

UTILITY NOTES:

- ALL SANITARY SEWER CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH CURRENT NCDENR & CHATHAM COUNTY STANDARDS, SPECIFICATIONS & DETAILS.
- 2. ALL WATER MAIN CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH CURRENT CHATHAM COUNTY STANDARDS, SPECIFICATIONS & DETAILS.
- 3. ALL PERMITS RELATING TO THIS PROJECT MUST BE OBTAINED PRIOR TO CONSTRUCTION.
- 4. ALL WATER MAINS SHALL HAVE A MIN. OF 3'-6" OF COVER AS MEASURED FROM FINISHED GRADE TO TOP OF PIPE AT THE LOCATION WHERE INSTALLED.
- 5. WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT LATERAL SEPARATION, IN WHICH CASE:

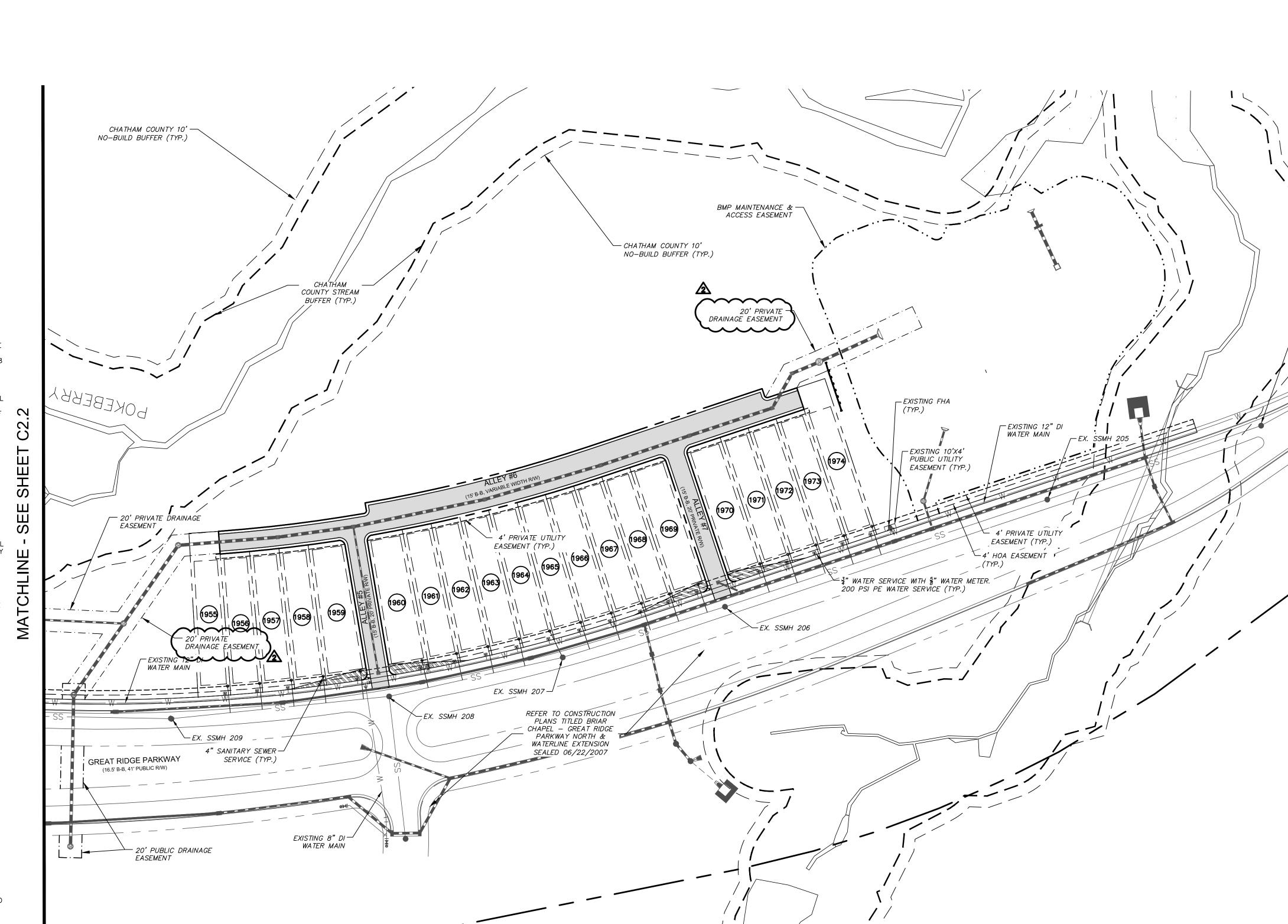
(1) THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR

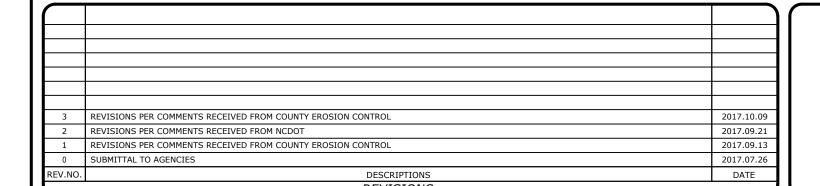
(2) THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

WHERE A WATER MAIN CROSSES OVER A SANITARY SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18-INCH VERTICAL SEPARATION — IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.

WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING. SEE NCAC 15A, 18C, SECTION .0906.

- 6. CONTRACTOR SHALL USE A MIN. 20' SECTION DIP CLASS 350 CENTERED UNDER STORMWATER PIPE WHERE 18" MIN. VERTICAL CLEARANCE CANNOT BE MET BETWEEN STORMWATER AND WATER.
- 7. TRACER WIRE AND TRACER WIRE TEST STATIONS ARE TO BE INSTALLED ON ALL WATER MAINS. TRACER WIRE TEST STATIONS ARE TO BE LOCATED AT ALL FIRE HYDRANTS WITHIN A 3 FOOT RADIUS OF THE HYDRANT AND PREFERABLY TO THE REAR OF THE HYDRANT.
- 8. WATER SERVICES SHALL BE EXTENDED FROM THE MAIN TO A METER BOX LOCATED WITHIN THE RIGHT OF WAY. THE METER SHALL BE PLACED AT THE EDGE OF THE SERVICED LOT'S RIGHT OF WAY LINE OR EASEMENT. SERVICE LINE SHALL BE RUN ON A TRUE LINE FROM THE WATER MAIN TO THE METER BOX, AND WHERE POSSIBLE, SERVICE LINE SHALL BE PERPENDICULAR TO THE MAIN LINE. NO WATER BOXES OR VAULTS SHALL BE PLACED IN STREETS, SIDEWALKS, PARKING AREAS, OR DRIVEWAYS.
- 9. MANHOLES SHALL BE SPACED A MAXIMUM DISTANCE OF 400 FEET APART.
- 10. MANHOLES SHALL BE INSTALLED AT EACH DEFLECTION OF LINE AND/OR GRADE WITH A MINIMUM DROP OF 0.2 FEET. MANHOLES FOR SEWERS GREATER THAN 21 INCHES IN DIAMETER SHALL BE 5 FOOT MANHOLES. MANHOLES FOR SEWERS 12 FEET OR DEEPER SHALL BE MINIMUM 5 FOOT DIAMETER. MANHOLE TOPS SHALL BE SET FLUSH WITH PAVEMENT WHERE INSTALLED IN A STREET.
- 11. SERVICE CONNECTIONS FOR THE SANITARY SEWER LINES SHOULD BE PERPENDICULAR FROM THE MAIN LINE TO THE EDGE OF THE SERVICED LOT'S RIGHT OF WAY LINE OR EASEMENT WITH A MINIMUM GRADE OF 1/4 INCH/FOOT FOR 4 INCH AND .6 FOOT/100 FOOT FOR 6 INCH. ALL CLEANOUTS SHALL EXTEND A MINIMUM OF 6 INCHES ABOVE THE FINISHED GRADE. WHERE A SERVICE LINE IS CONNECTED TO A MANHOLE, THE LINE SHALL TERMINATE AT THE EDGE OF THE INVERT IN THE MANHOLE. NO CLEANOUTS SHALL BE PLACED IN STREETS, SIDEWALKS, PARKING AREAS, OR DRIVEWAYS.
- 12. ALL SANITARY SEWER LINES ARE 8" PVC SDR 35 UNLESS OTHERWISE NOTED AND ALL WATER MAIN LINES ARE 8" DI CLASS 350 UNLESS OTHERWISE NOTED. ALL SANITARY SEWER SERVICES ARE 4" SCHEDULE 40 PVC AND ALL WATER MAIN SERVICES ARE 3/4".
- 13. MINIMUM COVER OF 5 FEET IN TRAFFIC AREAS TO BE PROVIDED FOR ALL COLLECTOR LINES 4 INCHES AND LARGER. IF LESS THAN 5 FEET, DUCTILE IRON PIPE SHALL BE REQUIRED.
- 14. SANITARY SEWER WITHIN PRIVATE EASEMENTS TO BE OWNED, OPERATED AND MAINTAINED BY HOME OWNERS ASSOCIATION OR AGENT THEREOF.
- 15. WATER MAINS WILL BE 3.5' OFF CURB AND GUTTER UNLESS SHOWN
- 16. ALL WATER MAINS WITHIN PUBLIC EASEMENTS AND PUBLIC RIGHT—OF—WAY TO BE OWNED, OPERATED AND MAINTAINED BY CHATHAM COUNTY, AND WILL BE CONTAINED WITHIN 20' WIDE PUBLIC WATER LINE EASEMENT (MINIMUM) CENTERED ON THE PROPOSED WATER MAIN.
- 17. CONTRACTOR TO COORDINATE WITH CHATHAM COUNTY PUBLIC WORKS FOR ALL IRRIGATION SLEEVE SIZING.



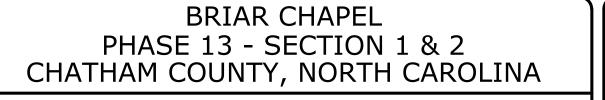






www.mckimcreed.com





UTILITY PLAN

SCALE: 1"=50' (Horiz.)					
DATE:	JULY 26, 2017	SCALE	M&C FILE NUMBER		
MCE PROJ. #	02735-0198		C2.X		
DRAWN	BSS	HORIZONTAL:	DRAWING NUMBER		
DESIGNED	BSS	1" = 50'			
CHECKED	GCA	VERTICAL:	C2.1		
PROJ. MGR.	CHS	N/A	l I		

NORTH

CALL CENTER

BEFORE YOU DIG

STOP

1-800-632-4949

AVOID UTILITY

MANN'S CHAPEL RD

NOT TO SCALE

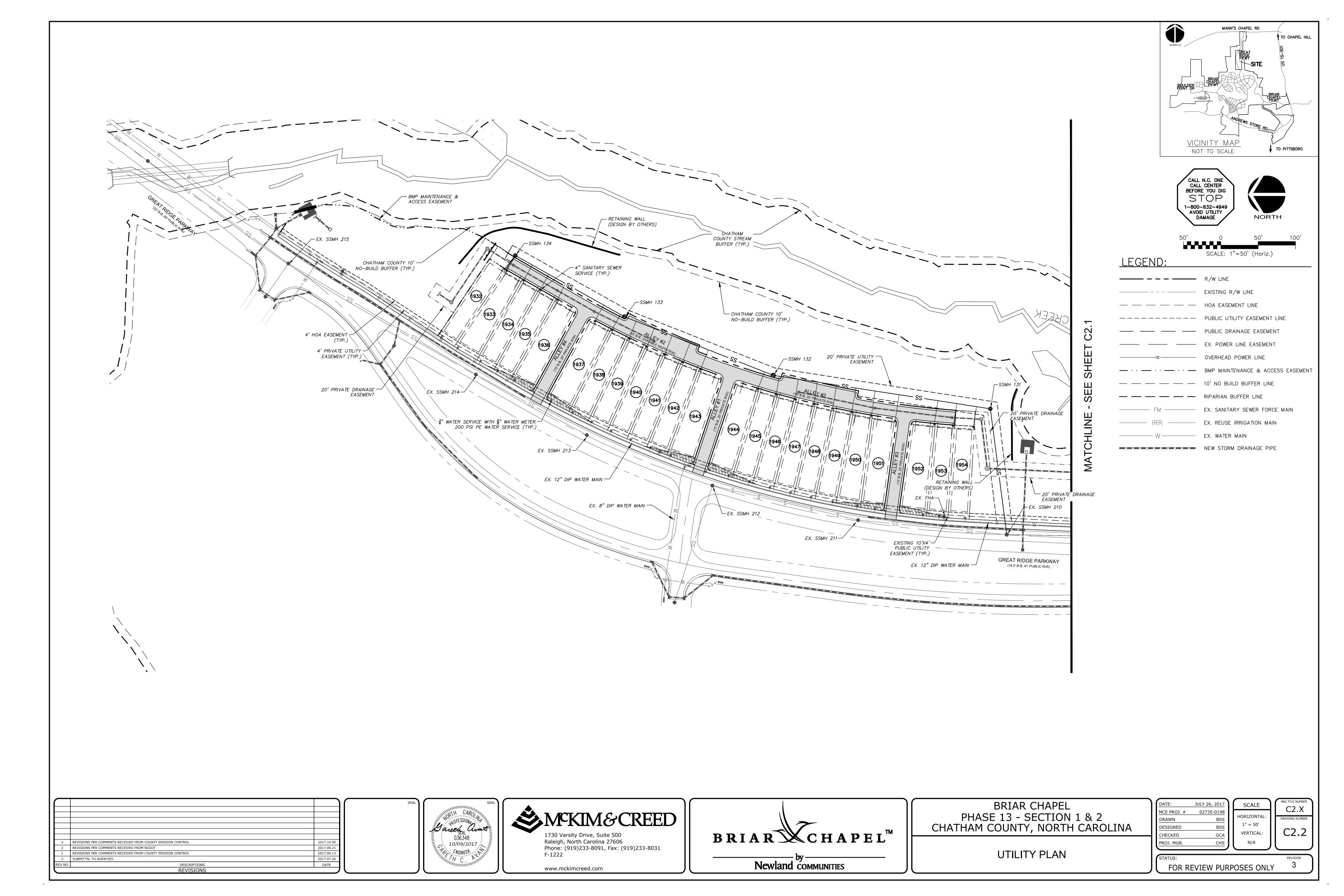
EX. SSMH 203

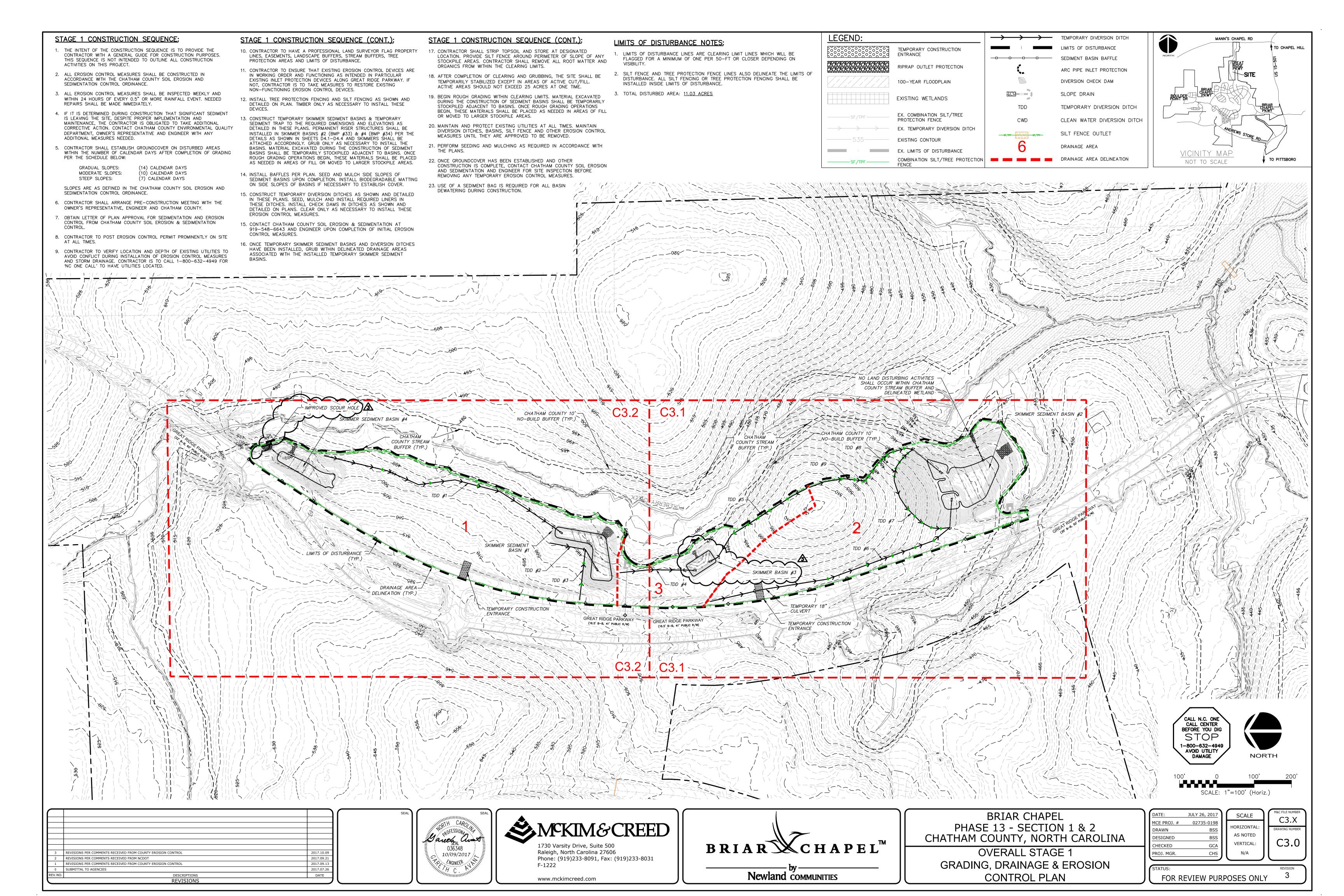
-EX. SSMH 204

TO CHAPEL HILL

TO PITTSBORO

FOR REVIEW PURPOSES ONLY





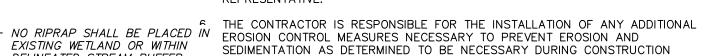
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS	
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE	
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE	
SLOPES STEEPER THAN 3:1	7 DAYS	14 DAYS FOR SLOPES 10' OR LESS IN LENGTH AND NOT STEEPER THAN 2:1	
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH	
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES	

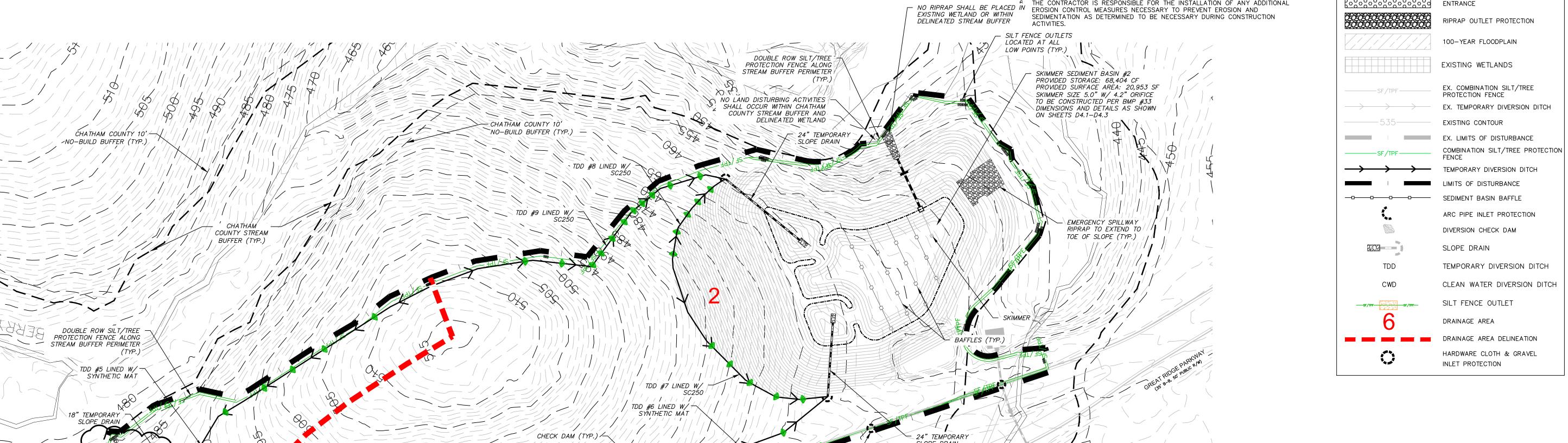
EROSION CONTROL NOTES:

- 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.
- 2. 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
- 3. 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.

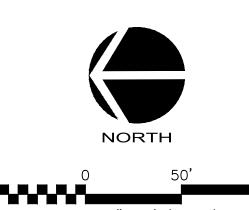
 4. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED. AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS, UNLESS OTHERWISE NOTED IN STABILIZATION TIMEFRAME CHART, TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATÌON SHALL BE APPLIED WITHIN 14 DAYS TO AREAS THAT ARE LEFT TO
- BE DORMANT FOR MORE THAN ONE YEAR.

 5. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT EXCEEDING INCH. 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









MANN'S CHAPEL RD

TEMPORARY CONSTRUCTION

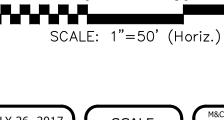
NOT TO SCALE

LEGEND:

TO CHAPEL HILL

TO PITTSBORO

1-800-632-4949 AVOID UTILITY DAMAGE



SCALE HORIZONTAL VERTICAL:

FOR REVIEW PURPOSES ONLY

	06		
3 REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL 2 REVISIONS PER COMMENTS RECEIVED FROM NCDOT 1 REVISIONS PER COMMENTS RECEIVED FROM COUNTY EROSION CONTROL 0 SUBMITTAL TO AGENCIES REV.NO. DESCRIPTIONS REVISIONS	2017.10.09 2017.09.21 2017.09.13 2017.07.26 DATE	SEAL SEAL	1730 Varsity Drive, Suite 500 Raleigh, North Carolina 27606 Phone: (919)233-8091, Fax: (919)233-8031 F-1222 www.mckimcreed.com

SKIMMER BASIN #3
MINIMUM DEPTH 3.5'
SKIMMER SIZE 2.0" W/ 1.4" ORIFICE
PROVIDED STORAGE: 5,208 CF
PROVIDED SURFACE AREA: 2,775 SF

TEMPORARY CONSTRUCTION ENTRANCE

TEMPORARY 18 CULVERT

SHE

TDD #4— LINED W/ STRAW W/ NET LINER

GREAT RIDGE PARKWAY (16.5' B-B, 41' PUBLIC R/W)



CHATHAM COUNTY, NORTH CAROLINA STAGE 1 GRADING, DRAINAGE & EROSION CONTROL PLAN

BRIAR CHAPEL

PHASE 13 - SECTION 1 & 2