- *WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.*
- *THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND–DISTURBING ACTIVITIES.*
- *EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.*
- *ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.*

SEDIMENT STORAGE CALCULATIONS

THE DISTURBED AREA ASSOCIATED WITH THE ROAD CONSTRUCTION SHOWN HEREON IS 3.7 ACRES. AT THE REQUIRED RATE OF 67 CUBIC YARDS PER ACRE DISTURBED, 6,693 CUBIC FEET OF SEDIMENT STORAGE MUST BE PROVIDED. FOUR SEDIMENT STORAGE STRUCTURES (FOUR ROCK DAMS, THREE TEMPORARY SEDIMENT TRAPS, AND A SERIES OF CHECK DAMS) AS SHOWN HEREON ACCOMMODATE THE STORAGE REQUIREMENTS. VOLUME CALCULATIONS FOR THE TEMPORARY SEDIMENT TRAPS WERE DERIVED USING THE AVERAGE END AREA METHOD AND THE PROPOSED CONTOURS GENERATED.

THE VOLUME FOR THE ROCK DAM IS CALCULATED AS FOLLOWS: ESTIMATED LENGTH OF SEDIMENT IMPOUNDMENT: 20', ESTIMATED EFFECTIVE HEIGHT OF DAM: 3.5', ESTIMATED WIDTH OF SEDIMENT IMPOUNDMENT AT DAM: 14'. THIS PRODUCES (USING AVERAGE END AREA METHOD AGAIN) A VOLUME OF (140+0)/2x3.5=245 CUBIC FEET.

STRUCTURE — VOLUME PROVIDED

TST–1 = 4,092 CUBIC FEET (A:1222=1078sf, A:1220=789sf, A:1218=545sf, A:1216=346sF)
TST–2 = 2,707 CUBIC FEET (A:1338=776sf, A:1336=542sf, A:1334=349sf, A:1332=199sf)
TST–3 = 2,414 CUBIC FEET (A:1220=725sf, A:1218=489sf, A:1216=293sf, A:1214=125sf)
TOTAL ROCK DAMS = 4 (SEE STORAGE CALCULATIONS ABOVE)

4x245cf = 980cf

TOTAL PROVIDED = 10,193cf
TOTAL REQUIRED = 6,693cf

BEST MANAGEMENT PRACTICES

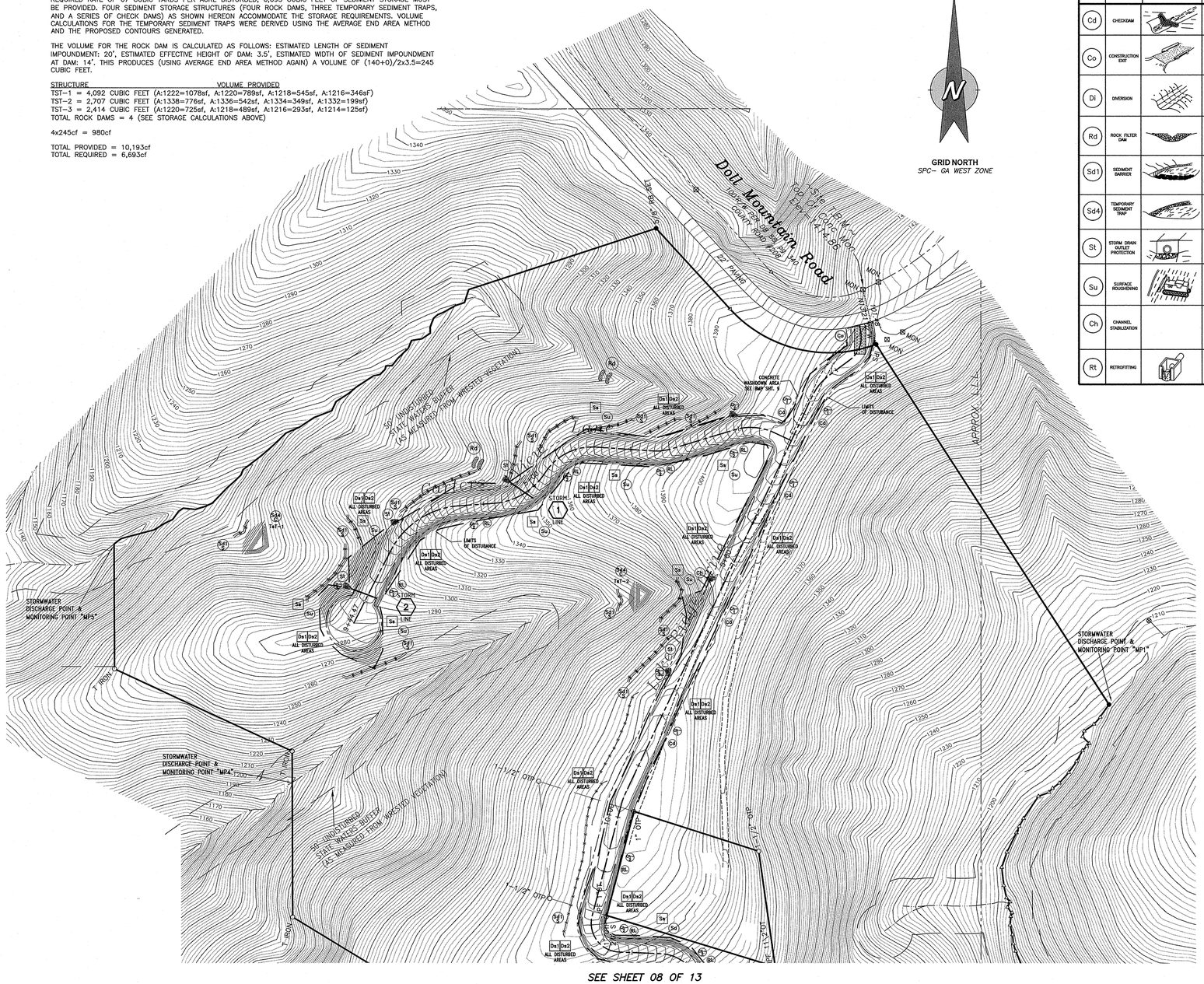
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM		Cd (INDICATE TYPE)	A small temporary barrier or dam constructed across a swale,drainage ditch or area of concentrated flow.
Co	CONSTRUCTION EXIT		Co (LABEL)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
DI	DIVERSION			An earth channel or dike located above/below across a slope to divert runoff. This may be a temporary or permanent structure.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Sd1	SEDIMENT BARRIER		Sd1 TYPE	A barrier to prevent sediment from leaving the construction site. It may be constructed of straw bales, brush,logs and poles,gravel,or s ediment fence. The barriers are usually temporary and inexpensive.
Sd4	TEMPORARY SEDIMENT TRAP		Sd4 (INDICATE TYPE)	A small temporary pond that droine a disturbed area so that sediment can settle out. Purpose — to collect and store sediment from sites cleared and or graded during construction
St	STORM DRAIN OUTLET PROTECTION			A paved or short section of riprap channel or other lining at a storm drain system outlet to protect soils from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Ch	CHANNEL STABILIZATION		Ch (INDICATE TYPE)	Rock Riprap lining. Riprap shall be designed to resist displacement when the channel is flowing at the bankfull discharge of the 2-yr frequency storm.Rock riprap or 3"-5" washed stone lining should be used when the channel velocities are between 5 and 10 ft/sec
Rt	RETROFITTING		Rt (LABEL)	A device or structure placed in front of a permanent stormwater detention pond, sediment basin to serve as a temporary sediment filter.

INTERMEDIATE PHASE EROSION CONTROL NOTES:

- DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED. NOTE SUB PHASES SHOWN ON PLANS.
- EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.
- SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.
- EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM HAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.
- THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES WHILE ROADWAY FRONTAGE IMPROVEMENTS ARE BEING DONE.
- TYPE "C" SILT FENCE SHOULD BE INSTALLED AT THE TOE OF ALL FILL SLOPES 10 FEET OR GREATER IN HEIGHT. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6–20.2. THE SILT FENCE SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED ON THE SLOPE. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES ½ HEIGHT OF BARRIER. ADDITIONALLY, DIVERSION DIKES SHALL BE CONSTRUCTED ALONG THE TOP OF ALL SAID FILL SLOPES WITH THE USE OF TEMPORARY DOWN DRAINS TO CONTROL STORM WATER RUN OFF AS SHOWN ON THE PLANS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING BARRIERS AT THE TOE OF SLOPES UNDER CONSTRUCTION. THESE BARRIERS SHALL BE SHOWN IN THE PLANS. THESE BARRIERS MAY BE RELOCATED AND REUSED AFTER PERMANENT SLOPE STABILIZATION BECOMES FULLY ESTABLISHED. AS THEY ARE RELOCATED, ANY DEFECTIVE MATERIALS IN THE BARRIER SHALL BE REPLACED. IN ADDITION, ALL DEBRIS AND SILT AT THE PREVIOUS LOCATION SHALL BE REMOVED.
- ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT OF TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFERS, SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING OR BLANKETS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
- TYPE "C" SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCK PILE AREAS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
- INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL STORM STRUCTURES AS THEY ARE CONSTRUCTED. SEE PLAN VIEW FOR SPECIFIC TYPE AND SEPARATE DETAILS FOR ADDITIONAL INFORMATION ON TYPE OF INLET PROTECTION SPECIFIED.
- STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
- STONE CHECK DAMS SHALL BE INSTALLED IN ALL ROADWAY DITCHES WHERE THE SLOPE IS LESS THAN 15%. SEE SEPARATE DETAIL FOR ADDITIONAL INFORMATION.
- ALL ROADWAY DRAINAGE DITCHES WHERE THE SLOPES ARE 15% OR GREATER WILL BE LINED WITH RIP–RAP. SEE SEPARATE DETAIL FOR ADDITIONAL INFORMATION.
- ALL DRAINAGE SWALES SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.
- MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.
- ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
- AFTER PRELIMINARY GRADING ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT BASINS AND DIVERSION DIKES AS SHOWN ON PLAN. THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT POND UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT OF THE PONDS WHEN IT REACHES THE 1/3 DEPTH OF BASIN. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.
- SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL SERVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

THE STREET ADJACENT TO THE SITE EXIT WILL BE INSPECTED DAILY FOR TRACKING OF MUD, DIRT OR ROCK. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

- CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- 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 AS DIRECTED BY THE ON SITE INSPECTOR OR THE CIVIL ENGINEER.
- FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1–3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY. SEE SHEET 11.



SEE SHEET 08 OF 13

- *THESE PLANS HAVE BEEN SIGNED AND SEALED FOR REVIEW ONLY. THEY CANNOT BE USED FOR CONSTRUCTION UNTIL THEY HAVE BEEN APPROVED, STAMPED AND SIGNED BY THE APPROPRIATE AUTHORITIES AND ALL NECESSARY PERMITS HAVE BEEN OBTAINED BY THE CLIENT.*
- *THIS DRAWING SHEET IS PART OF A COMPLETE SET OF SITE DESIGN DRAWINGS. IT SHOULD NOT BE SEPARATED FROM THE SET. INFORMATION PERTINENT TO THIS SHEET MAY BE FOUND ON OTHER SHEETS IN THE SET. THE OWNER IS RESPONSIBLE FOR ENSURING THAT THE CONTRACTOR HAS ALL OF THE CONSTRUCTION DOCUMENTS NEEDED TO PREPARE THE SITE.*
- *IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE DESIGN PROFESSIONAL IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS OR RESOLVED.*

EROSION CONTROL CERTIFICATION:

1. I CERTIFY THAT THE PERMITEE'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 STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH LAND DISTURBING ACTIVITY WAS PERMITTED. THE PLAN PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS. THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100003.
2. "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 DIRECT SUPERVISION."

DESIGN PROFESSIONAL MARK E. CHASTAIN — CERTIFICATION NUMBER 00000017322 EXPIRES 09/22/2018

GEORGIA REGISTERED No. 2718 LAND SURVEYOR MARK E. CHASTAIN

3-3-2017

ES&PC PLAN – INTERMEDIATE

PREPARED FOR

Tranquility at Carters Lake – Phase 8

LAND LOT(S) 269 & 272
25th DISTRICT, 2nd SECTION
GILMER COUNTY, GEORGIA

DATE : FEBRUARY 22, 2017

REVISIONS:
DATE — COMMENT

LEGEND

O — IRON PIN FOUND	FIRE HYDRANT	POWER BOX
(IPS) — IRON PIN SET	UTILITY POLE	UTILITY PEDESTAL
— NO MONUMENT	WATER METER	DRAIN INLET
BOCK —	WATER VALVE	STORM MH
(MON)— MONUMENT	GAS METER	SEWER MH
	GAS VALVE	LIGHT POLE
P.O.B. — POINT OF BEGINNING	— - - —	LAND LOT LINE
P/L — PROPERTY LINE	— — —	STREAM OR POND
— PROPERTY LINE	— P —	O/H POWER
C/L — CENTERLINE	— x — x —	FENCE
— CENTERLINE	— - - —	RIGHT OF WAY
N/F — NOW OR FORMERLY	— G —	UG GAS LINE
DB/pg — DEED BOOK/PAGE	— E —	UG POWER
PB/pg — PLAT BOOK/PAGE	— SS —	SEWER LINE
PP — UTILITY POLE	— W —	WATER LINE
RCP — REINFORCED CONC. PIPE	— T —	O/H TELEPHONE
CMP — CORRUGATED METAL PIPE		STORM LINE
CPP — CORRUGATED PLASTIC PIPE		R/R TRACKS
— ASPHALT	—1000—	EXIST. CONTOUR
— CONCRETE	—1000—	EXIST. INDEX CONTOUR
— GRAVEL	—1000—	PROP. CONTOUR
	—1000—	PROP. INDEX CONTOUR

MONUMENT DIMENSIONS ARE OUTSIDE/OVERALL DIMENSIONS. ALL IPS ARE CAPPED 5/8" REBAR UNLESS OTHERWISE NOTED.

"Thou shalt not remove thy neighbor's landmark, which they of old time have set."
Deuteronomy 19:14 KJV

DISCLOSURE & NOTICE

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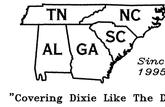
IN GOD WE TRUST

PREPARED BY
CHASTAIN & ASSOCIATES, P.C.
SURVEYING~PLANNING~CONSULTING



"Covering Dixie Like The Dew"
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ALABAMA LAND SURVEYING FIRM CA–852–LS
SOUTH CAROLINA SURVEYING FIRM COA No. 5205

50 0 100 200
GRAPHIC SCALE – 1" = 100'

SHEET 7 OF 13
FILE: 216K53PP