SITE DEVELOPMENT PLANS
OF
READY STREET OUTFALL IMPROVEMENTS

ST. MARYS, GA

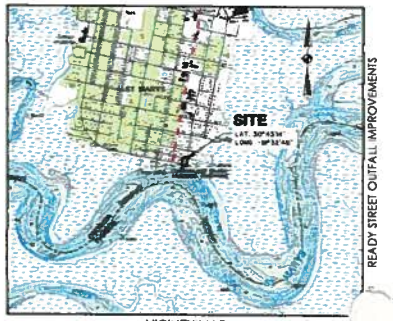
PREPARED FOR:
CITY OF ST. MARYS
819 POINT PETER ROAD
ST. MARYS, GEORGIA 31588

JUNE 24, 2015
REVISED: MAY 22, 2017

J-25144.0001

PREPARED BY:

THOMAS & HUTTON
Engineering | Surveying | Planning | GIS | Consulting



VICINITY MAP
SCALE: 1" = 2000'

READY STREET OUTFALL IMPROVEMENTS

J-25144.0001

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REVISION HISTORY

REV NO	REVISION	BY	DATE
2	ARMY CORPS OF ENGINEERS COMMENTS	ARS	5/22/17
1	ARMY CORPS OF ENGINEERS COMMENTS	JAR	8/8/16

SUBMITTAL HISTORY

SUBMITTED TO	DATE

811
Know what's below.
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Savannah, GA 31405
p.912.234.5300 f.912.234.2950

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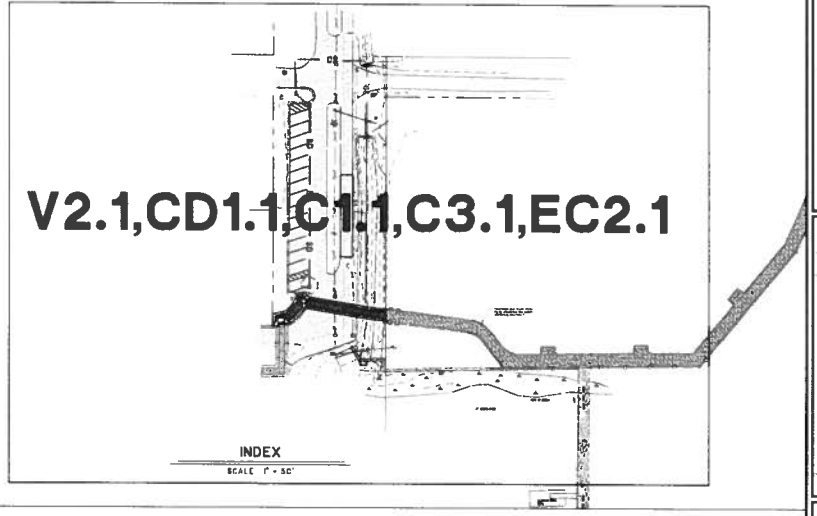
GENERAL NOTES

1. THE PROJECT AREA IS LOCATED ALONG THE EAST SIDE OF READY STREET BETWEEN STABLE ALLEY AND ST MARYS STREET THE TOTAL PROJECT AREA/DISTURBED AREA IS 0.2 ACRES
2. THE PROJECT AREA IS WITHIN FLOOD ZONE AE (EL 11 AND ZONE VE (EL 11 AS SHOWN ON THE CAMDEN COUNTY, GEORGIA FLOOD INSURANCE RATE MAP PANEL 13039C0406F LAST REVISED 12/16/2008
3. ALL ON SITE ELEVATIONS REFER TO NAVD88 DATUM, WITH ALL COORDINATES BASED ON GEORGIA STATE PLANE EAST ZONE COORDINATE SYSTEM NO FOOT NAD83 EXISTING CONDITIONS PLAN BASED ON SURVEY PROVIDED BY JACKSON SURVEYING, INC DATED 4/26/2011
4. THERE ARE TIDAL WETLANDS LOCATED WITHIN THE PROJECT BOUNDARY
5. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CONSTRUCTION PLANS AND SPECIFICATIONS
6. TREE PROTECTION BARRICADES, IF REQUIRED, SHALL BE INSTALLED PRIOR TO ANY CLEARING ACTIVITY AND MAINTAINED UNTIL INSTRUCTED BY THE OWNER OR ENGINEER TO REMOVE THEM
7. ST MARYS FIRE DEPARTMENT MUST BE NOTIFIED OF ANY ROAD CLOSURES AND TRAFFIC CONTROL MEASURES MUST BE EMPLOYED AT LEAST 72 HOURS IN ADVANCE OF ANY ROAD CLOSURES
8. THE CONTRACTOR SHALL CONTACT ALL LOCAL UTILITY COMPANIES BEFORE WORK COMMENCES VERIFY UTILITIES WITHIN THE PROJECT LIMITS AND NOTIFY THE ENGINEER OF CONFLICTS OR VARIANCES TO THE PLANS PRIOR TO BEGINNING WORK OR PURCHASE OF MATERIALS
9. THE CONTRACTOR SHALL COORDINATE DEMOLITION AND IMPROVEMENTS TO MINIMIZE TRAFFIC INTERFERENCE AND OPERATIONS OF FACILITIES
10. ALL UTILITY POLES ADJACENT TO PROPOSED CONSTRUCTION MUST BE SECURED PRIOR TO ANY ADJACENT DISTURBANCE AND THE CONSTRUCTION PROCEDURE MUST BE ACCEPTABLE TO THE UTILITY COMPANY
11. EACH EXISTING ROAD WILL BE CLEANED UP AND RESTORED DAILY
12. NEW PAVEMENT TO BE FLUSH WITH EDGE OF EXISTING PAVEMENT
13. NOTIFY THE ENGINEER AND THE CITY OF ST MARYS ENGINEER 48 HOURS BEFORE BEGINNING CONSTRUCTION
14. IT IS THE OBLIGATION OF THE CONTRACTOR TO MAKE THEIR OWN INTERPRETATION OF ALL SURFACE AND SUBSURFACE DATA AVAILABLE AS TO THE NATURE AND EXTENT OF THE MATERIALS TO BE EXCAVATED, WASTED, GRADED, AND COMPACTED THE INFORMATION SHOWN ON THESE PLANS IS NO WAY GUARANTEES THE AMOUNT OR NATURE OF THE MATERIAL TO BE ENCOUNTERED
15. FOREIGN BORROW NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR FROM SOURCES DEVELOPED BY THE CONTRACTOR ALL COST FOR THIS SERVICE SHALL BE PAID IN FULL BY CONTRACTOR
16. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH THE DISTURBANCE OF THE LAND, INCLUDING DEMOLITION, AND SHALL REMAIN FUNCTIONAL UNTIL THE CONTRIBUTING DISTURBED AREAS ARE STABILIZED SILT BARRIERS WILL BE INSTALLED AS NECESSARY TO PREVENT EXCESSIVE SEDIMENTATION OUTSIDE THE PROJECT LIMITS
17. TOPOGRAPHIC SURVEY BY JACKSON SURVEYING INC ALL ELEVATIONS REFER TO NAVD 1988 DATUM
18. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION ACTIVITIES WITH LOCAL UTILITY COMPANIES AND ADJACENT PROPERTY OWNERS CONTRACTORS SHALL BE RESPONSIBLE FOR PROTECTION OF UNDERGROUND UTILITIES AND COORDINATION OF PROTECTION OF UTILITIES WITH THE UTILITY PROVIDER ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR UTILITIES LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE AND SHOULD BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE UTILITY ONE-CALL NUMBER: 1-800-282-7411 OR 811 TO VERIFY ALL EXISTING UTILITIES AFFECTED BY THE WORK PRIOR TO ANY EXCAVATION & NOTIFY ENGINEER OF ANY DISCREPANCIES
19. CONTRACTOR TO VERIFY ELEVATION, SIZE, AND LOCATION OF ALL EXISTING PIPES PRIOR TO ORDERING STRUCTURES OR COMMENCING CONSTRUCTION CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM INFORMATION DEPICTED ON PLANS
20. CONTRACTOR SHOULD CONFIRM PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING CONSTRUCTION
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CLEARING, GRUBBING, DEMOLITION, AND DISPOSAL NECESSARY TO CONSTRUCT THE PROPOSED UTILITIES AND DRAINAGE STRUCTURES NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE UNLESS NOTED OTHERWISE
22. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION ACT OF 1975, AS AMENDED AND THE NPDES GENERAL STORM WATER PERMIT PROVISIONS SHALL BE MADE DURING CONSTRUCTION TO PREVENT SILT FROM WASHING INTO CREEKS AND ADJACENT FLOODPLAINS ALL SOIL EROSION & SEDIMENTATION CONTROL SHALL BE SUBJECT TO REVIEW BY THE ENGINEER SEE EROSION CONTROL NOTES FOR FURTHER DETAIL
23. ALL STORM DRAINAGE PIPE SHALL BE ASTM C76 CLASS III REINFORCED CONCRETE PIPE OR REINFORCED CONCRETE ELLIPTICAL PIPE (ASTM C-507)WITH RUBBER GASKET JOINTS UNLESS OTHERWISE NOTED NO LIFTING HOLES WILL BE ALLOWED
24. ANY DEFECTIVE, DAMAGED OR UNSOUND PIPE SHALL BE REJECTED ALL FOREIGN MATTER OR DIRT SHALL BE REMOVED FROM THE INSIDE OF THE PIPE BEFORE IT IS LOWERED INTO ITS POSITION IN THE TRENCH AND SHALL BE KEPT CLEAN DURING AND AFTER LAYING CARE SHALL BE TAKEN TO PREVENT DIRT FROM ENTERING THE JOINT SPACE. AT TIMES WHEN PIPE LAYING IS NOT IN PROGRESS, THE OPEN ENDS OF THE PIPE SHALL BE CLOSED BY ACCEPTABLE MEANS AND NO TRENCH WATER SHALL BE PERMITTED TO ENTER PIPE
25. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY NUMBER OF TREES TO PROTECT OR REMOVE BY CONTRACTOR A FIELD WALK THROUGH PRIOR TO BIDDING THE WORK PRIOR TO CONSTRUCTION CONTRACTOR SHALL WALK THE SITE WITH THE CITY OF ST MARYS TO CONFIRM TREES TO BE SAVED/REMOVED
26. RECORD DRAWINGS MUST BE PROVIDED BY THE CONTRACTOR UPON PROJECT COMPLETION AND BEFORE PUNCHLIST WALK THROUGH ALL STRUCTURES, PIPES, PAVEMENTS, ETC INSTALLED AS A PART OF THE PROJECT SHALL BE DOCUMENTED THE RECORD DRAWINGS SHALL INCLUDE FINISHED GRADE OF WALKWAYS AND RAMPS THE RECORD DRAWINGS SHALL INCLUDE INVERT ELEVATIONS AND LOCATIONS OF ALL PIPES & STRUCTURES RECORD DRAWINGS MUST BE CERTIFIED BY A REGISTERED LAND SURVEYOR IN THE STATE OF GEORGIA
27. THE FOLLOWING UTILITY OWNERS MAY HAVE FACILITIES WHICH CONFLICT WITH CONSTRUCTION ON THIS PROJECT
    CITY OF ST MARYS WATER & SEWER DEPARTMENT, ROBERT MARR, (912) 882-4415
28. SEE EROSION CONTROL SHEETS, NOTES AND DETAILS FOR EROSION AND POLLUTION CONTROL MEASURES TO BE IMPLEMENTED CONTRACTOR SHALL FOLLOW ALL NPDES PERMIT CONDITIONS AS SET FORTH IN THE BMP IN 100000
29. PERMANENT COVER SHALL BE ESTABLISHED AND SHALL BE MAINTAINED FOR A WARRANTY PERIOD OF ONE YEAR FROM THE DATE OF THE FINAL ACCEPTANCE OF THE PROJECT
30. SUITABLE MATERIAL EXCAVATED DURING CONSTRUCTION SHALL BE USED ON SITE TO THE EXTENT POSSIBLE THE CONTRACTOR SHALL NOTIFY THE OWNER IF UNSUITABLE MATERIAL IS DISCOVERED PRIOR TO BEGINNING ANY REMOVAL OPERATION ANY EXCESS SUITABLE OR UNSUITABLE MATERIAL SHALL BE HAULED OFFSITE AT THE CONTRACTOR'S EXPENSE
31. THE CONTRACTOR SHALL IMMEDIATELY REPAIR EXISTING WATER & SEWER SERVICES DAMAGED DURING CONSTRUCTION AT THE CONTRACTOR'S EXPENSE
32. BACKFILL NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR FROM SOURCES DEVELOPED BY THE CONTRACTOR AND ACCEPTABLE TO THE CITY OF ST MARYS
33. ALL PIPE JOINTS SHALL BE WRAPPED TWICE WITH FILTER FABRIC (MIRAFI 140-N OR EQUIVALENT SEE SPECIFICATIONS FOR WIDTH AND OVERLAP
34. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY DRAWING SHEETING AND DEWATERING TO COMPLETE THE PROJECT, AND PROTECT THE CONSTRUCTION WORKERS AND ALL ADJACENT STRUCTURES, TREES, AND LANDSCAPING THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIR AND COST TO RETURN AREA TO ORIGINAL ORIGINAL CONDITION
35. PROPERTY CORNERS DISTURBED BY CONSTRUCTION SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR PROVIDED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE
36. CONTRACTOR SHALL CLEAN ALL INLETS AND PIPES AT THE COMPLETION OF CONSTRUCTION TO REMOVE SILT AND DEBRIS SILT AND DEBRIS ARE TO BE COLLECTED AND DISPOSED OF PROPERLY THE CLEANING OF INLETS AND PIPES SHALL BE CONSIDERED PART OF THE COST FOR THE PIPE ON THE PROJECT
37. TRAFFIC CONTROL DEVICES USED IN ALL WORK ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" CURRENT EDITION CONTRACTOR SHALL FURNISH TRAFFIC CONTROL PLAN THAT WILL BE REVIEWED BY THE OWNER
38. CONTRACTOR SHALL MAINTAIN TRAFFIC ONE LANE OF TRAFFIC AT ALL TIMES DURING CONSTRUCTION ANY ITEMS REQUIRED TO MAINTAIN TRAFFIC SHALL BE INCLUDED IN THE ITEM "TRAFFIC CONTROL", UNLESS OTHERWISE INDICATED
39. CONTRACTOR SHALL MAINTAIN INGRESS/EGRESS TO ALL PROPERTIES DURING CONSTRUCTION ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY SHALL BE INCLUDED IN THE ITEM "TRAFFIC CONTROL" CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ADJACENT PROPERTY OWNERS CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING CONTINUOUS ACCESS FOR LANDOWNERS AT ALL TIMES DURING CONSTRUCTION
40. ALL DAMAGE CAUSED BY CONTRACTOR OR ITS SUB-CONTRACTORS DURING CONSTRUCTION IS TO BE REPAIRED TO ORIGINAL CONDITIONS AT THE CONTRACTORS EXPENSE CONTRACTOR TO PAY ALL FINES, PENALTIES & FEES AND HOLD HARMLESS OWNER AND ENGINEER
41. CONTROL OF STORMWATER THROUGHOUT THE CONSTRUCTION PERIOD SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD ALL PENALTIES, CLAIMS, AND FEES IMPOSED ON THE OWNER AS A RESULT OF DAMAGE CAUSED BY ACTIONS OF THE CONTRACTOR, HIS EMPLOYEES, OR SUBCONTRACTORS SHALL BE BORNE IN FULL BY THE CONTRACTOR
42. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN ACCEPTABLE WASTE DISPOSAL AREA THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL CONSTRUCTION DEBRIS ALL WORK SHALL CONFORM TO APPLICABLE STATE, COUNTY AND MUNICIPAL REQUIREMENTS, CODES, AND PERMITS ACQUIRED FOR CONSTRUCTION
43. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE PRIOR TO BEGINNING WORK
44. WETLANDS WITHIN THE PROJECT ARE WITHIN THE JURISDICTION OF THE US ARMY CORPS OF ENGINEERS AND/OR THE GEORGIA DEPARTMENT OF NATURAL RESOURCES, WHICH REQUIRE A PERMIT FROM THE AGENCY FOR ANY DISTURBANCE ACTIVITY CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION ACTIVITY WITHIN JURISDICTIONAL WETLANDS WITHOUT CONFIRMATION OF PERMIT AUTHORIZATION
45. PROJECT AREA SHALL BE LIMITED TO THE RIGHT-OF-WAY OF CITY OF ST MARYS CONTRACTOR, PERSONNEL, EQUIPMENT, OR MATERIAL SHALL NOT ENTER ONTO PRIVATE PROPERTY WITHOUT PRIOR WRITTEN CONSENT FROM CITY AND PROPERTY OWNER
46. SHOULD WATER & SEWER UTILITIES REQUIRE RELOCATION
    46.1 MAINTAIN A 10' HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWERS AND ALL WATER MAINS WHERE THIS SEPARATION CANNOT BE MAINTAINED OR WHERE LINES CROSS, PROVIDE AN 18" MINIMUM VERTICAL SEPARATION BETWEEN THE OUTSIDE OF THE PIPES IF THESE REQUIREMENTS CANNOT BE MET PROPOSED WATERLINE WILL BE CONSTRUCTED OF DUCTILE IRON PIPE UNTIL REQUIREMENTS ARE MET
    46.2 ANY REQUIRED SHUTDOWN OF WATER AND SANITARY SEWER LINES SHALL BE COORDINATED WITH THE OWNER/OPERATOR OF THE SYSTEM ALL REQUESTS FOR DISRUPTION SHALL BE MADE A MINIMUM OF 72 HOURS IN ADVANCE OF THE REQUIRED SHUTDOWN

DEMOLITION NOTES

47. UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT REPRESENT ACTUAL AND ALL LOCATIONS IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN AVAILABLE RECORD DRAWINGS AND COORDINATE WITH THE PROVIDER TO LOCATE ALL UTILITIES PRIOR TO DEMOLITION
48. UTILITIES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES
49. THE CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING BARRICADES, ENCLOSURES ETC. TO THE BEST PRACTICES
50. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE
51. PRIOR TO COMMENCING DEMOLITION OF EXISTING SITE CONTRACTOR SHALL IMPLEMENT PHASING OF EROSION & SEDIMENTATION CONTROL PRACTICES



PREPARED FOR:

CITY OF ST. MARYS
819 POINT PETER ROAD
(912) 882-4415

GENERAL INFORMATION

OWNER:
CITY OF ST. MARYS
819 POINT PETER ROAD
ST MARYS, GA 31558
(912) 882-4415

SURVEYOR:
JACKSON SURVEYING, INC
3328 DARIEN HWY, SUITE 217
BRUNSWICK, GA 31525
(912) 265-3856

ENGINEER:
THOMAS & HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31405
(912) 234-5300

COUNTY	CAMDEN COUNTY
CITY	CITY OF ST MARYS

ABBREVIATIONS

HDPE	HIGH DENSITY POLYETHYLENE	JB	JUNCTION BOX	SDMH	STORM DRAINAGE MANHOLE
BOT	BOTTOM	LF	LINEAR FEET	SF	SQUARE FEET
CI	CURB INLET	MAX	MAXIMUM	SS	SANITARY SEWER
CPP	CORRUGATED PLASTIC PIPE	MIN	MINIMUM	TC	TOP OF CURB
DIP	DUCTILE IRON PIPE	MH	MANHOLE	TS	TOP OF SIDEWALK
EL	ELEVATION	OC	ON CENTER	TP	TOP OF PAVEMENT
FG	FINISH GRADE	PC	POINT OF CURVE	TW	TOP OF WALL
FH	FIRE HYDRANT	PH	POST HYDRANT	TYP	TYPICAL
FM	FORCE MAIN (SANITARY SEWER)	PT	POINT OF TANGENT	W	WATER
FP	FINISH PAD	PVC	POLYVINYL CHLORIDE	W/	WITH
FR	FRAME	RCP	REINFORCED CONCRETE PIPE	WV	WATER VALVE
GI	GRATE INLET	RJP	RESTRAINED JOINT PIPE	YI	YARD INLET
GV	GATE VALVE	R/W	RIGHT-OF-WAY		
INV	INVERT ELEVATION	SD	STORM DRAINAGE		

LEGEND:

DESCRIPTION	EXISTING	PROPOSED
WATER LINE		
WATER VALVE		
FIRE HYDRANT		
WATER MANHOLE		
SANITARY SEWER LINE		
SANITARY SEWER MANHOLE		
STORM LINES		
DITCH CENTER LINE		
STORM MANHOLE		
GRATE INLET		
DITCH INLET		
LIGHT POLE		
POWER POLE		
POWER POLE W/ GUY		
OVERHEAD POWER		
SPOT ELEVATION		
PROPERTY LINE		
LOT LINE		
RIGHT-OF-WAY		
PROPERTY & R/W MARKERS		
SURVEY LOCATION MARKERS IRON PIN, NAIL, REBAR, PKNAIL FOUND		
FENCE		
OVERHEAD TELEPHONE		
TELEPHONE PEDESTAL		
WELL		
UTILITY MANHOLE		
WETLANDS		
RIP-RAP		
LIMITS OF DISTURBANCE		

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CITY OF ST. MARYS
ST MARYS GA
READY STREET OUTFALL IMPROVEMENTS
GENERAL NOTES A

JOB NO	23844.00CD
DATE	6/16/2023
DRAWN	MCS
DESIGNED	AR
REVIEWED	
APPROVED	KMS
SCALE	AS TO SCALE

G1.1

GA DNR
MAY 26 2017
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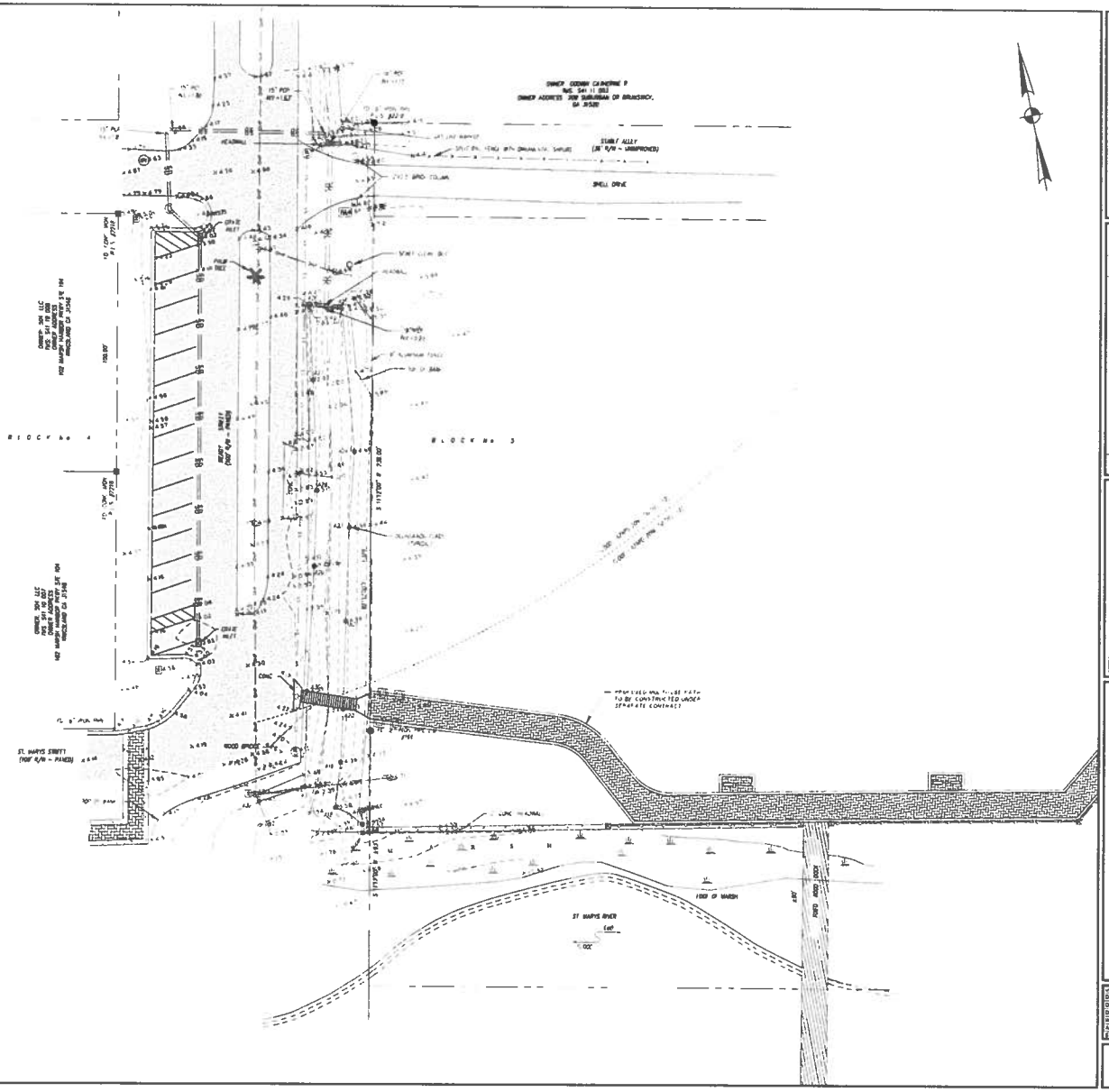
LEGEND:

- UTILITY POLE
- WATER METER
- GUY ANCHOR
- TELEPHONE PEDESTAL
- WATER VALVE
- SANITARY SEWER MANHOLE
- STORM MANHOLE
- OVERHEAD POWER LINES
- SANITARY SEWER PIPES
- ASPHALT
- CONCRETE

NOTES:

1. BEARINGS SHOWN HEREON REFER TO THE BEARING OF N11°12'00"E FOR THE E'LY R/W LINE OF READY STREET ACCORDING TO THE OFFICIAL PLAN OF ST. MARYS RECORDED IN P.B. 1, PG. 94, PUBLIC RECORDS OF SAID COUNTY.
2. SEE CITY ZONING REGULATIONS FOR BUILDING SETBACK REQUIREMENTS
3. THIS IS A TOPOGRAPHICAL SURVEY OF A PORTION OF READY STREET. BOUNDARY INFORMATION SHOWN HEREON WAS TAKEN FROM SURVEY BY JACKSON SURVEYING, INC. DATED OCTOBER 10, 2012
4. THERE MAY EXIST RESTRICTIONS OR ENCUMBRANCES AFFECTING THE SUBJECT PROPERTY THAT ARE NOT KNOWN TO JACKSON SURVEYING, INC
5. NO ATTEMPT WAS MADE BY JACKSON SURVEYING, INC. TO DETERMINE WETLAND AREAS OR OTHER ENVIRONMENTAL ISSUES, IF ANY, THAT MAY AFFECT THE SUBJECT PROPERTY
6. THE CURRENT DNR MARSHLINE SHOWN HEREON WAS FLAGGED BY RESOURCE LAND CONSULTANTS IN OCTOBER 2012
7. DATE OF FIELD SURVEY: JULY 13, 2015 BY JACKSON SURVEYING INC



GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft

NO	REVISIONS	BY	DATE

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CITY OF ST. MARYS
ST. MARYS, GA

READY STREET OUTFALL IMPROVEMENTS

EXISTING CONDITIONS

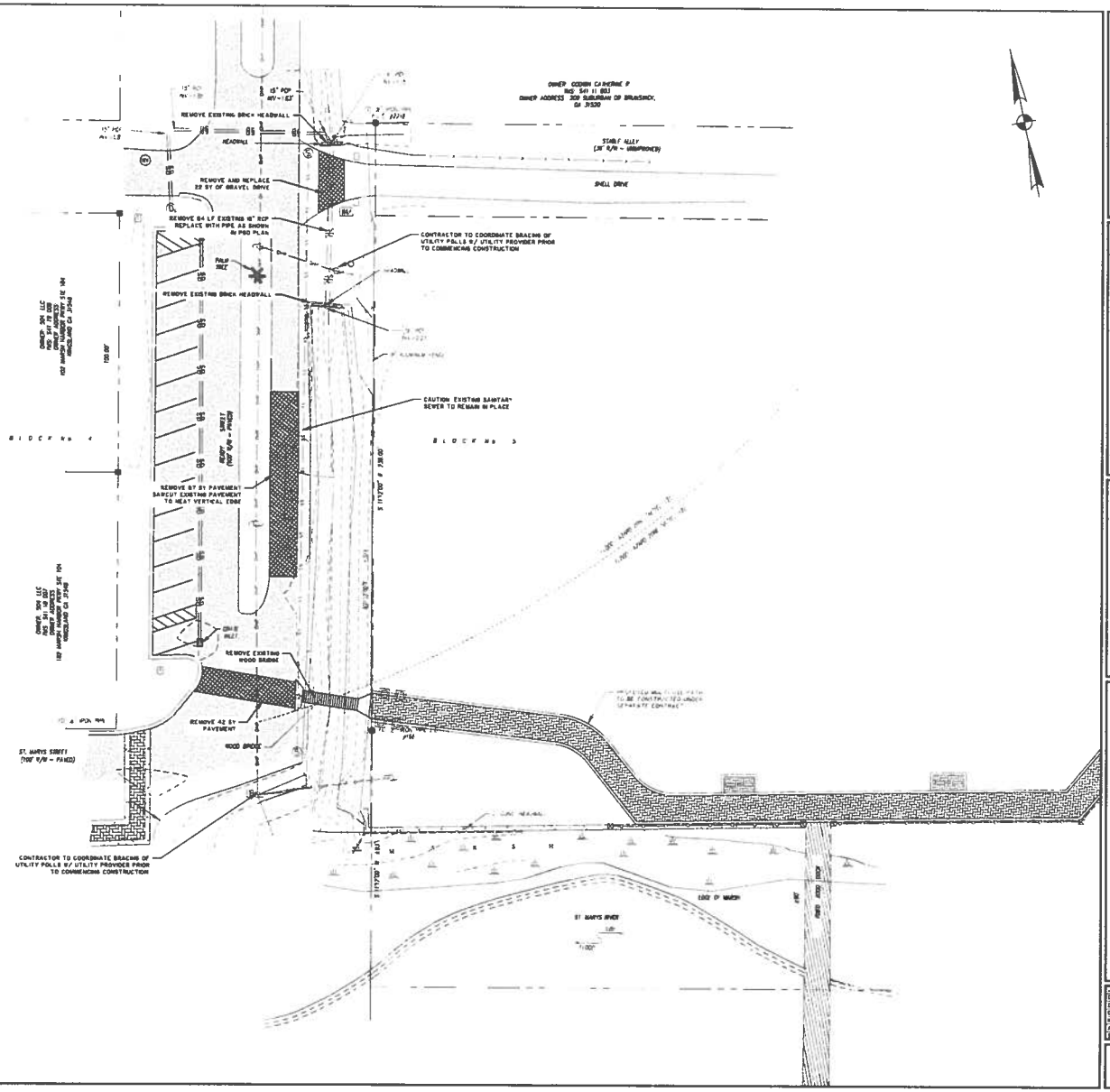
JOB NO. P 13444.0001
DATE 6/24/2015
DRAWN JAR
DESIGNED JAR
REVIEWED
APPROVED EMS
SCALE 1" = 20'

V2.1

MAY 26 2017
GA DNR
Marsh & Shore Mgt. Program

DEMOLITION NOTES

1. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND MAY NOT REPRESENT ACTUAL AND ALL LOCATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN AVAILABLE RECORD DRAWINGS AND COORDINATE WITH THE PROVIDER TO LOCATE ALL UTILITIES PRIOR TO DEMOLITION
2. TREE PROTECTION, EROSION, AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO, OR CONCURRENT WITH LAND DISTURBING ACTIVITIES
3. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL IN A LOCATION ACCEPTABLE TO ALL GOVERNING AUTHORITIES, OF ALL MATERIALS INDICATED IN THIS PLAN. ALL MATERIALS TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING OF THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL
5. UTILITIES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION, AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
6. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES
7. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
8. PRIOR TO COMMENCING DEMOLITION OF EXISTING SITE, CONTRACTOR SHALL IMPLEMENT PHASING OF EROSION & SEDIMENTATION CONTROL PRACTICES.
9. PRIOR TO BEGINNING DEMOLITION OF EXISTING SITE, CONTRACTOR SHALL NOTIFY THE CHATHAM COUNTY BOARD OF COMMISSIONERS AND THOMAS & HUTTON WITHIN 72 HOURS.
10. CONTRACTOR SHALL MAINTAIN SAFE AND FUNCTIONAL STORMWATER CONVEYANCE THROUGHOUT CONSTRUCTION
11. EXISTING DRAINAGE, WATER AND SANITARY SEWER UTILITIES AND ASSOCIATED APPURTENANCES SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION OPERATIONS
12. ALL EXISTING SILT FENCE SHALL BE REMOVED AND DISPOSED OF PRIOR TO COMMENCEMENT OF DEMOLITION. ASSOCIATED APPURTENANCES SHALL BE PROTECTED DURING DEMOLITION



GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft

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NO	REVISIONS	BY	DATE

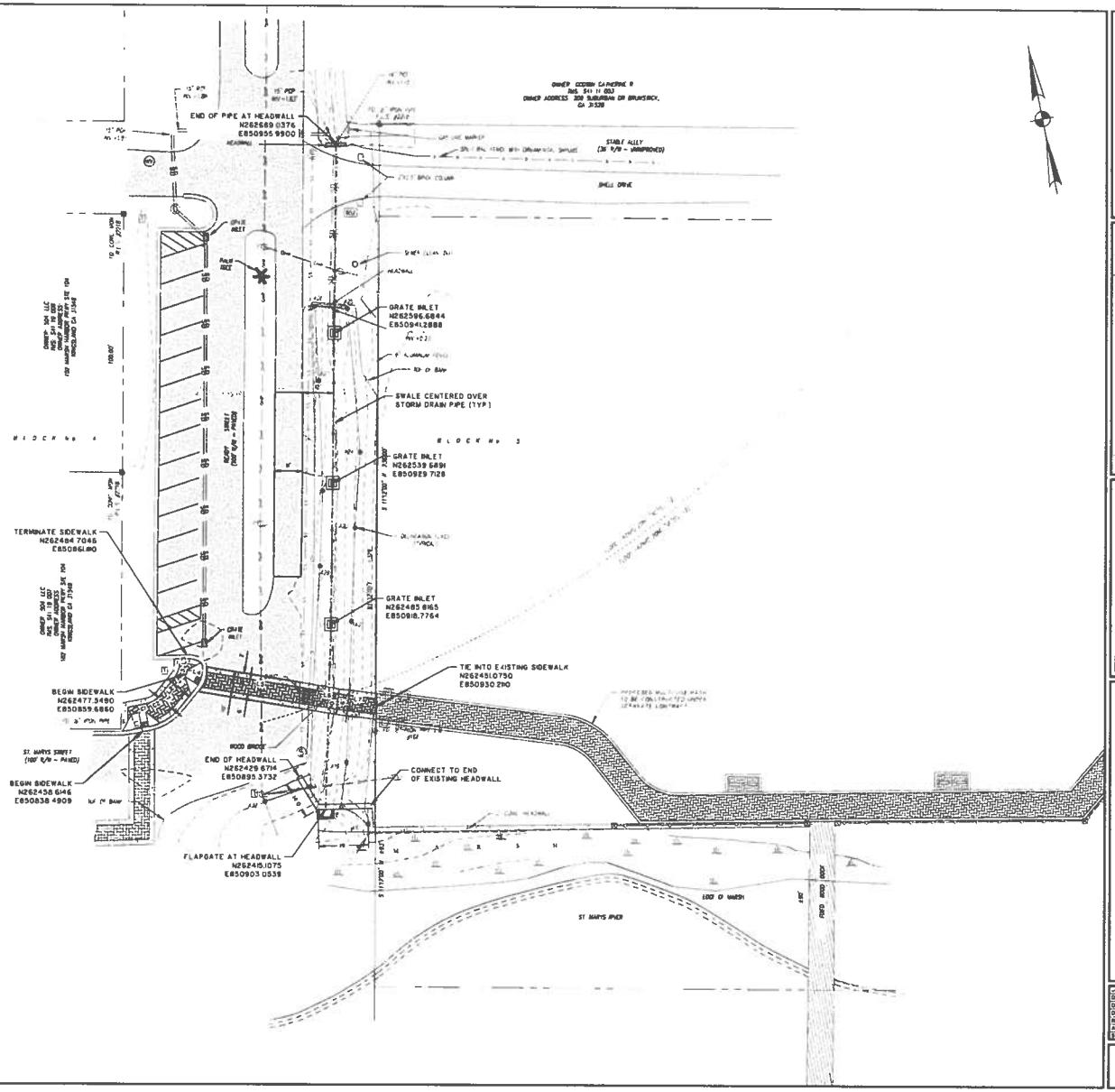
CITY OF ST. MARYS
ST. MARYS, GA

READY STREET OUTFALL IMPROVEMENTS

DEMOLITION PLAN

JOB NO. J-13844.00CN
DATE 5/24/2016
DRAWN MCS
DESIGNED JLR
REVIEWED
APPROVED KMS
SCALE 1"=20'

CD1.1



LINE TABLE		
LINE	BEARING	LENGTH
L1	N 0°18'20" E	7.00'
L2	N 50°18'28" E	8.82'
L3	N 8°22'12" E	1.34'
L4	S 50°54'10" E	7.25'
L5	S 88°48'40" E	43.90'
L6	S 88°48'40" E	9.32'
L7	S 72°08'31" E	14.85'

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	CHD BEARING	DELTA
C1	138.08'	3.85'	3.85'	N 88°31'43" E	1°35'11"
C2	12.16'	8.08'	7.84'	N 70°30'14" E	38°08'35"
C3	12.58'	8.99'	8.80'	N 29°30'20" E	40°56'18"

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

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CITY OF ST. MARYS
ST. MARYS, GA

READY STREET OUTFALL IMPROVEMENTS

SITE LAYOUT I

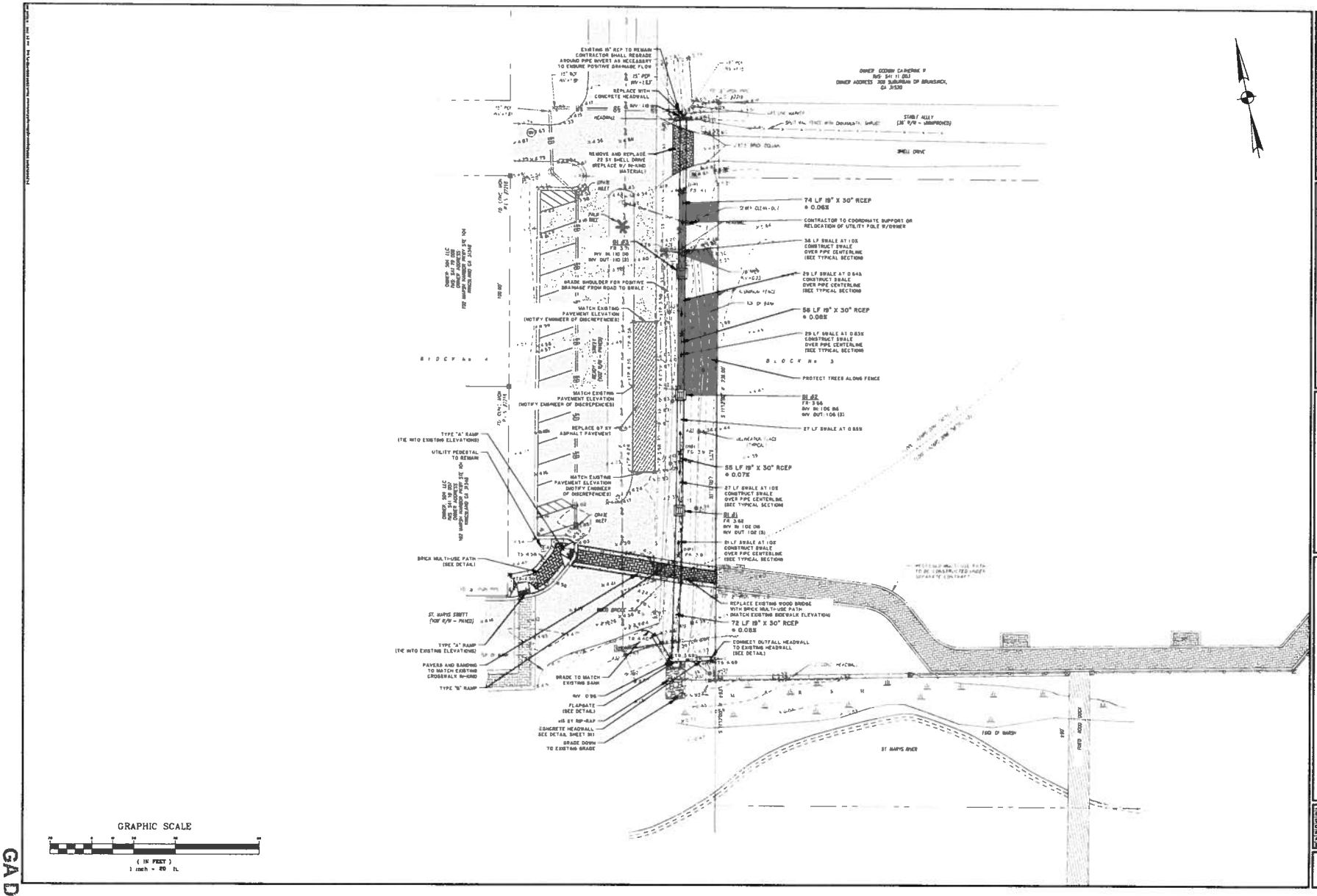
JOB NO. 7-23644.000
DATE 5/24/2016
DRAWN MCB
DESIGNED AJK
REVISED
APPROVED KMS
SCALE 1" = 20'

C1.1

GA DNR

MAY 26 2017

Marsh & Shore Mgt. Program



GA DNR

MAY 26 2017

March & Shore Mit. Program

NO	DATE	BY
1	ARMY CORPS OF ENGINEERS COMMENTS	JAB 5/8/17

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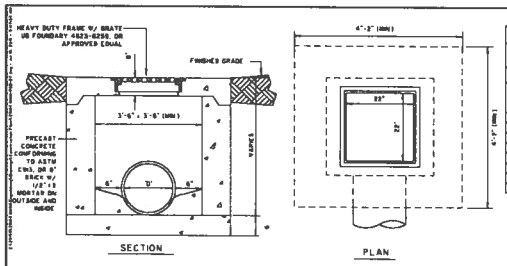
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

CITY OF ST. MARYS
ST. MARYS, GA
READY STREET OUTFALL IMPROVEMENTS
PAVING, GRADING AND DRAINAGE PLAN

JOB NO.	2-2844-0008
DATE	5/24/2016
DRAWN	MCS
DESIGNED	AJP
REVIEWED	
APPROVED	RMS
SCALE	1"=20'

C3.1



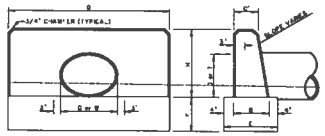
DITCH INLET

NOT TO SCALE

NOTE. CONTRACTOR TO PROVIDE SUBMITTALS FOR ENGINEER REVIEW AND APPROVAL PRIOR TO ORDERING STRUCTURES

HORIZONTAL ELLIPTICAL CONCRETE PIPE														
MINIMUM DIMENSIONS											QUANTITIES ONE ENDWALL			
OPENING			WALL			FOOTING			CLASS "B" CONCRETE					CONC IN WALL @ FT TO FOR 1 FT ABOVE SPL
T (HEIGHT) PIPE DIM		W (WIDTH) PIPE DIM.	AREA SQ FT	G	H	B	E	F	CUBIC FT WALL	CUBIC FT FOOT	TOTAL CU FT	TOTAL CU YD		
14"	x	23"	1.8	8'-8"	2'-3"	1'-4"	2'-0"	1'-3"	17.3	22.7	39.8	1.5		2.59
19"	x	30"	3.3	10'-6"	2'-9"	1'-8"	2'-2"	1'-6"	28.2	32.5	60.7	2.25		2.81
24"	x	38"	5.1	13'-0"	3'-0"	1'-9"	2'-3"	1'-10"	43.8	47.8	91.4	3.75		1.25
29"	x	45"	7.4	15'-0"	3'-6"	2'-0"	2'-8"	2'-0"	63.9	80.0	143.9	5.33		1.90
34"	x	53"	10.2	17'-0"	3'-9"	2'-4"	3'-0"	2'-0"	88.9	108.0	197.8	7.32		2.23
38"	x	60"	12.9	20'-0"	4'-3"	2'-8"	3'-2"	2'-0"	112.2	129.7	241.9	8.96		2.58
43"	x	68"	16.6	22'-0"	4'-9"	2'-9"	3'-5"	2'-3"	144.0	167.5	329.6	12.1		3.33
48"	x	76"	20.5	23'-0"	5'-0"	3'-0"	3'-8"	2'-3"	200.3	208.3	408.6	15.06		4.05

* FOR EACH ADDITIONAL PIPE LINE, 2" TO 30" WIDTH ADD -6" - WIDTH. 30" WIDTH AND ABOVE ADD 3" 6" - WIDTH

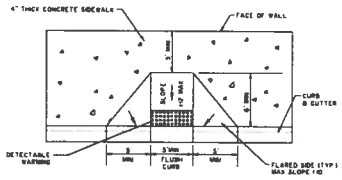


NOTE
WHEN DITCH PAVING IS SPECIFIED RECESS SURFACE OF 1 DOWEL TO ACCOMMODATE THICKNESS OF DITCH PAVING

CONCRETE ENDWALLS STRAIGHT TYPE

NOT TO SCALE

NOTE CONTRACTOR TO PROVIDE SUBMITTALS FOR ENGINEER REVIEW AND APPROVAL PRIOR TO ORDERING STRUCTURES

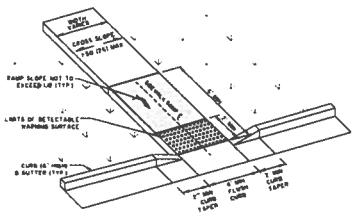


PLAN

NOTES
1 CONSTRUCTION OF ACCESSIBLE CURB RAMP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES
2 TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20 (5%)
3 CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS THE FULL WIDTH OF CURB RAMP. SEE DETECTABLE WARNING DETAIL

CURB RAMP "TYPE A"

NOT TO SCALE

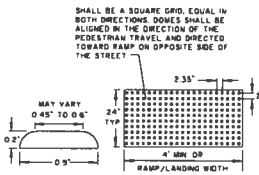


ISOMETRIC VIEW OF RAMP

NOTES
1 CONSTRUCTION OF ACCESSIBLE CURB RAMP SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES
2 TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20 (5%)
3 CURB RAMP SHALL HAVE A DETECTABLE WARNING THAT EXTENDS THE FULL WIDTH OF CURB RAMP. SEE DETECTABLE WARNING DETAIL
4 LONGITUDINAL SLOPE OF SIDEWALK TO BE NO GREATER THAN 1:20 (5%)

CURB RAMP "TYPE B"

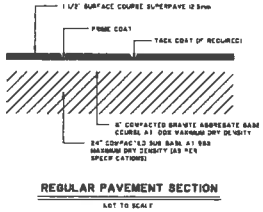
NOT TO SCALE



NOTE:
1 DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF CONCRETE THE WARNING AREA SHALL BE RED BRICK IN COLOR. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF RED BRICK, THE WARNING AREA SHALL BE GRAY IN COLOR. THE COLOR USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE
2 BRICK PAVERS SHALL BE SET IN A WET MORTAR BED ON A 4" MIN THICK CONCRETE FOUNDATION

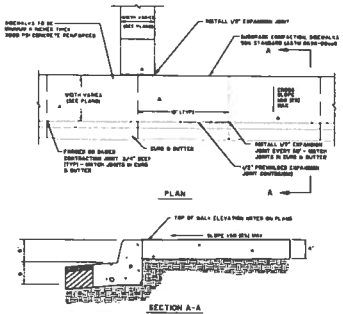
DETECTABLE WARNING DETAIL

NOT TO SCALE



REGULAR PAVEMENT SECTION

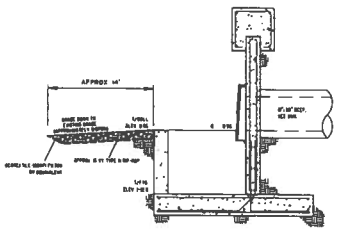
NOT TO SCALE



NOTES
1 ALL CONSTRUCTION SHALL CONFORM TO THE TECHNICAL SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO SECTION 02300 - EARTHWORK AND SECTION 03300 - CAST-IN-PLACE CONCRETE
2 CONTRACTION JOINTS SHOULD BE TOOLED OR SAWED CONSISTENT WITH THE 10' JOINTS IN THE CURB
3 RAMP RAMPS SHALL BE INSTALLED AT EACH INTERSECTION OR BEGINNING CROSSWALK LOCATION AND SHALL MEET THE MOST CURRENT ADA STANDARDS AND SPECIFICATIONS AT THE TIME OF CONSTRUCTION
4 ON ADJOINING POINTS WHERE GRADIENT IS LESS THAN 5% MAX, PARKING SPACES AT LEAST 9'X5' SHALL BE LOCATED AT REASONABLE INTERVALS NOT TO EXCEED 200'

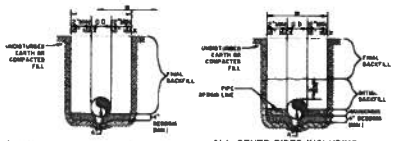
ACCESSIBLE SIDEWALK DETAIL

NOT TO SCALE



OUTFALL RIP-RAP

NOT TO SCALE



REINFORCED CONCRETE PIPE (RCP) AND SPIRAL RIB PIPE SMALLER THAN 60"s

NOT TO SCALE

ALL OTHER PIPES INCLUDING SPIRAL RIB PIPE 60"s AND LARGER

NOT TO SCALE

GENERAL NOTES

1 BEDDING SHALL BE CLASS I-A WORKED BY HAND IF GROUNDWATER IS ANTICIPATED. THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR
2 HAUNCHING SHALL BE FORMED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR
3 INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR

GENERAL NOTES- CONTINUED

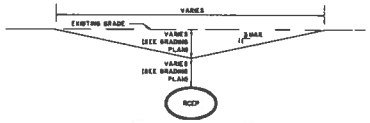
4 INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR
5 FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3 AND 4
6 FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR
7 ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION

GENERAL NOTES- CONTINUED

8 ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698 CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT
9 FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3"
10 ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES (SEE SPECIFICATIONS)

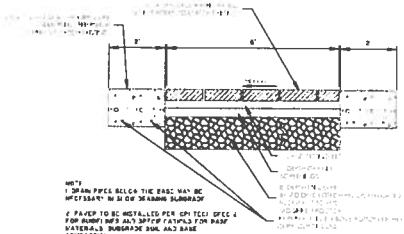
STORM SEWER TRENCH AND BEDDING

NOT TO SCALE



TYPICAL SWALE DETAIL

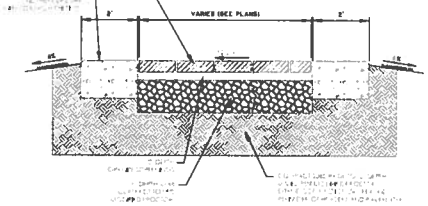
NOT TO SCALE



NOTE
1 3/8 IN PIPES BELOW THE BASE MAY BE MFC 3346 M IN OF 38 AGGREGATE SUBGRADE
2 PAVED TO BE INSTALLED PER CITY TECH SPEC 4 FOR ADDITIONAL INFO AND SPECIFICATIONS FOR PAVE MATERIALS SUBGRADE SUB AND BASE COMPACTION.
3 FINAL ROAD WAY BASE FOR ALL VEHICLE TRAVEL LANES WILL BE DETERMINED BASED ON GEOTECHNICAL RECOMMENDATIONS

CONCRETE PAVER CROSSWALK DETAIL

NOT TO SCALE



MULTI-USE PATH

NOT TO SCALE

2	ARMY CORPS OF ENGINEERS COMMENTS	APR	5/27/17
1	ARMY CORPS OF ENGINEERS COMMENTS	JAN	3/1/17
NO	REVISIONS	BY	DATE

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www.thomasandhutton.com

CITY OF ST. MARYS
51 WARTS GA

READY STREET OUTFALL IMPROVEMENTS

PAVING, GRADING AND DRAINAGE DETAILS

JOB NO	J-13844 0034
DATE	6/24/2015
DRAWN	JAN
DESIGNED	JAN
REVIEWED	
APPROVED	KMS
SCALE	NOT TO SCALE

C3.2

GA DNR
MAY 26 2017
Marsh & Shore Mgt. Program

EROSION,SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST - INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD: COASTAL
PROJECT NAME: READY STREET OUTFALL IMPROVEMENTS
CITY/COUNTY: CAMDEN

ADDRESS: N/A
DATE ON PLAN: JUNE 2019
REVISED DATE

(CD) YES 1 THE APPLICABLE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN CHECKLIST ESTABLISHED BY THE COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED (THE COMPLETED CHECKLIST MUST BE SUBMITTED WITH THE ESAPC PLAN OR THE PLAN WILL NOT BE REVIEWED)

PLEASE FIND THE CURRENT INFRASTRUCTURE EROSION, SEDIMENTATION AND POLLUTION CONTROL CHECKLIST ATTACHED WITH THIS PLAN

(CD)-(CS) YES 2 LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL (SIGNATURE, SEAL AND LEVEL II NUMBER MUST BE ON EACH SHEET PERTAINING TO ESAPC PLAN OR THE PLAN WILL NOT BE REVIEWED)

PLEASE FIND ON EACH SHEET OF THIS PLAN THE GSWCC LEVEL II CERTIFICATION NUMBER, SIGNATURE AND SEAL IN THE TITLE BLOCK.

(CD) YES 3 THE NAME AND PHONE NUMBER OF 24-HOUR LOCAL CONTACT RESPONSIBLE FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS

CITY OF ST. MARYS
805 POINT PETER ROAD
ST. MARYS, GA 31558
(912) 882-4415

(CD) YES 4 PROVIDE NAME, ADDRESS AND PHONE NUMBER OF PRIMARY PERMITTEE

CITY OF ST. MARYS
805 POINT PETER ROAD
ST. MARYS, GA 31558
(912) 882-4415

(CD) YES 5 NOTE TOTAL AND DISTURBED ACREAGE OF THE PROJECT OR PHASE UNDER CONSTRUCTION

TOTAL ACREAGE FOR THE PROJECT IS 0.2 ACRES. DISTURBED ACREAGE FOR THE PROJECT SITE IS 0.2 ACRES.

(CD) YES 6 PROVIDE THE GPS LOCATIONS OF THE BEGINNING AND END OF THE INFRASTRUCTURE PROJECT GIVE THE LATITUDE AND LONGITUDE IN DECIMAL DEGREES

BEGINNING:
LAT: 30.7208
LONG: (-)81.5467

END:
LAT: 30.7201
LONG: (-)81.5468

(CD)-(CS) YES 7 INITIAL DATE OF THE PLAN AND THE DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS

PLEASE FIND THE INITIAL DATE OF THE PLAN AND ALL REVISIONS ON THE COVER SHEET AS WELL AS EACH INDIVIDUAL SHEET OF THE PLAN.

(CD) YES 8 DESCRIPTION OF THE NATURE OF CONSTRUCTION ACTIVITY

THE PROPOSED PROJECT CONSISTS OF INSTALLATION OF APPROXIMATELY 270 LF OF STORM DRAINAGE PIPE, CONSTRUCTION OF GRATE INLETS AND SWALES AND FILLING OF ROADSIDE DITCH. OTHER IMPROVEMENTS INCLUDE INSTALLTION OF SIDEWALKS, ADA RAMPS AND CROSSWALKS.

(CD) YES 9 PROVIDE VICINITY MAP SHOWING SITE'S RELATION TO SURROUNDING AREAS INCLUDE DESIGNATION OF SPECIFIC PHASE, IF NECESSARY

(CD) YES 10 IDENTIFY THE PROJECT RECEIVING WATERS AND DESCRIBE ALL SENSITIVE ADJACENT AREAS INCLUDING STREAMS, LAKES, RESIDENTIAL AREAS, WETLANDS, ETC. WHICH MAY BE AFFECTED

THE PROJECT IS INTENDED TO MAINTAIN AND EXPAND EXISTING CONVEYANCE OF STORMWATER FROM ADJACENT LANDS. SURFACE RUNOFF FROM THE SITE FLOWS THROUGH A SERIES OF PIPES, DITCHES, AND WETLANDS, WHICH ULTIMATELY DISCHARGE INTO THE ST MARYS RIVER. CONSTRUCTION OF THIS PROJECT REQUIRES IMPACTS TO SALT MARSH.

(CD) YES 11 DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE SITE WAS VISITED PRIOR TO DEVELOPMENT OF THE ESAPC PLAN AS STATED ON PAGE 15 OF THE PERMIT

"I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR AUTHORIZED AGENT UNDER MY SUPERVISION.

SIGNATURE OVER SEAL ACKNOWLEDGES CERTIFICATION

(CD) YES 12 DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ESAPC PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BMP'S AND SAMPLING TO MEET PERMIT REQUIREMENTS AS STATED ON PAGE 15 OF THE PERMIT

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR100001.

SIGNATURE OVER SEAL ACKNOWLEDGES CERTIFICATION

(CD) YES 13 DESIGN PROFESSIONAL CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ESAPC PLAN PROVIDES FOR REPRESENTATIVE SAMPLING AS STATED ON PAGE 26 OF PERMIT AS APPLICABLE

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGEMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR100001, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER.

SIGNATURE OVER SEAL ACKNOWLEDGES CERTIFICATION

(CD) YES 14 CLEARLY NOTE THE STATEMENT THAT "THE DESIGN PROFESSIONAL WHO PREPARES THE ESAPC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMP'S, AND SEDIMENT BASINS IN ACCORDANCE WITH PART IV.A.5 WITHIN 7 DAYS AFTER INSTALLATION."

THE DESIGN PROFESSIONAL WHO PREPARED THE ESAPC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMP'S AND SEDIMENT BASINS IN ACCORDANCE WITH PART IV.A.5 WITHIN 7 DAYS AFTER INSTALLATION.

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

DATE OF INSPECTION: _____

I CERTIFY THE SITE WAS _____ WITH THE ESAPC PLAN ON THE DATE OF INSPECTION.

_____ _____
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ESAPC PLAN

_____
_____
_____
_____

THESE DEFICIENCIES MUST BE ADDRESSED IMMEDIATELY AND A RE-INSPECTION SCHEDULED. WORK SHALL NOT PROCEED ON THE SITE UNTIL DESIGN PROFESSIONAL CERTIFICATION IS OBTAINED.

(CD) YES 15 CLEARLY NOTE THE STATEMENT THAT "NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS."

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50 FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

(CD) YES 16 CLEARLY NOTE THE STATEMENT THAT "AMENDMENTS/REVISIONS TO THE ESAPC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL."

AMENDMENTS/REVISIONS TO THE ESAPC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

(CD) YES 17 CLEARLY NOTE THE STATEMENT THAT "WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

(CD) YES 18 CLEARLY NOTE THE STATEMENT THAT "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES."

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

(CD) YES 19 CLEARLY NOTE THE STATEMENT THAT "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

(CD) YES 20 CLEARLY NOTE THE STATEMENT "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING"

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

N/A N/A 21 ANY CONSTRUCTION ACTIVITY WHICH DISCHARGES STORM WATER INTO AN IMPAIRED STREAM SEGMENT OR WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A 303(D) IMPAIRED STREAM SEGMENT MUST COMPLY WITH PART IV.C OF THE PERMIT. INCLUDE THE COMPLETED APPENDIX I LISTING ALL THE BMP'S THAT WILL BE USED FOR THOSE AREAS OF THE SITE WHICH DISCHARGE TO THE IMPAIRED STREAM SEGMENT

THE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES DOES NOT DISCHARGE INTO AN IMPAIRED STREAM SEGMENT OR WITHIN 1 MILE UPSTREAM OF AND IN THE SAME WATERSHED AS AN IMPAIRED STREAM SEGMENT WITH THE CRITERIA LISTED ABOVE.

N/A N/A 22 IF A TMDL IMPLEMENTATION PLAN FOR SEDIMENT HAS BEEN FINALIZED FOR THE IMPAIRED STREAM SEGMENT IDENTIFIED IN ITEM 21 ABOVE, AT LEAST 6 MONTHS PRIOR TO SUBMITTAL OF NOI, THE ESAPC PLAN MUST ADDRESS ANY SITE-SPECIFIC CONDITIONS OR REQUIREMENTS INCLUDED IN THE TMDL IMPLEMENTATION PLAN

N/A

(CD) YES 23 BMP'S FOR CONCRETE BARGEOOM OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED

CONTRACTOR SHALL PROVIDE BMP'S FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES. NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

(CD) YES 24 PROVIDE BMP'S FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS

PETROLEUM BASED PRODUCTS- CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE FOR SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS. HAVE EQUIPMENT TO CONTAIN AND CLEAN UP PETROLEUM SPILLS IN FUEL STORAGE AREAS OR ON MAINTENANCE AND FUELING VEHICLES. STORE IN COVERED AREAS PROTECTED WITH DIKES. REGULARLY INSPECT FOR CRACKS OR LEAKAGE IN CONTAINERS/TANKS.

SPILL CLEANUP AND CONTROL PRACTICES

- LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
- SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.
- FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-2675.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-2675.
- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

(CD) YES 25 DESCRIPTION OF THE MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED

STORM DRAIN OUTLET PROTECTION AND DITCH STABILIZATION WILL BE LEFT IN PLACE TO HELP REDUCE POST-CONSTRUCTION POLLUTANTS.

(CD) YES 26 DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES

POLLUTANT PREVENTION
THE FOLLOWING MATERIALS ARE EXPECTED ONSITE DURING CONSTRUCTION: PETROLEUM BASED FUELS AND LUBRICANTS FOR EQUIPMENT, ADDITIVES FOR SOIL STABILIZATION, PESTICIDES, FERTILIZERS, HERBICIDES, CRUSHED STONE, CONCRETE PRODUCTS, ASPHALT, TAR, METAL BUILDING MATERIALS, LUMBER, SHEET ROCK, FLOOR COVERINGS, ELECTRICAL WIRE AND FIXTURES, PAINTS/STAINS/FINISHING TREATMENTS, PAINT SOLVENTS, CLEANING SOLVENTS, PLASTICS AND METAL PIPES.

PRACTICES SUCH AS GOOD HOUSEKEEPING, PROPER HANDLING OF HAZARDOUS PRODUCTS AND PROPER SPILL CONTROL PRACTICES WILL BE FOLLOWED TO REDUCE THE RISK OF SPILLS FROM DISCHARGING INTO STORM WATER RUNOFF.

GOOD HOUSEKEEPING
- QUANTITIES ONSITE WILL BE LIMITED TO THE AMOUNT NEEDED FOR THE JOB.
- PRODUCTS AND MATERIALS WILL BE STORED IN A NEAT, ORDERLY MANNER IN APPROPRIATE CONTAINERS PROTECTED FROM RAINFALL, WHERE POSSIBLE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH MANUFACTURER'S LABELS LEGIBLE AND VISIBLE.
- PRODUCT MIXING, DISPOSAL, AND DISPOSAL OF PRODUCT CONTAINERS WILL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR WILL INSPECT SUCH MATERIALS TO ENSURE PROPER USE, STORAGE AND DISPOSAL.

PRODUCT SPECIFIC PRACTICES
FERTILIZER/HERBICIDES/PESTICIDES/DETERGENTS- THESE WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND

SEDIMENTATION CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS. DO NOT DISCHARGE WASH WATER INTO STORM WATER SYSTEM. INSTALL CURBS OR DIKES AROUND STORAGE AREA TO PROTECT AGAINST SPILLS. LIMIT USE OF DETERGENTS ON-SITE.

PAINTS/FINISHES/SOLVENTS- ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

CONCRETE TRUCK WASHING- NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

BUILDING MATERIALS- NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

(CD) YES 27 DESCRIPTION AND CHART OR TIMELINE OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH DISTURB SOILS FOR THE MAJOR PORTIONS OF THE SITE (E.G. INITIAL PERIMETER AND SEDIMENT STORAGE BMP'S, CLEARING AND GRUBBING ACTIVITIES, EXCAVATION ACTIVITIES, UTILITY ACTIVITIES TEMPORARY AND FINAL STABILIZATION)

A SPECIFIED WORK SCHEDULE IS NEEDED TO COORDINATE THE TIMING OF LAND DISTURBING ACTIVITIES WITH THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES.

THE PURPOSE OF THE SCHEDULE IS TO REDUCE ON-SITE EROSION AND OFF-SITE SEDIMENTATION BY PERFORMING LAND DISTURBING ACTIVITIES AND INSTALLING EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH A PLANNED SCHEDULE.

IN PLANNING CONSTRUCTION WORK, IT MAY BE HELPFUL TO OUTLINE ALL LAND DISTURBING ACTIVITIES NECESSARY TO COMPLETE THE PROPOSED PROJECT. THEN LIST ALL PRACTICES NEEDED TO CONTROL EROSION AND SEDIMENTATION ON THE SITE. THESE TWO LISTS CAN THEN BE COMBINED IN LOGICAL ORDER TO PROVIDE A PRACTICAL AND EFFECTIVE CONSTRUCTION SEQUENCE SCHEDULE THAT BECOMES PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN.

WILLIAM E. SMITH, P.E.
GEORGIA LICENSE
PROFESSIONAL ENGINEER
CERTIFICATE NUMBER
PE036139
EXPIRATION 12-31-18

NO	REVISION	BY	DATE

THOMAS & HUTTON
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CITY OF ST. MARYS
51 WARD'S CA

READY STREET OUTFALL IMPROVEMENTS

ES & PC N

JOB NO	2-13414 DCH
DATE	6/24/2015
DRAWN	MCE
DESIGNED	JLT
REVISED	
APPROVED	WEB
SCALE	AS NOTED

EC1.1

GA DNR
MAY 26 2017
Marsh & Shore Mgt. Program

EROSION,SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST - INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD: COASTAL
PROJECT NAME: READY STREET OUTFALL IMPROVEMENTS
CITY/COUNTY: CAMDEN

ADDRESS: N/A
DATE ON PLANS: JUNE 2015
REVISED DATE:

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1 OBTAIN ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS	
2 FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION	
3 HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION	
4 CONSTRUCTION ACCESS - CONSTRUCTION ENTRANCE, CONSTRUCTION ROUTES, EQUIPMENT PARKING AREAS	FIRST LAND DISTURBING ACTIVITY - STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE
5 SEDIMENT TRAPS AND BARRIERS - SILT TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING
6 RUNOFF CONTROL - DIVERSIONS, PERIMETER DIKES, WATER BARS, AND OUTLET PROTECTION	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING
7 RUNOFF CONVEYANCE SYSTEM- STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS	WHERE NECESSARY, STABILIZE STREAM BANKS AS EARLY AS POSSIBLE INSTALL PERMANENT RUNOFF CONVEYANCE SYSTEM WITH RUNOFF-CONTROL MEASURES INSTALL REMAINDER OF SYSTEM AFTER GRADING
8 LAND CLEARING AND GRADING - SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, GRASS/SURFACE ROUGHENING	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF-CONTROL MEASURES ARE INSTALLED INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES MARK TREES AND BUFFER AREAS FOR PRESERVATION
9 SURFACE STABILIZATION - TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE
10 BUILDING CONSTRUCTION- BUILDINGS UTILITIES, PAVING	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE
11 LANDSCAPING AND FINAL STABILIZATION TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING RIPRAP	LAST CONSTRUCTION PHASE--STABILIZE ALL OPEN AREAS, INCLUDING BORROW AND SPOIL AREAS REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES

CONSTRUCTION SCHEDULE

ACTIVITY	MONTH 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PERIMETER BMPS																		
UTILITIES																		
TEMPORARY SEDIMENT CONTROL BMPS																		
SITE GRADING																		
TEMPORARY SEEDING																		
PAVING																		
PERMANENT SEEDING																		
FINAL STABILIZATION/ BMP REMOVAL																		
BMP MAINTENANCE																		

EC1.2	YES	20 PROVIDE COMPLETE REQUIREMENTS OF INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE

INSPECTIONS AND RECORD KEEPING BY PRIMARY PERMITTEE:

37. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT:
- ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT.
- ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

B. MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.

C. CERTIFIED PERSONAL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY, OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST)
- DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION
- AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION THAT HAVE NOT UNDERGONE FINAL STABILIZATION
- STRUCTURAL CONTROL MEASURES.

D. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.

E. CERTIFIED PERSONNEL (PROVIDED BY PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E. UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).

F. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.

G. A REPORT (I.E. NOT INDIVIDUAL INSPECTION FORMS) SUMMARIZING THE SCOPE OF EACH INSPECTION AND THE NAME(S) OF PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E. INITIAL, INTERMEDIATE, OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.A.4.(3) OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION PROJECT THAT HAS BEEN PHASED WAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. WHEN THE REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE THE FACILITY IS IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN AND THIS PERMIT. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.B.2. OF THIS PERMIT.

AN "EROSION & SEDIMENTATION INSPECTION AND MAINTENANCE REPORT" SHEET IS ATTACHED. SHOULD THE INSPECTION REVEAL ANY DEFICIENCIES, A COPY SHALL BE SENT TO:

MR. KEVIN M. SMITH THOMAS & HUTTON 50 PARK OF COMMERCE WAY SAVANNAH, GA 31405 912.234.5300	CITY OF ST. MARYS 805 POINT PETER ROAD ST. MARYS, GA 31558 912.882-4418

EC1.2	YES	29 PROVIDE COMPLETE REQUIREMENTS OF SAMPLING FREQUENCY AND REPORTING OF SAMPLING RESULTS

SAMPLING REQUIREMENTS

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE SAMPLING LOCATIONS INDICATED ON SHEET EC1.1. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING 50 AT THE LOCATION, THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT NO. GAR100002. THE NTU IS BASED UPON THE DISTURBED ACREAGE OF 0.3 ACRE FOR THE PROJECT SITE, THE SURFACE WATER DRAINAGE AREA OF LESS THAN 4.99 SQUARE MILES AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.

THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATERS OR OUTFALLS SHALL BE IN ACCORDANCE WITH PERMIT NO. GAR100002. STORM WATER SAMPLES ARE TO BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT EPA 833-B-92-001" THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

SAMPLING REQUIREMENTS SHALL INCLUDE THE FOLLOWING:
- A USGS TOPOGRAPHIC MAP , A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE INFRASTRUCTURE CONSTRUCTION; (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION. INTO WHICH THE STORM WATER DISCHARGED AND (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS FOR EACH REPRESENTATIVE STORM WATER OUTFALL. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATERS ARE NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORM WATERS ENTER THE RECEIVING WATER TO THE POINT WHERE THE RECEIVING WATERS COMBINE WITH FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP.
- A WRITTEN NARRATIVE OF SITE SPECIFIC ANALYTICAL METHODS USED TO COLLECT AND ANALYZE THE SAMPLES INCLUDING QUALITY/CONTROL ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION.
- WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE SAMPLED, A RATIONALE MUST BE INCLUDED ON THE PLAN FOR THE NTU LIMITS SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATERS. (I.E. TROUT STREAM OR SUPPORTING WARM WATER FISHERIES.)
- ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIMELINE FOR SUBMITTAL.

SAMPLING TYPE

ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS PREPARED BY THE EPD.

PER NPDES PERMIT, GAR 100002, "SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER. LARGE-MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANSED THOROUGHLY TO AVOID CONTAMINATION. MANUAL, AUTOMATIC AND RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THEN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED. SAMPLING AND ANALYSIS OF THE RECEIVING WATERS OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E.

SAMPLING POINTS

THERE WILL BE ONE STORM WATER SAMPLING LOCATION. THE LOCATION WILL BE INDICATED ON THE EROSION SEDIMENTATION AND POLLUTION CONTROL PLANS. THE PRIMARY PERMITTEE OR HIS REPRESENTATIVE MUST COMPLETE ALL SAMPLING.

A. FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES. ON ALL OUTFALLS INTO SUCH STREAMS AND OTHER WATER BODIES, OR A COMBINATION THEREOF. HOWEVER, PROVIDED FOR IN AND IN ACCORDANCE WITH PART IV.D.5.C.(2). OF THIS PERMIT. PRIMARY PERMITTEES ON AN INFRASTRUCTURE CONSTRUCTION PROJECT MAY SAMPLE THE REPRESENTATIVE PERENNIAL AND INTERMITTENT STREAMS, OTHER WATER BODIES OR OUTFALLS, OR A COMBINATION THEREOF. SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATERS AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING SAMPLING GUIDELINES:
- THE UPSTREAM SAMPLE FROM EACH RECEIVING WATER MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATERS MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.
- THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY BUT UPSTREAM OF ANY STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATERS MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM VALUE.
- IDEALLY THE SAMPLE SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATERS OR THE STORM WATER OUTFALL CHANNEL.
- CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATERS OR IN THE OUTFALL STORM WATER CHANNEL.
- THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
- THE SAMPLE SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
- PERMITTEES DO NOT HAVE TO SAMPLE SHEETFLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED BY PERMANENT VEGETATION WITH A DENSITY OF 70% GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPE AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES ARE DEFINED IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL OR SILVICULTURAL PURPOSES, FINAL STABILIZATION MAY BE ACCOMPLISHED BY STABILIZING THE DISTURBED LAND FOR ITS AGRICULTURAL OR SILVICULTURAL USE.
- ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS II.D.3. OR II.D.4., WHICHEVER IS APPLICABLE.

B. FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, THE PERMITTEE IS NOT REQUIRED TO SAMPLE A PERENNIAL OR INTERMITTENT STREAM OR OTHER WATER BODIES IF THE DESIGN PROFESSIONAL PREPARING THE PLAN CERTIFIES THAT AN INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED RECEIVING WATER TO BE SAMPLED WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OD A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER. A WRITTEN JUSTIFICATION AND DETAILS ANALYSIS SHALL BE PREPARED BY THE DESIGN PROFESSIONAL JUSTIFYING SUCH PROPOSED SAMPLING. A SUMMARY CHART OF THE JUSTIFICATION AND ANALYSIS FOR THE REPRESENTATIVE SAMPLING MUST BE INCLUDED IN THE PLAN. THE JUSTIFICATION AND ANALYSIS SHALL INCLUDE THE LOCATION AND DESCRIPTION OF THE SPECIFIED SAMPLED AND UN-SAMPLED RECEIVING WATER AND SHALL CONTAIN A DETAILED COMPARISON AND DISCUSSION OF EACH SUCH RECEIVING WATER IN THE FOLLOWING AREAS:
- SITE LAND DISTURBANCE AND CHARACTERISTICS
- RECEIVING WATER WATERSHED SIZES AND CHARACTERISTICS; AND
- SITE AND WATERSHED RUNOFF CHARACTERISTICS UTILIZING THE METHODS IN APPENDIX A-1 (US DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICES TR-55, URBAN HYDROLOGY FOR SMALL WATERSHEDS) OF THE MOST RECENT VERSION OF THE "MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA" FOR THE VARIOUS PRECIPITATION EVENTS AND ANY OTHER SUCH CONSIDERATIONS NECESSARY TO SHOW THAT THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIED IDENTIFIED UN-SAMPLED RECEIVING WATERS.

C. FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, WHEN THE PERMITTEE DETERMINES THAT SOME RECEIVING WATERS WILL NOT BE SAMPLED DUE TO REPRESENTATIVE SAMPLING, THE DESIGN PROFESSIONAL MAKING THIS DETERMINATION AND PREPARING THE PLAN MUST INCLUDE AND SIGN THE FOLLOWING CERTIFICATION IN THE PLAN:

"I CERTIFY THAT THE PERMITTEES EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGEMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR 100002, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIED IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER."

D. FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, IF AT ANY TIME DURING THE LIFE OF THE PROJECT A SELECTED RECEIVING WATER NO LONGER REPRESENTS ANOTHER RECEIVING WATER, THE THE PERMITTEE SHALL SAMPLE THE LATTER RECEIVING WATER UNTIL SELECTION OF AN ALTERNATE REPRESENTATIVE RECEIVING WATER.

E. FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, IF AT ANY TIME DURING THE LIFE OF THE PROJECT A RECEIVING WATER IS DETERMINED NOT TO BE REPRESENTED AS CERTIFIED IN THE PLAN, THE PERMITTEE SHALL SAMPLE THAT RECEIVING WATER UNTIL A NOTICE OF TERMINATION IS SUBMITTED OR UNTIL THE APPLICABLE PHASE IS STABILIZED IN ACCORDANCE WITH THIS PERMIT.

F. FOR INFRASTRUCTURE CONSTRUCTION PROJECTS, MONITORING OBLIGATIONS SHALL CEASE FOR ANY PHASE OF THE PROJECT THAT HAS BEEN STABILIZED IN ACCORDANCE WITH PART IV.D.5.C.(5.(B).

SAMPLING FREQUENCY

THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLEING AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN PERMIT NO. GAR100002) OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.

SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:

A. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM. THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS (MONDAY THROUGH FRIDAY, 8:00 AM TO 5:00 PM AND SATURDAY 8:00 AM TO 5:00 PM WHEN CONSTRUCTION ACTIVITY IS BEING CONDUCTED BY THE PRIMARY PERMITTEE) THAT OCCURS AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION.

B. IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR MONITORING DURING NORMAL BUSINESS HOURS THAT OCCURS EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL GRASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A N.O.T., IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION WHICHEVER COMES FIRST.

C. AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMP'S ARE C. FOUND TO BE PROPERLY DESIGNED, INSTALLED AND MAINTAINED, NO FURTHER ACTION IS REQUIRED. IF BMP'S IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING STREAM ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN 2 BUSINESS DAYS. AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH. INSPECTIONS SHALL DETERMINE THAT BMP'S ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED.

D. WHERE SAMPLING PURSUANT TO (A), (B) OR(C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A. (5), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE.

E. EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING

GEORGIA REGISTERED PROFESSIONAL ENGINEER
KEVIN M. SMITH, P.E.
GA#17-31811
COASTAL ENGINEERING
CERTIFICATION #
EXPIRATION: 30-JUN

NO	REVISIONS	BY	DATE

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CITY OF ST. MARYS
31 MARYS, GA
READY STREET OUTFALL IMPROVEMENTS
ES & PC P

JOB NO	2-31414.00SH
DATE	5/24/2016
DRAWN	MCS
DESIGNED	AK
REVIEWED	
APPROVED	KMS
SCALE	NONE

EC1.2

GA DNR
MAY 26 2017
Marsh & Shore Mgt. Program

INFRASTRUCTURE CONSTRUCTION PROJECTS

AWCD: COASTAL
PROJECT NAME: READY STREET OUTFALL IMPROVEMENTS
CITY/COUNTY: CAMDEN

ADDRESS: N/A
DATE ON PLANS: JUNE 2010
REVISED DATE:

CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

* NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHED OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

REPORTING

APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULT TO GA EPD, CHATHAM COUNTY ENGINEERING DEPARTMENT, AND THOMAS & HUTTON BY THE 15TH OF THE MONTH FOLLOWING THE SAMPLING EVENT.

THE REPORT SUMMARY SHALL INCLUDE:

- THE RAINFALL AMOUNT, NAME, EXACT PLACE, DATE AND TIME OF SAMPLING OR MEASUREMENTS;
- THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING & MEASUREMENTS;
- THE DATE(S) ANALYSES WERE PERFORMED;
- THE TIME(S) ANALYSES WERE INITIATED;
- THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
- REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED. A QUALITY CONTROL/QUALITY ASSURANCE PROGRAM MUST BE INCLUDED IN THE WRITTEN PROCEDURE;
- THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC. USED TO DETERMINE THESE RESULTS.
- RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU" CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

ALL WRITTEN CORRESPONDENCE REQUIRED BY PERMIT NO. GAR100002 SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOI IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

THOMAS & HUTTON: KEVIN M. SMITH
THOMAS & HUTTON
50 PARK OF COMMERCE WAY
SAVANNAH, GA 31406
912.234.5300

GOVERNING AGENCY: CITY OF ST. MARYS
803 POINT PETER ROAD
ST. MARYS, GA 31558
(912) 882-4403

EPD OFFICE: COASTAL DISTRICT - BRUNSWICK OFFICE
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
400 COMMERCE CENTER DRIVE
BRUNSWICK, GA 31523-8251
912.264.7284

ECLS	YES	30 PROVIDE COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV F OF THE PERMIT

RETENTION OF RECORDS

THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A N.O.T. IS SUBMITTED IN ACCORDANCE WITH PART VI:

- A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
- A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THE PERMIT;
- THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THE PERMIT;
- A COPY OF ALL MONITORING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THE PERMIT;
- A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THE PERMIT;
- A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THE PERMIT; AND
- DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2) OF THE PERMIT.

COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THE PERMIT AND ALL OTHER RECORDS REQUIRED BY THE PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THE PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

ECLS	YES	31 DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION

STORM WATER SAMPLES ARE TO BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT EPA 833-B-92-001.

ECLS	YES	32 APPENDIX B RATIONALE FOR NTU VALUES AT ALL OUTFALL SAMPLING POINTS WHERE APPLICABLE

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATION. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING 50. THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT No. GAR100002. THE NTU IS BASED UPON THE DISTURBED ACREAGE OF 0.2 ACRE FOR THE PROJECT SITE, THE SURFACE WATER DRAINAGE AREA OF LESS THAN 4.99 SQUARE MILES AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES. APPENDIX B WAS USED TO DETERMINE THE NTU ALLOWABLE AND DOWNSTREAM SAMPLING WILL BE PERFORMED FOR THIS PROJECT.

ECLS	YES	33 DELINEATE ALL SAMPLING LOCATIONS, PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED

PLEASE SEE PLAN SHEET FOR DELINEATION OF ALL SAMPLING LOCATIONS, PERENNIAL, INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED.

ECLS	YES	34 A DESCRIPTION OF APPROPRIATE CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE INCLUDING (1) INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S, (2) INTERMEDIATE GRADING AND DRAINAGE BMP'S, AND (3) FINAL BMP'S FOR CONSTRUCTION SITES WHERE THERE WILL BE NO MASS GRADING AND THE INITIAL PERIMETER CONTROL BMP'S, INTERMEDIATE GRADING AND DRAINAGE BMP'S, AND FINAL BMP'S ARE THE SAME. THE PLAN MAY COMBINE ALL OF THE BMP'S INTO A SINGLE PHASE

THE ESPPC PLAN WILL INCLUDE THE INSTALLATION OF SILT FENCE, INLET PROTECTION AND A TURBIDITY CURTAIN. TEMPORARY SEEDING WILL BE IMPLEMENTED AS NECESSARY. THE INLET SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL ALL ACTIVITIES ARE COMPLETE. PERMANENT SEEDING WILL BE IMPLEMENTED FOR FINAL STABILIZATION. TEMPORARY EROSION CONTROL BMPS WILL BE REMOVED ONCE FINAL STABILIZATION HAS BEEN ESTABLISHED.

ECLS	YES	35 GRAPHIC SCALE AND NORTH ARROW

GRAPHIC SCALE AND NORTH ARROW ARE LOCATED ON EACH PLAN SHEET.

ECLS	YES	36 EXISTING AND PROPOSED CONTOUR LINES WITH CONTOUR LINES DRAWN AT AN INTERVAL IN ACCORDANCE WITH THE FOLLOWING:

EXISTING AND PROPOSED GRADE ARE SHOWN ON EACH PLAN SHEET

	NO	37 USE OF ALTERNATIVE BMP'S WHOSE PERFORMANCE HAS BEEN DOCUMENTED TO BE EQUIVALENT TO OR SUPERIOR TO CONVENTIONAL BMP'S AS CERTIFIED BY A DESIGN PROFESSIONAL UNLESS DISAPPROVED BY EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. PLEASE REFER TO THE ALTERNATIVE BMP GUIDANCE DOCUMENT FOUND AT www.gaswcc.org

ALTERNATIVE BMPS WILL NOT BE USED AS PART OF THIS PROJECT.

	NO	38 DELINEATION OF THE APPLICABLE 25-FOOT OR 50-FOOT UNDISTURBED BUFFERS ADJACENT TO STATE WATERS AND ANY ADDITIONAL BUFFERS REQUIRED BY THE LOCAL ISSUING AUTHORITY. CLEARLY NOTE AND DELINEATE ALL AREAS OF IMPACT

THERE ARE NO STATE WATERS OR ANY ADDITIONAL BUFFERS REQUIRED BY THE LOCAL ISSUING AUTHORITY ON-SITE.

ECLS	YES	39 DELINEATION OF ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE

ALL ON-SITE WETLANDS AND ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE ARE CLEARLY DELINEATED ON THE PLAN SHEETS.

EXHIBIT	YES	40 DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE

ALL CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE ARE CLEARLY DELINEATED ON THE ATTACHED EXHIBIT.

EXHIBIT	YES	41 PROVIDE HYDROLOGY STUDY AND MAPS OF DRAINAGE BASINS FOR BOTH PRE- AND POST-DEVELOPMENT CONDITIONS

PLEASE SEE ATTACHED EXHIBIT.

ECLS	YES	42 AN ESTIMATE OF THE RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED

THE PROPOSED LAND USE WILL BE THE SAME AS THE EXISTING LAND USE. NO ADDITIONAL RUNOFF WILL BE GENERATED.

ECLS	YES	43 STORM-DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION. IDENTIFY/DELINEATE ALL STORM WATER DISCHARGE POINTS

PLEASE FIND INCLUDED ON THE PLAN SHEETS STORM-DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION. ALL STORM WATER DISCHARGE POINTS ARE IDENTIFIED/DELINEATED ON THE PLAN SHEETS.

ECLS	YES	44 SOIL SERIES FOR THE PROJECT SITE AND THEIR DELINEATION

SOILS FOR THE PROJECT SITE ARE CANNOY (CaB). IT IS CLASSIFIED AS HYDROLOGIC SOIL GROUP A.

ECLS	YES	45 THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION

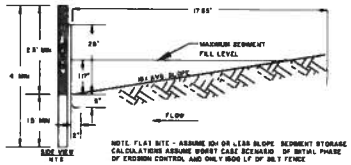
PLEASE SEE THE PLAN FOR THE DELINEATION OF THE LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION.

ECLS	YES	46 PROVIDE A MINIMUM OF 67 CUBIC YARDS OF SEDIMENT STORAGE PER ACRE DRAINED USING A TEMPORARY SEDIMENT BASIN, RETROFITTED DETENTION POND, AND/OR EXCAVATED INLET SEDIMENT TRAPS FOR EACH COMMON DRAINAGE LOCATION. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO AND DURING ALL LAND DISTURBANCE ACTIVITIES UNTIL FINAL STABILIZATION OF THE SITE HAS BEEN ACHIEVED. A WRITTEN JUSTIFICATION EXPLAINING THE DECISION TO USE EQUIVALENT CONTROLS WHEN A SEDIMENT BASIN IS NOT ATTAINABLE MUST BE INCLUDED IN THE PLAN FOR EACH COMMON DRAINAGE LOCATION IN WHICH A SEDIMENT BASIN IS NOT PROVIDED. A WRITTEN JUSTIFICATION AS TO WHY 67 CUBIC YARDS OF STORAGE IS NOT ATTAINABLE MUST ALSO BE GIVEN. WORKSHEETS FROM THE MANUAL MUST BE INCLUDED FOR STRUCTURAL BMP's AND ALL CALCULATIONS USED BY THE DESIGN PROFESSIONAL TO OBTAIN THE REQUIRED SEDIMENT STORAGE WHEN USING EQUIVALENT CONTROLS. WHEN DISCHARGING FROM SEDIMENT BASINS AND IMPOUNDMENTS, PERMITTEES ARE REQUIRED TO UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE UNLESS INFEASIBLE. IF OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE ARE NOT FEASIBLE, A WRITTEN JUSTIFICATION EXPLAINING THIS DECISION MUST BE INCLUDED IN THE PLAN

SEDIMENT STORAGE - SILT FENCE WILL BE USED TO ACHIEVE SEDIMENT STORAGE. THIS SELECTION WAS MADE BECAUSE OF THE LINEAR NATURE OF THE PROJECT.

TOTAL DISTURBED ACREAGE = 0.2 ACRES
TOTAL REQUIRED SEDIMENT STORAGE = 0.2 ac X 67 cy/ac = 13.4 cy
SILT FENCE STORAGE AREA / H = 27.55 ft X LIT ft/2 = 10.27 sf/H = 0.38 cy/ft
LENGTH OF SILT FENCE = 484 ft
STORAGE PROVIDED = 484 ft X 0.38cy/ft = 172.5 cy
THE STORAGE PROVIDED (172.5 cy) EXCEEDS THE STORAGE REQUIRED (13.4 cy)

STORAGE VOLUME PER LINEAR FOOT OF SILT FENCE



NOTE: FLAT SITE - ASSUME 10H OR LESS SLOPE. SEDIMENT STORAGE CALCULATIONS ASSUME WORST CASE SCENARIO OF INITIAL PHASE OF EROSION CONTROL AND ONLY 1500 LF OF SILT FENCE

YES	47 LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. USE UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6, WITH LEGEND

PLEASE SEE THE PLAN SHEETS FOR THE LOCATION OF BEST MANAGEMENT PRACTICES THAT ARE CONSISTENT WITH AND NO LESS STRINGENT THAN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA USING THE UNIFORM CODING SYMBOLS FROM THE MANUAL, CHAPTER 6 WITH ACCOMPANYING LEGEND.

ECLS	YES	48 PROVIDE DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES. SPECIFICATIONS MUST, AT A MINIMUM, MEET THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA

PLEASE SEE THE DETAIL SHEETS FOR DETAILED DRAWINGS FOR ALL STRUCTURAL PRACTICES WITH SPECIFICATIONS MEETING THE GUIDELINES SET FORTH IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.

ECLS	YES	49 PROVIDE VEGETATIVE PLAN, NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES, INCLUDE SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. VEGETATIVE PLAN SHALL BE SITE SPECIFIC FOR APPROPRIATE TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR APPROPRIATE GEOGRAPHIC REGION OF GEORGIA

PLEASE SEE THE PLAN AND DETAIL SHEETS FOR THE VEGETATIVE PLAN NOTING ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES INCLUDING SPECIES, PLANTING DATES AND SEEDING, FERTILIZER, LIME AND MULCHING RATES. THIS PLAN IS SPECIFIC TO THE SITE AND APPROPRIATE FOR TIME OF YEAR THAT SEEDING WILL TAKE PLACE AND FOR THE APPROPRIATE GEOGRAPHIC REGION OF GEORGIA.

REGINA SMITH, P.E.
GEORGIA LICENSE NO. 27841
CERTIFICATION # DESIGN-0000
EXPIRATION 6/30/10

NO	REVISION	BY	DATE

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CITY OF ST. MARYS
311 MARYS, GA
READY STREET OUTFALL IMPROVEMENTS
ES & PC N

SCALE	2-3-3-4-1-0-0-0
DATE	6/29/2010
DRAWN	MCE
DESIGNED	JLK
REVIEWED	
APPROVED	KMS
REVISION	

EC1.3

GA DNR
MAY 26 2017
Marsh & Shore Mgt. Program

EROSION CONTROL LEGEND

DESCRIPTION	PLAN SYMBOL
DISTURBED AREA STABILIZATION (MULCHING ONLY)	Ds1
DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)	Ds2
DISTURBED AREA STABILIZATION (PERMANENT VEGETATION)	Ds3
DUST CONTROL	Du
CONSTRUCTION EXIT	Co
SILT FENCE - TYPE A	Sd1-NS
SILT FENCE - TYPE C	Sd1-S
TREE PROTECTION	Tr
INLET SEDIMENT TRAP (FILTER FABRIC WITH FRAME)	Sd2-F
INLET SEDIMENT TRAP (GRAVEL)	Sd2-Bg
TURBIDITY CURTAIN (FLOATING)	

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
1. OBTAIN ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS	
2. FLAG THE WORK LIMITS AND MARK THE TREES AND BUFFER AREAS FOR PROTECTION	
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION	
4. CONSTRUCTION ACCESS - CONSTRUCTION ENTRANCE, CONSTRUCTION ROUTES, EQUIPMENT PARKING AREAS	FIRST LAND DISTURBING ACTIVITY - STABILIZE BARE AREAS IMMEDIATELY WITH GRAVEL AND TEMPORARY VEGETATION AS CONSTRUCTION TAKES PLACE
5. SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SEDIMENT FENCES, AND OUTLET PROTECTION	INSTALL PRINCIPAL BASINS AFTER CONSTRUCTION SITE IS ACCESSED INSTALL ADDITIONAL TRAPS AND BARRIERS AS NEEDED DURING GRADING
6. RUNOFF CONTROL - DIVERSIONS, PERIMETER DIKES, WATER BARS AND OUTLET PROTECTION	INSTALL KEY PRACTICES AFTER PRINCIPAL SEDIMENT TRAPS AND BEFORE LAND GRADING INSTALL ADDITIONAL RUNOFF-CONTROL MEASURES DURING GRADING
7. RUNOFF CONVEYANCE SYSTEM- STABILIZE STREAM BANKS, STORM DRAINS, CHANNELS, INLET AND OUTLET PROTECTION, SLOPE DRAINS	WHERE NECESSARY, STABILIZE STREAM BANKS AS EARLY AS POSSIBLE INSTALL PRINCIPAL RUNOFF CONVEYANCE SYSTEM WITH RUNOFF-CONTROL MEASURES INSTALL REMAINDER OF SYSTEM AFTER GRADING
8. LAND CLEARING AND GRADING - SITE PREPARATION CUTTING, FILLING AND GRADING, SEDIMENTATION TRAPS, BARRIERS, DIVERSIONS, DRAINS, SURFACE ROUGHENING	BEGIN MAJOR CLEARING AND GRADING AFTER PRINCIPAL SEDIMENT AND KEY RUNOFF - CONTROL MEASURES ARE INSTALLED INSTALL ADDITIONAL CONTROL MEASURES AS GRADING PROGRESSES MARK TREES AND BUFFER AREAS FOR PRESERVATION
9. SURFACE STABILIZATION - TEMPORARY AND PERMANENT SEEDING, MULCHING, SODDING, RIPRAP	APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS DELAYED OR COMPLETE
10. BUILDING CONSTRUCTION- BUILDINGS UTILITIES PAVING	INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROL PRACTICES AS WORK TAKES PLACE
11. LANDSCAPING AND FINAL STABILIZATION - TOPSOILING, TREES AND SHRUBS, PERMANENT SEEDING, MULCHING, SODDING RIPRAP	LAST CONSTRUCTION PHASE - STABILIZE ALL OPEN AREAS INCLUDING BORROW AND SPOIL AREAS. REMOVE AND STABILIZE ALL TEMPORARY CONTROL MEASURES

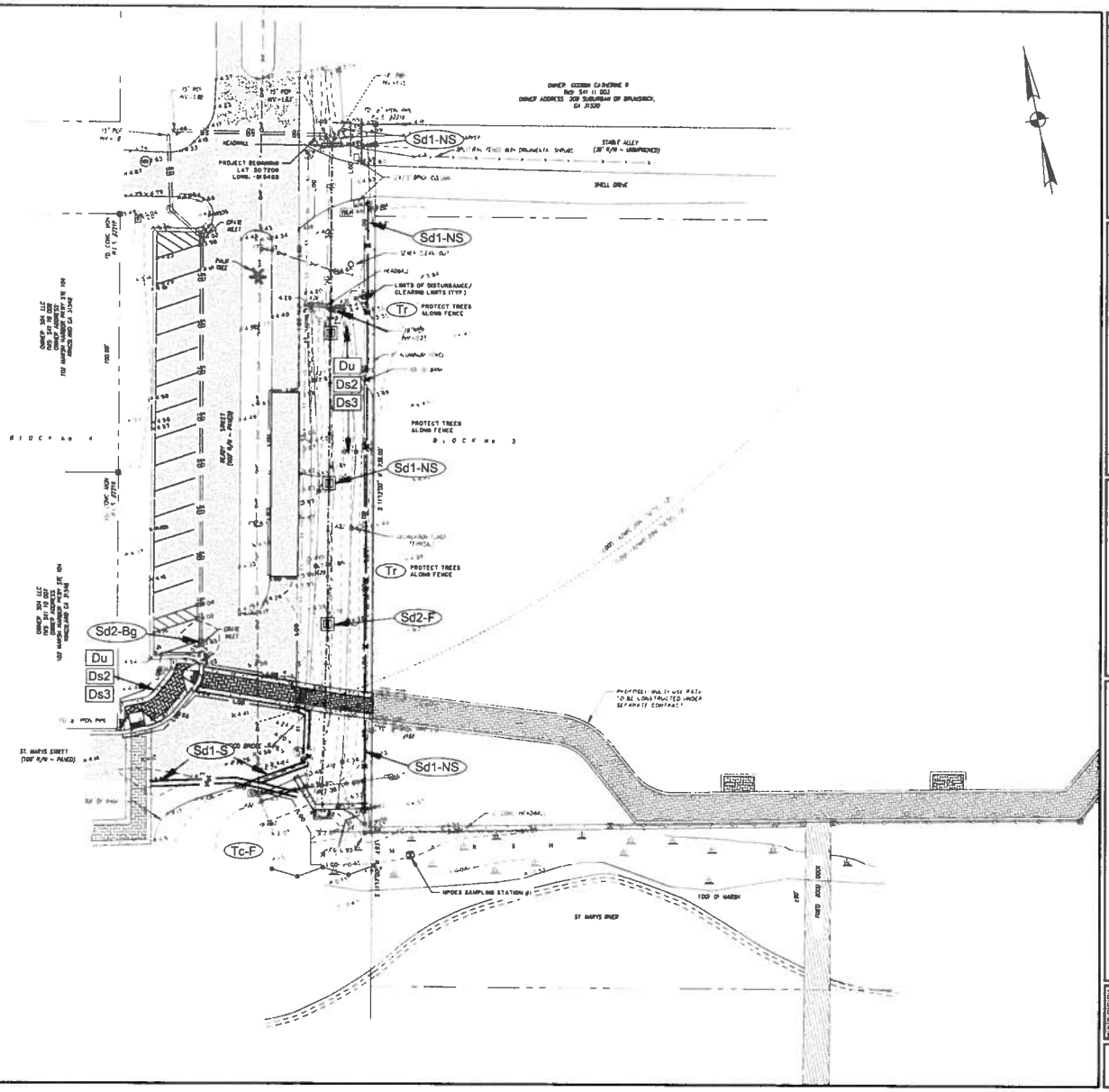
THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

GRAPHIC SCALE

(IN FEET)
1 inch = 80 ft.



GA DNR

MAY 26 2017

Marsh & Shore Mgt. Program

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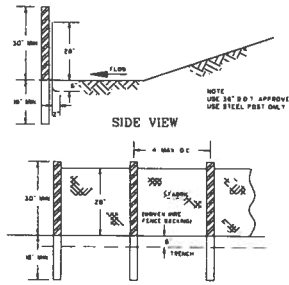
CITY OF ST. MARYS
ST. MARYS, GA
READY STREET OUTFALL IMPROVEMENTS
ES & PC PLAN

JOB NO.	J13844.0000
DATE	6/24/2015
DRAWN	MCS
DESIGNED	A.T.
REVIEWED	
APPROVED	KMS
SCALE	1" = 80'

EC2.1



NOTE
USE 36" O.O.T. APPROVED FABRIC
USE STEEL POST ONLY

TYPE C SILT FENCE (36")

USE: • WHERE RUNOFF FLOWS OR VELOCITIES ARE PARTICULARLY HIGH OR WHERE SLOPES EXCEED A VERTICAL HEIGHT OF 10 FEET 2 WHERE THE SLOPE GRADIENT IS STEEPER THAN 3:1

POST SIZE

MIN. LENGTH	TYPE OF POST	SIZE OF POST
4'	STEEL	1.33 LB/FT MIN

NOTE FILTER FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CORD, AND POCKETS

FENCE

TENSILE STRENGTH (LBS MIN) (U ASTM D-4632)	ELONGATION (DEG) (ASTM D-4632)	MIN APPARENT OPENING SIZE (EOS) (ASTM D-4751)	FLOW RATE (GAL/MIN/SQ FT) (ASTM D-4491)	ULTRAVIOLET STABILITY (% ASTM D-4632 AFTER 300 HOURS WEATHERING IN ACCORDANCE WITH ASTM D-4355)	BURSTING STRENGTH (PSI MIN) (ASTM D-3786) BURSTING STRENGTH 75%TEN	MIN FABRIC WIDTH (INCHES)
WARP-250 F.A.L.-180	40	.030	70	80	175	36

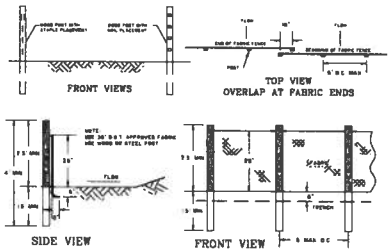
(U) MIN ROLL AVERAGE OF FIVE SPECIMENS (2) PERCENT OF NOMINAL INITIAL MIN TENSILE STRENGTH

NOTE
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS) TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED

SILT FENCE - SENSITIVE AREAS

NOT TO SCALE

Sd1-S



TYPE A SILT FENCE (36")

USE:
1. ON DEVELOPMENTS WHERE THE LIFE OF THE PROJECT IS GREATER THAN OR EQUAL TO 6 MONTHS
2. WHERE THE SLOPE GRADIENT IS STEEPER THAN 3:1

POST SIZE

MIN. LENGTH	TYPE OF POST	SIZE OF POST
4'	WOOD	2" DIA. OR 2x2"
4'	WIRE	10.5 GA
4'	STEEL	1.33 LB/FT MIN

FASTENERS FOR WOOD POST (WIRE STAPLES)

GAUGE (12 MIN)	CROWN	LEGS	STAPLE/POST
	1.1" MIN	1/2-1.5MIN	3 MIN

FASTENERS FOR WIRE POST (WIRE TIE)

GAUGE (14 MIN)	LENGTH	BUTTON HEADS	MIN/POST
	3/4"	3/8"	6 MIN

NOTE: FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CORD, AND POCKETS

FENCE

TENSILE STRENGTH (LBS MIN) (U ASTM D-4632)	ELONGATION (DEG) (ASTM D-4632)	MIN APPARENT OPENING SIZE (EOS) (ASTM D-4751)	FLOW RATE (GAL/MIN/SQ FT) (ASTM D-4491)	ULTRAVIOLET STABILITY (% ASTM D-4632 AFTER 300 HOURS WEATHERING IN ACCORDANCE WITH ASTM D-4355)	BURSTING STRENGTH (PSI MIN) (ASTM D-3786) BURSTING STRENGTH 75%TEN	MIN FABRIC WIDTH (INCHES)
WARP-250 F.A.L.-180	40	.030	23	80	175	36

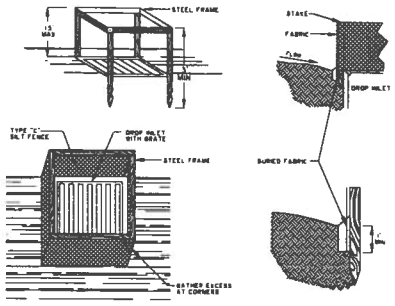
(U) MIN ROLL AVERAGE OF FIVE SPECIMENS (2) PERCENT OF NOMINAL INITIAL MIN TENSILE STRENGTH

NOTE
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY SIX MONTHS) TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED

SILT FENCE - NON-SENSITIVE AREAS

NOT TO SCALE

Sd1-NS



NOTE
1. THE STAKES SHALL BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART, AND SECURELY DRIVEN INTO THE GROUND, APPROXIMATELY 18 INCHES DEEP. THE FABRIC SHALL BE ENTRENCHED 12 INCHES AND BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL. FABRIC AND WIRE SHALL BE SECURELY FASTENED TO THE POSTS, AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18 INCHES OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS BARRIER AROUND THE INLET
2. THE TRAP SHALL BE INSPECTED DAILY AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP
3. SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT AGAIN ENTER THE INLET. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED APPROPRIATELY. STABILIZE ALL DISTURBED AREAS AROUND THE INLET

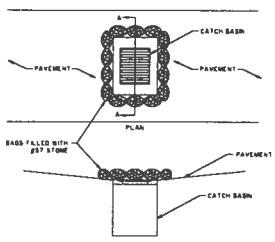
INLET SEDIMENT TRAP
FILTER FABRIC W/ SUPPORTING FRAME

NOT TO SCALE

Sd2-F

SEEDING RATES FOR TEMPORARY & PERMANENT COVER					
MONTH	TEMPORARY COVER	RATE PER ACRE: SEEDED ALONE	RATE PER ACRE: ADDED TO MIX	PERMANENT COVER	RATE PER ACRE: SEEDED ALONE	RATE PER ACRE: ADDED TO MIX
JANUARY	• LESPEDEZA, ANNUAL • LOVEGRASS, METPHAS • RYE • RYEGRASS, ANNUAL	40 lbs 3 lbs 4 lbs 3 lbs	10 lbs 1 lb 1 lb 1 lb	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA /	50 lbs 10 lbs 75 lbs	20 lbs 5 lbs 75 lbs
FEBRUARY	LESPEDEZA, ANNUAL • LOVEGRASS, METPHAS • RYE • RYEGRASS, ANNUAL	40 lbs 4 lbs 3 lbs 40 lbs	10 lbs 1 lb 1 lb 1 lb	• BAHIA, PENSACOLA CENTIPEDE, HULL • LESPEDEZA, SERICEA / • LESPEDEZA, SERICEA / • LOVEGRASS, METPHAS	50 lbs 75 lbs 75 lbs 4 lbs	20 lbs - - 1 lb
MARCH	• LESPEDEZA, ANNUAL • LOVEGRASS METPHAS • RYEGRASS, ANNUAL • SUDANGRASS	40 lbs 4 lbs 40 lbs 50 lbs	10 lbs 1 lb	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA / • LESPEDEZA, SERICEA / • LOVEGRASS, METPHAS	50 lbs 10 lbs 75 lbs 75 lbs 4 lbs	20 lbs 5 lbs - - 1 lbs
APRIL	• LOVEGRASS METPHAS • HULLET PEARL • SUDANGRASS	4 lbs 40 lbs 30 lbs 50 lbs	1 lb 10 lbs	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA / • LOVEGRASS, METPHAS	50 lbs 10 lbs 75 lbs 75 lbs 4 lbs	20 lbs 5 lbs - - 1 lbs
MAY	• LOVEGRASS METPHAS • HULLET, BROWNTOP • HULLET PEARL • SUDANGRASS	4 lbs 40 lbs 30 lbs 50 lbs	1 lb 10 lbs -	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA / • LOVEGRASS, METPHAS	50 lbs 10 lbs 75 lbs 75 lbs 4 lbs	20 lbs 5 lbs - - 1 lbs
JUNE	• LOVEGRASS METPHAS • HULLET, BROWNTOP • HULLET PEARL • SUDANGRASS	4 lbs 40 lbs 30 lbs 50 lbs	1 lb 10 lbs	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA / • LOVEGRASS, METPHAS	50 lbs 10 lbs 75 lbs 75 lbs 4 lbs	20 lbs 5 lbs - - 1 lbs
JULY	• HULLET, BROWNTOP • HULLET PEARL • SUDANGRASS	40 lbs 30 lbs 50 lbs	10 lbs	• LESPEDEZA, SERICEA /	50 lbs 75 lbs	20 lbs
AUGUST	• HULLET PEARL • RYEGRASS, ANNUAL	30 lbs 50 lbs		• LESPEDEZA, SERICEA /	50 lbs 75 lbs	20 lbs
SEPTEMBER	• BARLEY • OATS • RYE • RYEGRASS, ANNUAL • WHEAT	3 bu 4 bu 4 bu 40 lbs 3 bu	1 bu 1 bu 1 bu 5 lbs 1 bu	• BAHIA, PENSACOLA LESPEDEZA, SERICEA /	50 lbs 75 lbs	20 lbs
OCTOBER	BARLEY OATS RYE RYEGRASS, ANNUAL WHEAT	3 bu 4 bu 4 bu 40 lbs 3 bu	1 bu 1 bu 1 bu 5 lbs 1 bu	• BAHIA, PENSACOLA LESPEDEZA, SERICEA /	50 lbs 75 lbs	20 lbs
NOVEMBER	BARLEY OATS RYE RYEGRASS, ANNUAL WHEAT	3 bu 4 bu 4 bu 40 lbs 3 bu	1 bu 1 bu 1 bu 5 lbs 1 bu	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA /	50 lbs 10 lbs 75 lbs	20 lbs 5 lbs -
DECEMBER	BARLEY OATS RYE RYEGRASS, ANNUAL WHEAT	3 bu 4 bu 4 bu 40 lbs 3 bu	1 bu 1 bu 1 bu 5 lbs 1 bu	• BAHIA, PENSACOLA BERMUDA, ANNULATE CENTIPEDE, HULL • LESPEDEZA, SERICEA /	50 lbs 10 lbs 75 lbs	20 lbs 5 lbs -

NOTES
1. PERMANENT GRASS PLANTINGS SHALL BE MULCHED
2. INDICATES MARGIN IS MOST PERMISSIBLE PLANTING DATE
3. SEAL MULCH
4. WATERED
5. LONGSPECK BUFFALO AS USED AS PERMANENT COVER ANYTIME BETWEEN JUNE THRU JULY

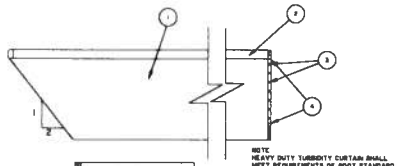


NOTE INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION

INLET SEDIMENT TRAP
GRAVEL BAGS

NOT TO SCALE

Sd2-Gb

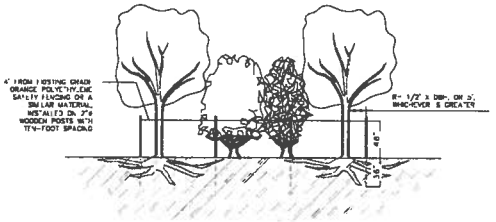


NOTE
HEAVY DUTY TURBIDITY CURTAIN SHALL MEET REQUIREMENTS OF GDOT STANDARD SPECS SECTION 170

ITEM	DESCRIPTION
1	PERMEABLE FILTER FABRIC
2	UNICELLULAR FLOAT
3	SS BRACKET
4	SS PLATES

TURBIDITY CURTAIN

NOT TO SCALE

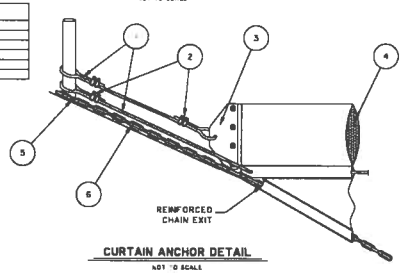


TREE PROTECTION DETAIL

NOT TO SCALE

Tr

ITEM	DESCRIPTION
1	SS CABLE
2	SS CABLE CLAMPS
3	HS 5" x 4.5" x .187" SS BRACKET
4	UNICELLULAR FLOAT
5	SS QUICK LINK
6	SS CHAIN



CURTAIN ANCHOR DETAIL

NOT TO SCALE

Tc-F

NOZZLE	RATES GALLON	NOZZLE TYPE	APPLICATION TYPE GAL/ACRE
ANIONIC ASPHALT EMULSION	7gal	COARSE SPRAY	1,000
LATEX EMULSION	6 GAL	FINE SPRAY	833
RESIN-IN-WATER EMULSION	4 gal	FINE SPRAY	2000

DUST CONTROL

NOT TO SCALE

Du

FERTILIZER REQUIREMENTS				
TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	0-1-1 0-0-1 0-0-1	1000lbs / ac 500 lbs / ac 500 lbs / ac	50-100 lbs / ac = 1 lb 2 50
2. COOL SEASON LEGUMES	FIRST SECOND MAINTENANCE	0-1-1 0-0-1 0-0-1	1000lbs / ac 500 lbs / ac 500 lbs / ac	50-100 lbs / ac = 1
3. GROWING COVERS	FIRST SECOND MAINTENANCE	0-1-1 0-0-1 0-0-1	1000lbs / ac = 1 500 lbs / ac = 1 500 lbs / ac	-
4. PINE SEEDLINGS	FIRST	20-10-5	200 lbs / ac (NOT TO EXCEED 50 LBS N PER ACRE IN THE FIRST YEAR)	
5. INDIAN LESPEDEZA	FIRST MAINTENANCE	0-1-1 0-0-1	1000lbs / ac 500lbs / ac = 0	
6. TEMPORARY COVER SEEDS IN MIX	FIRST	10-10-10	300lbs / ac	30 lbs / ac = 3
7. BAHIA SEADON GRASSES	FIRST SECOND MAINTENANCE	0-1-1 0-0-1 0-0-1	1000lbs / ac 500lbs / ac 500lbs / ac	100 lbs / ac = 1 lb 6 50 lbs / ac = 1 2 50 lbs / ac
8. BAHIA SEADON GRASSES	FIRST SECOND MAINTENANCE	0-1-1 0-0-1 0-0-1	1000lbs / ac 500lbs / ac 500lbs / ac	50-100 lbs / ac = 1

1. APPLY BY SPRAYING FOLIAGE DURING SEEDING
2. APPLY IN SPLIT APPLICATIONS WHEN HIGH RATE IS USED
3. APPLY IN 3 SPLIT APPLICATIONS
4. APPLY WHEN PLANTS ARE DORMANT
5. APPLY TO GRASS SPECIES ONLY
6. APPLY WHEN PLANTS GROW TO A HEIGHT OF 12 TO 4 INCHES

LIME RATES AND ANALYSIS

- AGRICULTURAL LIME SHALL BE APPLIED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE

MULCHING (MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION. APPLICATIONS MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

- DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF TWO TONS PER ACRE. DRY HAY SHALL BE APPLIED AT THE RATE OF 2 1/2 TONS PER ACRE.
- WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT A RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED BELOW) AFTER HYDRAULIC SEEDING
- ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 4:1 OR STEEPER
- SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE
- PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR SEEDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS
- WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLACK SOIL, MULCH IS NOT REQUIRED.

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CITY OF ST. MARYS
ST. MARYS GA

READY STREET OUTFALL IMPROVEMENTS

ES & PC C

JOB NO	J-13444 DCM
DATE	6/24/2015
DRAWN	MCS
DESIGNED	JLW
REVIEWED	
APPROVED	KMS
SCALE	NOT TO SCALE

EC3.1

NO	REVISION	BY	DATE

REVIEW OF SAFETY P.E. GEORGE LOPEZ, III
DEPARTMENT OF PUBLIC WORKS
CONSTRUCTION #4
MARCH 17
EXPIRATION MONTH

MAY 26 2017

GA DNR

March & Shore Mgt. Program

GENERAL

1 ALL CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE 2012 EDITION. REFERENCE TO OTHER STANDARD SPECIFICATIONS OR CODES SHALL MEAN THE LATEST STANDARD OR CODE ADOPTED AND PUBLISHED

2 DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY FOR DETAILS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN

3 VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCY

4 NOTIFY THE ENGINEER OF CONDITIONS ENCOUNTERED IN THE FIELD CONTRADICTORY TO THOSE SHOWN ON THE CONTRACT DOCUMENTS

5 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. THE STRUCTURAL ELEMENTS ARE NOT STABLE UNTIL THE STRUCTURE IS COMPLETE

REINFORCED CONCRETE

1 ALL CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION. DESIGN IS BASED ON ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", LATEST EDITION

2 UNLESS NOTED OTHERWISE ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28 DAY STRENGTHS:

ALL CONCRETE _____ 4,000 PSI

3 CONCRETE MIX DESIGNS, IN ACCORDANCE WITH ACI 318 SECTION 5.3 SHALL BE SUBMITTED TO THE ENGINEER AND TESTING AGENCY FOR MIX DESIGN ACCEPTANCE. RESPONSIBILITY FOR OBTAINING THE REQUIRED CONCRETE DESIGN STRENGTH IS THE CONTRACTOR'S.

4 USE OF CALCIUM CHLORIDE IONS, OR OTHER SALTS IN CONCRETE IS NOT PERMITTED

5 THE AIR CONTENT IN ALL CONCRETE EXPOSED TO WEATHER SHALL BE BETWEEN 3% AND 6%

6 COAT ALL SLABS WITH CURING COMPOUND WITHIN 24 HOURS OF PLACING. PRODUCT USED SHALL CONFORM WITH ASTM C309, AND SHALL BE COMPATIBLE WITH ADHERED FINISHES. A DISSIPATING FORMULATION SHALL BE USED AT CEMENTITIOUS FINISHES

7 CHAMFER OR ROUND ALL EXPOSED CORNERS MINIMUM 3/4"

8 DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 315 "DETAILING MANUAL", LATEST EDITION. SUBMIT SHOP DRAWINGS FOR REVIEW SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND ACCEPTED

9 DETAIL ALL CONCRETE WALLS AND BEAMS IN ELEVATION UNLESS SPECIFICALLY ACCEPTED OTHERWISE. CUT SECTIONS SHOWING BAR LOCATIONS AND CONCRETE COVER

10 REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE

11 WELDED WIRE FABRIC (MESH) SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS (ROLLS NOT PERMITTED). LAP TWO SQUARES AND STAGGER EACH SPLICE

12 TIE ALL REINFORCING STEEL AND EMBEDMENTS SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN POSITION OF REINFORCEMENT WITHIN SPECIFIED TOLERANCES DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" DOWELS INTO WET CONCRETE IS NOT PERMITTED

13 PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR ACCEPTED; STAGGER SPLICES WHERE POSSIBLE; USE TENSION SPLICE (CLASS "B") UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH TENSION SPLICES (CLASS "B"). UNLESS NOTED OTHERWISE LAP LENGTHS EXPRESSED IN NUMBER OF BAR DIAMETERS SHALL BE AS FOLLOWS:

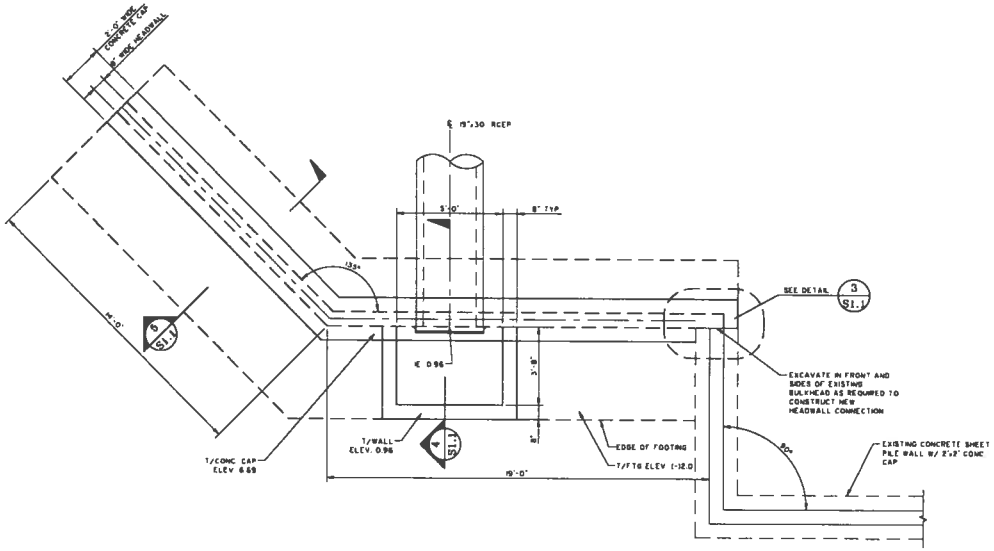
BAR SIZE	NORMAL WEIGHT CONCRETE f'c (PSI)		
	3,000	4,000	5,000
#6 OR SMALLER	37 DIAM	49 DIAM	44 DIAM
#7 OR LARGER	71 DIAM	62 DIAM	55 DIAM

INCREASE THE ABOVE LAP LENGTHS BY 1.3 FOR TOP BARS WITH MORE THAN 12" OF CONCRETE BELOW

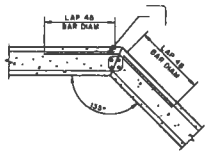
14 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH (NOT FORMED) _____ 3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER
#6 THROUGH #18 BARS _____ 2"
#5 BARS AND SMALLER _____ 1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER
SLABS, JOISTS AND WALLS _____ 1"
BEAMS (STIRRUPS) _____ 1 1/2"

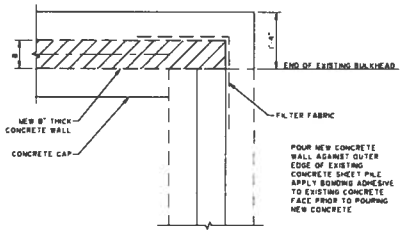
15. DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS ACCEPTED OR DIRECTED BY THE STRUCTURAL ENGINEER



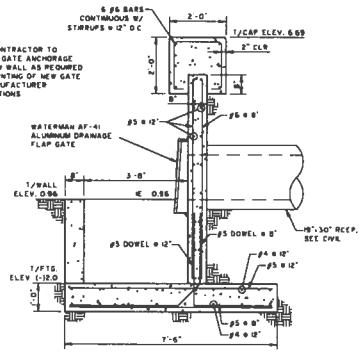
1 S1.1 HEADWALL STRUCTURE – PLAN
SCALE: 3/8"=1'-0"



2 S1.1 WALL BEND DETAIL
SCALE: 3/4"=1'-0"

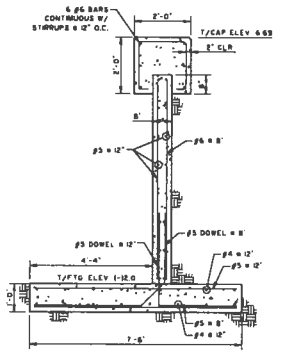


3 S1.1 DETAIL
SCALE: 3/4"=1'-0"



NOTE:
WALL CONTRACTOR TO INSTALL GATE ANCHORAGE INTO NEW WALL AS REQUIRED FOR MOUNTING OF NEW GATE PER MANUFACTURER INSTRUCTIONS

4 S1.1 DETAIL @ PIPE
SCALE: 1/8"=1'-0"



5 S1.1 TYPICAL WALL DETAIL
SCALE: 1/8"=1'-0"

THOMAS & HUTTON
Engineering • Surveying • Planning • GIS • Consulting
50 Park of Commerce Way
Savannah, GA 31405 • 912.234.5300
www.thomasandhutton.com

NO	REVISIONS	BY	DATE

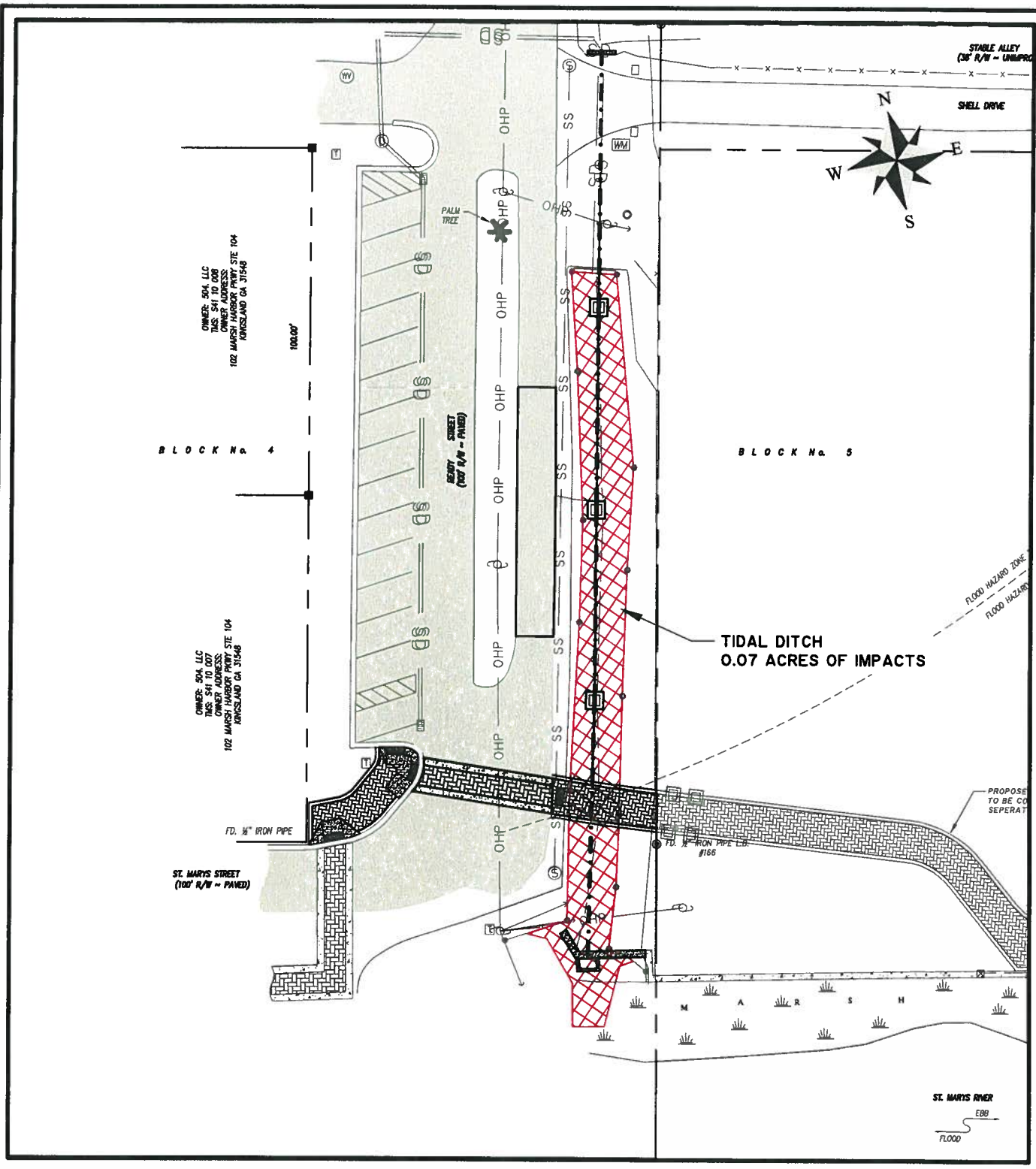
CITY OF ST. MARYS
ST. MARYS GA
READY STREET OUTFALL IMPROVEMENTS
HEADWALL PLANS, SECTIONS AND DETAILS

JOB NO. J-130414.000
DATE 6/21/2013
DRAWN JBR
DESIGNED C.E.
REVIEWED C.E.
APPROVED C.E.
SCALE AS SHOWN

S1.1

GA DNR
MAY 26 2017
Marsh & Shore Mgt. Program

Z:\25144\25144.000\Engineering\Drawings\Exhibits\Wetlandimpacts.dwg - Aug 4, 2015 - 9:04:16 AM



READY STREET OUTFALL IMPROVEMENTS

JURISDITICTIONAL WETLAND IMPACTS

CLIENT:

CITY OF ST. MARYS

LOCATION: ST. MARYS

DATE: 08/03/2015 DRAWN BY: JAR SHEET: EXHIBIT

JOB NUMBER: J-25144.0001 REVIEWED BY: KMS SCALE: 1" = 40'

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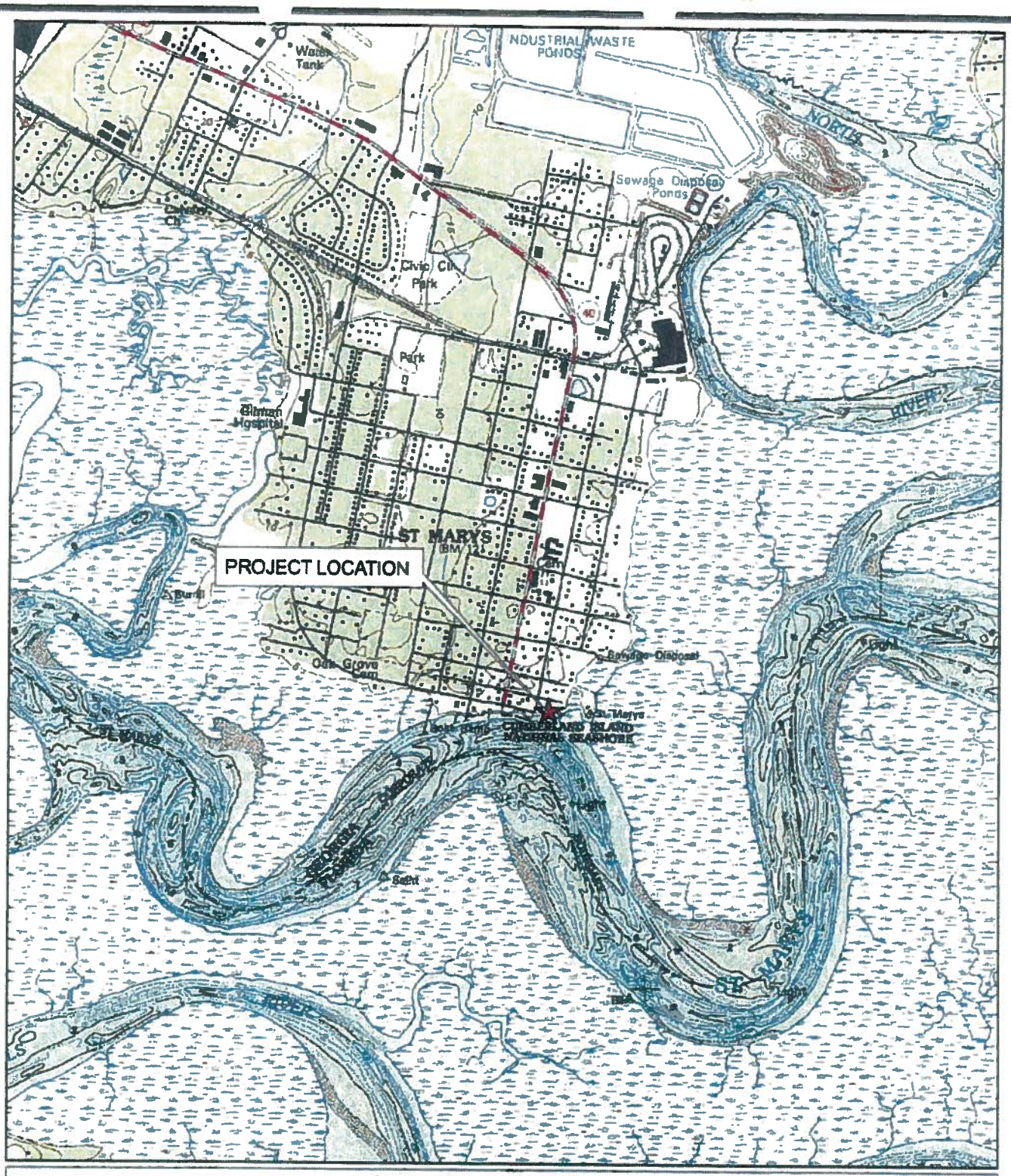


★ PROJECT LOCATION

USGS TOPOGRAPHIC SURVEY CAMDEN COUNTY, GEORGIA	
DATE: 30 JANUARY 2013	
MAP SCALE : 1 INCH = 2000 FEET	
PREPARED BY: RP	
RLC PROJECT NO. 12-114	

ST. MARYS MULTI-USE TRAIL PHASE III
CAMDEN COUNTY, GEORGIA

PREPARED FOR:
CITY OF ST. MARYS

0 1,000 2,000 4,000 Feet

RLC
RESOURCE+LAND CONSULTANTS
41 Park of Commerce Way, Ste. 303
Savannah, Georgia 31405
912.443.5896 www.rlandc.com

GA DNR
APR 13 2016
Marsh & Shore Mgt. Program

PROJECT LIMITS

2010 ORTHO PHOTOGRAPH CAMDEN COUNTY, GEORGIA	ST. MARYS MULTI-USE TRAIL PHASE III CAMDEN COUNTY, GEORGIA
DATE: 30 JANUARY 2013	
MAP SCALE : 1 INCH = 250 FEET	PREPARED FOR: CITY OF ST. MARYS
PREPARED BY: RP	
RLC PROJECT NO. 12-114	0 125 250 500 Feet

RLC RESOURCE+LAND CONSULTANTS
[illegible] Park of Commerce Way, Ste 303
Savannah, Georgia 31405
912.443.5896 www.rlandc.com

GA DNR

APR 13 2016

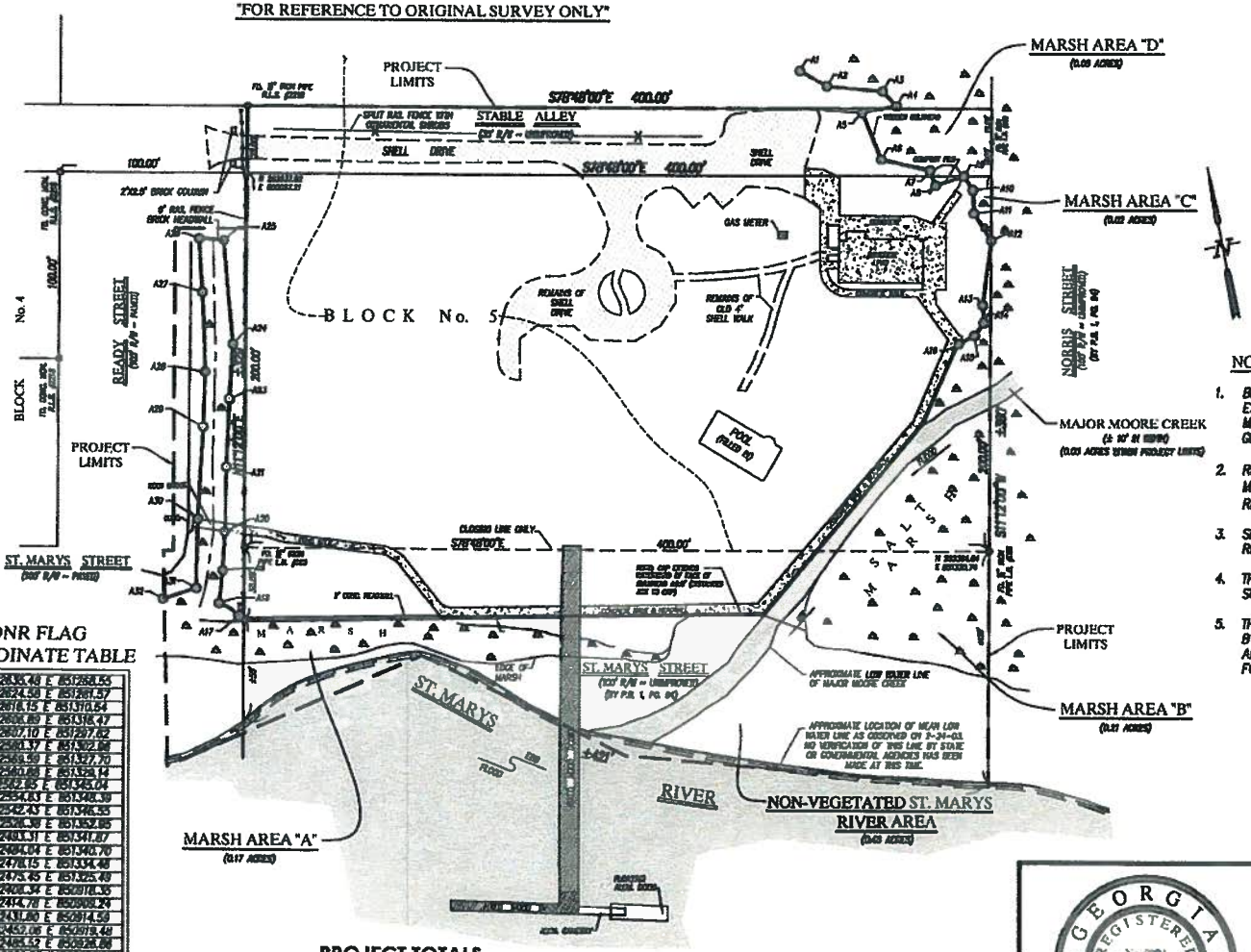
"FOR REFERENCE TO ORIGINAL SURVEY ONLY"

MAP TO SHOW DNR JURISDICTION LINE & MODIFIED TOPOGRAPHICAL SURVEY OF

A PARCEL OF LAND LYING IN THE CITY OF ST. MARYS, 29TH G.M.D., CAMDEN COUNTY, GEORGIA

(BEING A PORTION OF BLOCK No. 5 AND A PORTION OF STABLE ALLEY AS SHOWN ON THE OFFICIAL PLAN OF ST. MARYS RECORDED IN P.B. 1, PAGE 94, PUBLIC RECORDS OF CAMDEN COUNTY)

FOR: THOMAS & HUTTON



NOTES:

1. BEARINGS AND COORDINATES SHOWN HEREON WERE ESTABLISHED BY GPS METHODOLOGY, BASED ON NGS MONUMENT Q-199. COORDINATES ARE GEORGIA EAST ZONE GRID COORDINATES.
2. REFERENCE BENCHMARK: U.S.C. & G.S. BENCHMARK "ST. MARYS 3" IN SOUTHEAST CORNER WALL OF THE OLD RIVERVIEW HOTEL, ELEV. 9.43' (NAVD88).
3. SEE CITY ZONING REGULATIONS FOR BUILDING SETBACK REQUIREMENTS.
4. THERE MAY EXIST ADDITIONAL RESTRICTIONS LYING OVER SUBJECT PROPERTY THAT ARE NOT SHOWN HEREON.
5. THE CURRENT DNR MARSHLINE SHOWN HEREON WAS FLAGGED BY RESOURCE LAND CONSULTANTS ON OCTOBER 2012. ANGLE POINTS IN THIS LINE ARE FLAGGED TIED TO VARIOUS FORMS OF VEGETATION AND ARE SHOWN THUS: A17

DNR FLAG COORDINATE TABLE

A1	N 262835.48	E 851268.55
A2	N 262824.58	E 851281.57
A3	N 262818.15	E 851310.54
A4	N 262806.89	E 851316.47
A5	N 262807.10	E 851297.62
A6	N 262801.37	E 851302.98
A7	N 262808.59	E 851327.70
A8	N 262840.88	E 851326.14
A9	N 262862.85	E 851345.04
A10	N 262854.83	E 851348.39
A11	N 262842.43	E 851346.55
A12	N 262836.38	E 851352.85
A13	N 262803.31	E 851341.87
A14	N 262484.04	E 851340.70
A15	N 262478.15	E 851334.48
A16	N 262475.45	E 851325.49
A17	N 262408.34	E 851318.35
A18	N 262414.78	E 851308.24
A19	N 262431.80	E 851314.59
A20	N 262452.06	E 851319.48
A21	N 262486.52	E 851326.86
A22	N 262500.63	E 851335.12
A23	N 262543.51	E 851342.59
A24	N 262565.02	E 851346.15
A25	N 262606.32	E 851355.68
A26	N 262637.78	E 851361.86
A27	N 262637.52	E 851355.36
A28	N 262640.80	E 851318.70
A29	N 262661.44	E 851306.88
A30	N 262675.03	E 851308.88
A31	N 262675.03	E 851308.88
A32	N 262422.74	E 851360.42

PROJECT TOTALS

UPLAND AREA	2.34 AC
TIDAL WETLAND/RIVER AREA	0.95 AC
TOTAL AREA WITHIN BOUNDARY LINES	3.03 AC
TOTAL AREA WITHIN PROJECT LIMITS	3.33 AC

REVISED: 5-22-2014

DATE OF FIELD SURVEY: 10-10-2012

APPROVED BY:

GEORGIA REGISTERED LAND SURVEYOR PHILLIP JACKSON

PHILLIP JACKSON
GA. REGISTERED SURVEYOR No. 2804

60' 30' 0' 30' 60' 120'

GRAPHIC SCALE: 1" = 60'

JACKSON SURVEYING, INC.
Surveyors and Land Planners

3528 DARIEN HIGHWAY, SUITE 217
BRUNSWICK, GEORGIA 31525

Ofc. (912) 265-3856
Fax. (912) 265-9509

DWN. BY: DED
CKD. BY: PJ
DWG. NO. C0255 11-12
FB. BSI-1 (FILE)

GA DNR

APR 13 2016

Marsh & Shore Mgt. Program