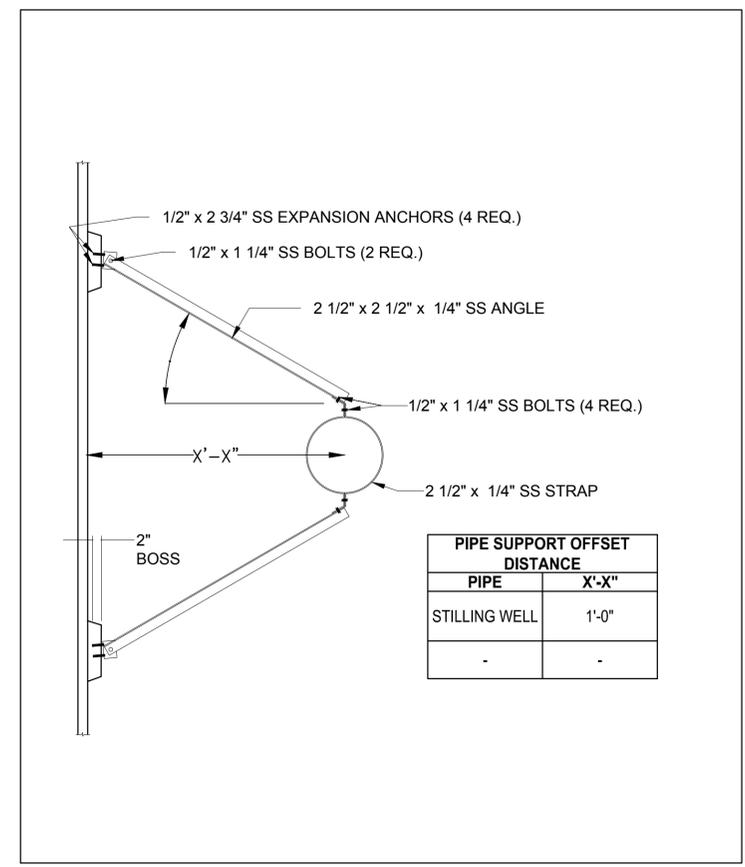
ELEVATION

- NOTES:**
1. INSTALLER SUPPLIED ADHESIVE SHALL BE HILTI HIT HY150 OR EQUAL.



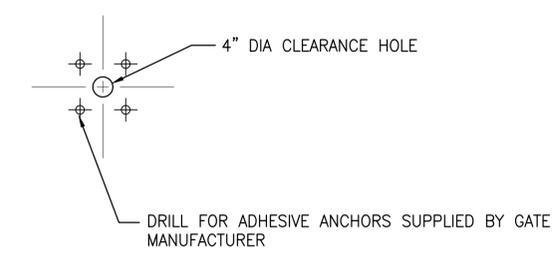
FRONT

SLUICE GATE DETAIL 1
NTS



PIPE SUPPORT OFFSET DISTANCE	
PIPE	X'-X"
STILLING WELL	1'-0"
-	-

SS PIPE SUPPORT DETAIL 2
NTS



PLAN

LTR.	DATE	REVISIONS	BY	APPRD.

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DRAWN	J. ALLEN
CHECKED	R. KOLLER

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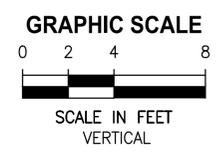
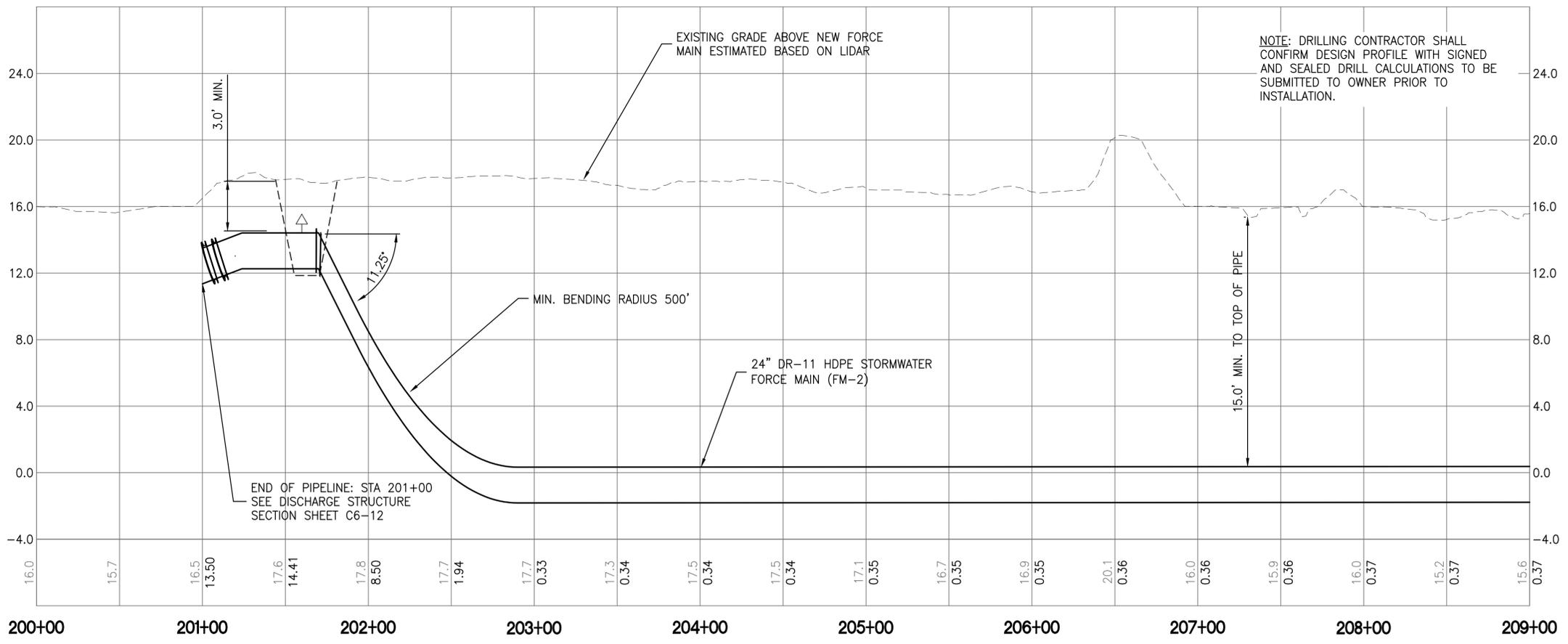
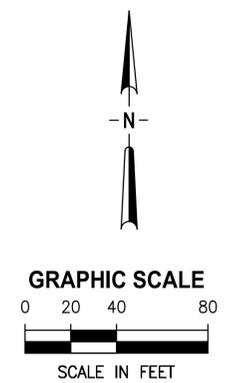
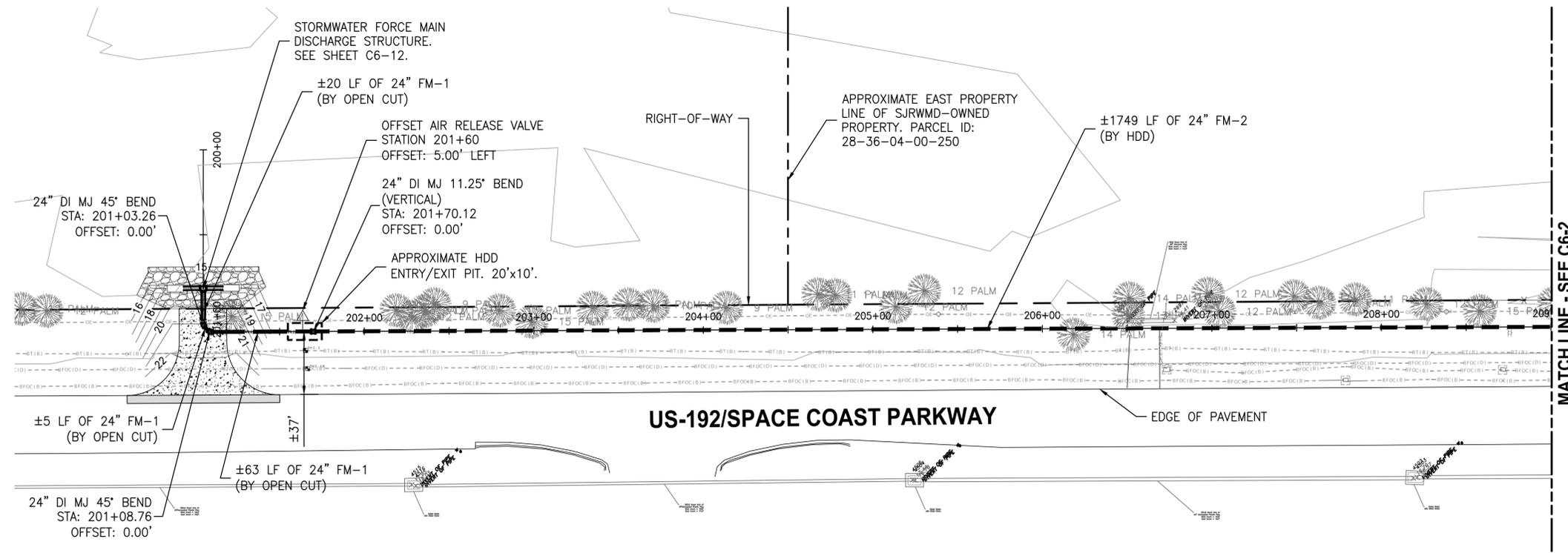
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

PUMP STATION DETAILS

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 DRAWN J. ALLEN
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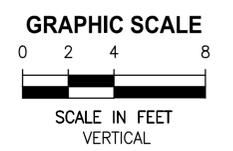
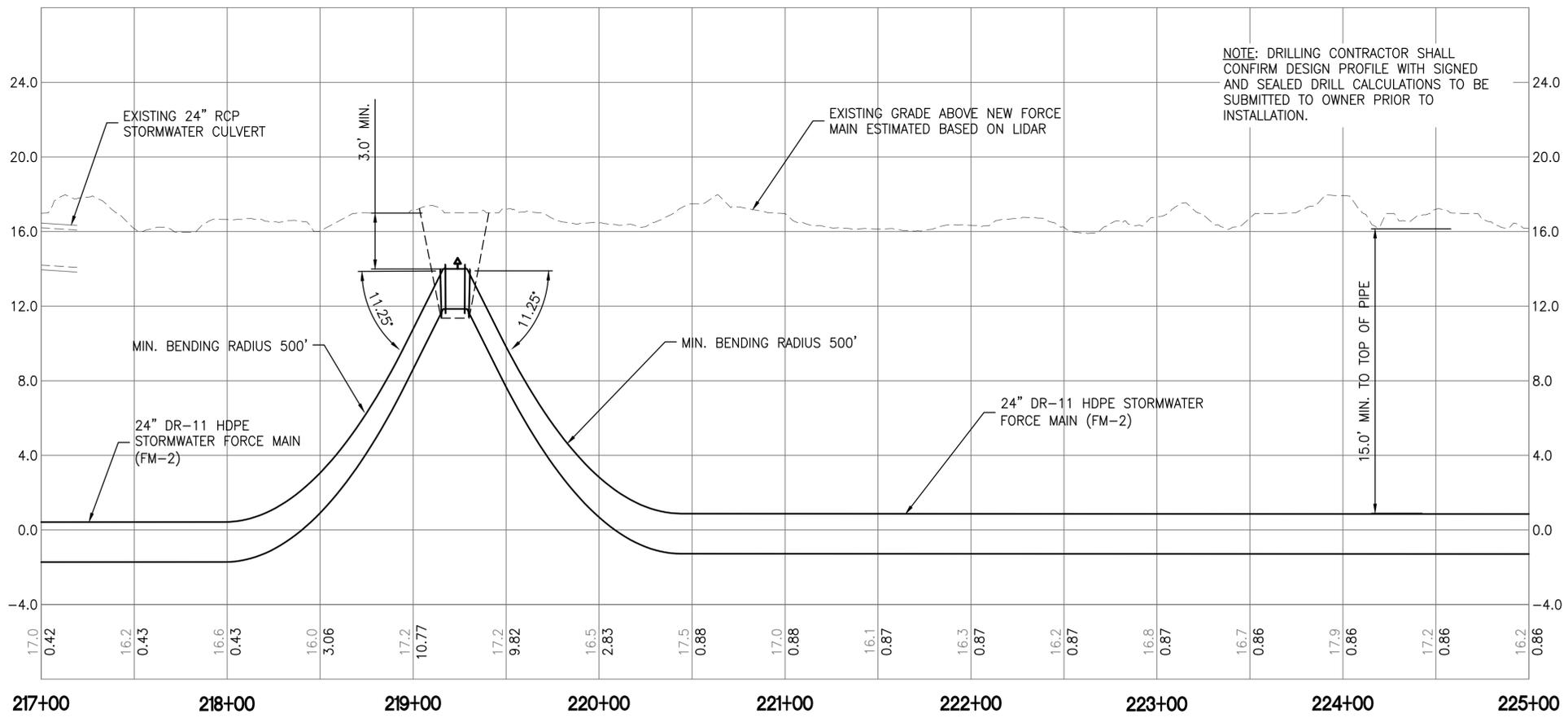
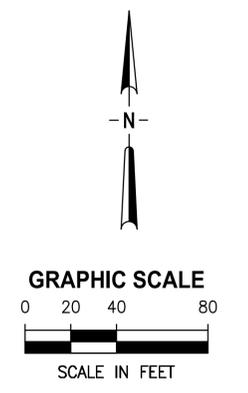
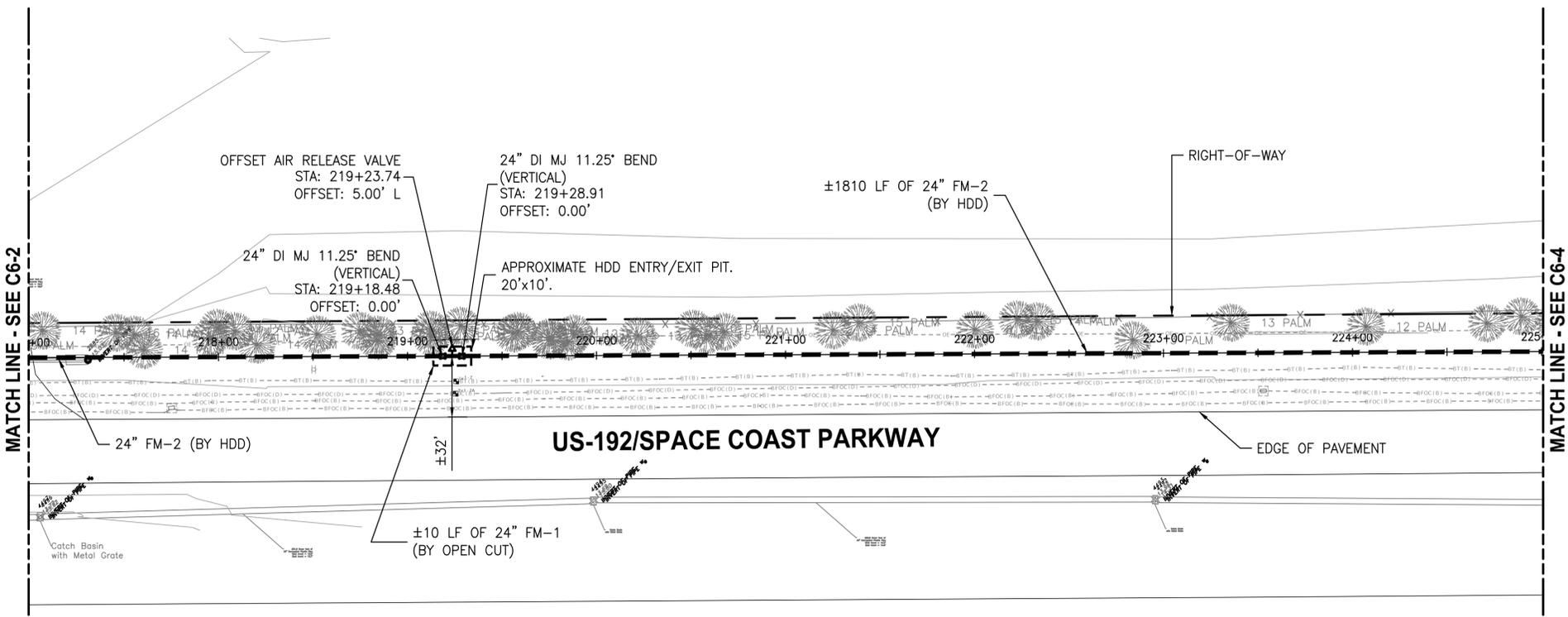
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN
 PLAN AND PROFILE**

<small>DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306</small>	PROJECT NO: 19750-066-01	DATE: JULY 2022
<small>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED.</small>	INDEX NO:	DWG NO: C6-1

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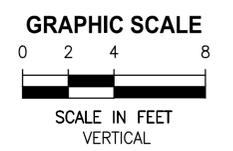
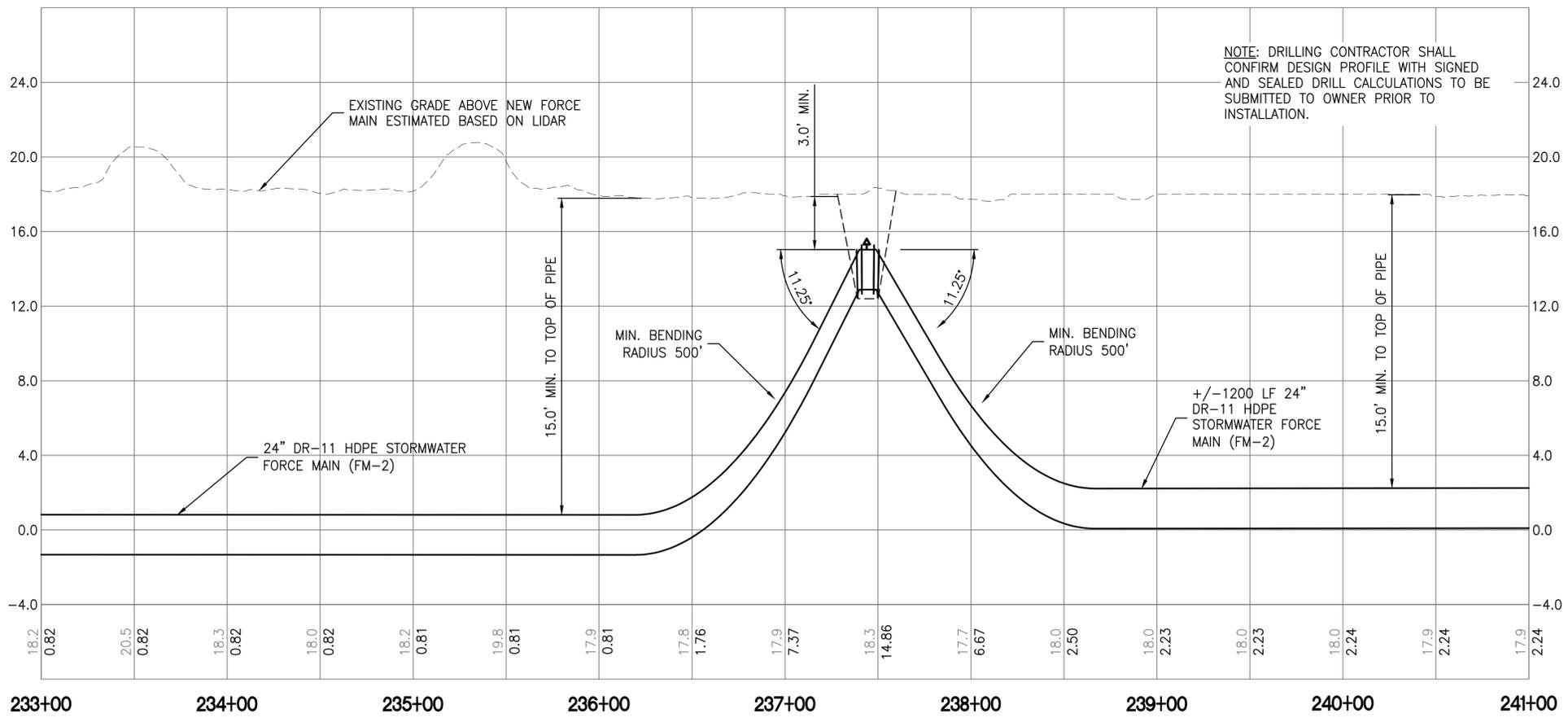
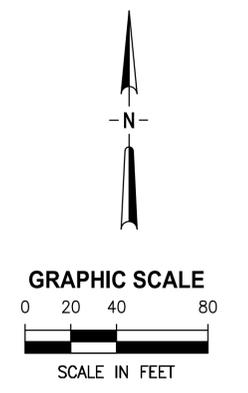
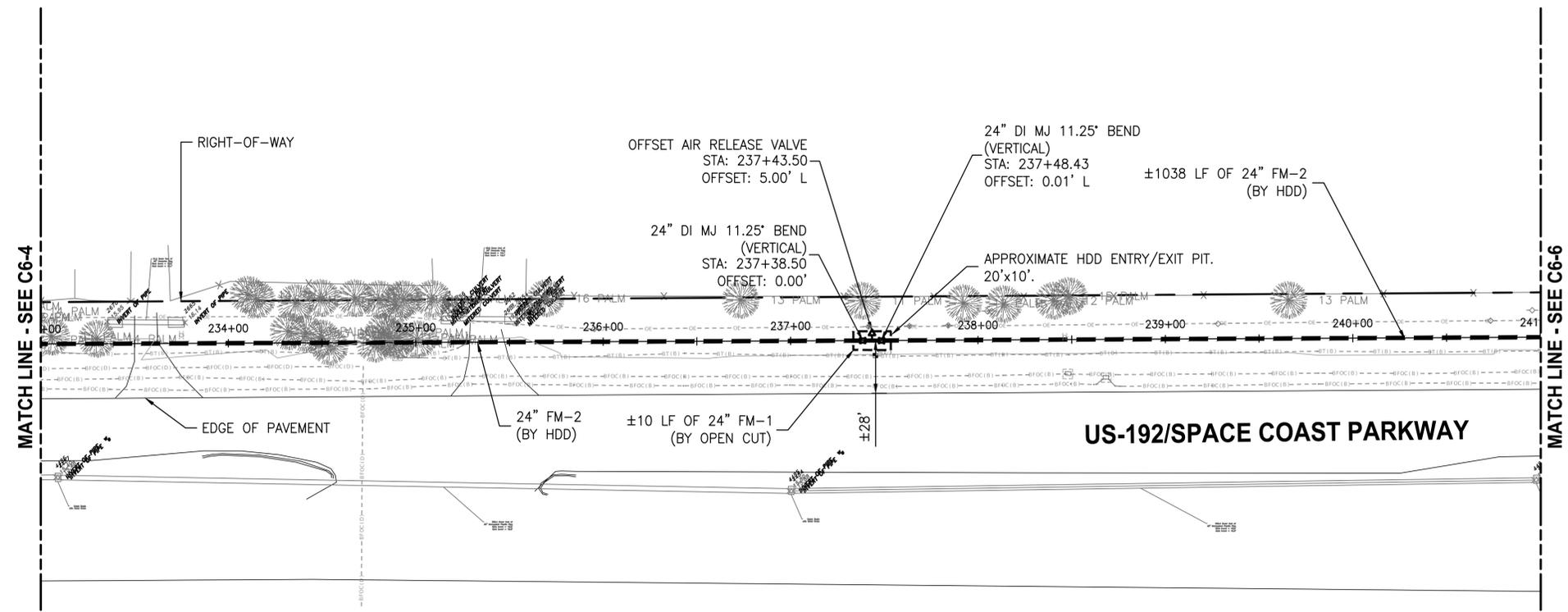
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN
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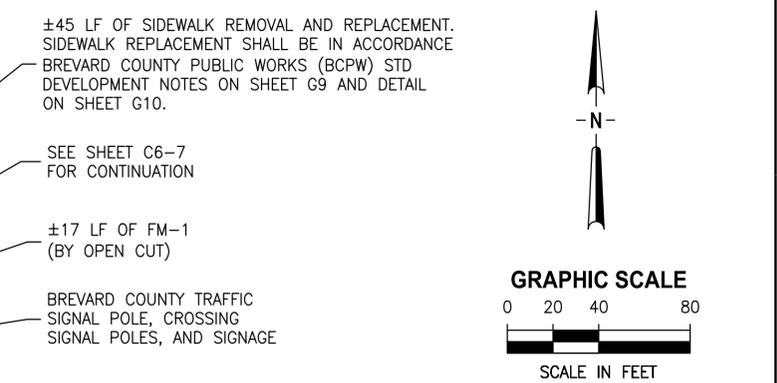
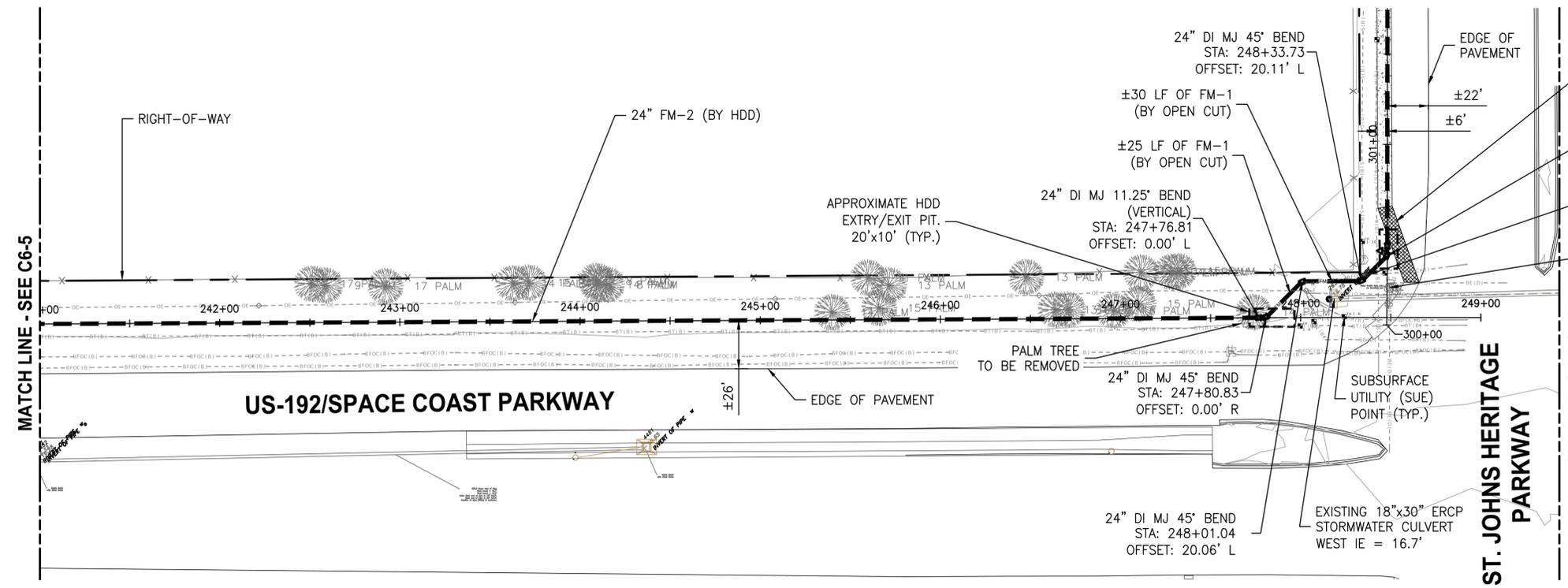
DESIGNED	D. SHELDON			
DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
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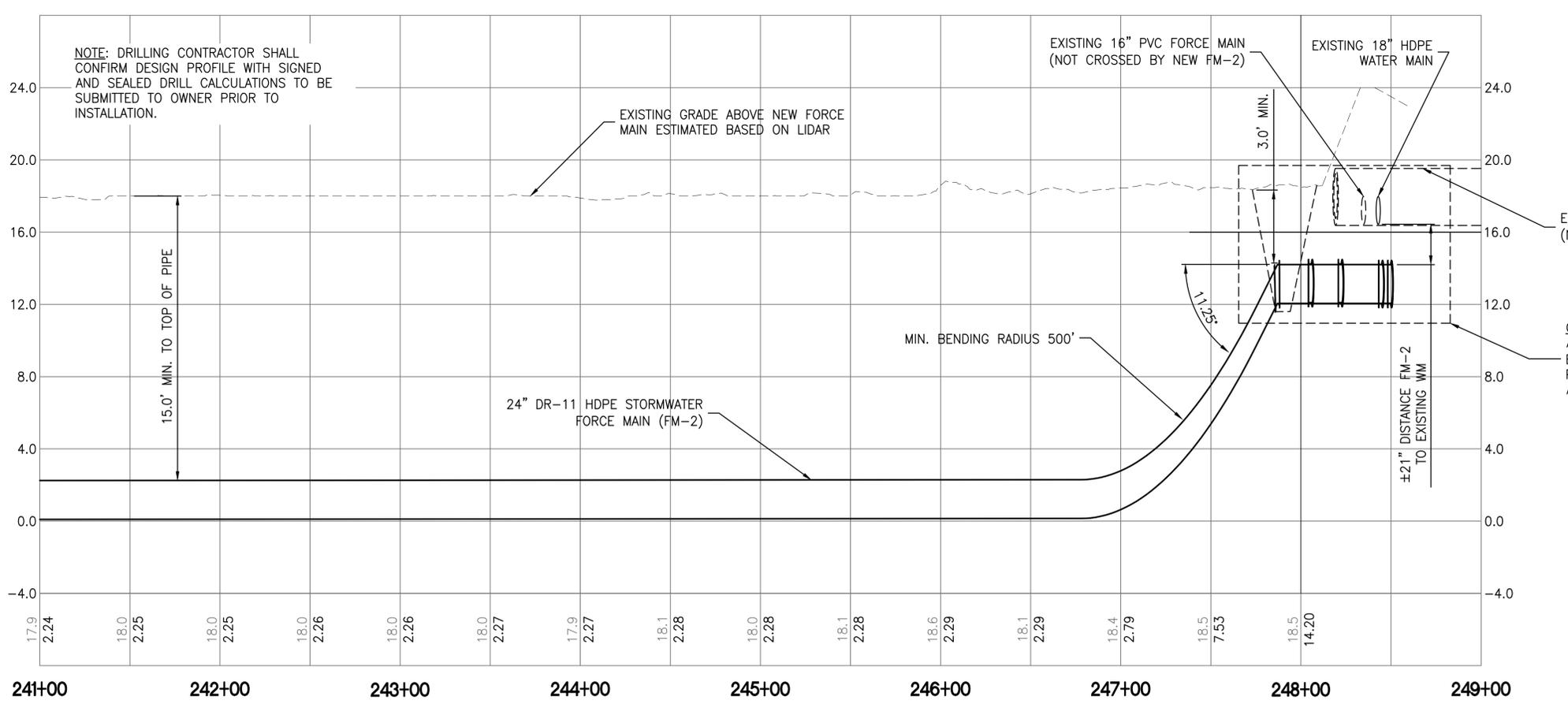
**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

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 PLAN AND PROFILE**

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- NOTES:
- CONTRACTOR SHALL PROTECT TRAFFIC SIGNAL POLE AND FOUNDATION, WHICH ARE OWNED AND MAINTAINED BY BREVARD COUNTY, FROM DAMAGE DURING UTILITY EXCAVATION, BACKFILLING AND COMPACTION VIA SHORING OR OTHER SUITABLE SUPPORT METHOD. SUBMIT A PLAN FOR ENGINEER AND BREVARD COUNTY APPROVAL PRIOR TO THE WORK IN THIS AREA.
 - CONTRACTOR SHALL PROTECT TRAFFIC SIGNAGE (COUNTY OWNED AT THE INTERSECTION AND ALONG SJHP), TELEPHONE POLE GUY WIRES, AND EXISTING BURIED UTILITY MARKERS FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE DAMAGED SIGNAGE IN ACCORDANCE WITH BREVARD COUNTY REQUIREMENTS (SEE DETAIL ON SHEET G10).
 - CONTRACTOR SHALL PROVIDE SHORING AT LEAST 2' FROM RIGHT-OF-WAY LINES AS NECESSARY TO ENSURE NO ENCROACHMENT OF WORK OUT OF RIGHT-OF-WAY.
 - CONTRACTOR SHALL FIELD LOCATE BY HAND-DIGGING TO VERIFY EXISTING UTILITY LOCATION, SIZE, MATERIAL, DEPTH, ELEVATION, ETC. WITHIN 10' OF BOTH SIDES OF THE UTILITY TO BE CONSTRUCTED, INCLUDING AT ALL CROSSING AND CONNECTION POINTS.
 - CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS IN ADVANCE OF WORK AND SHALL REPAIR ANY DAMAGE TO EXISTING UTILITIES TO THE SATISFACTION OF THE UTILITY OWNER.



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CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

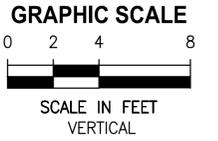
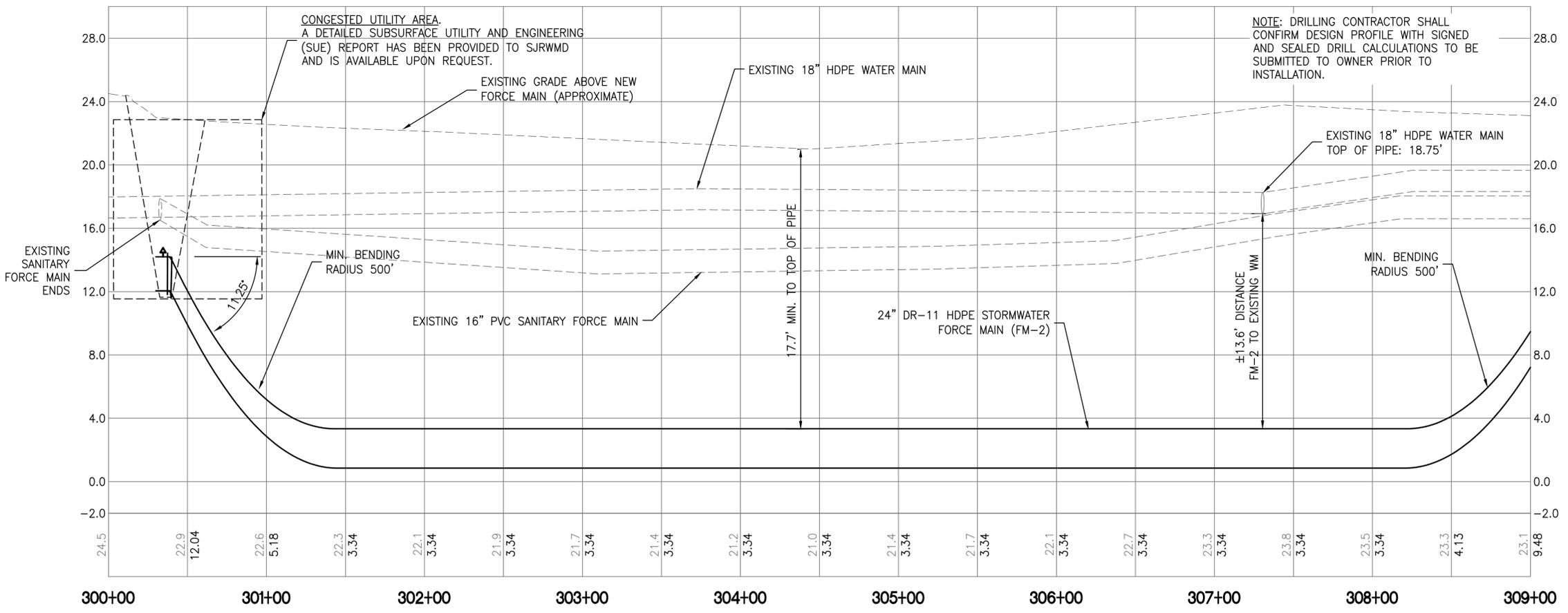
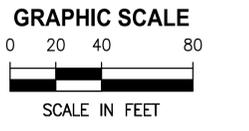
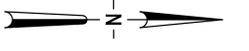
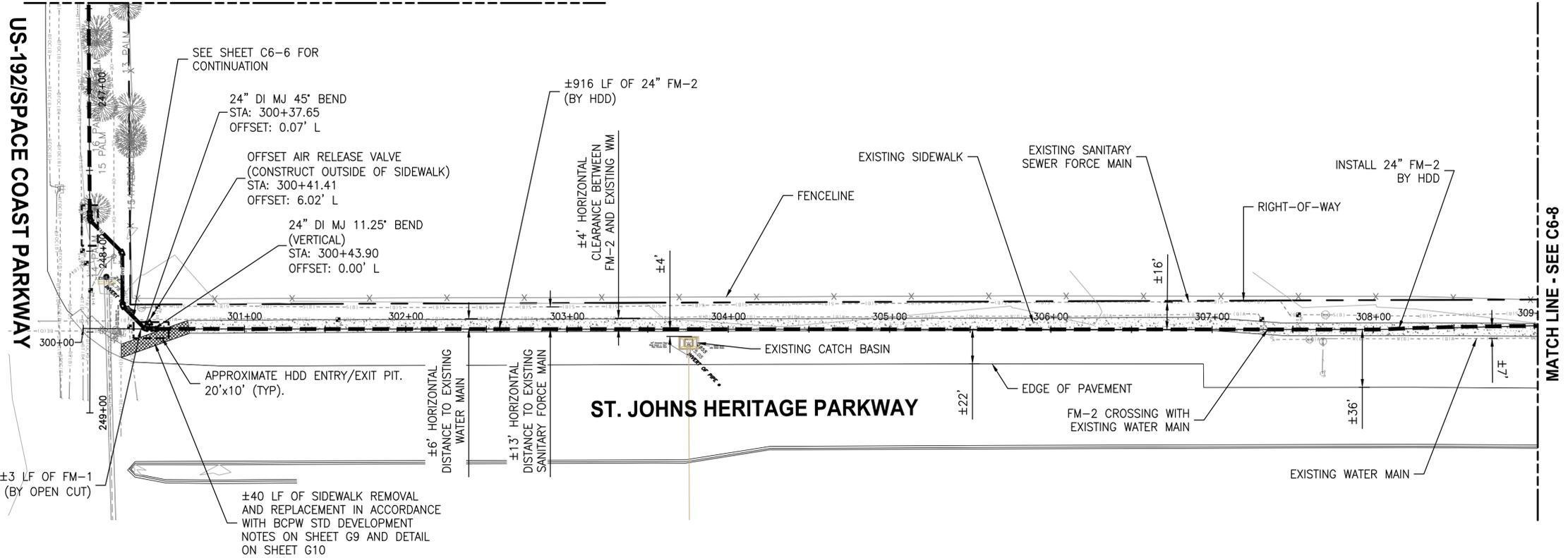
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN
 PLAN AND PROFILE**

DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR., ON THE DATE INDICATED.	INDEX NO: C6-6	DWG NO: C6-6
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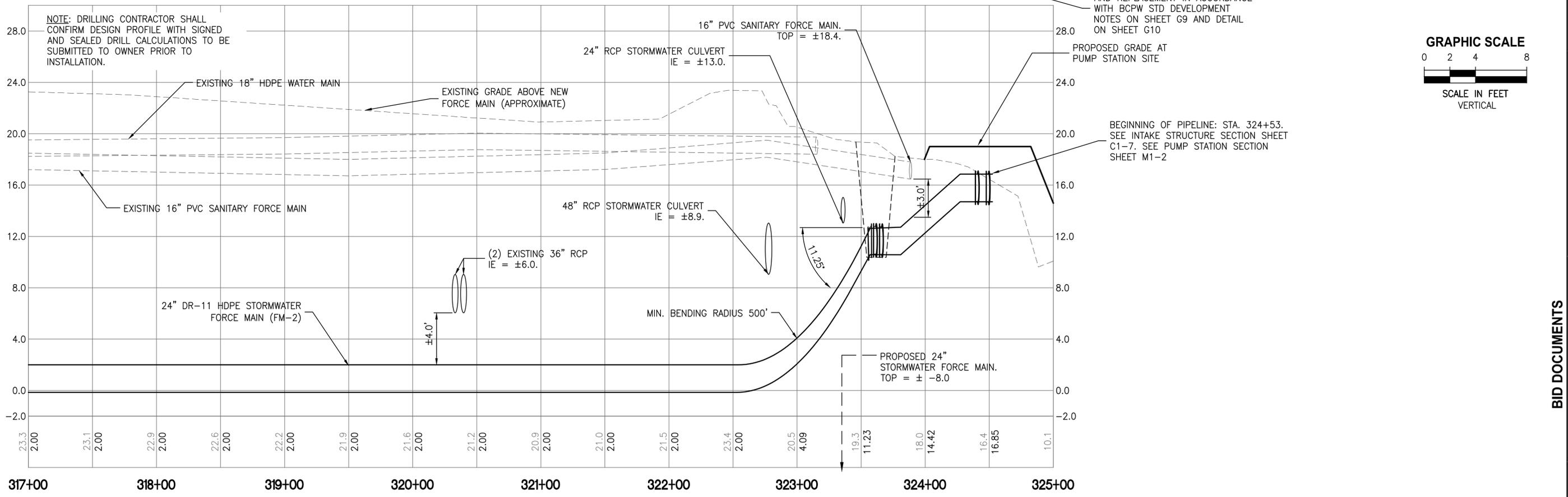
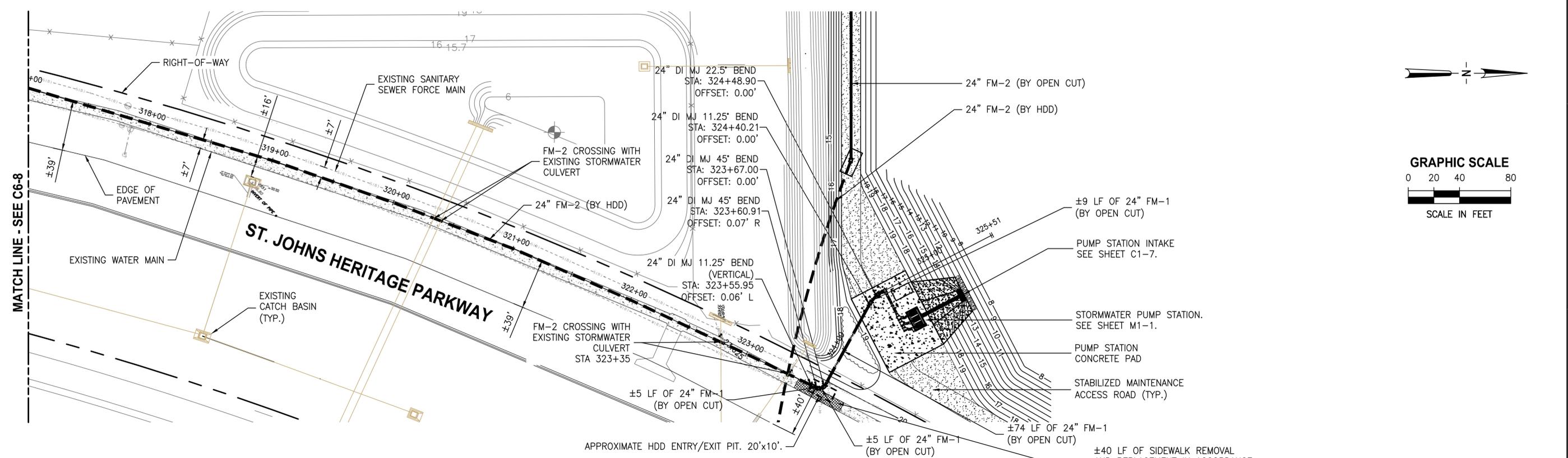
**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN
 PLAN AND PROFILE**

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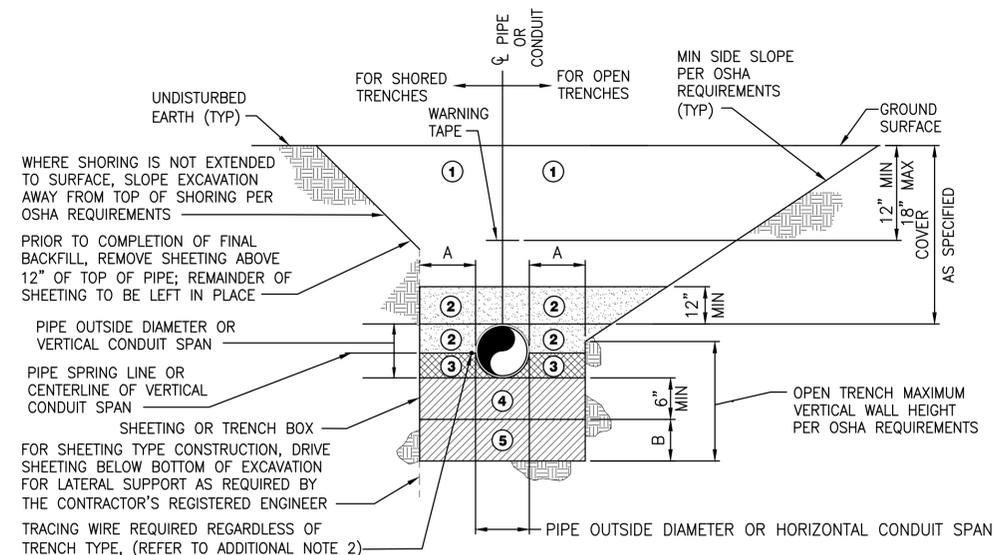
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN
 PLAN AND PROFILE**

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NOMINAL PIPE DIAMETER OR HORIZONTAL CONDUIT SPAN (INCHES)	ADDITIONAL EXCAVATION DEPTH (1)	
	A (INCHES)	B (INCHES)
LESS THAN 24	12	12
24 AND GREATER	18	18

ZONE NO.	ZONE NAME	MATERIAL	COMPACTION
1	FINAL BACKFILL	AS SPECIFIED	AT LEAST 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY ASTM D-1557 (98% WHEN UNDER PAVEMENT)
2	INITIAL BACKFILL		
3	HAUNCHING		
4	BEDDING		
5	FOUNDATION		

(1) REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.

TRENCH ZONE NOTES:

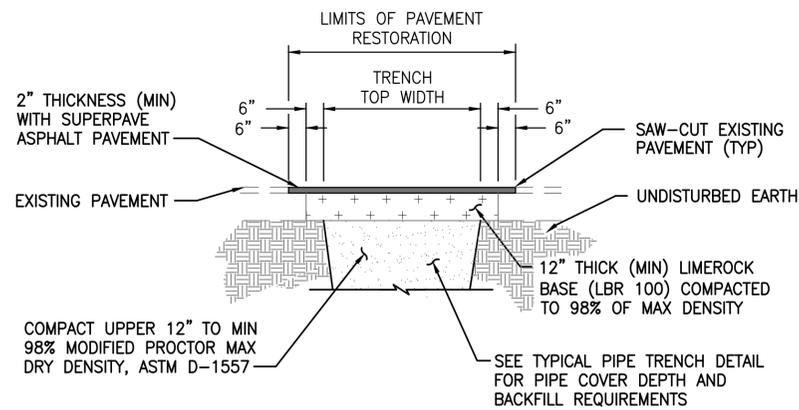
- FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. REFER TO ADDITIONAL NOTE 3.
 - INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING. REFER TO ADDITIONAL NOTE 3.
 - HAUNCHING SHALL BE IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE.
 - BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED BY HAND OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE BEDDING TO PERMIT ASSEMBLY OF THE PIPE. REFER TO ADDITIONAL NOTE 3.
- NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF THE BELL HOLES, AND WHERE REFILL IS REQUIRED.
- FOUNDATION SHALL BE REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED. FOUNDATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR BEDDING. REFER TO ADDITIONAL NOTE 3.

ADDITIONAL NOTES:

- FOR TRENCHES IN VEHICULAR TRAFFIC AREAS OR BENEATH SURFACE IMPROVEMENTS (EG, SLABS, ASPHALT, ETC.) SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL COMPACTION REQUIREMENTS. SEE DRAWINGS FOR SURFACE IMPROVEMENT AND /OR RESTORATION DETAILS WHERE APPLICABLE.
- TRACING WIRE SHALL BE INSTALLED ON THE SIDE OF THE PIPE AND ATTACHED TO THE PIPE EVERY 10' W/ A NYLON WIRE TIE. IF THE WIRE IS DAMAGED OR NEEDS TO BE EXTENDED A 3M WATERPROOF TYPE UF SPLICE SHALL BE INSTALLED TO REPAIR THE WIRE. THE ENDS OF THE TRACING WIRE SHALL BE BROUGHT UP IN EVERY VALVE BOX ON THE LINE AND AT THE HYDRANT VALVES. THERE SHALL BE A MINIMUM COIL OF 3' LEFT UNDER THE VALVE BOX COVER. THE WIRE SHALL BE TESTED TO VERIFY CONDUCTIVITY.
- ALTERNATIVE LIFT THICKNESSES, NOT EXCEEDING 12 INCHES LOOSE MEASUREMENT, ARE ACCEPTABLE IN TRENCH ZONES 1, 2, 4, AND 5 PROVIDED 1) THE LIFT THICKNESS DOES NOT EXCEED THE MAXIMUM VALUE RECOMMENDED IN WRITING BY THE APPLICABLE PIPE MANUFACTURER AND 2) FIELD TEST RESULTS CONFIRM THAT THE SPECIFIED COMPACTION REQUIREMENTS ARE BEING MET.

TYPICAL UTILITY TRENCH DETAIL

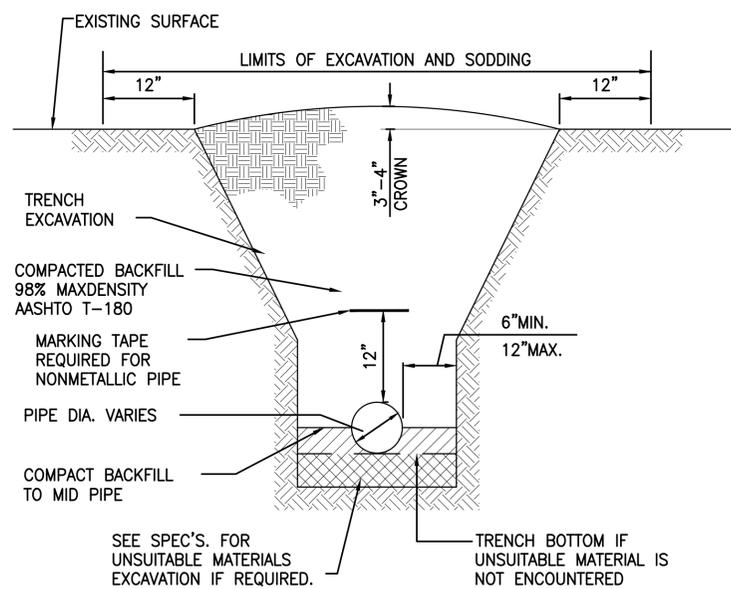
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NOTE:
ASPHALT PAVEMENT RESTORATION DETAIL APPLIES TO ROADS, DRIVEWAYS, PRIVATE ROADS, DRIVES, MISCELLANEOUS PATCHES, AND SIMILAR RESTORATION. WORK IN THE BREVARD COUNTY RIGHT-OF-WAY SHALL BE RESTORED IN ACCORDANCE WITH THE BREVARD COUNTY STANDARDS AND DETAILS.

TYPICAL ASPHALT PAVEMENT RESTORATION DETAIL

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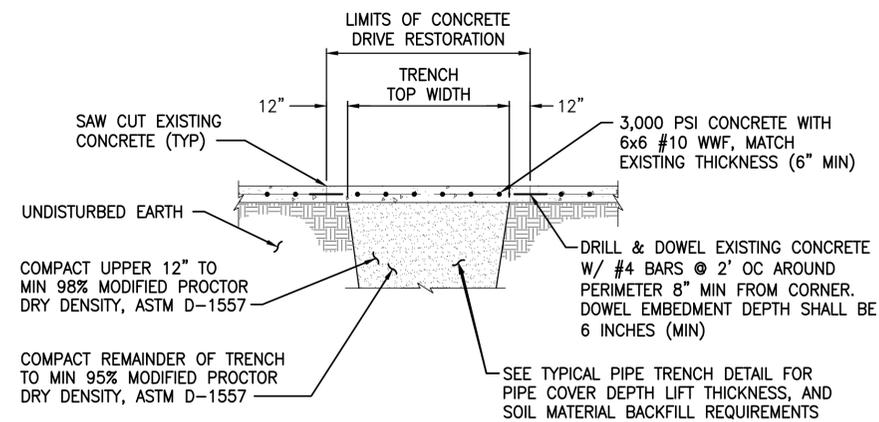


NOTES :

- DEWATERING SHALL CONTINUE UNTIL BACKFILL IS COMPACTED AT LEAST 2 FEET ABOVE PIPE.
- SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
- CONTRACTOR SHALL SLOPE TRENCH IN ACCORDANCE WITH OSHA STANDARDS SHOW IN ABOVE TABLE B-1.

TYPICAL TRENCH IN UNPAVED AREAS DETAIL

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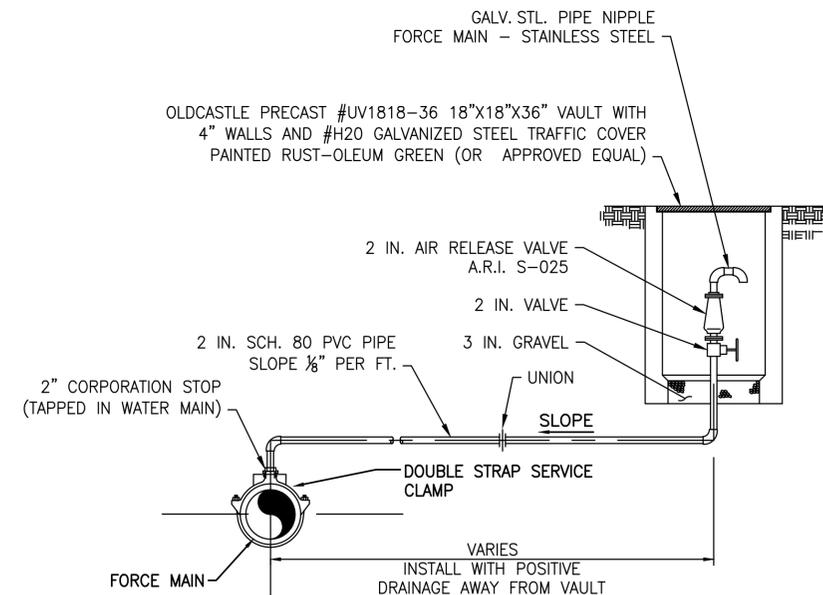


NOTES:

- DRILL AND DOWEL 1 LOCATION EACH SIDE FOR CURB REPAIR.
- MATCH EXISTING GRADE AND FINISH.

TYPICAL CONCRETE DRIVEWAY RESTORATION DETAIL

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OFFSET AIR RELEASE VALVE DETAIL

NTS

1

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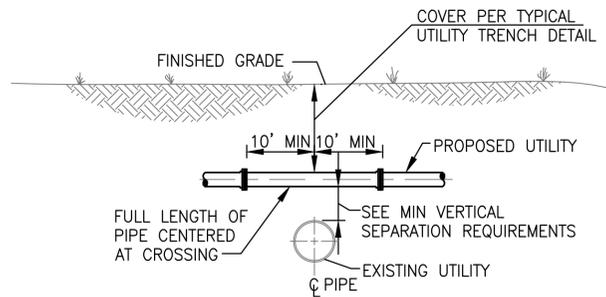
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**CRANE CREEK
M-1 CANAL FLOW RESTORATION
VOLUME 2**

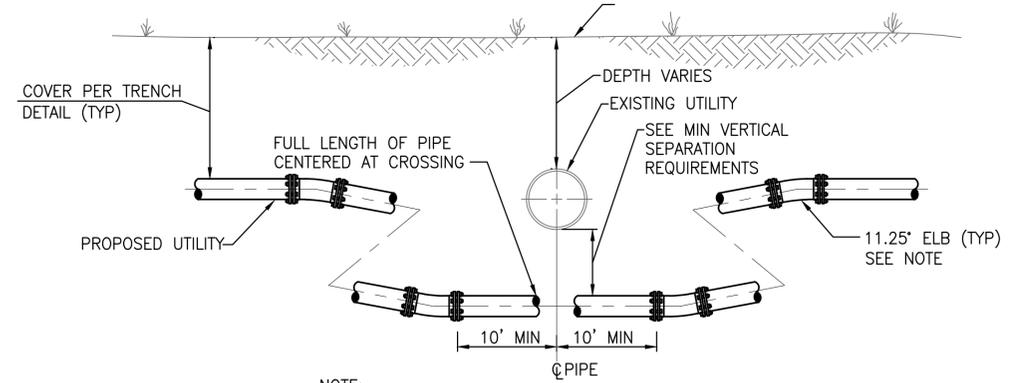
**DISCHARGE STORMWATER FORCEMAIN
PLAN AND PROFILE**

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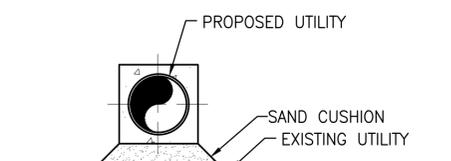
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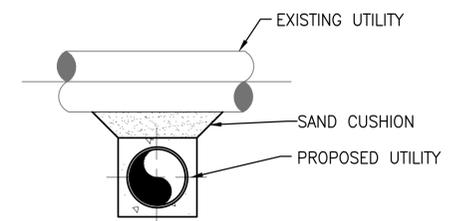
OPTION 1 (SUFFICIENT COVER AND SEPARATION AVAILABLE)



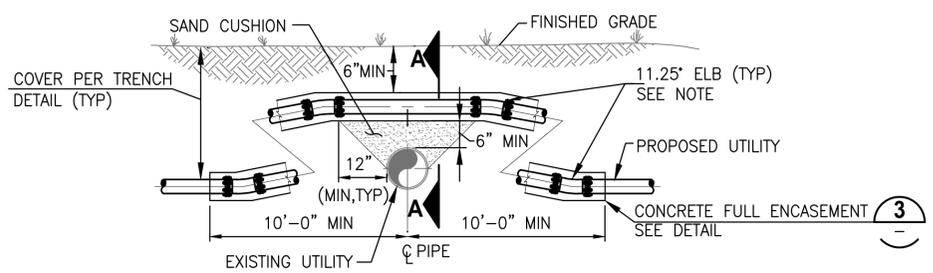
OPTION 2 (SUFFICIENT SEPARATION AVAILABLE)



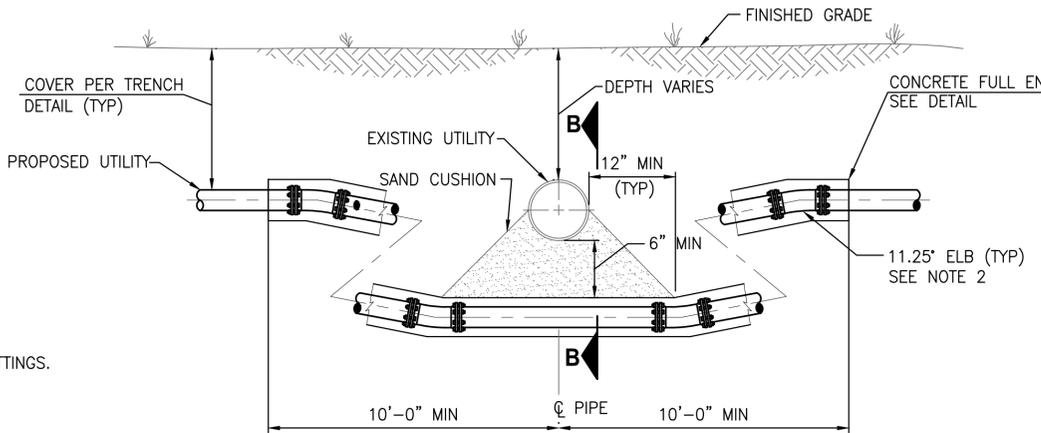
SECTION A-A



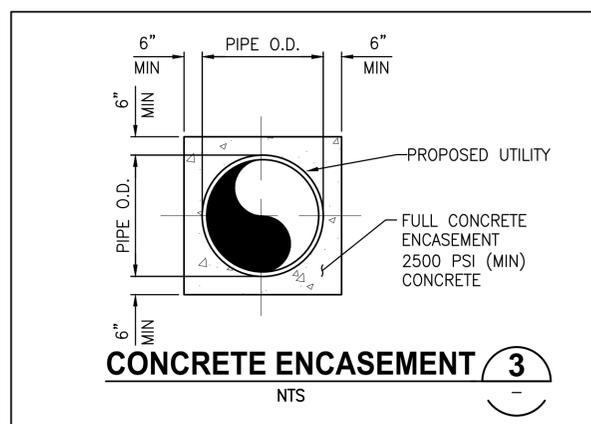
SECTION B-B



ALTERNATE OPTION 1 (SUFFICIENT COVER OR SEPARATION NOT AVAILABLE)



ALTERNATE OPTION 2 (SUFFICIENT SEPARATION NOT AVAILABLE)



- NOTES:**
- FOR PROPOSED WATER MAINS, THIS OPTION IS ONLY ALLOWED WITH APPROVAL OF THE ENGINEER AND FDEP ON A CASE BY CASE BASIS.
 - WITH APPROVAL OF ENGINEER, CONTRACTOR MAY DEFLECT PIPE AS SPECIFIED INSTEAD OF USING FITTINGS.

PROPOSED UTILITY	EXISTING UTILITY						COMMENTS
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS	
POTABLE WATER	1'-0"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	SEE NOTE 1
GRAVITY SANITARY SEWER	1'-6"	1'-0"	1'-0"	1'-6"	1'-6"	1'-0"	
SEWAGE FORCE MAIN	1'-6"	1'-0"	1'-0"	1'-0"	1'-6"	1'-0"	SEE NOTE 2
STORM	1'-0"	1'-6"	1'-0"	1'-0"	1'-0"	1'-0"	
RECLAIMED WATER	1'-0"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	SEE NOTE 2
ELECTRIC TELECOMMUNICATIONS	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	

NOTE:
1. ONLY OPTION 1 CONSTRUCTION IS ALLOWED WITHOUT APPROVAL OF ENGINEER.

MINIMUM VERTICAL SEPARATION REQUIREMENTS



PROPOSED UTILITY	MINIMUM HORIZONTAL SEPARATION EXISTING UTILITY					
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS
POTABLE WATER	1'-0"	10'-0"	10'-0"	3'-0"	3'-0"	3'-0"
GRAVITY SANITARY SEWER	10'-0"	1'-0"	1'-0"	3'-0"	3'-0"	3'-0"
SEWAGE FORCE MAIN	10'-0"	1'-0"	1'-0"	3'-0"	3'-0"	3'-0"
STORM	3'-0"	3'-0"	3'-0"	1'-0"	3'-0"	3'-0"
RECLAIMED WATER	3'-0"	3'-0"	3'-0"	3'-0"	1'-0"	3'-0"
ELECTRIC TELECOMMUNICATIONS	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	2'-0"

NOTE:
UTILITIES SHALL NOT BE INSTALLED WITHIN THE DRIP LINE OF TREES WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.



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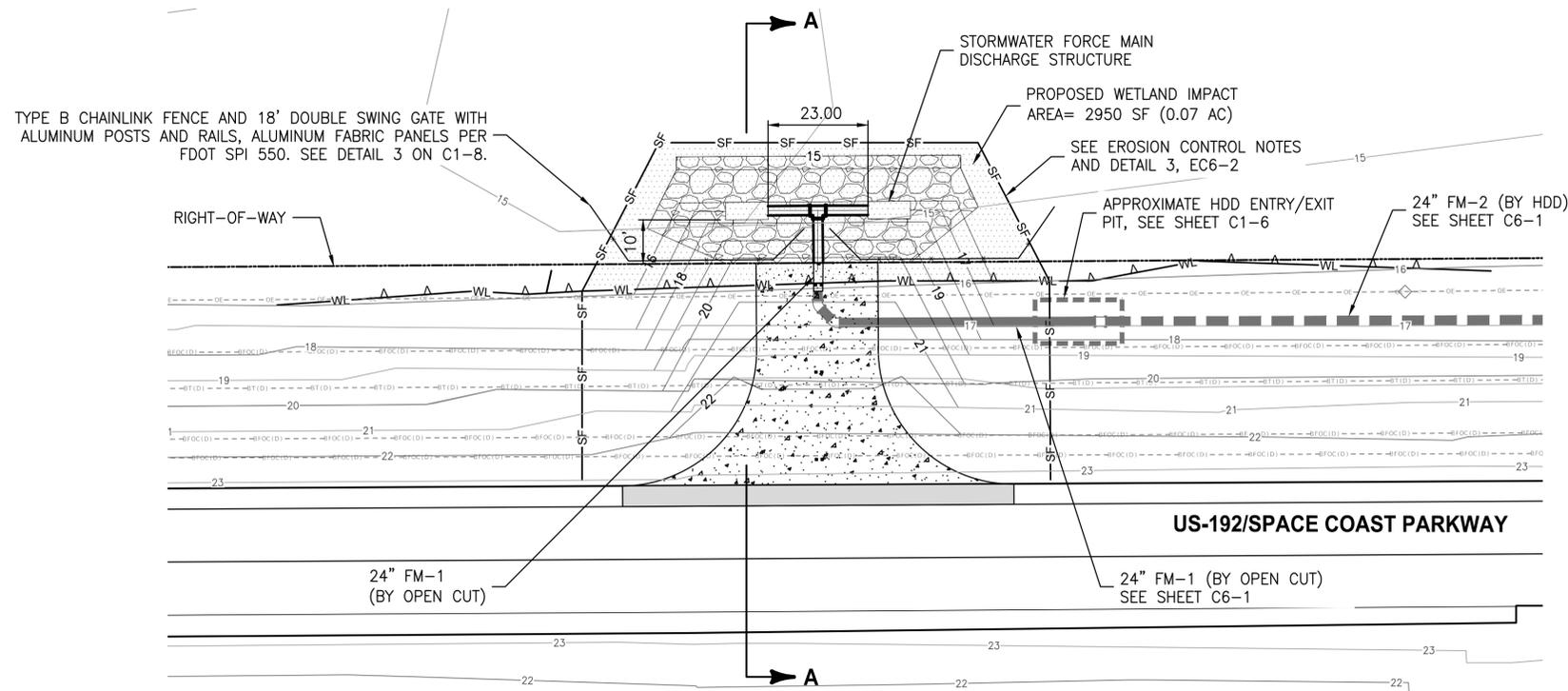
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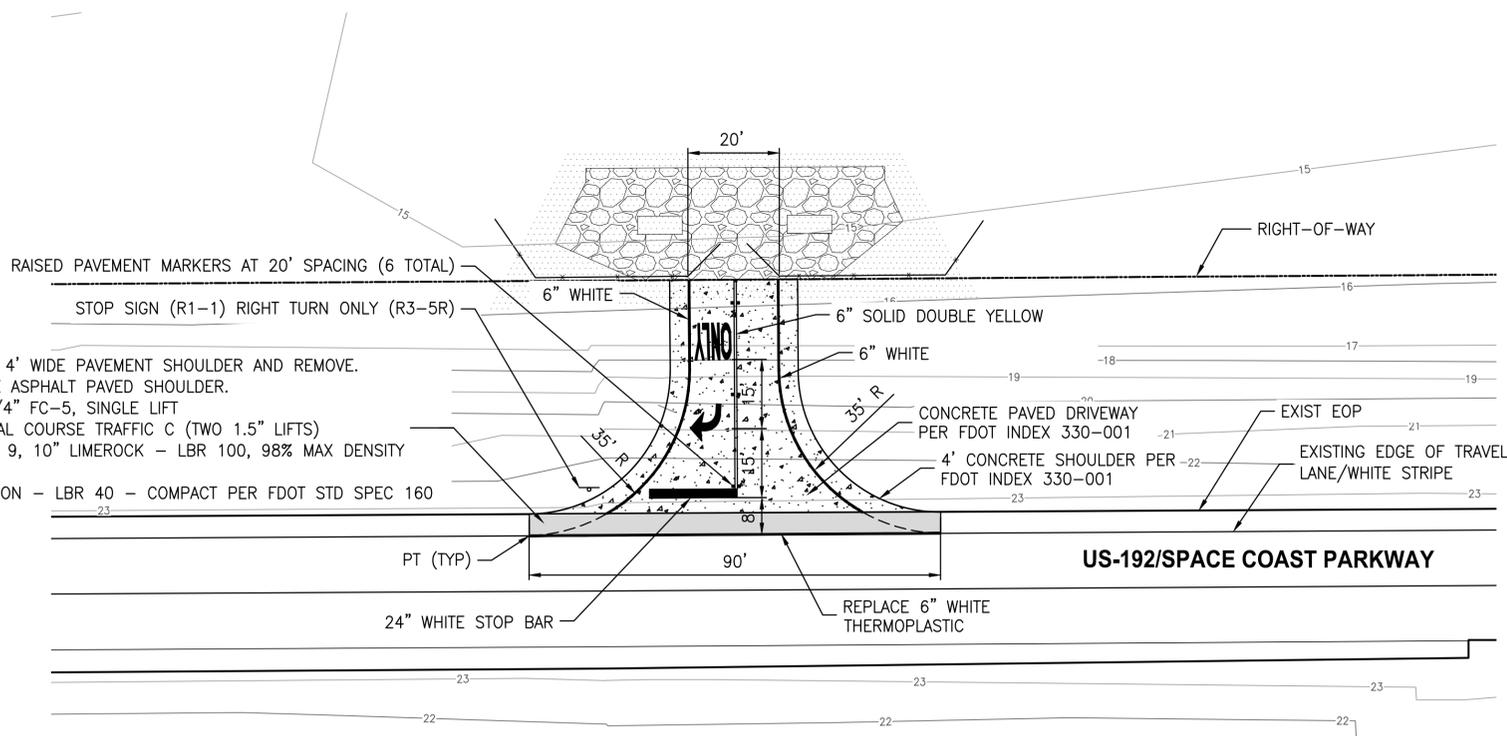
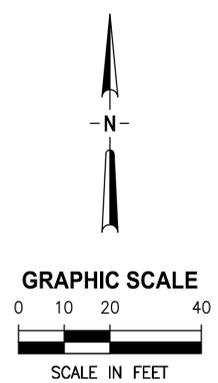
**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN
 PLAN AND PROFILE**

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	INDEX NO: C6-11	DWG NO: C6-11



OUTFALL STRUCTURE DETAIL



DRIVEWAY PAVEMENT AND MARKINGS DETAIL

FDOT GENERAL NOTES:

1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH 2022/2023 EDITION OF THE FDOT STANDARDS PLANS FOR ROAD AND BRIDGE CONSTRUCTION, JAN. 2022 SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2017 UTILITY ACCOMMODATION MANUAL.
2. ALL EXCAVATIONS WITHIN TEN (10) FEET OF THE TRAVEL LANES AND GREATER THAN THREE (3) INCHES DEEP MUST BE FILLED IN OR HAVE A SHOULDER TREATMENT PLACED AT THE DROP-OFF PER INDEX #102-600 OF FDOT 2021/22 STANDARDS PLANS INDEXES AT THE END OF THE WORK DAY.
3. CONTRACTOR SHALL CONTACT FDOT TWO WEEKS IN ADVANCE AND SET UP A PRE-CONSTRUCTION MEETING PRIOR TO STARTING ANY WORK IN FDOT RIGHT OF WAY.
4. ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE WORK CAN START.
5. MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A FDOT CERTIFIED WORK TRAFFIC SUPERVISOR.
6. ENGINEER'S CERTIFICATIONS TOGETHER WITH AS-BUILT PLANS ARE REQUIRED TO BE SUBMITTED WITHIN 30 DAYS OF COMPLETION WORK WITHIN FDOT RIGHT-OF-WAY.
7. SOD ALL UNPAVED AREAS WITHIN FDOT RIGHT OF WAY THAT ARE DISTURBED BY CONSTRUCTION PER FDOT STANDARDS PLANS INDEX #570-010.
8. THE CONTRACTOR SHALL COMPLY WITH TRAFFIC CONTROL REQUIREMENTS IN ACCORDANCE WITH FDOT STANDARD PLANS 102-602 AND 102-603,
9. THE CONTRACTOR SHALL SOD SHOULDERS IN ACCORDANCE WITH FDOT STANDARD PLAN 570-010.
10. ALL PAVEMENT MARKINGS ARE TO BE PAINTED UNLESS NOTED OTHERWISE. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 971.

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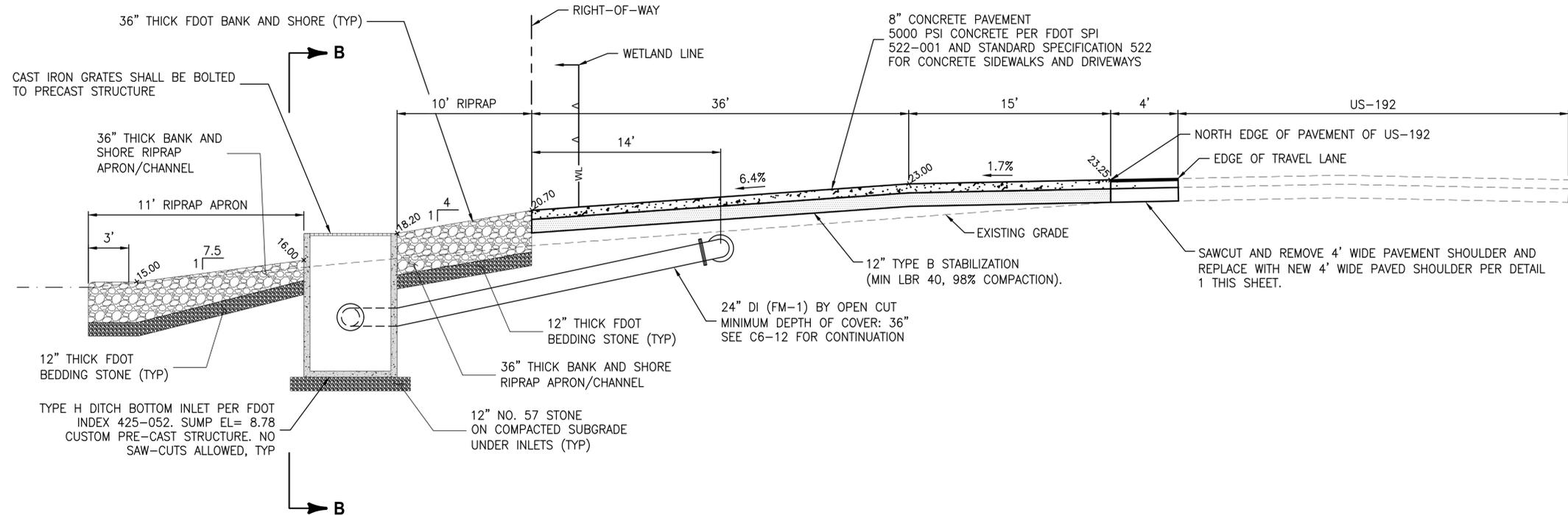
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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

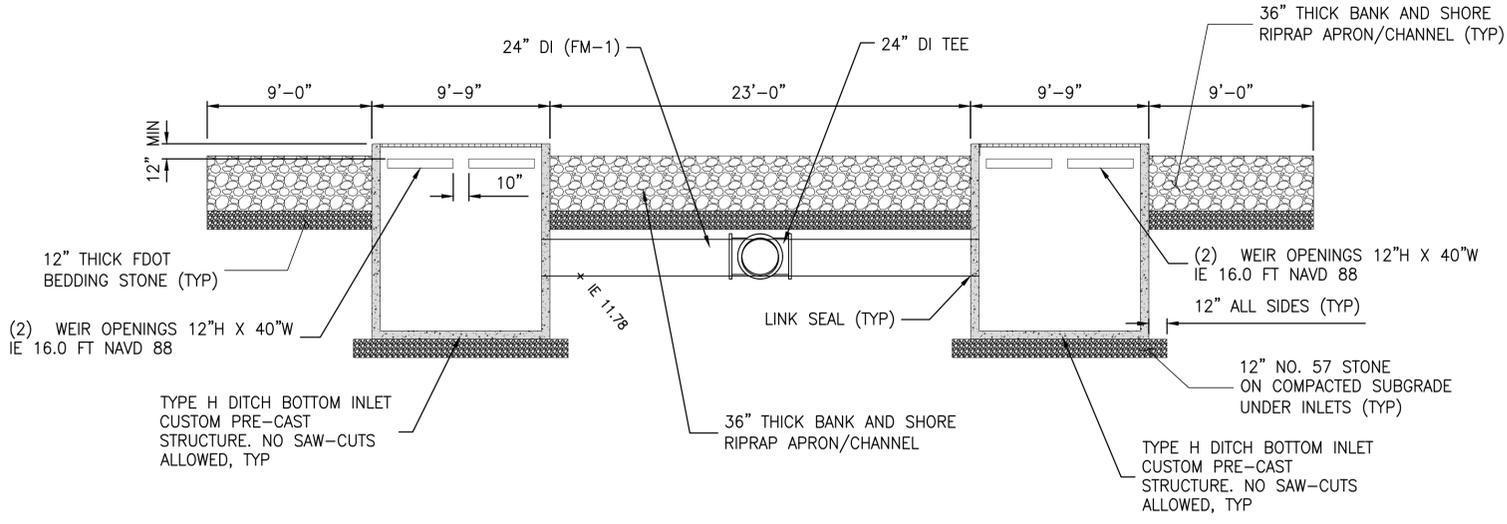
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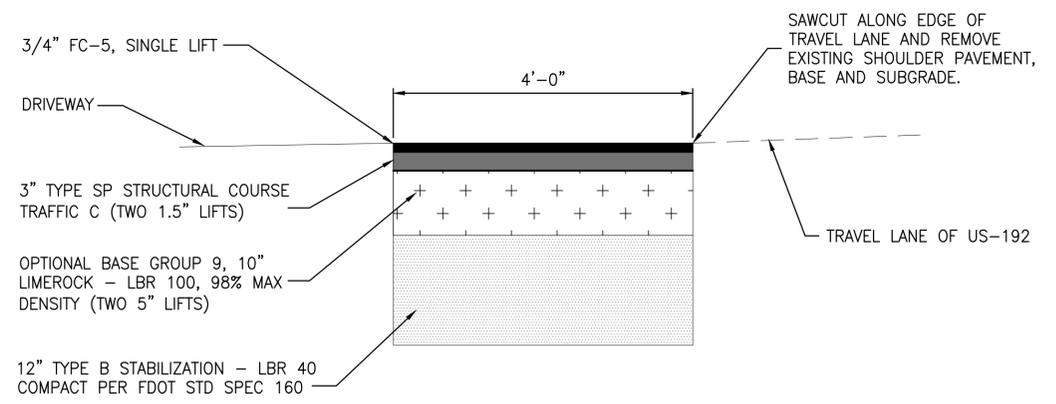
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SECTION A-A
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SECTION B-B
NTS



DETAIL 1 - MAINLINE SHOULDER DETAIL FOR US-192
NTS

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**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

OUTFALL STRUCTURE DETAIL

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CONTRACTOR REQUIREMENTS

Main table with columns: SITE DESCRIPTION, GENERAL, SPILL PREVENTION, MAINTENANCE/INSPECTION PROCEDURES. Includes sections like EROSION AND SEDIMENT CONTROL, SPILL CONTROL PRACTICES, and POLLUTION PREVENTION PLAN CERTIFICATION.

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BID DOCUMENTS

Revision table with columns: LTR., DATE, REVISIONS, BY, APPRD. Includes entries for DESIGNED, DRAWN, and CHECKED.

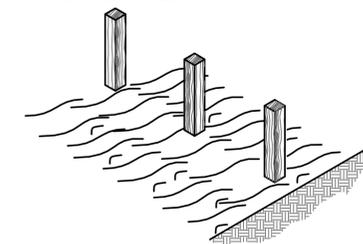
JonesEdmunds logo and contact information: CERTIFICATE OF AUTHORIZATION #1841, 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

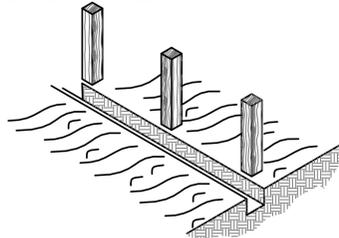
DISCHARGE SITE EROSION CONTROL PLAN

Project information table with columns: PROJECT NO., DATE, INDEX NO., DWG NO. Includes project number 19750-066-01 and date JULY 2022.

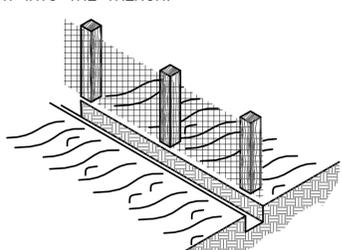
A. SET THE STAKES.



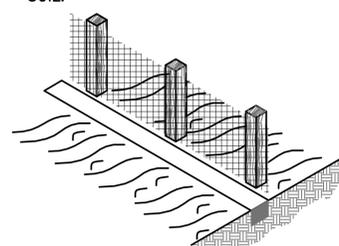
B. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



C. STAPLE SILT FENCE TO STAKES AND EXTEND IT INTO THE TRENCH.

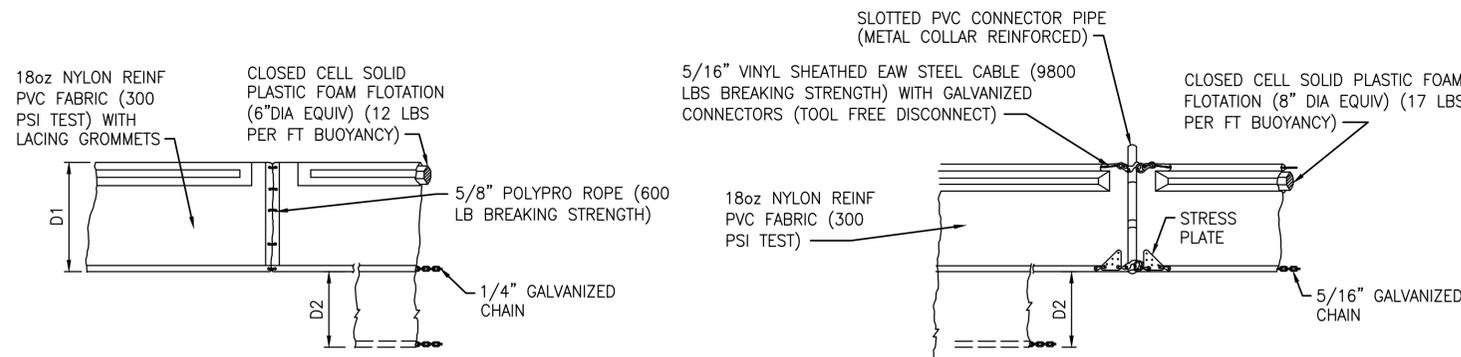


D. BACKFILL AND COMPACT THE EXCAVATED SOIL.



CONSTRUCTION OF A SILT FENCE DETAIL 1

NTS



TYPE 1

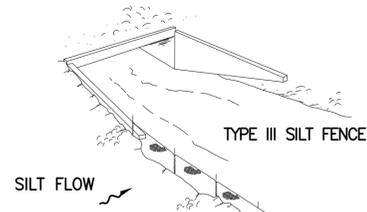
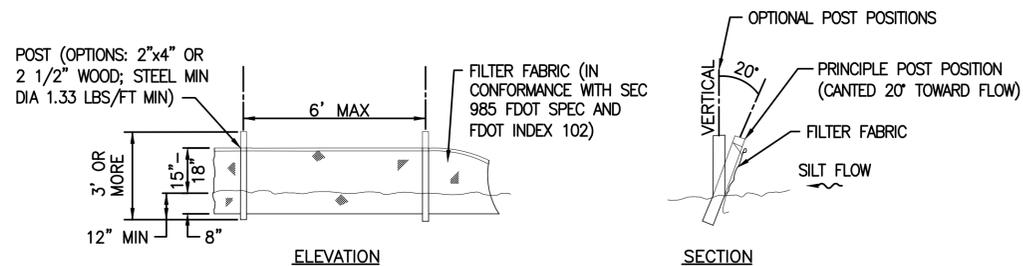
D1 = 5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)
D2 = 5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

TYPE 2

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

TYPICAL FLOATING TURBIDITY BARRIER DETAIL



TYPE III SILT FENCE



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

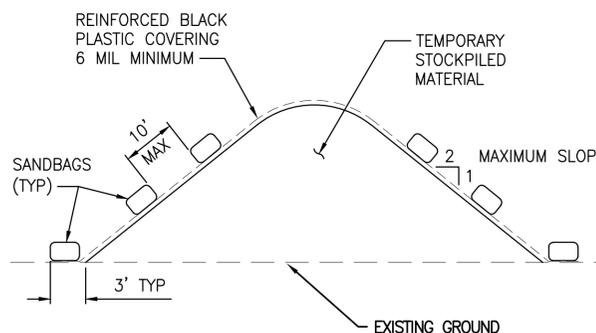
TYPE III SILT FENCE

NOTES:

- A. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- B. WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

FDOT INDEX NUMBER 102 SILT FENCE DETAIL 3

NTS



NOTES:

- 1. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH. ALL SEAMS SHALL HAVE A MINIMUM 12" OVERLAP.
- 2. SEAMS PARALLEL TO THE SLOPE CONTOUR SHALL HAVE THE UPHILL SHEET OVERLAP THE DOWN HILL SHEET.
- 3. NO SURFACE RUN-OFF SHALL BE ALLOWED TO RUN UNDER THE PLASTIC COVERING.
- 4. DRAINAGE FROM AREAS COVER BY REINFORCED PLASTIC SHEETING SHALL BE CONTROLLED SUCH THAT NO DISCHARGE OCCURS DIRECTLY ONTO UNCONTROLLED DISTURBED AREAS OF THE CONSTRUCTION SITE.

TEMPORARY STOCKPILE COVERING

NTS

SAVED: 12/23/2021 2:23 PM JALLEN Y:\19750-SURWMD\PROJECTS\066-01_CRANE CREEK_M-1_FLOW_RESTORATION_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC6-2.DWG

BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

JonesEdmunds
CERTIFICATE OF AUTHORIZATION #1841
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK
 M-1 CANAL FLOW RESTORATION
 VOLUME 2**

**DISCHARGE SITE EROSION CONTROL
 NOTES**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:		DWG NO:	EC6-2