

LEGEND:

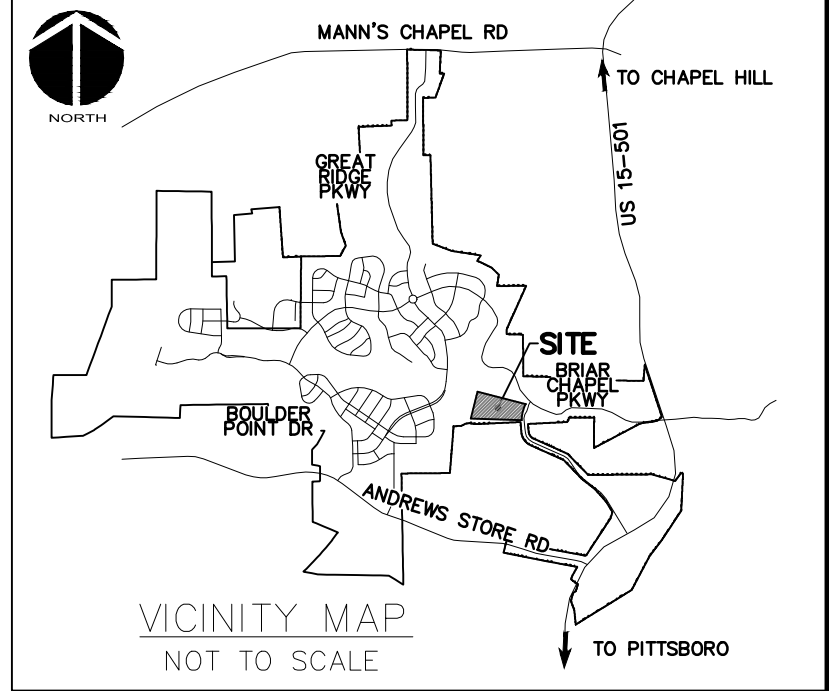
- OVERALL PROPERTY BOUNDARY
- NEW R/W LINE
- - - - - LIMITS OF DISTURBANCE
- SF/TPF COMBINATION SILT/TREE PROTECTION FENCING
- 480' EXISTING CONTOUR
- NEW DIVERSION DITCH
- TEMPORARY CONSTRUCTION ENTRANCE
- NEW CHECK DAM
- ARC FILTER INLET PROTECTION
- SILT FENCE OUTLET
- NEW BAFFLE
- RIPARIAN BUFFER LINE
- 10' NO BUILD RIPARIAN BUFFER LINE
- EX. WETLANDS
- EXISTING DRAINAGE DIVIDE
- DRAINAGE AREA

2

1

SELF INSPECTION NOTICE:

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:
 THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH STAGE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH STAGE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCAC 4B.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM
[HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML](http://www.dlr.enr.state.nc.us/pages/sedimentation_new.html) IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (919) 791-4200.



EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION, AN ON SITE PRE-CONSTRUCTION MEETING SHALL BE HELD. CHATHAM COUNTY OFFICIALS, THE ENGINEER, OWNER'S REPRESENTATIVE AND CONTRACTOR MUST ATTEND. NOTICE MUST BE GIVEN 48 HOURS NOTICE PRIOR TO SCHEDULING LAND DISTURBING ACTIVITIES.
2. THE CONTRACTOR IS TO NOTIFY CHATHAM COUNTY PUBLIC WORKS REPRESENTATIVES 48 HOURS PRIOR TO COMMENCING WITH LAND DISTURBING ACTIVITIES.
3. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL.
4. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
5. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN FOURTEEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, SEVEN DAYS WHERE SLOPES ARE 3:1 OR STEEPER. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE LEFT TO BE DORMANT FOR MORE THAN ONE YEAR.
6. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES ONCE PER WEEK AND AFTER EVERY HALF INCH OF RAINFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. ANY MEASURE THAT FAILS TO FUNCTION AS INTENDED SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR OWNER'S REPRESENTATIVE.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED TO BE NECESSARY DURING CONSTRUCTION ACTIVITIES.
8. NO PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAPS #3710976500K DATED NOVEMBER 17, 2017.

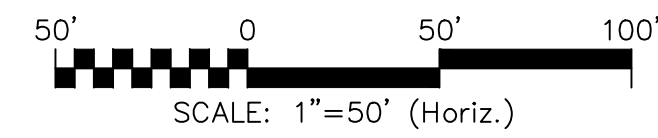
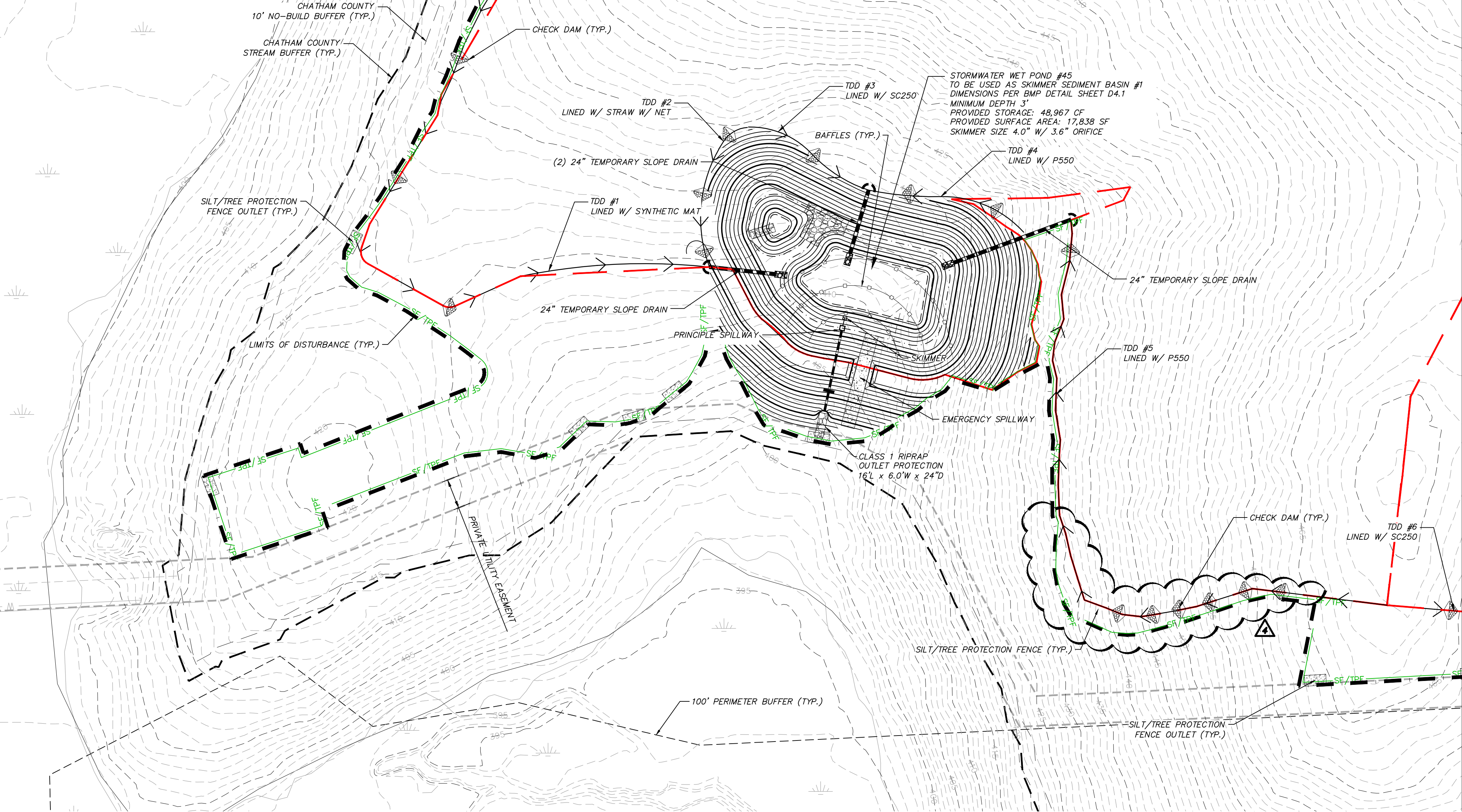
LIMITS OF DISTURBANCE NOTES:

1. SILT FENCE AND TREE PROTECTION FENCE LINES ALSO DELINEATE THE LIMITS OF DISTURBANCE. ALL SILT FENCING OR TREE PROTECTION FENCING SHALL BE INSTALLED INSIDE LIMITS OF DISTURBANCE.
2. LIMITS OF DISTURBANCE BEYOND PREVIOUSLY APPROVED AREAS: 16.24 ACRES.

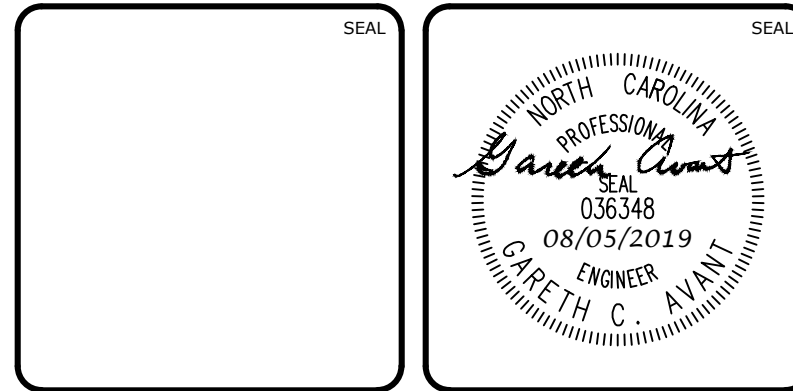
STAGE 1 CONSTRUCTION SEQUENCE:

1. THE INTENT OF THE CONSTRUCTION SEQUENCE IS TO PROVIDE THE CONTRACTOR WITH A GENERAL GUIDE FOR CONSTRUCTION PURPOSES. THIS SEQUENCE IS NOT INTENDED TO OUTLINE ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
3. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
4. IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT CHATHAM COUNTY ENVIRONMENTAL QUALITY DEPARTMENT, OWNER'S REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
5. CONTRACTOR SHALL ESTABLISH GROUND COVER ON DISTURBED AREAS WITHIN THE NUMBER OF CALENDAR DAYS AFTER COMPLETION OF GRADING PER THE SCHEDULE BELOW:
 - GRADUAL SLOPES: (14) CALENDAR DAYS
 - MODERATE SLOPES: (10) CALENDAR DAYS
 - STEEP SLOPES: (7) CALENDAR DAYS
6. SLOPES ARE AS DEFINED IN THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
7. CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE, ENGINEER AND CHATHAM COUNTY.
8. OBTAIN LAND DISTURBING PERMIT FOR SEDIMENTATION AND EROSION CONTROL FROM CHATHAM COUNTY SOIL EROSION & SEDIMENTATION CONTROL.
9. CONTRACTOR TO POST EROSION CONTROL PERMIT PROMINENTLY ON SITE AT ALL TIMES.
10. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES TO AVOID CONFLICT DURING INSTALLATION OF EROSION CONTROL MEASURES AND STORM DRAINAGE. CONTRACTOR IS TO CALL 1-800-632-4949 FOR 'NC ONE CALL' TO HAVE UTILITIES LOCATED.
11. CONTRACTOR TO HAVE A PROFESSIONAL LAND SURVEYOR FLAG PROPERTY LINES, EASEMENTS, LANDSCAPE BUFFERS, STREAM BUFFERS, TREE PROTECTION AREAS AND LIMITS OF DISTURBANCE.
12. INSTALL TREE PROTECTION FENCING AND SILT FENCING AS SHOWN AND DETAILED ON PLAN. TIMER ONLY AS NECESSARY TO INSTALL THESE DEVICES. INSTALL TEMPORARY STREAM CROSSINGS AS NEEDED IN ORDER TO ACCESS THE SITE.
13. CONSTRUCT TEMPORARY SKIMMER SEDIMENT BASINS & BMPs ACTING AS SEDIMENT SKIMMER BASINS TO THE REQUIRED DIMENSIONS AND ELEVATIONS AS DETAILED IN THESE PLANS. GRUB ONLY AS NECESSARY TO INSTALL THE BASINS. MATERIAL EXCAVATED DURING THE CONSTRUCTION OF SEDIMENT BASINS SHALL BE TEMPORARILY STOCKPILED ADJACENT TO BASINS. ONCE ROUGH GRADING OPERATIONS BEGIN, THESE MATERIALS SHALL BE PLACED AS NEEDED IN AREAS OF FILL OR MOVED TO LARGER STOCKPILE AREAS.
14. INSTALL BAFFLES PER PLAN. SEED AND MULCH SIDE SLOPES OF SEDIMENT BASINS UPON COMPLETION. INSTALL BIODEGRADABLE MATTING ON SIDE SLOPES OF BASINS IF NECESSARY TO ESTABLISH COVER.
15. CONSTRUCT DIVERSION DITCHES AS SHOWN AND DETAILED IN THESE PLANS. SEED, MULCH AND INSTALL REQUIRED LINERS IN THESE DITCHES. INSTALL CHECK DAMS IN DITCHES AS SHOWN AND DETAILED ON PLANS. CLEAR ONLY AS NECESSARY TO INSTALL THESE EROSION CONTROL MEASURES.
16. CONTACT CHATHAM COUNTY SOIL EROSION & SEDIMENTATION AND ENGINEER UPON COMPLETION OF INITIAL EROSION CONTROL MEASURES.
17. ONCE TEMPORARY SKIMMER SEDIMENT BASINS AND DIVERSION DITCHES HAVE BEEN INSTALLED, GRUB WITHIN DELINEATED DRAINAGE AREAS ASSOCIATED WITH THE INSTALLED TEMPORARY SKIMMER SEDIMENT BASINS.
18. CONTRACTOR SHALL STRIP TOPSOIL AND STORE AT DESIGNATED LOCATION. PROVIDE SILT FENCE AROUND PERIMETER OF SLOPE OF ANY STOCKPILE LOCATIONS. CONTRACTOR SHALL REMOVE ALL ROOT MATTER AND ORGANICS FROM WITHIN THE CLEARING LIMITS.
19. AFTER COMPLETION OF CLEARING AND GRUBBING, THE SITE SHALL BE TEMPORARILY STABILIZED EXCEPT IN AREAS OF ACTIVE CUT/FILL. ACTIVE AREAS SHOULD NOT EXCEED 15 ACRES AT ONE TIME.
20. BEGN ROUGH GRADING WITHIN CLEARING LIMITS.
21. MAINTAIN AND PROTECT EXISTING UTILITIES AT ALL TIMES. MAINTAIN DIVERSION DITCHES, BASINS, SILT FENCE AND OTHER EROSION CONTROL MEASURES UNTIL THEY ARE APPROVED TO BE REMOVED.
22. PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE PLANS.
23. ONCE GROUND COVER HAS BEEN ESTABLISHED AND OTHER CONSTRUCTION IS COMPLETE, CONTACT CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION AND ENGINEER FOR SITE INSPECTION BEFORE REMOVING ANY TEMPORARY EROSION CONTROL MEASURES.

MATCHLINE - SEE SHEET C32



REV. NO.	DESCRIPTIONS	DATE
4	LIMITS OF DISTURBANCE REVISION	2019.08.05
3	REVISIONS PER NCSOT COMMENTS	2019.07.25
2	REVISIONS PER CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL COMMENTS	2019.06.05
1	INITIAL SUBMITTAL	2019.05.09

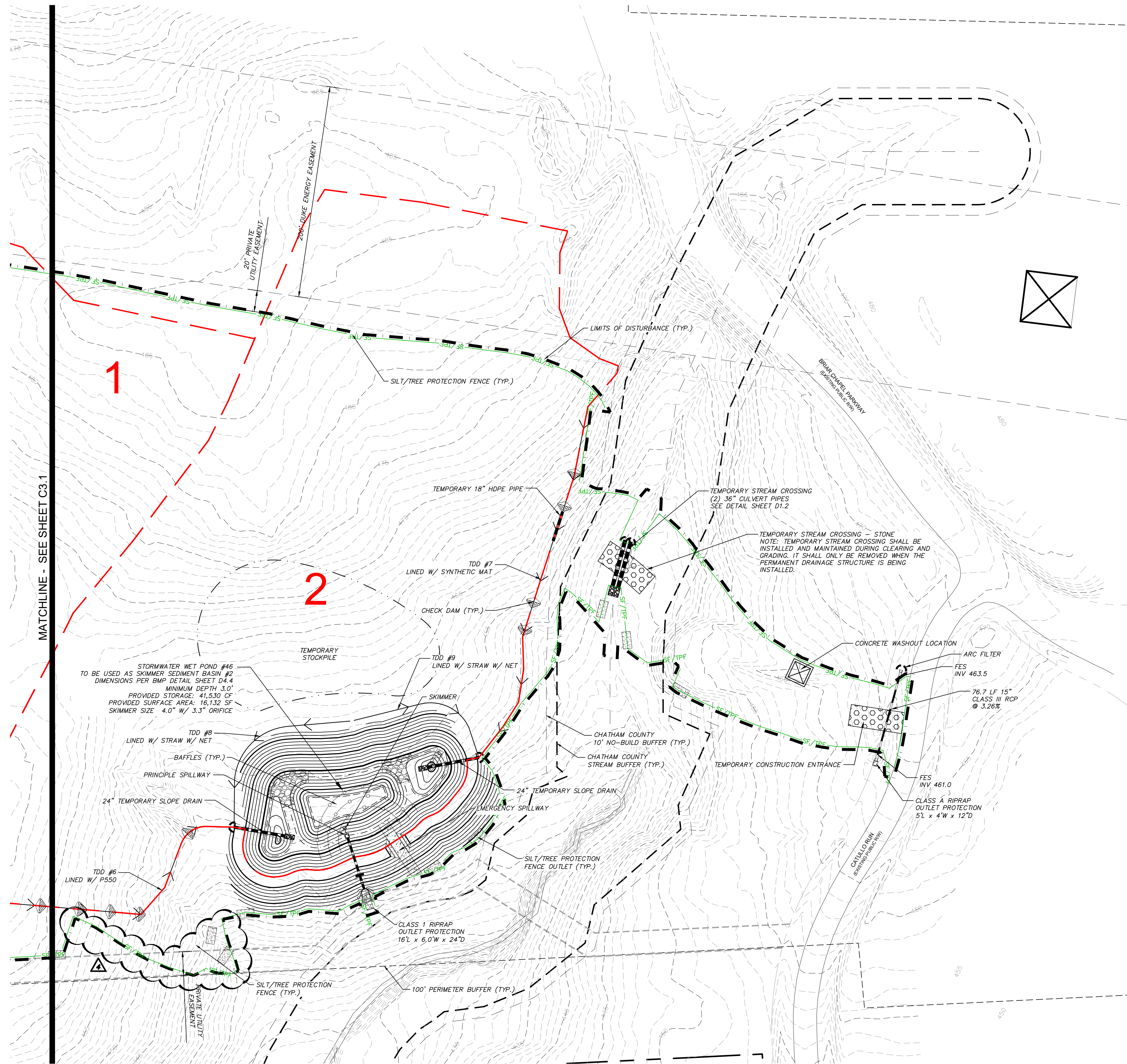
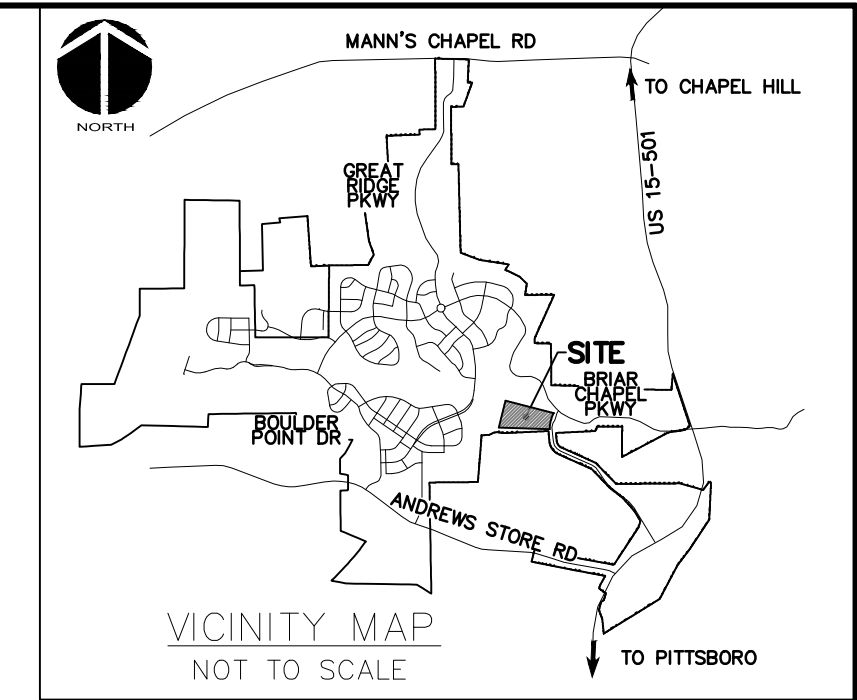


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www.mckimcreed.com

BRIAR CHAPEL™
 by
Newland COMMUNITIES

**BRIAR CHAPEL
 PHASE 14
 CHATHAM COUNTY, NORTH CAROLINA**
**STAGE 1 GRADING, DRAINAGE, AND EROSION
 CONTROL PLAN**

DATE: MAY 9, 2019	SCALE: C3.1
MCE PROJ. # 02735-0239	HORIZONTAL: AS NOTED
DRAWN: DCR	VERTICAL: N/A
DESIGNED: DCR	REVISION: 4
CHECKED: GCA	STATUS: FINAL DRAWINGS RELEASED FOR CONSTRUCTION
PROJ. MGR.: CHS	



LEGEND:

	OVERALL PROPERTY BOUNDARY
	NEW R/W LINE
	LIMITS OF DISTURBANCE
	COMBINATION SILT/TREE PROTECTION FENCING
	EXISTING CONTOUR
	NEW DIVERSION DITCH
	TEMPORARY CONSTRUCTION ENTRANCE
	NEW CHECK DAM
	ARC FILTER INLET PROTECTION
	SILT FENCE OUTLET
	NEW BAFFLE
	RIPARIAN BUFFER LINE
	10' NO BUILD RIPARIAN BUFFER LINE
	EX. WETLANDS
	EXISTING DRAINAGE DIVIDE
	DRAINAGE AREA

CALL N.C. ONE CALL CENTER BEFORE YOU DIG
STOP
 1-800-632-4949
 AVOID UTILITY DAMAGE

NORTH

50' 0 50' 100'
 SCALE: 1"=50' (Horiz.)

REV. NO.	DESCRIPTIONS	DATE
4	LIMITS OF DISTURBANCE REVISION	2019.08.05
3	REVISIONS PER NCDOT COMMENTS	2019.07.25
2	REVISIONS PER CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL COMMENTS	2019.06.05
1	INITIAL SUBMITTAL	2019.05.09

SEAL

Greth C. Avant
 PROFESSIONAL ENGINEER
 036348
 08/05/2019
 NORTH CAROLINA
 GRETH C. AVANT

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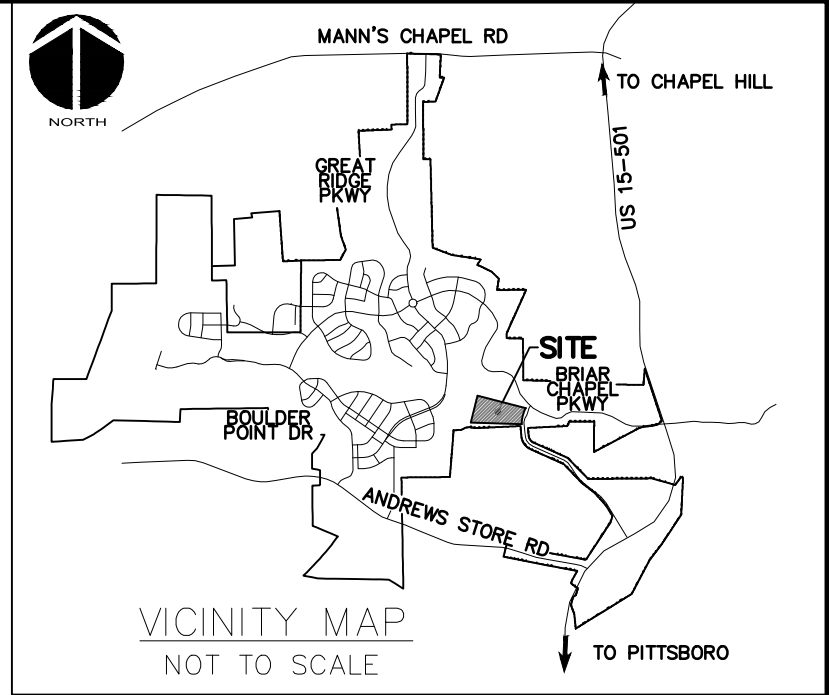
BRIAR CHAPEL
 PHASE 14
 CHATHAM COUNTY, NORTH CAROLINA
 STAGE 1 GRADING, DRAINAGE, AND EROSION
 CONTROL PLAN

DATE: MAY 9, 2019	SCALE: C3.1	MSC FILE NUMBER: C3.1
MCE PROJ. # 02735-0239	HORIZONTAL: AS NOTED	DRAWING NUMBER: C3.2
DRAWN: DCR	VERTICAL: N/A	
DESIGNED: DCR		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS RELEASED FOR CONSTRUCTION	REVISION: 4	

LEGEND:

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- ○ ○ ○ ○ SILT FENCE OUTLET
- ○ ○ ○ ○ NEW BAFFLE
- ▨ ▨ ▨ ▨ ▨ SLOPE MATTING
- - - - - RIPARIAN BUFFER LINE
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- ▨ ▨ ▨ ▨ ▨ EX. WETLANDS
- - - - - EXISTING DRAINAGE DIVIDE
- ▨ ▨ ▨ ▨ ▨ DRAINAGE AREA

2



STAGE 2 CONSTRUCTION SEQUENCE:

1. THE INTENT OF THE CONSTRUCTION SEQUENCE IS TO PROVIDE THE CONTRACTOR WITH A GENERAL GUIDE FOR CONSTRUCTION PURPOSES. THIS SEQUENCE IS NOT INTENDED TO OUTLINE ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
3. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
4. IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT CHATHAM COUNTY ENVIRONMENTAL QUALITY DEPARTMENT, OWNER'S REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
5. CONTRACTOR SHALL ESTABLISH GROUND COVER ON DISTURBED AREAS WITHIN THE NUMBER OF CALENDAR DAYS AFTER COMPLETION OF GRADING PER THE SCHEDULE BELOW:
 - GRADUAL SLOPES: (14) CALENDAR DAYS
 - MODERATE SLOPES: (10) CALENDAR DAYS
 - STEEP SLOPES: (7) CALENDAR DAYS
6. SLOPES ARE AS DEFINED IN THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
7. MAINTAIN ALL EXISTING EROSION CONTROL MEASURES THAT WILL REMAIN THROUGHOUT STAGE 2 EROSION CONTROL. THIS INCLUDES EXISTING DIVERSION DITCHES, EXISTING SKIMMER BASINS, EXISTING SILT FENCE AND SILT FENCE OUTLETS, AND TREE PROTECTION.
8. ENSURE LOW FLOW ORIFICE OF BMP #45 AND THE LOW FLOW AND SECONDARY ORIFICES OF BMP #46 ARE PLUGGED AND FUNCTIONING AS NECESSARY IN ORDER TO MAINTAIN THE REQUIRED SURFACE AREA AND VOLUME TO ACT AS SEDIMENT BASINS IN STAGE 2. PERFORM REPAIRS TO PLUG/PLYWOOD AS NEEDED.
9. BEGIN FINAL GRADING OPERATIONS FOR ROADWAY AND LOTS.
10. CONTRACTOR IS TO INSTALL THE PUMP, COFFER DAM, AND FILTER BAG AS SHOWN AND DETAILED IN THE PLANS PRIOR TO REMOVAL OF TEMPORARY CULVERT AT THE STREAM CROSSING. CONTRACTOR MUST HAVE PUMP AROUND INSTALLED PRIOR TO THE INSTALLATION OF THE PERMANENT STREAM CROSSING CULVERT.
11. UPON COMPLETION OF PERMANENT STREAM CROSSING CULVERT INSTALLATION, CONTRACTOR IS TO KEY-IN CLASS 1 RIP RAP AROUND INLET AND OUTLET HEADWALLS FOR BANK STABILIZATION AS SHOWN AND DETAILED IN THE PLANS.
12. AS ELEVATIONS ARE BROUGHT TO FINAL GRADES AND STORM PIPING IS INSTALLED IN ROADWAYS AND LOTS, CONTRACTOR SHALL INSTALL HARDWARE CLOTH AND GRAVEL INLET PROTECTION AND INSTALL LINERS IN PERMANENT SWALES AS SPECIFIED IN THESE PLANS.
13. CONSTRUCT ADDITIONAL DIVERSION DITCHES AS SHOWN AND DETAILED IN THESE PLANS. SEED, MULCH AND INSTALL REQUIRED LINERS IN THESE DITCHES. INSTALL CHECK DAMS IN DITCHES AS SHOWN AND DETAILED ON PLANS. CLEAR ONLY AS NECESSARY TO INSTALL THESE EROSION CONTROL MEASURES.
14. MAINTAIN AND PROTECT EXISTING UTILITIES AT ALL TIMES. MAINTAIN DIVERSION DITCHES, BASINS, SILT FENCE AND OTHER EROSION CONTROL MEASURES UNTIL THEY ARE APPROVED TO BE REMOVED.
15. PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE PLANS.
16. ONCE GROUND COVER HAS BEEN ESTABLISHED AND OTHER CONSTRUCTION IS COMPLETE, CONTACT CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION AND ENGINEER FOR SITE INSPECTION BEFORE REMOVING ANY TEMPORARY EROSION CONTROL MEASURES.
17. AFTER UPSTREAM AREAS HAVE BEEN SUBSTANTIALLY STABILIZED, CONVERT SEDIMENT BASINS INTO BMPs PER BMP DETAIL SHEETS D4.1-4.6. BASINS SHALL NOT BE CONVERTED WITHOUT APPROVAL FROM CHATHAM COUNTY.

STORM DRAINAGE NOTES:

1. STORM DRAINAGE PIPES SHALL BE:
 - RCP/CLASS III FOR STORM DRAINAGE INSIDE PUBLIC RIGHT-OF-WAY OR CONNECTING INTO STRUCTURE INSIDE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH NCDOT STANDARDS UNLESS NOTED OTHERWISE.
2. ALL CONCRETE SHALL MEET A MINIMUM 3,000 PSI COMPRESSIVE STRENGTH.
3. ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH INSIDE WALL.
4. THE INTERIOR SURFACES OF ALL STORM DRAINAGE STRUCTURES SHALL BE POINTED UP AND SMOOTHED TO AN ACCEPTABLE STANDARD USING MORTAR MIXED TO MANUFACTURER'S SPECIFICATIONS.
5. ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION MATTER, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. UTILIZED MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE TAMPING BLOWS OR PROOF ROLLING.
6. MATERIALS DEEMED AS UNSUITABLE FOR BACKFILL PURPOSES BY THE OWNER'S REPRESENTATIVE SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
7. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE THOROUGHLY COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST. THE TOP EIGHT (8) INCHES SHALL BE COMPACTED TO 100% STANDARD PROCTOR.
8. UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.
9. ALL FLARED END SECTIONS DISCHARGING INTO WATER QUALITY PONDS WILL HAVE A CONCRETE PAD POURED UNDERNEATH THE FLARED END SECTION IN ACCORDANCE WITH PROVIDED CONSTRUCTION DETAILS.
10. RIM ELEVATIONS OF STORM DRAIN STRUCTURES SHALL BE MEASURED AT THE FLOW LINE OF CURB AND GUTTER.
11. STORM DRAINAGE OUTSIDE PUBLIC RIGHT-OF-WAY AND PERMANENT DRAINAGE EASEMENTS TO BE OWNED, OPERATED AND MAINTAINED BY HOME OWNER'S ASSOCIATION OR AGENT THEREOF.
12. LENGTHS SHOWN FOR STORM DRAINAGE PIPES ARE MEASURED FROM CENTER OF STORM STRUCTURES AND TO ENDS OF FLARED END SECTIONS. SLOPES CALCULATED ARE BASED ON THIS LENGTH.
13. CB DENOTES CATCH BASINS TO BE INSTALLED IN NON-PAVED AREAS. REFER TO NCDOT DETAILS 840.19 AND 840.24 ON SHEET D-2.2.
14. CI DENOTES CURB INLETS TO BE INSTALLED IN THE CURB LINES OF ROADWAYS. REFER TO NCDOT DETAILS 840.02 AND 840.03 ON SHEET D-2.2.
15. ALL CLASS III PIPES CROSSING UNDER THE ROAD MUST MEET MINIMUM COVER OF 2 FT. BELOW THE ROADWAY SUBGRADE. IF 2 FT. OF COVER CANNOT BE MAINTAINED, CLASS IV RCP SHOULD BE USED.

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6	REVISIONS PER NCDOT COMMENTS	2019.08.09
5	REVISIONS PER NCDOT COMMENTS	2019.08.06
4	LIMITS OF DISTURBANCE REVISION	2019.08.05
3	REVISIONS PER NCDOT COMMENTS	2019.07.25
2	REVISIONS PER CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL COMMENTS	2019.06.05
1	INITIAL SUBMITTAL	2019.05.09

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER
 GARETH C. AVANT
 036348
 08/09/2019
 ENGINEER

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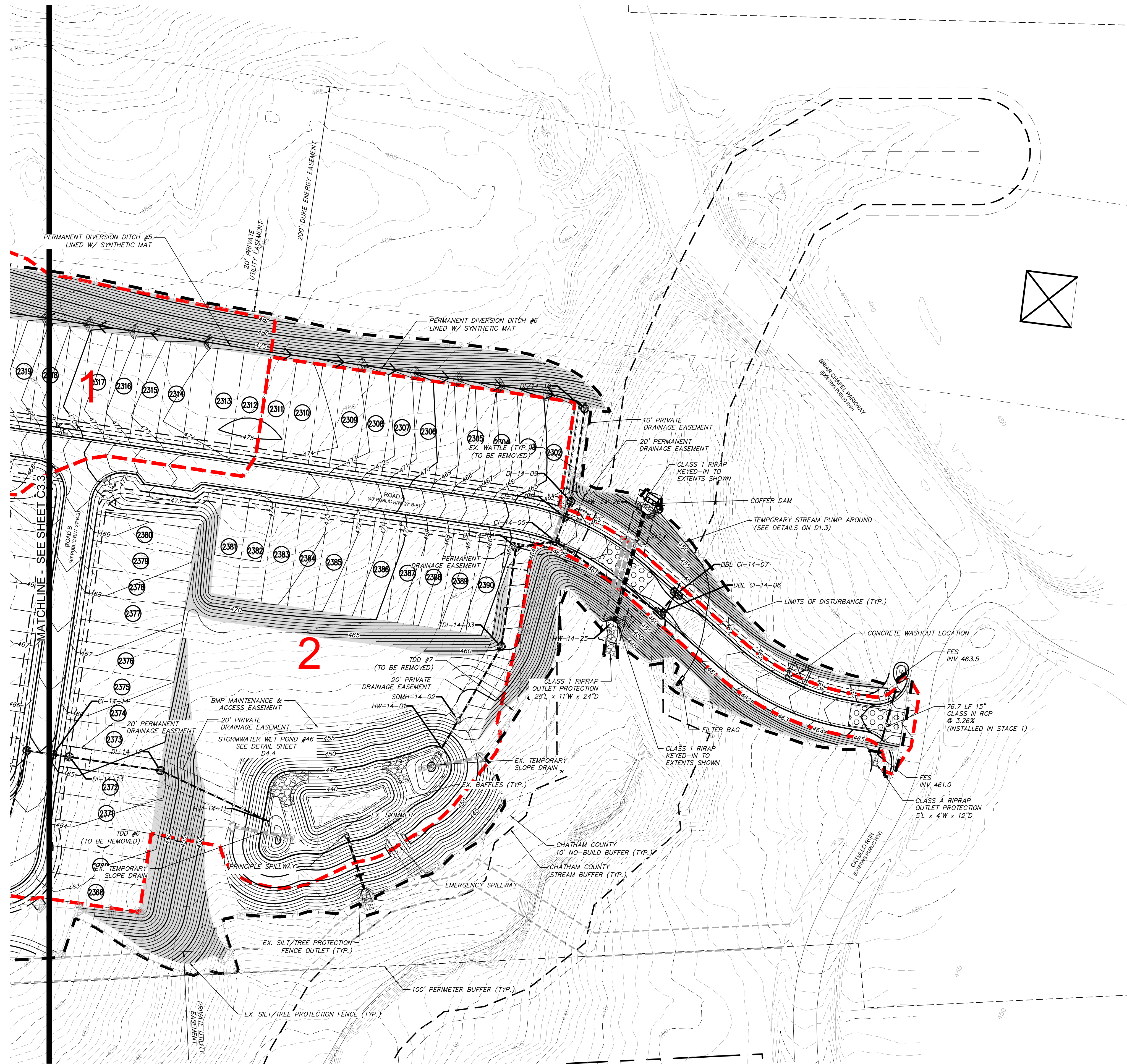
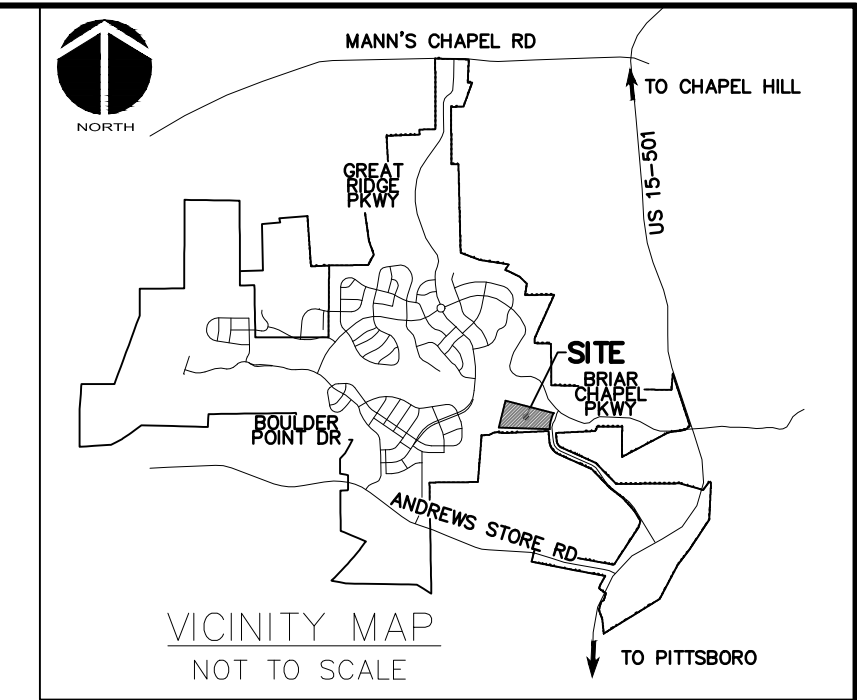
**BRIAR CHAPEL
 PHASE 14
 CHATHAM COUNTY, NORTH CAROLINA**
STAGE 2 GRADING, DRAINAGE, AND EROSION CONTROL PLAN

DATE: MAY 9, 2019
 MCE PROJ. #: 02735-0239
 DRAWN: DCR
 DESIGNED: DCR
 CHECKED: GCA
 PROJ. MGR.: CHS

SCALE: HORIZONTAL: AS NOTED
 VERTICAL: N/A

MSC FILE NUMBER: C3.3
 DRAWING NUMBER: C3.3

STATUS: FINAL DRAWINGS RELEASED FOR CONSTRUCTION
 REVISION: 6



- LEGEND:**
- OVERALL PROPERTY BOUNDARY
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 - RIPARIAN BUFFER LINE
 - 10' NO BUILD RIPARIAN BUFFER LINE
 - EX. WETLANDS
 - EXISTING DRAINAGE DIVIDE
 - DRAINAGE AREA

CALL N.C. ONE CALL CENTER BEFORE YOU DIG
STOP
 1-800-632-4949
 AVOID UTILITY DAMAGE

NORTH

50' 0 50' 100'
 SCALE: 1"=50' (Horiz.)

REV. NO.	DESCRIPTIONS	DATE
6	REVISIONS PER NCDOT COMMENTS	2019.08.09
5	REVISIONS PER NCDOT COMMENTS	2019.08.06
4	LIMITS OF DISTURBANCE REVISION	2019.08.05
3	REVISIONS PER NCDOT COMMENTS	2019.07.25
2	REVISIONS PER CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL COMMENTS	2019.06.05
1	INITIAL SUBMITTAL	2019.05.09

SEAL

PROFESSIONAL ENGINEER
 GARETH C. AVANT
 08/09/2019
 036348

MCKIM & CREED

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Newland COMMUNITIES

**BRIAR CHAPEL
 PHASE 14
 CHATHAM COUNTY, NORTH CAROLINA**

**STAGE 2 GRADING, DRAINAGE, AND EROSION
 CONTROL PLAN**

DATE: MAY 9, 2019	SCALE: C3.3	MSC FILE NUMBER: C3.3
MCE PROJ. # 02735-0239	HORIZONTAL: AS NOTED	DRAWING NUMBER: C3.4
DRAWN: DCR	VERTICAL: N/A	
DESIGNED: DCR		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS RELEASED FOR CONSTRUCTION	REVISION: 6	

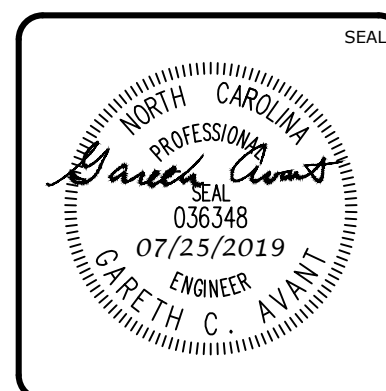
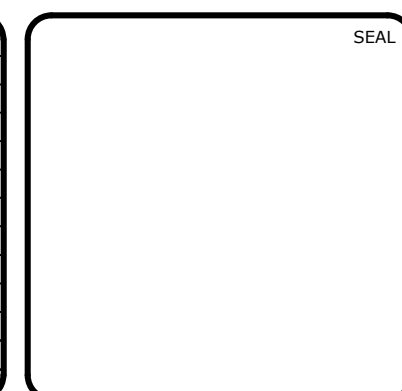
STORM DRAINAGE STRUCTURE TABLE	
STRUCTURE NAME	RIM ELEVATION
CI-14-05	462.57
CI-14-08	462.58
CI-14-14	464.99
CI-14-15	464.99
CI-14-21	424.89
CI-14-22	424.70
CI-14-23	432.94
CI-14-24	440.99
CI-14-25	440.99
DBL CI-14-06	460.00
DBL CI-14-07	460.00
DBL CI-14-17	462.09
DBL CI-14-20	419.59
DI-14-03	460.41
DI-14-04	464.68
DI-14-09	462.41
DI-14-10	462.88
DI-14-12	464.14
DI-14-13	465.03
DI-14-26	441.65

STORM DRAINAGE STRUCTURE TABLE	
STRUCTURE NAME	RIM ELEVATION
DI-14-27	440.79
DI-14-28	445.00
DI-14-29	450.00
DI-14-30	460.00
HW-14-01	447.24
HW-14-11	444.44
HW-14-18	411.75
HW-14-25	444.56
HW-14-26	446.79
SDMH-14-02	453.89
SDMH-14-19	422.00

STORM DRAINAGE SUMMARY TABLE							
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	UPSTREAM INVERT	DOWNSTREAM INVERT	PIPE DIAMETER	PIPE MATERIAL	LENGTH (ft)	SLOPE
CI-14-05	DI-14-04	454.4	454.2	18"	RCP	37.8	0.50%
CI-14-08	CI-14-05	457.6	457.4	15"	RCP	24.5	0.50%
CI-14-14	DI-14-13	454.4	454.3	15"	RCP	15.8	0.50%
CI-14-15	CI-14-14	454.6	454.5	15"	RCP	24.5	0.50%
CI-14-21	SDMH-14-19	419.1	417.5	18"	RCP	52.9	3.04%
CI-14-22	CI-14-21	419.3	419.2	15"	RCP	27.7	0.50%
CI-14-23	CI-14-21	427.6	419.2	24"	RCP	112.6	7.44%
CI-14-24	CI-14-23	434.5	427.7	24"	RCP	110.2	6.16%
CI-14-25	CI-14-24	434.7	434.6	24"	RCP	24.5	0.50%
DBL CI-14-06	CI-14-05	455.0	454.5	18"	RCP	118.7	0.50%
DBL CI-14-07	DBL CI-14-06	455.2	455.0	18"	RCP	24.5	0.50%
DBL CI-14-17	CI-14-15	455.6	454.9	15"	RCP	137.0	0.50%
DBL CI-14-20	SDMH-14-19	414.2	412.0	15"	RCP	62.0	3.58%
DI-14-03	SDMH-14-02	452.1	448.1	18"	RCP	80.4	5.00%
DI-14-04	DI-14-03	454.1	452.2	18"	RCP	94.5	2.00%
DI-14-09	CI-14-08	457.7	457.7	15"	RCP	15.7	0.50%
DI-14-10	DI-14-09	458.3	457.8	15"	RCP	88.3	0.50%
DI-14-12	HW-14-11	449.9	442.0	15"	RCP	113.0	7.00%
DI-14-13	DI-14-12	454.2	453.8	15"	RCP	87.0	0.50%
DI-14-26	CI-14-25	434.9	434.8	18"	RCP	15.8	0.50%

STORM DRAINAGE SUMMARY TABLE							
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	UPSTREAM INVERT	DOWNSTREAM INVERT	PIPE DIAMETER	PIPE MATERIAL	LENGTH (ft)	SLOPE
DI-14-27	DI-14-26	435.4	435.0	18"	RCP	92.0	0.50%
DI-14-28	DI-14-27	440.4	435.5	15"	RCP	96.9	5.02%
DI-14-29	DI-14-28	445.4	440.5	15"	RCP	112.0	4.37%
DI-14-30	DI-14-29	455.4	445.5	15"	RCP	192.8	5.14%
HW-14-26	HW-14-25	444.8	441.8	42"	RCP	105.9	2.74%
SDMH-14-02	HW-14-01	448.0	444.5	18"	RCP	30.6	11.32%
SDMH-14-19	HW-14-18	411.9	408.5	24"	RCP	65.6	5.21%

REV. NO.	DESCRIPTIONS	DATE
3	REVISIONS PER NCDOT COMMENTS	2019.07.25
2	REVISIONS PER CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL COMMENTS	2019.06.05
1	INITIAL SUBMITTAL	2019.05.09



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 CHATHAM COUNTY, NORTH CAROLINA**

STORM DRAIN TABLES

DATE: MAY 9, 2019	SCALE: C3.3	M&C FILE NUMBER: C3.3
M&C PROJ. # 02735-0239	HORIZONTAL: AS NOTED	DRAWING NUMBER: C3.5
DRAWN: DCR	VERTICAL: N/A	
DESIGNED: DCR		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS RELEASED FOR CONSTRUCTION	REVISION: 3	