CITY OF JACKSONVILLE NOTES

GENERAL

All construction shall be performed in accordance with the approved plans and comply with all standard city policies and practices. City approval is contingent upon any required state or federal permit approvals such as those from the Department of Environmental Protection or the St. Johns River Water Management District (SJRWMD).

UTILITY WORK

http://www.jea.com/business/services/devandbuild/developers.asp

Plan approval through Development Services does not include utilities. Proposed water, sewer or electric construction must be approved separately through the respective utility company. In most cases, this will be:

JEA JEA Tower - 4th Floor 21 W. Church Street Jacksonville, FL 32202

http://row.jaxdev.info/

WORK WITHIN THE RIGHT-OF-WAY

CITY: Except for new subdivision infrastructure construction, all work performed within a City of Jacksonville right-of-way or easement requires a Right-of-way Permit. The contractor performing the proposed work must have a current Right-of-way Bond on file with Development Services. Right-of-way Permit applications are processed at:

Development Services Customer Service Counter Edward Ball Building, 2nd Floor 214 N. Hogan St. Jacksonville, FL 32202 (904) 255-8572

STATE: All work performed within a state right-of-way requires a permit from the Florida Department of Transportation (FDOT). It is the developer s responsibility to obtain required FDOT permits or maintenance-of-traffic approvals for work within FDOT right-of-ways. The FDOT regional office can be contacted at (904) 360-5200 Any changes to the approved plans needed for FDOT approval must be submitted to Development Services as revisions.

Adjacent State Roads

RAILROAD: Railroad companies may require special approvals or permits to work within their right-of-ways. It is the developer s responsibility to obtain permission from any railroad right-of-way owner before performing any work within their right-of-way.

STORMWATER

Annual reports in compliance with the SJRWMD stormwater permits are required from the maintenance entity of all stormwater management facilities. Send copies of the reports to:

Engineering and Construction Management Edward Ball Building, 10th Floor 214 N. Hogan St.

Jacksonville, FL 32202 http://www.coj.net/Departments/Public+Works/Engineering+and+Construction+Management/

The owner of any project one (1) acre or larger is required to provide a Notice of Intent (NOI) in accordance with criteria set forth in the city support supp

Florida Department of Environmental Protection NPDES Stormwater Notices Center, Mail Station #2510

2600 Blair Stone Road Tallahassee, Florida 32399-2400

Tallahassee, Florida 32399-2400 (866) 336-6312 http://www.dep.state.fl.us/water/stormwater/npdes/

The contractor shall contact the Environmental Quality Division, Erosion and Sedimentation Control Section (ESC) to provide verification that applicable stormwater permits have been obtained and to schedule a pre-construction ESC site inspection:

Environmental Quality Division 407 North Laura Street, Third Floo Jacksonville, FL, 32202 (904) 255-7222

FIRE MARSHALL

Plan review and approval does not relieve the contractor of complying with all applicable State Fire Codes.

Underground mains and hydrants shall be installed, completed, and in service prior to construction work.

Underground contractor shall submit to the Fire Marshall for approval complete specs for all underground pipe and

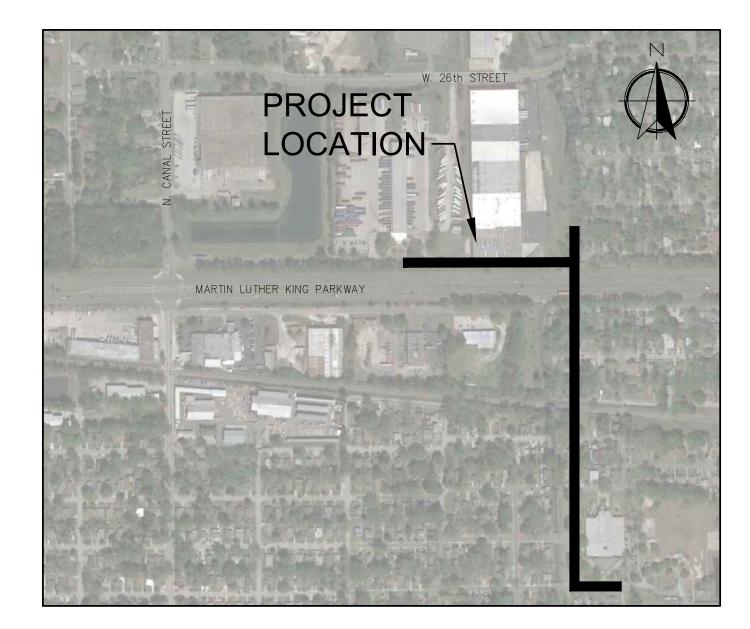
fittings relating to fire protection PRIOR to installation and inspection. Contractor shall include manufacturer sname and pipe ID along with contractor state license number.

LANDSCAPE

A Site Work Permit is required for this project.			
Tree Fund payment is due:	inches at \$	= \$	
Article 25 funds are due:	inches at \$	= \$	

TRAFFI	C ENGIN	EERIN	۱G	
TRAFFIC	SIGNS			
Metro Name		\$55.00	ea.	
Standard		\$55.00	ea.	
Stop/Yield		\$55.00	ea.	
Design		\$55.00		
Installation		\$55.00	/hr.	
		TOTAL		
Streetligh	ts Required			
installation, the	developer must pay t e phase. If the devel	he for the sign	ns at the	costs change after plan approval but prior to payment for e current costs. The above total assumes the subdivision will separate phases, design and installation will be calculated
No lane closure	s allowed from 7 a.m	. till 9 a.m. and	d from 4	p.m. till 6 p.m.

KINLOCK PUMP STATION FORCE MAIN UPGRADE



VICINITY MAP

Sheet Index

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C-13	TEMPORARY TRAFFIC CONTROL - NOTES AND DETAILS

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY Claro N. Magpantay, P.E. ON

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

C&ES
CONSTRUCTION & ENGINEERING SERVICES CONSULTANTS, INC.
9432 BAYMEADOWS ROAD, SUITE 100
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION #27598

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.: C-1 THROUGH C-13

E.O.R.: Claro N. Magpantay, P.E., No. 60164



PLAN APPROVAL



Jacksonville, FL 32256 Phone: 904–652–1186

Business Number CA 27598 candesconsults.com

Date Development Services Division (Chief)

Date Review Group (Reviewer)

Plan approval is valid for five years after the initial approval date. Revisions made after the initial approval date do not

PLAN APPROVAL IS SUBJECT TO THE FOLLOWING NOTES AND CONDITIONS:

extend this five-year time frame.

-					

GENERAL PROJECT INFORMATION

<u>GENERAL</u>	
City Development Number	4161.249
Concurrency Application Number	
Property Appraiser Number (RE #)	
Zoning Designation	<u>-</u>
PUD Ordinance Number	N/A
FIRM Community Panel	
Flood Zones (Show in Plans)	NA
Base Flood Elev. (Show in Plans)	N/A
Vertical Datum Used for Project	
JEA Availability Number	N/A
SUBDIVISION	
PSD Number	N/A
City or Private Inspection	N/A
Public or Private Roads	N/A
Subdivision (911) Disk Provided?	N/A
NON-SUBDIVISION	
North American Industry	
Classification System (NAICS)	NI/A
• • • • • • • • • • • • • • • • • • • •	N/A
Impervious Area (Sq. Ft.)	N/A

SURVEY AND LOCATE DATA:

- 1. ALL ELEVATIONS ARE BASED ON NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88) AND SHOWN IN FEET.
- 2. ELEVATIONS ARE BASED ON NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).
- □ 3. LOCATION OF EXISTING UTILITIES OBTAINED BY SOFT DIG LOCATES WHERE SHOWN ON PLANS, OR INCLUDED WITH BID
- 4. EXISTING WATER AND SEWER LINES ARE SHOWN AS PER FIELD LOCATES AND SUBDIVISION AS-BUILT PLANS.
 - 5. UNDERGROUND UTILITIES WERE LOCATED UTILIZING GROUND PENETRATING RADAR (GPR) AND A DIGITAL LOCATOR. CONTRACTOR SHALL BE AWARE THAT IN SOME CASES UTILITIES HAVE BEEN LOCATED, AND SURVEY HAS BEEN COMPLETED ONLY ON ONE SIDE OF THE ROAD.
- ☐ 6. ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE FROM CENTER TO CENTER OF MANHOLES, CATCH BASINS, INLETS ETC. OR ALONG THE CENTER LINE OF FORCE MAINS AND WATER MAINS.
- ☐ 7. INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.
- 8. THE LOCATION OF ALL EXISTING SEWER AND WATER SERVICE LINES MAY NOT BE INDICATED ON THESE PLANS. THE LOCATION OF NEW SERVICES SHALL BE VERIFIED IN THE FIELD.
- 9. BENCHMARK DATA: REFERENCE PROJECT BENCHMARK FOUND FDOT CONCRETE MONUMENT "7209006 GPS 3". ELEVATION 18.566 (NAVD 88) BY FDOT CONTROL POINT FORM.

PERMIT REQUIREMENTS (NOT ALL INCLUSIVE):

- CONTRACTOR TO OBTAIN ALL REQUIRED RIGHT-OF-WAY PERMITS.
 - 2. CONTRACTOR SHALL NOT OPEN CUT STREETS IN THE PROJECT AREA UNLESS SPECIFICALLY SHOWN ON PLANS
- 3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CONSUMPTIVE USE PERMIT (C.U.P.) THROUGH THE ST. JOHNS WATER MANAGEMENT DISTRICT SHOULD DEWATERING ACTIVITIES BE REQUIRED.
- 4. THE DEPARTMENT OF TRANSPORTATION, RAILROAD COMPANIES AND C.O.J. ARE TO BE NOTIFIED IN ADVANCE OF CONSTRUCTION PER THEIR RESPECTIVE PERMIT CONDITIONS.
- 5. ALL WORK SHALL BE IN ACCORDANCE WITH BID DOCUMENTS, JEA WATER AND SEWER STANDARDS, DETAILS AND MATERIALS MANUAL, REV. 01/18. AND CITY OF JACKSONVILLE STANDARD SPECIFICATIONS AND DETAILS AND ALL APPLICABLE STATE AND LOCAL REGULATIONS.
- ☐ 6. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.
- ☐ 7. THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.
- 8. TREE PROTECTION SHALL BE IN ACCORDANCE WITH JACKSONVILLE ORDINANCE CODE 656 AND/OR AS DETAILED ON SPECIFIC PLAN SHEETS. NO TRIMMING OF OVERHANGING TREE LIMBS WILL BE ALLOWED. USE SMALLER EQUIPMENT IF NECESSARY.
- ☐ 9. THE CONTRACTOR SHALL LOCATE THE DRAINAGE INLET STRUCTURES IN THE PROJECT AREA AND ERECT SEDIMENTATION CONTROL DEVICES AS NECESSARY PER THE CITY OF JACKSONVILLE STORMWATER
- □ 10. CONTRACTOR TO COORDINATE WORK WITH OTHER UTILITIES DURING CONSTRUCTION.

EXISTING UTILITY PROTECTION:

- IN ORDER TO REDUCE THE DISRUPTION AND COST OF UTILITY DAMAGES OCCURRING IN THE DUVAL COUNTY RIGHT-OF-WAY AND EASEMENTS, THE CONTRACTOR SHALL PREVENT DAMAGES TO EXISTING UTILITIES CAUSED BY HIS WORK THROUGH FIELD VERIFICATION OF THE LOCATION OF THE EXISTING UTILITIES. IN THE CASE OF OPEN EXCAVATION, VERIFICATION MAY BE PERFORMED DURING THE CONTRACTORS WORK. IN THE CASE OF DIRECTIONAL DRILLING, VERIFICATION SHALL TAKE PLACE PRIOR TO MOBILIZATION OF THE DRILLING EQUIPMENT.
- 2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AS NEEDED TO AVOID CONTACT. EXISTING UTILITIES SHALL BE EXPOSED USING DETECTION EQUIPMENT OR OTHER ACCEPTABLE MEANS. SUCH METHODS MAY INCLUDE BUT SHALL NOT BE LIMITED TO "SOFT DIG" EQUIPMENT AND GROUND PENETRATING RADAR (GPR). THE EXCAVATOR SHALL BE HELD LIABLE FOR DAMAGES CAUSED TO THE CITY'S/JEA'S INFRASTRUCTURE AND THE EXISTING FACILITIES OF OTHER UTILITY COMPANIES.
- 3. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW GROUND SURFACE. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ABBREVIATIONS

AC	ASBESTOS CEMENT	INT.	INTERSECTION
A.G.	ALLEY GRATE	INV.	INVERT
Д.О. В	BASE LINE	I.P.	IRON PIPE
E B.M.	BENCH MARK	J.W.W.	JACKSONVILLE WATER
BC	BOTTOM OF CURVE	J. VV. VV.	WORKS
C.B.	CATCH BASIN	L.F.	LINEAR FOOT
C.I.	CATCH BASIN CAST IRON	LT.	LEFT
Ę	CENTER LINE	MB	MAIL BOX
C.E.P.	CITY ELECTRIC POLE	M.H.	MANHOLE
CONC.	CONCRETE	N.T.S.	NOT TO SCALE
CONST.	CONSTRUCTION	O.C.	ON CENTER
C.M.P.	CORRUGATED METAL PIPE	O.E.	OVERHEAD ELECTRIC
C.M.P.A.	CORRUGATED METAL PIPE ARCH	O.T.	OVERHEAD TELEPHONE
CULV.	CULVERT		PERMANENT REFERENCE
C&G	CURB & GUTTER	I .IX.IVI.	MONUMENT
C	CUT	P.V.C.	POLYVINYL CHLORIDE
-	DITCH BOTTOM INVERT	r . v . O .	RADIUS
	DRIVEWAY	r R	RATE
D.I.P.		R.C.P.	REINFORCED CONCRETE PIPE
E.O.P.	EDGE OF PAVEMENT	RT	RIGHT
EL .	ELEVATION	R/W	RIGHT OF WAY
ERCP	ELLIPTICAL REINFORCED	R.D.	ROOF DRAIN
LITOI	CONC. PIPE	S/W	SIDE WALK
EXP. JT.	EXPANSION JOINT	S.B.T.	SOUTHERN BELL TELEPHONE
F	FILL	STA	STATION
F.H.	FIRE HYDRANT	TC	
F	FLOW LINE	-	UNDERGROUND ELECTRIC
FM	FORCE MAIN		UNDERGROUND TELEPHONE
GALV./GLV	GALVANIZED		UNITED STATES COASTAL &
G	GAS LINE	0.0.0. a 0.0.	GEODETIC SURVEY
G.V.	GAS VALVE	V.C.	VITRIFIED CLAY
HDPE	HIGH DENSITY	WM	WATER METER
	POLYETHYLENE PIPE	W.V.	WATER VALVE
H.W.	HEAD WALL	WLP	WOOD LIGHT POLE
H.C.	HIGH CURB	WPP	WOOD POWER POLE

WOOD TELEPHONE POLE

RESTORATION NOTES:

- 1. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARKS WHICH MAY BE DISTURBED BY CONSTRUCTION, KNOWN CORNER LOCATIONS ARE AVAILABLE FROM THE CITY OF JACKSONVILLE ENGINEERING DIVISION.
- 2. THE CONTRACTOR SHALL RESTORE/REPLACE ALL CULVERTS, HEADWALLS AND STORM DRAIN INLETS REMOVED OR DISTURBED BY THE CONSTRUCTION OPERATION.
- 3. TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION IN ACCORDANCE WITH CITY OF JACKSONVILLE/FDOT STANDARD SPECIFICATIONS.
- 4. SIDEWALKS, DRIVEWAYS AND CURBING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH JACKSONVILLE STANDARD SPECIFICATIONS. SIDEWALKS REMOVED AND REPLACED IN CURB AND GUTTER AREAS AT INTERSECTIONS SHALL HAVE HANDICAP RAMPS INSTALLED. DRIVEWAYS AND SIDEWALKS SHALL BE SAWCUT ALONG THE RIGHT-OF-WAY LINE OR NEAREST JOINT AND REMOVED AND REPLACED TO THE EDGE OF STREET.
- 5. GRASS SOD SHALL BE FURNISHED AND PLACED IN THE AREAS DISTURBED OR DAMAGED BY THE CONSTRUCTION OPERATION.
- 6. ALL PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH THE CITY OF JACKSONVILLE/FDOT STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
- 7. UNLESS OTHERWISE NOTED, REMOVE AND REPLACE EXISTING PAVEMENT AS PER C.O.J. CASE X (10) PAVEMENT REPLACEMENT DETAIL.
- 8. CONTRACTOR MUST MAINTAIN AND PRESERVE NEWLY GRADED AREAS AND REPAIR AREAS WHERE SETTLING AND EROSION HAVE OCCURRED.

UTILITY CONTACTS:

GENERAL LEGEND

EXISTING

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6' CHAIN LINK

RIGHT OF WAY LINE

FENCE (HEIGHT & MAT'L.

DITCH OR SWALE

CATCH BASIN

STORM SEWER

WATER MAIN

LINE VALVE

END CAP

REDUCER

SPOT ELEVATION

MANHOLE - TYPE (IF INDICATED) E - ELECTRIC S - SANITARY D - STORM T - TELEPHONE

FIRE HYDRANT

GRAVITY SEWER

SEWER FORCE MAIN

STORM DRAIN GRATE

CENTER LINE

B. AT&T ~ GREG LUMPIESZ~ NORTH DISTRICT—	A. BLANK — — — — — — — — — — — — — — — — — — —	- — — — — — N/A
D. CITY OF JACKSONVILLE ~ PUBLIC WORKS DEPT. — — — — — — — — — — — — — — — — — — —	B. AT&T ~ GREG LUMPIESZ~ NORTH DISTR IC T— — — — — — — — — — — — — — — —	- — — — — — — — 904-781-0741
E. CITY OF JACKSONVILLE ~ TRAFFIC OPERATIONS— — — — — — — — — — — — — — — — — — —		
F. FLORIDA DEPT. OF TRANSPORTATION————————————————————————————————————	D. CITY OF JACKSONVILLE ~ PUBLIC WORKS DEPT. — — — — — — — — — — — — —	<i> </i>
G. JEA ~ WATER DISTRIBUTION ~ RANDY ELLIS — — — — — — — — — — — — — — — — — — —	E. CITY OF JACKSONVILLE ~ TRAFFIC OPERATIONS- — — — — — — — — — — — — — —	_
H. JEA ~ SEWER COLLECTION ~ NATE ROUSE————————————————————————————————————	F. FLORIDA DEPT. OF TRANSPORTATION— — — — — — — — — — — — — — — — — — —	- — — — — — — — — 904-360-5200
I. JEA ~ GENERAL INFORMATION— — 904-665-6000 J. JEA ~ PROJECT OUTREACH— — 904-665-7500 K. JEA ~ POWER OUTAGES— — 904-665-7500 K. JEA ~ POWER PROBLEMS— — 904-665-6000 L. JEA ~ SEWER PROBLEMS— — 904-665-4802 M. JEA ~ WATER PROBLEMS— — 904-665-4801 N. JEA ~ WATER & SEWER LOCATES ~ BRENDA FORBES— — 904-665-4465 O. NASSAU COUNTY ~ PUBLIC WORKS — — 904-503-6175 P. ST. JOHNS COUNTY ~ RIGHT-OF-WAY PERMITTING— — 904-209-0134 Q. ST. JOHNS COUNTY ~ TRAFFIC SIGNALS — — 904-209-0170 R. COMCAST ~ EMERGENCY HOTLINE— — 904-443-7316	G. JEA ~ WATER DISTRIBUTION ~ RANDY ELLIS	— — — — — — — — — — 904-665-6052
J. JEA ~ PROJECT OUTREACH————————————————————————————————————	H. JEA ~ SEWER COLLECTION ~ NATE ROUSE— — — — — — — — — — — — — — — —	· — — — — — — — 904-665-7133
K. JEA ~ POWER OUTAGES— — — — — — — — — — — — — — — — — — —	I. JEA ~ GENERAL INFORMATION— — — — — — — — — — — — — — — — — — —	_
L. JEA ~ SEWER PROBLEMS— — — — — — — — — — — — — — — — — — —	J. JEA ~ PROJECT OUTREACH— — — — — — — — — — — — — — — — — — —	<i> 9</i> 04-665-7500
M. JEA ~ WATER PROBLEMS————————————————————————————————————	K. JEA ~ POWER OUTAGES— — — — — — — — — — — — — — — — — — —	
N. JEA ~ WATER & SEWER LOCATES ~ BRENDA FORBES— — — — — — — — — — — — — — — — — — —	L. JEA ~ SEWER PROBLEMS— — — — — — — — — — — — — — — — — — —	- — — — — — — — 904-665-4802
O. NASSAU COUNTY ~ PUBLIC WORKS — — — — — — — — — — — — — — — — — — —	M. JEA ~ WATER PROBLEMS— — — — — — — — — — — — — — — — — — —	- — — — — — — — 904-665-4801
P. ST. JOHNS COUNTY ~ RIGHT-OF-WAY PERMITTING — — — — — — — — — — — — — — — — — — —	N. JEA ~ WATER & SEWER LOCATES ~ BRENDA FORBES— — — — — — — — — — — —	- — — — — — — — 904-665-4465
Q. ST. JOHNS COUNTY ~ TRAFFIC SIGNALS — — — — — — — — — — — — — — — — — — —	O. NASSAU COUNTY ~ PUBLIC WORKS	
R. COMCAST ~ EMERGENCY HOTLINE— — — — — — — — — — — — — — — — — — —	P. ST. JOHNS COUNTY ~ RIGHT-OF-WAY PERMITTING— — — — — — — — — — — — — —	<i> 9</i> 04-209-0134
S. TECO/PEOPLES GAS	Q. ST. JOHNS COUNTY ~ TRAFFIC SIGNALS — — — — — — — — — — — — — — — — — — —	<i>-</i> — — — — — — — 904-209-0170
T. SUNSHINE ONE CALL———————————————————————————————————		
	T. SUNSHINE ONE CALL———————————————————————————————————	

UTILITY SYMBOLS

ELECTRIC POLE OR S.B.T. POLE (WOOD)	O OR Q (WITH LIGH
WOOD POWER POLE	O WPP
ELECTRIC POLE OR S.B.T. POLE (CONC.)	PP OR ☐ (WITH LIGH
CONCRETE POWER POLE	□ CPP
GUY WIRE	
TRAFFIC SIGNAL POLE	TS Δ
IRON PIPE	O I.P.
OVERHEAD ELECTRIC	———OHE———
UNDERGROUND ELECTRIC	— — UGE— — —
OVERHEAD TELEPHONE	ot
UNDERGROUND TELEPHONE	UGT
GAS MAIN (SIZE & MAT'L. INDICATED)	— — GAS— — —
CABLE TELEVISION	CATV
FIBER OPTIC LINE	——FO——
UNDERGROUND CABLE (TYPE UNDETERMINED)	— —UG— —UG—
TELEPHONE BOX	□Т
CATV BOX	□CATV
CONCRETE MONUMENT	□СМ
GAS VALVE	$oldsymbol{\Phi}$
SOIL BORING (NUMBER INDICATED)	⊕ SB−1
SOFT DIG (NUMBER INDICATED)	⊕ SD1
TREE, SIZE & TYPE INDICATED	• 12" 0
SIGN - TYPE INDICATED	-OR -SIGN

BUSH, SHRUB OR HEDGE

EHRUB

INSTALLATION NOTES:

- □ 1. CONTRACTOR TO REHABILITATE ALL MANHOLES ON PIPE BURST SEWERS VIA COATING/LINING PER JEA SPECIFICATION 446-2, UNLESS OTHERWISE NOTED ON THE PLANS.
- 2. CONTRACTOR TO RENEW, REHABILITATE, REPLACE OR REINSTALL AS APPLICABLE ALL SERVICE LATERALS TO R.O.W. LINE.
- 3. CONTRACTOR TO INSTALL SEWER SERVICE PIPING A MINIMUM OF 60 INCHES BELOW GRADE. WHERE NEW SANITARY SEWER IS LESS THAN 5 FEET DEEP, THE SEWER SERVICE PIPE SHALL BE INSTALLED AS DEEP AS POSSIBLE.
- □ 4. WHEN THE DISTANCE BETWEEN A POWER POLE AND THE TRENCH IS LESS THAN THE TRENCH DEPTH, THE CONTRACTOR SHA RESPONSIBLE FOR COORDINATING WITH JEA ELECTRICAL PERSONNEL TO SECURE POWER POLES. THE CONTACTS FOR JEA
 - NORTHSIDE~EAST of US-1 MIKE CORBITT @ 665-7991 (mobile 662-0635)
 - NORTHSIDE~WEST of US-1 ANDY YEAGER @ 665-7998 (mobile 662-0622)
 - NORTHSIDE~BACKUP ALAN AINSLEY @ 665-7303 (mobile 662-6557) SOUTHSIDE~SOUTH of BEACH BLVD. TOM KERNS @ 665-6847 (mobile 860-1687)
 - SOUTHSIDE~NORTH of BEACH BLVD. DERYL BASFORD @ 665-6855 (mobile 662-0616)
 - SOUTHSIDE~BACKUP EDDIE GALES @ 665-6855 (mobile 662-0616)
 - A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED FOR AN OUTSIDE MEETING WITH JEA ELECTRICAL TO DISCUSS T REQUIRED WORK. ADDITIONAL TIME WILL BE REQUIRED BY JEA ELECTRICAL FOR ANY REQUIRED WORK TO BE ACCOMPLISHED
- □ 5. ALL NEW STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
- □ 6. THE DESIGN FOR THE PROJECT IS BASED UPON THE "OPEN-CUT" METHOD OF CONSTRUCTION. IF USING ALTERNATIVE MEANS METHODS, THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE STANDARDS FOR THAT MEANS OR METHOD.
- ☐ 7. THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AT SERVICE CONNECTIONS. THE MEANS AND METHODS SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, NO EXISTING ACTIVE SERVICE SHALL BE LEFT INTERRUPTED AT THE END OF THE WORK DAY.
- 8. CONTRACTOR SHALL PROVIDE ADDITIONAL CORPORATION STOPS FOR FILLING AND DRAINING PURPOSES DURING CONSTRUCTION AS NEEDED. CORPORATION STOPS ARE TO BE PLUGGED AND LEFT IN PLACE. INDICATE CORPORATION STOP LOCATIONS ON RECORD DRAWINGS (AS-BUILTS).
- 9. WATER AND SEWER SERVICES SHALL BE TRANSFERRED TO THE NEW MAIN UPON COMPLETION AND F.D.E.P./J.E.A. CERTIFICATION, AND PRIOR TO THE EXISTING MAINS BEING ABANDONED.
- ☐ 10. IF EXISTING VALVES ARE IN UNPAVED AREAS AND ARE TO BE TAKEN OUT OF SERVICE, THEY SHALL BE CLOSED AND THE VALVE BOX AND COVER SHALL BE REMOVED. IF THE VALVES ARE UNDER PAVED AREAS, THEY SHALL BE CLOSED, THE VALVE BOX GROUT FILLED AND THE COVER REMOVED.
- □ 11. CONTRACTOR SHALL REPLACE EXISTING WATER METER BOXES WHEN DEEMED NECESSARY BY THE JEA INSPECTOR.
- ☐ 12. CONTRACTOR TO PROVIDE ADDITIONAL DEPTH OF BURY VIA PIPE JOINT DEFLECTION TO ACCOMMODATE VALVE SELECTION PER JEA STANDARDS.
- □ 13. WATER METERS MAY REQUIRE RELOCATION FOR CONSTRUCTION, CONTRACTOR SHALL CONTACT JEA METER DEPARTMENT AND RELOCATE WATER METERS AS NECESSARY.
- ☐ 14. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL OBTAIN ALL GEOTECHNICAL AND TOPOGRAPHIC SURVEY DATA AND LOCATIONS OF ABOVE GROUND AND UNDERGROUND UTILITIES. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER IN ORDER THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED.
- 15. SHEET PILING WILL BE REQUIRED ON ALL EXCAVATIONS DEEPER THAN 16 FEET

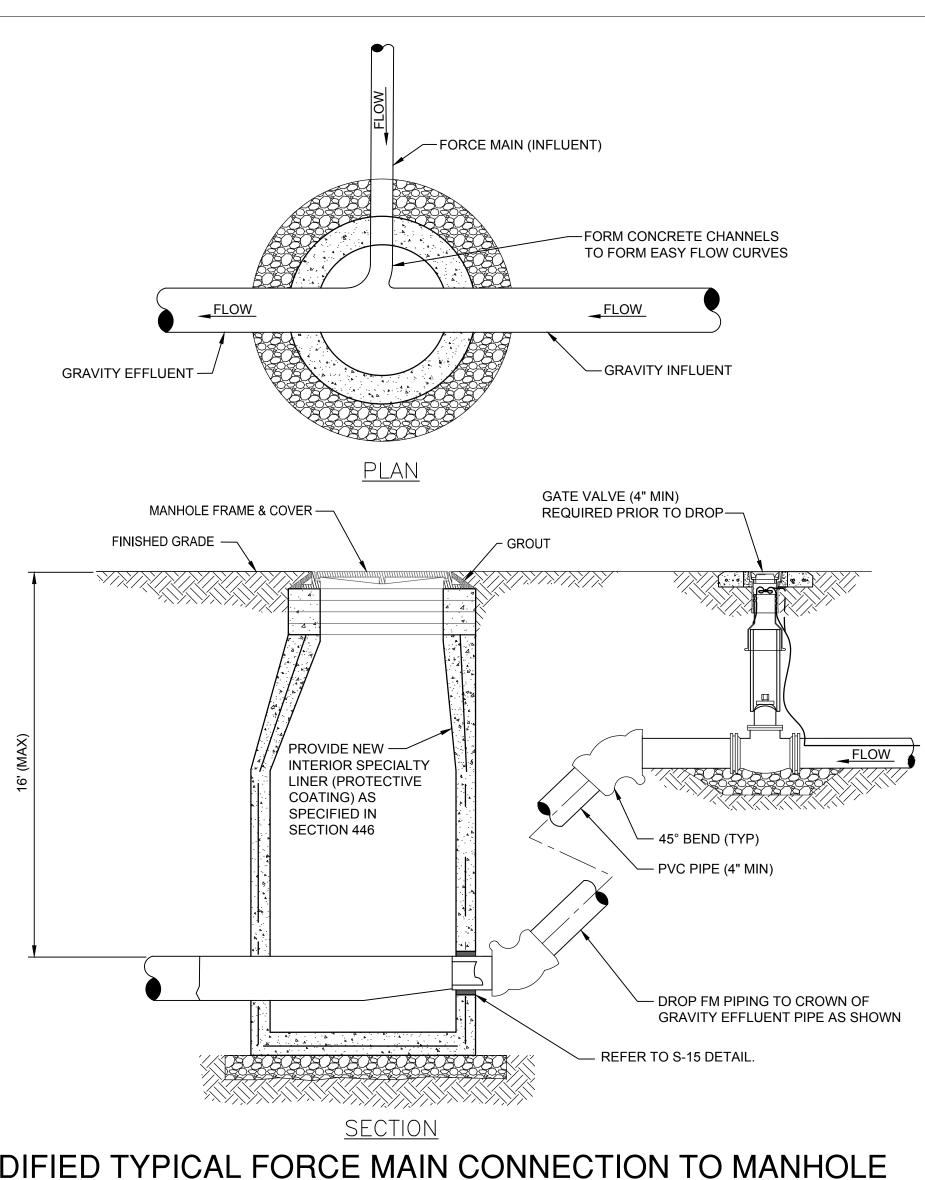
, MAIN	Construction & Engineering Services Consultants, Inc. 9432 Baymeadows Road, Suite 100 Jacksonville, FL 32256 Tel: (904) 652-1186 Business Number CA 27598	REVISIONS							
ALL BE ARE	Cons Servi 9432 Jacks Tel: (Busin	DATE							
	CONSULTANTS, INC.	ВУ							
ΓΗΕ D.	CONSI	NO.	9.	5.	4.	3.	2.	٦.	
S OR				AY, P.E.	2	j			



- ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES OF HIS EMPLOYEES, AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH OSHA REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUBSURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THIS CONTRACT. THE CONTRACTOR IS URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF THE PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND TO AID IN RESOLVING POSSIBLE FUTURE COMPLAINTS THAT MAY OCCUR DUE TO THE CONSTRUCTION OF THE PROJECT.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER CONDUCT ANY FIELD EXPLORATION OR ACQUIRE ANY GEOTECHNICAL ASSISTANCE REQUIRED TO ESTIMATE THE AMOUNT OF UNSUITABLE MATERIAL THAT WILL REQUIRE REMOVAL AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE BORROW THAT WILL BE REQUIRED.
- ALL IMPROVEMENTS SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO JEA FOR A PERIOD OF TWO YEARS FROM DATE OF ACCEPTANCE BY JEA. SEE JEA STANDARD MANUAL SECTION 429.
- ELEVATIONS SHOWN THUS: (20.00) AND REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON TAKEN FROM MAP PROVIDED BY CLARSON & ASSOCIATES: DATED, OCTOBER 30, 2017.
- REFERENCE PROJECT BENCHMARK: FOUND FDOT CONCRETE MONUMENT "7209006 GPS 3". ELEVATION 18.566 (NAVD 88) AS PROVIDED BY FDOT PRIMARY CONTROL POINT FORM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE REQUIRED FOR THE PROJECT INCLUDING RIGHT-OF-WAY PERMITS FOR WORK IN THE RIGHT-OF-WAY OR EASEMENTS.
- 10. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN COUNTY OR STATE RIGHT-OF-WAY WITH THE PROPER AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION & REPAIR.
- 11. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 12. ALL CLEARING AND GRUBBING REQUIRED FOR 16" SANITARY SEWER FORCE MAIN INSTALLATION IS INCLUDED IN THIS PROJECT AND THE CLEARING AND GRUBBING OF ALL RIGHT-OF-WAY OR EASEMENTS SHALL BE INCLUDED AS PART OF THIS PROJECT
- 13. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.
- 14. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR, IN ACCORDANCE WITH COUNTY REGULATIONS.
- 15. ALL EXCESS SUITABLE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY ENGINEER OR OWNER.
- ALL EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED.
- BURNING OF TREES, BRUSH AND OTHER MATERIAL IS NOT ALLOWED.
- 18. IF DEWATERING CAPACITY REQUIRES A CONSUMPTIVE USE PERMIT (C.U.P.) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE PERMIT THROUGH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
- 19. THE CONTRACTOR SHALL USE NECESSARY MEANS AND METHODS TO CONTROL SURFACE AND GROUNDWATER DURING CONSTRUCTION, BUT NOT LIMITED TO SURFACE, GRADING, DEWATERING TRENCHES WITH SUMP PUMPS, WELL POINTS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL AND LIKELY DEPTHS TO GROUNDWATER AND THE WATER CONTROL NECESSARY TO MEET MOISTURE AND DENSITY REQUIREMENTS FOR THE NATIVE OR IMPORTED SOILS.
- 20. THE CONTRACTOR SHALL COORDINATE WITH THE JEA AND THE ENGINEER FOR APPROVAL OF ALL DEWATERING OPERATIONS PRIOR TO COMMENCEMENT.
- 21. THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN FIELD VERIFIED. THE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION. IF THE LOCATIONS SHOWN ARE CONTRARY TO THE ACTUAL LOCATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE DISCREPANCY. THIS DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITIES AND IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR AND SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH HE SHALL CONNECT.
- 22. FOR SEDIMENT AND EROSION CONTROL PLANS, DETAILS AND NOTES REFER TO SHEETS C-9, C-10 AND C-11.
- 23. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE AND MAINTAINED PROPERLY UNTIL PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED.
- 24. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- 25. AFTER RESTORATION IS COMPLETE, TEMPORARY CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF PROPERLY.
- 26. THESE ENGINEERING DRAWINGS MAY NOT SHOW ALL THE STANDARD DETAILS REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY THAT THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CURRENT CITY OF JACKSONVILLE AND JEA UTILITIES STANDARD DETAILS AND SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN A COPY OF JEA UTILITIES AND CITY OF JACKSONVILLE STANDARD DETAILS AND SPECIFICATIONS PRIOR TO BEGINNING CONSTRUCTION.
- 27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER CITY OF JACKSONVILLE STANDARDS AND MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.
- 28. UNSUITABLE MATERIALS UNDER NEW FORCE MAIN PIPES OR STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED.
- 29. "AS-BUILT" DRAWINGS FORCE MAIN AS-BUILTS PROVIDED TO JEA ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION AND SUBMITTAL OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH CURRENT JEA UTILITIES. CONTRACTOR SHALL ALSO SHOW ALL PIPE INVERTS. ITEMS INTENDED FOR DEDICATION TO JEA UTILITIES SHALL NOT BE CONSIDERED COMPLETE UNTIL "AS-BUILT" DRAWINGS ARE APPROVED, AND THE WORK ACCEPTED FOR DEDICATION BY JEA UTILITIES.
- 29. SHOP DRAWINGS FOR FORCE MAIN CONSTRUCTION: ALL PIPES, STRUCTURES AND MANUFACTURERS LITERATURE FOR ALL MATERIALS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION COMMENCING BY THE CONTRACTOR.
- 30. THE CONTRACTOR SHALL MAINTAIN A COPY OF ALL PERMITS ON THE JOB SITE AND SHALL ADHERE TO ALL CONDITIONS.
- 31. UPON COMPLETION OF ALL CONSTRUCTION, PROJECT SHALL LEFT CLEAN.

FORCE MAIN NOTES

- FORCE MAIN LINES 16 INCHES AND LARGER SHALL BE AWWA STANDARD C-905, DR25 PIPE WITH DUCTILE IRON MJ FITTINGS, UNLESS OTHERWISE INDICATED ON THE PLANS. FORCE MAIN MUST HAVE 36 INCHES MINIMUM COVER, EXCEPT AS INDICATED OTHERWISE. WHERE CALLED FOR, DUCTILE IRON PIPE, CLASS 51 MINUMUM THICKNESS IS
- A HORIZONTAL AND VERTICAL SEPARATION FROM OTHER UTILITIES SHALL BE MAINTAINED PER JEA STANDARD DETAILS (PLATE S-26).
- FORCE MAIN LINES SHALL BE PRESSURE TESTED AND LEAKAGE TESTED TO 150 PSI FOR TWO HOURS IN ACCORDANCE WITH JEA STANDARD SPECIFICATION SECTION 429 IN THE PRESENCE OF THE ENGINEER AND JEA REPRESENTATIVE
- PVC PIPE RESTRAINT SHALL CONFORM TO JEA PLATE NUMBERS S-38A TO S-38D, S-39 TO S-42 AND THRUST BLOCK ING SHALL CONFORM TO JEA PLATE S-45.
- NO PART OF EXISTING 18" FORCE MAIN LINES SHALL BE DEMOLISHED, GROUT FILLED OR DISRUPTED UNTIL THE NEW 16" PVC FORCE MAIN HAS BEEN INSTALLED AND IS CLEARED TO BE PLACED INTO OPERATION.



MODIFIED TYPICAL FORCE MAIN CONNECTION TO MANHOLE

JANUARY 2016 PLATE S-18

MANHOLE FRAME & COVER -—GROUT FINISHED GRADE -12" NOMINAL, 18" MAX. 2'-8" - GROUTED IN PLACE CONCRETE ADJUSTMENT RINGS OR BRICKS WITH SPECIALTY LINER (TYP) SPECIALTY LINER— 6'-0" DIA. FOR (24"-36" PIPE) -6" (MIN) EXTERIOR JOINT TAPE APPLIED OVER PRIMER 8'-0" DIA. FOR (42-60" PIPE) (SEE NOTE #4) SLOPE 1/2" — - PREMOLDED PLASTIC JOINT SEALER PER FT. (TYP) SOLID CLASS "C" CONCRETE W/ SOLID FILLER BRICKS ONLY ALLOWED AS FILLER NO RUBBLE - 6" MIN. FOR 24"-42" PIPE 9" MIN. FOR 48"-60" PIPE. LEVELING COURSE, 12" (MIN) THICKNESS OF GRANULAR UNDISTURBED SOIL MIN. — BACKFILL (57 STONE) **BEARING CAPACITY:** 2000 LB/SQ FT. IN UNSUITABLE SOILS,

1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.

OVER-EXCAVATION IS REQUIRED

(SEE NOTE #5)

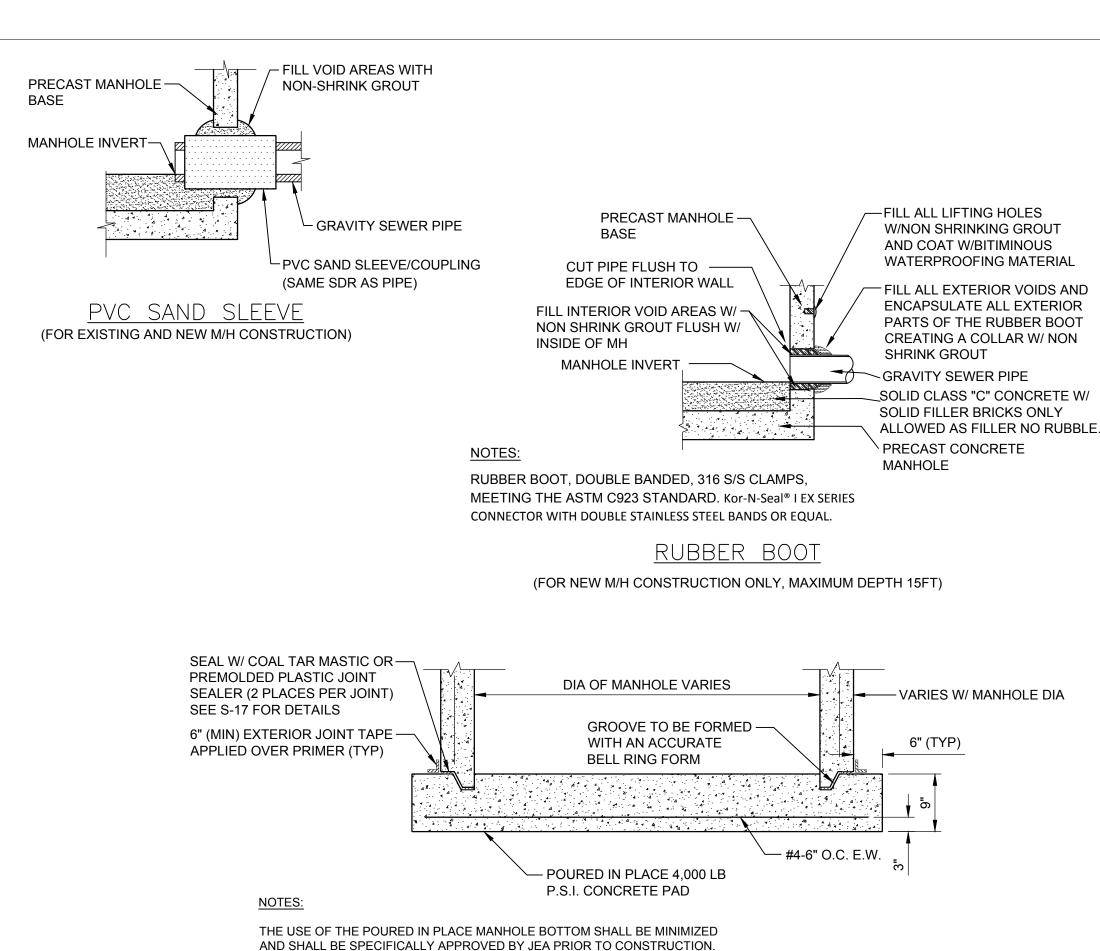
- 2. THE EXTERIOR ONLY OF MANHOLE SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL
- 3. SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE IN ACCORDANCE WITH AS-602, THEREFORE, THE BITUMINOUS WATERPROOFING SHALL BE OMITTED ON INSIDE.

SECTION VIEW

- 4. ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE
- 5. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER TYPE "G" MANHOLE 24" - 60" SEWERS

PLATE S-11 JANUARY 2018



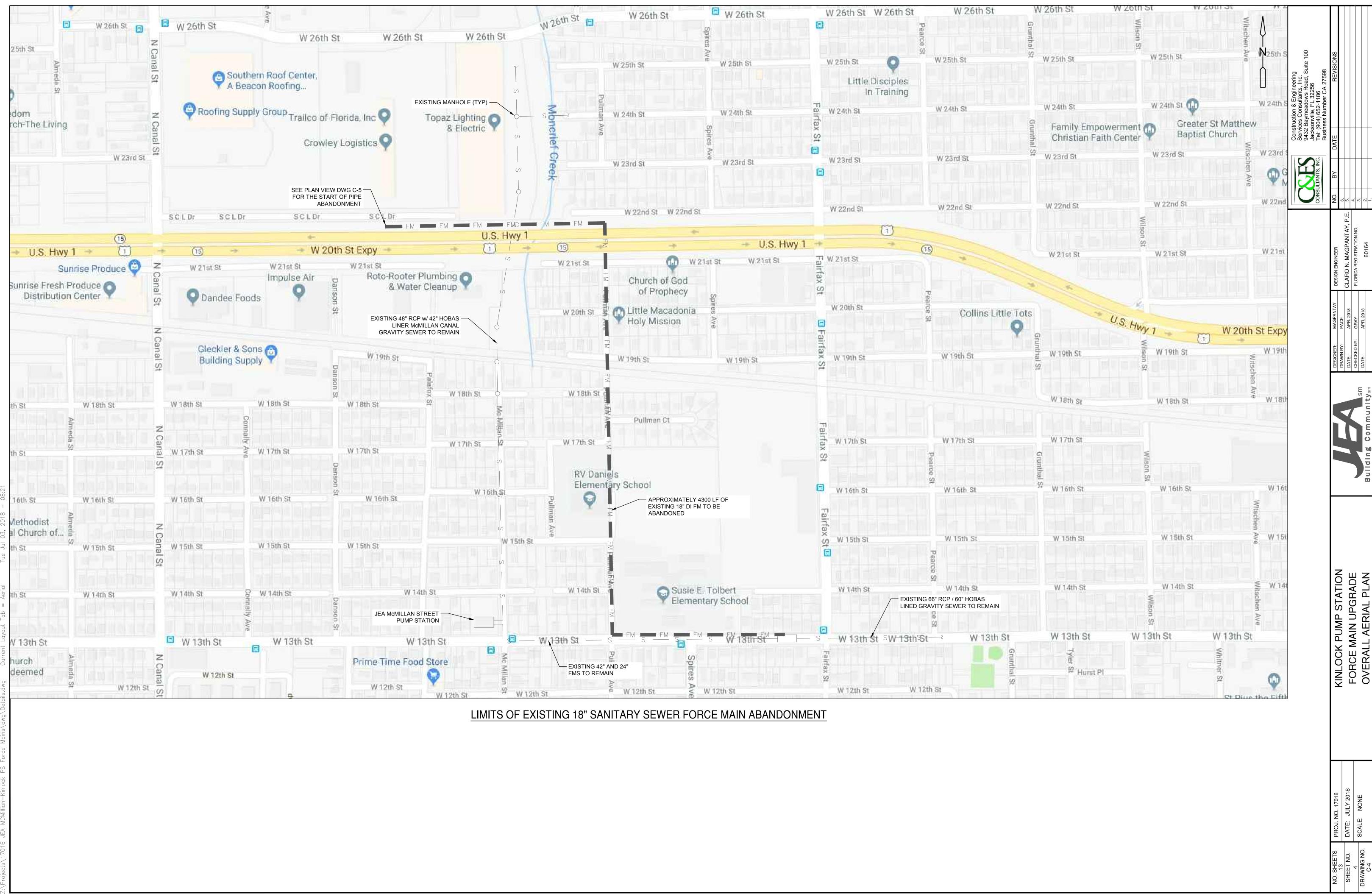
MANHOLE PIPE CONNECTION DETAIL

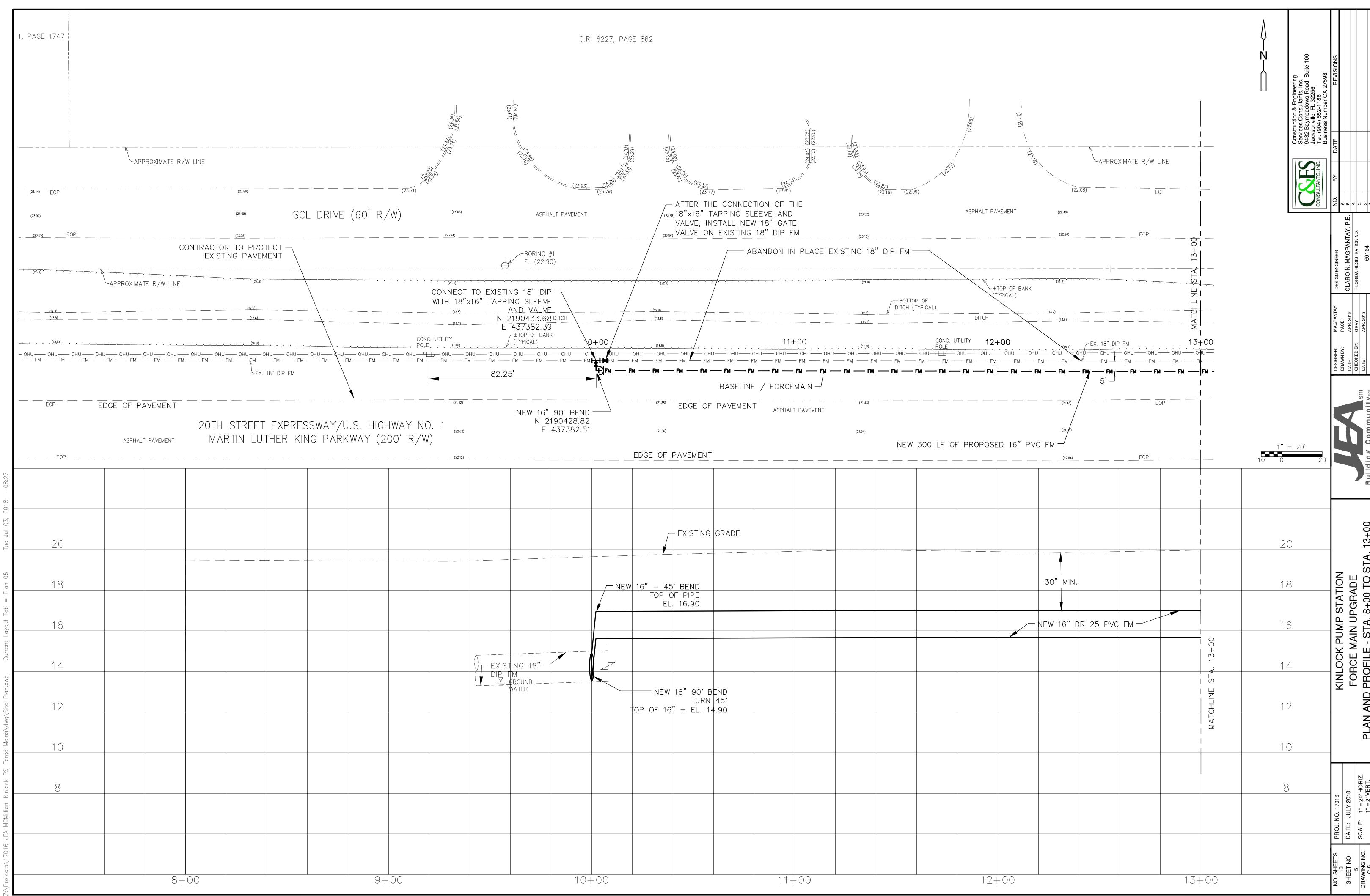
JANUARY 2018

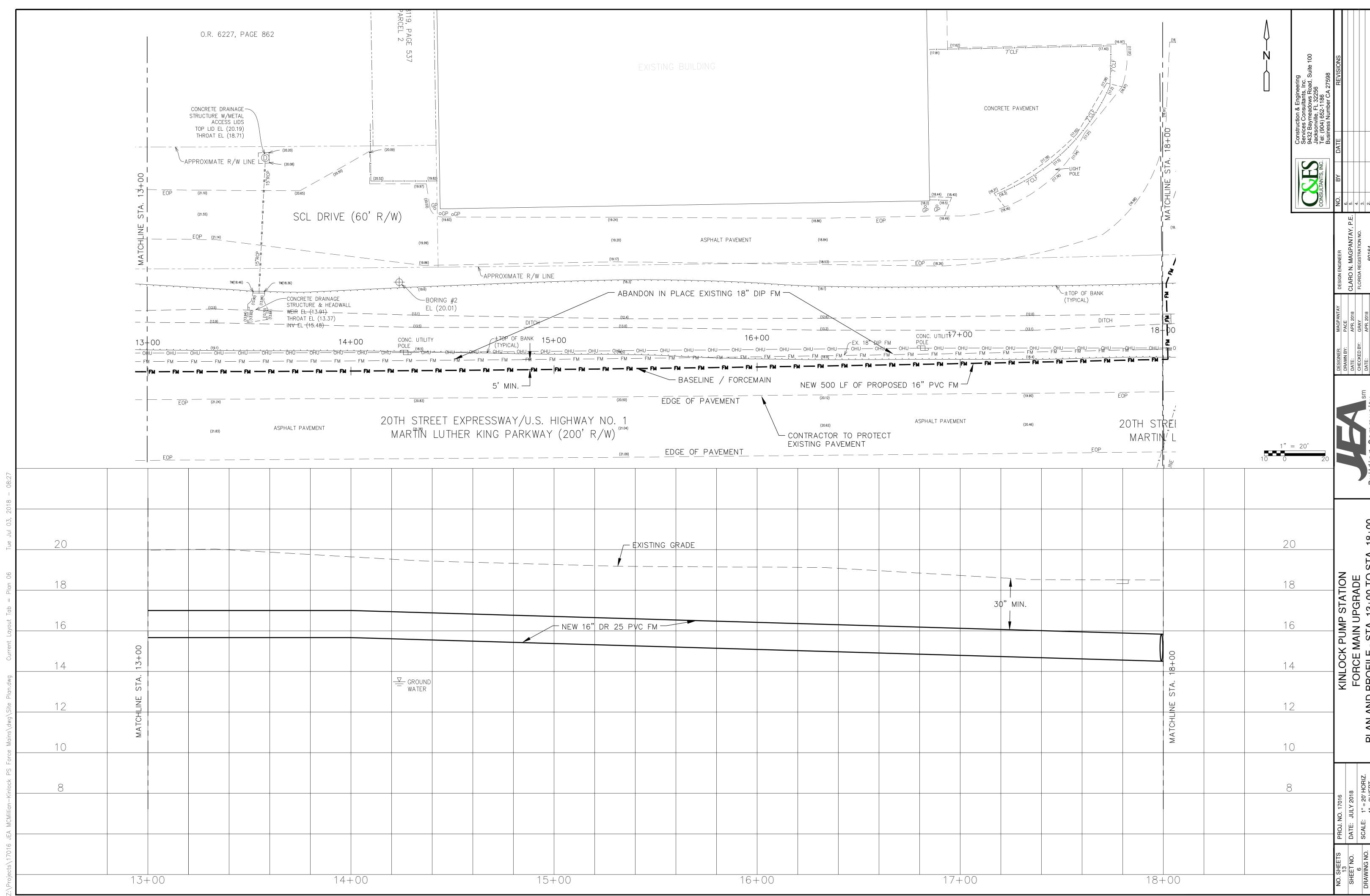
MANHOLE BOTTOM

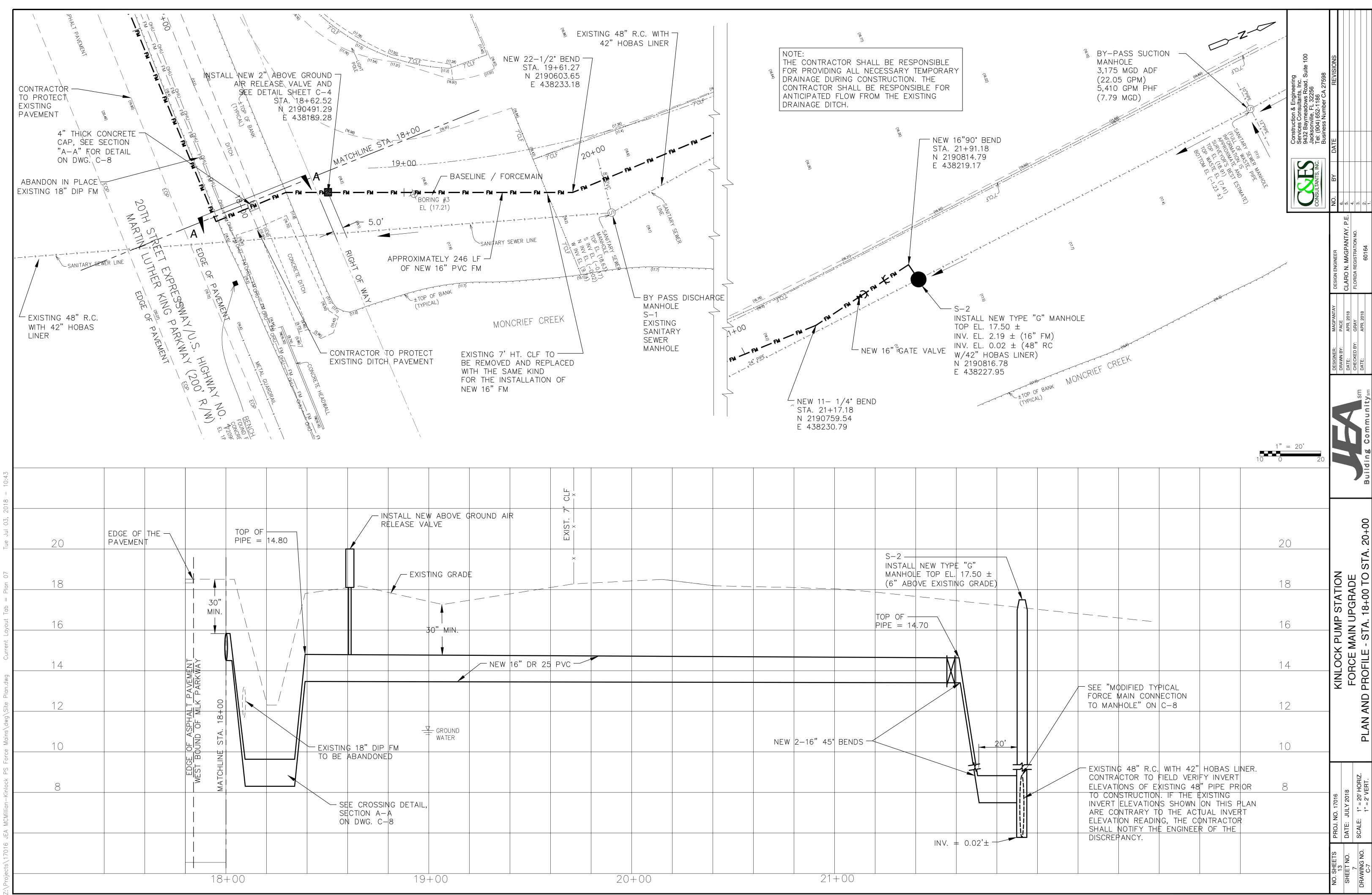
PLATE S-15

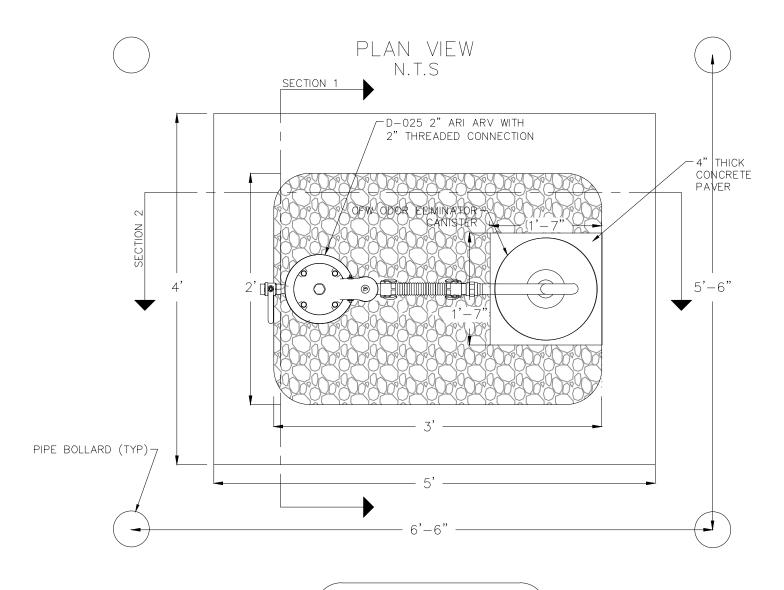
ATION RADE

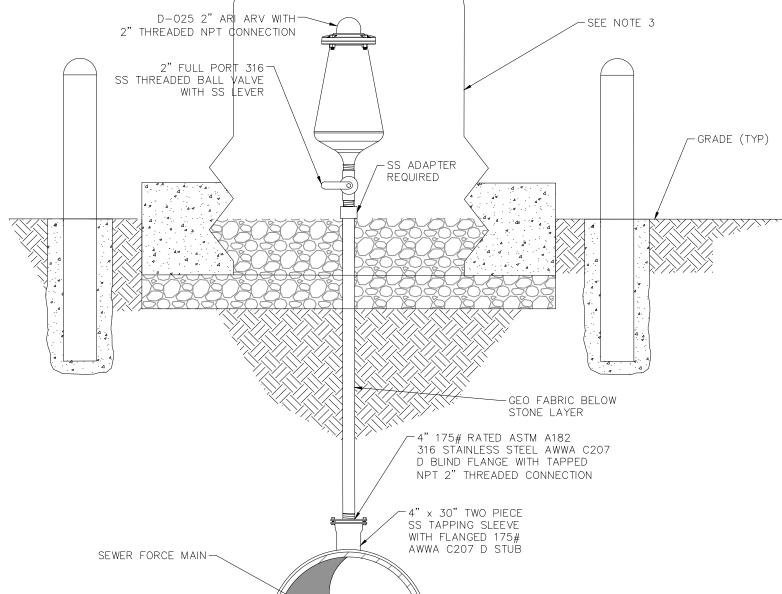












SECTION N.T.S



PAINT COVER AND INSIDE OF BOX GREEN-

COMPACTED EARTH (TYP) -

VALVE BOX & COVER (TYP) -

PROVIDE GREEN PAINT TO

OF THE BOX (NOTE #5)

(LENGTH AS REQUIRED)

ACCESS INTO VALVE BOX

6" PVC RISER PIPE —

(SEE NOTE #8)

THE INSIDE OF THE TOP SECTION

PROVIDE "V" CUT IN TOP OF 6" RISER PIPE FOR LOCATE WIRE

PLASTIC DEBRIS SHIELD REQUIRED -

JOINT (TYP)

RESTRAINED MECHANICAL

UNDISTURBED EARTH -

ON ALL VALVES 12" AND SMALLER

1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE

- APPLY GROUT TO FILL ANNULAR SPACE

· 24" ROUND PRECAST CONCRETE

PAD 4" THICK (SEE SPEC) SET ON

- FINISHED GRADE

NUT (NOTE #4)

COMPACTED EARTH, (SEE NOTE# 6)

VALVE BOX ADJUSTMENT (SEE NOTE# 5)

-ELECTRONIC LOCATE BALL MARKER

LOCATED WITHIN 12" FROM

- GATE VALVE W/ 2" OPERATING

RISER PIPE (NOTE #10)

— PIPE W/ LOCATING WIRE

12" (MIN) LAYER OF #57

STONE (REQUIRED FOR

(NOTE #7)

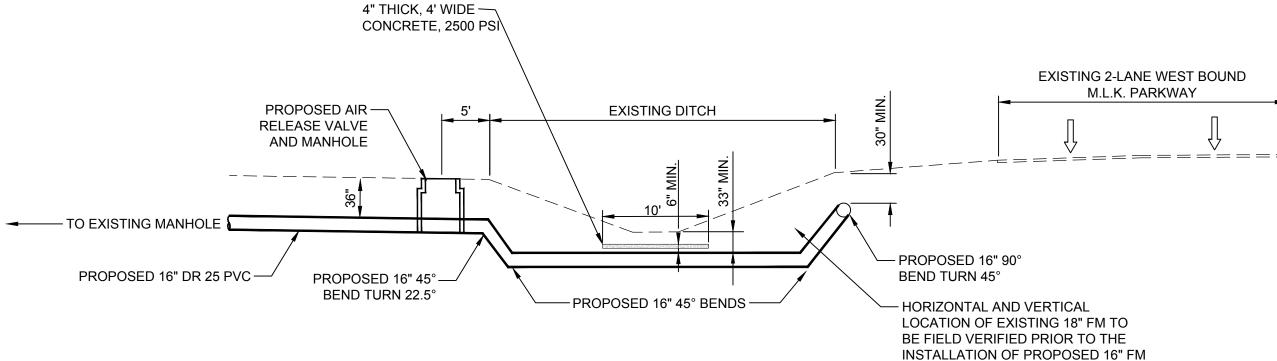
VALVES 20" AND LARGER,

BETWEEN VALVE BOX AND CONCRETE PAD

- 2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAIL S-49).
- 3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/(ASPHALT IF NO CURB) ADJACENT TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED GREEN.
- 4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
- 5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 12" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
- 6. BRASS IDENTIFICATION TAG INDICATING "SEWER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A ¼" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
- 7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 #4 REBAR AROUND PERIMETER, MAY BE USED.
- 8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO $\frac{1}{3}$ THE OVERALL HEIGHT OF THE VALVE.
- 9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.
- 10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1404XR FOR SEWER).

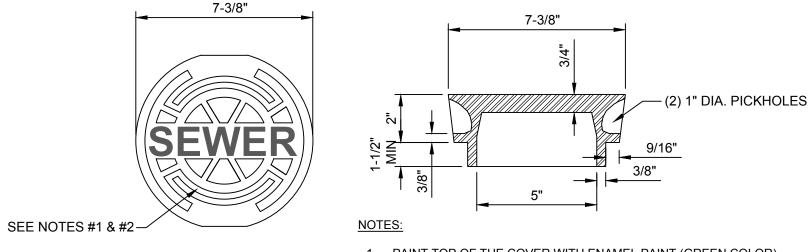
SEWER VALVE DETAIL

JANUARY 2016 PLATE S-30



SECTION A-A PROPOSED 16" FORCE MAIN UNDER THE EXISTING DITCH

SCALE: 1" = 10'



PAINT TOP OF THE COVER WITH ENAMEL PAINT (GREEN COLOR)

PLATE S-31

HEAVY DUTY RATING 2. LID WEIGHT: APPROX. 12 LBS.

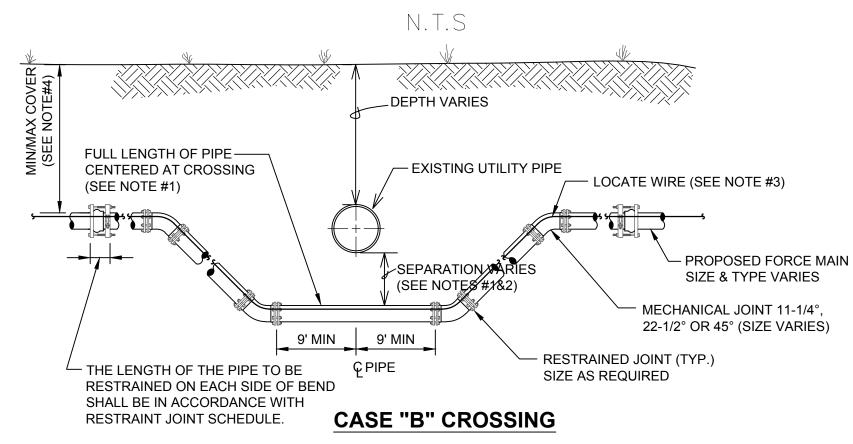
SEWER SYSTEM VALVE BOX COVER

JANUARY 2016

NOTES

- 1. THE AIR ASSEMBLY ENCLOSURE SHALL BE FIELD LOCATED IN THE JEA T-LINE EASEMENT. PIPING SHALL BE 316 STAINLESS STEEL SCH.40, STD GRADE, THREADED.
- 2. THE ENCLOSURE SHALL BE CONSTRUCTED OVER COMPACTED SUBGRADE WITH A 12" MINIMUM LAYER OF #57 STONE FILLED TO EXISTING GRADE ON TOP OF GEO FABRIC. THE BASE OF THE CONCRETE PAD SHALL BE BURIED AT LEAST 6" IN THE #57 STONE. CONCRETE PAD DIMENSIONS AS PER ENCLOSURE MANUFACTURER'S REQUIREMENTS. THE CONCRETE PAD SHALL BE POURED 12" FROM THE BOTTOM OF THE ENCLOSURE.
- 3. THE ENCLOSURE SHALL BE RUTT H-80 TWO PIECE, LOCKABLE, DROP OVER ENCLOSURE OR APPROVED EQUIVALENT WITH DIMENSIONS LXWXH BEING GREATER THAN OR EQUAL TO 36"x24"40" AND FOREST GREEN IN COLOR.
- 4. PROVIDE A TWO PIECE SS TAPPING SLEEVE. PROVIDE A GATE VALVE (INSTALLED VERTICALLY NEAR MAIN).
- 5. ODOR ELIMINATOR CANISTER, ARV CONNECTION, AND VALVING ASSEMBLY SHALL BE THE MODEL CFW #2800 BY CENTRAL FLORIDA WELD AND FAB LLC.

ABOVE GRADE ARV IN ENCLOSURE

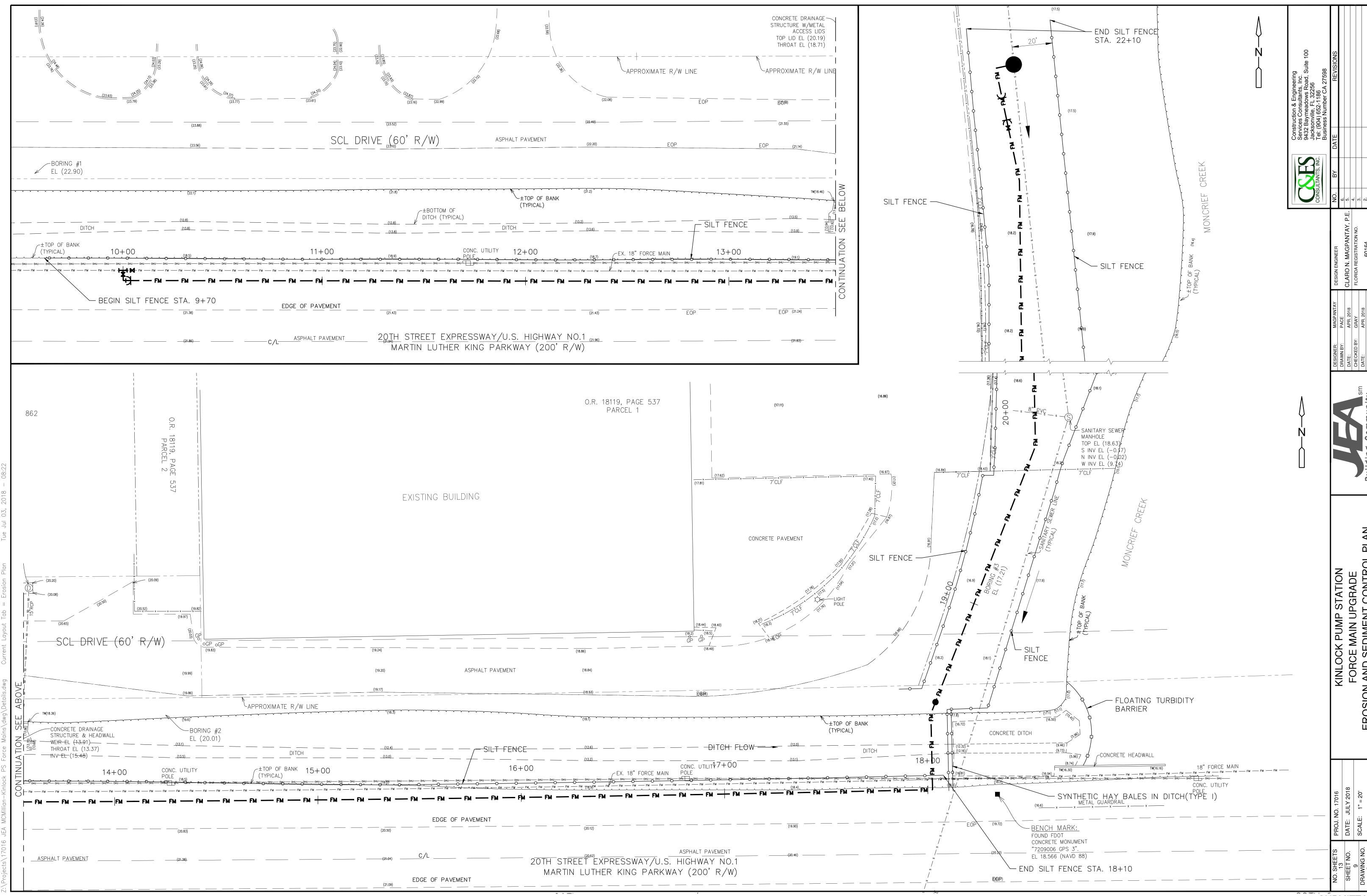


NOTES

- 1. IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED.A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
- 2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).
- 3. LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- 4. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS PRE-APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- 5. THE SOILS BETWEEN THE MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.

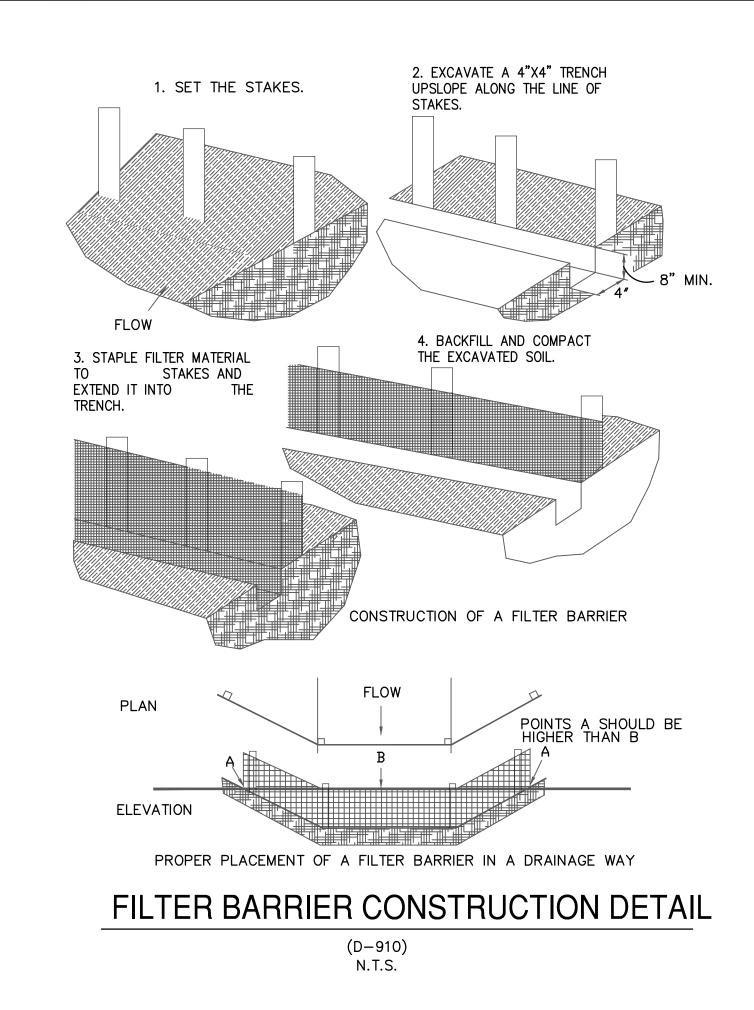
ADJUSTMENT UNDER EXISTING UTILITIES MECHANICAL RESTRAINTS

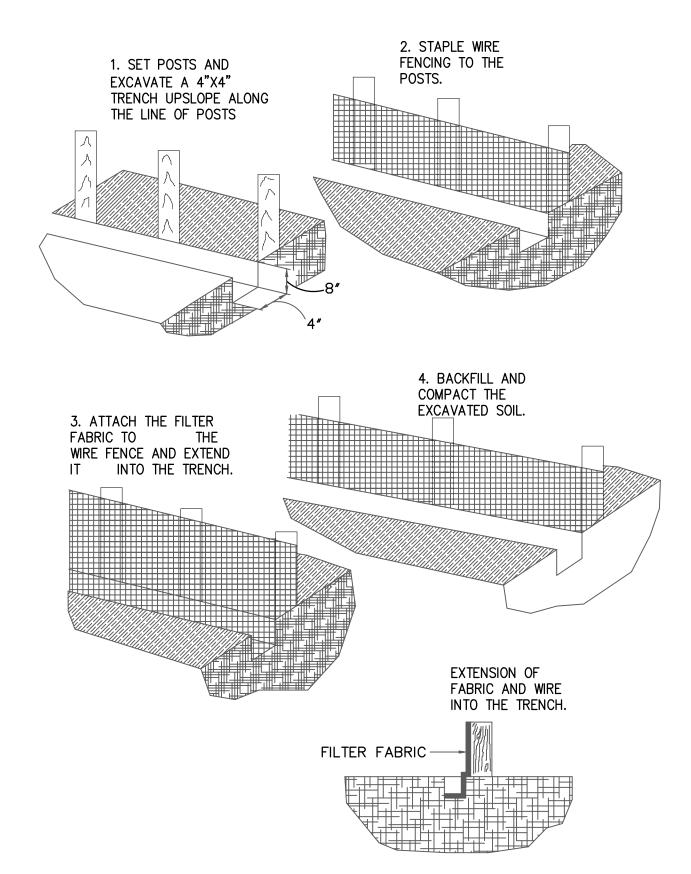
JANUARY 2018 PLATE S-41



SPACING RECOMMENDATION FOR SILT FENCES & HAY BALES

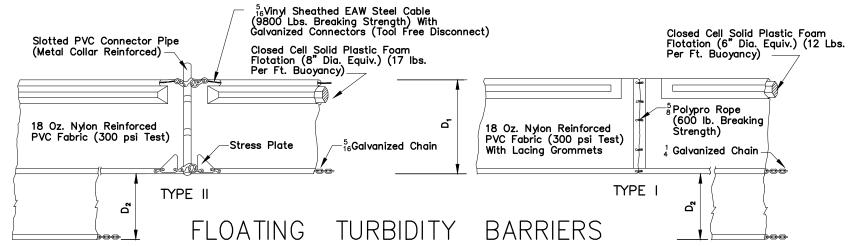
AND TYPE IV SILT FENCES AND PAVED DITCH HAY BALE BARRIERS



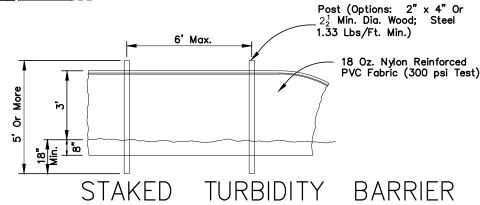


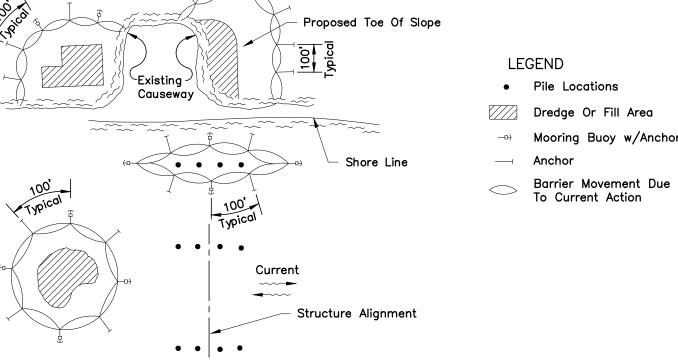
CONSTRUCTION DETAILS FOR SILT FENCES

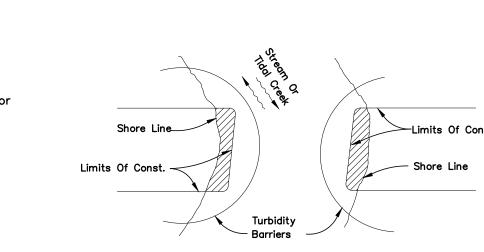
(D-909)



NOTICE: COMPONENTS OF TYPES I & TYPE II 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 I AND II SHALL BE AS APPROVED BY THE ENGINEER.





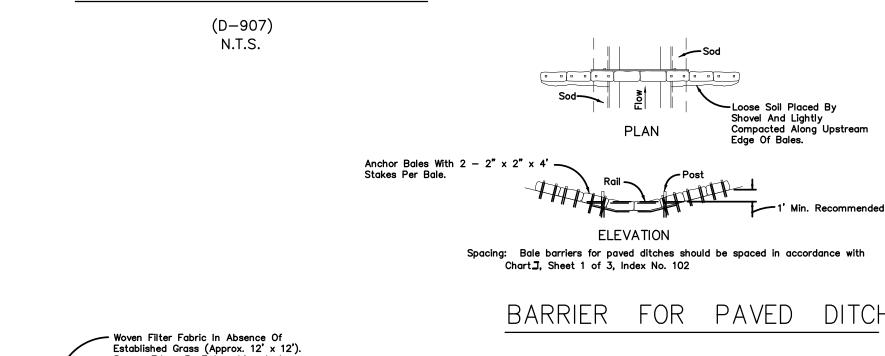


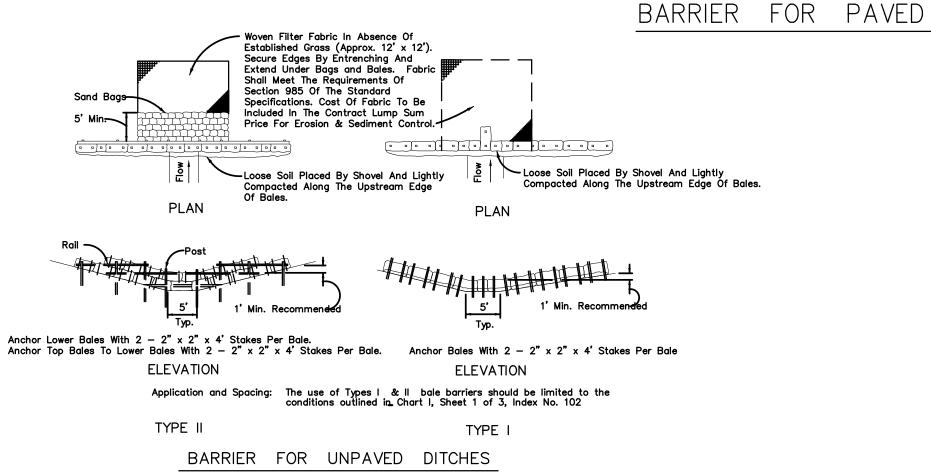
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors onton unless otherwise quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the contract lump sum price established in the bid proposal for Erosion & Sediment Control Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

- 1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
- 2. Number and spacing of anchors dependent on current velocities.
- 3. Deployment of barrier around pile locations may vary to accommodate construction operations.
- 4. Navigation may require segmenting barrier during construction operations.
- 5. For additional information see Section 104 of the FDOT Standard Specifications.

TURBIDITY BARRIER APPLICATIONS

TURBIDITY BARRIERS





HAY BALE BARRIERS TYPE I & II

(D-912) N.T.S.

100% SUBMITTAL

CONTRACTOR'S REQUIREMENTS OWNER'S REQUIREMENTS

PROJECT NAME AND LOCATION: KINLOCK PUMP STATION FORCE MAIN UPGRADE

OWNER NAME AND ADDRESS: 21 WEST CHURCH STREET

JACKSONVILLE, FL 32202

SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING; GRADING;

RUNOFF CURVE NUMBER: PRE-CONSTRUCTION = NA

DURING CONSTRUCTION = N/APOST-CONSTRUCTION = N/A

SEE SOIL BORING REPORT FOR SOILS DATA SITE MAPS: * INSTALLATION OF APPROXIMATELY 1000 L.F. OF 16" DR 25 PVC FORCEMAIN(250' TO EXISTING MANHOLE LOCATED NORTH OF

SITE DESCRIPTION

EXISTING 18" DIP TO BE ABANDONED FROM CONNECTION OF 16" PVC TO EXISTING JUNCTION CHAMBER ON W. 13th STREET (WEST OF FAIRFAX STREET). * SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS

TOTAL PRE DEVELOPMENT AREA = ACRES

TOTAL POST DEVELOPMENT AREA = ACRES

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT STORM WATER DRAINAGE WILL BE PROVIDED BY (DESCRIPTION:) _____

FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE, WHEN CONSTRUCTION IS COMPLETE, A TOTAL OF 2.2± ACRES WILL have been regraded, $\underline{0}_{--}$ acres left undisturbed. The site discharges TO A DRY DETENTION SYSTEM. WHERE PRACTICAL, TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT DETENTION BASIN. THE DRY DETENTION SYSTEM IS DESIGNED WITH A 72 HOUR RECOVERY TIME CRITERIA. THIS IS IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT FOR THIS TYPE OF DEVELOPMENT AT THE TIME OF PERMITTING.

TIMING OF CONTROLS/MEASURES

REFER TO " CONTRACTORS RESPONSIBILITY" FOR THE TIMING OF CONTROL/MEASURES.

> CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

D.E.R. DREDGE/FILL PERMIT # N/AC.O.E. DREDGE/FILL PERMIT # N/A S.J.R.W.M.D. M.S.S.W. PERMIT# <u>N/A</u>__

POLLUTION PREVENTION PLAN CERTIFICATION

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.

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

GENERAL

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

INSTALL STABILIZED CONSTRUCTION ENTRANCE 2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED 3. CLEAR AND GRUB FOR DIVERSION

SWALES/DIKES AND SEDIMENT BASIN 4. CONSTRUCT SEDIMENTATION BASIN CONTINUE CLEARING AND

STOCK PILE TOP SOIL IF REQUIRED PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED S. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS

GRUBBING

12. COMPLETE FINAL PAVING 13. REMOVE ACCUMULATED SEDIMENT FROM BASINS 14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE

9. INSTALL UTILITIES, STORM SEWER,

SEEDING/SOD AND PLANTING

CURBS & GUTTER.

10. APPLY BASE TO PROJECT

11. COMPLETE GRADING AND

INSTALL PERMANENT

SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED PRACTICABLE

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND SYNTHETIC HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION & TURBIDITY CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED , MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES

1. HAY BALE BARRIER: HAY BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE

FOLLOWING LIMITATIONS: A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.

B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES. C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.

D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE

AGAINST WASHOUT. REFER TO CITY STANDARD DETAIL D-913 FOR CONSTRUCTING THE HAY BALE BARRIER. ALSO REFER TO D-901, D-911 AND D-12 FOR PROPER LOCATION, MATERIAL & USAGE.

2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:

A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT. B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES. REFER TO CITY STANDARD DETAIL D-910 FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.

3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE

CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE. LEVEL SPREADER SHALL BE CONSTRUCTED IN ACCORDANCE TO CITY STANDARD DETAIL D-914.

5. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODEABLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING

9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.

10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.

11. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES. 14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL

VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED

13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF

OR SODDED. STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY. AND IT SHALL BE CONSTRUCTED IN ACCORDANCE TO D-914.

2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA. THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION

A. BLOCK & GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. REFER TO D-902 FOR CONSTRUCTION OF A CURB INLET SEDIMENT FILTER, AND D-904 FOR CONSTRUCTION OF A

DROP INLET SEDIMENT FILTER. B. GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE AREAS. REFER TO D-903 FOR CONSTRUCTION OF CURB INLET & DROP

SEDIMENT TRAP. C. DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS. REFER TO D-905 FOR CONSTRUCTION OF HAY BALE & FABRIC SEDIMENT FILTER.

3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES & HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.

4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE.

THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

Concrete	☐ Fertilizers	Wood
☐ Asphalt	☐ Petroleum Based Products	☐ Masonry Blocks
☐ Tar	☐ Cleaning Solvents	Roofing Materials
Detergents	☐ Paints	☐ Metal Studs

SPILL PREVENTION

OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

MATERIAL MANAGEMENT PRACTICES THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED | * AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO

* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A

ROOF OR OTHER ENCLOSURE. * PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE

ORIGINAL MANUFACTURER'S LABEL.

* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

DISPOSING OF THE CONTAINER.

* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE

* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.

* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY

* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE

CONTAIN IMPORTANT PRODUCT INFORMATION.

PRODUCT SPECIFIC PRACTICES THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FOLLOWED.

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE, EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT. THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.

* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF

* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT. AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST

* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH

* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE

* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

* WATER FROM WATER LINE FLUSHING

* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

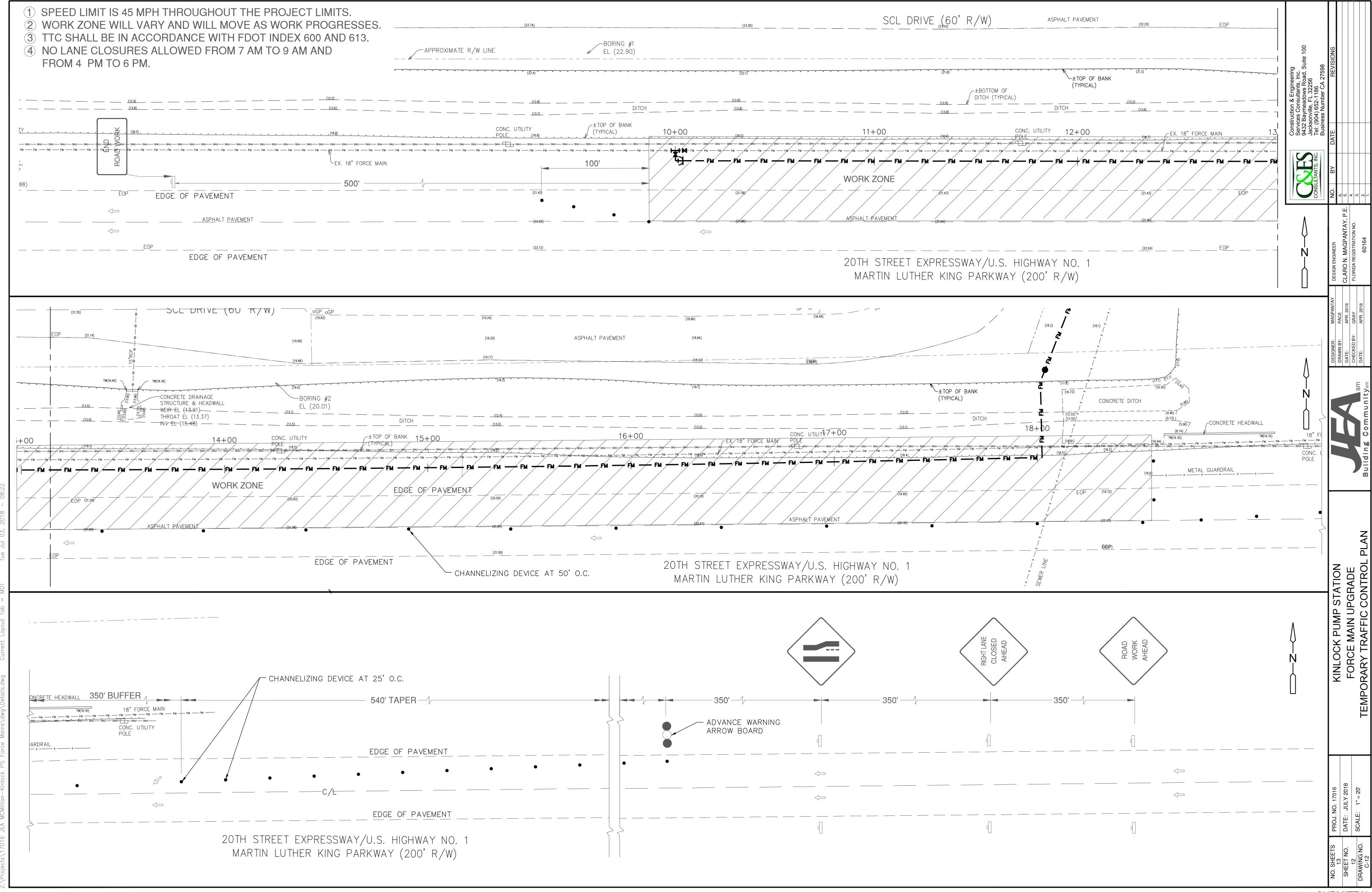
* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION). ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

RESPONSIBLE FOR/DUTIES	GENERAL CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR
BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS					
SIGNATURE					





DISTANCE BETWEEN SIGNS

WHEN WORKERS

PRESENT

Speed	Spacing (ft.)		
Speed	Α	В	С
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

- * The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.
- ** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

SYMBOLS



- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Advance Warning Arrow Board

GENERAL NOTES

- 1. Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
- 2. On undivided highways the median signs as shown are to be omitted.
- 3. When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

The same applies to undivided highways with the following exceptions:

- a. Work shall be confined within one median lane.
- b. Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.

- 4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
- 5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
- 6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.
- 7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
- 8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.
- 9. For general TCZ requirements and additional information, refer to Index No. 600.

Table II					
Buffer	Space	and Ta	per Length		
Speed (mph)	Buffer Space	Taper Length (12' Lateral Transition)			
	Dist. (ft.)	L (ft.)	Notes (Merge)		
25	155	125	$L = \frac{WS^2}{60}$		
30	200	180			
35	250	245			
40	305	320			
45	360	540			
50	425	600			
55	495	660			
60	570	720	L = WS		
65	645	780			
70	730	840			

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use formula for L shown in notes column. Where:

- L = Length of taper in feet
- W = Width of lateral transition in feet
- S = Posted speed limit (mph)

DURATION NOTES

- 1. Temporary white edgeline may be omitted for work operations less than 3 consecutive calandar days.
- 2. For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions are met:
- a. Speed limit is 45 mph or less.

Device Spacing

Taper | Tangent | Taper

50

50

50

Cones or

Tubular Markers

25

Speed

30 to 45

50 to 70

Max. Distance Between Devices (ft.)

25

50

Type I or Type II

Barricades or Vertical

Panels or Drums

Tangent

50

50

100

- b. No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
- c. Volume and complexity of the roadway has been considered.
- d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
- 3. For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST NOISION 1/01/16	PTION:	FDOT	FY DESIGN	2017-18 STANDARDS
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MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE

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NO.	NO.
613	1 of