# YOUNG STREET CONNECTOR

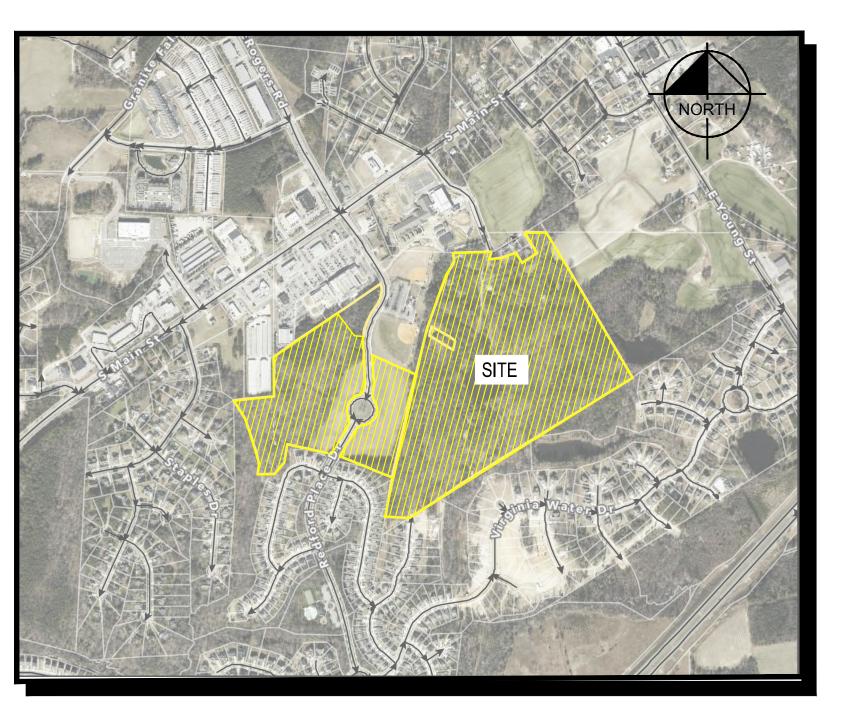
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408 E YOUNG STREET ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

INITIAL SUBMITTAL: JULY 3, 2023

SITE DATA TABLE								
OWNER	TOWN OF R	TOWN OF ROLESVILLE						
<b>DEVELOPER</b> LENNAR CORPORATION								
PIN#	AREA (SF)	AREA (AC)						
1768094465	101059	2.32						
1768098727	583268.4	13.39						
GROSS AREA	684328	15.7						
PREVIOUS ZONING	<b>G</b> EXEMPT							

PUBLIC IMPROVEMENT QUANTITY TABLE								
PHASE NUMBER	PHASE 1	PUBLIC SEWER (LF)	C					
NUMBER OF LOTS	2	PUBLIC STREET (LF) - FULL	1359					
LOT NUMBER BY PHASE		PUBLIC STREET (LF) - PARTIAL	C					
NUMBER OF UNITS	0	PUBLIC SIDEWALK (LF) - FULL	2676					
LIVABLE BUILDINGS	0	PUBLIC SIDEWALK (LF) - PARTIAL	C					
NUMBER OF OPEN SPACE LOTS	0	WATER SERVICE STUBS	С					
PUBLIC WATER (LF)	0	SEWER SERVICE STUBS	С					



SITE LOCATION MAP NOT TO SCALE

SHEET LIST TABLE						
SHEET NUMBER	SHEET TITLE					
C0-0	COVER SHEET					
C0-1 GENERAL NOTES						
C1-0 EXISTING CONDITIONS						
C2-0	SITE PLAN					
C4-0	GRADING AND DRAINAGE PLAN					
C5-0	EROSION CONTROL PHASE 1					
C5-1 EROSION CONTROL PHASE 2						
C6-0 YOUNG STREET CONNECTOR PLAN & PROFILE						
C6-1	PAVEMENT MARKING DETAILS					
C6-2	EROSION CONTROL DETAILS (1 OF 2)					
C6-3	EROSION CONTROL DETAILS (2 OF 2)					

PROJECT OWNER AND CONSULTANT INFORMATION **ENGINEER**: SURVEYOR: LENNAR CORPORATION BGE, INC CAWTHORNE, MOSS & PANCIERA, P.C. 1100 PERIMETER PARK DRIVE, SUITE 112 333 S. WHITE STREET, PO BOX 1253 5400 WADE PARK BOULEVARD MORRISVILLE, NC, 27560 RALEIGH, NC, 27607 WAKE FOREST, NC, 27588 (919) 863-6461 (919) 276-0111 (919) 556-3148

CONTACT:

CONTACT: DEBRA FERM, P.E.



C0-0

CONTACT: MICHAEL TAYLOR, PE LEED AP.

NO WORK WITHIN NCDOT OR TOWN OF ROLESVILLE RIGHT OF WAY SHALL TAKE PLACE WITHOUT ALL

XISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR

RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL JTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE NCLUDED IN BASE BID. AREAS TO BE DISTURBED SHALL BE IMPROVED PER THE CIVIL PLANS OR RESTORED TO THEIR ORIGINAL OR BETTER CONDITION. CONTRACTOR SHALL REPAIR ANY EXISTING FEATURES THAT ARE DAMAGED DURING CONSTRUCTION TO THE EXISTING OR BETTER CONDITION.

SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY CMP. ALL INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS, TRAFFIC MEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY THE NORTH CAROLINA DEPT. OF TRANSPORTATION NCDOT AS APPLICABLE.

THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.

APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING AND DRAINAGE PLAN WITHOUT AUTHORIZATION IS SUBJECT TO A FINE. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS AND THE TOWN OF ROLESVILLE.

CONTRACTOR AGREES TO REPAIR ANY DAMAGE TO THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE STANDARDS OF THE NCDOT AND THE TOWN OF ROLESVILLE

ALL STANDARD NUMBERS REFER TO THE NCDOT STANDARD DETAILS AND SPECIFICATIONS AND THE LATEST EDITION OF THE ROLESVILLE UNIFIED DEVELOPMENT ORDINANCE.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN STABILIZED AS SOON AS POSSIBLE. SLOPES SHALL BE STABILIZED WITHIN 14 CALENDAR DAYS. THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR NSTRUCTION PRIOR TO PROCEEDING.

THE CONTRACTOR SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN A JNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.

CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH IT AND CONTINUOUS GRADE.

CONTRACTOR SHALL POST ASSIGNED BUILDING PERMIT NUMBER AND ADDRESS ON BUILDING.

N ROLLING OR HILLY TERRAINS, SWEEPING OF THE STONE BASE AND/OR APPLICATION OF A TACK COAT BARRIER. MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE NSPECTOR AND BASED ON FIELD CONDITIONS.

CONTACT APPROPRIATE UTILITY COMPANIES TO RELOCATE ANY EXISTING UTILITY AND/OR LIGHT POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR.

#### GRADING NOTES

HE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND ALL FILL PER THE GEOTECHNICAL ENGINEERS SPECIFICATIONS. FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

THE CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL ENGINEER FOR APPROPRIATE SLOPE STABILIZATION ON ALL SLOPES STEEPER THAN 3:1.

THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR BLASTING ROCK IF BLAST ROCK IS ENCOUNTERED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL BLASTING AND SAFETY REQUIREMENTS

ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO

ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES, UNLESS OTHERWISE

ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.

CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.

LIMITS OF CLEARING SHOWN ON GRADING AND DRAINAGE PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID

THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING AND MOISTURE CONDITIONING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.

GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE BACK OF CURB FOR CATCH BASINS.

ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF ROLESVILLE.

#### **EROSION CONTROL NOTES**

TOTAL AREA DISTURBED = 3.05 AC

LIMITS OF GRADING SHOWN ON THE PLAN ARE MAXIMUM LIMITS FOR EROSION CONTROL PURPOSES ONLY, SURVEYOR TO DETERMINE ACTUAL LIMIT.

PRIOR TO CLEARING AND EARTHWORK ACTIVITIES THE CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS, AND THEN OBTAIN AN APPROVED GRADING PERMIT. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND SEDIMENT DISCHARGE FROM THE SITE.

ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.

ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE STATE EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

ALL AREAS MUST BE SEEDED AND MULCHED WITHIN 14 CALENDAR DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.

ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY ENGINEERING DEPARTMENT.

SLOPES SHALL BE GRADED NO STEEPER THAN 3:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING (APPENDIX B - CHAPTER 21

DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER, HIS REPRESENTATIVE. OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.

EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE NORTH CAROLINA SEDIMENTATION POLLUTION CONTROL ACT OF 1973, THE LOCAL JURISDICTIONAL AGENCY, THE APPROVED EROSION CONTROL PERMIT, AND THESE PLANS AND SPECIFICATIONS.

SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. ALL DISTURBED AREAS SHALL BE NONEROSIVE AND SHALL BE GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT AND ALL SLOPES SHALL BE

THE SEDIMENT TRAPS AND DIVERSION DITCHES SHALL BE CLEANED OUT WHEN THE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5 INCH RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY. SUBMIT WRITTEN REPORT WITH EACH INSPECTION TO THE OWNER.

SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCING WHEN IT BECOMES 6-INCHES DEEP AT THE FENCE. THE FENCING WILL BE REPAIRED AS NECESSARY TO MAINTAIN SUFFICIENT

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE PLANS AND SPECIFICATIONS TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

ALL DRAINAGE SWALES MUST BE GRASSED AND RIP-RAP MUST BE REPLACED AS REQUIRED TO CONTROL EROSION. RIP-RAP WILL CONSIST OF 50 TO 125 POUND STONES PLACED AT ALL HEADWALLS, AND WHERE NOTED ON CONSTRUCTION DRAWINGS. (SEE DETAIL SHEET FOR OUTFALL PIPE SIZE CHART)

WHEN ANY CONSTRUCTION BORDERS A DRAINAGE COURSE: A. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION

SPOIL DIRT. CONSTRUCTION TRASH OR DEBRIS. ETC., FROM THE DRAINAGE AREA SHOWN HEREON IN A EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES. B. THE CONTRACTOR HEREBY AGREES TO STOP ALL WORK AND RESTORE THESE IMMEDIATELY

UPON NOTIFICATION BY THE CITY INSPECTOR AND/OR THE OWNER.

STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.

ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND GROUND COVER IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE.

THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT ON SITE WHENEVER LAND DISTURBING ACTIVITY IS IN PROGRESS.

INSTALL SILT FENCE ALONG THE DOWNSTREAM SIDE OF ALL PROPOSED CUT AND FILL CONSTRUCTION AND AS INDICATED ON PLANS.

SILT FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES OR OFFSITE ROADWAYS. AS

A TEMPORARY DIVERSION SWALE MAY BE USED IN LIEU OF SILT FENCE WHERE RUNOFF CAN BE DIRECTED TO A TEMPORARY SEDIMENT TRAP.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM REQUIRED MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL DEVICES TO ENSURE THEIR FUNCTION AT ALL TIMES.

CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.

WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.

CONTRACTOR TO PROTECT THE EXISTING EXPOSED SANITARY SEWER MANHOLES AT ALL TIMES DURING THE CONSTRUCTION.

PERFORM A FINAL DEMUCKING OF ALL SEDIMENT CONTROL DEVICES AND RESTABILIZATION OF ANY DISTURBED AREAS BEFORE DEMOBILIZATION.

SILT FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES OR OFFSITE ROADWAYS, AS APPLICABLE.

SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.

THE CONTRACTOR SHALL IMMEDIATELY CLEANUP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTALL ADEQUATE CONTROL MEASURES AS NECESSARY TO PREVENT REOCCURRENCE OF DAMAGE.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED. CONTRACTOR SHALL INSTALL TEMPORARY GRAVEL DRIVEWAY AT EACH CONSTRUCTION ENTRANCE AS SHOWN ON THESE PLANS.

CONSTRUCTION POINT OF ACCESS TO LIMIT DEPOSITS OF EARTH AND OTHER HAULED MATERIALS ONTO THE ADJACENT LOT. THE CONTRACTOR SHALL ROUTINELY CLEAN ALL SEDIMENT DEPOSITS AND DEBRIS FROM ROADWAY AS THEY OCCUR.

## **EROSION CONTROL MAINTENANCE REQUIREMENTS**

SILT FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES OR OFFSITE ROADWAYS, AS APPLICABLE.

SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE

#### CONSTRUCTION ENTRANCE

- THE GRAVEL CONSTRUCTION ENTRANCE MUST BE MAINTAINED IN A CONDITION TO PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO ADJACENT ROADWAYS.
- REPLACEMENT OF STONE MAY BE NECESSARY TO ENSURE THE GRAVEL ENTRANCE
- FUNCTIONS PROPERLY. REPLENISHMENT OF STONE MAY BE NECESSARY.
- FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE SHOULD BE COMPLETED. ANY MATERIAL TRACKED ONTO THE ROADWAY SHALL BE CLEANED UP IMMEDIATELY.

- INSPECT THE SILT FENCE ON A REGULAR BASIS AND AFTER EACH SIGNIFICANT RAINFALL. MAKE ANY REPAIRS IMMEDIATELY.
- INSPECT THE SILT FENCE TO BE SURE THE BOTTOM OF THE GEOTEXTILE IS KEYED IN PROPERLY.
- AT A MINIMUM, REMOVE AND DISPOSE OF ALL SILT ACCUMULATIONS WHEN DEPTH REACHES 1/2 THE HEIGHT OF THE GEOTEXTILE. DO NOT UNDERMINE THE FENCE DURING CLEANOUT.
- DISPOSE OF SEDIMENT BY HAULING IT TO AN APPROVED WASTE SITE WITH APPROPRIATE PERIMETER
- REMOVE AND REPLACE DETERIORATED OR CLOGGED SILT FENCE.
- REPLACE SILT FENCE REMOVED FOR ACCESS AT THE END OF EACH DAY'S OPERATION.
- INSTALL ADDITIONAL POSTS OR WIRE BACKING IF FENCE IS SAGGING.

#### TEMPORARY DIVERSION

- DEVICES SHOULD BE INSPECTED ON REGULAR BASIS AND AFTER EACH SIGNIFICANT RAINFALL AT A MINIMUM, SEDIMENT SHOULD BE REMOVED FROM THE CHANNEL WHEN THE TEMPORARY
- DIVERSION IS 50 PERCENT OF THE DESIGN DEPTH TEMPORARY DIVERSIONS SHOULD BE IMMEDIATELY REPAIRED IF DAMAGED BY EQUIPMENT OR
- BREACHED BY RUNOFF SILT FENCE OUTLET
- INSPECT THE DEVICE PERIODICALLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT FOR DAMAGE AND SEDIMENT ACCUMULATION TO CONFIRM THE DEVICE IS FUNCTIONING PROPERLY. • AT A MINIMUM, REMOVE SEDIMENT FROM THE DEVICE WHEN ACCUMULATIONS REACH ONE-HALF THE UTILITY SEPARATION REQUIREMENTS:
- HEIGHT OF THE SEDIMENT CONTROL STONE. REPLACE OR CLEAN THE SEDIMENT CONTROL STONE AS NEEDED TO ALLOW WATER TO DRAIN
- THROUGH THE DEVICE BETWEEN RAINFALL EVENTS.
- REBUILD AND/OR REPAIR THE DEVICE WHEN IT IS DAMAGED.
- REPAIR AREAS WHERE SSCF BECOMES UNDERMINED DUE TO CONCENTRATED FLOWS.

#### **GROUND STABILIZATION NOTES**

SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:

ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND AU SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:

ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUNDCOVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES.

ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.

SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.

CHEMICAL STABILIZATION. MAY BE ALLOWED ON A CASE-BY-CASE BASIS. FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH

ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS

QUALITY WATER ZONE" (I5A NCAC 04A. 0105), STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACT.

PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TO DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E&SC PLAN OR ADDED BY THE PERMITTING AUTHORITY.

#### **UTILITY NOTES**

ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)

a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY

- PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION
- BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER
- WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN. DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED &
- INSTALLED TO WATERLINE SPECIFICATIONS 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
- MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49)
- ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED

ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION

DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED SEEDBED PREPARATION NOTES WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY

CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES

3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS

IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO PLAN. SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE

INSTALL 3/4" COPPER\* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE

EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE

INSTALL 4" PVC\* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM

PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI;

BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE

NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING

&/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR

GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT STEPHEN CALVERLEY AT (919) 996-2334 OR STEPHEN.CALVERLEY@RALEIGHNC.GOV FOR MORE INFORMATION

MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION

CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. A CERTIFICATE OF COMPLIANCE SHALL ALSO BE OBTAINED FOR EACH DEVICE PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION

#### PAVING, GRADING AND DRAINAGE NOTES

ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTIONAL RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR NCDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.

ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.

TRAFFIC CONTROL ON ALL NCDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.

ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.

ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.

WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2 DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.

WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.

TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.

IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS

STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.

NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE

CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SEEDED AND

FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO

NCDOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE

ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL):1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE.

SEED, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.

THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.

THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS

#### RETAINING WALL NOTES

MULCHED AS SHOWN ON THE LANDSCAPING PLAN.

DESIGN OF ALL RETAINING WALLS IS TO BE PER INTERNATIONAL BUILDING CODE SECTION 1610.3.

CONTRACTOR SHALL PROVIDE DETAILED RETAINING WALL DESIGN DRAWINGS, SEALED BY A NC LICENSED ENGINEER, AND SHALL SUBMIT TO THE LOCAL AUTHORITY FOR APPROVAL PRIOR TO CONSTRUCTION.

A NC LICENSED ENGINEER MUST PERFORM CONSTRUCTION OBSERVATION, VERIFYING IN A SEALED LETTER TO THE LOCAL AUTHORITY, ENGINEER AND OWNER THAT RETAINING WALLS ARE CONSTRUCTED PER THE ENGINEERING DRAWINGS IN COMPLIANCE WITH INTERNATIONAL BUILDING CODE.

SUFFICIENT TO RESTRAIN EROSION.

GRADE SLOPES AND FILLS - THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED SHALL, WITHIN 14 WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES

GROUND COVER - WHENEVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE (1) ACRE, IF MORE THAN ONE CONTIGUOUS ACRE IS UNCOVERED, A GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE PLANTED OR OTHERWISE PROVIDED WITHIN 15 WORKING DAYS ON THAT PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.

LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTION SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH AND UNIFORM.

IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME ACCORDING TO SEEDING SPECIFICATIONS.

IF SOIL TEST IS TAKEN, PROVIDE LIME AND FERTILIZER ACCORDING TO SOIL TEST REPORT.

LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION.

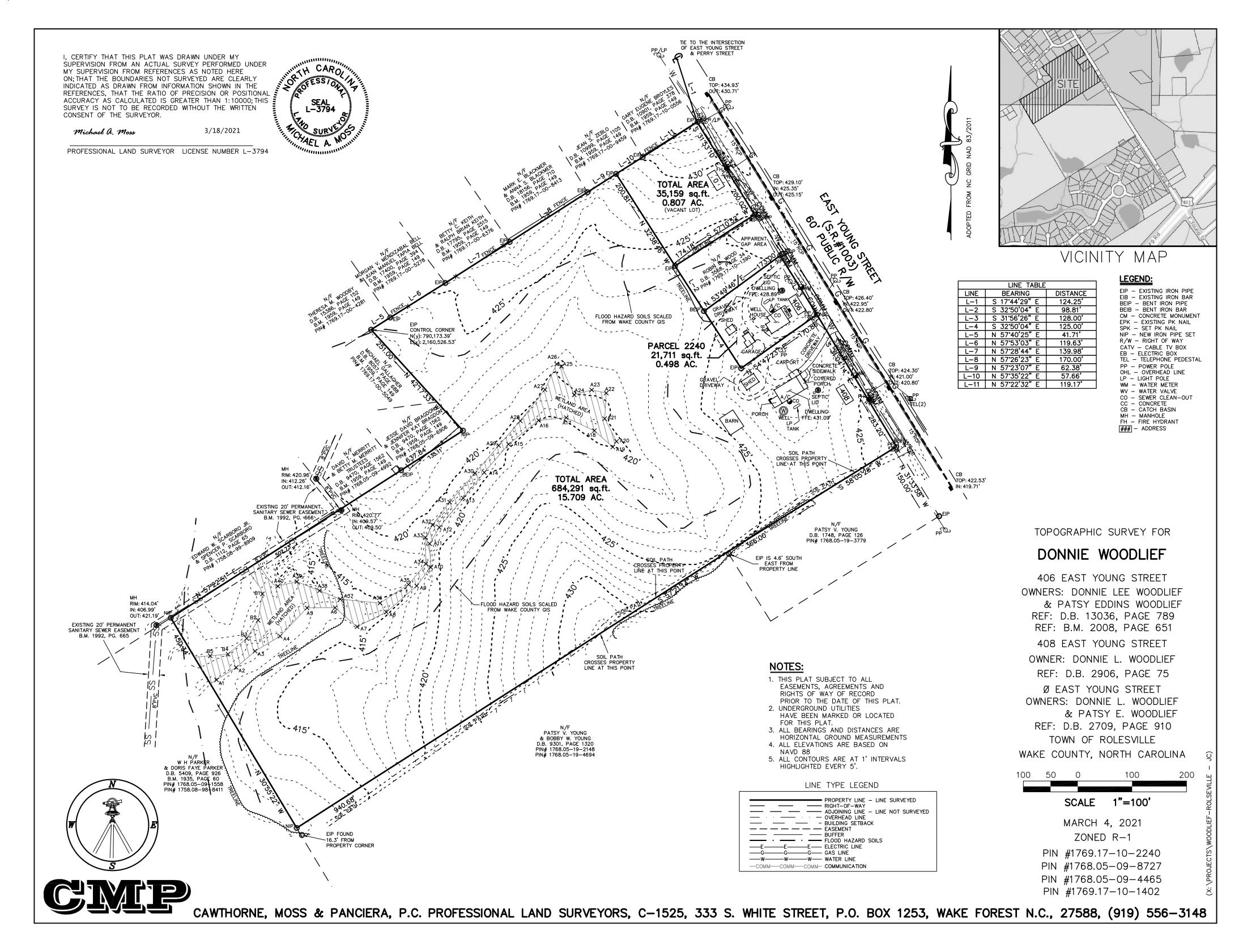
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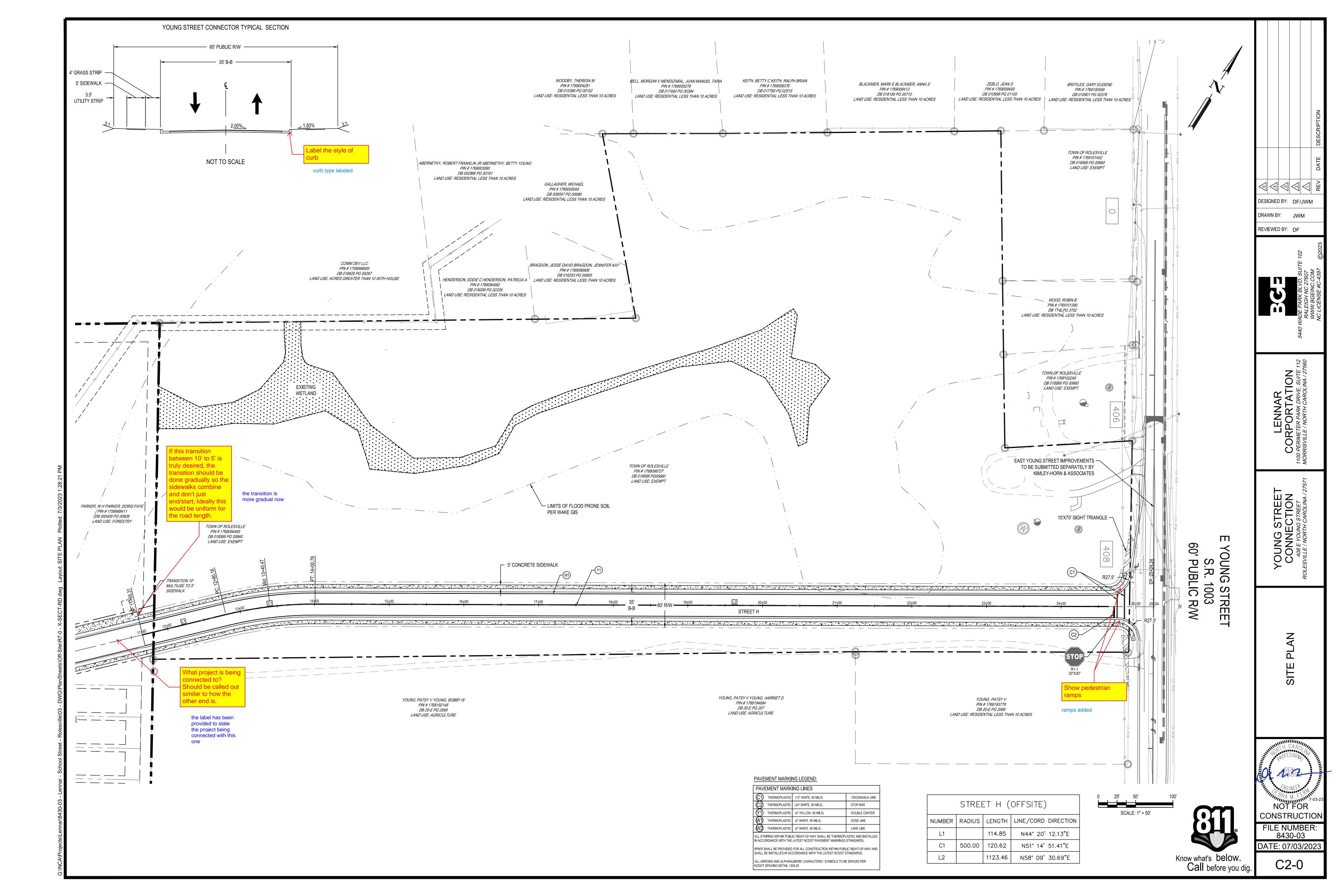
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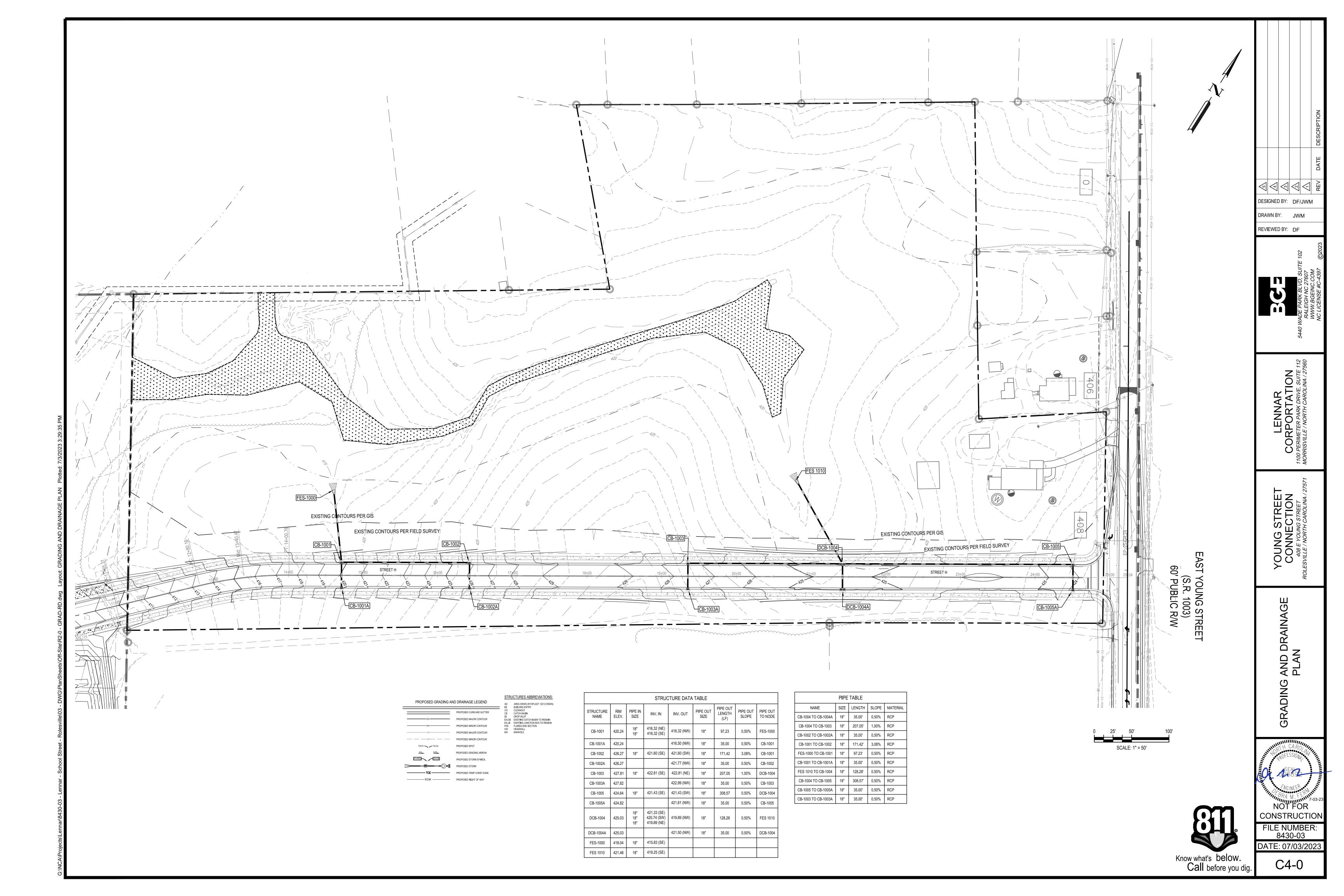
ШΖ OUNG STREE ONNECTION 408 E YOUNG STREET 00

NOT FOR CONSTRUCTION FILE NUMBER:

8430-03 DATE: 07/03/202 C0-1







SYSTEM 10-YEAR VOLUME DRAINAGE DENUDED VOLUME SKIMMER **DEWATERING** SKIMMER COEFFICIENT INTENSITY | PEAK FLOW | DAM EL. LENGTH | REQUIRED | PROVIDED | NUMBER REQUIRED ORIFICE DIA. 
 1,367
 1,452
 2,088
 2,916
 4

 1,331
 1,452
 2,034
 2,916
 4
 SB #1 4.21 4.10 SB #2

Temporary Diversion Ditch, Pipe Sizing & Lining Calculations

Rainfall Intensity  $I_{10-yr} = 7.25$  in/hr

Swale ID	Rational C	Drainage Area (ac)	Q <sub>10-yr</sub> (cfs)	Slope (%)	Calculated Depth (ft)	Calculated Shear Stress (lbs/ft²)	Calculated Velocity (ft/s)	Bottom Width (ft)	# of Check Dams	Type of Liner	Slope Drain Type and Size (in)
TD1	0.50	0.34	1.24	2.49%	0.23	0.004	2.19	2	2	GRASS	CMP - 12"
TD2	0.50	0.43	1.55	3.65%	0.23	0.01	2.69	4	3	GRASS	CMP - 12"
TD3	0.50	1.13	4.11	2.72%	0.44	0.01	3.25	2	8	GRASS	CMP - 12"
CWD 1	0.50	0.15	0.53	4.41%	0.31	0.01	2.78	0	3	GRASS	N/A
CWD 2	0.50	0.25	0.89	3.13%	0.40	0.01	2.77	0	4	GRASS	N/A
CWD 3	0.50	0.60	2.19	4.00%	0.53	0.01	3.82	0	4	GRASS	N/A
PIPE 1	0.50	1.16	4.21	1.59%	0.98	0.01	6.81	4	1	N/A	CMP - 15"
PIPE 2	0.50	1.74	6.31	2.56%	0.92	0.01	5.83	4	1	N/A	CMP - 18"
NOTE C:	•				•						

All ditches are to be trapezoidal in shape: 2:1 sideslopes, and height of 1.0'
Calculated Depth and Calculated Velocity Based on Flowmaster Output
NAG S150: North American Green S150 or approved equal

<u>ABBREVIATIONS</u> TD = TEMPO

TD = TEMPORARY DIVERSION
CWD = CLEAN WATER DIVERSION
SB = SKIMMER BASIN

# **EROSION CONTROL LEGEND** —— — PROPERTY LINE EXISTING MAJOR CONTOUR — — — 601 — — — EXISTING MINOR CONTOUR —— PROPOSED MAJOR CONTOUR PROPOSED MINOR CONTOUR DRAINAGE AREA DRAINAGE AREA LABEL ±X.X AC SOIL SOIL TYPE DIRECTION OF OVERLAND FLOW 100.XX — 100.XX DIRECTION OF OVERLAND FLOW CONSTRUCTION ENTRANCE / EXIT EROSION CONTROL MATTING LIMITS OF DISTURBANCE TEMPORARY JUTE NETTING BAFFLES G/M2 COIR FABRIC OR HEAVIER) ---->----> TEMPORARY DIVERSION DITCH OR B ss 4.00 TEMP SILT FENCE WITH OUTLET TEMP TREE PROTECTION FENCE CHECK DAM SLOPE DRAIN WITH RIP-RAP APRON PIPE INLET PROTECTION INLET PROTECTION EXCAVATED INLET PROTECTION

#### NARRATIVE

PROJECT INCLUDES APPROXIMATELY 1,520 LINEAR FEET OF 35' BACK TO BACK STREET SECTION TO CONNECT STREET H TO YOUNG STREET AND STORM DRAINAGE IN ROLESVILLE, NC. THERE IS A FUTURE DEVELOPMENT (BY OTHERS) ON THIS PROPERTY THAT WILL REQUIRE STORMWATER CONTROL MEASURES AND WILL TREAT THE NEW IMPERVIOUS INCLUDING THIS PROJECT'S IMPERVIOUS AREAS.

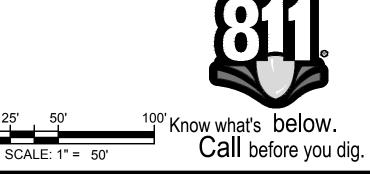
# CONSTRUCTION SEQUENCE - PHASE 1

- 1. SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL CONSULTANT. OBTAIN A LAND DISTURBING PERMIT.
- 2. INSTALL GRAVEL CONSTRUCTION PAD, BYPASS PIPES AND CLEAN WATER DIVERSIONS TO BYPASS PIPES. INSTALL TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- 3. CALL ENVIRONMENTAL CONSULTANT FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT TO OBTAIN A CERTIFICATE OF COMPLIANCE.

## CONSTRUCTION SEQUENCE - PHASE 2

- 1. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE.
- 2. INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
- 3. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
- 4. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL ENVIRONMENTAL CONSULTANT FOR AN
- 5. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
- 6. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

DISTURBED AREA: 3.05 AC



DESIGNED BY: DF/JWM

DRAWN BY: DATE DESCRIPTION

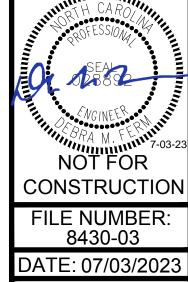
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LENNAR CORPORTATION

YOUNG STREET CONNECTION 408 E YOUNG STREET ESVILLE / NORTH CAROLINA / 27571

> EROSION CONTROL PHASE 1



C5-0

SKIMMER BASIN SUMMARY																	
BASIN	DRAINAGE	DENUDED	RUNOFF	SYSTEM	10-YEAR	BA	ASIN DIMENSIO	ONS	TOP OF	WEIR	AREA	AREA	VOLUME	VOLUME	SKIMMER	SKIMMER	DEWATERING
NUMBER	AREA	AREA	COEFFICIENT	INTENSITY	PEAK FLOW	DEPTH	LENGTH	WIDTH	DAM EL.	LENGTH	REQUIRED	PROVIDED	REQUIRED	PROVIDED	SIZE	ORIFICE DIA.	TIME
	(AC)	(AC)		(IN/HR)	(CFS)	(FT)	(FT)	(FT)	(FT)	(FT)	(SF)	(SF)	(CF)	(CF)	(IN)	(IN)	(DAYS)
SB #1	1.16	1.16	0.50	7.25	4.21	3.0	66	22	278	6	1,367	1,452	2,088	2,916	4	0.75	2.78
SB #2	1.13	1.13	0.50	7.25	4.10	3.0	66	22	290	6	1,331	1,452	2,034	2,916	4	0.75	2.71

## Temporary Diversion Ditch, Pipe Sizing & Lining Calculations

Rainfall Intensity  $I_{10-yr} = 7.25$  in/hr

Swale ID	Rational C	Drainage Area (ac)	Q <sub>10-yr</sub> (cfs)	Slope (%)	Calculated Depth (ft)	Calculated Shear Stress (lbs/ft²)	Calculated Velocity (ft/s)	Bottom Width (ft)	# of Check Dams	Type of Liner	Slope Drain Type and Size (in)
TD1	0.50	0.34	1.24	2.49%	0.23	0.004	2.19	2	2	GRASS	CMP - 12"
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PIPE 1	0.50	1.16	4.21	1.59%	0.98	0.01	6.81	4	1	N/A	CMP - 15"
PIPE 2	0.50	1.74	6.31	2.56%	0.92	0.01	5.83	4	1	N/A	CMP - 18"
NOTE O.					·						

All ditches are to be trapezoidal in shape: 2:1 sideslopes, and height of 1.0' Calculated Depth and Calculated Velocity Based on Flowmaster Output NAG S150: North American Green S150 or approved equal

ABBREVIATIONS
TD = TEMPOR

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	Re	equired Ground Stab	ilization Timeframes				
Si	te Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations				
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None				
(b)	High Quality Water (HQW) Zones	7	None				
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed				
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed				
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope				
rou ract ctiv urfa	nd stabilization shall be ticable but in no case l ity. Temporary groun ace stable against acce	e converted to perm onger than 90 calend d stabilization shall b lerated erosion until	action activities, any areas with temporary lanent ground stabilization as soon as dar days after the last land disturbing e maintained in a manner to render the permanent ground stabilization is achieved				
tabi	UND STABILIZATION S ilize the ground suffici niques in the table be	ently so that rain wil	l not dislodge the soil. Use one of the				
• H • R	Temporary Stab emporary grass seed cove ther mulches and tackifie lydroseeding olled erosion control pro- vithout temporary grass s	ered with straw or rs  ducts with or eed	Permanent Stabilization Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding				
	ppropriately applied stra lastic sheeting		Shrubs or other permanent plantings covered with mulch     Uniform and evenly distributed ground cover sufficient to restrain erosion     Structural methods such as concrete, asphalt or retaining walls				

	PROPERTY LINE
600 —	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
600	PROPOSED MAJOR CONTOUR
601	PROPOSED MINOR CONTOUR
	DRAINAGE AREA
DA# ±X.X AC	DRAINAGE AREA LABEL
SOIL	SOIL TYPE
<u>H:V</u> X <u>.X%</u>	DIRECTION OF OVERLAND FLOW
100.XX 100.XX	DIRECTION OF OVERLAND FLOW
	RIP RAP APRON
	CONSTRUCTION ENTRANCE / EXIT
	EROSION CONTROL MATTING
	LIMITS OF DISTURBANCE TEMPORARY JUTE NETTING BAFFLES G/M2 COIR FABRIC OR HEAVIER) TEMPORARY DIVERSION DITCH OR B
	TEMP SILT FENCE WITH OUTLET
PF	TEMP TREE PROTECTION FENCE
SF-PF	TEMP SILT / TREE PROTECTION FENC
	CHECK DAM
	BERM
	SLOPE DRAIN WITH RIP-RAP APRON
Ф	SKIMMER
C	PIPE INLET PROTECTION
Ō	INLET PROTECTION
Ō	EXCAVATED INLET PROTECTION

EROSION CONTROL LEGEND

#### NARRATIVE

PROJECT INCLUDES APPROXIMATELY 1,520 LINEAR FEET OF 35' BACK TO BACK STREET SECTION TO CONNECT STREET H TO YOUNG STREET AND STORM DRAINAGE IN ROLESVILLE, NC. THERE IS A FUTURE DEVELOPMENT (BY OTHERS) ON THIS PROPERTY THAT WILL REQUIRE STORMWATER CONTROL MEASURES AND WILL TREAT THE NEW IMPERVIOUS INCLUDING THIS PROJECT'S IMPERVIOUS AREAS.

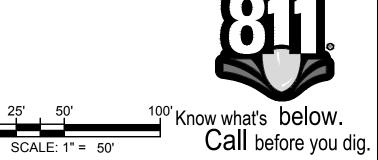
# CONSTRUCTION SEQUENCE - PHASE 1

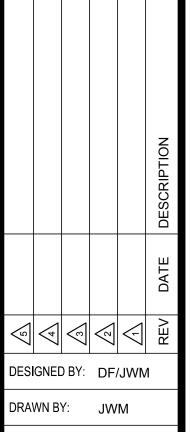
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- 3. CALL ENVIRONMENTAL CONSULTANT FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT TO OBTAIN A CERTIFICATE OF COMPLIANCE.

## CONSTRUCTION SEQUENCE - PHASE 2

- 1. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE.
- 2. INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
- 3. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
- 4. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL ENVIRONMENTAL CONSULTANT FOR AN INSPECTION.
- 5. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
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DISTURBED AREA: 3.05 AC





REVIEWED BY: DF

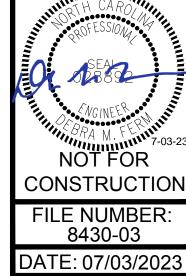
40 WADE PARK BLVD, SUITE RALEIGH NC 27607 WWW.BGEINC.COM

CORPORTATION

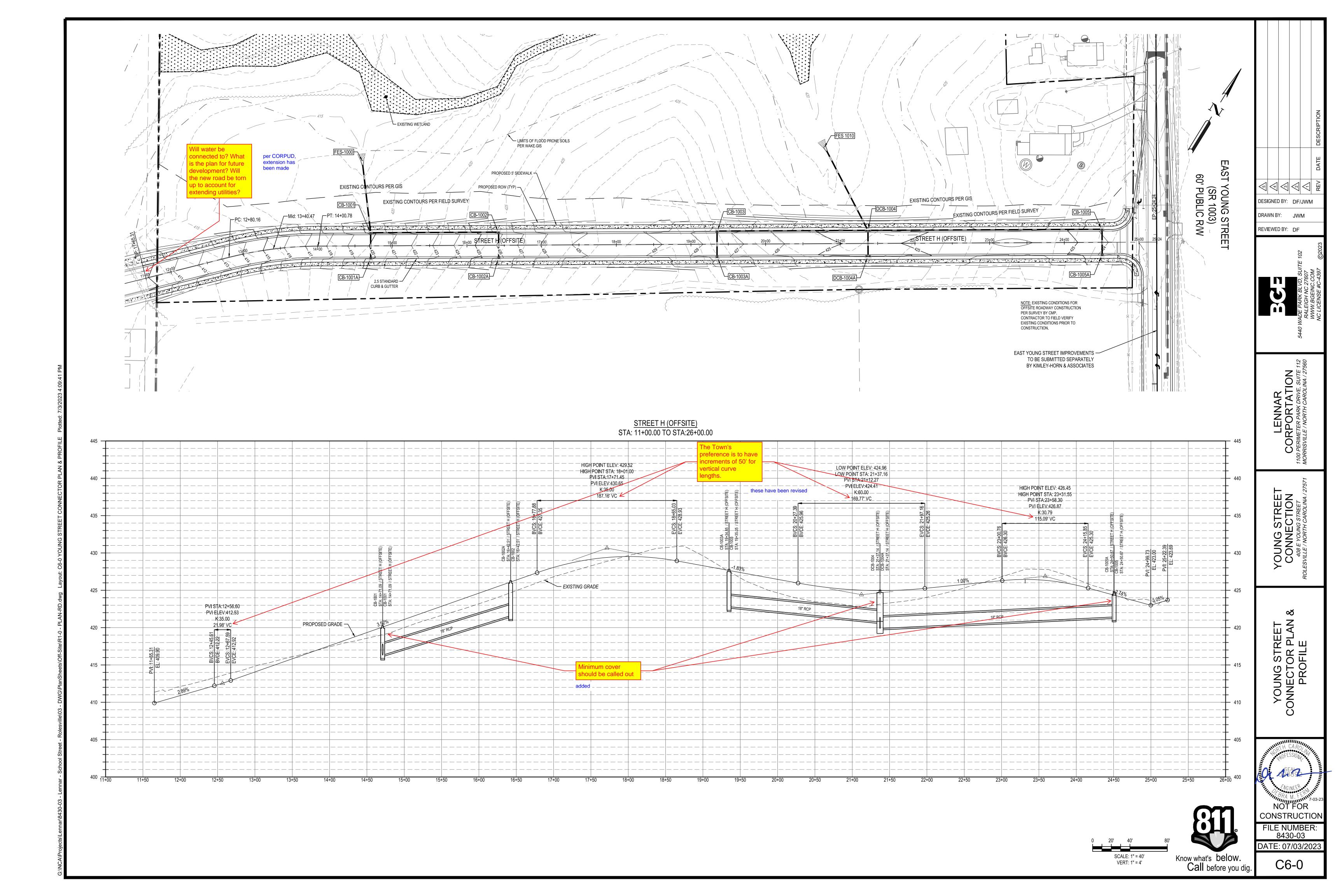
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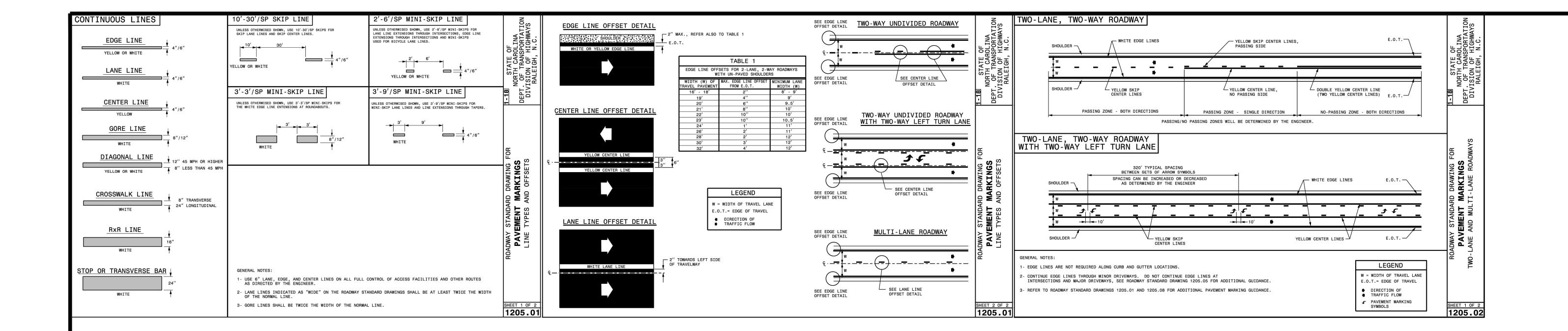
YOUNG STREET
CONNECTION
408 E YOUNG STREET
DLESVILLE / NORTH CAROLINA / 27571

EROSION CONTROL PHASE 2



C5-1







DESIGNED BY: DF

DESCRIPTION

DATE DESCRIPTION

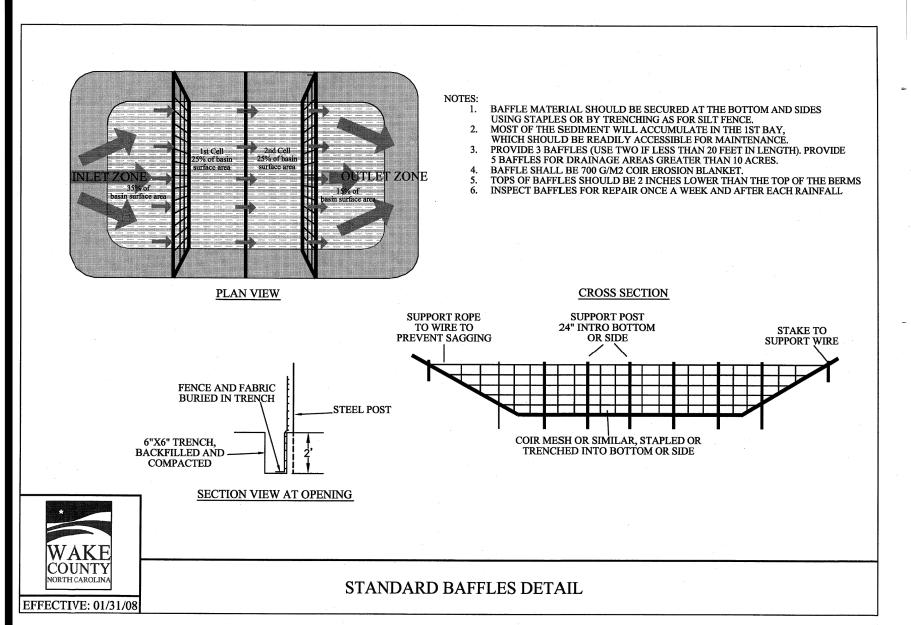
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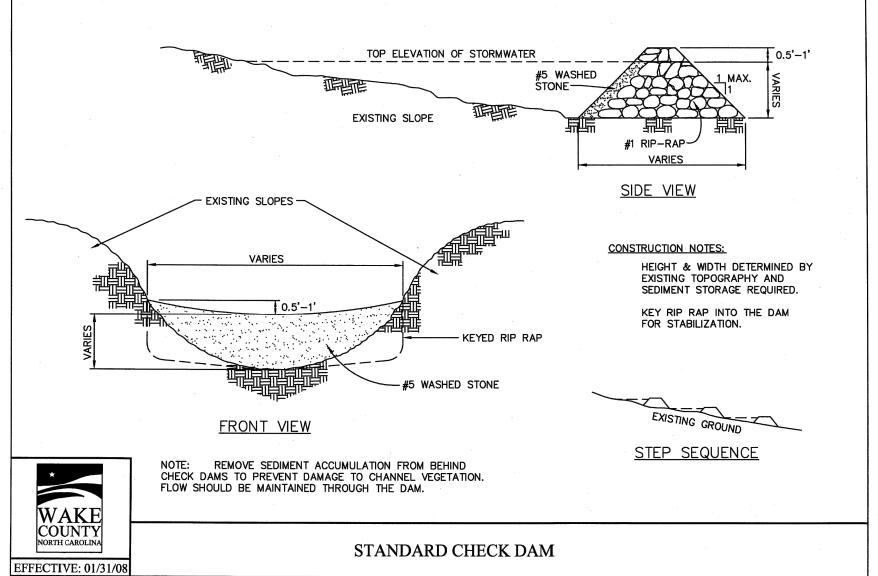
LENNAR
CORPORTATION
1100 PERIMETER PARK DRIVE, SUITE 112
MORRISVILLE / NORTH CAROLINA / 27560

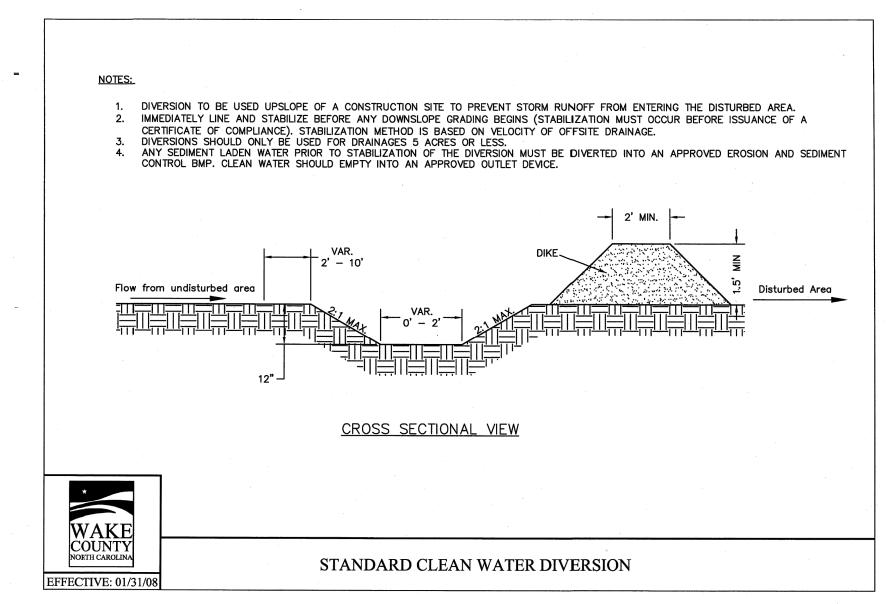
YOUNG STREET
CONNECTION
408 E YOUNG STREET
ROLESVILLE / NORTH CAROLINA / 27571

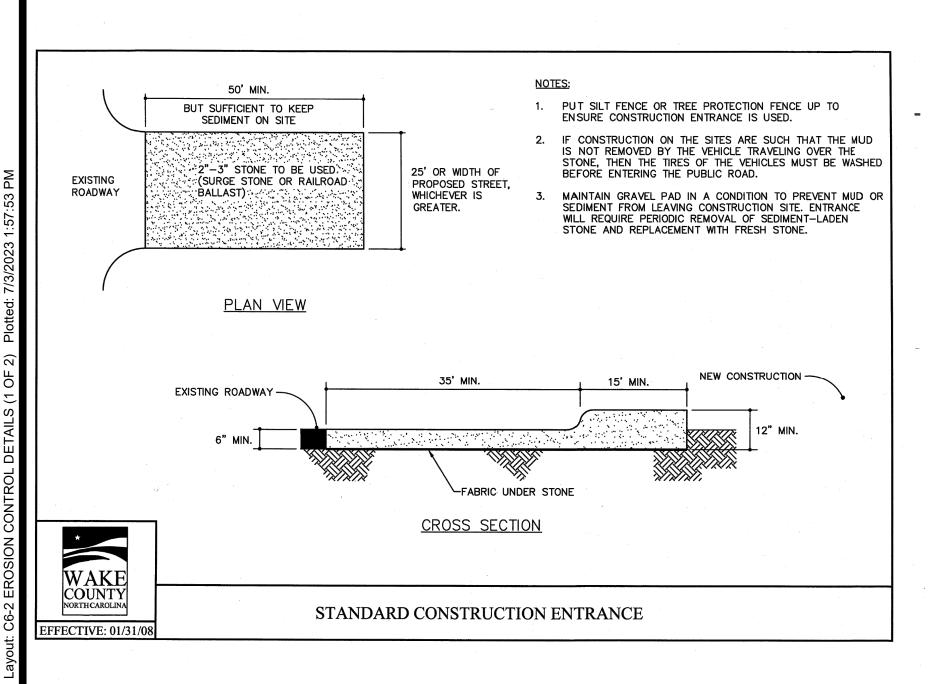
PAVEMENT MARKING DETAILS

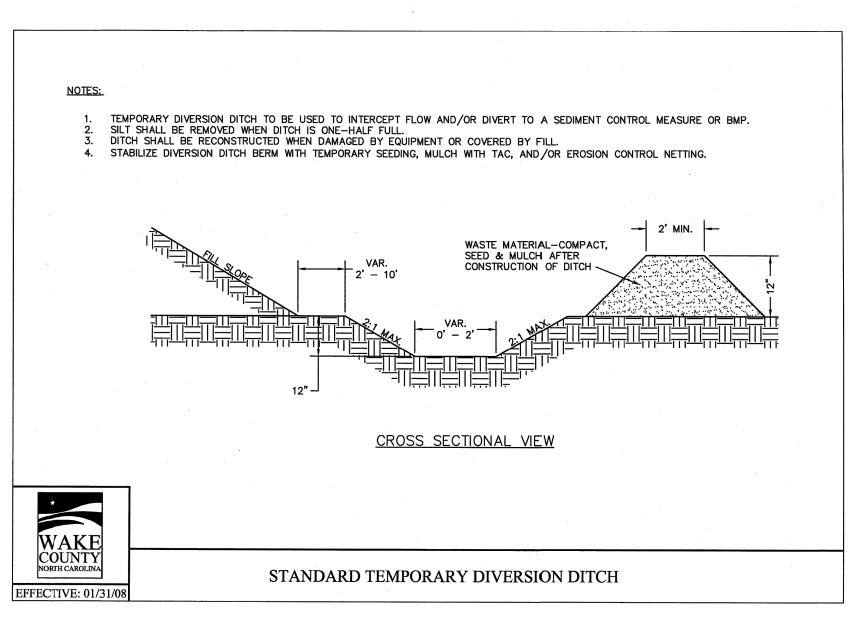
NOT FOR CONSTRUCTION
FILE NUMBER:
8430-03
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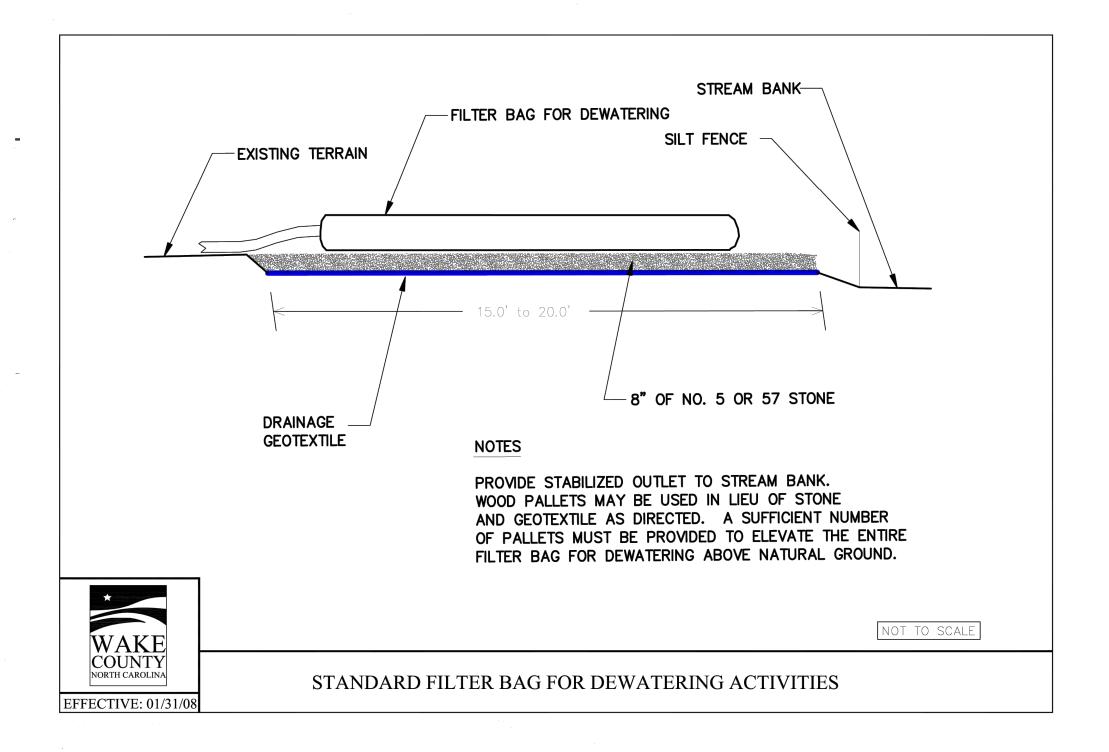


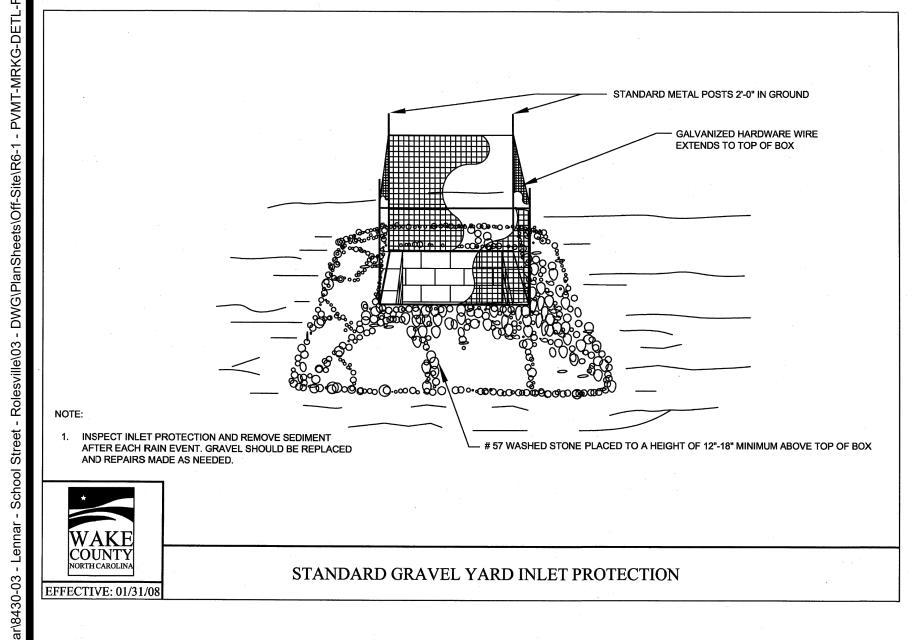


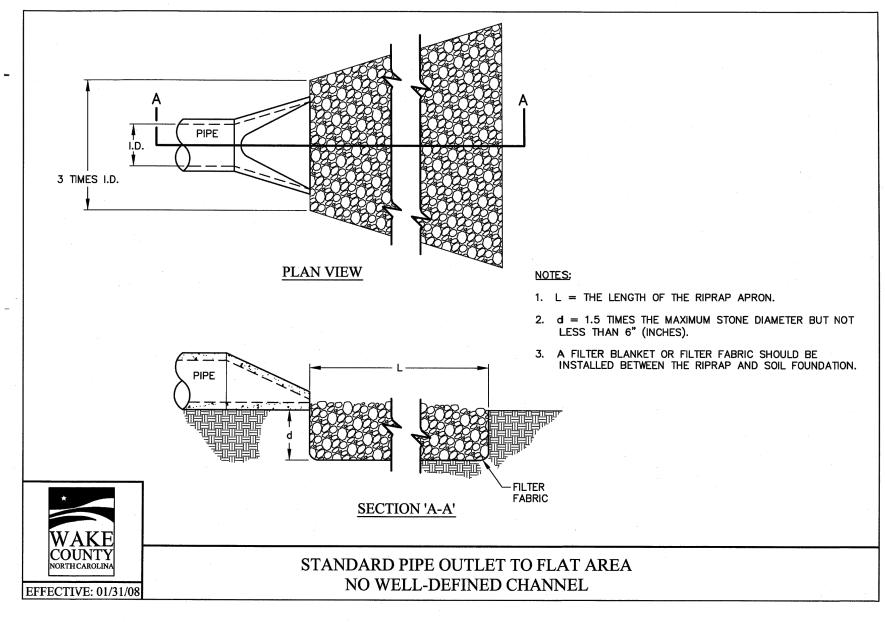


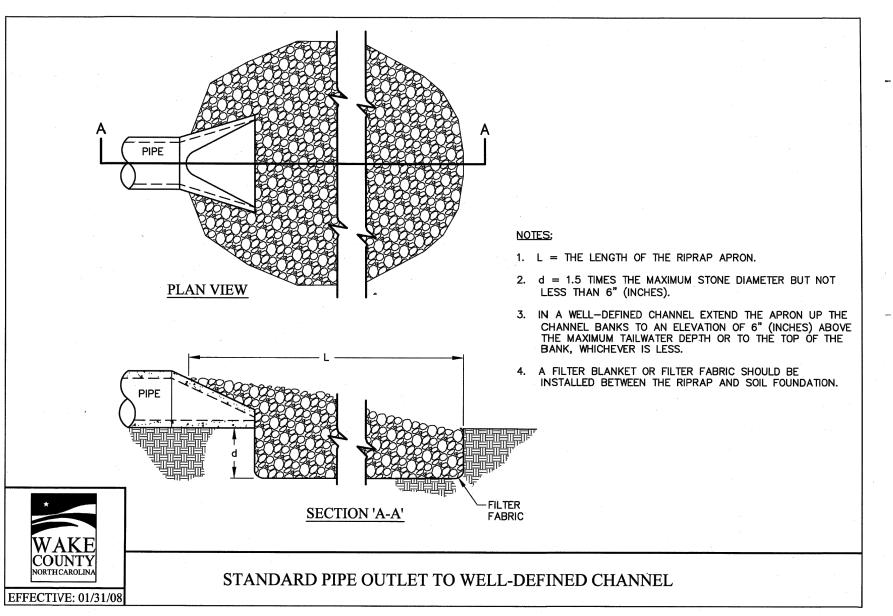














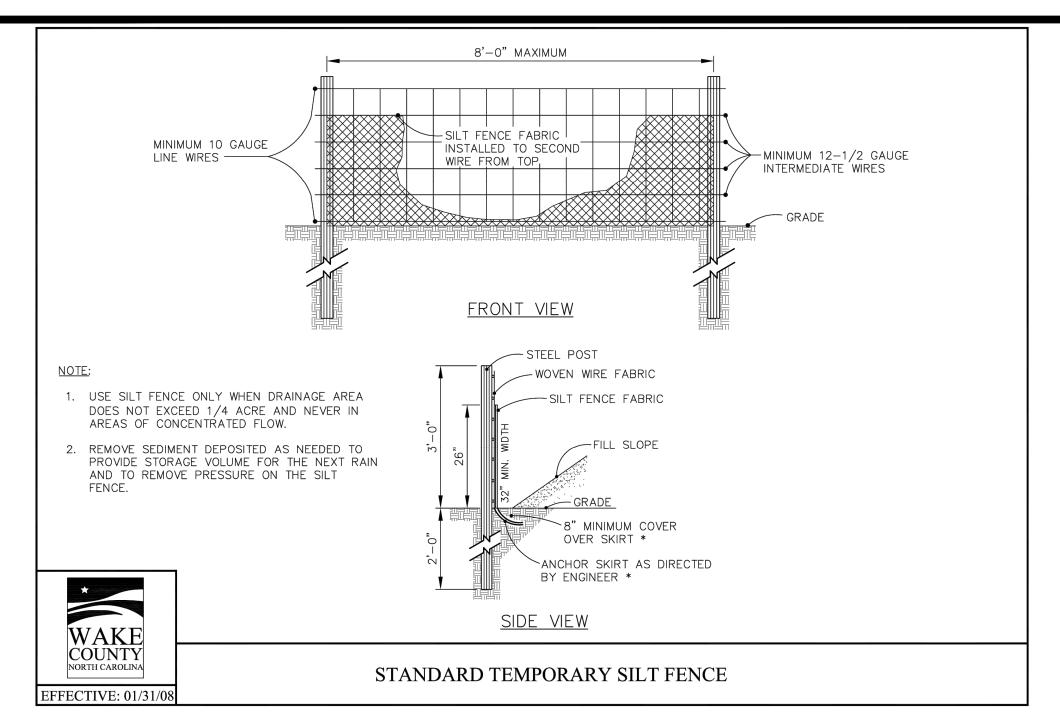


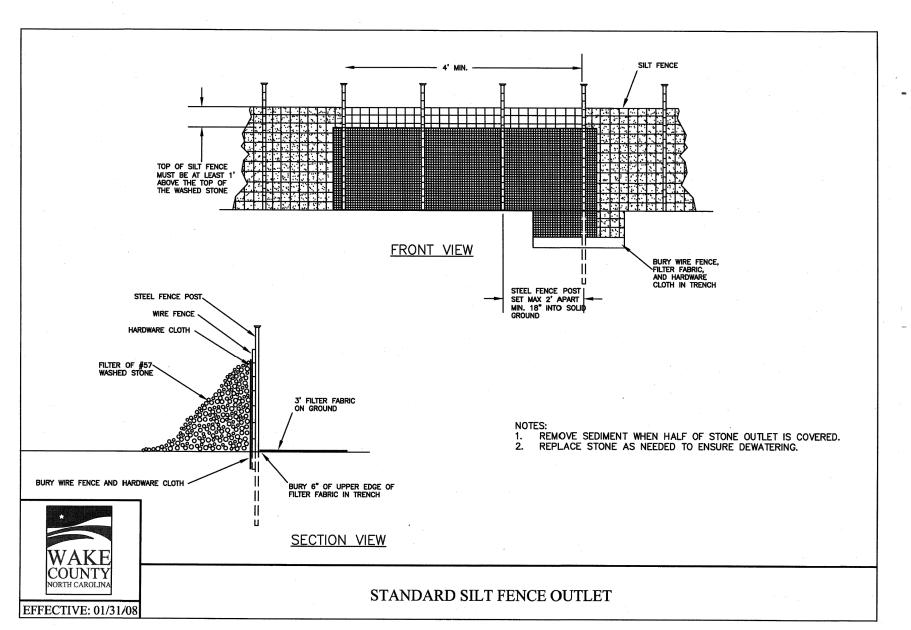
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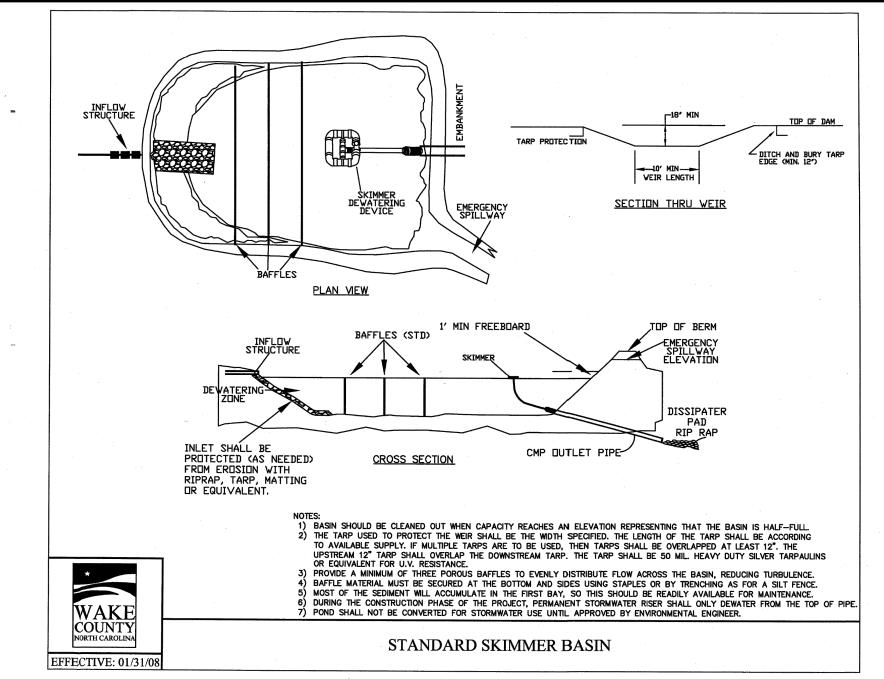
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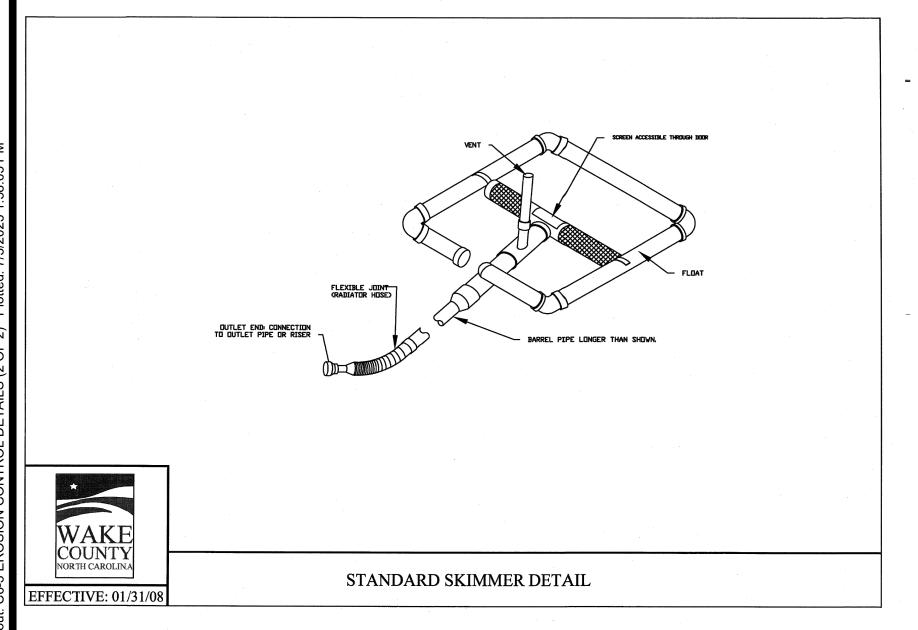
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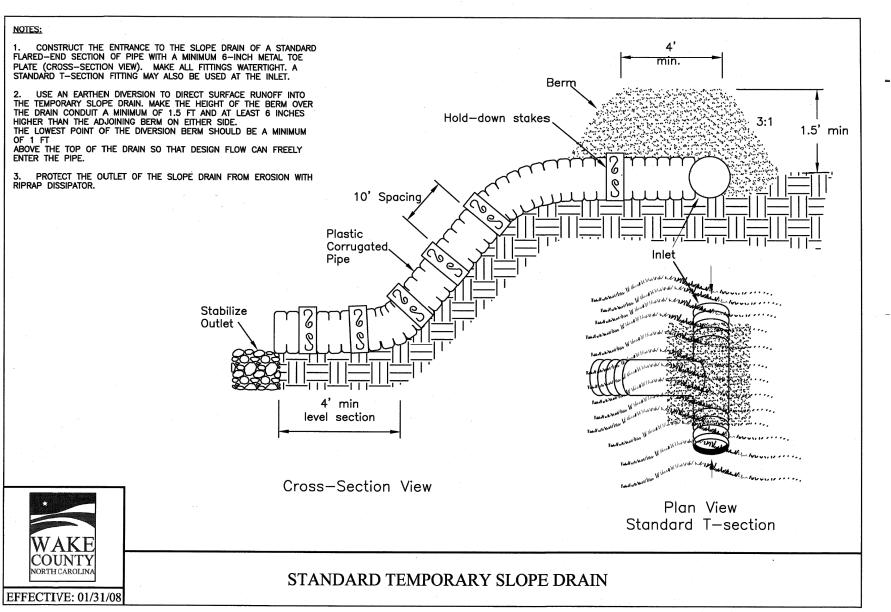
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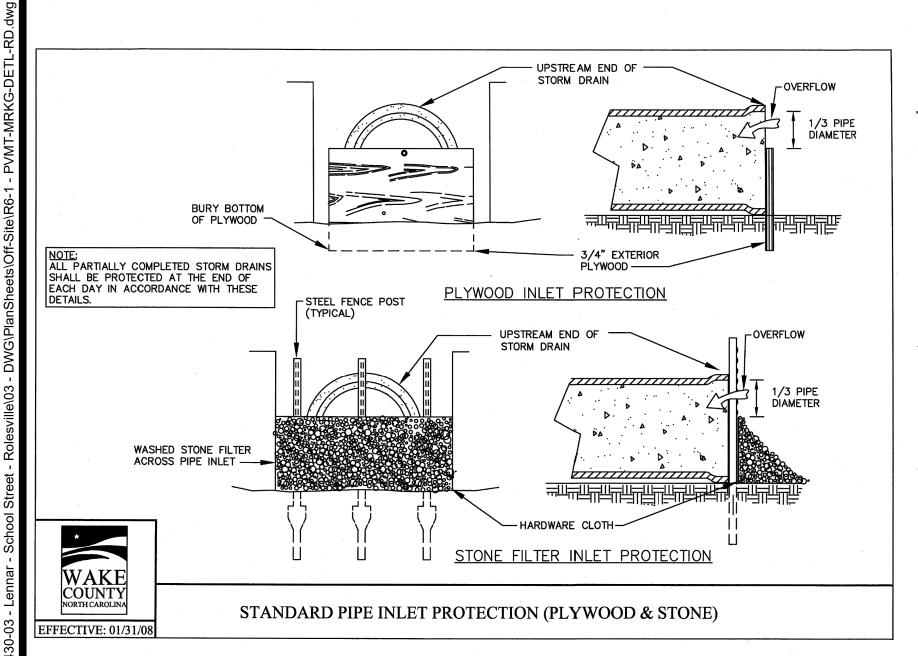


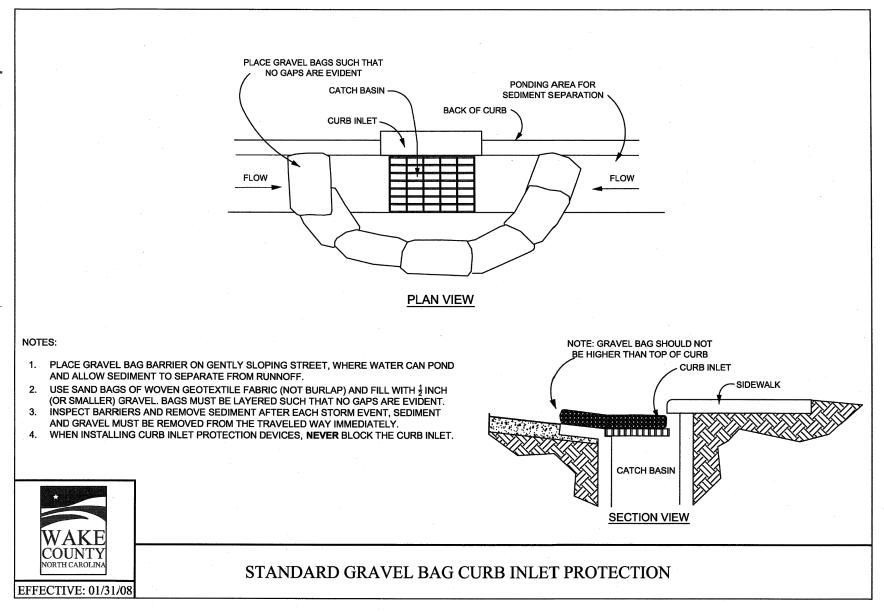
















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DESIGNED BY: DF/JWM

DRAWN BY: JWM

REVIEWED BY: DF