CONSTRUCTION PLANS
FOR
CITY OF SOCIAL CIRCLE, GEORGIA
PUBLIC WORKS BUILDING – LAND DISTURBING PLAN
PARCEL NUMBER: SC170076 & SC170077
345 VINE CIRCLE, SOCIAL CIRCLE, GA 30025

CITY COUNCIL

DAVID KENNER, MAYOR

TRAYSA PRICE, COUNCIL MEMBER

TYSON JACKSON, COUNCIL MEMBER

ADAM CONAVAY, COUNCIL MEMBER

STEVE SHELTON, COUNCIL MEMBER

CITY MANAGER

ERIC TAYLOR

24_HOUR CONTACT

ROBBIE GROVES, PUBLIC WORKS DIRECTOR
PHONE: (770) 464-6908
P.O. BOX 310
166 NORTH CHEROKEE ROAD
SOCIAL CIRCLE, GA 30025

ALL CONSTRUCTION PERMITS, EASEMENTS OR RIGHT-OF-WAY REQUIRED TO BEGIN CONSTRUCTION HAVE BEEN OBTAINED WITH THE FOLLOWING EXCEPTION(S):

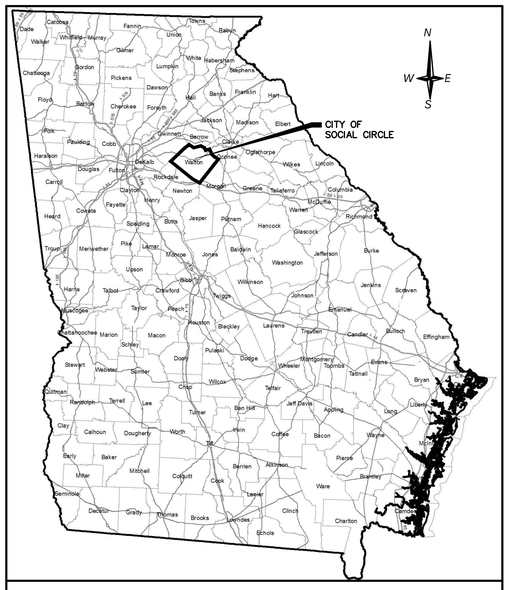
SEE SPECIFICATIONS

ALL EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY L& DISTURBING ACTIVITY.

PROJECT No: 242774

FUNDING: LOCAL/CITY FUNDS

MARCH 2026



VICINITY MAP

INDEX OF DRAWINGS

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PROJECT NUMBER
2512
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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
COVER SHEET
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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Architects & Engineers
580 Colonial Park Drive
Roswell, Georgia 30075
770.993.2034

Millard, Inc. ARCHITECTS ENGINEERS www.millardinc.com

GEORGIA REGISTERED No. 36129 PROFESSIONAL Licensed WILLIAM D. MARTIN

GSWCC LEVEL II CERTIFICATION NO. 0000055308

SHEET NUMBER

E-0

P:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774 - COVER.dwg

SOIL EROSION & SEDIMENTATION CONTROL NOTES:

1. NOTIFY COUNTY ENGINEERS OFFICE 48-HOURS PRIOR TO CONSTRUCTION, PORING TRAP TOPS, DUMPING BASE, OR PAVING.

2. ALL CONSTRUCTION IN RIGHTS-OF-WAY TO CONFORM TO CITY OF SOCIAL CIRCLE STANDARDS & SPECIFICATIONS.

3. ALL EASEMENTS TO BE GRASSED AND/OR RIP-RAPPED AS REQUIRED TO CONTROL EROSION.

4. WITHIN CITY RIGHTS-OF-WAY:
   A. TOP 6-INCH OF SUB-BASE MUST BE THOROUGHLY MIXED IN PLACE AND COMPACTED TO 100% MAXIMUM DRY DENSITY, STANDARD PROCTOR.
   B. SUB-BASE MUST BE GDOT SPEC SEC 810 CLASS 1A MATERIAL; HIGHER CLASSES OF SOIL MAY NOT BE USED FOR SUB-BASES; WHEN SUB-BASE DOES NOT MEET CLASS 1A THEN ACCEPTABLE SUB-BASE STABILIZATION METHODS ARE:
   * LIME STABILIZATION
   * PORTLAND CEMENT
   * AGGREGATE
   * TYPE B ASPHALT BASE MATERIAL; METHOD TO BE USED AND SPECIFIC DESIGN MUST BE APPROVED BY THE COUNTY ENGINEER
   C. BASE MATERIAL IS COMPACTED GRADED AGGREGATE CONFORMING TO GDOT SPEC SEC 815 COMPACTED TO 100% MAXIMUM DRY DENSITY, STANDARD PROCTOR OR 4" ABC PLACED IN ACCORDANCE WITH GDOT SECTION 400; BASE MATERIAL TO BE 6-INCH OF GRADED AGGREGATE BASE AND PAVING MATERIAL TO BE 20INCHES APPROVED ASPHALT MIX OR MUST MATCH THE DESIGN OF THE ADJOINING ROADBED, WHICH EER IS THE GREATER; CERTIFICATION OF BASE MATERIAL MUST BE SUBMITTED PRIOR TO DUMPING BASE.

5. 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.

6. 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.

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

8. ALL SLOPES STEEPER THAN 3:1 SHALL HAVE EROSION CONTROL MATTING INSTALLED PER GEORGIA DEPARTMENT OF TRANSPORTATION REQUIREMENTS UNLESS NOTED OTHERWISE.

9. INITIAL BMPS INCLUDING SILT FENCE MUST BE IN PLACE PRIOR TO CLEARING, REGARDLESS OF PLAN REQUIREMENT OR LOT SIZE. NO CLEARING OR GRADING MAY BE DONE UNTIL INITIAL BMP INSTALLATION IS COMPLETE. CONTRACTOR MUST CONTACT ENGINEERING SERVICES FOR INSPECTION BMPS PRIOR TO BEGINNING CLEARING OR GRADING ACTIVITIES..

10. TEMPORARY BMP'S SHALL NOT BE REMOVED UNTIL A N.O.T. IS FILED OR 100% STABILIZATION WITH PERMANENT VEGETATION AT 70% DENSITY IS REACHED AND ALL AREAS REMAINING ARE MADE IMPERVIOUS.

11. ALL DISTURBED AREAS SHALL BE GRASSED ACCORDING TO THE VEGETATIVE COVER NOTES. SEE EROSION, SEDIMENTATION, AND POLLUTION CONTROL NOTES.

12. NO CERTIFICATE OF OCCUPANCY WILL BE RELEASED UNTIL ALL SITE IMPROVEMENTS, AS APPROVED BY THE CITY ENGINEER ARE COMPLETED.

13. THE CONTRACTOR WILL ADHERE TO THE WEIGHT LIMITS PRESCRIBED ON COUNTY MAINTAINED ROADS FOR HAULING EQUIPMENT AND/OR MATERIALS TO AND FROM THIS SITE. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO THE STREETS AND;OR UTILITIES DUE TO NON-COMPLIANCE OF WEIGHT LIMIT REGULATIONS.

14. ALL DEVELOPERS AND/OR CONTRACTORS ARE RESPONSIBLE TO REMOVE OR CLEAN OUT ANY SILT, DIRT, MUD OR ANY OTHER TYPE OF DEBRIS THAT COMES OFF THEIR SITE AND FINDS ITS WAY INTO A PRIVATE POND OR A COUNTY OWNED POND. THEY ARE RESPONSIBLE TO REMOVE ANY OF THE ABOVE-MENTIONED ITEMS THAT COME OFF THEIR SITE ONTO PRIVATE OR COUNTY OWNED PROPERTIES TO INCLUDE RIGHTS-OF-WAY.

15. PRIOR TO THE CERTIFICATE OF OCCUPANCY, THE PROPERTY ADDRESS MUST BE POSTED ON THE STRUCTURE WITH A MINIMUM OF 4-INCH LETTERS OR VISIBLE FROM THE STREET.

16. THE CONTRACTOR WILL COORDINATE THE WORK WITH UTILITY COMPANIES AND WILL VERIFY ALL EXISTING PIPE INVERTS AND EXISTING ROAD ELEVATIONS PRIOR TO CONSTRUCTION.

17. ALL BOXES AND TRAPS HAVING A DEPTH GREATER THAN 4-FOOT MUST HAVE STEPS VERTICALLY AND RING AND COVERS ALIGNED FOR READY ACCESS TO RUNGES.

18. FULL WIDTH OF RIGHTS-OF-WAY AND ADDITIONAL UTILITY EASEMENT MUST BE CLEARED AND GRADED WITH A SLOPE OF $\frac{3}{4}$" TO $\frac{1}{2}$" PER FOOT.

19. NO MARQUEE, ISLAND, OR SPRINKLER SYSTEM MAY BE LOCATED WITHIN COUNTY RIGHTS-OF-WAY

20. SOCIAL CIRCLE MAY REQUIRE ADDITIONAL ITEMS: RIP-RAP AT DISCHARGE POINTS AND STILLING STRUCTURES, SWALES ALONG REAR AND/OR SIDE LOTS LINES AFTER DEVELOPMENT BEGINS, AND/OR FRENCH DRAINS.

21. ACCORDING TO FLOOD INSURANCE RATE MAP 13073C0141D AND REVISED MAP 13297c0240F THERE ARE FLOOD PLAINS WITHIN THE PROJECT BOUNDARY. NOT CUT OR FILL PROPOSED IN THE FLOODPLAIN.

22. STORMWATER QUALITY WILL BE ADDRESSED WITH THE FULL DEVELOPMENT PLAN SUBMITTAL.

24. NO PART OF SIGNS LOCATED WITHIN 5' OF THE R/W

25. DEVELOPERS AND/OR CONTRACTOR ARE RESPONSIBLE TO REMOVE OR CLEAN OUT ANY SILT, DIRT, MUD, OR ANY OTHER TYPE OF DEBRIS THAT COMES OFF THEIR SITE AND FINDS ITS WAY INTO A PRIVATE POND OR A COUNTY OWNED POND. THEY ARE RESPONSIBLE TO REMOVE ANY OF THE ABOVE MENTIONED ITEMS THAT COME OF THEIR SITE ONTO PRIVATE OR COUNTY OWNED PROPERTIES TO INCLUDE THE RIGHTS OF WAYS

26. SITE VISIT COMPLETED BY INSPECTOR:

    DATE:

_____

WATER & SEWER UTILITY NOTES:

1. THE LOCATION OF EXISTING UTILITY LINES SHOWN IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION. CONTRACTOR TO CALL UTILITIES PROTECTION CENTER: "CALL BEFORE YOU DIG" 811, 72-HOURS PRIOR TO STARTING WORK.

2. SEWERS CROSSING AND WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER OR STORM PIPE. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER LINE TO MAINTAIN LINE AND GRADE.

3. MINIMUM COVER FOR THE WATER LINES SHALL BE 4'-0".

4. ALL EXCAVATION INCLUDING TRENCHING, BORE-PITS, ETC. SHALL BE BACKFILLED AT THE END OF EACH WORK DAY.

5. CONTRACTOR TO ADHERE TO SOIL EROSION REQUIREMENTS AS FOUND IN THIS PLAN SET, AS REQUIRED BY SOCIAL CIRCLE, AND AS REQUIRED BY GSWCC.

6. ALL WATER AND SANITARY SEWER CONSTRUCTION TO CONFORM TO COLUMBIA COUNTY STANDARDS AND SPECIFICATIONS.

7. CONNECTION TO EXISTING SANITARY SEWER WILL BE ALLOWED, PROVIDING THAT THE EXISTING TIE-IN MANHOLE IS PROPERLY PLUGGED AND THAT THE NEXT PROPOSED MANHOLE IS PLUGGED. FAILURE TO DO SO, WILL RESULT IN THE CONTRACTOR ASSUMING ALL RESPONSIBILITY AND LIABILITY FOR ANY DAMAGE TO THE DOWNSTREAM LIFT STATION AND PUMPS.

8. ALL EASEMENTS TO BE GRASSES AND/OR RIP-RAPPED AS REQUIRED TO CONTROL EROSION.

9. WATER LINE WILL NOT BE PUT ON LINE UNTIL IT IS CHLORINATED, PRESSURE TESTED, AND CHECKED FOR BACTERIA.

10. MAXIMUM INFILTRATION ALLOWABLE FOR SANITARY SEWER – 50 GAL/IN./DIA OF PIPE/ MILE

11. SOCIAL CIRCLE PUBLIC WORKS DEPARTMENT ENGINEERING OFFICE SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WATER OR SEWER TAPS BEING MADE.

12. CONTRACTOR/ DEVELOPER TO PROVIDE ALL WATER TAPS TO EXISTING SYSTEM FOR LINES 2" AND LARGER.

13. NO CERTIFICATE OF OCCUPANCY WILL BE RELEASED UNTIL ALL SITE IMPROVEMENTS, AS APPROVED BY THE WATER DEPARTMENT ENGINEERING OFFICE, ARE COMPLETED.

14. CONNECTION TO THE EXISTING SANITARY SEWER MANHOLE, FOR EITHER THE MAIN LINE OR FOR SERVICES, SHALL BE MADE BY CORING. NO HAMMERING, JACKHAMMERING, OR CHIPPING WILL BE ALLOWED. AN INSPECTOR SHALL BE PRESENT AT THE TIME OF THE TIE IN. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT NO DEBRIS ARE ALLOWED DOWNSTREAM. A FLEXIBLE RUBBER BOOT SHALL ALSO BE INSTALLED INTO THE EXISTING MANHOLE.

15. ALL SANITARY SEWER SERVICES SHALL BE INSTALLED AT A MINIMUM GRADE OF 1% UNLESS APPROVED BY THE ENGINEER.

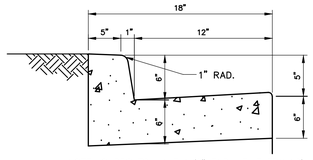
16. SEWER CLEANOUTS INSTALLED IN IMPERVIOUS SURFACES SHALL BE INSTALLED IN A CAST IRON, HEAVY DUTY VALVE BOX.

17. COUNTY/CITY HYDRANTS SHALL BE RED AND PRIVATE HYDRANTS SHALL BE SILVER. HYDRANTS SHALL COME FROM THE FACTORY PAINTED THE APPROPRIATE COLOR.

18. THE OWNER/DEVELOPER WILL BE RESPONSIBLE FOR SUBMITTING A PLAT, AS-BUILT, AND WARRANTY DEED TO THE COUNTY/CITY FOR THE COMPLETED UTILITY EXTENSIONS AND ASSOCIATED EASEMENTS,

ZONING NOTES:

1. PARKING CALCULATIONS:
   PAVED PARKING: 41 SPACES
   PAVED HANDICAP: 2 SPACES
   TOTAL: 43 SPACES

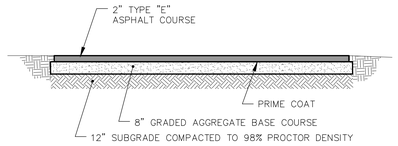


NOTE: CURBS TO HAVE 1/2" EXP. JT. EVERY 10'.

STANDARD CURB

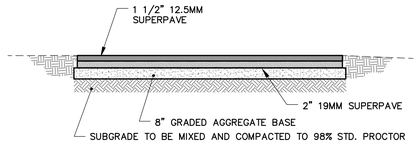
CURB AND GUTTER DETAIL

N.T.S.



LIGHT DUTY ASPHALT DETAIL

N.T.S.



HEAVY DUTY PAVING DETAIL

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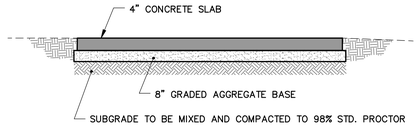
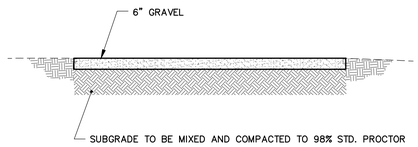


CONCRETE PAVING DETAIL

N.T.S.



GRAVEL STORAGE AREA DETAIL

N.T.S.

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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
PROJECT NOTES & TYPICAL SECTIONS
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
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ATHENS
AUSTIN
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Millard, Inc. ARCHITECTS ENGINEERS

GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

GSWCC LEVEL II
CERTIFICATION NO. 000055308

SHEET NUMBER

E-1

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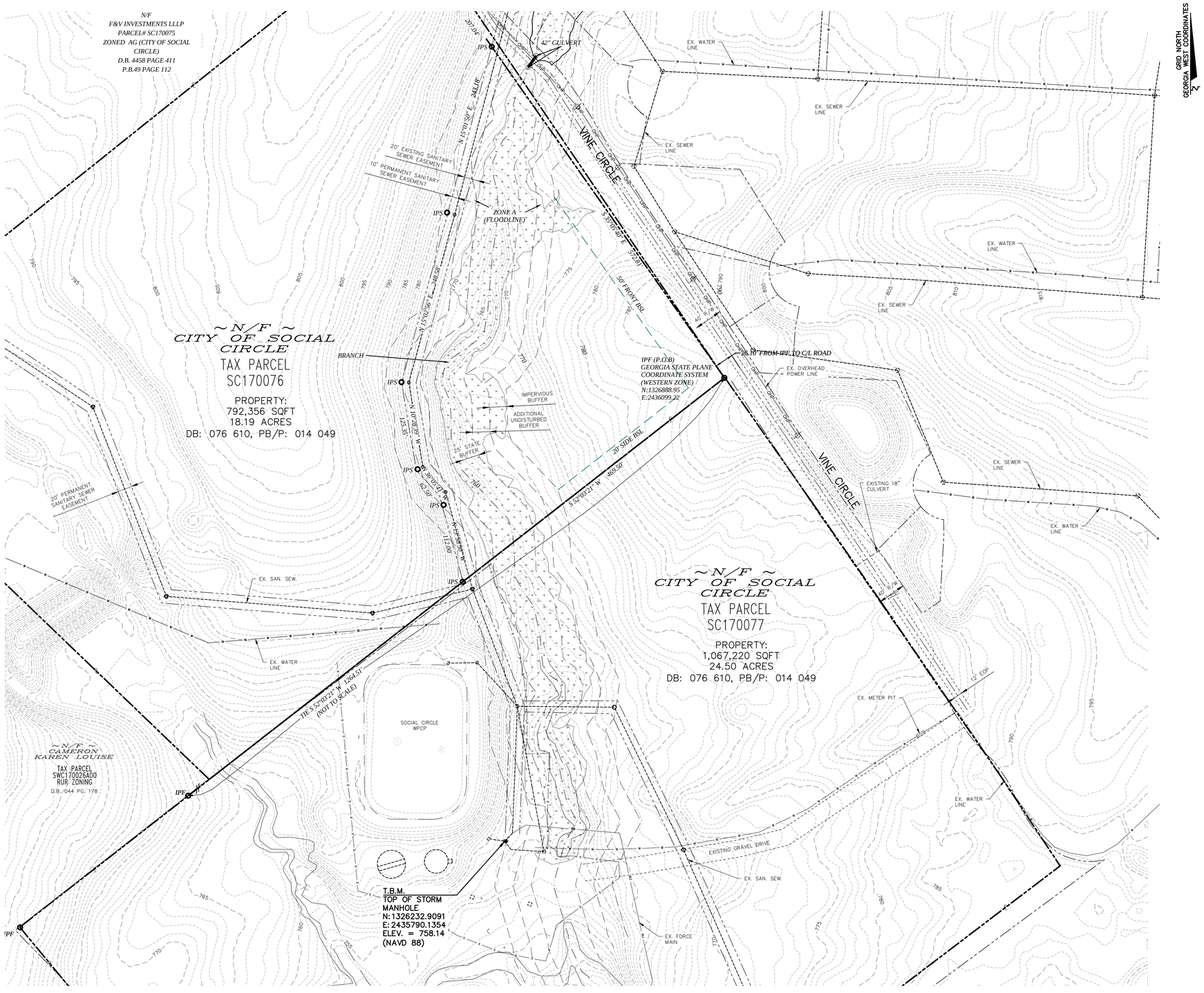

Legend

I.P.F.	IRON PIN FOUND
I.P.	IRON PIN (FOUND BY OTHERS)
O.T.F.	OPEN TOP IRON FOUND
C.T.F.	CRIMPED TOP IRON FOUND
PC	PROPERTY CORNER COMPUTED
R.B.S.	REBAR SET
R.B.F.	REBAR FOUND
C.M.F.	CONCRETE MONUMENT FOUND
C.N.S.	CORNER NOT SET
PL	PROPERTY LINE
OE	OVERHEAD ELEC. LINES
ST	STORM LINES
125	EXISTING CONTOUR
+ 234.5	SPOT ELEVATION
	EXISTING TREE
	EXISTING WOODLINE
	RIGHTS-OF-WAY/PROPERTY LINE
	EXISTING DITCH
	EXISTING SEWER
W	EXISTING WATER

NOTE:

1. BOUNDARY OF BURIED DEBRIS PER FIELD INVESTIGATION BY GEOSYSTEMS ENGINEERING.
2. PROPERTY LINE SHOWN BASED ON SURVEY PROVIDED BY BASELINE ENGINEERING AND SURVEYING.

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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
EXISTING TOPOGRAPHIC & SITE BOUNDARY PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
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GEORGIA REGISTERED No. 36129 PROFESSIONAL Declared WILLIAM D. MARTIN

CSWCC LEVEL II CERTIFICATION NO. 0000055308

SHEET NUMBER

E-2

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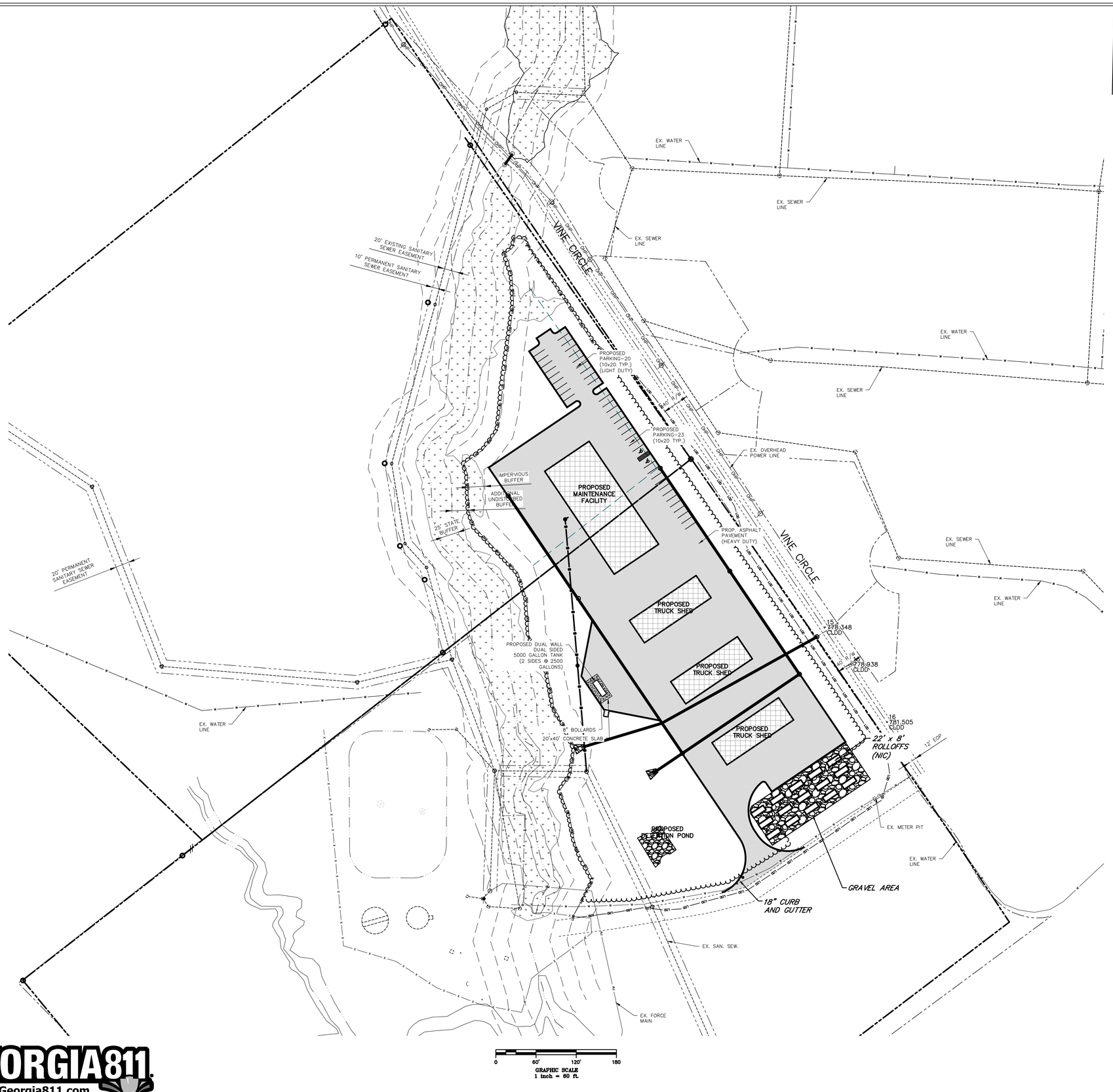

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LEGEND

	EXISTING	PROPOSED
STRUCTURE		
ROADWAY		
FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
BUFFER		
SEWER LINE & SERV.		
FORCE MAIN		
FIRE PROTECTION		
WOODS LINE		
CONSTRUCTION LIMITS		LOD

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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
OVERALL SITE PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

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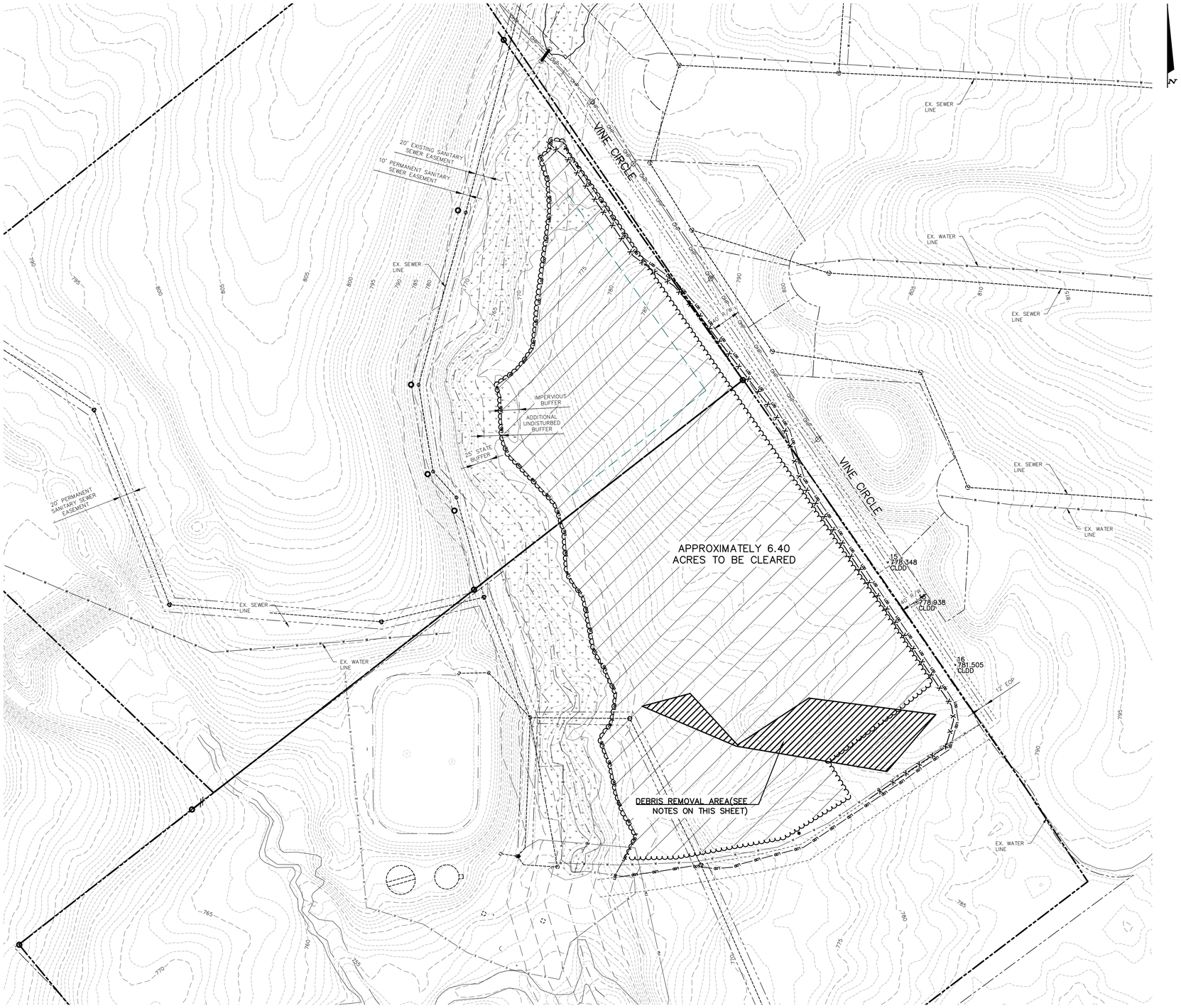
SHEET NUMBER

E-3



LEGEND

	EXISTING	PROPOSED
STRUCTURE		
ROADWAY		
FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
BUFFER		
SEWER LINE & SERV.		
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WOODS LINE		
CONSTRUCTION LIMITS		LOD

WASTE REMEDIATION NOTES:

1. CONTRACTOR SHALL REMOVE ALL MATERIAL IN THIS AREA TO A DEPTH OF 8'.
2. CONTRACTOR SHALL SCREEN ALL REMOVED MATERIAL WITH A NO. 4 SIEVE TO SEPARATE WASTE MATERIALS FROM THE SOIL.
3. CONTRACTOR SHALL STOCKPILE SOIL MATERIAL REMOVED FROM THE WASTE.
4. CONTRACTOR SHALL REMOVE WASTE AND HAUL TO THE LANDFILL. ALL HAUL TICKETS TO BE PROVIDED TO THE OWNER.
5. CONTRACTOR SHALL FILL PIT AREA WITH SUITABLE COMPACTED FILL PER PROJECT SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR ALL STAKING AND REMOVAL OF DEBRIS. REPORT FOR TEST PITS CAN BE PROVIDED FOR LIMITS REFLECTED ON THIS DRAWING.

0 60' 120' 180
GRAPHIC SCALE
1 inch = 60 ft.

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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
DEMOLITION PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
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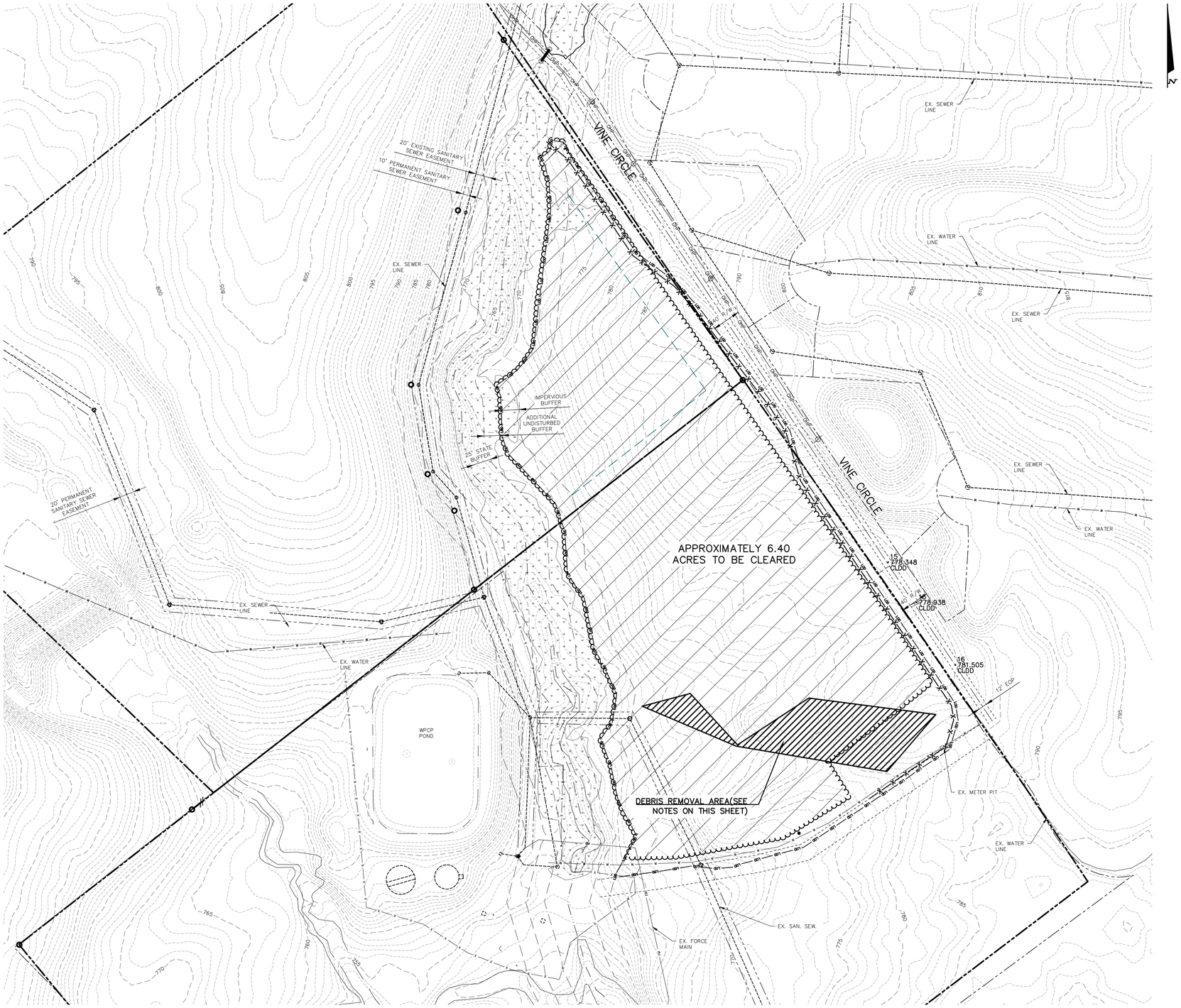

LEGEND

	EXISTING	PROPOSED
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FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
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DEMOLITION PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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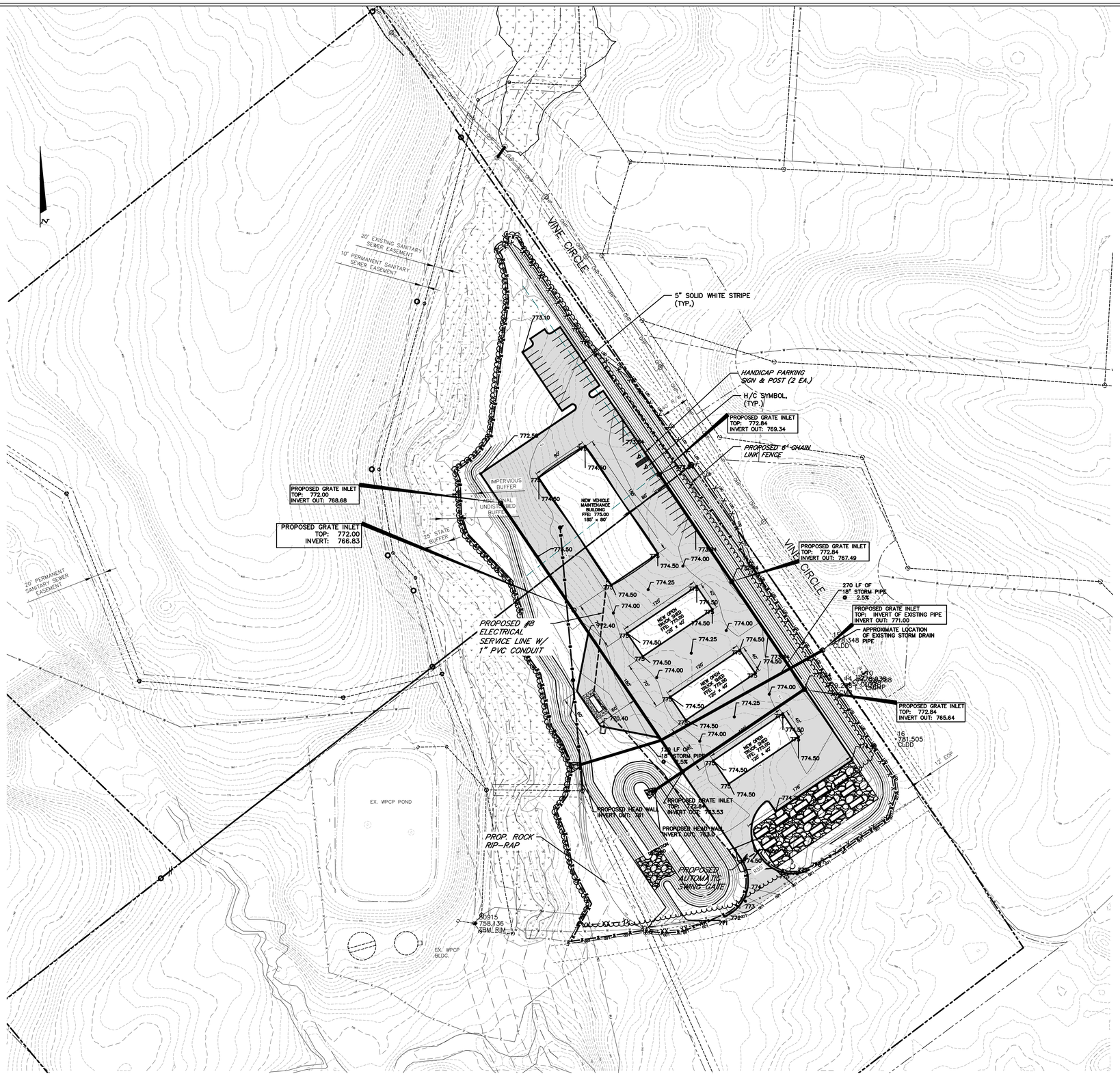

GENERAL NOTES:

1. SEE SHEET 2 FOR PROJECT NOTES.
2. SEE SHEET 3 FOR BENCH MARK ELEVATIONS.
3. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS NOTED OTHERWISE.
4. ALL SIGNS SHALL CONFORM TO MUTCD ST&ARDS & SPECIFICATIONS & STRIPPING SHALL CONFORM TO GDOT ST&ARDS.

LEGEND

	EXISTING	PROPOSED
STRUCTURE		
ROADWAY		
GRAVEL		
FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
BUFFER		
CONTOUR	680	680
STORM SEWER LINE		
SEWER LINE & SERV.		
FORCE MAIN		
FIRE PROTECTION		
WOODS LINE		
DRAINAGE DITCH		
CONSTRUCTION LIMITS		LOD
FLOW DIRECTION		

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SITE GRADING, DRAINAGE PLAN, & STRIPING LAYOUT
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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770-993-2034

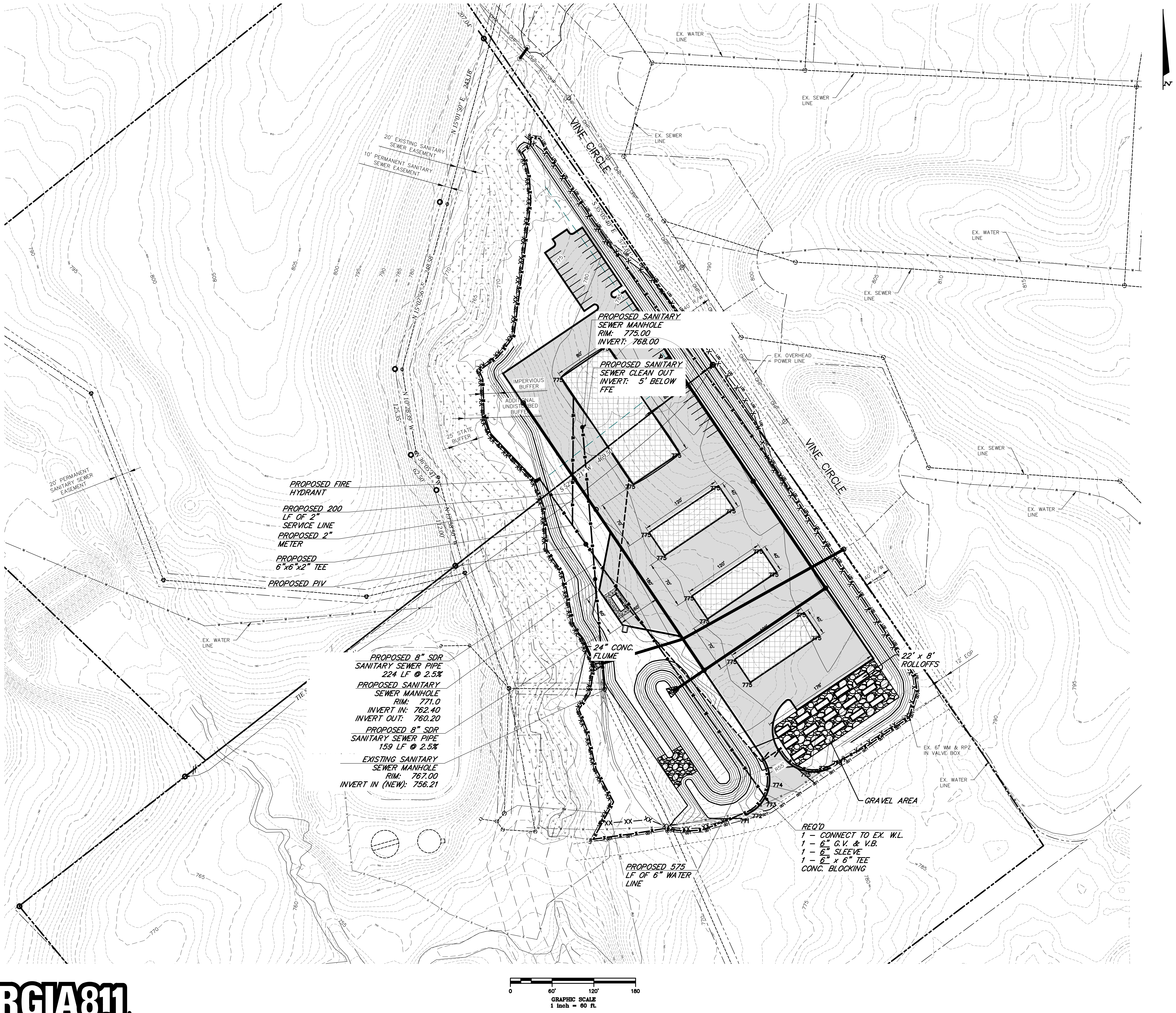
Millard, Inc. ARCHITECTS ENGINEERS

GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

GSWCC LEVEL II CERTIFICATION NO. 000055308

SHEET NUMBER

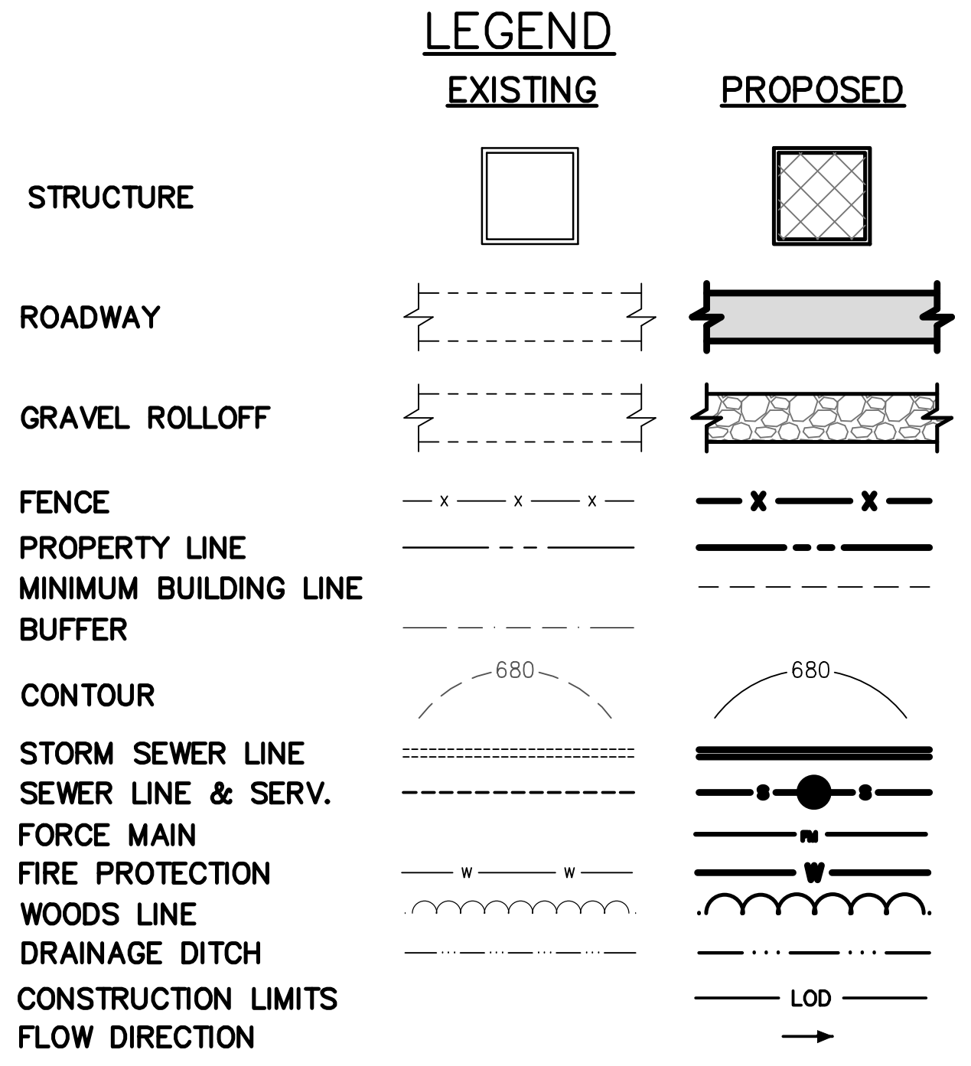
E-5



UTILITY NOTES:

1. SEE SHEET 2 FOR PROJECT NOTES.
2. SEE SHEET 3 FOR BENCH MARK ELEVATIONS.
3. EXISTING WATER SERVICE SHALL BE VERIFIED AS COPPER FROM THE TAP TO THE METER, IF NOT THEN THE SERVICE LINE WILL NEED TO BE UPGRADED.
4. THE PROPOSED FIRE LINE SHALL BE RJ DIP FROM THE TAP TO THE BACK FLOW DEVICE.
5. INSTALL TRAFFIC RATED COLLAR AND CAP ON ALL CLEANOUTS IN PAVEMENT OR SIDEWALKS.
6. NO TREE SHALL BE PLANTED IN COUNTY OWNED UTILITY EASEMENTS.
7. NO SHRUBS SHALL BE PLANTED ON TOP OF WATER LINES/ SERVICES AND SANITARY SEWER LINES/ SERVICES.
8. IF ANY AND ALL EXTRA WATER SERVICE TAPS THAT WILL NOT BE UTILIZED SHALL BE ABANDONED AT THE CORPORATION.

LEGEND



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Know what's **below.**
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G:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774_Base DWF_addendum_2.dwg

PROJECT NUMBER	2512
DATE	12/09/25
DRAWN BY	NES
APPROVED BY	
REVISIONS	ADDENDUM 2 04/16/26

CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
WATER & SEWER UTILITY PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
ATLANTA
AUGUSTA
AIKEN
ST. SIMONS ISLAND

Millard, Inc.
Architects & Engineers
580 Colonial Park Drive
Roswell, Georgia 30075
770-993-2034

WILLIAM D. MARTIN
No. 36129
GSWCC LEVEL II
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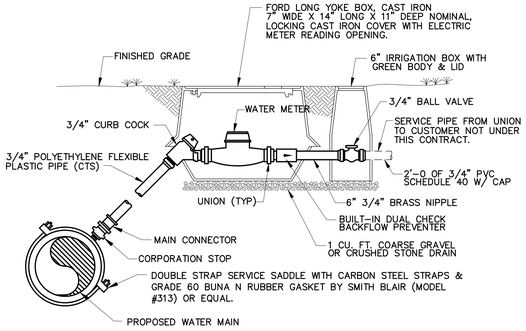
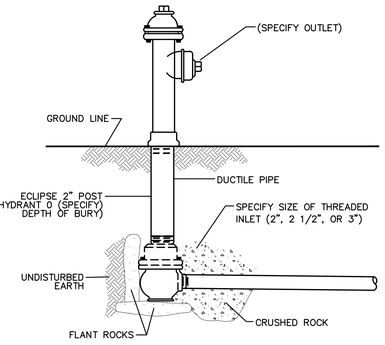
SHEET NUMBER
E-6



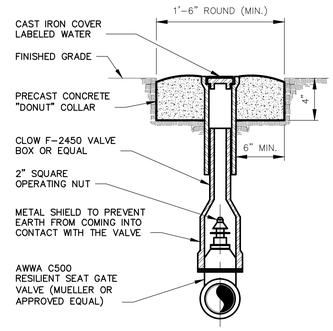
TYPICAL SERVICE CONNECTION

N.T.S.



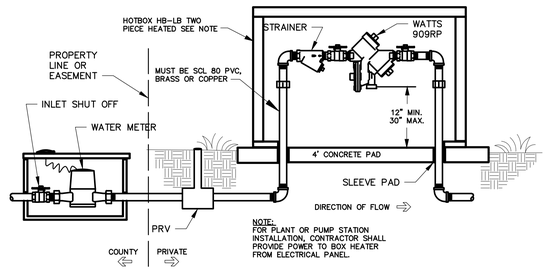
HYDRANT DETAIL

N.T.S.



VALVE BOX INSTALLATION DETAIL

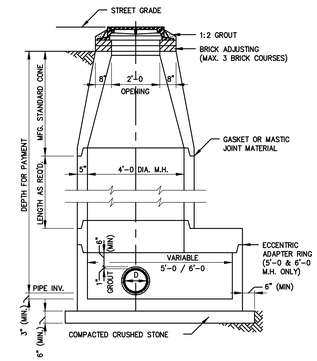
N.T.S.



BACKFLOW PREVENTER OUTDOOR HORIZONTAL INSTALLATION
2.5" AND SMALLER

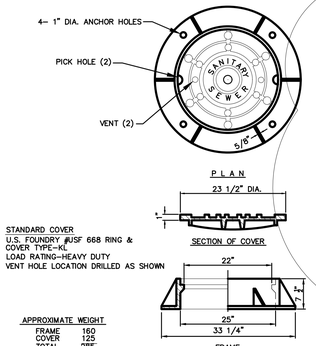
N.T.S.

NOTE:
M.H. COVERS TO BE SET AT GRADE IN ROADWAYS, ROAD SHOULDERS AND RESIDENTIAL YARDS. ALL OTHER M.H. COVERS TO EXTEND 1'-0" ABOVE GRADE EXCEPT WHERE NOTED OTHERWISE ON CONTRACT PLANS.



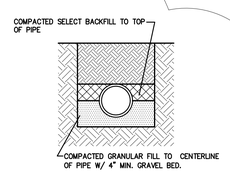
TYP. PRECAST CONC. M.H. DET.

N.T.S.



VENTED MANHOLE FRAME & COVER

N.T.S.



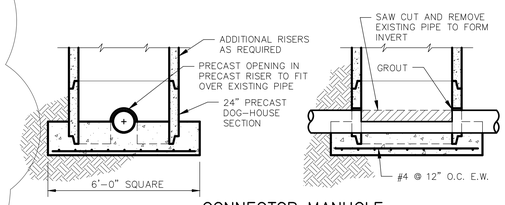
TYPE 5

N.T.S.

PIPE SIZE IN	PRESSURE CLASS	NOMINAL THICK IN	TYPE 5 TRENCH
8	350	0.25	50
10	350	0.26	45
12	350	0.28	44
14	250	0.28	36
16	250	0.30	34
18	250	0.31	31
20	250	0.33	30
24	200	0.33	25
30	150	0.34	22
36	150	0.38	21
42	150	0.41	20
48	150	0.46	20

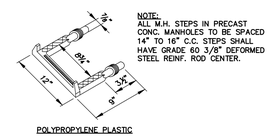
SEWER PIPE BEDDING DETAIL

N.T.S.



CONNECTOR MANHOLE

N.T.S.



NOTE:
ALL M.H. STEPS IN PRECAST CONC. MANHOLES TO BE SPACED 14" TO 16" C.C. STEPS SHALL HAVE GRADE 60 3/8" DEFORMED STEEL REINF. ROD CENTER.

MANHOLE STEP DETAILS

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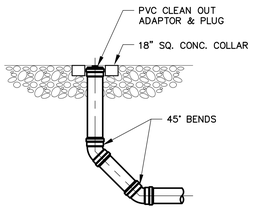
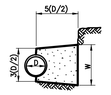


CLEANOUT DETAIL

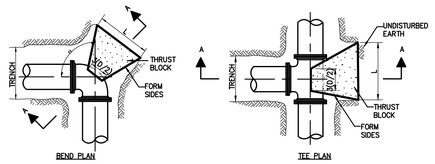
N.T.S



PIPE SIZE	TEES & PLUGS W	TEES & PLUGS L	BENDS 0=22-1/2° W	BENDS 0=22-1/2° L	BENDS 0=45° W	BENDS 0=45° L	BENDS 0=90° W	BENDS 0=90° L
4"	1'-0"	1'-3"	8"	9"	10"	1'-2"	1'-2"	1'-7"
6"	1'-6"	1'-11"	1'-0"	1'-2"	1'-2"	1'-11"	1'-8"	2'-5"
8"	2'-0"	2'-7"	1'-2"	1'-6"	1'-8"	2'-7"	2'-2"	3'-4"
10"	2'-6"	3'-2"	1'-4"	2'-4"	1'-10"	3'-4"	2'-8"	4'-2"
12"	3'-0"	3'-10"	1'-8"	2'-8"	2'-2"	4'-0"	3'-2"	5'-1"
16"	4'-0"	5'-1"	2'-3"	3'-5"	2'-11"	5'-4"	4'-2"	6'-10"
24"	5'-11"	7'-8"	3'-5"	5'-2"	4'-4"	8'-0"	5'-0"	12'-9"

CONCRETE BLOCK DIMENSIONS

NOTE:
COST OF CONCRETE BLOCKING TO BE INCLUDED IN COST OF FITTINGS, VALVES, AND FIRE HYDRANTS AS REQUIRED. NO SEPARATE PAYMENT WILL BE MADE FOR CONCRETE BLOCKING.



NOTES:
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5. DESIGN PRESSURE 4" THRU 24" 150 P.S.I.
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CONCRETE BLOCKING DETAILS

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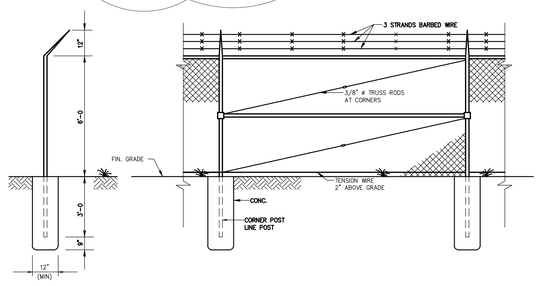

CHAIN LINK FENCE DETAIL

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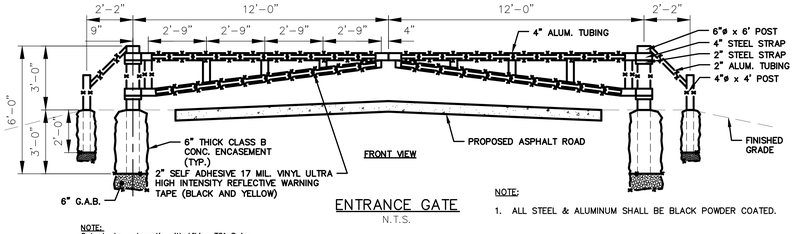

NOTE:
Gate to be automatic with Viking T21 Swing Gate Operator (one per side) with the following: Complete Gate Control Kit, Viking Monitor, Keypad, Pedestal, Protective hood for Keypad, Automatic Free Exit System, Security Brands Access Box, SOS Emergency Access Siren, Solar Package kit, and Outdoor Maglock Kit.

ENTRANCE GATE

N.T.S.

NOTE:
1. ALL STEEL & ALUMINUM SHALL BE BLACK POWDER COATED.

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DRAWN BY
NES
APPROVED BY

REVISIONS
ADDENDUM 1 04/07/2026
ADDENDUM 2 04/16/2026

CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
MISCELLANEOUS DETAILS
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
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GSWCC LEVEL II
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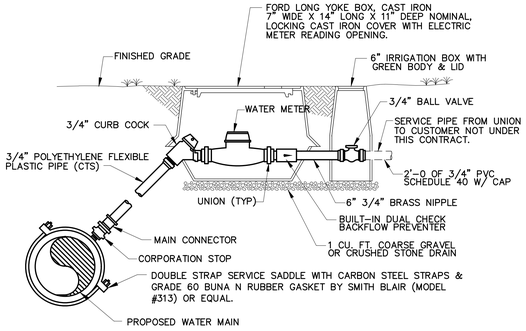
SHEET NUMBER

E-7

G:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774_Base DWF_addendum_2.dwg



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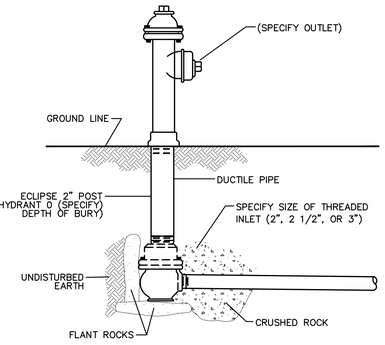

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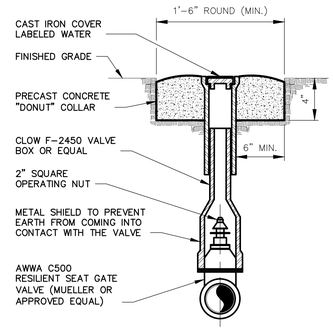

VALVE BOX INSTALLATION DETAIL

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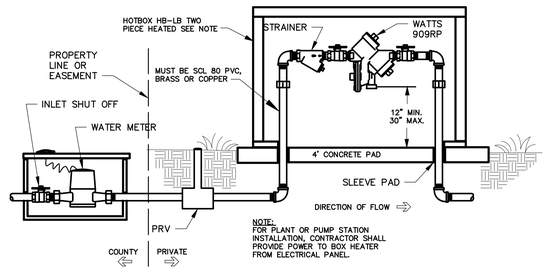

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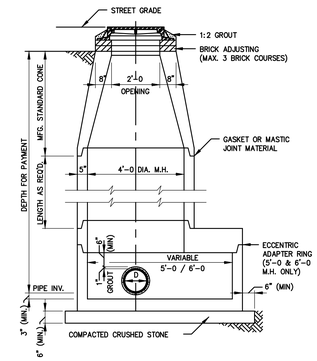

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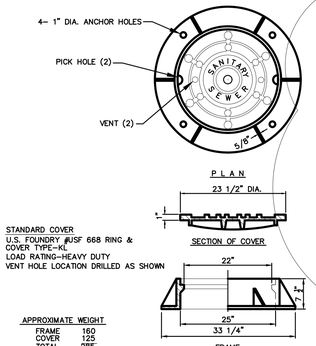

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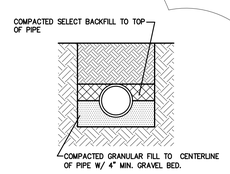

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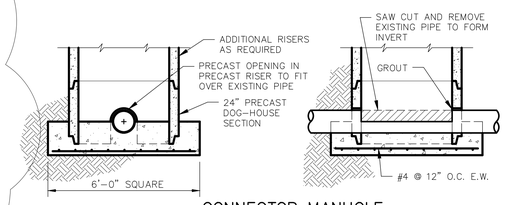

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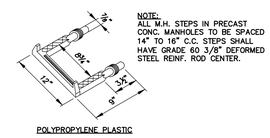

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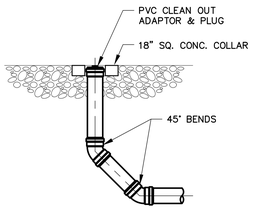

CLEANOUT DETAIL

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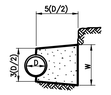

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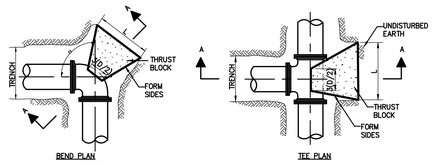

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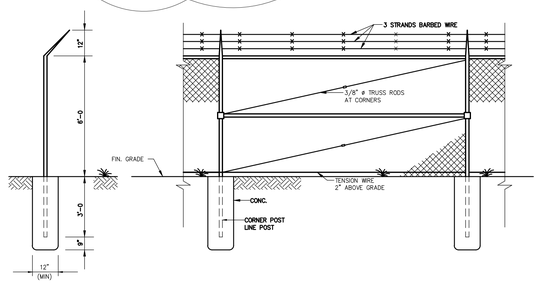

CHAIN LINK FENCE DETAIL

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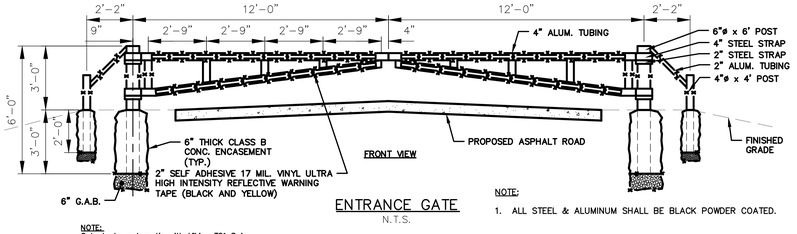

NOTE:
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ENTRANCE GATE

N.T.S.

NOTE:
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NES
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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
MISCELLANEOUS DETAILS
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
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Architects & Engineers
580 Colonial Park Drive
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Millard, Inc. ARCHITECTS ENGINEERS www.millardinc.com

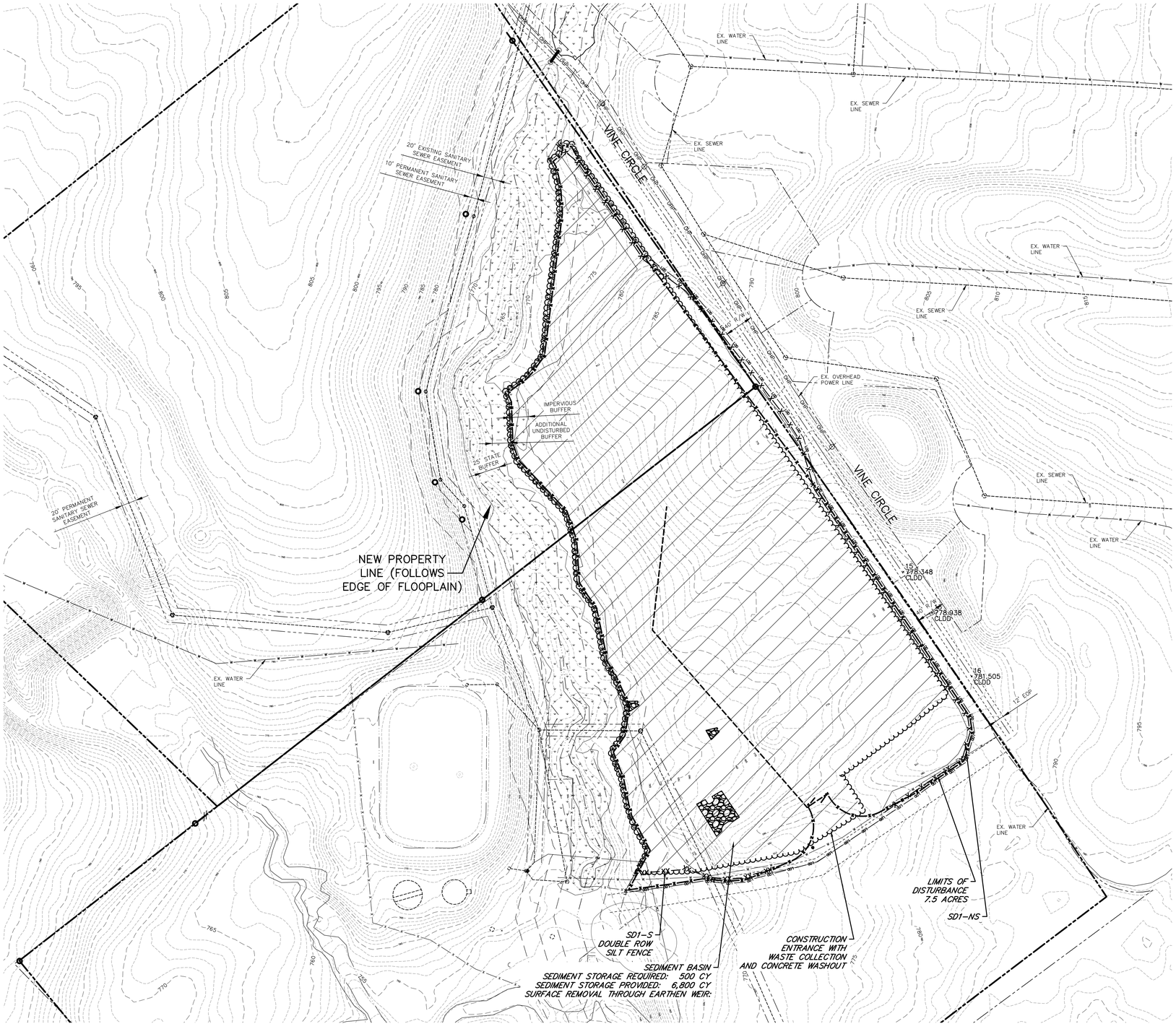
GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

GSWCC LEVEL II
CERTIFICATION NO. 000055308

SHEET NUMBER

E-7

G:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774_Base DWF_addendum_2.dwg



SOIL EROSION & SEDIMENT CONTROL NOTES:

1. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION & SEDIMENT CONTROL MEASURES & PRACTICES PRIOR TO, OR CONCURRENT WITH, L& DISTURBING ACTIVITIES.
2. 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 & SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
3. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
4. ANY SLOPES 3:1 & GREATER SHALL BE COVERED WITH EROSION CONTROL MATTING &/OR BLANKETS.
5. PRIOR TO REMOVING BMP'S, CONTRACTOR SHALL MEET ONSITE WITH THE COUNTY TO ENSURE FINAL STABILIZATION IS COMPLETE.
6. PRIOR TO FILING AN NPDES NOTICE OF TERMINATION, THE CONTRACTOR SHALL MEET ONSITE WITH THE COUNTY TO ENSURE THAT ALL SILT FENCE & TEMPORARY BMP'S HAVE BEEN REMOVED.
7. 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 MARSH L& BUFFER AS MEASURED FROM THE JURISDICTIONAL LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES & PERMITS. SEE NOTE 15 ON SHEET 5.

LEGEND

	EXISTING	PROPOSED
STRUCTURE		
ROADWAY		
ROADWAY		
FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
BUFFER		
CONTOUR	680	680
STORM SEWER LINE		
SEWER LINE & SERV.		
FORCE MAIN		
FIRE PROTECTION		
WOODS LINE		
DRAINAGE DITCH		
CONSTRUCTION LIMITS		LOD
FLOW DIRECTION		

SOIL MAP

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Alp	Chewacla, Cartecay, and Toccoa soils, 0 to 2 percent slopes, frequently flooded	1.0	9.9%
ArD3	Appling sandy clay loam, 10 to 15 percent slopes, severely eroded	1.7	17.5%
CdB2	Cecil coarse sandy loam, 2 to 6 percent slopes, eroded	0.0	0.4%
CZB3	Cecil sandy clay loam, 2 to 6 percent slopes, severely eroded	1.6	16.3%
CZC3	Cecil sandy clay loam, 6 to 10 percent slopes, severely eroded	4.7	48.4%
CZD3	Cecil sandy clay loam, 10 to 15 percent slopes, severely eroded	0.5	5.1%
CZD4	Cecil-Gullied land complex, 10 to 15 percent slopes	0.2	2.4%
Totals for Area of Interest		9.8	100.0%

SOIL LEGEND

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ADDENDUM 2 04/16/26

CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
INITIAL SESC PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
ATLANTA
AUGUSTA
AIKEN
ST. SIMONS ISLAND

Millard, Inc.
Architects & Engineers
580 Colonial Park Drive
Roswell, Georgia 30075
770.993.2034

GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN
GSWCC LEVEL II CERTIFICATION NO. 0000055308

SHEET NUMBER
E-8

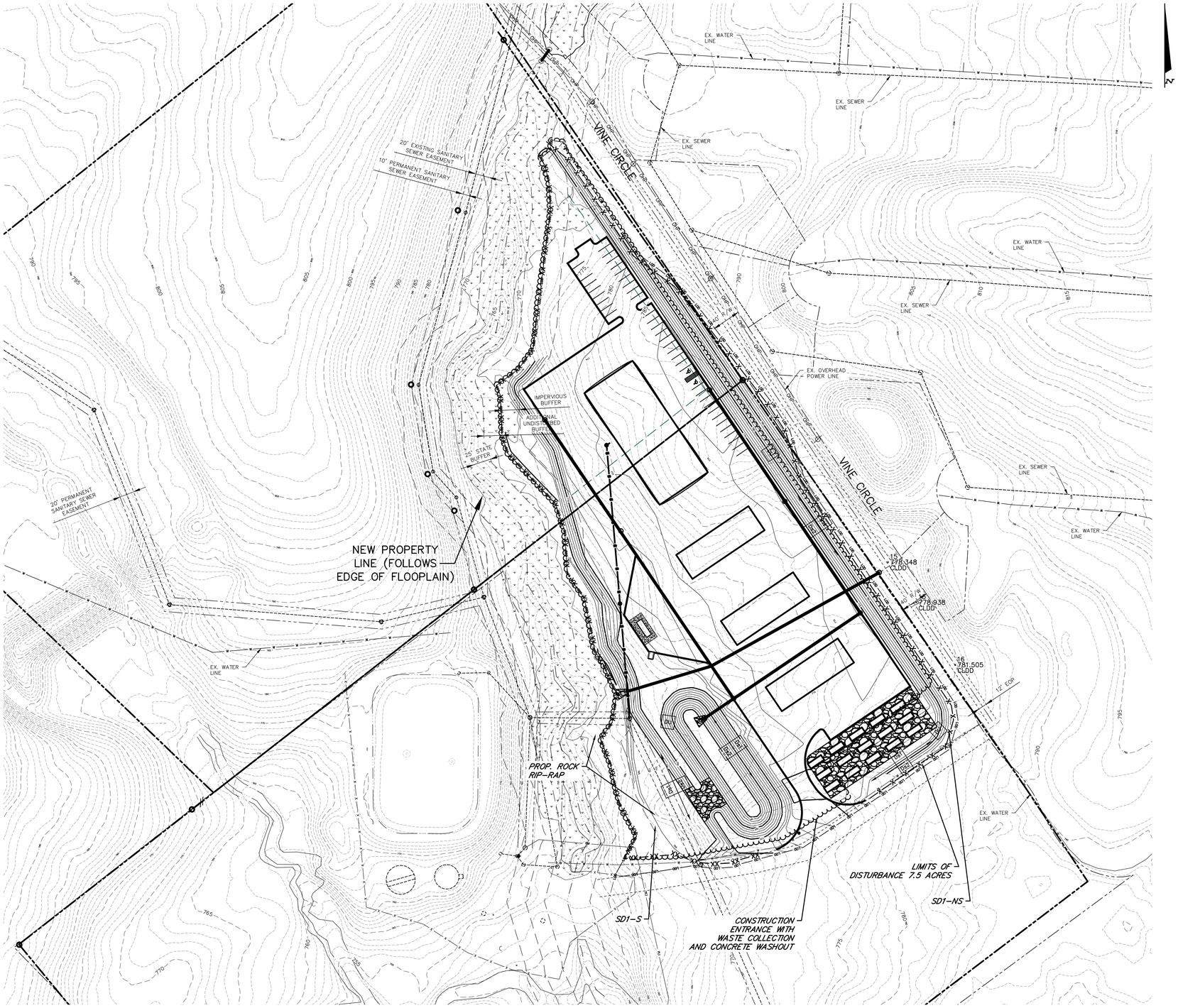
G:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774_Base DWF_addendum_2.dwg

SOIL EROSION & SEDIMENT CONTROL NOTES:

1. SEE INITIAL SESC PLAN.

LEGEND

	EXISTING	PROPOSED
STRUCTURE		
ROADWAY		
ROLL OFF GRAVEL		
FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
BUFFER		
CONTOUR	680	680
STORM SEWER LINE		
SEWER LINE & SERV.		
FORCE MAIN		
FIRE PROTECTION		
WOODS LINE		
DRAINAGE DITCH		
CONSTRUCTION LIMITS		LOD
FLOW DIRECTION		



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CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
INTERMEDIATE SESC PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

TURNIPSEED ENGINEERS
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Millard, Inc. ARCHITECTS ENGINEERS www.millardinc.com

GEORGIA REGISTERED No. 36129 PROFESSIONAL Engineer WILLIAM D. MARTIN

GSWCC LEVEL II
CERTIFICATION NO. 000055308

SHEET NUMBER

E-9

P:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774_Base DWF.dwg

SOIL EROSION & SEDIMENT CONTROL NOTES:

1. SEE INITIAL SESC PLAN.
2. PRIOR TO FILING AN NPDES NOTICE OF TERMINATION, THE DEVELOPER SHALL MEET ONSITE WITH THE CITY TO ENSURE THAT ALL SILT FENCE & TEMPORARY BMP'S HAVE BEEN REMOVED.

GRAPHIC SCALE
1 inch = 60 ft.
0 60' 120' 180

LEGEND

	EXISTING	PROPOSED
STRUCTURE		
ROADWAY		
ROADWAY		
FENCE		
PROPERTY LINE		
MINIMUM BUILDING LINE		
BUFFER		
CONTOUR	680	680
STORM SEWER LINE		
SEWER LINE & SERV.		
FORCE MAIN		
FIRE PROTECTION		
WOODS LINE		
DRAINAGE DITCH		
CONSTRUCTION LIMITS		LOD
FLOW DIRECTION		

STORM DRAIN OUTLET DATA

STRUCTURE LOCATION	Do	Q=FT³/SEC	V=FT/SEC	d50 (FT.)	Lo (FT.)	W1 (FT.)	W2 (FT.)	TAIL WATER	D (FT.)
X-1. STA. 0+00	18"	50	28	1.5	60	5	65	<.50	0.50
X-2 STA. 0+00	24"	85	27	1.5	70	6	75	<.50	0.50

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PROJECT NUMBER
2512
DATE
12/09/25
DRAWN BY
NES
APPROVED BY

REVISIONS

CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
FINAL SESC PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

GSWCC LEVEL II CERTIFICATION NO. 000055308

SHEET NUMBER

E-10

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST STAND ALONE CONSTRUCTION) PROJECT NARRATIVE

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 (2026). PERMIT IV.D.1 PAGE 27
PROVIDED ON SHEETS 13 AND 14.

2. LEVEL II CERTIFICATION NUMBER ISSUED BY THE COMMISSION, SIGNATURE AND SEAL OF THE CERTIFIED DESIGN PROFESSIONAL SIGNATURE, SEAL, AND LEVEL II NUMBER MUST BE ON EACH SHEET PERTAINING TO ES&PC PLAN OR THE PLAN WILL NOT BE REVIEWED. THE LEVEL II CERTIFICATION MUST BE ISSUED TO THE DESIGN PROFESSIONAL, AFTER COMPLETION OF A GSWCC APPROVED COURSE, AND WHOSE SIGNATURE AND SEAL ARE ON THE PLAN.
SHOWN ON ALL SHEETS WHERE APPLICABLE.

3. LIMIT OF DISTURBANCE SHALL BE LESS THAN 50 ACRES AT ANY ONE TIME WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE EPD DISTRICT OFFICE. IF GAEPD APPROVES THE REQUEST TO DISTURB 50 ACRES OR MORE AT ANY ONE TIME, THE PLAN MUST INCLUDE THE GA EPD APPROVAL LETTER AND COMPLETED APPENDIX 1 OF THIS CHECKLIST WITH AT LEAST 4 OF THE CHOSEN BMPS. PERMIT IV.D.3 PAGE 28
THIS PROJECT IS LESS THAN 50 ACRES.

4. THE NAME AND PHONE NUMBER OF 24-HOUR CONTACT RESPONSIBLE FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS; PERMIT II.B.1.c PAGE 12

24-HOUR CONTACT: **JAMES LINK**
(678) 658-8244

5. PROVIDE NAME, ADDRESS, EMAIL ADDRESS, AND PHONE NUMBER OF PRIMARY PERMITTEE, PERMIT II.B.1.b PAGE 12

UPON CONTRACT AWARD BY OWNER, CONTRACTOR TO FILE NOI ON GEOS. CONTRACTOR TO COMPLETE THE FOLLOWING:

PRIMARY PERMITEE: _____

ADDRESS: _____

_____

EMAIL: _____

TELEPHONE: _____

6. NOTE TOTAL AND DISTURBED ACREAGE OF THE PROJECT OR PHASE UNDER CONSTRUCTION, **PERMIT IV.D.2.c PAGE 27**
THE TOTAL ACREAGE BETWEEN TWO PARCELS IS APPROXIMATELY **40.69** ACRES. TOTAL DISTURBED ACRES IS APPROXIMATELY **7.50** ACRES.

7. PROVIDE THE GPS LOCATIONS OF THE CONSTRUCTION EXIT FOR THE SITE. GIVE THE LATITUDE AND LONGITUDE IN DECIMAL DEGREES; PERMIT II.B.1.a PAGE 12
THIS CONSTRUCTION EXIT IS AT LAT: 33.645542° N, LONG: -84.707090° W.

8. INITIAL DATE OF THE PLAN AND THE DATES OF ANY REVISIONS MADE TO THE PLAN INCLUDING THE ENTITY WHO REQUESTED THE REVISIONS;
INITIAL DATE AND REVISION DATES, IF APPROPRIATE, ARE SHOWN ON ALL SHEETS IN THE TITLE BLOCK

9. DESCRIPTION OF THE NATURE OF THE CONSTRUCTION ACTIVITY AND EXISTING SITE CONDITIONS, PERMIT IV.D.2.a PAGE 27 **THE PROJECT WILL INVOLVE THE CONSTRUCTION FOR A NEW PUBLIC WORKS FACILITY FOR THE CITY OF SOCIAL CICLE, WITH WATER AND SEWERAGE YSTEM IMPROVMENTS ALONG VINE CIRCLE. IMPROVENMTNS INCLUDE INSTALLING 425 LINEAR FEET OF PVC WATER LINE AND 230 LINEAR FEET OF PVC SEWER LINE, WATER AND SEWER ASERVICES, AND APPURTENANCES. ALL DISTURBED AREAS SHALL BE STABILIZED AND GRASSED PRIOR TO COMPLETION OF CONSTRUCTION.**

10. PROVIDE VICINITY MAP SHOWING SITE'S RELATION TO SURROUNDING AREAS, INCLUDE DESIGNATION OF SPECIFIC PHASE, IF NECESSARY; PERMIT IV.D.2.e PAGE 27
SEE EXISTING SITE PLAN SHEET 2 AND DRAINAGE BASIN MAP SHEET 17.

11. IDENTIFY THE PROJECT RECEIVING WATERS AND DESCRIBE ALL SENSITIVE ADJACENT AREAS INCLUDING STREAMS, LAKES, RESIDENTIAL AREAS, WETLANDS, MARSHALL, ETC. WHICH MAY BE AFFECTED; PERMIT IV.D.2.f PAGE 27
THE INITIAL RECEIVING WATERS FOR THIS PROJECT ARE ROADSIDE DITCHES THAT EVENTUALLY DISCHARGE TO THE DETENTION AREA LOCATED BEHIND THE CUL-DE-SAC OF DOVE TREE LANE. TRIBUTARIES WILL THEN REACH LITTLE RIVER. ADJACENT AREAS INCLUDE WOODED AND RESIDENTIAL DEVELOPMENTS.

12. 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 20 OF THE PERMIT. **SEE LICENSED PROFESSIONAL'S CERTIFICATIONS THIS SHEET.**

13. * DESIGN PROFESSIONAL'S CERTIFICATION STATEMENT AND SIGNATURE THAT THE PERMITTEE'S ES&PC PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BMP'S AND SAMPLING TO MEET PERMIT REQUIREMENTS AS STATED ON PART IV PAGE 20 OF THE PERMIT. **SEE LICENSED PROFESSIONAL'S CERTIFICATIONS THIS SHEET.**

LICENSED PROFESSIONAL CERTIFICATION

(1) "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."

(2) "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 100001."

_____ DATE
WILLIAM D. MARTIN, P.E.
GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 36129
GSWCC LEVEL II CERTIFICATION NO. 553006
EXPIRES 8/22/2026

14. * CLEARLY NOTE THE STATEMENT THAT "THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT AND CERTIFY 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 25.
SEE DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION.

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

DATE OF INSPECTION: _____
I CERTIFY THE SITE WAS IN COMPLIANCE WITH THE ES&PC PLAN ON THE DATE OF INSPECTION.

_____ _____
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

INSPECTION REVEALED THE FOLLOWING DISCREPANCIES FROM THE ES&PC PLAN.

_____
_____
_____
_____

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

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." SEE PART IV.(I) - (IV) ON PAGES 19-24 OF THE PERMIT AND SHOW UNDER ES&PC NOTES.

(I). EXCEPT AS PROVIDED IN PART IV.(III). BELOW, NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, EXCEPT WHERE THE DIRECTOR HAS DETERMINED TO ALLOW A VARIANCE THAT IS AT LEAST AS PROTECTIVE OF NATURAL RESOURCES AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING LAND-DISTURBING ACTIVITIES, PROVIDED THAT THEY OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM; CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER; AND ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED: (1) STREAM CROSSINGS FOR WATER LINES OR (2) STREAM CROSSINGS FOR SEWER LINES;

(II). NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS 'TROUT STREAMS' EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED; PROVIDED, HOWEVER, THAT SMALL SPRINGS AND STREAMS CLASSIFIED AS TROUT STREAMS WHICH DISCHARGE AN AVERAGE ANNUAL FLOW OF 25 GALLONS PER MINUTE OR LESS SHALL HAVE A 25 FOOT BUFFER OR THEY MAY BE PIPED, AT THE DISCRETION OF THE PERMITTEE, PURSUANT TO THE TERMS OF A RULE PROVIDING FOR A GENERAL VARIANCE PROMULGATED BY THE BOARD OF NATURAL RESOURCES INCLUDING NOTIFICATION OF SUCH TO EPD AND THE LOCAL ISSUING AUTHORITY OF THE LOCATION AND EXTENT OF THE PIPING AND PRESCRIBED METHODOLOGY FOR MINIMIZING THE IMPACT OF SUCH PIPING ON STREAM TEMPERATURE BY MEASURING THE VOLUME OF WATER DISCHARGED BY THE STREAM. ANY SUCH PIPE MUST STOP SHORT OF THE DOWNSTREAM PERMITTEE'S PROPERTY, AND THE PERMITTEE MUST COMPLY WITH THE BUFFER REQUIREMENT FOR ANY ADJACENT TROUT STREAMS. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING LAND-DISTURBING ACTIVITIES, PROVIDED THAT THEY OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM; CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER; AND ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED: (1) STREAM CROSSINGS FOR WATER LINES OR (2) STREAM CROSSINGS FOR SEWER LINES;

(III). EXCEPT AS PROVIDED ABOVE, FOR BUFFERS REQUIRED PURSUANT TO PART IV.(I). AND (IV)., NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A BUFFER AND A BUFFER SHALL REMAIN IN ITS NATURAL, UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED. BETWEEN THE TIME FINAL STABILIZATION OF THE SITE IS ACHIEVED AND UPON THE SUBMITTAL OF A NOTICE OF TERMINATION, A BUFFER MAY BE THINNED OR TRIMMED OF VEGETATION AS LONG AS A PROTECTIVE VEGETATIVE COVER REMAINS TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY IS LEFT IN SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED.

16. PROVIDE A DESCRIPTION OF ANY BUFFER ENCROACHMENTS AND INDICATE WHETHER A BUFFER VARIANCE IS REQUIRED. **A PERPENDICULAR CROSSING OF THE STREAM BUFFER IS PROPOSED IN ORDER TO CONNECT PROPOSED SEWER TO THE EXISTING SEWER INFRASTRUCTURE. A BUFFER VARIANCE IS NOT REQUIRED.**

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." SEE PART IV.C PAGE 26

"AMENDMENTS/REVISIONS TO THE EROSION CONTROL PLANS WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL."

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."
PERMIT IV.D.3.c.(1) PAGE 30

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

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."

"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. 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."

"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. CLEARLY NOTE THE STATEMENT "ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING." PERMIT IV.D.3.a.(1) PAGE 29

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

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. PERMIT III.C.2.a - v. PAGE 15-17
ACCORDING TO GEORGIA'S 2024 INTEGRATED 305(B)/303(D) REPORT, CONSTRUCTION ACTIVITY FOR THIS PROJECT IS WITHIN 1 LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT. THE HEADWATERS OF LITTLE RIVER EXTENDING 3 MILES IS LISTED AS AN IMPAIRED STREAM FOR BIO F, AND FC.

ARTICLE 1 BMPS:

1. **A LARGE SIGN (MINIMUM 4 FEET x 8 FEET) MUST BE ON THE SITE ON THE ACTUAL START DATE OF CONSTRUCTION VISIBLE FROM A PUBLIC ROADWAY IDENTIFYING THE CONSTRUCTION SITE, THE PERMITTEE(S), AND THE CONTACT PERSON(S) AND TELEPHONE NUMBER(S) UNTIL A NOT HAS BEEN SUBMITTED.**
2. **CONDUCT TURBIDITY SAMPLING AFTER EVERY RAIN EVENT OF 0.5 INCH OR GREATER WITHIN ANY 24 HOUR PERIOD, RECOGNIZING THE EXCEPTIONS SPECIFIED IN PART IV.D.6.d. OF THE NPDES PERMITS.**
3. **APPLY THE APPROPRIATE GEORGIA DEPARTMENT OF TRANSPORTATION APPROVED EROSION CONTROL MATTING OR BLANKETS OR BONDED FIBER MATRIX TO ALL SLOPES STEEPER THAN 3:1. ALL GRAPHICAL ILLUSTRATIONS MUST BE INCLUDED ON THE PLAN.**
4. **APPLY THE APPROPRIATE COMPOST BLANKETS (MINIMUM DEPTH 1.5 INCHES) TO PROTECT SOIL SURFACES UNTIL VEGETATION IS ESTABLISHED DURING THE FINAL STABILIZATION PHASE OF THE CONSTRUCTION ACTIVITY.**

4. * 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. PERMIT III.C.1 PAGE 15
SEE ITEM 22 ABOVE.

5. * 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; PERMIT IV.D.3.c.(6) PAGE 31
IF WASHDOWN IS COMPLETED ON-SITE IT MUST BE PREFORMED IN A WATERTIGHT CONTAINER TO BE DISPOSED OF OFFSITE.

6. PROVIDE BMPS FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS. PERMIT IV.D.3.c.(5) PAGE 31

SOIL CLEANUP AND CONTROL PRACTICES

- LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND PROCEDURES SHALL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL 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 SHALL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
- ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS SHALL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
- FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) SHALL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) SHALL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD SHALL BE CONTACTED WITHIN 24 HOURS.
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL SHALL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

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

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. PERMIT IV.D.3.b PAGE 29
BEST MANAGEMENT PRACTICES (BMPS) IN ACCORDANCE TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL SHALL BE EMPLOYED TO PREVENT EROSION IN AREAS OF BARE SOILS AND CONCENTRATED WATER FLOWS. STORM DRAIN OUTLET PROTECTION, ST OR RIP-RAP, SHALL BE INSTALLED AT THE DISCHARGE OF ALL STORM DRAINAGE SYSTEMS TO PREVENT EROSION. PERMANENT GRASSING SHALL BE USED TO STABILIZE THE SITE AND PREVENT EROSION AND SEDIMENT IN STORMWATER RUNOFF FROM THE SITE.

27. *DESCRIPTION OF PRACTICES TO PROVIDE COVER FOR BUILDING MATERIALS AND BUILDING PRODUCTS ON SITE. PERMIT IV.D.3.c.(2) PAGE 30
CONTRACTOR TO PROVIDE PLASTIC SHEETING OR TEMPORARY ROOFS, TO COVER BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS.

28. *DESCRIPTION OF THE PRACTICES THAT WILL BE USED TO REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES. PERMIT IV PAGE 24

PRODUCTS SPECIFIC PRACTICES
PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND LARS SHALL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS SHALL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS SHALL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

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

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

FERTILIZER/HERBICIDES - THESE PRODUCTS SHALL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS SHALL BE UNDER ROOF IN SEALED CONTAINERS.

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

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, GRADING, INFRASTRUCTURE, TEMPORARY AND FINAL STABILIZATION). PERMIT IV.D.2.b PAGE 27
SEE CONSTRUCTION SCHEDULE, (SEE SHEET 11).

30. * PROVIDE COMPLETE REQUIREMENTS OF INSPECTIONS AND RECORD KEEPING BY THE PRIMARY PERMITTEE. PART IV.D.4.a, PAGES 31-33
INSPECTIONS

PRIMARY PERMITTE 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.

(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 AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. 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

(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 HAS BEEN SUBMITTED) 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.

(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 SITE 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

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST STAND ALONE CONSTRUCTION PROJECT NARRATIVE (CONT.)

31. REPORTING CON'T.

(4) NON-STORMWATER DISCHARGES. EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON- STORMWATER LISTED IN PART III.A.2. OF THIS PERMIT THAT ARE COMBINED WITH STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE IDENTIFIED IN THE PLAN. THE PLAN SHALL IDENTIFY AND ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE.

REPORTING.

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

A. THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
B. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
C. THE DATE(S) ANALYSES WERE PERFORMED;
D. THE TIME(S) ANALYSES WERE INITIATED;
E. THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
F. REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
G. THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
H. RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
I. CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

32. PROVIDE COMPLETE DETAILS FOR RETENTION OF RECORDS AS PER PART IV.F. OF THE PERMIT, SEE PART IV.F. PAGE 38 RETENTION RECORDS

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 NOTICE OF TERMINATION 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 RESULT 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. 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 OR AT A DESIGNATED ALTERNATIVE LOCATION 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.

33. * DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES FROM EACH LOCATION, PERMIT IV.D.6.a – c. PAGE 33–35

STORMWATER SAMPLING ANALYSIS: THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS PARAGRAPH SHALL NOTICE OF TERMINATION APPLY TO ANY LAND DISTURBANCE ASSOCIATED WITH THE CONSTRUCTION OF SINGLE-FAMILY HOMES WHICH ARE NOT PART OF A SUBDIVISION OR PLANNED COMMON DEVELOPMENT UNLESS FIVE (5) ACRES OR MORE WILL BE DISTURBED. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

SAMPLE REQUIREMENTS–

(1) A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS SCALE EQUAL TO OR MORE DETAILED THAN A 1:24,000 MAP SHOWING THE LOCATION OF THE SITE OR THE STAND ALONE CONSTRUCTION; (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE TORM WATER IS DISCHARGED AND (B THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HANDWRITTEN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORM WATER()SO ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;

(2) A WRITTEN NARRATIVE OF SITE SPECIFIC ANALYTICAL METHODS USED TO COLLECT, HANDLE AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTRO/QUAILTY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION;

(3) WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE SAMPLED, A RATIONALE MUST BE INCLUDED ON THE PLAN FOR THE NTU LIMIT(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND

(4) 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.

SAMPLE TYPE–

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

(1) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTION THE SAMPLES.

(2) SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.

(3) LARGEMOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTION SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.

(4) 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. IF AUTOMATIC SAMPLING IS UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.

(5) 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.

SAMPLE POINTS–

(1) FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:

(A) THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.

(B) THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.

(C) IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).

(D) CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.

(E) THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.

34. * APPENDIX B RATIONALE FOR NTU VALUES AT ALL OUTFALL SAMPLING POINTS WHERE APPLICABLE, PERMIT IV.D.6.a.(3) PAGE 33
THE SAMPLING POINTS FOR THIS PROJECT ARE SHOWN ON SHEET 17. SAMPLING POINT 1A AND 1B ARE LOCATED UPSTREAM AND DOWNSTREAM OF THE PROJECT AREA ALONG A UNNAMED TRIBUTARY TO LITTLE RIVER. THE REPRESENTATIVE SAMPLING POINTS 1A AND 1B ALONG WITH SUPPORTING WARM WATER INDICATE THAT THE CHANGE IN NTU VALVE FROM UPSTREAM TO DOWNSTREAM IS NO MORE THAN 25 NTU.

35. * DELINEATE ALL SAMPLING LOCATIONS ON ALL PHASES OF THE PLAN, AND PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES INTO WHICH STORM WATER IS DISCHARGED, PERMIT IV.D.6.a.(1) PAGE 33
SEE DRAINAGE BASIN MAP SHEET 17.

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 INITAL SEDIMENT STORAGE REQUIREMENTS AND INITIAL PERIMETER CONTROL BMPS, INTERMEDIATE GRADING AND DRAINAGE BMPS, AND FINAL BMPS ARE THE SAME, THE PLAN MAY COMBINE ALL BMPS INTO SIMGLE PHASE PLAN, PERMIT IV.D.3 PAGE 27

THIS PROJECT CONSIST OF INITIAL, INTERMEDIATE AND FINAL PHASED PLANS, BMPS ARE INSTALLED AHEAD OF ANY GRADING OR CLEANING ACTIVITIES TEMPORARY STABILIZATION IS DONE IMMEDIATELY FOLLOWING GRADING ACTIVITIES AND MAINTAINED THROUGH OUT THE PROJECT UNTIL PERMANENT VEGETATION IS ESTABLISHED. **BMPS ARE SHOWN ON SHEETS 10 THROUGH 13.**

37. GRAPHIC SCALE AND NORTH ARROW.
SHOWN ON ALL SHEETS WHERE APPLICABLE.

38. EXISTING AND PROPOSED CONTOUR LINES WITH CONTOUR LINES DRAWN AT AN INTERVAL IN ACCORDANCE WITH THE CHECKLIST.
THERE ARE PROPOSED CONTOURS ASSOCIATED WITH THIS PROJECT. EXISTING AND PROPOSED CONTOURS ARE SHOWN ON SHEET 5.

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 GA EPD OR THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION). PERMIT IV.D.3.a(4) PAGE 29
NO ALTERNATIVE BMPS HAVE BEEN SELECTED FOR THIS PROJECT.

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.
NO ALTERNATIVE BMPS HAVE BEEN SELECTED FOR THIS PROJECT.

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. PERMIT IV.D.2.e PAGE 27
UNDISTURBED STREAM BUFFERS ARE SHOWN ON SHEETS 3 THROUGH 6.

42. DELINEATION OF ALL STATE WATERS AND WETLANDS LOCATED ON OR WITHIN 200 FEET OF THE PROJECT SITE. FIELD OBSERVATIONS INDICATE THAT THIS PROJECT IS LOCATED IN WETLANDS. THIS PROJECT **WILL** OCCUR WITHIN 200 FT. OF STATE WATERS.

43. DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS ON THE PROJECT SITE, PERMIT IV.D.2.e PAGE 27
SEE DRAINAGE BASIN MAP SHEET 17.

44. * PROVIDE HYDROLOGY STUDY AND MAPS OF DRAINAGE BASIN FOR BOTH THE PRE-AND POST-DEVELOPED CONDITIONS. **FINAL GRADING WILL CHANGE THE EXISTING CONDITIONS. SEE DRAINAGE BASIN MAP SHEET 17.**

45. AN ESTIMATE OF THE RUNOFF COEFFICIENT OR PEAK DISCHARGE FLOW OF THE SITE PRIOR TO AND AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED. FOR SOLAR FARM PROJECTS, POST CONSTRUCTION IMPERVIOUS AREA SHALL BE CALCULATED AS 70% OF TOTAL SOLAR PANEL SQUARE FOOTAGE, PERMIT IV.D.2.d PAGE 27
THE RUNOFF COEFFICIENT IS APPROXIMATELY 0.60 FOR BOTH PRE DEVELOPED AND POST DEVELOPED RUNOFF FOR STREET IMPROVEMENTS PROJECTS. THE PROPOSED PROJECT IS FOR THE CONSTRUCTING OF A NEW PUBLIC WORKS FACILITY, AND INSTALLATION OF PVC WATER AND SEWER LINES. WATER AND SEWER SERVICES, AND APPURTENANCES. THE DISTURBED AREA WILL BE RE-VEGETATED ACCORDING TO THE VEGETATIVE COVER PLAN. REFER TO HYDROLOGY REPORT FOR RUNOFF COEFFICIENTS AND PEAK DISCHARGES (PRE AND POST) FOR THE SITE.

46. STORM-DRAIN PIPE AND WEIR VELOCITIES WITH APPROPRIATE OUTLET PROTECTION TO ACCOMMODATE DISCHARGES WITHOUT EROSION. IDENTIFY/DELINEATE ALL STORM WATER DISCHARGE POINTS. **STORM WATER DISCHARGE POINTS ARE ON DRAINAGE BASIN MAP, SHEET 17.**

47. SOIL SERIES FOR THE PROJECT SITE AND THEIR DELINEATION. **SOILS INFORMATION PROVIDED ON SHEET 10**

48. LIMITS OF DISTURBANCE FOR EACH PHASE OF CONSTRUCTION. **THE LIMITS OF DISTURBANCE ARE LOCATED ON SHEETS 5, AND 10 THROUGH 13.**

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 TO USE EQUIVALENT CONTROLS WHEN A SEDIMENT BASIN IS NOT ATTAINABLE MUST BE INCLUDED IN THE PLAN FOR EACH COMMON DRAINAGE LOCATION IN WHICH A SEDIMENT BASIN IS NOT PROVIDED. A WRITTEN JUSTIFICATION AS TO WHY 67 CUBIC YARDS OF STORAGE IS NOT ATTAINABLE MUST ALSO BE GIVEN. WORKSHEETS FROM THE MANUAL MUST BE INCLUDED FOR STRUCTURAL BMPs AND ALL CALCULATIONS USED BY THE DESIGN PROFESSIONAL TO OBTAIN THE REQUIRED SEDIMENT STORAGE WHEN USING EQUIVALENT CONTROLS. WHEN DISCHARGING FROM SEDIMENT BASINS AND IMPOUNDMENTS, 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 FEASIBLE, A WRITTEN JUSTIFICATION EXPLAINING THIS DECISION MUST BE INCLUDED IN THE PLAN.
PERMIT IV.D.3.a.(3) PAGE 28

SEDIMENT STORAGE RATIONALE:

TOTAL SEDIMENTATION STORAGE CALCULATIONS

SEDIMENTATION STORAGE REQUIRED

TOTAL DISTURBED ACRES (7.50) * 67 = 485.08 CY = 13,097.16 CF

SEDIMENTATION STORAGE AVAILABLE (SHOWN ON SHEETS 10 THROUGH 12)

SEDIMENTATION STORAGE AVAILABLE BY USE OF SILT FENCE
3,690 L.F. * 4 FT² = 14,760 CF = 546 CY

SEDIMENTATION STORAGE AVAILABLE BY USE OF SEDIMENT BASIN
185,276 CF = 6,860 CY

TOTAL SEDIMENT STORAGE AVAILABLE 188,966 CF > 13,097 CF TOTAL STORAGE REQUIRED

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.
SHOWN ON **SHEETS 10 THROUGH 13.** SEE LEGEND ON **SHEET 16.**

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. **SEE SHEET 16.**

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.
SEE SHEETS 10 THOUGH 14, AND 15.

CONSTRUCTION SCHEDULE 2026–2027

INITIAL CONSTRUCTION IS EXPECTED TO BEGIN SOMETIME IN JULY 2026.
FINAL STABILIZATION WILL BE ACCOMPLISHED IN JULY 2027

	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
INSTALLATION OF SE&SC MEASURES (DU) (SMT-S) (SD-MB) (SD-S) (LV)												
MAINTAINING OF SE&SC MEASURES (DU) (SMT-S) (SD-MB) (SD-S) (LV)												
CONSTRUCTION												
TEMPORARY GRASSING (DS-1) (DS-2)												
PERMANENT GRASSING (DS-3)												
REMOVE TEMPORARY MEASURES												

*TEMPORARY MEASURES SHALL NOT BE REMOVED UNTIL PERMANENT GRASSING IS ESTABLISHED

APPROX. START DATE

VEGETATIVE COVER

ALL BARE AREAS RESULTING FROM CONSTRUCTION OPERATIONS WILL BE ESTABLISHED TO VEGETATION AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETE AS FOLLOWS:

TEMPORARY/INTERMEDIATE GRASSING – (DS2, REQUIRED ON AREAS TO BE EXPOSED)

SEEDBED PREPARATION – FINISH GRADE ACCORDING TO PLANS. REMOVE LARGE ROCKS OR OTHER OBJECTS THAT WILL INTERFERE WITH VEGETATION ESTABLISHMENT.

%%UFERTILIZER%%U – APPLY AGRICULTURAL LIME AT THE RATE OF 1 TO 2 TONS PER ACRE. SPREAD LIME AND FERTILIZER UNIFORMLY OVER SURFACE.

%%USEEDING%%U – SEE CHART

PERMANENTLY EXPOSED AREAS (DS3, FINISH GRADES)

1. INITIAL TREATMENT

SEEDING PREPARATION – PREPARE SEEDBED TO DEPTH OF AT LEAST 4–INCHES ON ALL AREAS WHERE A GOOD SEEDBED IS NOT PRESENT. REMOVE ROCKS, ROOTS AND OTHER OBJECTS THAT WILL INTERFERE WITH VEGETATION ESTABLISHMENT OR MAINTENANCE OPERATIONS.

FERTILIZER – APPLY AGRICULTURE LIME AT MINIMUM RATE OF 1 TO 2 TONS PER ACRE. APPLY 1500 POUNDS 6–12–12 ANALYSIS FERTILIZER (OR EQUIVALENT) PER ACRE. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS IMMEDIATELY BEFORE FINAL LAND PREPARATION AND MIX THOROUGHLY WITH THE SOIL. APPLY TOP DRESSING OF 50–100 POUNDS PER ACRE OF WITH THE SOIL. APPLY TOP DRESSING OF 50–100 POUNDS PER ACRE OF AMMONIUM NITRATE (OR EQUIVALENT) WHEN PLANTS ARE 2 TO 4–INCHES TALL.

SEEDING – SEE CHART SEED WILL BE DISTRIBUTED UNIFORMLY OVER THE AREA AND COVERED TO A DEPTH OF ABOUT 1/4 INCH. IF AREA IS TO BE SPRIGGED, PLANT ONLY FRESHLY DUG SPRIGS AND KEEP THEM COOL AND MOIST UNTIL PLANTED. FIRM SEEDED OR SODDED ACRES WITH CULTPACKER OR ROLLER IMMEDIATELY FOLLOWING PLANTING.

MULCHING – ALL SEEDED AND UNSEEDED SLOPES LESS THAN 3% WILL BE MULCHED IMMEDIATELY AFTER SPREADING UNIFORMLY DRY STRAW OR HAY, FREE OF COMPETING WEEDS, AT THE RATE OF ABOUT 2.5 TONS PER ACRE OR TO COVER APPROXIMATELY 75 PERCENT OF THE GROUND SURFACE. WITH SLOPES GREATER THAN 3 PERCENT, ANCHOR MULCH WITH A PACKED OR DISK HARROW WITH BLADES SET STRAIGHT OR WITH EMULSIFIED ASPHALT (GRADE AE5 OR SS1) AT RATE OF 100 GALLONS EMULSION MIXED WITH 100 GALLONS WATER FOR EACH TON OF MULCH.

MULCHING REQUIREMENTS DS1		
MATERIAL	RATE	DEPTH
STRAW OR HAY	2 1/2 TON/ACRE	6" to 10"
WOOD WASTE CHIPS, SAWDUST, BARK	6 TO 9 TON/ACRE	2" to 3"
CUTBACK ASPHALT	1200 Gal./Acre or 1/4 Gal./Sq. Yd.	---
POLYETHYLENE FILM	SECURE WITH SOIL, ANCHORS, WEIGHTS	---
CUTBACK ASPHALT	SEE MANUFACTURER'S RECOMMENDATIONS	---
GEOTEXTILES, JUTE MATTING, NETTING, ETC.	SEE MANUFACTURER'S RECOMMENDATIONS	---

VEGETATIVE MEASURES

DUST CONTROL ON DISTURBED AREAS, Du

DEFINITION CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

CONDITIONS THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHODS AND MATERIALS

A. 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 SPECIFICATION TAC–TACKIFIERS. RESINS SUCH AS CURASOL OR TERRTAK SHOULD BE USED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER SEE SPECIFICATION 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 SPECIFICATION TAC–TACKIFIERS.

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. BEING PLOWING ON WINDWARD SIDE OF SITE. CHHISEL–TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING–TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

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 SUED 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.

B. PERMANENT METHODS

PERMANENT VEGETATION – SEE SPECIFICATION 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 SPECIFICATION Tp – TOPSOILING.

STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE SPECIFICATION Cr – CONSTRUCTION ROAD STABILIZATION.

APPENDIX B NEPHELOMETRIC TURBIDITY UNIT (NTU) TABLE

WARM WATER (SUPPORTING WARM WATER FISHERIES)								
	SURFACE WATER DRAINAGE AREA, SQUARE MILES							
SITE AREA, (ACRES)	0–4.99	5–9.99	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
100.1+	50	50	50	50	50	100	200	100

PROJECT NUMBER
2512
DATE
12/09/25
DRAWN BY
NES
APPROVED BY

REVISIONS

CITY OF SOCIAL CIRCLE
PUBLI

Disturbed Area Stabilization (With Mulching Only)

Ds1

DEFINITION

Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

PURPOSE

To reduce runoff and erosion
To conserve moisture
To prevent surface compaction or crusting
To control undesirable vegetation
To modify soil temperature
To increase biological activity in the soil

REQUIREMENT FOR REGULATORY COMPLIANCE

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface.

Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months.

If any area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed. Refer to **Ds2 -Disturbed Area Stabilization (With Temporary Seeding), Ds3 - Disturbed Area Stabilization (With Permanent Seeding), and Ds4 - Disturbed Area Stabilization (With Sodding)**.

SPECIFICATIONS

Mulching Without Seeding

This standard applies to graded or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation

1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials

Select one of the following materials and apply at the depth indicated:

1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanical equipment. 6-28
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Apply polyethylene film on exposed areas.

Anchoring Mulch

1. Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately after application.

   Straw or hay mulch spread with special blower-type equipment may be anchored. Tackifers, binders and hydraulic mulch with tackifier specifically designed for tacking straw can be substituted for emulsified asphalt. Please refer to specification **Tac- Tackifers**. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the wood waste chips.
3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

Disturbed Area Stabilization (With Temporary Seeding)

Ds2

DEFINITION

The establishment of temporary vegetative cover with fast growing seedings for seasonal protection on disturbed or denuded areas.

PURPOSE

To reduce runoff and sediment damage of down stream resources

To protect the soil surface from erosion

To improve wildlife habitat

To improve aesthetics

To improve tilth, infiltration and aeration as well as organic matter for permanent plantings

REQUIREMENT FOR REGULATORY COMPLIANCE

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 Temporary Seeding).**

CONDITIONS

Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWCD for more information.

SPECIFICATIONS

Grading and Shaping

Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others. No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation

When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or hand-seeding, 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

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should also be considered when there is less than 3% organic matter in the soil. Graded areas require lime application. Soils must be tested to determine required amounts of fertilizer and amendments. Fertilizer should be applied before land preparation and incorporated with a disk, ripper, or chisel. On slopes too steep for, or inaccessible to equipment, fertilizer shall be hydraulically applied, preferably in the first pass with seed and some hydraulic mulch, then topped with the remaining required application rate

Seeding

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, culti-packer-seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See Table 6-4.1

Mulching

Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance germination and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to **Ds1 - Disturbed Area Stabilization (With Mulching Only)**.

Irrigation

During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

Table 6-4.1 - Temporary Cover or Companion Cover Crops PLANT, PLANTING RATE, AND PLANTING DATE FOR TEMPORARY COVER OR COMPANION CROPS 1

Species	Broadcast Rates: Rate Per Acre2	Broadcast Rates: Pure Live Seed (PLS) Per 1000 sqft	Resource Area	Planting Dates by Resource Area: 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 Hordeum vulgare					
alone	3 bu. (144 lbs)	3.3 lbs	M-L		14,000 seed per pound. Winter hardy. Use
in mixture	1/2 bu. (24lbs)	0.6 lb	P		on productive soils
			C		
LESPEDEZA, ANNUAL Lespedeza striata					
alone	40 lbs	0.9 lb	M-L		200,000 seed per pound. May volunteer for
in mixture	10 lbs	0.2 lb	P		several years, Use inoculant EL
			C		
LOVEGRASS, WEEPING Eragrostis curvula					
alone	4 lbs	0.1 lb	M-L		1,300,000 seed per pound. May last for
in mixture	2 lbs	0.05 lb	P		several years. Mix with Sericea lespedeza
			C		
MILLET, BROWNTOP Panicum fasciculatum					
alone	40 lbs	0.9 lb	M-L		137,000 seed per pound. Quick dense cover.
in mixture	10 lbs	0.2 lb	P		Will provide excessive competion in
			C		mixtures if seeded at high rate.
MILLET, PEARL Pennesetum glaucum					
alone	50 lbs	1.1 lbs	M-L		88,000 seed per pound. Quick dense cover.
			P		May reach 5 feet in height. Not
			C		recommended for mixtures.
OATS Avena sativa					
alone	4 bu (168 lbs)	2.9 lbs	M-L		13,000 seed per pound. Use on productive
in mixture	1 bu (32 lbs)	0.7 lbs	P		soils. Not as a winter hardy as rye or barley
			C		
RYE Secale cereale					
alone	3 bu (168 lbs)	3.9 lb	M-L		18,000 seed per pound. Quick cover. Drought
in mixture	1/2 bu (28 lbs)	0.6 lb	P		tolerant and winter hardy.
			C		
RYEGRASS, ANNUAL Lolium temulentum					
alone	40 lbs	0.9 lb	M-L		227,000 seed per pound. Dense cover. Very
			P		competitive and is not to be used in
			C		mixtures
SUDANGRASS Sorghum sudanese					
alone	60 lbs	1.4 lbs	M-L		15,000 seed per pound. Good on droughty
			P		sites. Not recommended for mixtures
			C		
TRITICALE X-Triticosecale					
alone	3 bu (144 lbs)	3.3 lbs	C		Use on lower part of Southern Coastal Plain
in mixture	1/2 bu (24 lbs)	0.6 lb			and in Atlantic Coastal Flatwoods only
WHEAT Triticum aestivum					
alone	3 bu (180 lbs)	4.1 lbs	M-L		15,000 seed per pound. Winter hardy
in mixture	1/2 bu (30 lbs)	0.7 lb	P		
			C		

1 Temporary cover crops are very competitive and will crowd out perennials if seeded too heavily
2 Reduce seeding rates by 50% when drilled
3 M-L represents the Mountain, Blue Ridge, and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA
C represents Southern Coastal Plain,Sand Hills,Black Lands,and Atlantic Coast Flatwoods MLRAs

Table 6-6.2- Permanent Cover Crops PLANT, PLANTING RATE, AND PLANTING DATE FOR PERMANENT COVER 1

Species	Broadcast Rates: Rate Per Acre2	Broadcast Rates: Pure Live Seed (PLS) Per 1000 sqft	Resource Area	Planting Dates by Resource Area: 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 alone or with temporary cover with other perennials	60 lbs 30 lbs	1.4 lbs 0.7 lbs	P C		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
BAHIA, WILMINGTON Paspalum notatum alone or with temporary cover with other perennials	60 lbs 30 lbs	1.4 lb 0.7 lb	M-L P		Same as above
BERMUDA, COMMON Cynodon dactylon Hulled seed alone with other perennials	10 lbs 6 lbs	0.2 lb 0.7 lb	P C		1,760,000 seed per pound. Quick cover. Low growing and sod forming. Full sun. Good for athletic Fields
BERMUDA, COMMON Cynodon dactylon Unhulled seed with temporary cover with other perennials	10 lbs 6 lbs	0.2 lb 0.1 lb	P C		Plant with winter annuals Plant with Tall Fescue
BERMUDA SPRIGS Cynodon dactylon Coastal, Common, Midland, or Tifh 44 Coastal, Common, of Tifh 44	40 cu ft or sod plugs 3'x3'	0.9 cu ft	M-L P C		A cubic foot contains approximately 650 sprigs. A bushel contains 1.25 cubic feet or approximately 800 sprigs. Same as above
Tifh 78			C		Southern Coastal Plain only.
CENTIPEDE Eremochloa ophuroides	Block sod only		P C		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. Winter-hardy as far as north Athens and Atlanta
CROWNVETECH Coronilla varia with winter annuals or cool season grasses	15 lbs	0.3 lb	M-L P		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 see with M inoculant. Use from North Atlanta and Northward.
FESCUE, TALL Festuca arundinacea alone with other perennials	50 lbs 30 lbs	1.1 lb 0.7	M-L P		227,000 seed per pound. Use alone only on better sites. Mix with perennial lespedeza or Crownvetch. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic fields.
KUDZU Pueraria thumbergiana Plants or crowns	3' - 7' apart		ALL		Rapid and vigorous growth. Excellent in gully erosion control. Will climb. Good livestock forage.
LESPEDEZA SERICEA Lespedeza cuneata scarified unscarified	60 lbs 75 lbs	1.4 lb 1.7 lb	M-L P C M-L P C		350,000 seed per pound. Widely adapted. Low maintenace. 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 Mix with Tall fescue or winter annuals. Cut when seed mixture is mature, but before, it shatters. Add Tall fescue or winter annuals
seed- bearing hay	3 tons	3338 lbs	C		
LESPEDEZA Amoro virgata Lespedeza virgata DC or Appalone Lespedeza cuneata (Dumont) G. Don) scarified unscarified	60 lbs 75 lbs	1.4 lb 1.7 lb	M-L P C M-L P C		300,000 seed per pound. Height of growth is 18 to 24 inches. Advantageous in urban areas. Spread ingtype growth. Now 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 inoculant
LESPEDEZA, SHRUB Lespedeza bicolor Lespedeza thumbergii plants	3' x 3'		M-L P C		Provide wildlife food and cover
LOVEGRASS, WEEPING Eragrostis curvula alone with other perennials	4 lbs 2 lbs	0.1 lb 0.05 lb	M-L P C		1,500,000 seed per pound. Quick cover. Drought tolerant. Grows well with Sericea lespedeza on roadbanks
MAUDECANE Panicum hemitomon sprigs	2' x 3' spacing	ALL			For very wet sites. May clog channels. Dig sprigs from local sources. Use along river banks and shorelines.
PANICGRASS, ATLANTIC COASTAL Panicum amarum var amarulum	20 LBS	0.5 LB	P C		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 alone with other perennials	50 lbs 30 lbs	1.1 lb 0.7 lb	M-L P		Grows similar to Tall fescue
SUNFLOWER, 'AZTEC' MAXIMILIAN Helianthus maximiliani					
	10 lbs	0.2 lb	M-L P C		227,000 seed per pound. Mix with Weeping lovegrass or other low-growing grasses or legumes.

1 Reduce seeding rates by 50% when drilled
2 PLS is an abbreviation for Pure Live Seed. Refer to Section V.E. of Specifications.
3 M-L represents to Mountain, Blue Ridge, and Ridges and Valleys MLRAs
P represents the Southern Piedmont MLRA
C represents the Southern Coastal Plain,Sand Hills,Black Lands,and Atlantic Coast Flatwoods MLRAs

Disturbed Area Stabilization (With Permanent Vegetation)

Ds3

DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization.

Permanent perennial vegetation shall be used to achieve final stabilization.

PURPOSE

To protect the soil surface from erosion

To reduce damage from sediment and runoff to down-stream areas

To improve wildlife habitat and visual resources

To improve aesthetics

REQUIREMENT FOR REGULATORY COMPLIANCE

This practice shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice or sodding shall be applied immediately to all areas at final grade. Final Stabilization means that all soil disturbing activities at the site have been completed and that for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by the GA EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures.

Permanent vegetation shall consist of, planted trees, shrubs, perennial vines; or a crop of perennial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall be achieved. Final stabilization applies to each phase of construction.

For linear construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by stabilizing the disturbed land for its agricultural or silvicultural use. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures and temporary erosion and sedimentation control measures shall not be removed.

CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

PLANNING CONSIDERATIONS

1. Use conventional planting methods where possible.
2. When mixed plantings are done during marginal planting periods, companion crops shall be used.
3. No-till planting is effective when planting is done following a summer or winter annual cover crop. Sericea lespedeza planted no-till into stands of rye is an excellent procedure.
4. Block sod provides immediate cover. It is especially effective in controlling erosion adjacent to concrete flumes and other structures. Refer to Specification Ds4-Disturbed Area Stabilization (With Sodding).
5. Irrigation should be used when the soil is dry or when summer plantings are done.
6. Low maintenance plants, as well as natives, should be used to ensure long-lasting erosion control.
7. Mowing should not be performed during the quail nesting season (May to September).
8. Wildlife plantings should be included in critical area plantings.

Disturbed Area Stabilization (With Permanent Vegetation) Ds3

Wildlife Plantings

Commercially available plants beneficial to wildlife species include the following:

Mast Bearing Trees

Beech, Black Cherry, Blackgum, Chestnut, Chinkapin, Hackberry, Hickory, Honey Locust, Native Oak, Persimmon, Sawtooth Oak and Sweetgum.

All trees that produce nuts or fruits are favored by many game species. Hickory provides nuts used mainly by squirrels and bear.

Shrubs and Small Trees

Bayberry, Bicolor Lespedeza, Crabapple, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Native Holly, Red Cedar, Red Mulberry, Sumac, Wax Myrtle, Wild Plum and Blackberry.

Plant in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlife, except for lespedeza that produces seeds used by quail and songbirds.

Grasses, Legumes, Vines and Temporary Cover

Bahiagrass, Bermudagrass, Grass-Legume mixtures, Partridge Pea, Annual Lespedeza, Orchard grass (for mountains), Browntop Millet (for temporary cover), and Native grapes.

Provides herbaceous cover in clearings for agame bird brood-rearing habitat. Appropriate legumes such as vetches, clovers, and lespedezas may be mixed with grass, but they may die out after a few years.

CONSTRUCTION SPECIFICATIONS

Grading and Shaping

Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment. When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation. Concentrations of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

Lime and Fertilizer Rates and Analysis

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.

Lime spread by conventional equipment shall be "ground limestone." Ground limestone is calcitic or dolomitic limestone ground so that 90 percent of the material will pass through a 10-mesh sieve, not less than 50 percent will pass through a 50-mesh sieve and not less than 25 percent will pass through a 100-mesh sieve.

Fast-acting lime spread by hydraulic seeding equipment should be "finely ground limestone" spanning from the 180 micron size to the 5 micron size. Finely ground limestone is calcitic or dolomitic limestone ground so that 95 percent of the material will pass through a 100-mesh sieve. It is desirable to use dolomitic limestone in the Sand Hills, Southern Coastal Plain and Atlantic Coast Flatwoods MLRAs. (See Figure 6-4.1)

Agricultural lime is generally not required where only trees are planted.

Initial fertilization, nitrogen, topdressing, and maintenance fertilizer requirements for each species or combination of species are listed in Table 6-5.1.

Lime and Fertilizer Application

When hydraulic seeding equipment is used, the initial fertilizer shall be mixed with seed, innoculant (if needed), and wood cellulose or wood pulp fiber mulch and applied in a slurry. The innoculant, if needed, shall be mixed with the seed prior to being placed into the hydraulic seeder. The slurry mixture will be agitated during application to keep the ingredients thoroughly mixed. The mixture will be spread uniformly over the area within one hour after being placed in the hydro seeder.

Finely ground limestone can be applied in the mulch slurry or in combination with the top dressing.

When conventional planting is to be done, lime and fertilizer shall be applied uniformly in one of the following ways:

1. Apply before land preparation so that it will be mixed with the soil during seedbed preparation.
2. Mix with the soil used to fill the holes, distribute in furrows.
3. Broadcast after steep surfaces are scarified, pitted or trenched.
4. A fertilizer pellet shall be placed at root depth in the closing hole beside each pine tree seedling.

Plant Selection

Refer to Tables 6-4.1, 6-5.2, 6-5.3 and 6-5.4 for approved species. Species not listed shall be approved by the State Resource Conservationist of the Natural Resources Conservation Service before they are used.

Plants shall be selected on the basis of species characteristics, site and soil conditions, planned use and maintenance of the area; time of year of planting, method of planting; and the needs and desires of the land user.

Some perennial species are easily established and can be planted alone. Examples of these are Common Bermuda, Tall Fescue, and Weeping Lovegrass.

Other perennials, such as Bahia Grass and Sericea Lespedeza, are slow to become established and should be planted with another perennial species.

The additional species will provide quick cover and ample soil protection until the target perennial species become established. For example, Common seeding combinations are 1) Weeping Lovegrass with Sericea Lespedeza (scarified) and 2) Tall Fescue with Sericea Lespedeza (unscarified).

Plant selection may also include annual companion crops. Annual companion crops should be used only when the perennial species are not planted during their optimum planting period. A common mixture is Brown Top Millet with Common Bermuda in mid-summer. Care should be taken in selecting companion crop species and seeding rates because annual crops will compete with perennial species for water, nutrients, and growing space.

A high seeding rate of the companion crop may prevent the establishment of perennial species. Ryegrass shall not be used in any seeding mixtures containing perennial species due to its ability to out-compete desired species chosen for permanent perennial cover.

Seed Quality

The term "pure live seed" is used to express the quality of seed and is not shown on the label.

Pure live seed, PLS, is expressed as a percentage of the seeds that are pure and will germinate.

Information on percent germination and purity can be found on seed tags. PLS is determined by multiplying the percent of pure seed with the percent of germination; i.e.,

(PLS = % germination x % purity)

EXAMPLE:

Common Bermuda seed

70% germination, 80% purity

PLS = 70% germination x 80% purity

PLS = 56%

The percent of PLS helps you determine the amount of seed you need. If the seeding rate is 10 pounds PLS and the bulk seed is 56 % PLS, the bulk seeding rate is:

10 lbs. PLS/acre = 17.9 lbs/acre

56% PLS

You would need to plant 17.9 lbs/acre to provide

10 lbs/acre of pure live seed.

Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used (but is strongly recommended for any seeding process, when possible). When conventional seeding is to be used, seedbed preparation will be done as follows:

Broadcast plantings

1. Tillage, at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used.
2. Tillage may be done with any suitable equipment.
3. Tillage should be done on the contour where feasible.
4. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

Individual Plants

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
3. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Inoculants

All legume seed shall be inoculated with appropriate nitrogen-fixing bacteria. The inoculant shall be a pure culture prepared specifically for the seed species and used within the dates on the container.

A mixing medium recommended by the manufacturer shall be used to bond the inoculant to the seed. For conventional seeding, use twice the amount of inoculant recommended by the manufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used.

All inoculated seed shall be protected from the sun and high temperatures and shall be planted the same day inoculated. No inoculated seed shall remain in the hydro seeder longer than one hour.

Planting

Hydraulic Seeding

Mix the seed (inoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a culti-packer-seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated.

Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a culti packer or other suitable equipment.

No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow.

Each plant shall be set in a manner that will avoid crowding the roots.

Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must beat or slightly above the ground surface.

Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Mulching

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% to 100% soil cover. When selecting a mulch, design professionals should consider the mulch's functional longevity, vegetation establishment enhancement, and erosion control effectiveness. 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, 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. Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting.

The mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods:

1. Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk"' or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
2. Synthetic tackifiers, binders or hydraulic mulch specifically designed to tack straw, shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. All tackifiers, binders or hydraulic mulch specifically designed to tack straw should be verified nontoxic through EPA 2021.0 testing. Refer to Tackifiers-Tac
3. Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one-half bushel per acre.
4. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Bedding Material

Mulch is used as a bedding material to conserve moisture and control weeds in nurseries, ornamental beds, around shrubs, and on bare areas on lawns.

Material Depth

Grain straw 4" to 6"
Grass Hay 4" to 6"
Pine needles 3" to 5"
Wood waste 4" to 6"

Irrigation

Irrigation will be applied at a rate that will not cause runoff.

Topdressing

Topdressing will be applied on all temporary and permanent (perennial) species planted alone or in mixtures with other species. Recommended rates of application are listed in Table 6-5.1.

Second Year and Maintenance Fertilization

Second year fertilizer rates and maintenance fertilizer rates are listed in Table 6-5.1.

Lime Maintenance Application

Apply one ton of agricultural lime every 4 to 6 years or as indicated by soil tests. Soil tests can be conducted to determine more accurate requirements, if desired.

Use and Management

Mow Sericea Lespedeza only after frost to ensure that the seeds are mature. Mow between November and March. Bermudagrass, Bahiagrass and Tall Fescue may be mowed as desired. Maintain at least 6 inches of top growth under any use and management. Moderate use of top growth is beneficial after establishment. Exclude traffic until the plants are well established. Because of the quail nesting season, mowing should not take place between May and September.

Table 6-5.1. Fertilizer Requirements

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE 7/	N TOP DRESSING RATE
1.Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 1/2/ 30
2.Cool season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	0-50 lbs./ac. 1/ — —
3.Ground covers	First Second Maintenance	10-10-10 10-10-10 10-10-10	1300 lbs./ac. 3/ 1300 lbs./ac. 3/ 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 Maintenance	0-10-10 0-10-10	700 lbs./ac. 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 Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs./ac. 800 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 2/6/ 50-100 lbs./ac. 2/ 30 lbs./ac.
8.Warm season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs./ac. 1000 lbs./ac. 400 lbs./ac.	50 lbs./ac./6/

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.
7/ Verify fertilizer rate based on soil test.

PROJECT NUMBER
2512
DATE
12/09/25
DRAWN BY
NES
APPROVED BY

REVISIONS

CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
GRASSING PLAN
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

GSWCC LEVEL II CERTIFICATION NO. 0000055308

SHEET NUMBER
E-13

P:\Social Circle\242774 Social Circle Public Works Facility\04.2 - Drawings\4 - Construction Drawings\242774_ESPC.dwg

TABLE 6-5.3. DURABLE SHRUBS AND GROUND COVERS FOR PERMANENT COVER

Common Name	Scientific Name	Mature Height	Plant Spacing	Comments
Albelia	Abelia grandiflora	3-4 ft.	5 ft.	Also a prostrate form 2 feet high. Sun, semi-shade. Semi-evergreen.
Carolina Yellow Jessamine	Gelsemium sempervirens	low	3 ft.	Vine. Yellow, trumpet-like flowers. Hardy, one of best vines. Evergreen. Native to Georgia.
Carpet Blue	Ajuga replans	2-4 in.	3 ft.	Needs good drainage, partial shade. Blue or white flowers. Evergreen.
Bearberry Cotoneaster	Cotoneaster dammeri	2-4 ft.	5 ft.	White flowers, red fruit. Sun. Evergreen.
Ground Cover Cotoneaster	Cotoneaster salicifolulis 'Repens'	1-2 ft.	5 ft.	White flowers, red fruit. Sun. Evergreen.
Rock Cotoneaster	Cotoneaster horizontalis	1-2 ft.	5 ft.	Semi-evergreen. Sun.
Virginia Creeper	Parthenocissus quinquefolia	low	3 ft.	Red in fall. Vine. Deciduous. Native to Georgia.
Daylily	Hemerocallis spp.	2-3 ft.	2 ft.	Many flower colors. Full sun. Very hardy.
English Ivy	Hedera helix	low	3 ft.	Shade only. Climbs.
Compacta Holly	Ilex crenata 'Compacta'	3-4 ft.	5 ft.	Sun, semi-shade.
Chinese Holly	Ilex cornuta 'Rotunda'	3-4 ft.	5 ft.	Very durable. Sun, semi-shade.
Dwarf Burford Holly	Ilex burfordii 'Nana'	5-8 ft.	8 ft.	
Dwarf Yaupon Holly	Ilex vomitoria 'Nana'	3-4 ft.	5 ft.	Very durable, sun, semi-shade.
Common Name	**Scientific Name**	**Mature Height**	**Plant Spacing**	**Comments**
Repandens Holly	Ilex crenata 'Repandens'	2-3 ft.	5 ft.	Sun, semi-shade.
Andorra Juniper	Juniperus horizontalis 'Plumosa'	2-3 ft.	5 ft.	Excellent for slopes. Sun.
Andorra Compacta Juniper	Juniperus horizontalis 'Plumosa compacta'	1-2 ft.	6 ft.	More compact than andora.
Blue Chip Juniper	Juniperus horizontalis 'Blue Chip'	8-10 in.	4 ft.	
Blue Rug Juniper	Juniperus horizontalis 'Wiltonii'	4-6 in.	3 ft.	Very low. Sun.
Parsons Juniper	Juniperus davurica 'Expansa' (Squamata Parsoni)	18-24 in.	5 ft.	One of the best, good winter cover.
Pfitzer Juniper	Juniperus chinensis 'Pfitzerana'	6-8 ft.	6 ft.	Needs room.
Prince of Wales Juniper	Juniperus horizontalis 'Prince of Wales'	8-10 in.	4 ft.	Feathery appearance.
Sargent Juniper	Juniperus chinensis 'Sargenta'	1-2 ft.	6 ft.	Full sun. Needs good drainage. Good winter color.
Shore Juniper	Juniperus conferta	2-3 ft.	5 ft.	Emerald Sea or Blue Pacific cultivars are good.
Liriope	Liriope muscari	8-10 in.	3 ft.	
Common Name	**Scientific Name**	**Mature Height**	**Plant Spacing**	**Comments**
Creeping Liriope	Liriope spicata	10-12 in.	1 ft.	Spreads by runners.
Big Leaf Periwinkle	Vinca major	12-15 in.	4 ft.	Lilac flowers in spring. Semi-shade.
Common Periwinkle	Vinca minor	5-6 in.	4 ft.	Lavender-blue flowers in spring. Semi-shade
Cherokee Rose	Rosa laevigata	2 ft.	5 ft.	Rampant grower. Not for restricted spaces. State flower.
Memoria Rose	Rosa weuchuriana	2 ft.	5 ft.	Rampant grower.
St. Johnswort	Hypericum calycanum	8-12 in.	3 ft.	Semi-shade.
Anthony Waterer Spirea	Spirea bumalda	3-4 ft.	6 ft.	Sun.
Thunberg Spirea	Spirea thinbergii	3-4 ft.	6 ft.	Sun.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
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-Co	FLOCCULANTS AND COAGULANTS		Fl-Co	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.

GEORGIA UNIFORM CODING SYSTEM FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

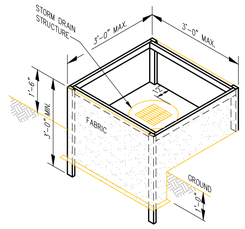
STATE SOIL AND WATER CONSERVATION COMMISSION OF GEORGIA

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		Co	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		Cr	A traveway 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		Dc	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION		Di	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		Dn1	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		Dn2	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING		Fr	A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION		Ga	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE		Gr	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		Lv	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		Re	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		Rt	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		Sd1	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		Sd2	An impounding area created by excavating around a storm drain or drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN		Sd3	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		Sd4	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		Sk	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM		Spb	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.
Sr	TEMPORARY STREAM CROSSING		Sr	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION		St	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		Su	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN		Tc	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		Tp	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		Tr	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL		Wt	Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

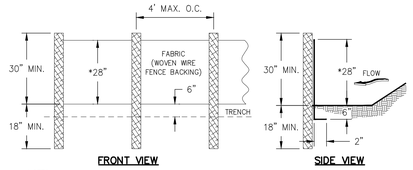
VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		Bf	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.



NOTE: SEE Sd1 DETAIL FOR FILTER FABRIC AND POST DETAILS.

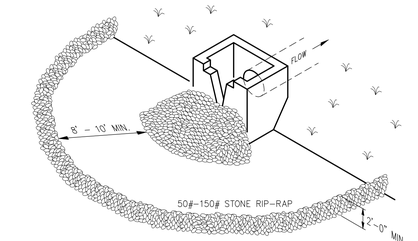
Sd2 INLET SEDIMENT TRAP DETAIL
N.T.S.



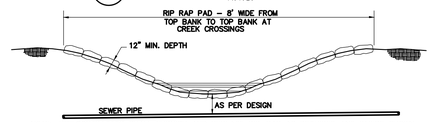
FRONT VIEW SIDE VIEW

NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
3. THE CONTRACTOR SHALL MAINTAIN THE SILT FENCE UNTIL THE PROJECT IS VEGETATED OR ACCEPTED. FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT IT REDUCES THE EFFECTIVENESS OF THE FABRIC.
4. SILT FENCE INSTALLATION AND MATERIALS SHALL MEET THE MINIMUM REQUIREMENTS OF SECTION 171 OF THE GA. D.O.T. SPECIFICATION (LATEST EDITION).
5. TYPE "S" (SENSITIVE) REQUIRES WOVEN WIRE SUPPORT AND STEEL POSTS AT A MAXIMUM SPACING OF 4'-0. SILT FENCE TO BE IN COMPLIANCE WITH THE LATEST EDITION OF "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".
6. ALTERNATIVE "C-POP" TYPE SILT FENCING LISTED ON GADOT QPL-36 MAY BE SUBSTITUTED FOR SENSITIVE TYPE SILT FENCING.
7. CONTRACTOR MAY SUBSTITUTE 12-INCH SEDIMENT TUBES FOR SILT FENCE.

Sd1-S SILT FENCE - TYPE SENSITIVE
N.T.S.

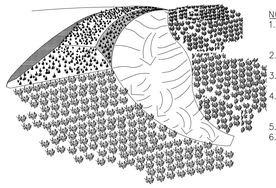


Fr STONE FILTER RING DETAIL
N.T.S.



NOTE: THE CONTRACTOR SHALL FURNISH AND REPLACE RIP-RAP AS REQUIRED AND WHERE SHOWN. RIP-RAP SHALL CONSIST OF STONE AND BAGGED SAND-CEMENT TO A THICKNESS OF APPROXIMATELY TWELVE INCHES (12"). STONE SHALL BE HARD QUARRY OR FIELDSTONE OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING. STONE SHALL RANGE IN WEIGHT FROM A MINIMUM OF 25-POUNDS TO A MAXIMUM OF 150-POUNDS WITH AT LEAST 75-PERCENT OF THE PIECES WEIGHING MORE THAN 50-POUNDS. BAGGED SAND-CEMENT RIP-RAP SHALL CONSIST OF ONE PART CEMENT AND FIVE PARTS OF SAND IN CLEAN CLOTH BAGS, APPROXIMATELY ONE CUBIC FOOT IN SIZE. SAND AND CEMENT SHALL BE AS SPECIFIED FOR CONCRETE WORK HEREIN.

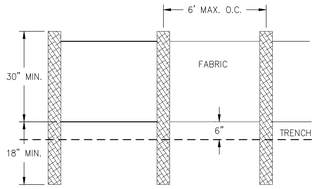
Rp RIP-RAP
N.T.S.



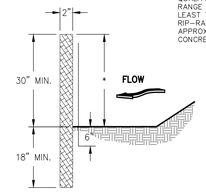
NOTES:
1. MINIMUM, UNIFORM DEPTH OF 6 INCHES AS MEASURED FROM THE LIP.
2. UNIFORM DEPTH ACROSS THE ENTIRE LENGTH.
3. LEVEL LIP CONSTRUCTED ON ZERO PERCENT GRADE.
4. DISCHARGE ONTO AN UNDISTURBED, STABILIZED AREA AT ZERO GRADE.
5. PROVIDE A SMOOTH OUTLET.
6. PREVENT WATER FROM CONCENTRATING BELOW POINT OF DISCHARGE.

NOTE: VEGETATE ALL DISTURBED AREAS IMMEDIATELY.

Lv LEVEL SPREADER
N.T.S.



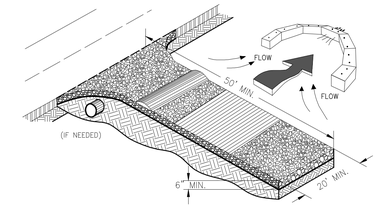
FRONT VIEW



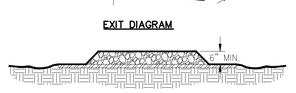
SIDE VIEW

NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

Sd1-NS SILT FENCE - TYPE NON-SENSITIVE
N.T.S.



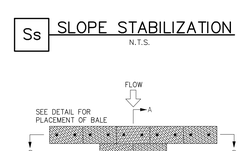
EXIT DIAGRAM



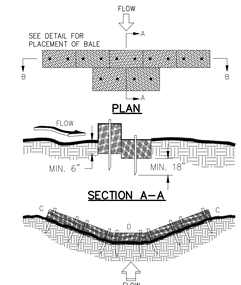
ENTRANCE ELEVATION

NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

Co CONSTRUCTION EXIT
N.T.S.

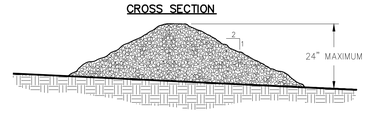


Ss SLOPE STABILIZATION
N.T.S.



NOTES:
1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
3. POINT C OF SECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D.

Cd-Hb HAYBALE CHECK DAM
N.T.S.

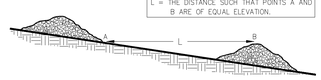


CROSS SECTION

PROFILE VIEW

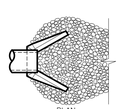
NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).

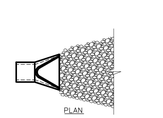
A = THE TOE OF THE UPSTREAM CHECK DAM.
B = TOP OF THE DOWNSTREAM CHECK DAM.
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



SPACING BETWEEN CHECK DAMS

Cd-S CHECK DAM - STONE
N.T.S.





St STORM DRAIN OUTLET PROTECTION
N.T.S.

NOTES:
1. Lo IS THE LENGTH OF THE RIPRAP APRON.
2. THE WIDTH OF THE RIP RAP AT THE OUTLET SHALL BE 3 TIMES THE PIPE DIAMETER (Do).
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHALL BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION. FILTER MATERIAL SHALL BE FILTER OR 6" THICK GRADED GRAVEL LAYER.

STORM DRAIN OUTLET DATA

STRUCTURE LOCATION	Do	Q=FT³/SEC	V=FT/SEC	d50 (FT.)	Lo (FT.)	W1 (FT.)	W2 (FT.)	TAIL WATER	D (FT.)
1	18"	50	28	1.5	60	5	65	<.50	0.50
2	24"	85	27	1.5	70	6	75	<.50	0.50

PROJECT NUMBER: 2512
DATE: 12/09/25
DRAWN BY: NES
APPROVED BY:

REVISIONS

CITY OF SOCIAL CIRCLE
PUBLIC WORKS DEPARTMENT
ESPC DETAILS
NEW VINE CIRCLE, SOCIAL CIRCLE, GEORGIA 30025

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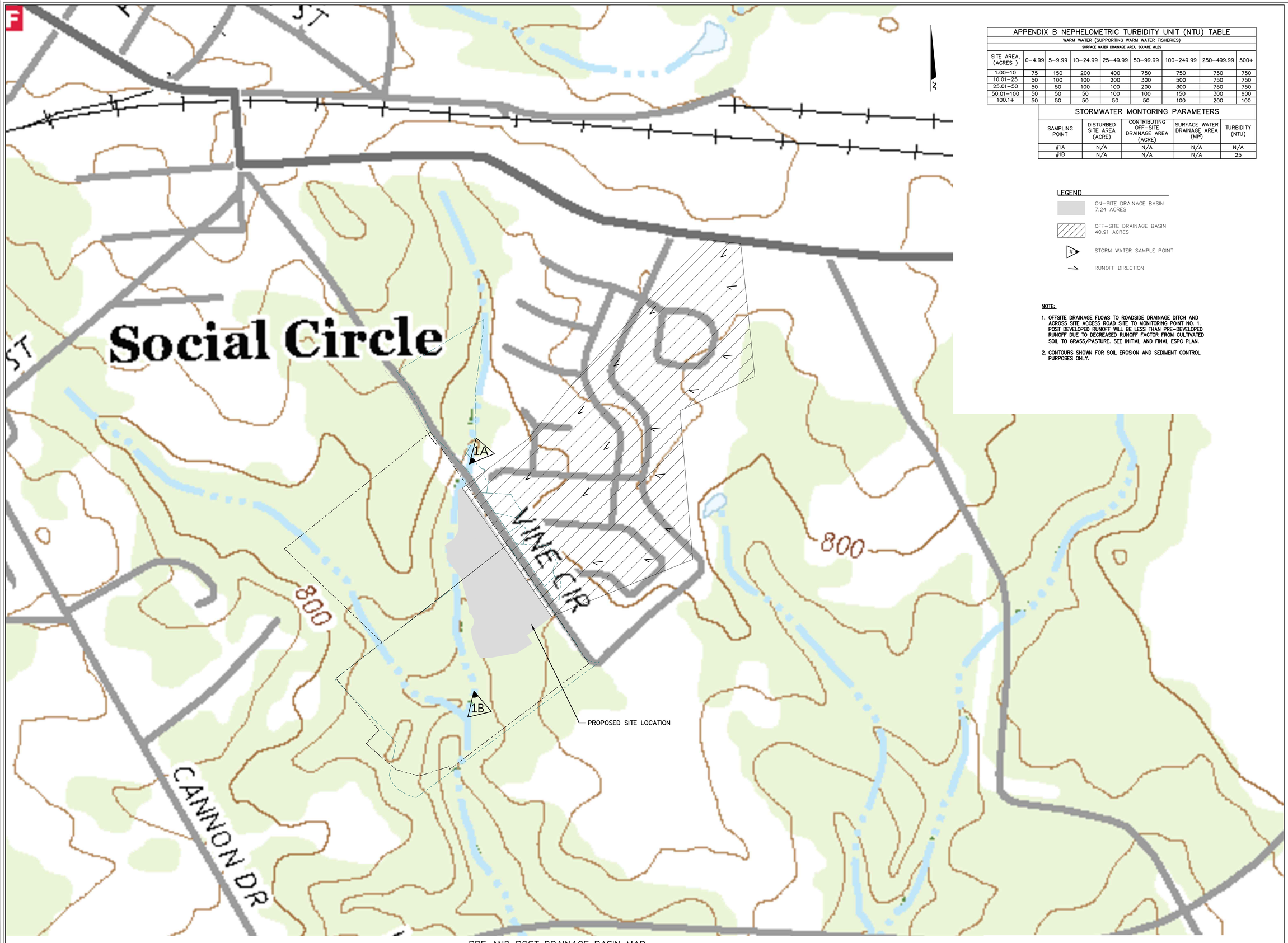
GEORGIA REGISTERED No. 36129 PROFESSIONAL ENGINEER WILLIAM D. MARTIN

GSWCC LEVEL II CERTIFICATION NO. 0000055308

SHEET NUMBER
E-14



PRE AND POST DRAINAGE BASIN MAP

SCALE: 1" = 200'

USGS 1:24,000' TOPOGRAPHICAL SHEETS

APPENDIX B NEPHELOMETRIC TURBIDITY UNIT (NTU) TABLE

WARM WATER (SUPPORTING WARM WATER FISHERIES)

SURFACE WATER DRAINAGE AREA, SQUARE MILES

SITE AREA, (ACRES)	0–4.99	5–9.99	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
100.1+	50	50	50	50	50	100	200	100

STORMWATER MONTORING PARAMETERS

SAMPLING POINT	DISTURBED SITE AREA (ACRE)	CONTRIBUTING OFF–SITE DRAINAGE AREA (ACRE)	SURFACE WATER DRAINAGE AREA (MI^2)	TURBIDITY (NTU)
#1A	N/A	N/A	N/A	N/A
#1B	N/A	N/A	N/A	25

LEGEND

- ON–SITE DRAINAGE BASIN 7.24 ACRES
- OFF–SITE DRAINAGE BASIN 40.91 ACRES
- # STORM WATER SAMPLE POINT
- RUNOFF DIRECTION

NOTE:

1. OFFSITE DRAINAGE FLOWS TO ROADSIDE DRAINAGE DITCH AND ACROSS SITE ACCESS ROAD SITE TO MONITORING POINT NO. 1. POST DEVELOPED RUNOFF WILL BE LESS THAN PRE–DEVELOPED RUNOFF DUE TO DECREASED RUNOFF FACTOR FROM CULTIVATED SOIL TO GRASS/PASTURE. SEE INITIAL AND FINAL ESPC PLAN.
2. CONTOURS SHOWN FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY.

PROJECT NUMBER: 2512

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DRAWN BY: NES

APPROVED BY:

REVISIONS

CITY OF SOCIAL CIRCLE
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DRAINAGE BASIN MAP
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SHEET NUMBER: E-15

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