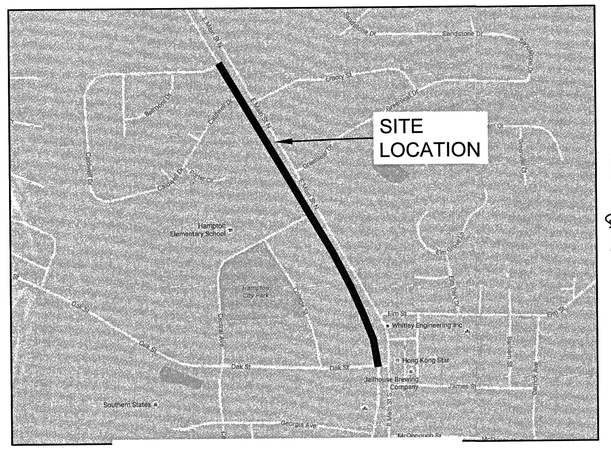

--VICINITY MAP--

NTS

CIVIL CONSTRUCTION PLANS FOR

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 OF THE 6TH DISTRICT
CITY OF HAMPTON, HENRY COUNTY, GEORGIA

TOTAL AREA = **0.90** AC.
DEVELOPED AREA = **0.90** AC
DISTURBANCE AREA = **0.90** AC.

OWNER
CITY OF HAMPTON
ATT: PUBLIC WORKS DIR.
DAVID CORN
17 EAST MAIN STREET, SOUTH
HAMPTON, GA 30228
24 HR CONTACT:
DAVID CORN
Phone: (770) 946 - 4306
Fax: (770) 946 - 4356

CAUTION

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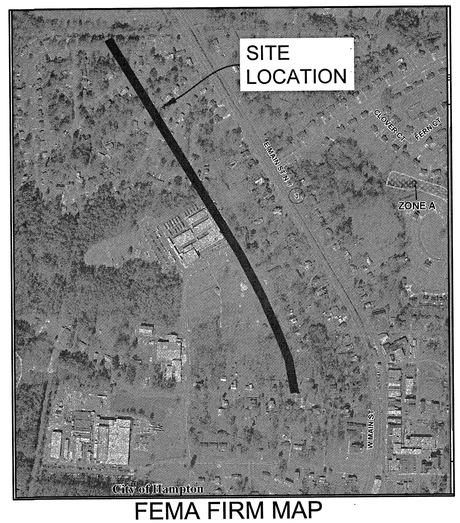
NOTE:
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES.
- CONTRACTOR SHALL HAVE ALL UTILITIES FLAGGED WITH INVERT ELEVATIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO NOTIFY ENGINEER OF ALL DISCREPANCIES OR ADDITIONAL UTILITIES ENCOUNTERED.

INDEX OF SHEETS

SHEET #	SHEET TITLE
1	COVER SHEET
2-3	EXISTING CONDITIONS & DEMOLITION PLAN
4-5	PROPOSED CONDITIONS
5.1-5.2	WATER PLAN
6-7	SIGNAGE & STRIPPING PLAN
8-9	GRADING & DRAINAGE PLAN
9.1	STORM PROFILES
10-13	CROSS SECTIONS
14-15	PHASE I ES&PC PLAN
16-17	PHASE II & PHASE III ES&PC PLAN
18-20	NPDES NOTES
21-22	EROSION CONTROL DETAILS
23-24	CONSTRUCTION DETAILS
25	WATER DETAILS

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH ***CITY OF HAMPTON*** REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. THE CONTRACTOR IS TO VERIFY ALL PERMITS ARE OBTAINED AND ARE READILY AVAILABLE PRIOR TO COMMENCEMENT OF ANY WORK DONE BY THE AGENCY BY WHICH THE REMOVAL OF SUCH STRUCTURE OR UTILITY IS AFFECTED.
3. THIS PROJECT WILL BE PUBLICLY FUNDED.
4. TOTAL LENGTH OF ROAD IMPROVEMENT - ***3,100 LF***.
5. TOTAL DEVELOPED/DISTURBED AREA - ***0.90*** Acres.
6. THERE ARE NO STATE WATERS LOCATED ON THE SITE.
7. THERE ARE NO STATE WATERS LOCATED WITHIN 200 LF FROM THE LIMITS OF DISTURBANCE.
8. THERE ARE NO WETLANDS LOCATED ON THIS SITE.
9. ANY REVISIONS TO THE PLANS AFTER THE INITIAL SUBMITTAL, OTHER THAN THE RESPONSE TO THE PLAN REVIEW COMMENTS, WILL BE INDICATED AS REVISIONS AND SUBMITTED WITH A WRITTEN EXPLANATION OF THE REVISIONS AND THE REASONS THEREFORE.
10. ANY VARIATIONS FROM THE PERMITTED PLANS, CHANGES IN DESIGN RESULTING FROM FIELD CONDITIONS, OR SUBSTITUTION OF CONSTRUCTION MATERIALS ARE TO BE REVIEWED AND APPROVED BY THE RESPONSIBLE DESIGN ENGINEER AND CITY OF HAMPTON.
11. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND FEATURES THAT WILL NOT BE DEMOLISHED.
12. IF ANY EXISTING CONDITIONS WERE NOT ACCOUNTED FOR DURING THE DESIGN PROCESS GRADING CAN BE MINIMALLY ADJUSTED IN THE FIELD AFTER CONFIRMING SUCH CHANGES WITH THE ENGINEER AND WITH THE APPROPRIATE CITY/COUNTY.
13. TRAFFIC CONTROL SIGNS AND BARRICADES SHALL BE INSTALLED AND MAINTAINED IN ORDER TO ALLOW LOCAL TRAFFIC ROADWAY ACCESS DURING CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL COORDINATE ANY TRAFFIC CONTROL ISSUES WITH GDOT/COUNTY DOT, ENGINEER AND OWNER
14. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUITABLE SIGNAGE, BARRICADES, AND LIGHTS FOR PROTECTION OF TRAFFIC. ANY EXISTING ROAD SIGN REMOVED FOR CONSTRUCTION SHALL BE REPLACED BY THE END OF THE WORKING DAY.
15. THE CONTRACTOR SHALL NOT CLOSE OR BLOCK ANY STREET PRIOR TO OBTAINING WRITTEN PERMISSION FROM THE PROPER AUTHORITIES.
16. THE CONTRACTOR WILL ENSURE ALL BMP MEASURES SHOWN ON THE ES&PC PLAN ARE INSTALLED PRIOR TO ANY DEMOLITION AND CONSTRUCTION ACTIVITIES.
17. THE PERSON ULTIMATELY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL PRACTICES ON THIS SITE AND WHO WILL BE CONTACTED IN THE EVENT OF A **"STOP WORK ORDER"** IS NAME : **DAVID CORN** PHONE # (770) 946 - 4306
18. ALL DISTURBED AREAS WILL BE COVERED WITH MULCH AT THE END OF EVERY WORK DAY.
19. AREAS TO RECEIVE FILL SHALL BE CLEARED OF TOPSOIL, TREES, VEGETATION, AND ANY ORGANIC MATERIAL PRIOR TO FILLING.
20. ALL DISTURBED AREAS THAT HAVE REACHED FINAL STABILIZATION MUST BE PERMANENTLY VEGETATED WITH SOD OR SOME OTHER FORM OF PERMANENT VEGETATION.
21. CONTRACTOR SHALL PROVIDE DETAILED PLANS FOR AN APPROVED SITE THAT MEETS LOCAL PERMITTING REQUIREMENTS AT WHICH WASTE SOIL WILL BE DISPOSED, AS WELL AS A DETAILED PLAN FOR ROUTE TO BE USED FOR HAULING PURPOSES.
22. THE DESIGN PROFESSIONAL DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE EXISTING UTILITY INFORMATION IS CORRECT, ACCURATE OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE FOR THE FIELD LOCATION AND PROTECTION OF ALL OVERHEAD AND SUBSURFACE LINES AND FACILITIES WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE EXCAVATION, DEMOLITION OR UTILITY WORK.
23. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE INSTALLATION OF ANY PROPOSED UTILITIES WITH THE APPROPRIATE UTILITY COMPANY AS WELL AS WITH THE DEIGN ENGINEER/ ARCHITECT.
24. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES.
25. CONTRACTOR SHALL HAVE ALL UTILITIES FLAGGED WITH INVERT ELEVATIONS PRIOR TO CONSTRUCTION.
26. CONTRACTOR TO NOTIFY ENGINEER OF ALL DISCREPANCIES OR ADDITIONAL UTILITIES ENCOUNTERED.
27. ANY CONSTRUCTION BEYOND THE PROPERTY LINES, ONTO ADJACENT PRIVATE PROPERTY, REQUIRES ADJACENT PROPERTY OWNER PERMISSION AND NECESSARY EASEMENTS PRIOR TO PERFORMING ANY WORK. THE CONTRACTOR IS TO VERIFY OWNER HAS OBTAINED SUCH EASEMENTS AND PERMISSIONS PRIOR TO DISTURBING ANY OFF-SITE PROPERTY.



FEMA FIRM MAP

FLOOD NOTE:

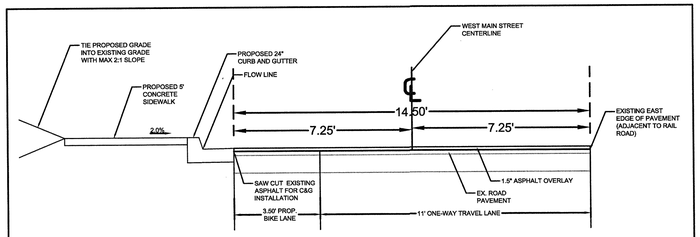
AS SHOWN ON FLOOD INSURANCE RATE MAP OF CITY OF CITY OF HAMPTON, GEORGIA COMMUNITY PANEL NUMBER: 13151C0143C, EFFECTIVE DATE : MAY 16 ,2016 PORTIONS OF THE SITE ARE NOT LOCATED IN FLOOD HAZARD ZONE

STATE WATER NOTE:

THERE ARE NO STATE WATERS ON-SITE.
THERE ARE NO STATE WATERS WITHIN 200 FEET OF THE LIMITS OF CONSTRUCTION.

WETLANDS NOTE:

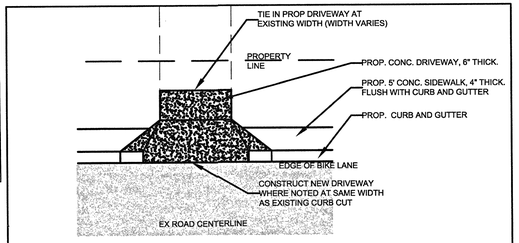
BASED UPON FIELD INSPECTION AND OBSERVATIONS OF THE PROPERTY, AND SUPPORTED BY THE NATIONAL WETLANDS INVENTORY MAPPING, PRODUCED BY THE U.S. DEPARTMENT OF THE INTERIOR/ FISH AND WILDLIFE SERVICE, THERE ARE NO WETLANDS CONTAINED WITHIN THE PROJECT LIMITS OF THIS SITE.



WEST MAIN STREET ROAD IMPROVEMENTS CROSS-SECTION WEST-EAST N.T.S.

ASPHALT MILLING/ LEVELING NOTE:

1. CONTRACTOR SHALL PERFORM MILLING OPERATIONS IN ANY AREA THAT IS NEEDED TO REPAIR ANY STRUCTURAL DEFORMITIES IN THE ASPHALT BASE (I.E., FATIGUE CRACKING. ETC.).
2. CONTRACTOR SHALL ADD ADDITIONAL ASPHALT LEVELING TO ANY AREAS NEED TO ENSURE POSITIVE WATER DRAINAGE TO THE PROPOSED FLOW LINE OF THE 24" CURB AND GUTTER.
3. ASPHALT OVERLAY SHALL BE PLACED OVER ENTIRE ROADWAY AREA. ALL STORMWATER DRAINAGE PATTERNS FOR THE ROADWAY SHALL REMAIN AS CURRENT PATTERN UNLESS OTHERWISE DIRECTED BY THE FIELD ENGINEER.



NEW DRIVEWAY DETAIL N.T.S.

GSWCC
MARK G. WHITLEY, PE
0000001036
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G. WHITLEY

WHITLEY ENGINEERING INC.
DESIGN NPDES PROJECT MANAGEMENT
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS
LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON
COVER SHEET
SCALE: N.T.S.
DATE 06/09/2020

THESE DRAWINGS ARE THE PROPERTY OF WHITLEY ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED AND OR INCORPORATED INTO ANOTHER WORK FOR ANY REASON WITHOUT THE WRITTEN CONSENT OF THE DESIGN PROFESSIONAL.

SHEET
1

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

APPROXIMATE LOCATION OF GAS LINE

WEST MAIN ST. R/W VARIES

0+00 1+00 2+00 3+00 4+00 5+00

6' PVC

10' TEMPORARY CONSTRUCTION EASEMENT

EXISTING WATER LINE TRANSITIONS FROM PVC TO AC AT THIS VALVE

4' WOOD FENCE

PARCEL H02-03051000 #63
"N/F"
TANNER, TERRY & DENA
D.B. 6379 PG.255

PARCEL H02-03050000 #64
"N/F"
CARROLL, LARCUS J. & GENEVIEVE
P.B. 5 PG.71

IPF 1/2" REB

EX. CB
TOP: 879.81
INV.: 876.01
FULL OF DEBRIS

18" CMP

CALDWELL DR.
50 FT. R/W

18" CMP

EX. CB
TOP: 879.70
INV.: 875.50

PARCEL H02-01012000 #89
"N/F"
MEDINA, ALEJANDRO N. JR.
D.B. 314 PG.136

EX. 4" GLF

PARCEL H02-01011001 #51
"N/F"
PINSONNEAULT, THOMAS
P. P.B. 33 PG.47

MATCH LINE A

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

APPROXIMATE LOCATION OF GAS LINE

WEST MAIN ST. R/W

6+00 7+00 8+00 9+00 10+00 11+00 12+00

PARCEL H02-01011003 #49
"N/F"
BRADLEY, LISA S.
P.B. 33 PG.47

IPF 1/2" REB

PARCEL H02-01011004 #47-1
"N/F"
JACOBS, BOBBY L. JR. & WAITS RONALD L.
D.B. 8612 PG.144

IPF 1/2" REB

PARCEL H02-01011000 #47
"N/F"
FEDERAL NATL. MORT. & ASSOC.
D.B. 13308 PG.294

IPF 1/2" REB

PARCEL H02-01010005 #45
"N/F"
LOPEZ, ANNA & BENJAMIN B. JR.
D.B. 11553 PG.51

PARCEL H02-01010000 #43
"N/F"
CLARKE, JOEL D. & MAHRIA H.
D.B. 1327 PG.44

4' CHAIN LINK FENCE

PARCEL H02-01009000 #41
"N/F"
SHAW, HELEN B. & ETAL
D.B. 166 PG.88

5' CHAIN LINK FENCE

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

MATCH LINE A

MATCH LINE B

WEST MAIN ST. R/W VARIES

12+00 13+00 14+00 15+00 16+00 17+00 18+00

APPROXIMATE LOCATION OF GAS LINE

EX. SSMH
TOP: 880.83
INV.: 877.83

PARCEL H02-01008000 #39
"N/F"
FRANKLIN, DONALD G. & CANDACE S.
D.B. 8998 PG.329

PARCEL H02-01007000 #37
"N/F"
BUSH, JOHN R.
D.B. 12039 PG.197

IPF 1" OTP

PARCEL H02-01005000 #35
"N/F"
GONZALES, JORGE L. & MARLYN I.
D.B. 4837 PG.285

PARCEL H02-01004000 #33
"N/F"
DRUMMOND, PETRINA
D.B. 13234 PG.172

10'X5' UTILITY EASEMENT

CENTRAL AVE.
40 FT. R/W

10' TEMPORARY CONSTRUCTION EASEMENT

12" RCP

EX. PIPE END
TOP: 876.26
PIPE COVERED

EX. PIPE END
TOP: 877.59
PIPE COVERED

EX. PIPE END
TOP: 877.53
PIPE COVERED

PARCEL H05-02001000 #29
"N/F"
HILYER, RAYLENE
D.B. 10333 PG.118

PARCEL H05-020050
"N/F"
CITY OF HAMPTON (HOUSIN
D.B. PG. NOT AVA

4' CHAIN LINK FENCE

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

MATCH LINE B

MATCH LINE C

GEORGIA 811
Utilities Protection Center, Inc.
Know what's below.
Call before you dig.

OWNER
CITY OF HAMPTON
ATT: PUBLIC WORKS DIR.
DAVID CORN
17 EAST MAIN STREET, SOUTH
HAMPTON, GA 30228
24 HR CONTACT:
DAVID CORN
Phone: (770) 946 - 4306
Fax: (770) 946 - 4356

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GSWCC
MARK G. WHITLEY, PE
0000021036
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G. WHITLEY

WHITLEY ENGINEERING INC.
PROJECT MANAGEMENT
DESIGN NPDES
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

Not Released For Construction
Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

EXISTING CONDITIONS & DEMOLITION PLAN | SCALE: 1" =20' | DATE 06/09/2020

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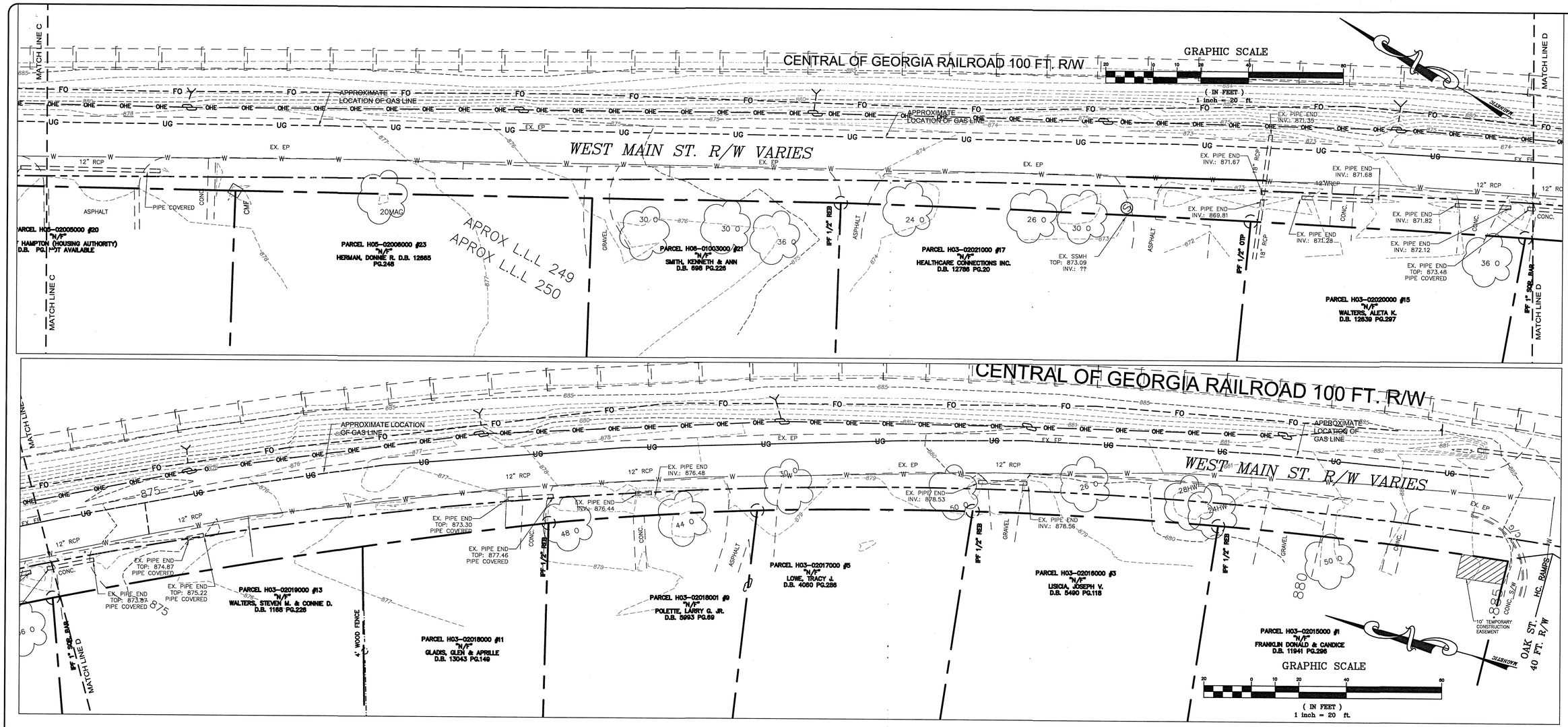
SHEET 2



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GSWCC
MARK G. WHITLEY, PE
0000011936
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

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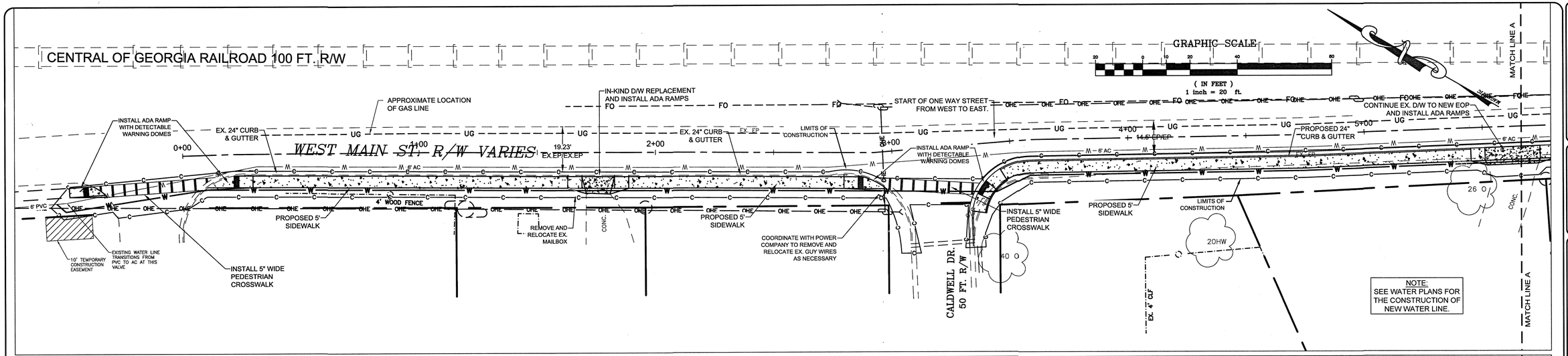
SHEET
3



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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PROPOSED CONDITIONS

SCALE: 1" =20'

DATE 06/09/2020

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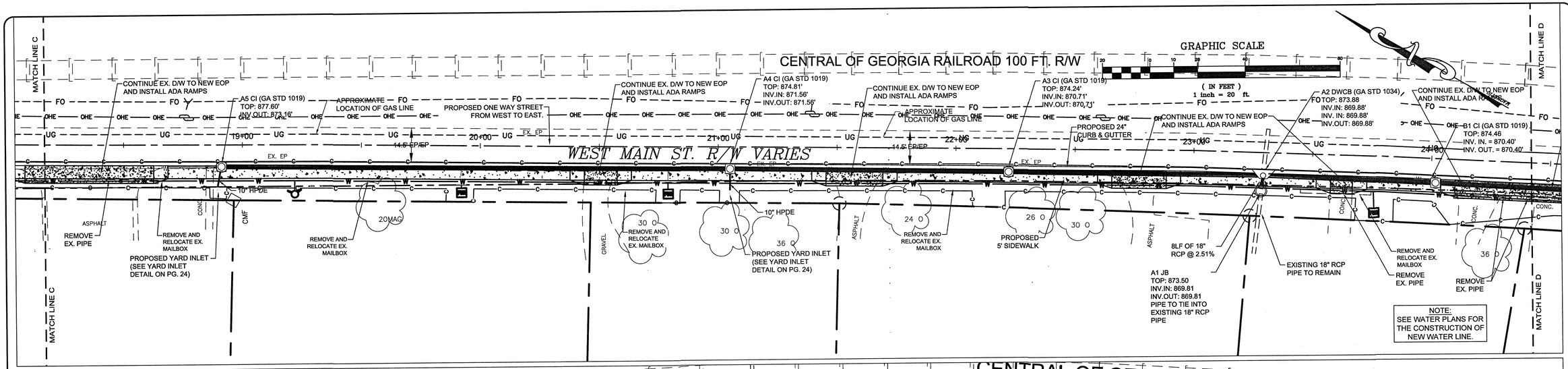
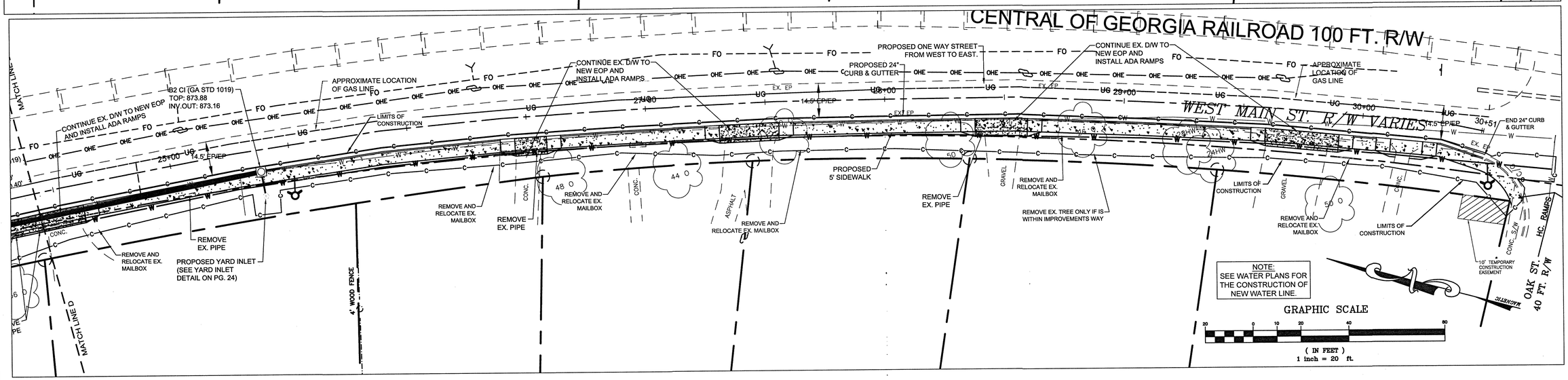
SHEET
4





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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PROPOSED CONDITIONS

SCALE: 1" =20'

DATE 06/09/2020

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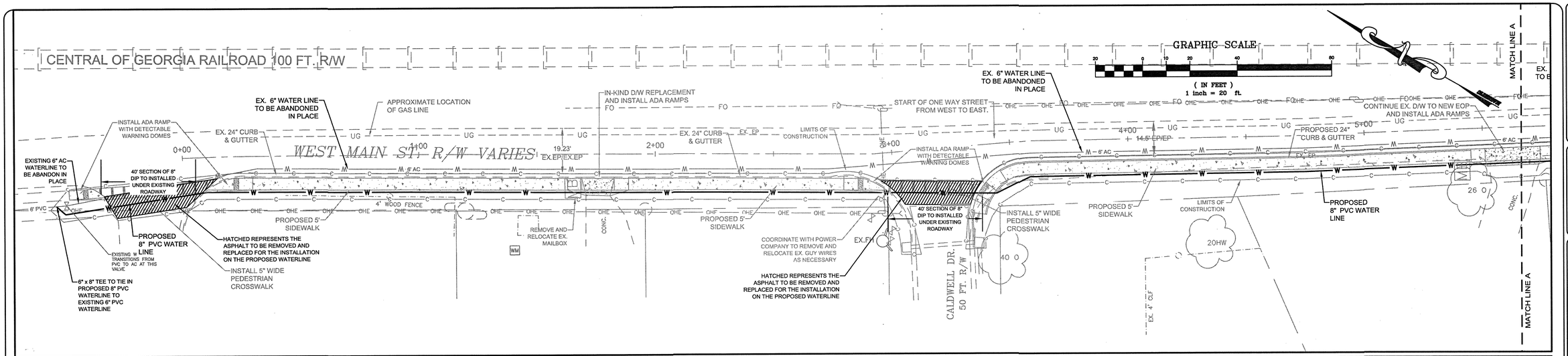
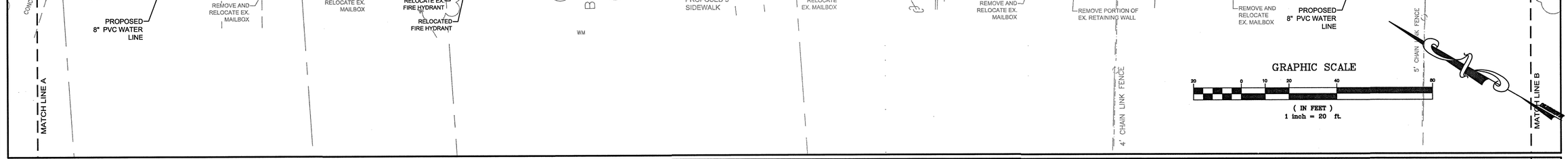
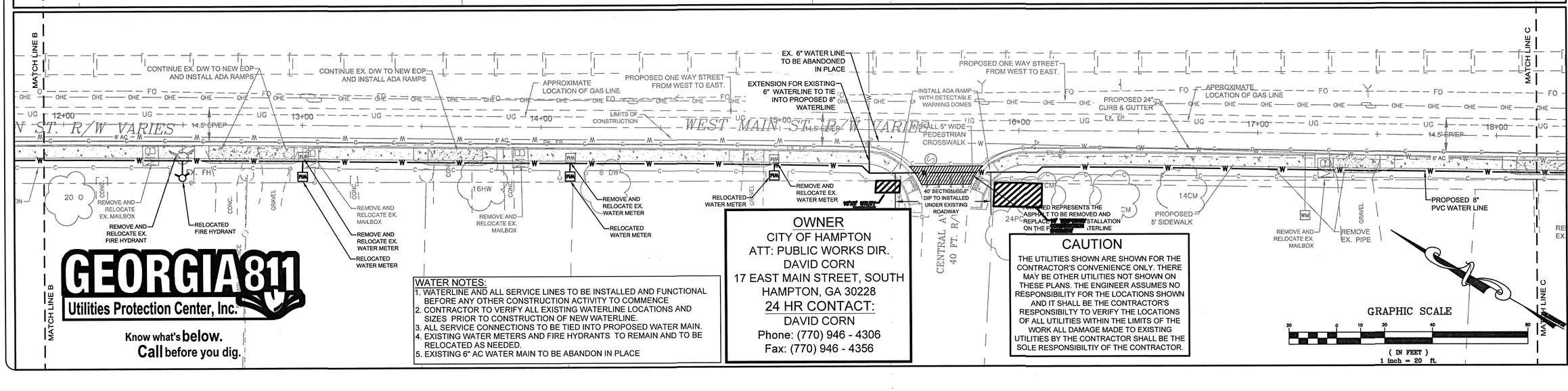
SHEET
5







GEORGIA 811
Utilities Protection Center, Inc.
Know what's **below.**
Call before you dig.

WATER NOTES:
1. WATERLINE AND ALL SERVICE LINES TO BE INSTALLED AND FUNCTIONAL BEFORE ANY OTHER CONSTRUCTION ACTIVITY TO COMMENCE
2. CONTRACTOR TO VERIFY ALL EXISTING WATERLINE LOCATIONS AND SIZES PRIOR TO CONSTRUCTION OF NEW WATERLINE.
3. ALL SERVICE CONNECTIONS TO BE TIED INTO PROPOSED WATER MAIN.
4. EXISTING WATER METERS AND FIRE HYDRANTS TO REMAIN AND TO BE RELOCATED AS NEEDED.
5. EXISTING 6" AC WATER MAIN TO BE ABANDON IN PLACE

OWNER
CITY OF HAMPTON
ATT: PUBLIC WORKS DIR.
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24 HR CONTACT:
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Fax: (770) 946 - 4356

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GSWCC
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LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G. WHITLEY

WHITLEY ENGINEERING INC.
DESIGN NPDES PROJECT MANAGEMENT
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HAMPTON, GA 30228
TEL: (770)946-0256

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

WATER PLAN

SCALE: 1" =20' | DATE 06/09/2020

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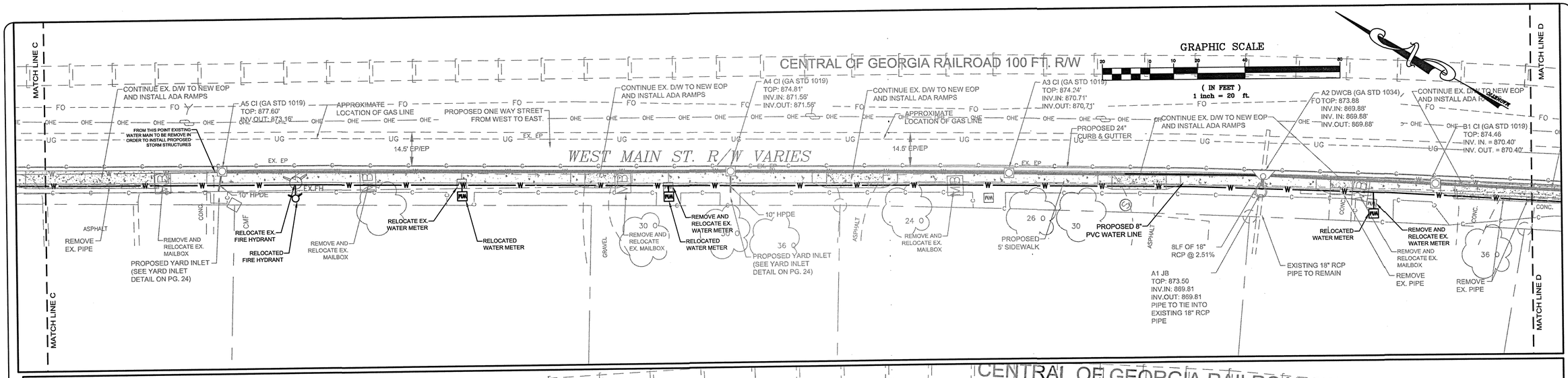
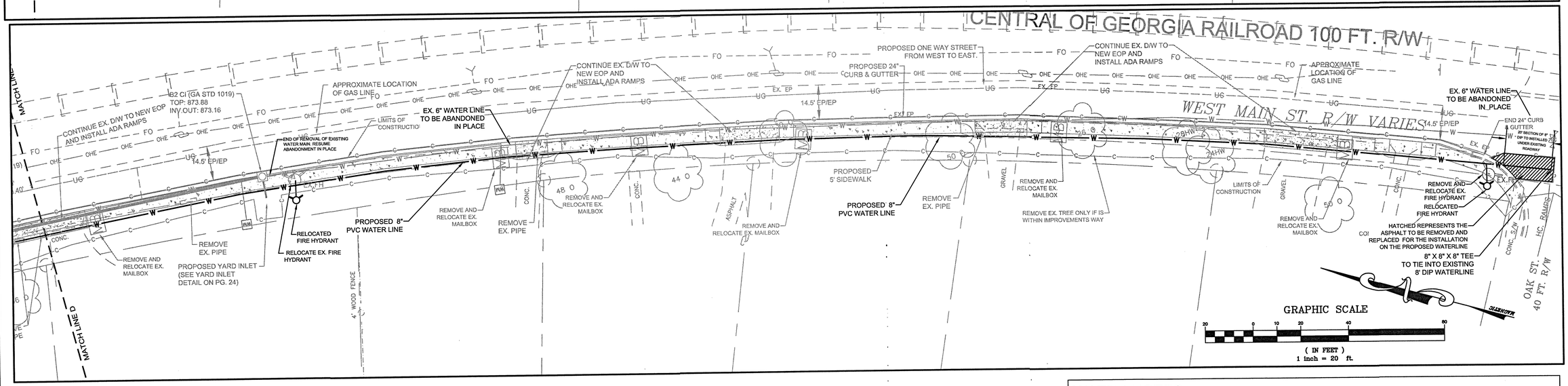
SHEET
5.1





WATER NOTES:

1. WATERLINE AND ALL SERVICE LINES TO BE INSTALLED AND FUNCTIONAL BEFORE ANY OTHER CONSTRUCTION ACTIVITY TO COMMENCE
2. CONTRACTOR TO VERIFY ALL EXISTING WATERLINE LOCATIONS AND SIZES PRIOR TO CONSTRUCTION OF NEW WATERLINE.
3. ALL SERVICE CONNECTIONS TO BE TIED INTO PROPOSED WATER MAIN.
4. EXISTING WATER METERS AND FIRE HYDRANTS TO REMAIN AND TO BE RELOCATED AS NEEDED.
5. EXISTING 6" AC WATER MAIN TO BE ABANDONED IN PLACE

GEORGIA 811
Utilities Protection Center, Inc.
Know what's **below.**
Call before you dig.

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

WATER PLAN

SCALE: 1" =20'

DATE 06/09/2020

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SHEET
5.2

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

WEST MAIN ST. R/W VARIES

MATCH LINE A

MATCH LINE B

MATCH LINE C

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

5" SOLID WHITE

5" MINI-SKIP WHITE

5" DOUBLE YELLOW

ONE WAY DIRECTIONAL ARROW

4' WOOD FENCE

HELMET BICYCLIST SYMBOL

R3-17 BIKE LANE SIGN

INSTALL PEDESTRIAN CROSSWALK. SEE GDOT DETAIL T-11A.

R1-1 STOP SIGN

24" STOP BAR

50 L.F. OF 5" DOUBLE YELLOW

CALDWELL DR
50 FT. R/W

R6-2R ONE WAY SIGN

R6-1R SIGN

24" R1-1 STOP SIGN AND R6-1R ONE WAY SIGN

4' CHAIN LINK FENCE

5' CHAIN LINK FENCE

NOTE:
- ALL STRIPING SHALL BE THERMOPLASTIC
- ALL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO MUTCD STANDARDS AND SPECIFICATIONS

ASPHALT MILLING/ LEVELING NOTE:
1. CONTRACTOR SHALL PERFORM MILLING OPERATIONS IN ANY AREA THAT IS NEEDED TO REPAIR ANY STRUCTURAL DEFORMITIES IN THE ASPHALT BASE (I.E., FATIGUE CRACKING. ETC.).
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R1-1 SIGN | R6-2 SIGN | R3-17 SIGN

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

SIGNAGE & STRIPING

SCALE: 1" =20' | DATE 06/09/2020

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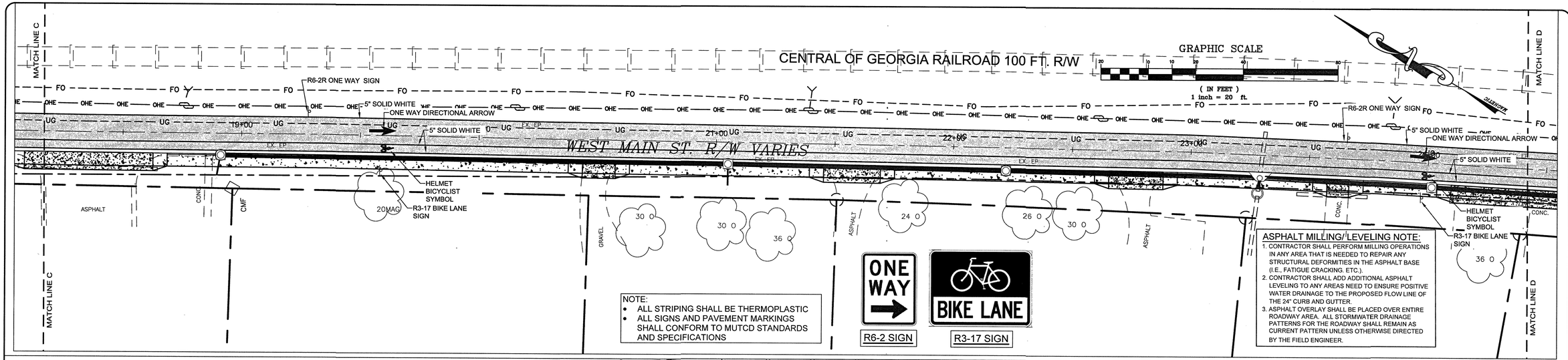
SHEET
6



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R6-2 SIGN

R3-17 SIGN

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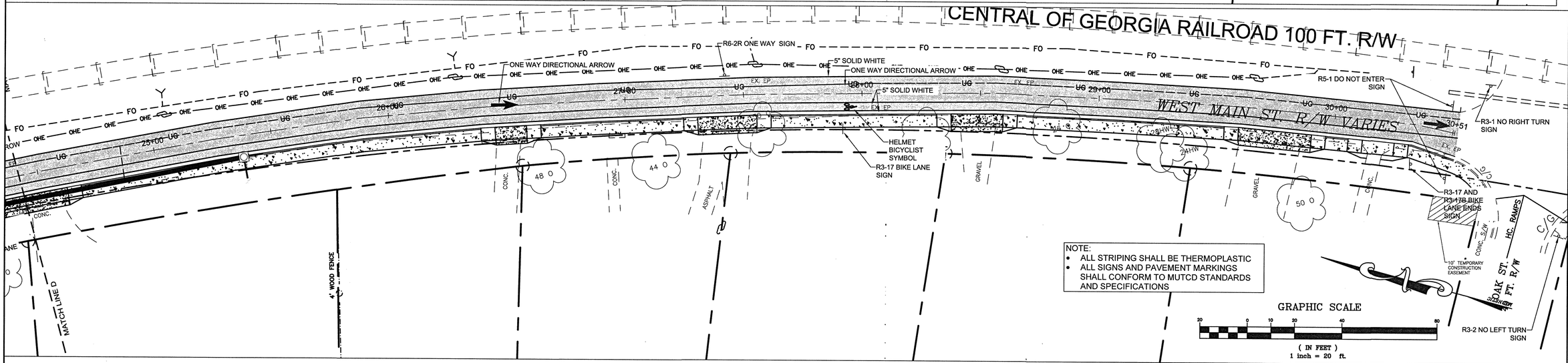

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GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.



R5-1 SIGN



R3-1 SIGN



R3-2 SIGN



R6-2 SIGN



R3-17 SIGN



R3-17B SIGN

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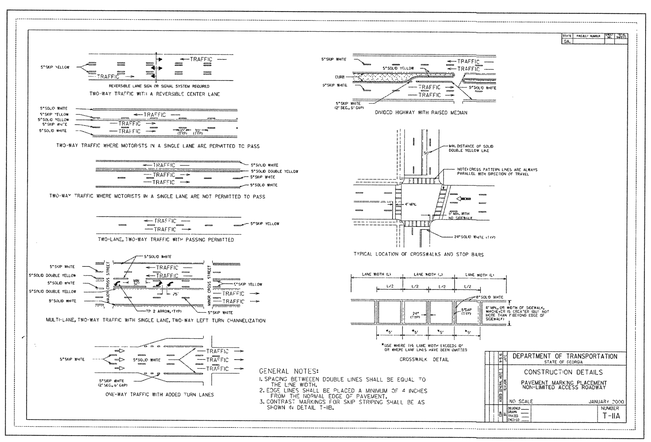

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

SIGNAGE & STRIPING | SCALE: 1" =20' | DATE 06/09/2020

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SHEET
7

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

WEST MAIN ST. R/W VARIES

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

LIMITS OF CONSTRUCTION

4' WOOD FENCE

EXISTING WATER LINE TRANSITIONS FROM PVC TO AC AT THIS VALVE

CALDWELL DR.
50 FT. R/W

EX. 4" CLF

MATCH LINE A

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

WEST MAIN ST.

LIMITS OF CONSTRUCTION

BRICK

12MAG

16MAG

MATCH LINE B

4' CHAIN LINK FENCE

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

MATCH LINE B

WEST MAIN ST. R/W VARIES

LIMITS OF CONSTRUCTION

16HW

6 DW

CENTRAL AVE.
40 FT. R/W

24PC

8 DW

12CM

14CM

6 CMP

REMOVE EX. PIPE

MATCH LINE C

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

GRADING & DRAINAGE PLAN

SCALE: 1" =20'

DATE 08/09/2020

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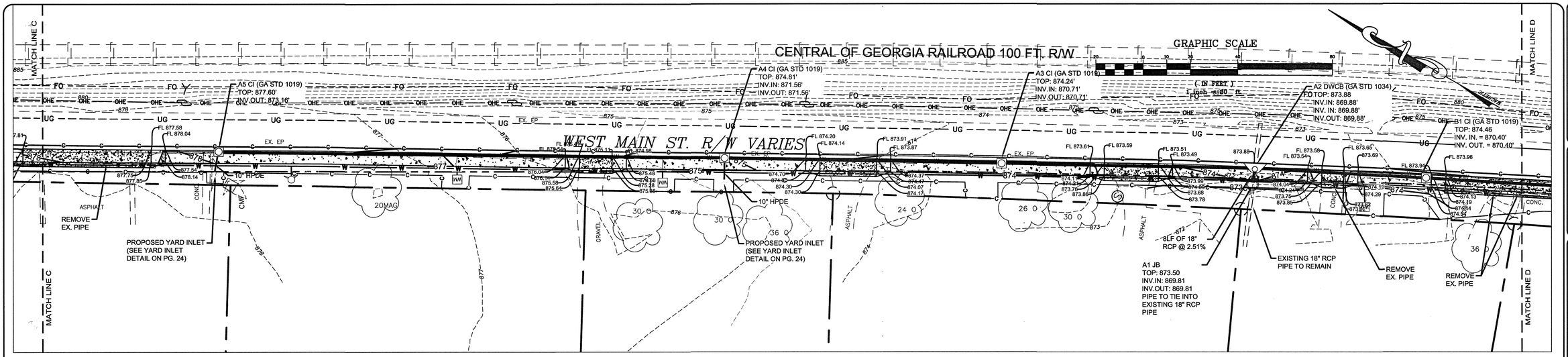
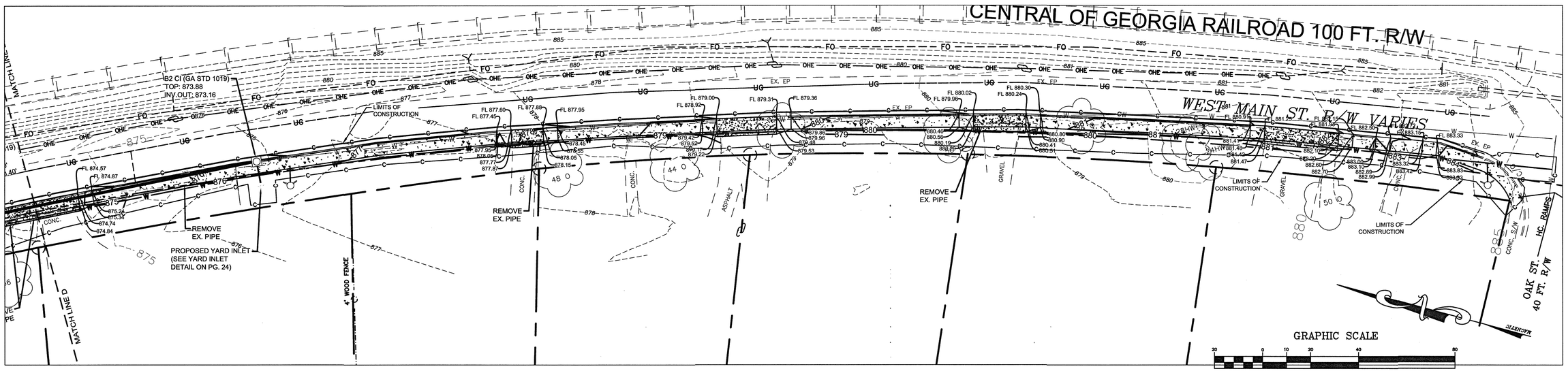
SHEET
8





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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

GRADING & DRAINAGE PLAN | SCALE: 1" =20' | DATE 06/09/2020

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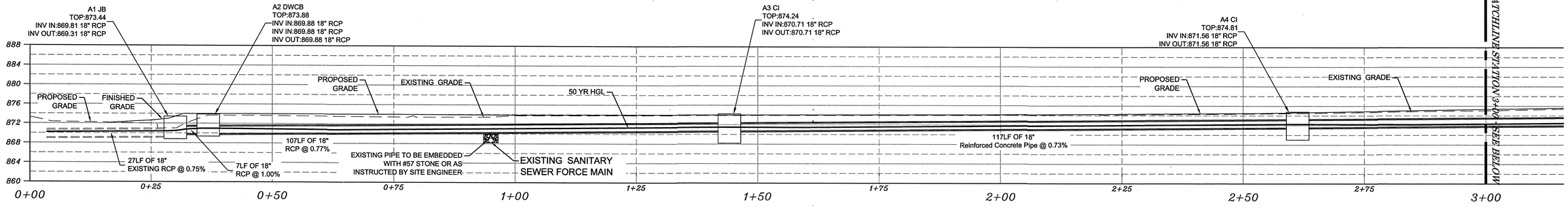
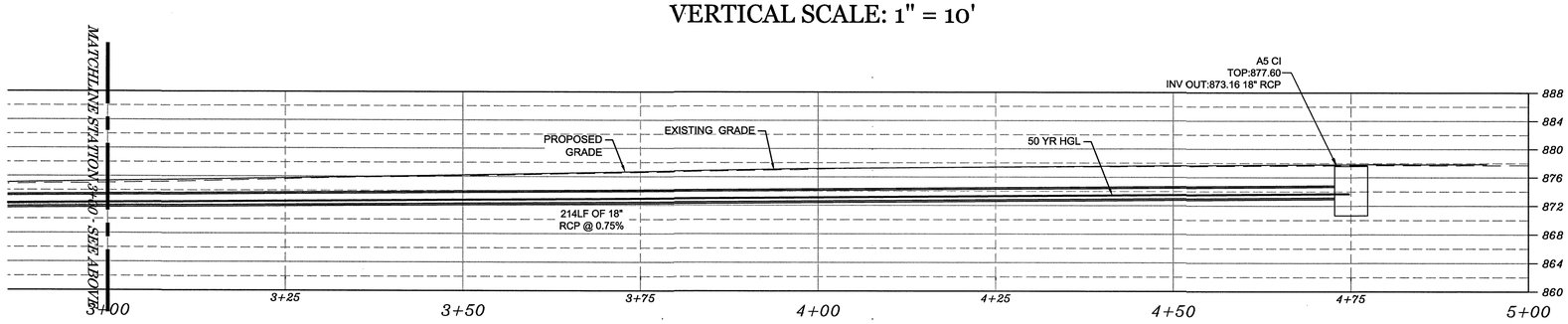
SHEET
9



STORM LINE A
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'



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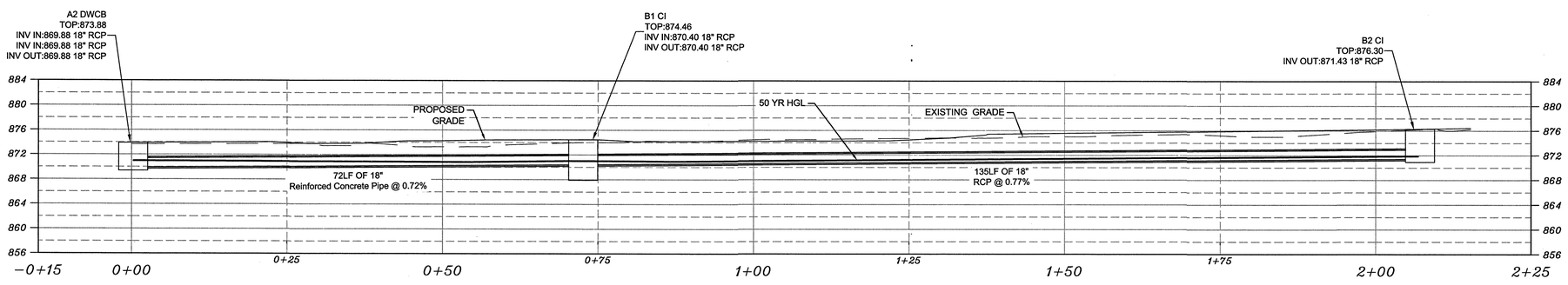

STORM LINE B
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 10'

50 YEAR PIPE CHART

InletID	LineSize	LineSlope	DrainageArea	iInlet	RunoffCoeff	VelAve	IncrQ	FlowRate	CapacityFull	InvertUp	InvertDn	HGLUp	HGLDn	Grnd/RimElev Up	Grnd/RimElev Dn	Material
	(in)	(%)	(ac)	(in/hr)	(C)	(ft/s)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
A1 JB	18	0.75	0.00	0.00	0.00	5.81	0.00	8.15	9.06	869.31	869.15	870.43	870.26	873.44	873.00	RCP
A2 CI	18	1.00	0.25	10.59	0.75	6.20	1.99	8.16	10.50	869.88	869.81	870.99	870.80	873.88	873.44	RCP
A3 CI	18	0.78	0.16	10.59	0.75	3.82	1.27	4.33	9.25	870.71	869.88	871.51 j	870.99	874.35	873.88	RCP
A4 CI	18	0.73	0.27	10.59	0.75	3.92	2.14	3.46	8.95	871.56	870.71	872.27 j	871.51	874.81	874.35	RCP
A5 CI	18	0.75	0.25	10.59	0.75	2.98	1.99	1.99	9.09	873.16	871.56	873.69 j	872.27	878.10	874.81	RCP
B1 CI	18	0.73	0.19	10.59	0.75	2.90	1.51	2.68	8.96	870.40	869.88	871.02 j	870.99	873.88	873.88	RCP
B2 CI	18	0.76	0.20	10.59	0.75	2.81	1.59	1.59	9.17	871.43	870.40	871.90 j	871.02	873.88	873.88	RCP

Notes: j-Line contains hyd. jump

25 YEAR GUTTER SPREAD CHART

InletID	DrainageArea	RunoffCoeff	QCaptured	QBypass	GutterDepth	GutterSpread
	(ac)	(C)	(cfs)	(cfs)	(ft)	(ft)
A2 CI	0.25	0.75	3.18	0.00	0.24	9.88
A3 CI	0.16	0.75	1.38	0.59	0.22	6.73
A4 CI	0.27	0.75	1.61	0.84	0.24	7.44
A5 CI	0.25	0.75	1.24	0.53	0.22	6.40
B1 CI	0.19	0.75	1.49	0.82	0.23	7.24
B2 CI	0.20	0.75	0.46	0.96	0.20	5.73

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GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G. WHITLEY 11/17/2020

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

STORM SEWER PROFILES

SCALE: 1" =10'

DATE 06/09/2020

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SHEET
9.1

WEST MAIN STREET CROSS-SECTIONS

SCALE: 1" = 10' H
1" = 10' V

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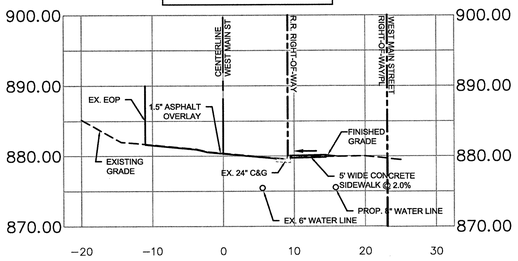
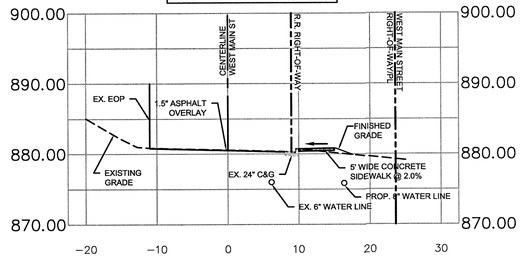
WEST MAIN ST STATION 0+50.00



WEST MAIN ST STATION 1+00.00



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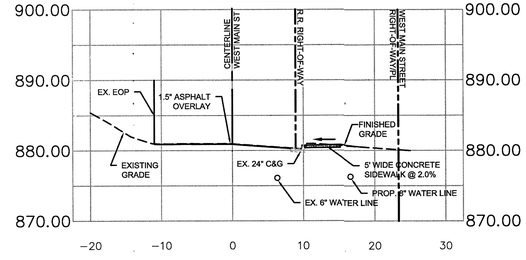

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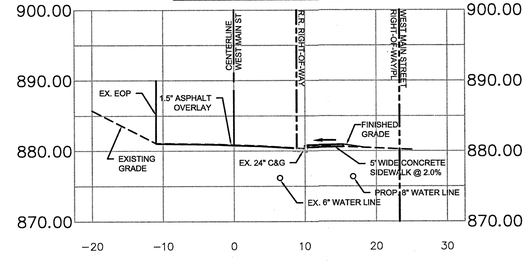

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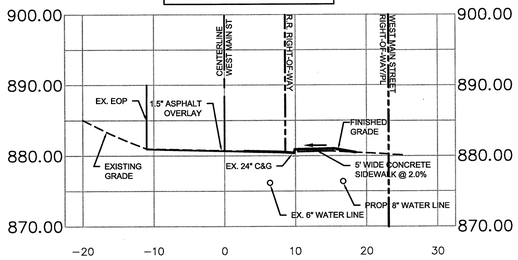

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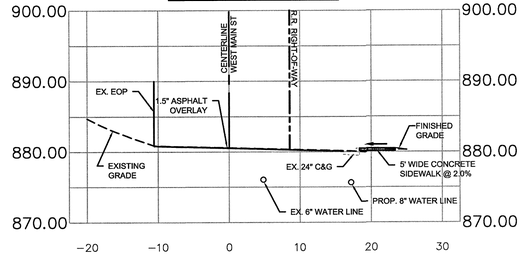

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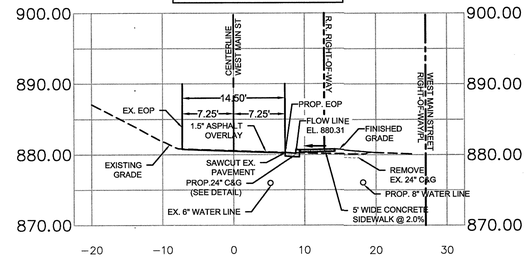

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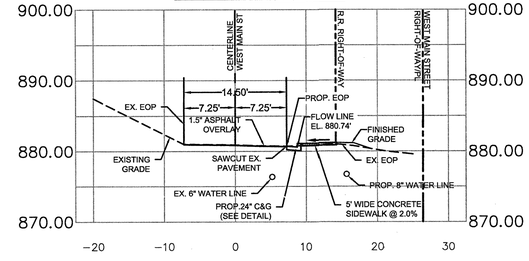

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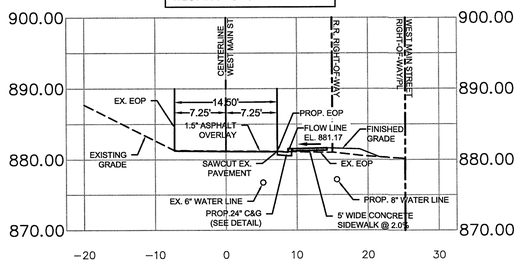

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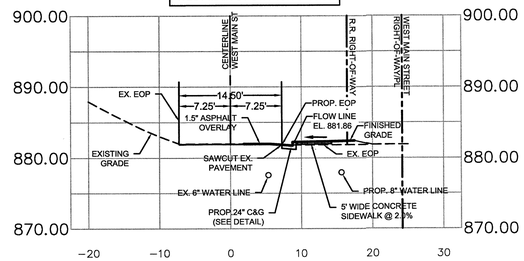

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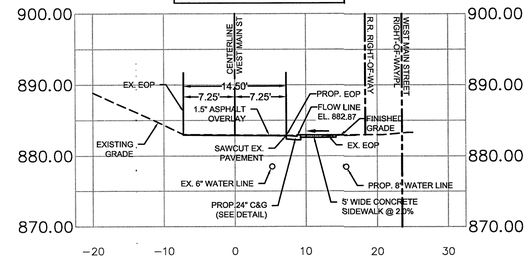

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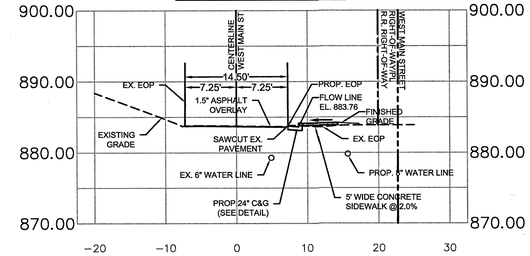

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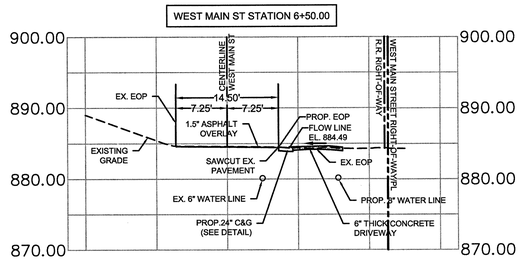

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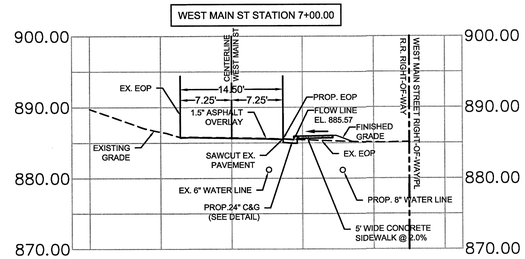

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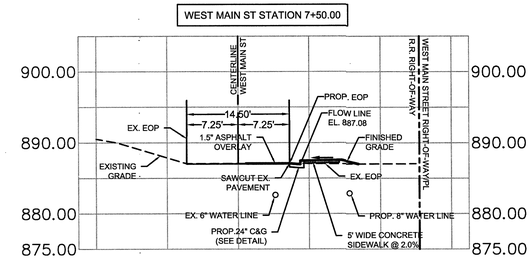

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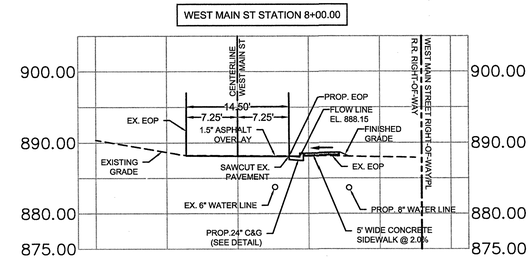

GSWCC
MARK G. WHITLEY, PE
0000001036
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED No. 33611 PROFESSIONAL ENGINEER MARK G. WHITLEY

WHITLEY ENGINEERING INC.
DESIGN NPDES PROJECT MANAGEMENT
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

DESCRIPTION:
CITY OF HAMPTON COMMENTS

REV.	DATE:
-1	07/01/2020

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

PROPOSED CROSS-SECTIONS 1 | SCALE: 1" = 10' | DATE 06/09/2020

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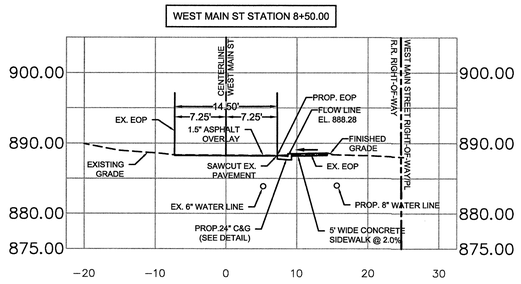
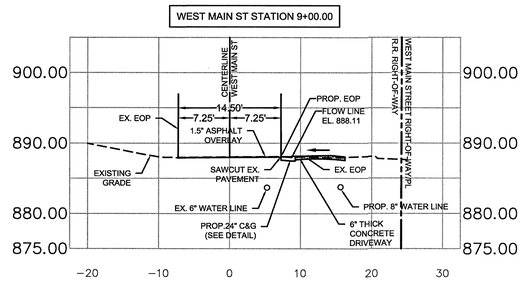
SHEET
10

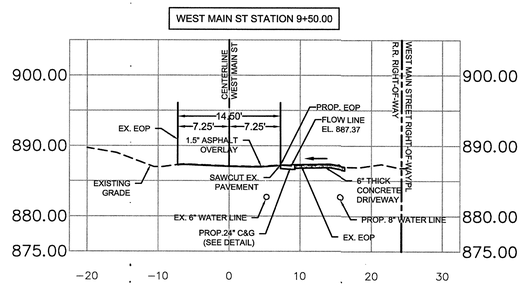
WEST MAIN STREET CROSS-SECTIONS

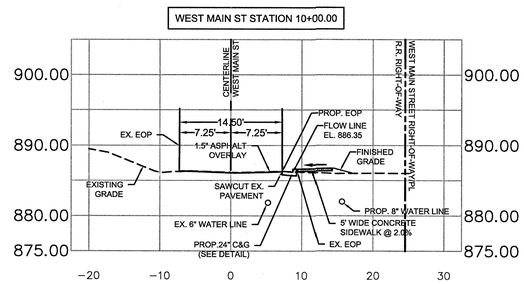
SCALE: 1" = 10' H
1" = 10' V

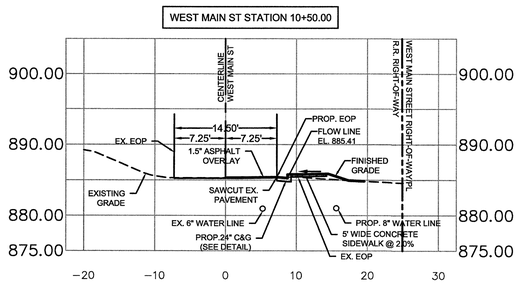
ASPHALT MILLING/ LEVELING NOTE:
1. CONTRACTOR SHALL PERFORM MILLING OPERATIONS IN ANY AREA THAT IS NEEDED TO REPAIR ANY STRUCTURAL DEFORMITIES IN THE ASPHALT BASE (I.E., FATIGUE CRACKING. ETC.).
2. CONTRACTOR SHALL ADD ADDITIONAL ASPHALT LEVELING TO ANY AREAS NEED TO ENSURE POSITIVE WATER DRAINAGE TO THE PROPOSED FLOW LINE OF THE 24" CURB AND GUTTER.
3. ASPHALT OVERLAY SHALL BE PLACED OVER ENTIRE ROADWAY AREA. ALL STORMWATER DRAINAGE PATTERNS FOR THE ROADWAY SHALL REMAIN AS CURRENT PATTERN UNLESS OTHERWISE DIRECTED BY THE FIELD ENGINEER.

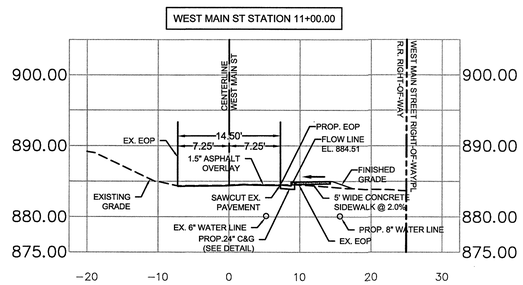


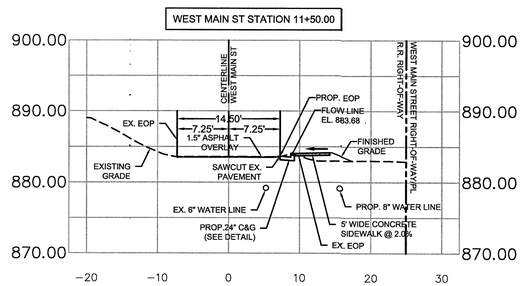


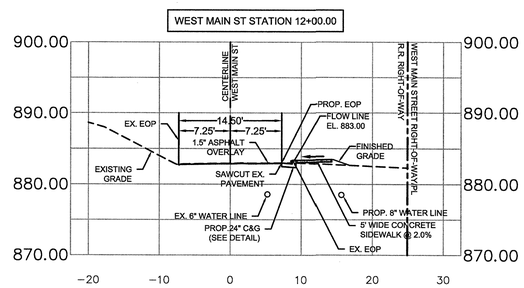


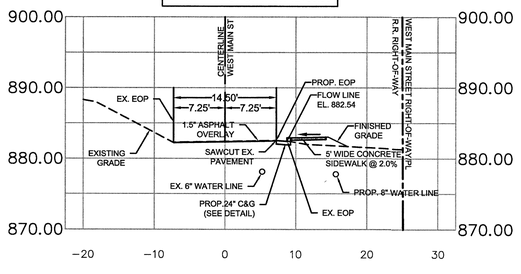


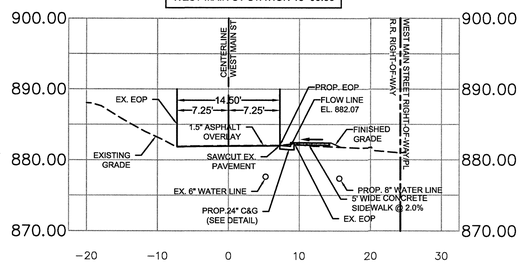


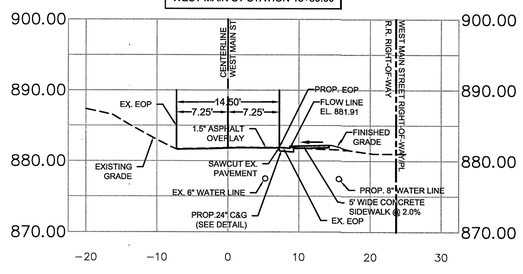


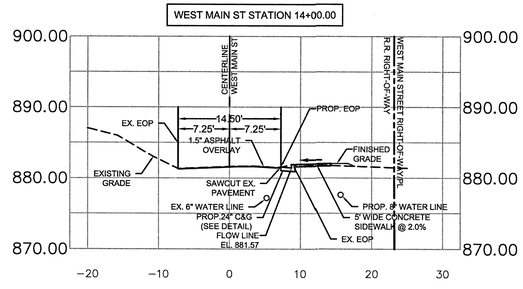


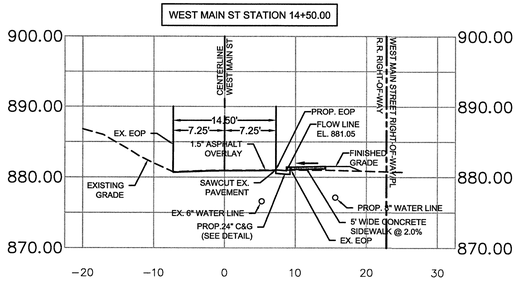


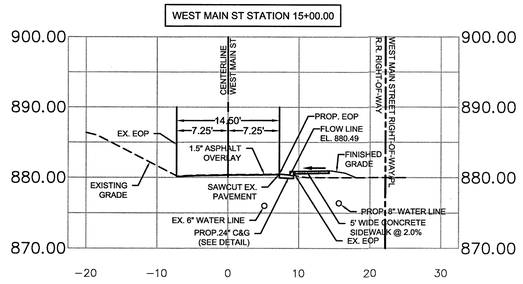


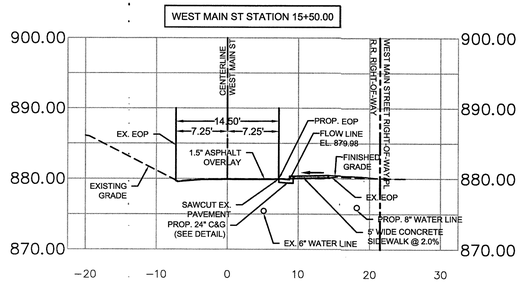


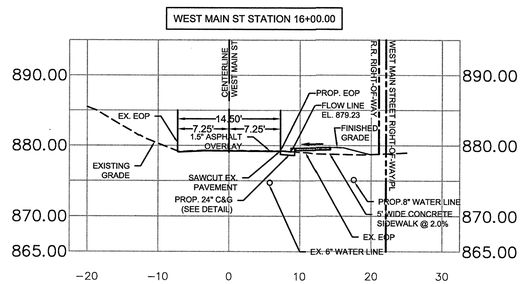












GSWCC
MARK G. WHITLEY, PE
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LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

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PROJECT MANAGEMENT
NPDES DESIGN
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PROPOSED CROSS-SECTIONS 2

SCALE: 1" = 10' | DATE 06/09/2020

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SHEET
11

WEST MAIN STREET CROSS-SECTIONS

SCALE: 1" = 10' H
1" = 10' V

ASPHALT MILLING/ LEVELING NOTE:

1. CONTRACTOR SHALL PERFORM MILLING OPERATIONS IN ANY AREA THAT IS NEEDED TO REPAIR ANY STRUCTURAL DEFORMITIES IN THE ASPHALT BASE (I.E., FATIGUE CRACKING, ETC.).
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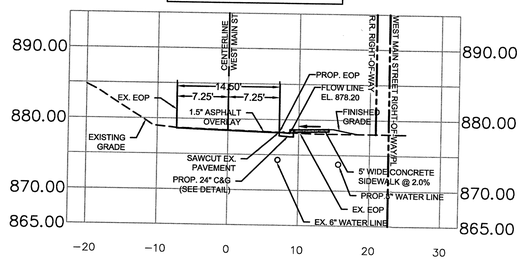
WEST MAIN ST STATION 16+50.00



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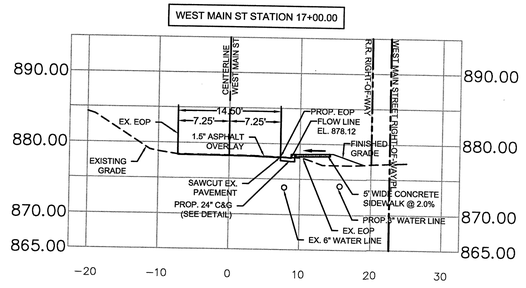

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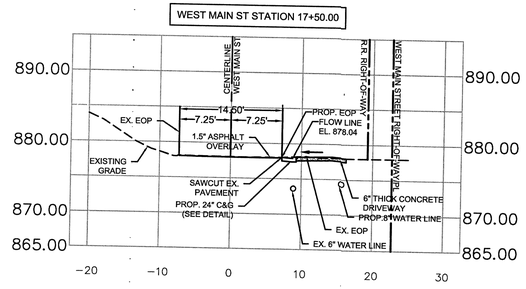

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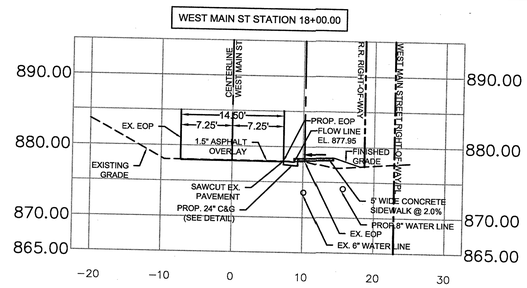

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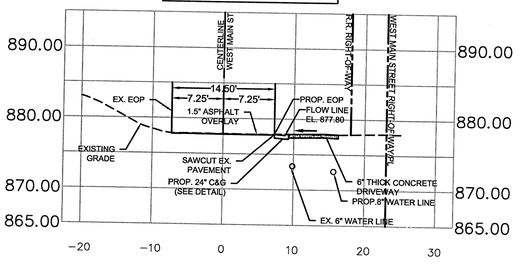

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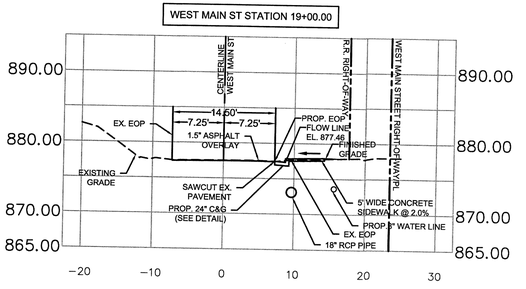

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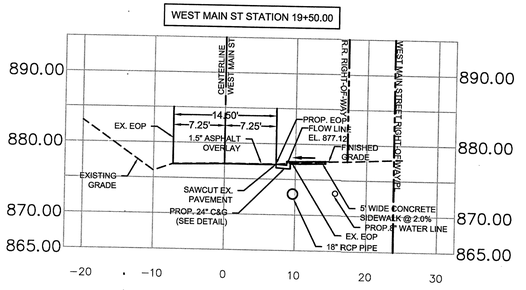

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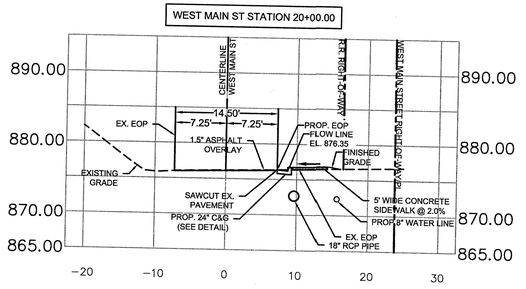

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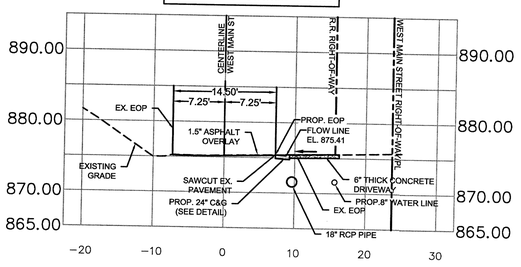

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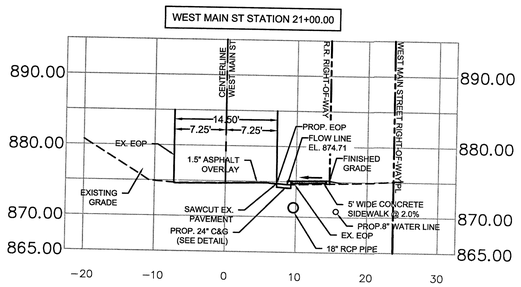

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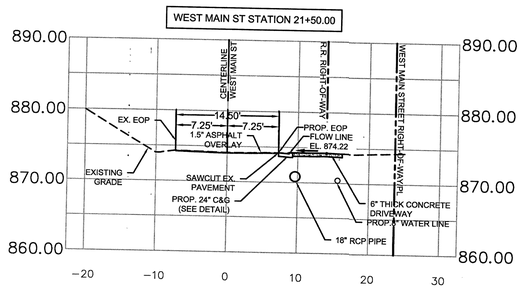

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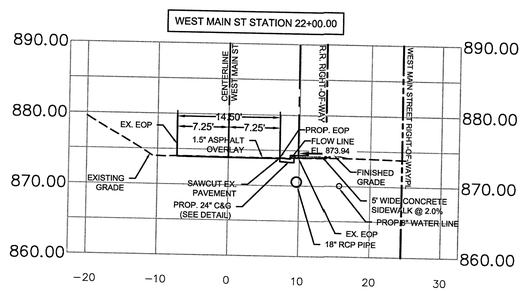
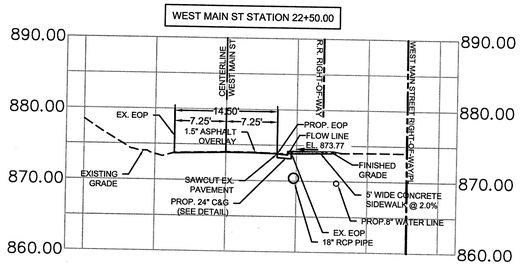


WEST MAIN ST STATION 22+50.00



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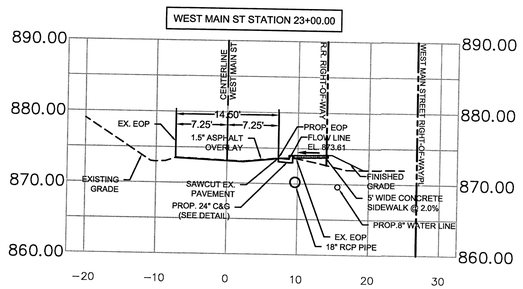

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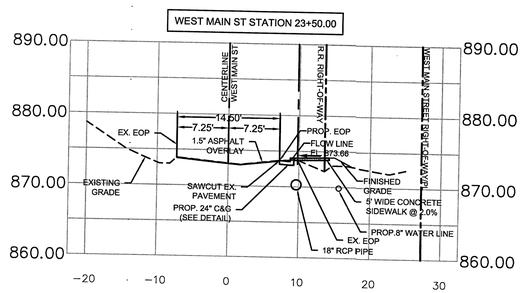

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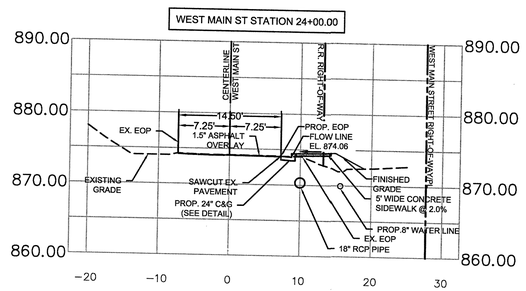

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MARK G.WHITLEY, PE
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LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G. WHITLEY

WHITLEY ENGINEERING INC.
DESIGN NPDES PROJECT MANAGEMENT
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

DESCRIPTION:

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

Not Released For Construction
Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PROPOSED CROSS-SECTIONS 3

SCALE: 1" = 10' | DATE 06/09/2020

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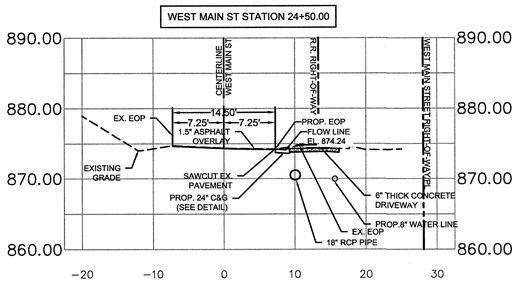
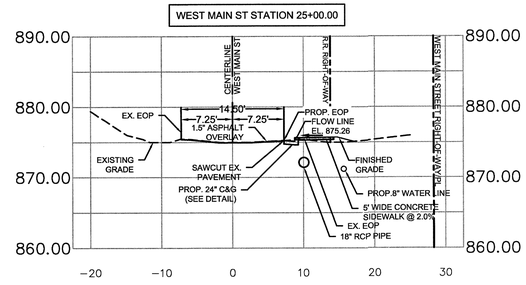
SHEET
12

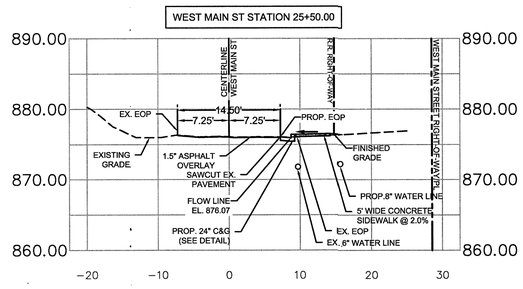
WEST MAIN STREET CROSS-SECTIONS

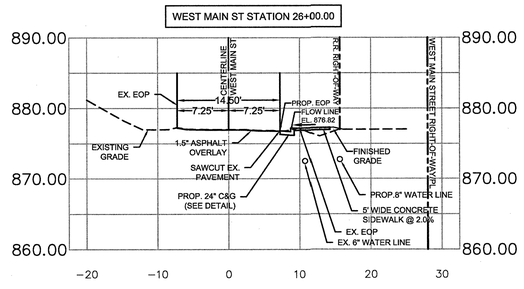
SCALE: 1" = 10' H
1" = 10' V

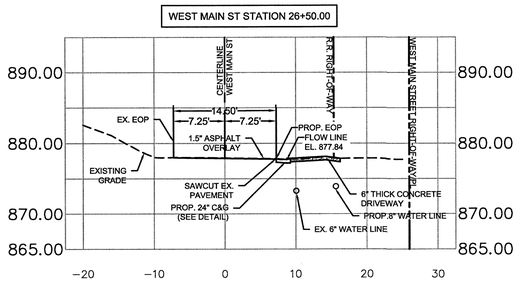
ASPHALT MILLING/ LEVELING NOTE:
1. CONTRACTOR SHALL PERFORM MILLING OPERATIONS IN ANY AREA THAT IS NEEDED TO REPAIR ANY STRUCTURAL DEFORMITIES IN THE ASPHALT BASE (I.E., FATIGUE CRACKING. ETC.).
2. CONTRACTOR SHALL ADD ADDITIONAL ASPHALT LEVELING TO ANY AREAS NEED TO ENSURE POSITIVE WATER DRAINAGE TO THE PROPOSED FLOW LINE OF THE 24" CURB AND GUTTER.
3. ASPHALT OVERLAY SHALL BE PLACED OVER ENTIRE ROADWAY AREA. ALL STORMWATER DRAINAGE PATTERNS FOR THE ROADWAY SHALL REMAIN AS CURRENT PATTERN UNLESS OTHERWISE DIRECTED BY THE FIELD ENGINEER.

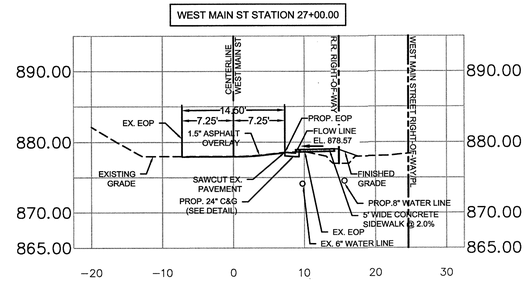


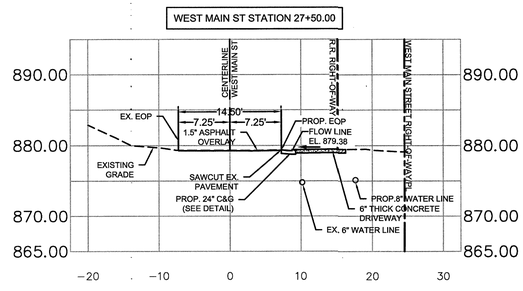


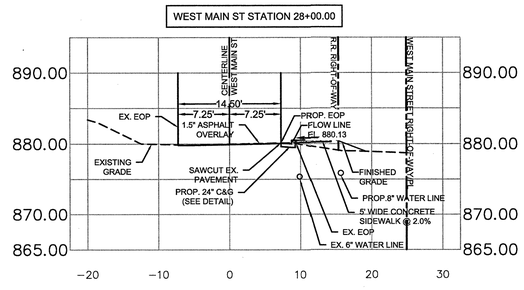


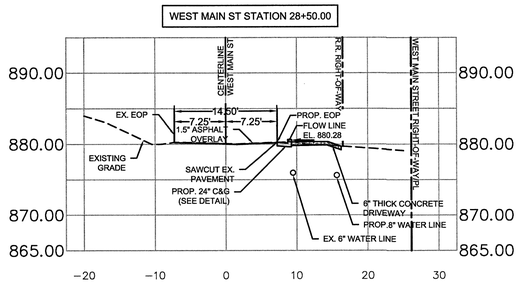


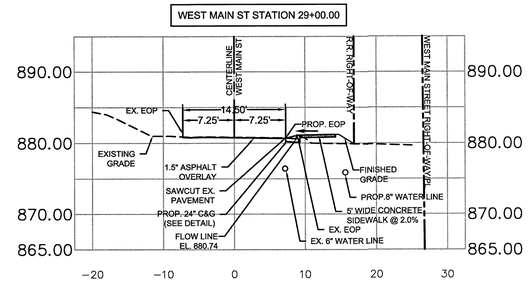


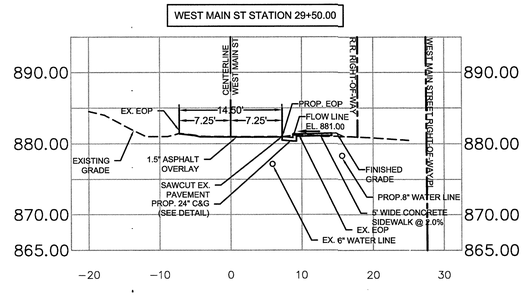


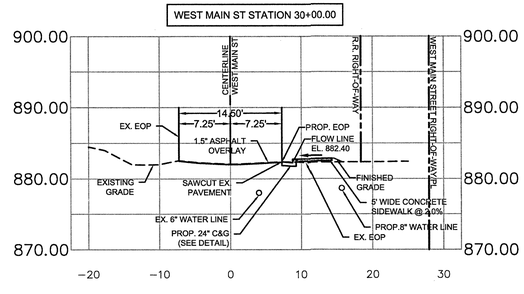


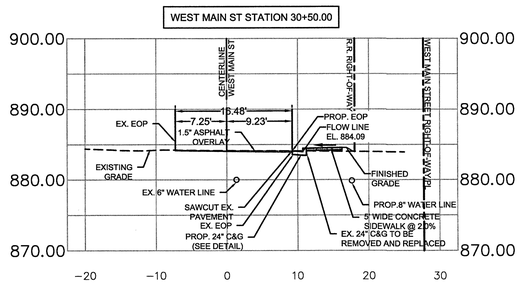












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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

PROPOSED CROSS-SECTIONS 4 SCALE: 1" = 10' DATE 06/09/2020

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SHEET
13

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

WEST MAIN ST. R/W VARIES

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

NOTE:
LIMITS OF CONSTRUCTION IS THE LIMITS OF DISTURBANCE

Ds1 Ds2 Du

GRASS ALL DISTURBED AREAS AS SOON AS CONSTRUCTION PERMITS

SAMPLING POINT #2

SAMPLING POINT #3

CALDWELL DR. 50 FT. R/W

LIMITS OF CONSTRUCTION

4' WOOD FENCE

EX. 4" CLF

MATCH LINE A

MATCH LINE B

MATCH LINE C

SOILS DATA

Map Symbol	Map Name
CeB	Cecil Sandy loam, 2 to 6 % slopes
CuC	Cecil-Urban land , 2 to 10 % slopes

CENTRAL OF GEORGIA RAILROAD 100 FT. R/W

WEST MAIN ST. R/W VARIES

NOTE:
LIMITS OF CONSTRUCTION IS THE LIMITS OF DISTURBANCE

4' CHAIN LINK FENCE

5' CHAIN LINK FENCE

CENTRAL AVE. 40 FT. R/W

EX. SSMH Top: 886.83 INV.: 877.83

CAUTION

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GEORGIA 811
Utilities Protection Center, Inc.
Know what's **below.**
Call before you dig.

OWNER

CITY OF HAMPTON
ATT: PUBLIC WORKS DIR.
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HAMPTON, GA 30228

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PHASE I ES&PC PLAN

SCALE: 1" =20' | DATE 06/09/2020

SHEET 14

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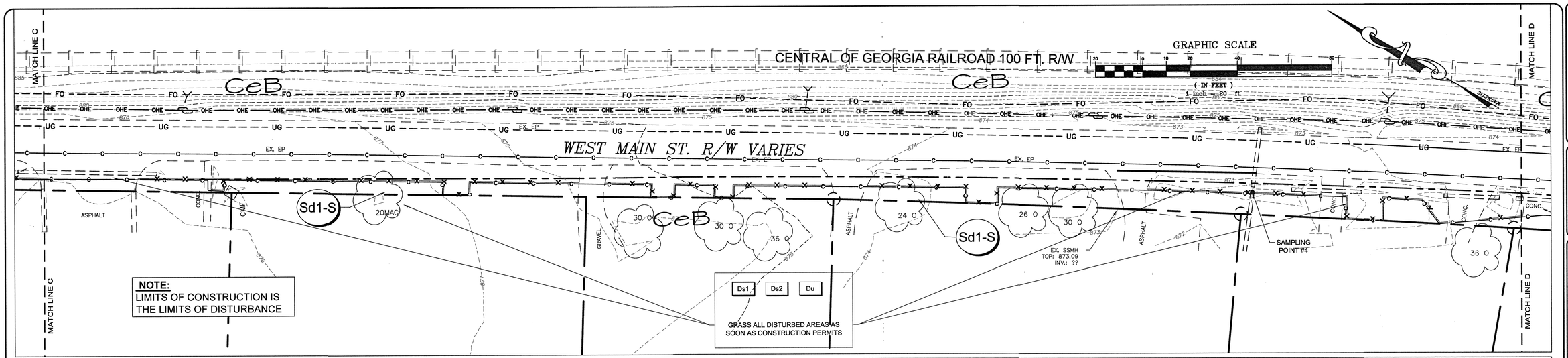

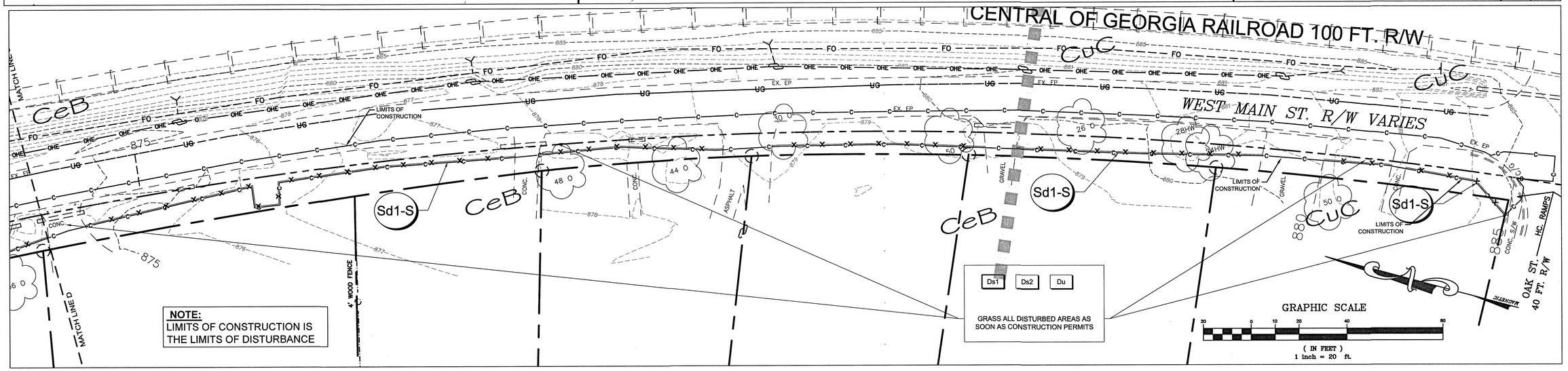

SOILS DATA	
Map Symbol	Map Name
CeB	Cecil Sandy loam, 2 to 6 % slopes
CuC	Cecil-Urban land , 2 to 10 % slopes

- THE CONTRACTOR WILL ENSURE ALL BMP MEASURES SHOWN ON THE ES&PC PLAN ARE INSTALLED PRIOR TO ANY DEMOLITION AND CONSTRUCTION ACTIVITIES.
- THE OWNER IS TO NOTIFY THE DESIGN ENGINEER WHEN THE INITIAL BMPS ARE IN PLACE. THE DESIGN ENGINEER MUST INSPECT THE BMPS WITHIN SEVEN (7) DAYS AFTER THE INITIAL BMPS HAVE BEEN INSTALLED.

GENERATION OF DUST WILL BE MINIMIZED BY EITHER
A) TEMPORARY BY MULCH AND SPRAY-ON ADHESIVES,
IRRIGATION BY WATER AND BARRIERS
B) PERMANENT BY VEGETATION OR TOPSOILING OR
CRUSHED STONE OR COARSE GRAVEL

EROSION AND SEDIMENT CONTROLS NOTES:

1. THE PROJECT INCLUDES THE INSTALLATION OF 5 FOOT CONCRETE SIDEWALK ALONG THE WEST SIDE OF EAST MAIN STREET APPROXIMATELY 250 NORTH OF THE INTERSECTION OF MACBETH DRIVE TO THE SOUTHERN RIGHT OF WAY HIGHWAY 20, THE SIDEWALK THEN IS PICKED UP ON THE OTHER SIDE OF HIGHWAY 20 FROM THE RIGHT OF WAY AND CONTINUES NORTH TO THE INTERSECTION OF ROSENWALD DRIVE
2. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.
3. SEDIMENT STORAGE VOLUME MUST BE IN PLACE PRIOR TO, AND DURING ALL LAND DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION AND PERMANENT VEGETATION OF THE SITE HAS BEEN ACHIEVED.
4. 67 CY/AC SEDIMENT VOLUME WILL BE HANDLED BY SILT FENCE PLACED ALONG THE PERIMETER OF THE SIDEWALK INSTALLATION, THE NATURE OF THE LINEAR PROJECT DOES NOT ALLOW THE OPPORTUNITY FOR THE INSTALLATION OF TEMPORARY SEDIMENT BASINS WITHOUT FURTHER ENCROACHMENT INTO ADJACENT RESIDENTIAL PROPERTIES. SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSPECTED ON A DAILY BASIS, ALL INSPECTIONS AND MAINTENANCE OF EROSION CONTROL MEASURES WILL BE THE RESPONSIBILITY OF
   NAME: MARK WHITLEY
   ADDRESS: 2296 TALMADGE ROAD, PO. BOX 220, LOVEJOY, GA 30250
   PHONE (24HR.): (770)-471-2304
5. "EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."
6. "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."
7. " PROVIDE SD-2 ON ALL INLET STRUCTURE UNTIL TOPS HAVE BEEN INSTALLED."

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PHASE I ES&PC PLAN

DATE 06/09/2020
SCALE: 1" =20'

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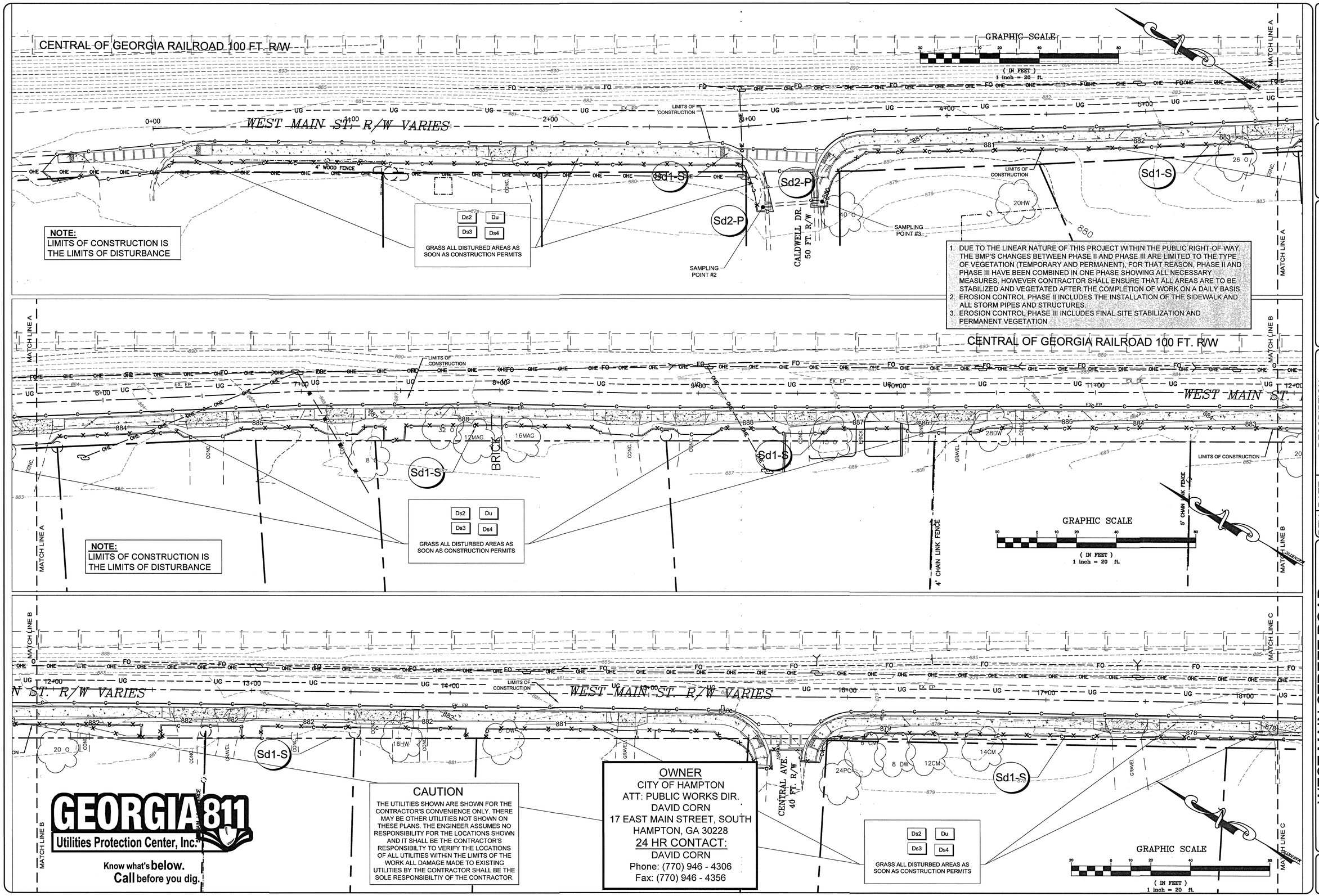
SHEET
15



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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

PHASE II & PHASE III ES&PC PLAN SCALE: 1" =20' DATE 06/09/2020

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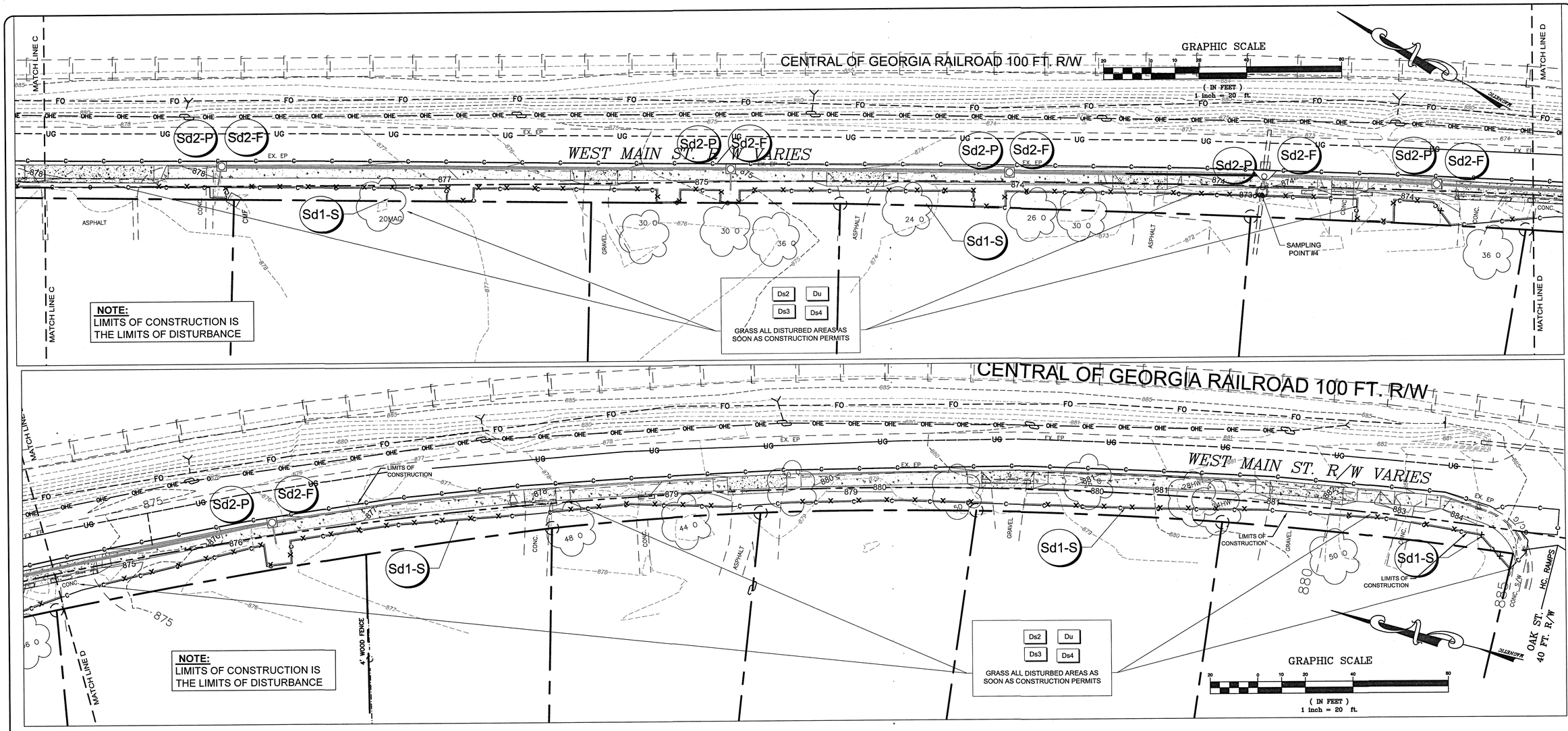

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1. DUE TO THE LINEAR NATURE OF THIS PROJECT WITHIN THE PUBLIC RIGHT-OF-WAY, THE BMP'S CHANGES BETWEEN PHASE II AND PHASE III ARE LIMITED TO THE TYPE OF VEGETATION (TEMPORARY AND PERMANENT). FOR THAT REASON, PHASE II AND PHASE III HAVE BEEN COMBINED IN ONE PHASE SHOWING ALL NECESSARY MEASURES, HOWEVER CONTRACTOR SHALL ENSURE THAT ALL AREAS ARE TO BE STABILIZED AND VEGETATED AFTER THE COMPLETION OF WORK ON A DAILY BASIS.
2. EROSION CONTROL PHASE II INCLUDES THE INSTALLATION OF THE SIDEWALK AND HANDRAILS AND ALL STORM PIPES AND STRUCTURES.
3. EROSION CONTROL PHASE III INCLUDES FINAL SITE STABILIZATION AND PERMANENT VEGETATION

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

PHASE II & PHASE III ES&PC PLAN | SCALE: 1" =20' | DATE 06/09/2020

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SHEET
17

(1) EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD:

Project Name: WEST MAIN STREET ROAD IMPROVEMENTS	**Address: WEST MAIN ST**
City/County: HAMPTON/HENRY COUNTY	**Date on Plans: 06/09/2020**
Name & email of person filling out checklist: MARK WHITLEY MGWHITLEY@BELLSOUTH.NET	

Plan Page #	Included Y/N		TO BE SHOWN ON ES&PC PLAN
16	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.
ALL	YES	2	Level II certification number issued by the Commission, signature and seal of the certified design professional.
16	YES	3	The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
16	YES	4	Provide the name, address and phone number of primary permittee.
16	YES	5	Note total and disturbed acreage of the project or phase under construction.
16	YES	6	Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
ALL	YES	7	Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
16	YES	8	Description of the nature of construction activity.
16	YES	9	Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
16	N/A	10	Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
16	YES	11	Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 21 of the permit.
16	YES	12	Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 20 of the permit.*
16	YES	13	Design professional certification statement and signature that the permittee's ES&PC Plan provides for representative sampling as stated on Part IV.D.6.c.(3) page 37 of the permit as applicable.*
16	YES	14	Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation."* in accordance with Part IV.A.5 page 26 of the permit *
16	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 or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits.*
16	NA	16	Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
16	YES	17	Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional."*
16	YES	18	Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."*
16	YES	19	Clearly note 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."*
16	YES	20	Clearly note 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."*
16	YES	21	Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."*
NA	NA	22	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 an Biota Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.*
NA	NA	23	If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.*
16	YES	24	BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*
16	YES	25	Provide BMPs for the remediation of all petroleum spills and leaks.
16	YES	26	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.*
17	YES	27	Description of practices to provide cover for building materials and building products on site.*
17	YES	28	Description of the practices that will be used to reduce the pollutants in storm water discharges.*
17	YES	29	Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
17	YES	30	Provide complete requirements of inspections and record keeping by the primary permittee.*
17	YES	31	Provide complete requirements of sampling frequency and reporting of sampling results.*
17	YES	32	Provide complete details for retention of records as per Part IV.F. of the permit.*
17	YES	33	Description of analytical methods to be used to collect and analyze the samples from each location.*
17	YES	34	Appendix B rationale for NTU values at all outfall sampling points where applicable.*
12-15,17	YES	35	Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged.*
17	YES	36	A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the BMPs into a single phase.*
ALL ESPC	YES	37	Graphic scale and North arrow.
ALL ESPC	YES	38	Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: Map Scale / Ground Slope / Contour Intervals, ft. 1 inch = 100ft or larger scale: Flat 0 - 2% → 0.5 or 1; Rolling 2 - 8% → 1 or 2; Steep 8% + → 2,5 or 10
18	N/A	39	Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs 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.
18	N/A	40	Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.*
18	N/A	41	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.
18	N/A	42	Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
18	YES	43	Delineation and acreage of contributing drainage basins on the project site.
N/A	YES	44	Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions.*
18	YES	45	An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
18	YES	46	Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
18	YES	47	Soil series for the project site and their delineation.
12-15,18	YES	48	The limits of disturbance for each phase of construction.
18	YES	49	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 included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permitees are required to utilize outlet structures that withdraw water from sediment basins and impoundments, permitees 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 feasable, a written justification explaining this decision must be included in the plan.
18	YES	50	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.
18	YES	51	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.
18	YES	52	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 the year that seeding will take place and for the appropriate geographic region of Georgia.

*If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the * checklist items would be N/A.

Effective January 1, 2019

(2)
GSWCC
MARK G. WHITLEY, PE
0000001036
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

(3)
OWNER
CITY OF HAMPTON
ATT: PUBLIC WORKS DIR.
DAVID CORN
17 EAST MAIN STREET, SOUTH
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(5)
FINAL DISTURBANCE AREA = ***±0.90***AC.

TOTAL SITE AREA- ***±0.90*** AC.

(8) SITE DESCRIPTION AND LOCATION:

LOCATION: LAND LOT 249 & 250 6TH DISTRICT
City of Hampton, HENRY COUNTY, GEORGIA

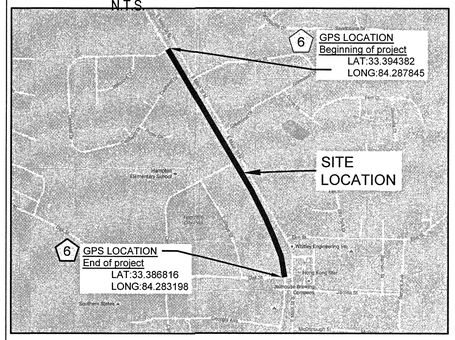
CRITICAL AREAS:

The scope of work will consist of converting of portion of West Main Street into a one lane with a bike lane, the installation of 24in curb and gutter, a 5 ft sidewalk along West Main Street . The work will also include filling in the exiting ditch and removing and installing new driveways, signs and mailboxes where needed . There will also be an Asphalt overlay of all West Main Street.

Per the initial site visit performed prior to the erosion design for this project, the areas next to the houses are considered critical areas where the contractor will be required to pay extra attention to all erosion measures (Installation & maintenance)

(9) ***VICINITY MAP***

N.T.S.



The project will be developed and constructed in one phase

(10) RECEIVING WATERS

SAMPLING LOCATIONS DRAIN TO UNNAMED TRIBUTARY OF BEAR CREEK, DUE TO THE MINOR CHANGE IN THE PROPOSED DEVELOPMENT, NO NEIGHBORING AREAS WILL BE AFFECTED BY THE POST- DEVELOPED RUNOFF FROM THE SITE.

STATE WATERS

THERE ARE NO STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE. NON EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50 -FOOT UNDISTURBED BUFFER AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT ACQUIRING THE NECESSARY VARIANCES AND PERMITS. (A STATE WATER BUFFER VARIANCE WILL BE OBTAINED FOR THIS PROJECT PRIOR TO ANY WORK IN ANY STATE WATERS.)

(11) " I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision"

(12) "I certify that the permittee's Erosion, Sedimentation and 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 Georgia 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. GAR 100002."

(13) "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 verifies perennial and intermittent streams and other water bodies, or (b) where any specific identified all perennial and intermittent streams and other water body is not proposed to be sampled, I have determined in my professional judgment, utilizing the factors required in the General NPDES Permit No. GAR 100002, 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 OF PLAN PREPARER DATE

(14) 7-DAY VISIT STATEMENT

" The primary permittee must retain the design professional who prepared the Erosion, Sedimentation and Pollution Control Plan, or an alternative design professional approved by EPD in witting, is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within seven (7) days after installation.

OWNER/ PRIMARY PERMITTEE DATE

(15) Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits.

(16) This project will not require a stream buffer variance from the GA EPD.

NPDES NOTES

(17) Amendments/ revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional."

(18) "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit."*

(19) "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."

(20) "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."

(21) "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."

(22) (23) No construction activities will discharge storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biota Impaired Stream Segment , therefore there will be no need for an If a TMDL Implementation Plan for sediment

(24) ***CONCRETE WASHOUT***

IT IS PROHIBITED TO WASHOUT THE DRUM OF CONCRETE TRUCK ON SITE. SEE DETAILS SHEET FOR BEST MANAGEMENT PRACTICES FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF THE VEHICLE ONLY.

(25) ***A. Best management practices for prevention of petroleum spills:***

- All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.
- Petroleum products will be stored in tightly sealed containers that are clearly labeled.
- Any petroleum to be stored in tanks will have be surrounded by an earthen berm as a secondary protective measure.
- Any Asphalt substances used onsite will be applied according to the manufacture's recommendations.
- Contractors and subcontractors are responsible for inspecting their equipment and providing necessary maintenance to eliminate petroleum spills.

BMPs for the remediation of all petroleum spills and leaks.

- 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.
- The contractor shall notify the licensed professional who prepared this plan if more than 1,320 gallons of petroleum is stored onsite (this includes capacities for equipment) or if any one piece of equipment has a countermeasures plan prepared by that licensed professional.
- For spills that impact surface water (leave a sheen on surface water), the National Response Center (NRC) will be contacted within 24 hours at 1-800-424-8802.
- For spills of an unknown amount, the National Response Center (NRC) will be contacted within 24 hours at 1-800-424-8802.
- For spills greater than 25 gallons and no surface water impacts, the Georgia Environmental Protection Division (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.

(27) Cover for building materials:

All building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste,and other materials will be covered with plastic sheeting in order to minimize exposure to precipitation and to stormwater. Permit IV.D.3.c.(2) pg 31

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.

After site construction, Storm water runoff from this development will flow into the storm water drainage system and will continue to flow to flint river, due to the nature of this project and the minimal addition of impervious area there will be need to provide water quality however all disturbed areas that will not be covered with curb and gutter and sidewalk will be stabilized with vegetation that will be adequate enough to provide for some water quality.

GSWCC
MARK G.WHITLEY, PE
0000001036
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G WHITLEY 6/11/2020

WHITLEY ENGINEERING INC.
PROJECT MANAGEMENT
NPDES DESIGN
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

Not Released For Construction
Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

NPDES NOTES & CHECKLIST SCALE: N.T.S. DATE 06/09/2020

THESE DRAWINGS ARE THE PROPERTY OF WHITLEY ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED AND OR INCORPORATED INTO ANOTHER WORK FOR ANY REASON WITHOUT THE WRITTEN CONSENT OF THE DESIGN PROFESSIONAL.

(28) DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES.

During Site construction all storm water will be routed through the BMP's shown on the phased erosion control plans to reduce pollutant (Suspended Solids and sediment) in the storm water discharge from the site provided all the general measures are taken into account.
- Prior to land-disturbing activities, the contractor shall schedule a pre-construction meeting with the area erosion control inspector.
- Any disturbed area left idle for a period greater than 14 days shall be stabilized with temporary seeding; disturbed areas idle 30 days shall be stabilized with permanent vegetation.
- Erosion and sediment control measures shall be inspected at least weekly, after each rain, and repaired as necessary.
- Additional erosion and sediment control measures shall be installed if determined necessary by on-site inspection.
- Silt fence shall meet the requirements of section 171 - type C temporary silt fence, of the Georgia department of transportation standard specifications (qualified products list #36) and be wire reinforced.
-A haul route permit is required when more than 500 cubic yards of hauled volume to or from the site. plans must include a statement indicating whether or not a haul route permit is required.

(29)

GENERAL CONSTRUCTION SCHEDULE

PHASE	BEGIN	CONSTRUCTION JULY 2020	JULY 2020–AUGUST 2020				AUGUST 2020–SEPTEMBER 2020				SEPTEMBER 2020–OCTOBER 2020			
PHASE I (INITIAL)	1	INSTALL SEDIMENT CONTROL DEVICES	X				X							
PHASE I (INITIAL)	2	CLEARING, DEMO AND GRADING		X	X									
PHASE I (INITIAL)	3	TEMPORARY GRASSING				X	X							
PHASE II (INTER.)	4	MAINTAIN EROSION CONTROL DEVICES	X	X	X	X	X	X	X	X	X	X	X	
PHASE II (INTER.)	5	STORM STRUCTURE			X	X	X							
PHASE II (INTER.)	6	INSTALL 4' SIDEWALK AND 8" BRICK STRIP			X	X	X	X	X	X	X			
PHASE III (FINAL)	7	FINAL AND PERMANENT GRASSING					X	X	X	X	X	X	X	
PHASE III (FINAL)	8	CLEAN UP										X	X	X

(30) Provide complete requirements of inspections and record keeping by the primary permittee.

PERMITTEE REQUIREMENTS.

(1). 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: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) 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.

(2) Measure rainfall once every 24 hour 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.

(3) Certified personnel (provided by the primary permittee) shall inspect the following at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM 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): (a) disturbed areas of the primary permittee's construction site (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. 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 or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is submitted to 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).

(5). 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. The primary permittee must amend the Plan in accordance with Part IV.D.4.b(5). when a secondary permittee notifies the primary permittee of any Plan deficiencies.

(6). A report of each inspection that includes the name(s) of certified 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.D.4.a.(5). 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 has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the plan. Where the report does not identify any incidents ,the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

(31) (33) Provide complete requirements of sampling frequency and reporting of sampling results.

Sampling Requirements.

This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. The following procedures constitute EPD's guidelines for sampling turbidity for this site

Sampling Requirements shall include the following:

Determine sampling locations:
(1) A USGS topographic map was used to locate all perennial and intermittent streams and other water bodies as shown on a USGS topographic map as well as all the receiving water from the site
(2) A USGS topographic map was used to determine the sampling locations.
(3) 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 Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD.
(4)

SAMPLE POINT 1
LOCATION: AT CB ON CALDWELL DRIVE NORTH
Size of construction area = 0.05 AC.
Total drainage basin to sample point = < 4.99sq miles
Disturbed area within basin = 0.50 Ac.
Size of Surface Water Drainage area = 0-4.99 Sq. miles
Receiving Stream : BEAR CREEK (Warm Water fisheries)
The maximum allowable NTU will be 75 NTU

SAMPLE POINT 2
LOCATION: AT CB ON CALDWELL DRIVE SOUTH LEFT
Size of construction area = 0.07 AC.
Total drainage basin to sample point = < 4.99sq miles
Disturbed area within basin = 0.50 Ac.
Size of Surface Water Drainage area = 0-4.99 Sq. miles
Receiving Stream : BEAR CREEK (Warm Water fisheries)
The maximum allowable NTU will be 75 NTU

SAMPLE POINT 3
LOCATION: AT CB ON CALDWELLDRIVE SOUTHRIGHT
Size of construction area = 0.21 AC.
Total drainage basin to sample point = < 4.99sq miles
Disturbed area within basin = 0.50 Ac.
Size of Surface Water Drainage area = 0-4.99 Sq. miles
Receiving Stream : BEAR CREEK (Warm Water fisheries)
The maximum allowable NTU will be 75 NTU

SAMPLE POINT 4
LOCATION: AT NEW CB ALONG WEST MAIN ST
Size of construction area = 1.17 AC.
Total drainage basin to sample point = < 4.99sq miles
Disturbed area within basin = 0.50 Ac.
Size of Surface Water Drainage area = 0-4.99 Sq. miles
Receiving Stream : BEAR CREEK (Warm Water fisheries)
The maximum allowable NTU will be 75 NTU

(5). Perimttee must provide 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 time line for submittal
(6) Sample containers should be labeled prior to collecting the samples, and should be well mixed before transferring to a secondary container, all sample bottles shall be Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.
(7). Manual, automatic or 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 than the next business day after their accumulation, unless flow through automated analysis is utilized. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.
(8). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

(32) Provide complete details for retention of records as per Part IV.F. of the permit.

1. 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 NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
d. A copy of all sampling information, results, and reports required by this permit;
e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2) of this permit.

2. Each secondary 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 NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit or the applicable portion of the Erosion, Sedimentation and Pollution Control Plan for their activities at the construction site required by the permit.
c. A copy of all inspection reports generated in accordance with Part IV.D.4.b. of this permit;
d. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit

3. Each tertiary 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 NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
d. A copy of all sampling information, results, and reports required by this permit;
e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2) of this permit.

4. Copies of all Notices of Intent, Notices of Termination, inspection reports, sampling reports (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this 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 this 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.

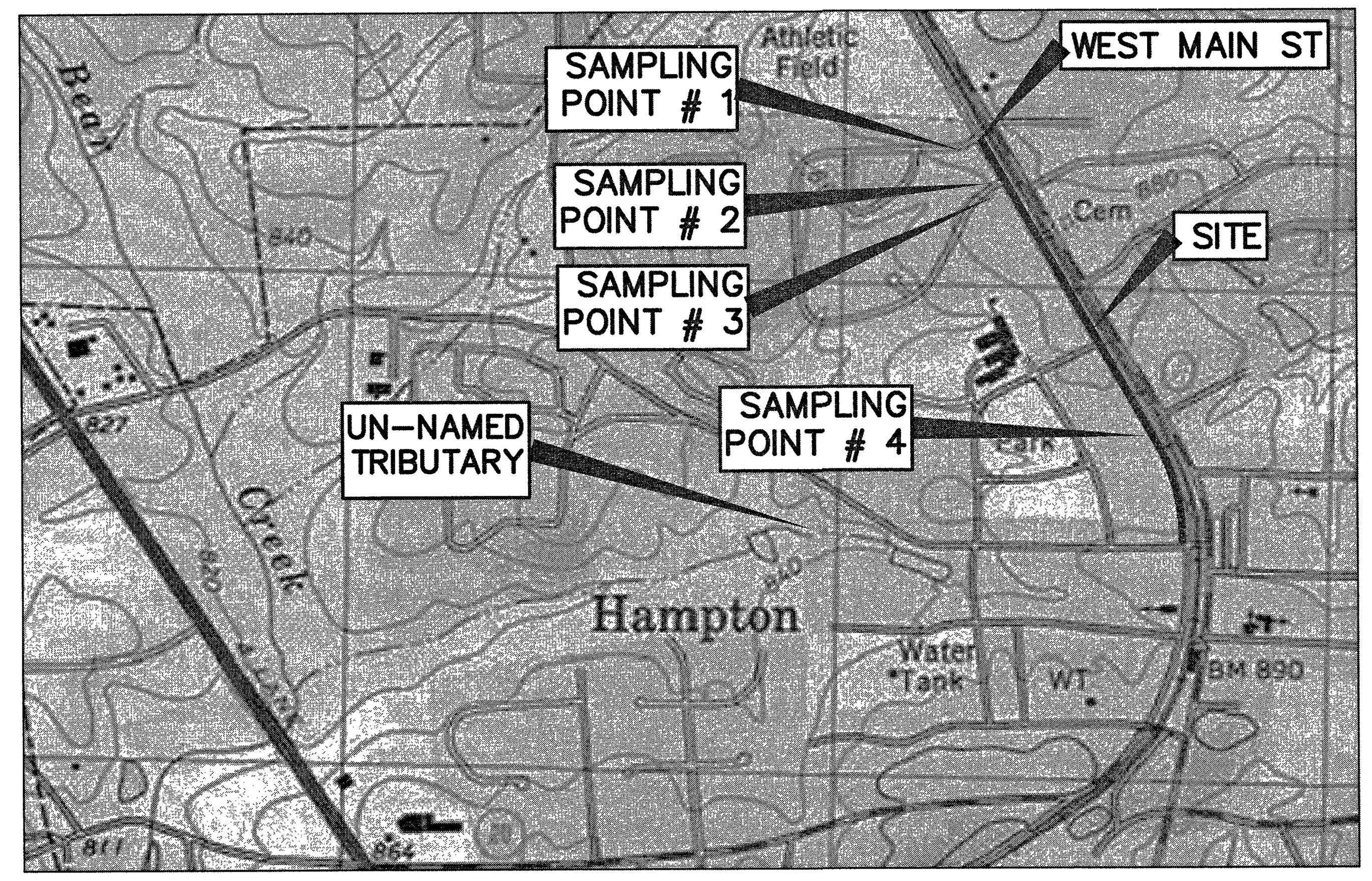
(34) Appendix B rationale for NTU values at all outfall sampling points where applicable.

APPENDIX B
NEPHELOMETRIC TRUBIDITY UNIT (NTU) TABLES
WARM WATER (SUPPORTING WARM WATER FISHERIES)

SURFACE WATER DRAINAGE AREA, SQUARE MILES

Site Size, acres	0-4.99	5-9.9	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	(75)	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

(35) Delineate all sampling locations if applicable, perennial and intermittent streams and other water bodies into which storm water is discharged.



(36)

INITIAL PHASE EROSION AND SEDIMENT CONTROL SCHEDULE

1. INSTALL CONSTRUCTION EXITS IF APLICABLE
2. STAKE OUT CLEARING LIMITS, ETC.
3. INSTALL SILT FENCE, AND TREE PROTECTION FENCE.
4. INSTALL AND MAINTAIN WATER MONITORING DEVICES AT LOCATIONS SHOWN ON THIS PLAN
5. CLEAR TREES, REMOVE ALL STUMPS, AND STRIP TOPSOIL.
6. REMOVE STORM PIPES
7. STABILIZE TEMPORARY DISTURBED AREAS WITH MULCH, TEMPORARY SEED, MATTING/BLANKETTING & PAM AS REQUIRED @ 14 DAY INTERVALS.
8. STABILIZE ALL AREAS THAT HAVE REACHED FINAL STABILIZATION.

INTERMEDIATE PHASE EROSION AND SEDIMENT CONTROL SCHEDULE

1. MAINTAIN CONSTRUCTION EXISTS, SILT FENCE, AND TREE SAVE AS NECESSARY.
2. INSTALL NEW SILT FENCE WHERE NECESSARY.
3. STABILIZE ALL AREAS THAT HAVE REACHED FINAL STABILIZATION.
4. INSTALL SEDIMENT TRAPS, THE TRAPS ARE TO REMAIN UNTIL ALL PERMANENT VEGETATION HAS BEEN ESTABLISHED.
5. INSTALL ALL INLET SEDIMENT TRAPS WHERE NECESSARY.
6. INSTALL CURB AND GUTTER AS SHOWN ON PLANS
7. INSTALL OTHER BMP'S CALLED OUT ON INTERMEDIATE PHASE.
8. STABILIZE TEMPORARY DISTURBED AREAS WITH MULCH, TEMPORARY SEED, MATTING/BLANKETTING & PAM AS REQUIRED @ 14 DAY INTERVALS.
9. ALL BMPS ARE TO BE MONITORED AND INSPECTED TO ENSURE PROPER INSTALLATION AND MAINTENANCE ARE ACHIEVED.

FINAL PHASE EROSION AND SEDIMENT CONTROL SCHEDULE

1. MAINTAIN CONSTRUCTION EXISTS, SILT FENCE, AND TREE SAVE AS NECESSARY.
2. INSTALL NEW SILT FENCE WHERE NECESSARY.
3. MAINTAIN INLET PROTECTION PER THIS PLAN AS SITE GRADING PROGRESSES.
4. CONTINUE GRADING SITE. REMAINING CURB AND GUTTER, BASE PAVING FOR DRIVEWAYS AND SIDEWALK TO BE INSTALLED AFTER UTILITY RELOCATION IS COMPLETED.
5. ONCE STORM DRAIN TOPS INSTALLED, INSTALL Sd2-P AT EACH STRUCTURE (FINAL PHASE BMPs).
6. MAINTAIN TEMPORARY GRASSING @14 DAYS INTERVALS, INSTALL PERMANENT GRASSING @ 30 DAY INTERVALS.
7. LANDSCAPING WILL BE PERFORMED AS SOON AS PRACTICABLE. APPROPRIATE PLANT MATERIAL SHALL BE INSTALLED AREA BY AREA AS SITE WORK PERMITS.
8. CLEAN STORM STRUCTURES. INSTALL ANY OTHER PERMANENT BMP.
9. DEMUCK ALL STRUCTURAL BMP'S AND SAFELY DISPOSE OF MATERIAL. REMOVE ALL TEMPORARY BMP'S AS SHOWN ON PLANS.

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REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS
LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON
NPDES NOTES & CHECKLIST SCALE: N.T.S. DATE 06/09/2020

THESE DRAWINGS ARE THE PROPERTY OF WHITLEY ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED AND OR INCORPORATED INTO ANOTHER WORK FOR ANY REASON WITHOUT THE WRITTEN CONSENT OF THE DESIGN PROFESSIONAL.

39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional

N/A for this site, however if any BMPs have proven not to function properly and the need for an alternative BMP is arisen, the following procedures documented below should be followed by the Design Professional

Use of alternative BMPs whose performance has been documented to be equivalent or superior to conventional BMPs as certified by a Design Professional may be allowed (unless disapproved by EPD or the Georgia soil and Water Conservation Commission).

Required documentation for alternative BMPs:

1. One page summary detailing why the alternative BMP is equivalent or superior to the conventional BMPs found in the "Manual for Erosion and Sedimentation Control in Georgia" (manual).

2. Documented side by side testing (alternative BMP vs. conventional BMP) using the appropriate design requirements and specifications contained in the Manual.

3. Proof that the alternative BMP was previously installed and worked under conditions comparable to the environmental conditions of the proposed site. This can be documented with photographs.

4. All specifications including the design requirements and the procedures for proper installation and maintenance.

All forms of documentation must be signed and certified by the Design Professional who is preparing the ES&PC Plan and must include the Design Professional's seal and GSWCC design Professional certification.

40 Use of alternative BMPs for application to the Equivalent BMP List, Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.

N/A for this site, however for a BMP to be considered for inclusion on the Equivalent BMP List, the Design Professional must compete the current process for Alternative BMPs as otulined by GSWCC Guidnace on at least theree completed projects where EPD's Notice of Termination Form has been filed.

The following steps are required

1. Provide pre-notice to EPD and GSWCC of the intent to apply for an Alternative BMP to be included on the Equivalent BMP List as follows:
   A. Specify on the required checklist that accompanies the Notice of Intent Form that the project includes an Alternative BMP that will be included on an Application for the Equivalent BMP List
   B. Inform GSWCC of the intent to apply by sending a digital copy of the approved ES&PC Plan and a copy of the above to GSWCC when the NOI is filed with EPD

2. Once the project involving the Alternative BMP has been completed and a Notice of Termination Form for the project has been filed, submit to GSWCC the following:
   A. An Application to be on the Equivalent BMP List and a sample of the BMP.
   B. Three sets-- one for each time the Alternative BMP was used in three separate projects-- of the required documentation to use the Alternative BMP, based on the current approval process as outlined by GSWCC Guidance. Evidence of repeatable bench and filed testing must be included as part of this documentation. Only approved ASTM standards will be accepted for repeatable bench testing; working test methods will not be accepted.
   C. Three sets-- one for each time the Alternative BMP was used in three separate projects-- of the Notice of Termination form for each project involving the Alternative BMP.
   D. A certification Form signed by two individuals -- a level II certified Design Professional and a level 1A or Level 1B Certified Personnel-- who evaluated the BMP's performance in the field stating that the Alternative BMP performed as expected throughout the life of each of the three projects.
   E. Three sets of installation photos -- one for each time the Alternative BMP was used-- of the Alternative BMP utilized in the three projects.
   F. Three sets of after-storm event photos-- one for each time the Alternative BMP was used-- of the Alternative BMP utilized in the three projects.
   G. Any post-storm event inspection records as well as inspection and enforcemnt records made by any federal, state, or local regulatory agency related to this specific BMP on this project.

The above matenals should be submitted to GSWCC both electmoically and with hard copies to P.O. Box 8024, Athens, Georgia 30603. GSWCC will provide copies of the matenals submitted to EPD and GDOT upon receipt. GSWCC will receive and review the information submitted above. GSWCC has the discretion to approve the application, deny the application, request a resubmittal, or request additional information, with consultation from EPD and GDOT.
Applicants will be informed of GSWCC's determination in writing. Applicants receiving approval for inclusion on the Equivalent BMP List will be notified within 90 days. Applicants with BMPs denied from inclusion on the Equivalent BMP List may seek review of the GSWCC's determination from the GSWCC State Board.

41 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.

N/A

42 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.

There are NO on-site wetlands located on and within 200 feet of the project site.
There are NO State waters located on and within 200 feet of the project site.

43 Delineation and acreage of contributing drainage basins on the project site.

Refer to SHEETS 6-7 "Grading and drainage plan" for delineation and acreage of contributing drainage basins within and off-site the project.

44 Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets.

N/A

45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.

RUNOFF COEFFICIENT

WEIGHTED PRE-CONSTRUCTION CURVE NUMBER (CN): **65**

WEIGHTED POST-CONSTRUCTION CURVE NUMBER (CN): **71**

46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.

N/A

47 Soil series for the project site and their delineation.

Refer to SHEETS 13-14 "Initial ES&PC Plan for Soil series delineation and classification

48 The limits of disturbance for each phase of construction.

Total area = 0.90 AC.
Developed area = **0.90** AC (Site will be developed in one phase)
Disturbance area = **0.90** AC.

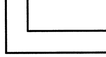
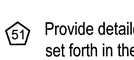
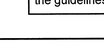
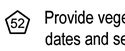
49 Sediment basin requirement and Justification to use equivalent controls when a sediment basin is not attainable for this project

Due to the linear nature of this project, Sediment will be provided by utilizing the silt fence and the inlet protection measures that will be installed during construction.

50 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.

GEORGIA
UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A temporary constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SKEP/ BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)		Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP. SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM. SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Cd	FLOCCULANTS AND COAGULANTS		Fl-Cd	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM. VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GaSWCC (Amended – 2013)

51 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.

Refer to Sheets 19 thru 20 " STRUCTURAL EROSION DETAILS " for detailed drawings for all structural practices that meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.

52 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 the appropriate geographic region of Georgia.

Refer to Sheet 20, " VEGETATIVE EROSION DETAILS " for all vegetative plan noting all temporary and permanent vegetative practice including species, planting dates and seeding, fertilize, lime and mulching rates.

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DESCRIPTION:
CITY OF HAMPTON COMMENTS

REV.	DATE:
-1	07/01/2020

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

SCALE: N.T.S. DATE 06/30/2020

NPDES NOTES & CHECKLIST

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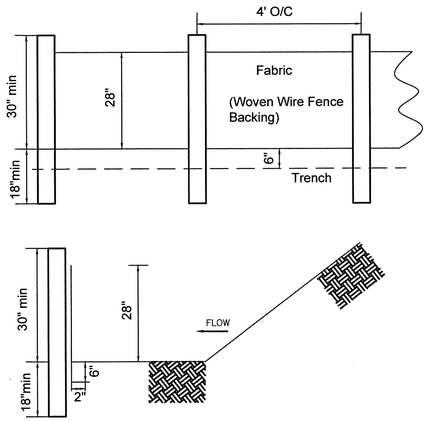
SHEET
20



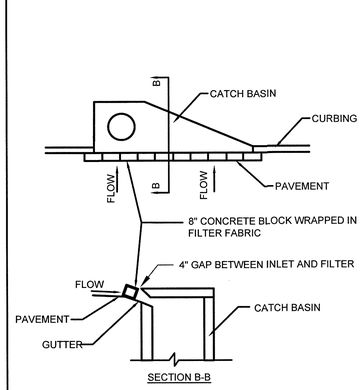
SILT FENCE

THE MANUFACTURER SHALL HAVE EITHER AN APPROVED COLOR MARK YARN IN THE FABRIC OR LABEL THE FABRICATED SILT FENCE WITH BOTH THE MANUFACTURER AND FABRIC NAME EVERY 100 FEET.

THE TEMPORARY SILT FENCE SHALL BE INSTALLED ACCORDING TO THIS SPECIFICATION, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. FOR INSTALLATION OF THE FABRIC, SEE DETAIL. POST INSTALLATION SHALL START AT THE CENTER OF THE LOW POINT (IF PPLICABLE) WITH THE REMAINING POSTS SPACED 4 FEET APART FOR TYPE C SILT FENCE. ONLY STEEL POST SHALL BE USED WITH TYPE C SILT FENCE. POSTS SHALL BE 4' IN LENGTH, 1.3 LBS/ FT.
ALONG STREAM BUFFERS AND OTHER SENSITIVE AREAS, TWO ROWS OF TYPE C SILT FENCE OR ONE ROW OF TYPE C SILT FENCE BACKED BY HAYBALES SHALL BE USED.

MAINTENANCE
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.

Sd1-S SENSITIVE SILT FENCE

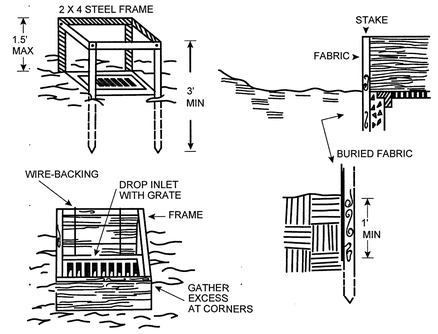


CURB INLET PROTECTION

ONCE PAVEMENT HAS BEEN INSTALLED, A CURB INLET FILTER SHALL BE INSTALLED ON INLETS RECEIVING RUNOFF FROM DISTURBED AREAS. THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED.

ONE METHOD OF CURB INLET PROTECTION USES "PIGS-IN-A-BALNKET": 8-INCH CONCRETE BLOCKS WRAPPED IN FILTER FABRIC. SEE DETAIL. ANOTHER METHOD USES GRAVEL BAGS CONSTRUCTED BY WRAPING DOT #57 STONE WIHT FILTER FABRIC, WIRE, PLASTIC MESH, OR EQUIVALENT MATERIAL.
A GAP OF APPROXIMATELY 4 INCHES SHALL BE LEFT BETWEEN THE INLET FILTER AND THE INLET TO ALLOW FOR OVERFLOW AND PREVENT HAZARDOUS PONDING IN THE ROADWAY. PROPER INSTALLATION AND MAINTENANCE ARE CRUCIAL TO AVOID PONDING IN THE ROADWAY, RESULTING IN A HAZARDOUS CONDITION.

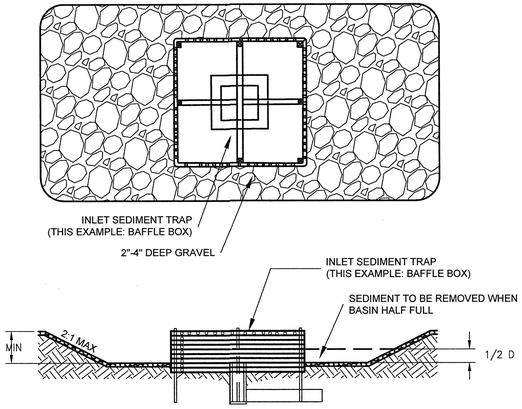
Sd2-P CURB INLET PROTECTION



FILTER FABRIC WITH SUPPORTING FRAME

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) AND SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS. AS SHOWN IN DETAIL, TYPE C SILT FENCE SUPPORTED BY STEEL POSTS SHALL BE USED. THE STAKES SHALL BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART, AND SECURELY DRIVEN IN TO THE GROUND, APPORIMATELY 18 INCHES DEEP. THE FABRIC SHALL BE ENTRENCHED 12 INCHES AND BACKFILLED WITH 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 WRAPPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

Sd2-F FILTER FABRIC WITH SUPPORTING FRAME



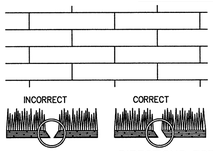
EXCAVATED INLET SEDIMENT TRAP

A BASIN MAY BE EXCAVATED AROUND THE INLET SEDIMENT TRAP TO PROVIDE ADDITIONAL SEDIMENT STORAGE. THE TRAP SHALL BE SIZED TO PROVIDE A MINIMUM STORAGE CAPACITY CALCULATED AT THE RATE OF 67 CUBIC YARDS PER ACRE OF DRAINAGE AREA. A MINIMUM DEPTH OF 1.5 FEET FOR SEDIMENT STORAGE SHOULD BE PROVIDED. SIDE SLOPES SHALL NOT BE STEEPER THAN 2:1.

THE AREA DRAINING TO THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

SOD MAINTENANCE AND INSTALLATION

SOD LAYOUT AND PREPARATION



LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING: ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

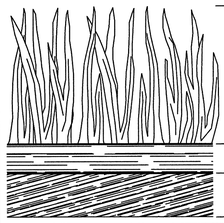
DIRECTIONS FOR INITIAL MAINTENANCE

Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

APPEARANCE OF GOOD SOD



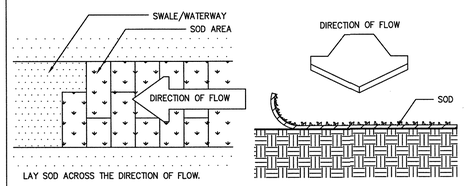
SHOOTS OR GRASS BLADES: GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"-3" CUTTING HEIGHT.

THATCH: GRASS CLIPPINGS AND DEAD LEAVES (UP TO 1/2" THICK).

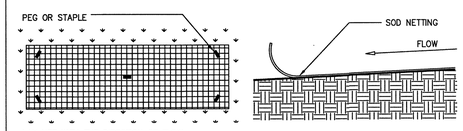
ROOT ZONE: SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK WITH DENSE ROOT MAT FOR STRENGTH.

SODDED WATERWAYS

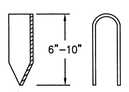
SOD DIRECTIONS



NETTING DIRECTIONS

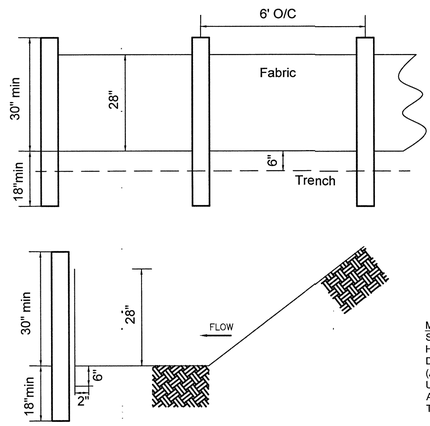


PEG DETAIL



IN CRITICAL AREAS, SECURE SOD WITH NETTING USING STAPLES.

USE PEGS OR STAPLES TO FASTEN SOD FIRMLY -- AT THE ENDS OF STRIPS AND IN THE CENTER, OR EVERY 3-4 FEET IF THE STRIPS ARE LONG. WHEN READY TO MOW, DRIVE PEGS OR STAPLES FLUSH WITH THE GROUND.



SILT FENCE

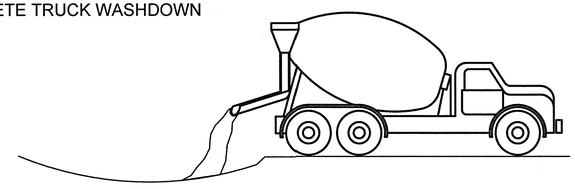
THE MANUFACTURER SHALL HAVE EITHER AN APPROVED COLOR MARK YARN IN THE FABRIC OR LABEL THE FABRICATED SILT FENCE WITH BOTH THE MANUFACTURER AND FABRIC NAME EVERY 100 FEET.

THE TEMPORARY SILT FENCE SHALL BE INSTALLED ACCORDING TO THIS SPECIFICATION, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. FOR INSTALLATION OF THE FABRIC, SEE DETAIL. POST INSTALLATION SHALL START AT THE CENTER OF THE LOW POINT (IF PPLICABLE) WITH THE REMAINING POSTS SPACED 4 FEET APART FOR TYPE C SILT FENCE. ONLY STEEL POST SHALL BE USED WITH TYPE C SILT FENCE. POSTS SHALL BE 4' IN LENGTH, 1.3 LBS/ FT.
ALONG STREAM BUFFERS AND OTHER SENSITIVE AREAS, TWO ROWS OF TYPE C SILT FENCE OR ONE ROW OF TYPE C SILT FENCE BACKED BY HAYBALES SHALL BE USED.

MAINTENANCE
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.

Sd1-NS NON-SENSITIVE SILT FENCE

CONCRETE TRUCK WASHDOWN



DESIGNATE WASHDOWN AREA AND EXCAVATE PIT LARGE ENOUGH TO CONTAIN WASHDOWN WATER. THIS MUST BE AWAY FROM STORM DRAINS AND WATERWAYS.

ADVISE CONCRETE TRUCK DRIVERS OF THE DESIGNATED WASH-OUT AREAS BEFORE THEY START THE JOB.

WASHDOWN CHUTE, HOPPER, AND REAR OF VEHICLE ONLY. DO NOT WASH OUT DRUM

ENSURE THAT ALL WASHDOWN WATER STAYS IN PIT.

DISPOSE OF SETTLED, HARDENED CONCRETE IN GARBAGE WITH OTHER CONSTRUCTION DEBRIS.

NEVER DISPOSE OF WASHDOWN WATER IN STREETS, STORM DRAINS, OR STREAMS.

GSWCC
MARK G. WHITLEY, PE
0000001036
LEVEL IA CERTIFIED PERSONNEL
LEVEL IB CERTIFIED INSPECTOR
LEVEL II CERTIFIED DESIGN PROF.

GEORGIA REGISTERED PROFESSIONAL ENGINEER MARK G WHITLEY

WHITLEY ENGINEERING INC.
PROJECT MANAGEMENT
DESIGN NPDES
38 E. MAIN STREET N.
HAMPTON, GA 30228
TEL: (770)946-0256

REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

Not Released For Construction
Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

EROSION DETAILS I | SCALE: N.T.S. | DATE 06/09/2020

THESE DRAWINGS ARE THE PROPERTY OF WHITLEY ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED AND OR INCORPORATED INTO ANOTHER WORK FOR ANY REASON WITHOUT THE WRITTEN CONSENT OF THE DESIGN PROFESSIONAL.

SHEET
21

MATERIAL	QUANTITY
DRY STRAW OR HAY	2" - 4" DEPTH
WOOD WASTE (SAWDUST, BARK, CHIPS)	2" - 3" DEPTH
CUTBACK ASPHALT (SLOW CURING)	1200 GAL. PER ACRE (1/4 GAL PER SQ. YD.)
POLYETHYLENE FILM	COMPLETELY COVERING EXPOSED AREA. TRENCHED IN AT OUTER EDGES.

STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. MULCH MAY BE ANCHORED BY MECHANICALLY PRESSING INTO SURFACE. IF SPREAD WITH BLOWER EQIPMENT, MULCH SHALL BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1)--100 GAL. ASPHALT + 100 GAL. WATER PER TON OF MULCH. NETTING SHALL BE USED TO ANCHOR WOOD WASTE AND CHIPS. POLYETHYLENE SHALL BE TRENCHED IN AT EDGES.

Ds1 MULCHING

PLANT, PLANTING RATES, AND PLANTING DATED FOR TEMPORARY COVER OR COMPANION CROPS 1/

Species	Broadcast Rates 2/ Per Acre	PLS 3/ Per 1000 sq. ft	Resource Area 4/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
BARLEY (Horduem vulgare)			P		14,000 seed per pound. Winterhardy. Use on productive soils.
~~alone~~	3 bu. (144 lbs.)	3.3 lb.			
in mixture	1/2 bu. (24 lbs.)	0.6 lb.			
LESPEDEZA, ANNUAL (Lespedeza striata)			P		200,000 seed per pound. May volunteer for several years. Use inoculant EL.
alone	40 lbs.	0.9 lb.			
in mixtures	10 lbs.	0.2 lb.			
LOVEGRASS, WEEPING (Eragrostis curvula)			P		1,500,000 seed per pound. May last for several years. Mix with Sericea lespedeza.
alone	4 lbs.	0.1 lb.			
in mixtures	2lbs.	0.05 lb.			
MILLET, BROWNTOP (Panicum fasciculatum)			P		137,000 seed per pound. Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.
alone	40 lbs.	0.9 lb.			
in mixtures	10 lbs.	0.2 lb.			

PLANT, PLANTING RATES, AND PLANTING DATED FOR TEMPORARY COVER OR COMPANION CROPS 1/

Species	Broadcast Rates 2/ Per Acre	PLS 3/ Per 1000 sq. ft	Resource Area 4/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
MILLET, PEARL (Pennesetum glaucum)			P		88,000 seed per pound. Quick dense cover. May reach 5 feet in height. Not recommended for mixtures.
alone	50 lbs.	1.1 lb.			
OATS (Avena sativa)			P		13,000 seed per pound. Use on productive soils. Not as winterhardyas rye or barley.
alone	4 bu. (128 lbs.)	2.9 lb.			
in mixtures	1 bu. (32 lbs.)	0.7lb.			
RYE (Secale cereale)			P		18,000 seed per pound. Quick cover. Drought tolerant and winterhardy.
alone	3 bu. (168 lbs.)	3.9 lb.			
in mixture	1/2 bu. (28 lbs.)	0.6 lb.			
RYEGRASS, ANNUAL (Lolium temulentum)			P		227,000 seed per pound. Dense cover. Very competitive and is not to be used in
alone	40 lbs.	0.9 lb.			
SUDANGRASS (Sorghum Sudanese)			P		55,000 seed per pound. Good on droughty sites. Not recommended for mixtures.
alone	60 lbs.	1.4lb			

PLANT, PLANTING RATES, AND PLANTING DATED FOR TEMPORARY COVER OR COMPANION CROPS

Species	Broadcast Rates 2/- Per Acre	PLS 3/ Per 1000 sq. ft	Resource Area 4/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
WHEAT (Triticum Aestivum)			P		15,000 seed per pound.
alone	3 bu. (180 lbs.)	4.1 lb.			
in mixtures	1/2 bu. (30 lbs.)	0.7 lb.			

1/ Temporary cover crops are very competitive and will crown out perennials if seeded too heavily.
2/ Reduce seeding rates by 50% when drilled.
3/ PLS is an abbreviation for Pure Live Seed.
4/ P represents the Southern Piedmont MLRA

Ds2 STABILIZATION WITH TEMPORARY SEEDING

Fertilizer Requirements

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 1/2/
	Second	6-12-12	1000 lbs./ac.	
	Maintenance	10-10-10	400 lbs./ac.	30
2. Cool season grasses and legumes	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac. 1/
	Second	0-10-10	1000 lbs./ac.	
	Maintenance	0-10-10	400 lbs./ac.	
3. Ground covers	First	10-10-10	1300 lbs./ac. 3/	
	Second	10-10-10	1300 lbs./ac. 3/	
	Maintenance	10-10-10	1100 lbs./ac.	
4. Pine seedlings	First	20-10-5	one 21-gram pellet per seedling placed in the closing hole	
5. Shrub Lespedeza	First	0-10-10	700 lbs./ac.	
	Maintenance	0-10-10	700 lbs./ac. 4/	
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
7. Warm season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/6/
	Second	6-12-12	800 lbs./ac.	50-100 lbs./ac. 2/
	Maintenance	10-10-10	400 lbs./ac.	30lbs./ac.
8. Warm season grasses and legumes	First	6-12-12	1500 lbs./ac.	50 lbs./ac./6/
	Second	0-10-10	1000 lbs./ac.	
	Maintenance	0-10-10	400 lbs./ac.	

1/ Apply in spring following seeding.
2/ Apply in split applications when high rates are used.
3/ Apply in 3 split applications.
4/ Apply when plants are pruned.
5/ Apply to grass species only.
6/ Apply when plants grow to a height of 2 to 4 inches.

PLANTS, PLANTING RATES, AND PLANTING DATES FOR PERMANENT COVER

Species	Broadcast Rates 1/ Per Acre	PLS 2/ Per 1000 sq. ft.	Resource Area 3/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
BAHIA, PENSACOLA (Paspalum notatum)			P		166,000 seed per pound. Low growing. Sod forming. Slow to establish. Plant with a companion crop. Will spread into bermuda pastures and lawns. Mix with Sericea lespedeza or weeping lovegrass.
alone or with temporary cover	60 lbs.	1.4 lb.			
with other perennials	30 lbs.	0.7 lb.			
BAHIA, WILMINGTON (Paspalum notatum)			P		Same as above.
alone or with temporary cover	60 lbs.	1.4 lb.			
with other perennials	30 lbs.	0.7 lb.			
BERMUDA, COMMON (Cynodon dactylon) Hulled seed			P		1,787,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic fields.
alone	10 lbs.	0.2 lb			
with other perennials	6 lbs.	0.1 lb.			

Species	Broadcast Rates 1/ Per Acre	PLS 2/ Per 1000 sq. ft.	Resource Area 3/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
BERMUDA, COMMON (Cynodon dactylon) Unhulled seed			P		
with temporary cover	10 lbs.	0.2 lb.			Plant with winter annuals.
with other perennials	6 lbs.	0.1 lb.			Plant with tall fescue.
BERMUDA SPRIGS (Cynodon dactylon)	40 cu. ft. or	0.9 cu. ft. sod plugs 3' x 3'			A cubic foot contains approximately 650 sprigs. A bushel contains 1.25 cubic feet or approximately 800 sprigs.
Coastal, Common, Midland, or Tifl 44					
Coastal, Common,			P		Same as above.
CENTIPEDE (Eremochloa ophiuroides)	Block sod only		P		Drought tolerant. Full sun or partial shade. Effective adjacent to concrete and in concentrated flow areas. Irrigation is needed until fully established. Do not plant near pastures. Winterhardy as far north as Athens and Atlanta.

Species	Broadcast Rates 1/ Per Acre	PLS 2/ Per 1000 sq. ft	Resource Area 3/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
CROWNVETCH (Coronilla varia)					100,000 seed per pound. Dense growth. Drought tolerant and fire resistant. Attractive rose, pink, and white blossoms spring to late fall. Mix with 30 pounds of Tall fescue or 15 pounds of rye. Inoculate seed with M inoculant. Use from North Atlanta and Northward.
with winter annuals or cool season grasses	15 lbs	0.3 lb	P		
FESCUE, TALL (Festuca arundinacea)					227,000 seed per pound. Use alone only on better sites. Not for droughty soils. Mix with perennial lespedezas or crownvetch. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic fields.
alone	50 lbs	1.1 lbs	P		
with other perennials	30 lbs	0.7 lb.			

Species	Broadcast Rates 1/ Per Acre	PLS 2/ Per 1000 sq. ft.	Resource Area 3/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
LESPEDEZA, SERICEA (Lespedeza cuneata)					350,000 seed per pound. Widely adapted. Low maintenance. Mix with weeping lovegrass, common bermuda, bahia, or tall fescue. Takes 2 to 3 years to become fully established. Excellent on roadbanks. Inoculate seed with EL inoculant.
scarified	60 lbs.	1.4 lbs.	P		
unscarified	75 lbs.	1.7 lb.	P		Mix with Tall fescue or winter annuals.
seed-bearing hay	3 tons	138 lb.	P		Cut when seed is mature, but before it shatters. Add Tall fescue or winter annuals.

Species	Broadcast Rates 1/ Per Acre	PLS 2/ Per 1000 sq.ft.	Resource Area 3/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
LESPEDEZA Ambro virgata (Lespedeza virgata DC) or Appalow (Lespedeza cuneata [Dumont] G. Don)					300,000 seed per pound. Height of growth is 18 to 24 inches. Advantageous in urban areas. Spreading-type growth has bronze coloration. Mix with Weeping lovegrass, Common bermuda, bahia, tall fescue or winter annuals. Do not mix with Sericea lespedeza. Slow to develop solid stands. Inoculate seed with EL inoculate.
scarified	60 lbs	1.4 lb	P		
unscarified	75 lbs	1.7 lb	P		
LESPEDEZA, SHRUB (Lespedeza bicolor) (Lespedeza thunbergii)			P		Provide wildlife food and cover.
plants	3'x3'				
LOVEGRASS, WEEPING (Eragrostis curvula)					1,500,000 seed per pound. Quick cover. Drought tolerant. Grows well with Sericea lespedeza on roadbanks.
alone	4 lbs	0.1 lb	P		
with other perennials	2 lbs	0.05 lb			

Species	Broadcast Rates 1/ Per Acre	PLS 2/ Per 1000 sq. ft.	Resource Area 3/	Planting Dates by Resource Areas (Solid lines indicate optimum dates, dotted lines indicate permissible but marginal dates.) J F M A M J J A S O N D	Remarks
MAIDENCANE (Panicum hemitomon)					For very wet sites. May clog channels. Dig sprigs from local sources. Use along river banks and shorelines.
sprigs	2 x 3' spacing		ALL		
PANICGRASS, ATLANTIC COASTAL (Panicum amarum var. amarulum)	20 lbs.	0.5 lb.	P		Grows well on coastal sand dunes, borrow areas, and gravel pits. Provides winter cover for wildlife. Mix with Sericea lespedeza except on sand dunes.
REED CANARY GRASS (Phalaris arundinacea)			P		Grows similar to tall fescue.
alone	60 lbs.	1.1 lb.			
with other perennials	30 lbs.	0.7 lb.			
SUNFLOWER, 'AZTEC' MAXIMILIAN (Helianthus maximiliani)	10 lbs.	0.2 lb.	P		227,000 seed per pound. Mix with weeping lovegrass or other low-growing grasses or legumes.

Ds3 STABILIZATION WITH PERMANENT VEGETATION

APPROPRIATE SOD VARIETIES FOR ATLANTA

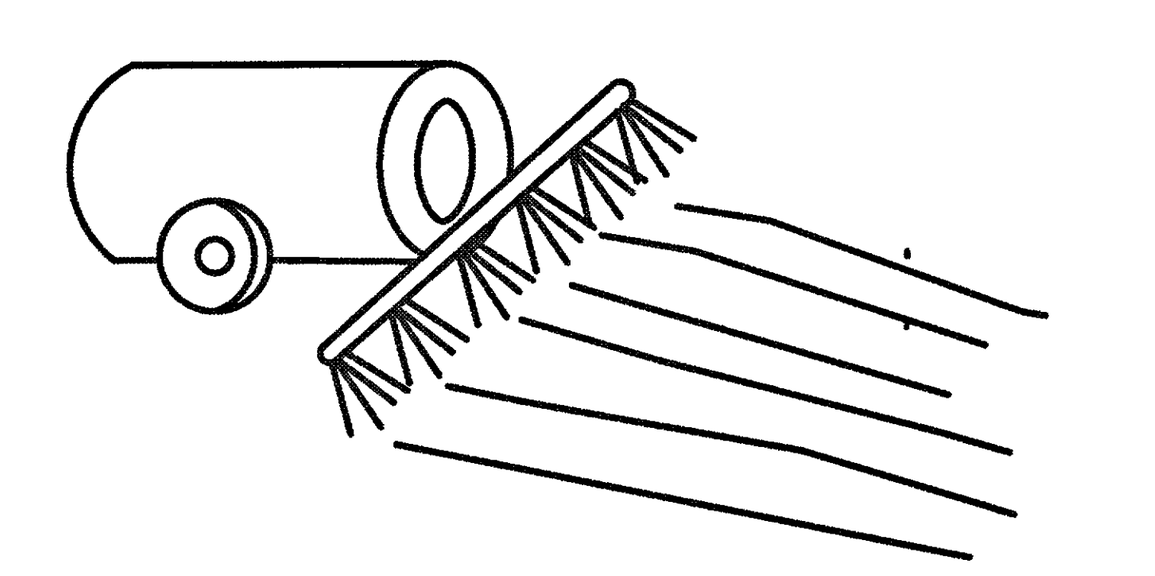
GRASS	VARIETY	GROWING SEASON
BERMUDA	COMMON TIFWAY TIFGREEEN, TIFLAWN	WARM WEATHER
BAHIA	PENSACOLA	WARM WEATHER
CENTIPEDE	---	WARM WEATHER
ZOYSIA	EMERALD MEYER	WARM WEATHER
TALL FESCUE	KENTUCKY	COOL WEATHER

SOIL PREPARATION
BRING SOIL SURFACE TO FINAL GRADE. CLEAR SURFACE OF TRASH, WOODY DEBRIS, STONES AND CLODS LARGER THAN 1". APPLY SOD TO SOIL SURFACES ONLY AND NOT FROZEN SURFACES, OR GRAVEL TYPE SOILS.
MIX FERTILIZER INTO SOIL SURFACE. FERTILIZE BASED ON SOIL TESTS OR GENERAL APPLICATION OF 10-10-10 @ 1000 LBS PER ACRE (1 LB /40 SQ. FT.) AGRICULTURAL LIME SHOULD BE APPLIED BASED ON SOIL TESTS OR AT A RATE OF 1 TO 2 TONS / ACRE.

GRASS TYPE	PLANTING YEAR	FERTILIZER (NPK)	RATE (LBS/ ACRE)	NITROGEN TOP DRESSING (LBS/ ACRE)
COOL SEASON GRASSES	1ST 2ND MAINTENACE	6-12-12 6-12-12 10-10-10	1500 1000 400	50-100 --- 30
WARM SEASON GRASSES	1ST 2ND MAINTENACE	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30

Ds4 STABILIZATION WITH SODDING

DUST CONTROL



TEMPORARY METHODS
MULCHES. SEE STANDARD DS1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB-TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. SEE STANDARD DS2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPRAY-ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB-TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS.

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS. SOLID BOARD FENCES, SNOWFENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

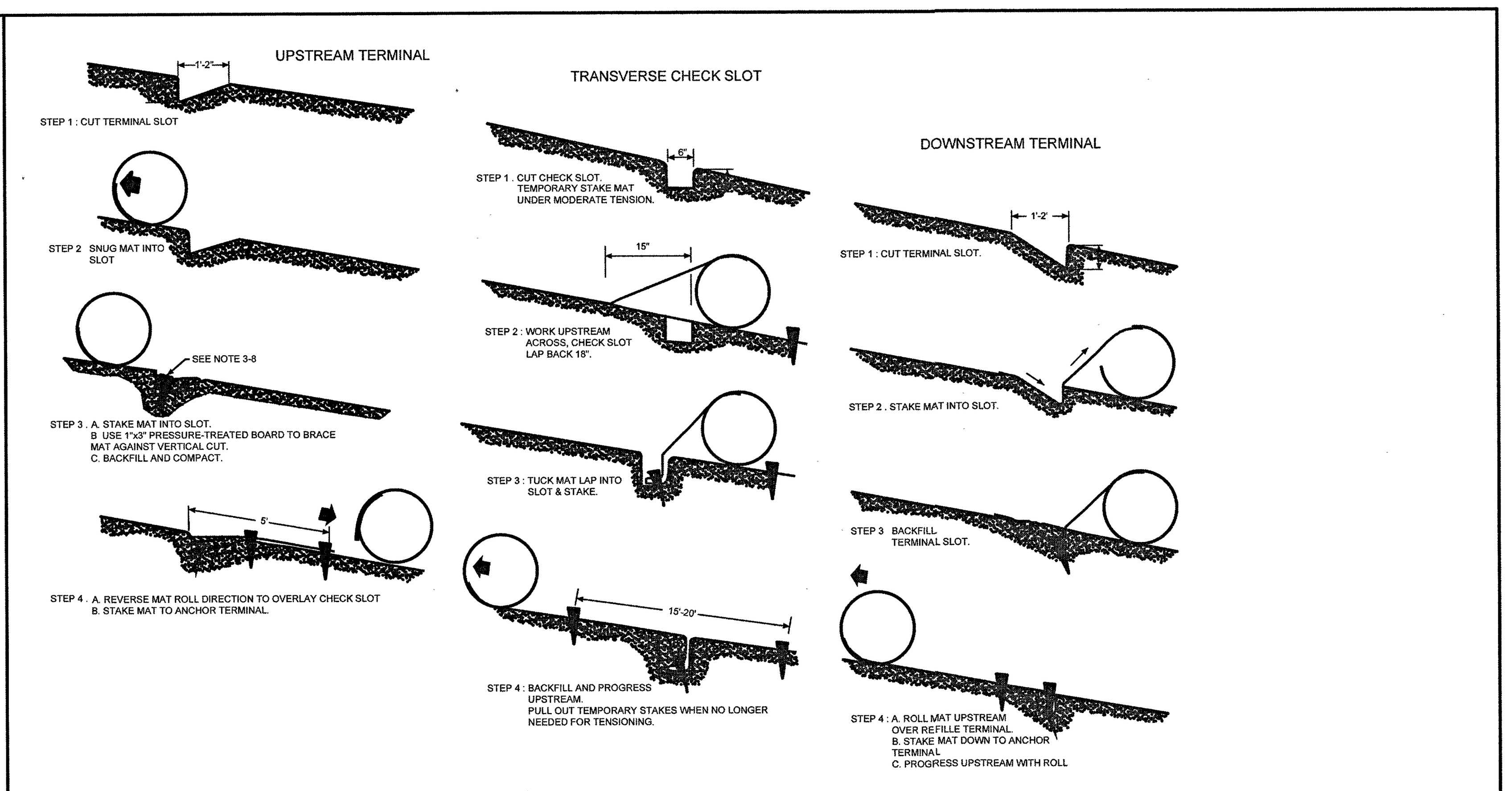
CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS
PERMANENT VEGETATION. SEE STANDARD DS3 -DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

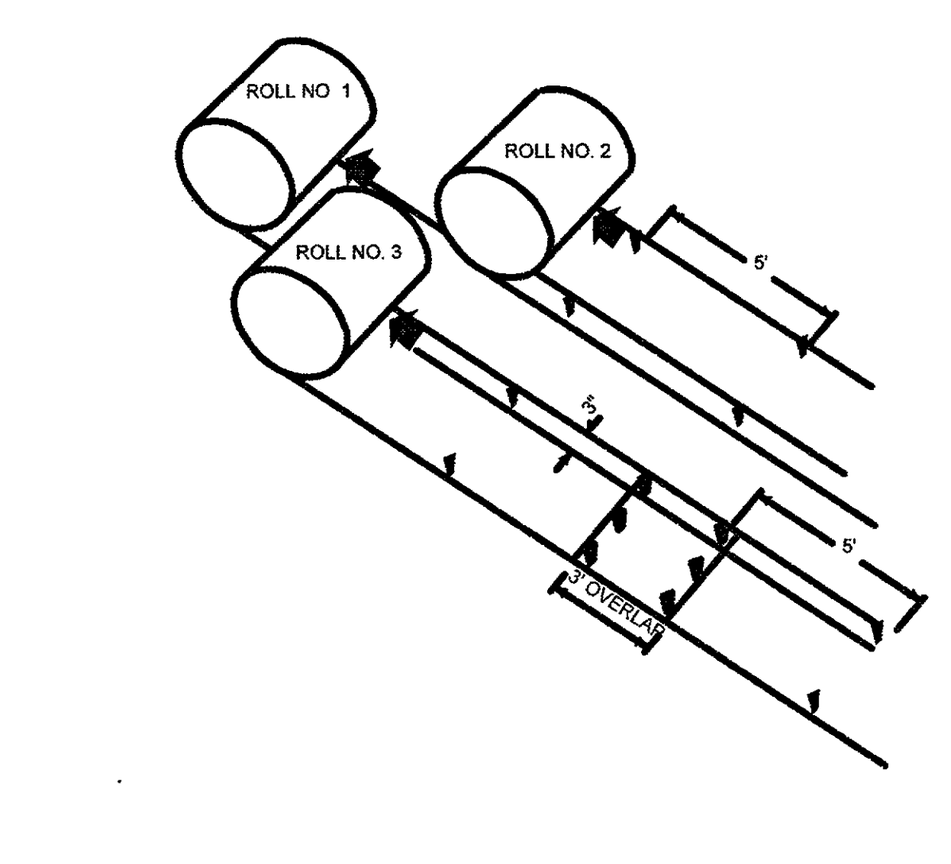
TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP - TOPSOILING.

STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR-CONSTRUCTION ROAD STABILIZATION.

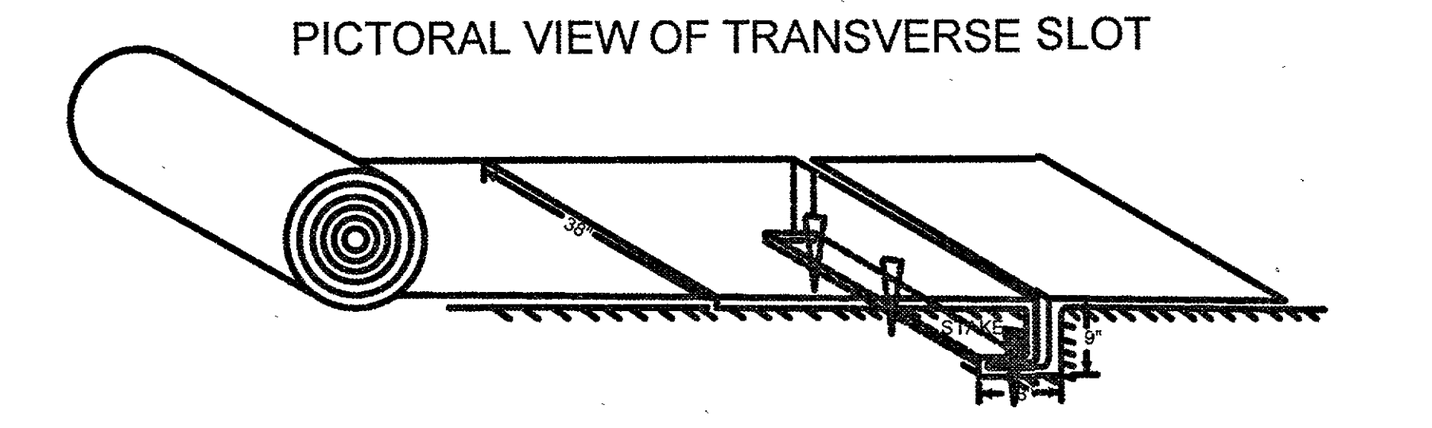
Du DUST CONTROL



SEQUENTIAL ROLL RUN OUT IN CHANNELS



PICTORAL VIEW OF TRANSVERSE SLOT



INSTALLATION INSTRUCTIONS

1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND FIRST ROLL. FOR ALIGNMENT TO CHANNEL CENTER.
4. WORK OUTWARDS FROM CHANNEL CENTER TO EDGE.
5. USE 3" OVERLAP AND STAKE AT 5' INTERVAL ALONG SEAMS.
6. USE 3" OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT LINING AT ROLL ENDS.

INSTALLATION NOTES

SITE PREPARATION
AFTER THE SITE HAS BEEN SHAPED AND GRADED TO THE APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN ONE INCH IN DIAM ETER, AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE SOIL STABILIZATION MAT WITH THE SOIL SURFACE. SURFACE MUST BE SMOOTH TO ENSURE PROPER CONTACT OF BLANKETS OR MATTING TO THE SOIL SURFACE. IF NECESSARY, REDIRECT ANY RUNOFF FROM THE DITCH OR SLOPE DURING INSTALLATION.

STAPLES
THE FOLLOWING ARE CONSIDERED APPROPRIATE STAPLING AND STAKING MATERIALS.

TEMPORARY BLANKETS
THIS INCLUDES STRAW, EXCELSIOR, COCONUT FIBER, AND WOOD FIBER BLANKETS. STAPLES SHALL BE USED TO ANCHOR TEMPORARY BLANKETS. U-SHAPED WIRE (11 GAUGE OR GREATER) STAPLES WITH LEGS AT LEAST 6 INCHES IN LENGTH AND A CROWN OF ONE INCH OR APPROPRIATE BIODEGRADABLE STAPLES CAN BE USED. STAPLES SHALL BE OF SUFFICIENT THICKNESS FOR SOIL PENETRATION WITHOUT UNDUE DISTORTION.

PERMANENT MATTING
SOUND WOOD STAKES, 1X3 INCHES STOCK SAWN IN A TRIANGULAR SHAPE, SHALL BE USED. DEPENDING ON THE COMPACTION OF THE SOIL, SELECT STAKES WITH A LENGTH FROM 12 TO 18 INCHES. U-SHAPED STAPLES SHALL BE 11 GAUGE STEEL OR GREATER, WITH LEGS AT A MINIMUM OF 8 INCHES LENGTH WITH A 2 INCH CROWN.

PLANTING
LIME, FERTILIZER, AND SEED SHALL BE APPLIED IN ACCORDANCE WITH SEEDING OR OTHER TYPE OF PLANTING PLAN COMPLETED PRIOR TO INSTALLATION OF TEMPORARY COMBINATION BLANKETS OR JUTE MESH. FOR PERMANENT MATS, THE AREA MUST BE BROUGHT TO FINAL GRADE, PLOWED, LIMED, AND FERTILIZED. AFTER THE PERMANENT MAT HAS BEEN INSTALLED AND BACKFILLED, THE ENTIRE AREA SHALL BE GRASSED. REFER TO SPECIFICATION DS3 - DISTURBED AREA STABILIZATION ET(WITH PERMANENT VEGATION).

MAINTENANCE
ALL EROSION CONTROL BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED.

Ss EROSION CONTROL MATTING AND BLANKETS

VEGETATION NOTES

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. IF AN AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION SHALL BE USED. IF OPTIMUM PLANTING CONDITIONS FOR TEMPORARY GRASSING IS LACKING, MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. REFER TO SPECIFICATION DS1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

LIME AND FERTILIZER (TEMPORARY VEGETATION, DS-2)
AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

LIME AND FERTILIZER RATES AND ANALYSIS (PERMANENT VEGETATION, DS-3)
AGRICULTURAL LIME IS REQUIRED 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. INITIAL FERTILIZATION, NITROGEN, TOPDRESSING, AND MAINTENANCE FERTILIZER REQUIREMENTS FOR EACH SPECIES OR COMBINATION OF SPECIES ARE LISTED IN TABLE 6-5.1.

MULCHING
MULCH 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:
1. 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 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING 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.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

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REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

☐ Not Released For Construction
☒ Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS
LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON
EROSION DETAILS II SCALE: N.T.S. DATE 06/09/2020

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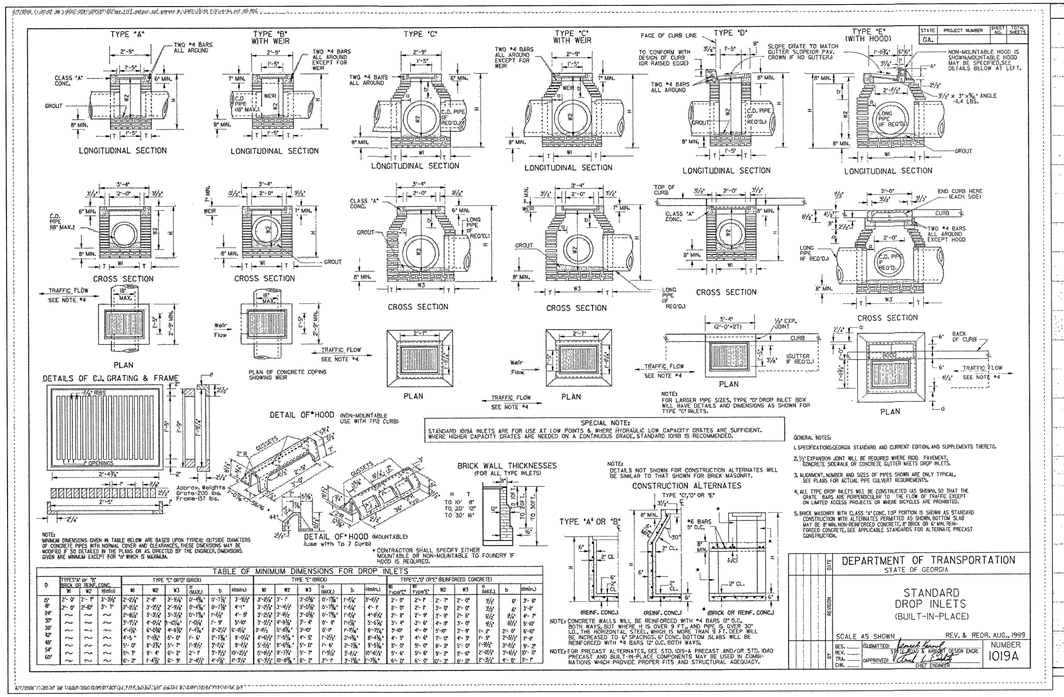

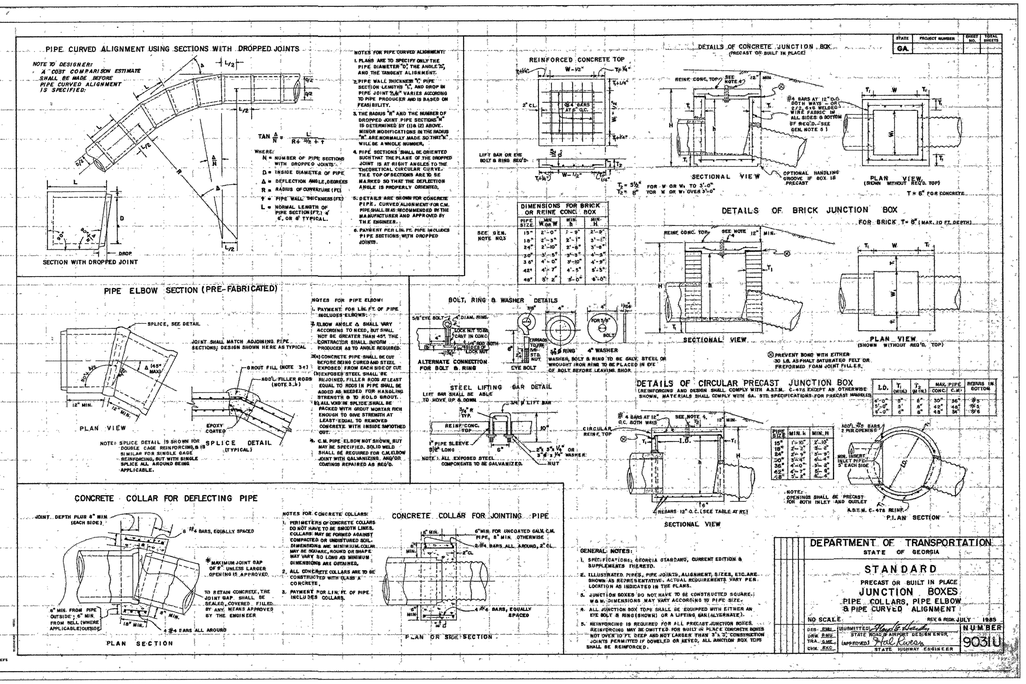

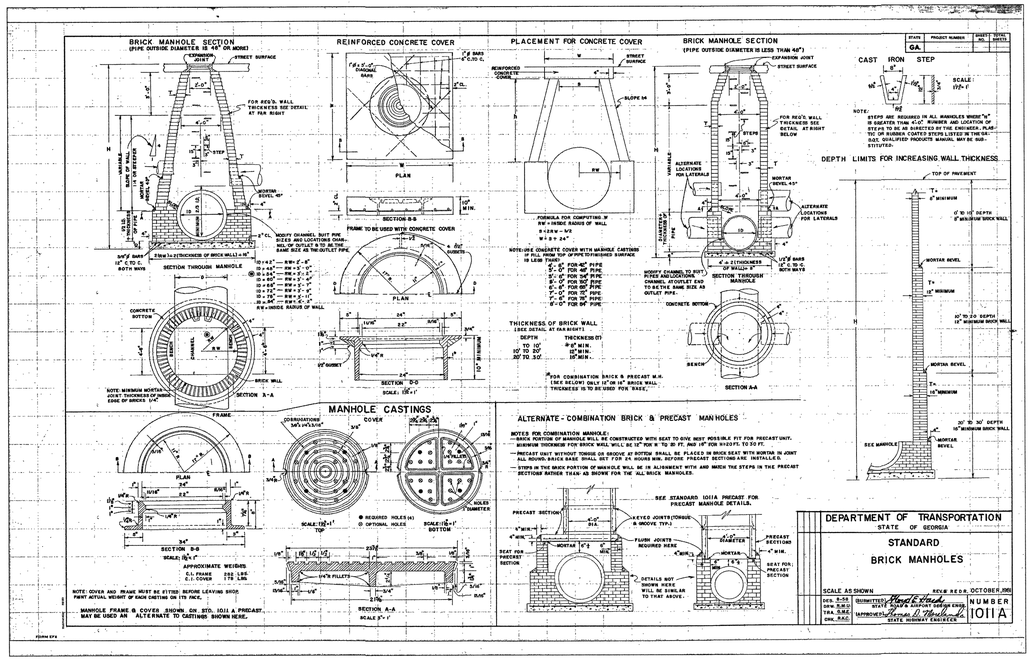

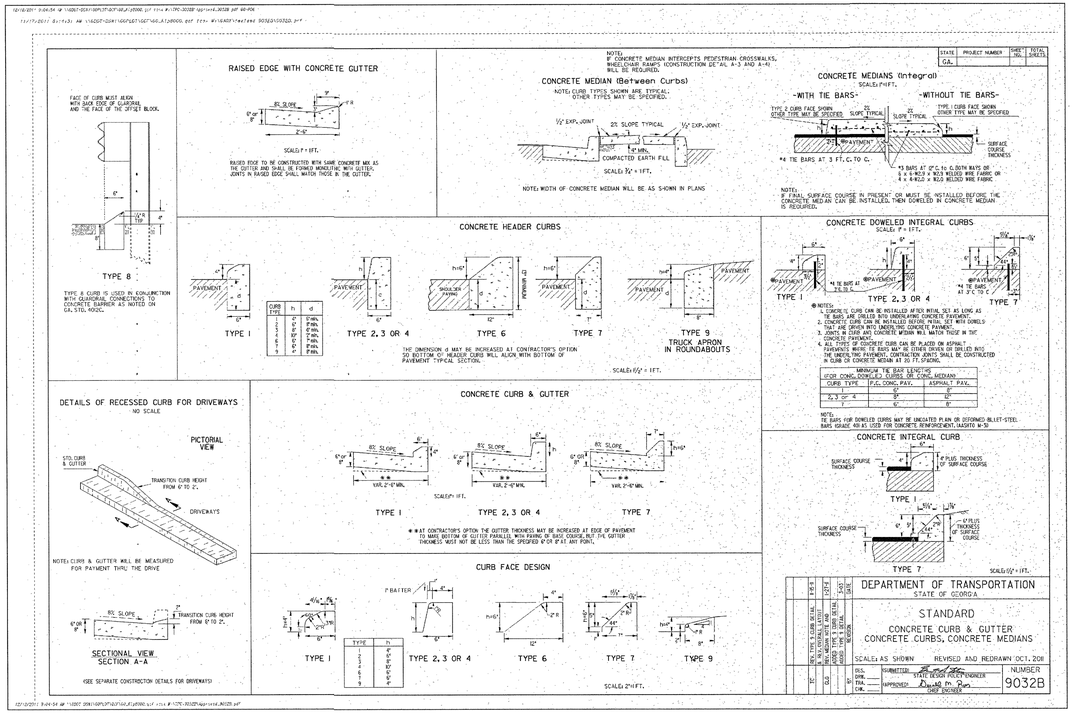

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REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

Not Released For Construction
Released For Construction

WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

CONSTRUCTION DETAILS 1 | SCALE: N.T.S. | DATE 06/09/2020

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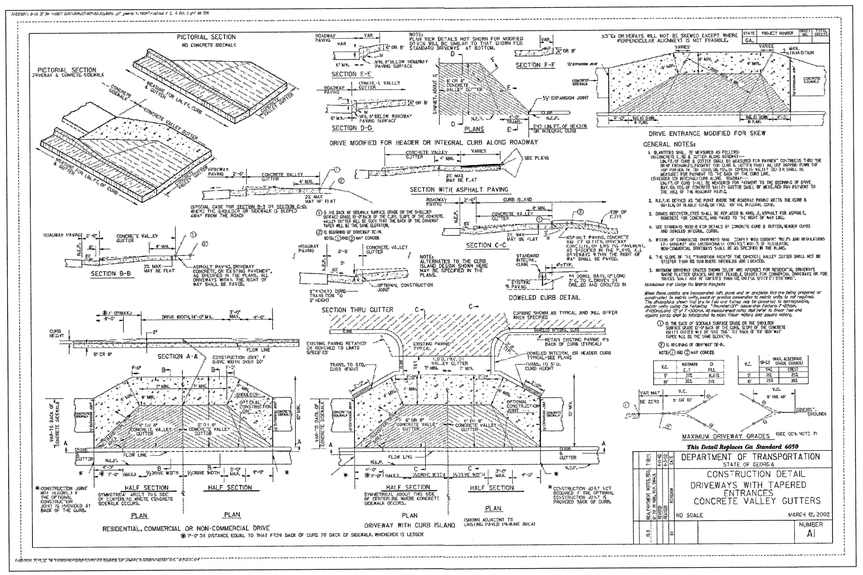
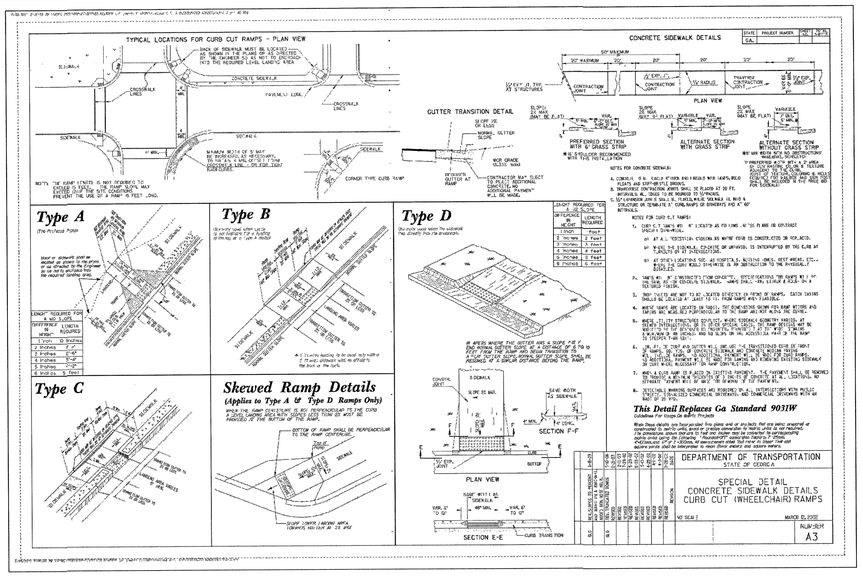
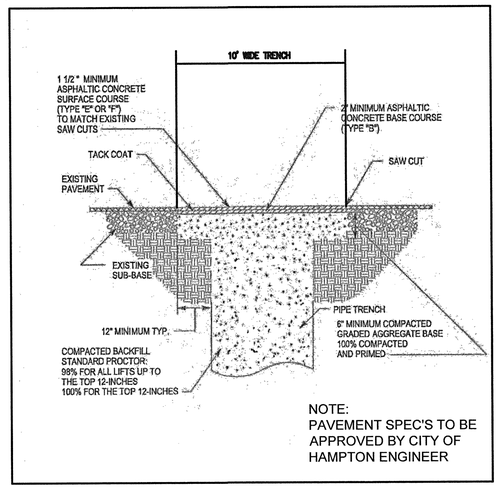
SHEET
23

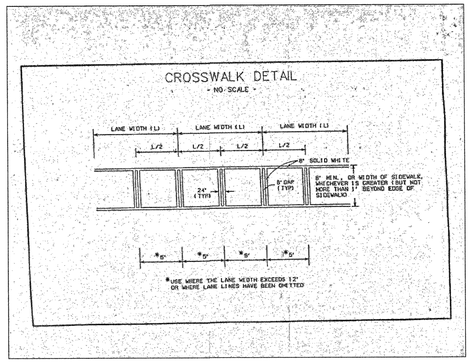


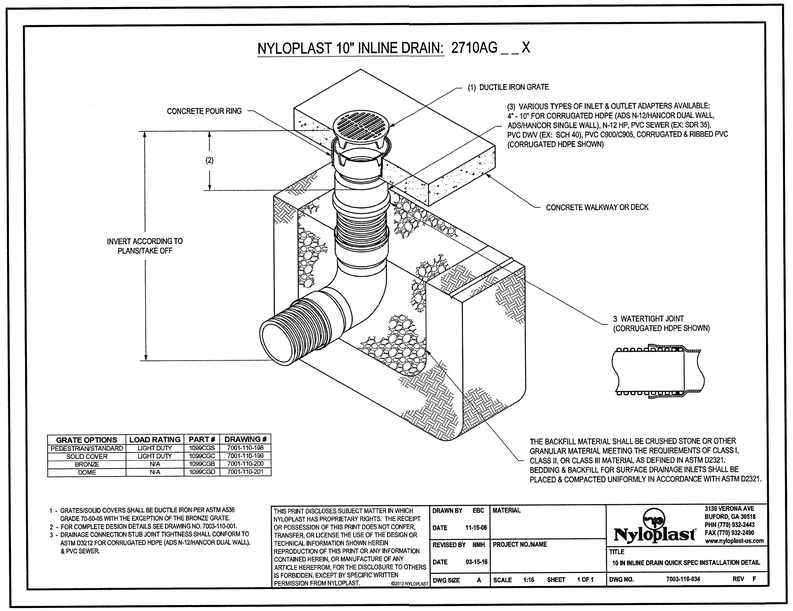




NOTE:
PAVEMENT SPEC'S TO BE APPROVED BY CITY OF HAMPTON ENGINEER

PAVEMENT REPLACEMENT DETAIL





GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN/STANDARD	LIGHT DUTY	1036GCSS	7001-110-108
SOLID COVER	LIGHT DUTY	1036GCSG	7001-110-106
BRONZE	N/A	1036GCSB	7001-110-200
DOME	N/A	1036GCSD	7001-110-201

1 - GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FOR COMPLETE DESIGN DETAILS SEE DRAWING NO. 7003-110-001.
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) & PVC SEWER.

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DRAWN BY	EBC
DATE	11-15-06
REVISED BY	NMH
DATE	03-15-16
DWG SIZE	A
SCALE	1:16
SHEET	1 OF 1
MATERIAL	
PROJECT NO./NAME	
DWG NO.	7003-110-034
REV	F

Nyloplast
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BUFORD, GA 30518
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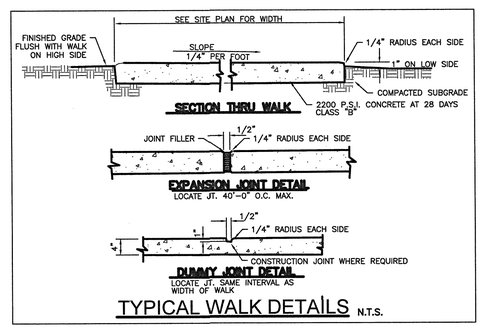
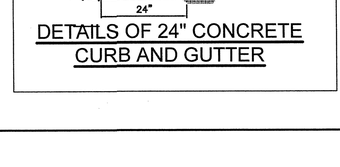
TITLE
10 IN INLINE DRAIN QUICK SPEC INSTALLATION DETAIL

YARD INLET DETAIL



TYPICAL WALK DETAILS N.T.S.



DETAILS OF 24" CONCRETE CURB AND GUTTER

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REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 6TH DISTRICT HENRY COUNTY, GA CITY OF HAMPTON

SCALE: N.T.S. DATE 06/09/2020

CONSTRUCTION DETAILS 2

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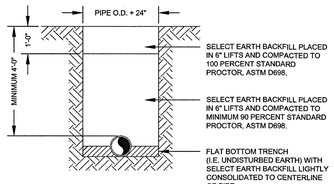
SHEET
24



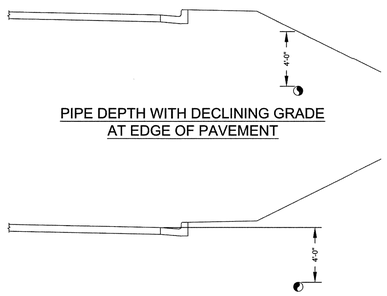
NOTES:

1. DUCTILE IRON PIPE FOR WATER MAINS SHALL BE BEDDED IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51, TYPE 2 LAYING CONDITION.
2. MINIMUM DEPTH OF COVER SHALL BE 4'-0" UNLESS OTHERWISE APPROVED BY HCWSA.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

WATER LINE TRENCH DETAIL

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W02



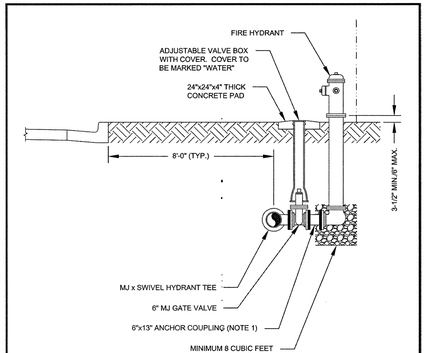
NOTES:

1. WATER MAINS SHALL HAVE A MINIMUM DEPTH OF COVER OF 48-INCHES UNLESS OTHERWISE APPROVED BY HCWSA.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

PIPE DEPTH AT EDGE OF PAVEMENT

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W03



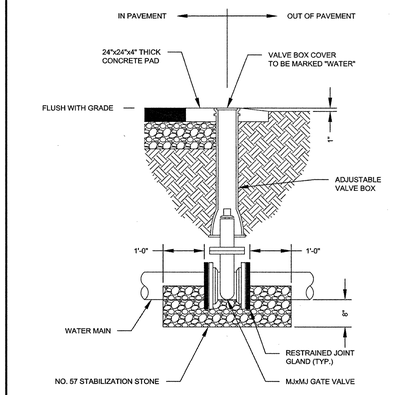
NOTES:

1. LONGER ANCHOR COUPLINGS MAY BE USED WHEN REQUIRED. IF ANCHOR COUPLINGS ARE NOT USED, VALVE SHALL BE RODDED TO THE TEE AND HYDRANT SHALL BE RODDED TO THE VALVE USING A MINIMUM OF TWO (2) 3/4" STAINLESS STEEL THREADED RODS ON EACH CONNECTION.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

TYPICAL FIRE HYDRANT ASSEMBLY

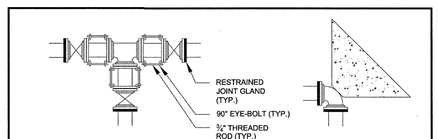
REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W04



HENRY COUNTY WATER & SEWERAGE AUTHORITY

WATER LINE ISOLATION VALVE

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W08



PIPE DIA. (IN)	ROD SIZE (IN)	# OF RODS
6	¾"	2
8	¾"	4
10	¾"	4
12	¾"	4
14	¾"	4
16	¾"	6

TIE-ROD CHART

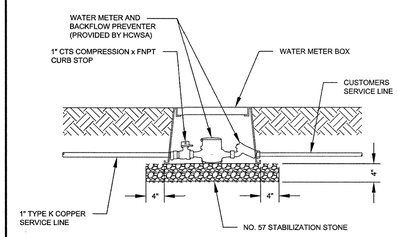
NOTES:

1. RESTRAINED JOINT LENGTHS SHALL BE CALCULATED BY THE DESIGN ENGINEER. CALCULATIONS SHALL BE SUBMITTED TO HCWSA.
2. THREADED ROD SHALL BE MINIMUM TYPE 304 STAINLESS STEEL AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 50,000 PSI.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

THRUST RESTRAINT

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W13



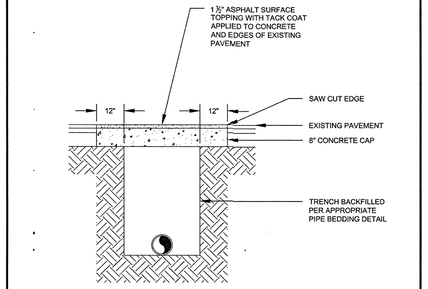
NOTES:

1. HCWSA WILL PROVIDE RESIDENTIAL WATER METERS AND BACKFLOW PREVENTERS. ALL OTHER APPURTENANCES SHALL BE PROVIDED BY THE DEVELOPER AND/OR CONTRACTOR.
2. WATER METER BOX LIDS SHALL HAVE 2-INCH DIAMETER HOLE OFFSET FOR TOUCH READ INSTALLATION.
3. EACH SERVICE SHALL BE MARKED WITH A "W" SAW CUT INTO TOP OF CURB AND PAINTED BLUE.
4. INSERT A 4-FOOT LONG PIECE OF 1" PVC PIPE THROUGH THE HOLE IN THE METER BOX LID TO MARK THE METER LOCATION. PAINT PVC PIPE BLUE.
5. NO PERMANENT STRUCTURES SHALL BE LOCATED WITHIN 5 FEET OF WATER SERVICE.
6. TYPICAL INSTALLATION MAY BE MODIFIED AT DISCRETION OF HCWSA.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

RESIDENTIAL WATER METER DETAIL

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W14



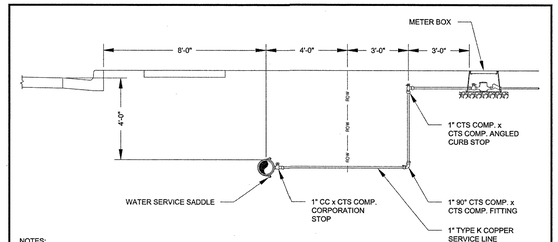
NOTES:

1. **THIS DETAIL IS THE MINIMUM PAVEMENT REPAIR REQUIREMENT. HENRY COUNTY DOT OR GEORGIA DOT PAVEMENT REPAIR DETAILS SHALL SUPERCEDE THIS DETAIL AND SHALL BE USED WHERE APPLICABLE.**
2. **CONCRETE FOR CONCRETE CAP SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI @ 28 DAYS.**

HENRY COUNTY WATER & SEWERAGE AUTHORITY

PAVEMENT REPAIR

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W22



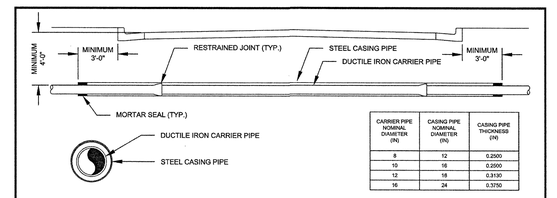
NOTES:

1. EACH SERVICE SHALL BE MARKED WITH A "W" SAW CUT INTO TOP OF CURB AND PAINTED BLUE.
2. INSERT A 4-FOOT LONG PIECE OF 1" PVC PIPE THROUGH THE HOLE IN THE METER BOX LID TO MARK THE METER LOCATION. PAINT PVC PIPE BLUE.
3. NO PERMANENT STRUCTURES SHALL BE ALLOWED WITHIN 5 FEET OF WATER SERVICE.
4. TYPICAL INSTALLATION MAY BE MODIFIED AT THE DISCRETION OF HCWSA.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

SHORT SIDE RESIDENTIAL SERVICE DETAIL

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W15



CARRIER PIPE NOMINAL DIAMETER (IN)	CASING PIPE NOMINAL DIAMETER (IN)	CASING PIPE THICKNESS (IN)
8	12	0.2500
10	16	0.2500
12	16	0.3130
16	24	0.3750

NOTES:

1. JOINTS INSIDE CASING PIPE SHALL BE RESTRAINED.
2. ENDS OF CASING PIPE SHALL BE SEALED WITH CEMENT MORTAR.
3. ALL COUNTY ROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH HENRY COUNTY DOT STANDARDS AND PERMIT REQUIREMENTS.
4. ALL STATE HIGHWAY CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH GEORGIA DOT STANDARDS AND PERMIT REQUIREMENTS.
5. ALL RAILROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH AMERICAN RAILWAY ENGINEERING ASSOCIATION REGULATIONS AND IN ACCORDANCE WITH PERMIT REQUIREMENTS.

HENRY COUNTY WATER & SEWERAGE AUTHORITY

TYPICAL JACK AND BORE DETAIL

REVISED: 01/01/2012 | SCALE: N.T.S. | DETAIL NO. W20

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REV.	DATE:	DESCRIPTION:
-1	07/01/2020	CITY OF HAMPTON COMMENTS

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WEST MAIN STREET ROAD IMPROVEMENTS

LAND LOT 249 & 250 | 6TH DISTRICT | HENRY COUNTY, GA | CITY OF HAMPTON

WATER DETAILS | SCALE: N.T.S. | DATE 06/09/2020

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