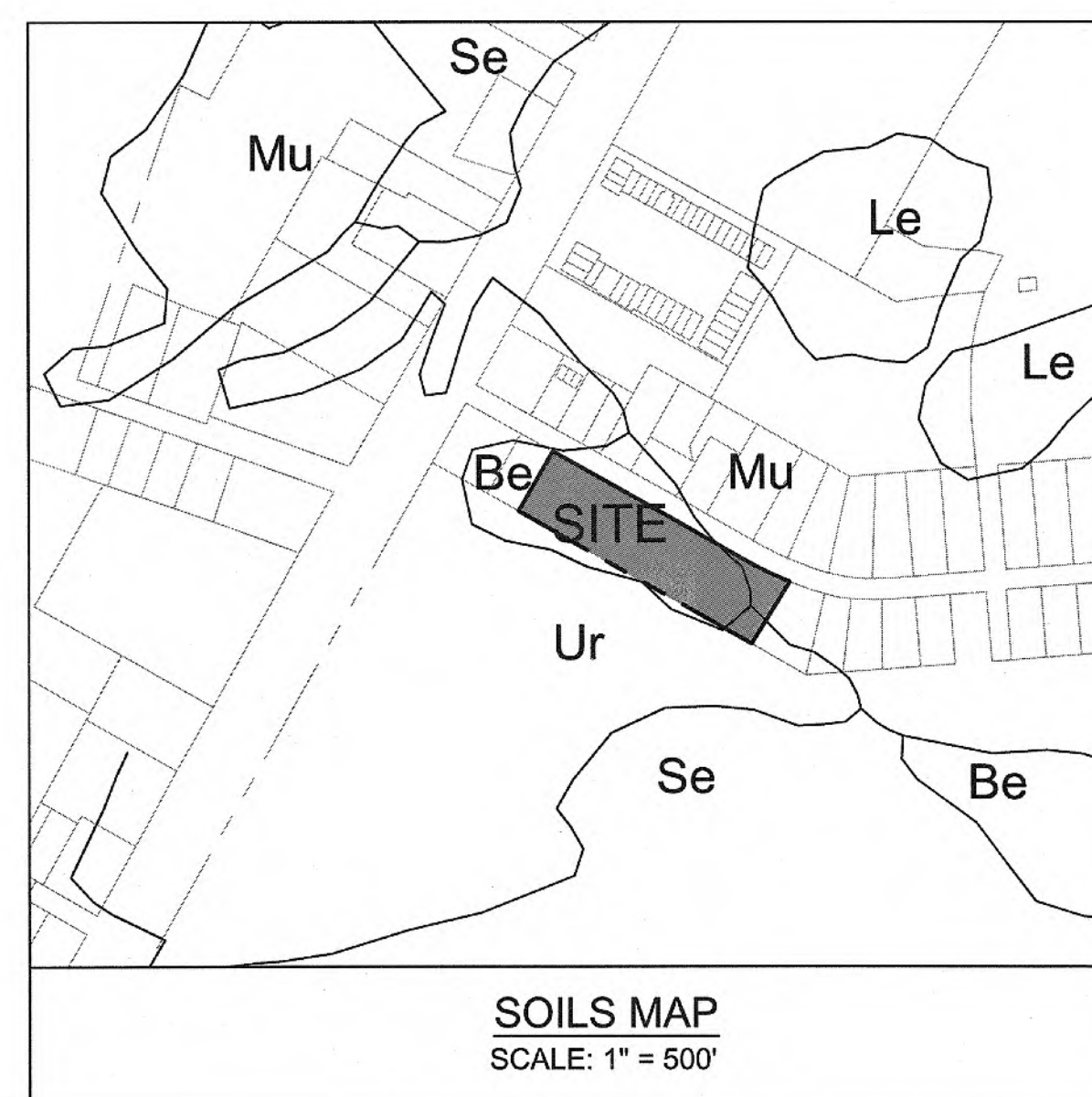
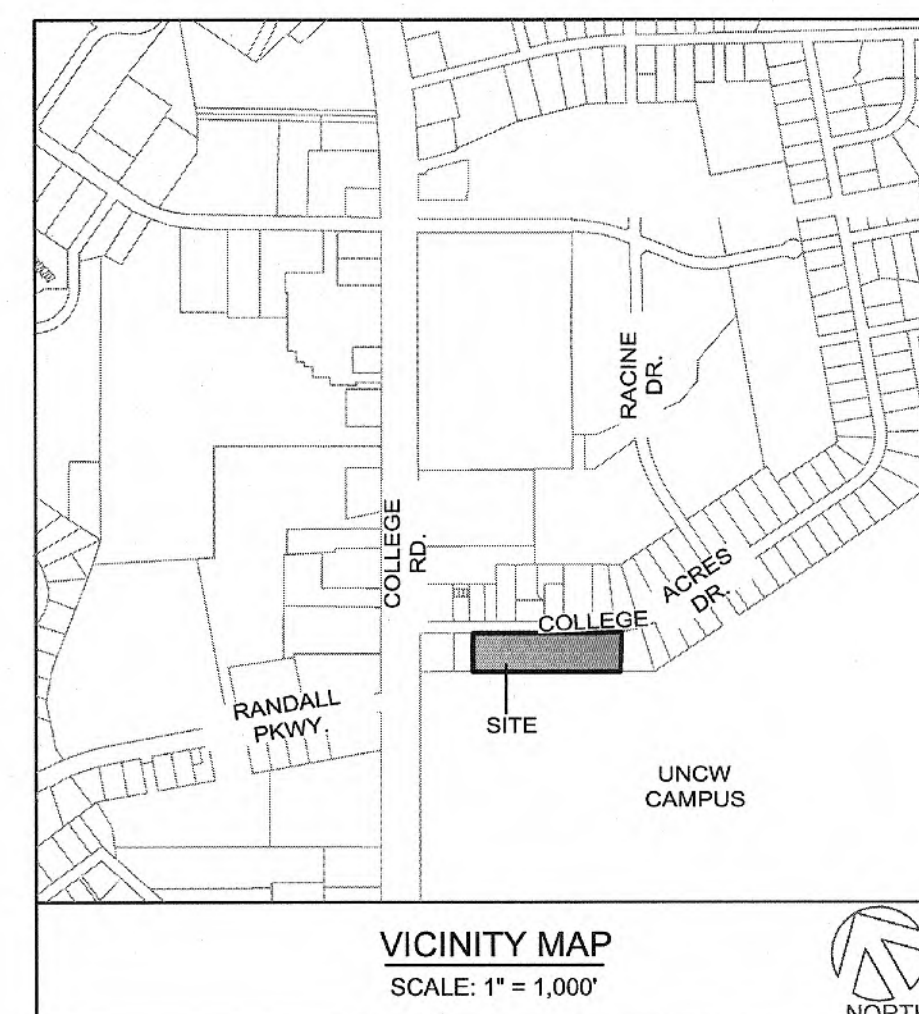


THE COTTAGES AT COLLEGE ACRES

4722 COLLEGE ACRES DRIVE
WILMINGTON, NORTH CAROLINA

CONSTRUCTION DOCUMENTS JULY 2019



NOTICE REQUIRED

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

CONTRACTORS SHALL CONTACT OVERHEAD ELECTRIC PROVIDER TO COMPLY WITH FEDERAL OSHA 1910.333 MINIMUM APPROACH DISTANCE TO ENERGIZED POWERLINES AND OSH 29 CFR 1926.1407-1411 MUST BE FOLLOWED.

CONTRACTOR SHALL CONTACT AT&T PRIOR TO ANY DEMOLITION TO ALLOW FOR AT&T TO DISCONNECT COMMUNICATIONS CABLES COMING INTO THE SITE.

CONTACT THESE UTILITIES

CITY OF WILMINGTON PLANNING & DEVELOPMENT

ATTN: GILBERT COMBS, PLANNER
PH: 910-341-4581

ATTN: ZONING INSPECTIONS
PH: 910-254-0900

PIEDMONT NATURAL GAS

ATTN: CATHY PLEASANT
PH: 910-251-2827

EMERGENCY DIAL 911 POLICE - FIRE - RESCUE

ATTN: CITY OF WILMINGTON FIRE & LIFE SAFETY
PH: 910-343-0696

CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)

ENGINEERING/INSPECTIONS
PH: 910-332-6560

OPERATIONS/MAINTENANCE
PH: 910-322-6550

DUKE ENERGY
DISTRIBUTION CONSTRUCTION SERVICE
DEP CSC PH: 1-800-452-2777

TRANSMISSION AGENT
BILL WILDER
PH: 910-772-4903

AT&T/BELL SOUTH
ATTN: STEVE DAYVAULT (BUILDING ENGINEERING)
PH: 910-341-0741

ATTN: JAMES BATSON, ENGINEERING
PH: 910-341-1621

SPECTRUM
GENERAL PH: 800-852-4357



COTTAGES AT COLLEGE ACRES

PROJECT # 18293.PE

July 31, 2019

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
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C-2.2-2.4	TREE REMOVAL & DEMO PLAN
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C-4.0	GRADING & DRAINAGE PLAN
C-5.0	UTILITY PLAN AND PROFILES
C-6.0-6.5	DETAILS
L-1.0	LANDSCAPE PLAN

PROJECT DEVELOPER

College Acres Development, LLC
11240 McDowell Shortcut
Murrells Inlet, SC 29576

PROJECT CONSULTANTS

ENGINEER/ LAND PLANNER/ LANDSCAPE ARCHITECT/SURVEYOR

PARAMOUNTE ENGINEERING, INC.
122 CINEMA DR., WILMINGTON NC 28403

(910) 791-6707

CIVIL ENGINEER: J. BRANCH SMITH, PE

LANDSCAPE ARCHITECT: ALLISON ENGEBRETSON, RLA
SURVEYOR: CHRIS GAGNE, PLS

Approved Construction Plan

Name: W. Smith Date: 8-2-19
Planning: W. Smith
Traffic: W. Smith
Fire: W. Smith

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 8/1/19 Permit # 2019050

Signed: Rich Christensen

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

PREPARED BY:

PARAMOUNTE
ENGINEERING, INC.

122 Cinema Drive Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

RELEASED FOR CONSTRUCTION

COORDINATION NOTES:

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND WITH THE CITY OF WILMINGTON, NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY (CPUA), AND THE STATE OF NORTH CAROLINA.
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPLETE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY APPLICABLE CITY STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS BY OTHERS FOR ALL BUILDING DIMENSIONS AND DETAILS.

GENERAL NOTES:

1. BOUNDARY AND EXISTING CONDITIONS SURVEY COMPLETED BY PARAMOUNTE ENGINEERING, INC., AND TREE INVENTORY AND TOPOGRAPHIC SURVEY COMPLETED BY PARAMOUNTE ENGINEERING, INC. THE SURVEY SHALL BE FIELD VERIFIED BY CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE OWNER AND ENGINEER.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE USDOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 811 AND ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREIN BEFORE BEGINNING CONSTRUCTION.
9. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
10. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
11. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
12. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONE WEEK DURING CONSTRUCTION.
13. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
14. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
15. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
16. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER, THE CITY OF WILMINGTON, NEW HANOVER COUNTY, OR CPFA, RESPECTIVELY.
17. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL: TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
18. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
19. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
20. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE REFLECTIVE MARKINGS AND SHALL CONFORM TO MUTCD. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
21. LANDSCAPE PLANTINGS AT ENTRANCE/ EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS IN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS PER LOCAL STANDARDS.
22. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.

CITY OF WILMINGTON FIRE NOTES:

1. FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CPFA STANDARDS.
2. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
3. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
4. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT.
5. ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
6. CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR THE COMMERCIAL RETAIL THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2016 NC FIRE CODE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUND COVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. GROUND COVER SHALL BE PROVIDED ON ALL OTHER DISTURBED AREAS WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK. (NO SEPARATE PAYMENT).
3. THE CONTRACTOR SHALL NOTIFY PLAN APPROVING AUTHORITY ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NEW HANOVER COUNTY FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY EITHER THE REVIEWING AGENCY OR THE ENGINEER. (NO SEPARATE PAYMENT).
8. 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.
9. ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE IMPROVED SHALL BE SOODED OR SEEDED AS INDICATED AND STABILIZED.
10. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
11. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
12. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. (NO SEPARATE PAYMENT). NOENR'S FINAL APPROVAL IS REQUIRED.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. (NO SEPARATE PAYMENT).
14. WHEN CROSSING CREEK OR DRAINAGE-WAY, THE DIVISION OF WATER QUALITY SHALL BE CONTACTED PRIOR TO DISTURBING A CREEK. THE CONTRACTOR SHALL INSTALL RIP-RAP WITH FABRIC ALONG DISTURBED BANKS AND CHANNEL, AND RESTORE SLOPES TO ORIGINAL CONDITIONS, BUT NOT STEEPER THAN 2:1 MAXIMUM. DISTURBED CREEK AREA SHALL BE STABILIZED IMMEDIATELY.

DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE CONSIDERED UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE GEOTECHNICAL ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL PRODUCE A PHOTOGRAPHIC RECORD (DIGITAL) OF DEVELOPMENT COMMENCING WITH A RECORD OF THE SITE AS IT APPEARS BEFORE DEMOLITION HAS BEGUN. AFTERWARDS, A PHOTOGRAPHIC RECORD SHALL BE MAINTAINED WEEKLY DURING CONSTRUCTION AND ENDING WITH A PHOTOGRAPHIC RECORD OF THE DEVELOPMENT AS IT APPEARS AFTER DEMOLITION. THIS RECORD SHALL BE DELIVERED TO THE OWNER.
7. EXISTING CURB AND GUTTER, LIGHTS, SIDEWALK, AND UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION.
8. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
9. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
10. CONTRACTOR SHALL MAINTAIN REQUIRED DISTANCES FROM HIGH VOLTAGE OVERHEAD LINES AND REMOVE TREES SO THEY DO NOT FALL TOWARDS OVERHEAD ELECTRICITY.
11. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
12. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
13. EXISTING FIRE HYDRANTS ON OR NEAR THE SITE ARE TO REMAIN IN SERVICE.
14. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS.

TRAFFIC NOTES:

1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY & FOR DRIVEWAY(S) ARE TO BE THERMOPLASTIC & MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS NOT WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY OPEN CUTTING OF A CITY STREET REQUIRES A UTILITY CUT PERMIT. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES, AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
6. CONTACT TRAFFIC ENGINEERING, AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY- EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
7. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND/OR CURBING SHALL BE REPLACED.
8. TACTILE WARNING MATS TO BE INSTALLED AT ALL WHEELCHAIR RAMPS.

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

NOTE: THESE EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES ARE INTENDED FOR EACH "PHASE" OF CONSTRUCTION. THE ORDER AND STEPS TAKEN MUST BE IMPLEMENTED AS EACH PART OF THE PROJECT IS DEVELOPED, WHETHER AS A WHOLE OR IN PHASES. ANY EROSION CONTROL DEVICES/MEASURES MUST REMAIN IN PLACE UNTIL THE ENTIRE DISTURBANCE IS STABILIZED AND ALL IMPROVEMENTS WITHIN THE DISTURBANCE LIMITS ARE COMPLETE.

1. CONSTRUCT TEMPORARY GRAVEL CONSTRUCTION ENTRANCE(S), ESTABLISH THE LIMITS OF DISTURBANCE, TREE PROTECTION FENCINGS, AND TEMPORARY SILT FENCE.
2. CLEAR AND REMOVE FROM SITE TREES AS DESIGNATED, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
3. INSTALL REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLANS WITHIN THE AREA DISTURBED. ALL EROSION CONTROL MEASURES MUST BE INSTALLED BEFORE COMMENCING CONSTRUCTION.
4. PLANT GRASS OVER ALL GRADED AREAS WITHIN 14 WORKING DAYS OF CEASE OF ANY GRADING ACTIVITY.
5. IMMEDIATELY UPON THE INSTALLATION OF ANY STORM DRAINAGE CATCH BASIN, DROP INLET, ETC., THE CONTRACTOR SHALL INSTALL INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION CONTROL MEASURES.
7. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETE, THE CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL APPROVAL BY ENGINEER OR EROSION CONTROL INSPECTOR.
8. UPON RECEIVING FINAL APPROVAL, THE CONTRACTOR CAN REMOVE TEMPORARY EROSION CONTROL MEASURES.
9. THE CONTRACTOR SHALL CONTINUE TO WATER, FERTILIZE, MOW AND MAINTAIN GRASS & PLANTED AREAS UNTIL ALL CONSTRUCTION IS COMPLETE.

EROSION CONTROL MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF- PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. INLET PROTECTION - INSPECT WIRE AND ROCK INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH SIGNIFICANT (1/4 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACINGS.
6. SEDIMENT BASIN/SEEDMENT TRAPS - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO WITHIN ONE HALF OF THE DESIGN DEPTH. PLACE SEDIMENT IN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, PIPING, AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
7. SKIMMER - INSPECT SKIMMER AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL TO MAKE SURE THAT THE INTAKE MECHANISM, ORIFICE, OR DISCHARGE PIPE IS NOT CLOGGED WITH TRASH OR SEDIMENT. IF THE BASIN IS DRY, MAKE SURE THAT ANY VEGETATION GROWING ON THE BOTTOM IS NOT HOLDING THE SKIMMER DOWN. TAKE SPECIAL PRECAUTION IN WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.
8. OUTLET PROTECTION - INSPECT RIP RAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1/4 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
9. EMERGENCY SPILLWAY / FOREBAY PROTECTION - AFTER EVERY HIGH-WATER EVENT INSPECT THE INTEGRITY OF THE LINED SPILLWAY AND THE ADJACENT EARTHEN BANKS. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE. REPAIR ANY VOIDS IN THE RIP RAP LINED APRONS, RE-ESTABLISH ANY LOOSE STONES, AND FIX GAPS IN THE ADJACENT VEGETATIVE COVER.
10. TEMPORARY DIVERSION DITCH - INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.
11. CHECK DAMS - EXCELSIOR OR RIP-RAP - SEDIMENT SHALL BE REMOVED FROM THE DAM WHEN IT REACHES HALF-FILLED. CHECK DAMS SHALL BE REPAIRED OR REPLACED WHEN THEY NO LONGER DRAIN AS DESIGNED OR ARE DISLODGED, AND CHANNEL SHALL BE REPAIRED OF RUTS, PIPING, AND SETTLEMENT AROUND THE DAMS AS NEEDED.

PERMANENT SEEDING

GRASS TYPE	LBS/ ACRE	TIME OF SEEDING	FERTILIZER LIMESTONE
BERMUDA, HULLED BERMUDA, UNHULLED	10-20 35	MARCH - AUGUST SEPT. - FEB.	BY SOIL TEST
CENTPEDE	10	MARCH - AUGUST	BY SOIL TEST (NO HIGH PH)
TALL FESCUE (COASTAL CULTIVAR RECOMMENDED)	50	MARCH - AUGUST	300 LB/AC 10-20-20 OR BY SOIL TEST
SLOPES >= 2:1 CENTPEDE SERICEA LESPEDEZA	5 20	JAN - DEC	BY SOIL TEST

TEMPORARY SEEDING

GRASS TYPE	LBS/ ACRE	TIME OF SEEDING	FERTILIZER LIMESTONE
RYE GRAIN	50	OCT. - APR.	400 LBS/AC. 10-20-20
SWEET SUDAN GRASS	50	JUNE - AUGUST	400 LBS/AC. 10-20-20
GERMAN OR BROWNTOP MILLET	50	JUNE - AUGUST	400 LBS/AC. 10-20-20
STRAW MULCH AS NEEDED	4,000		

NC ACCESSIBILITY NOTES:

1. GENERAL NOTES:
SPECIAL ATTENTION SHALL BE GIVEN TO COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. IT IS ESSENTIAL THAT CONTRACTORS ARE AWARE OF THE SITE ACCESSIBILITY REQUIREMENTS. PARAMOUNTE ENGINEERING HAS DEVELOPED THESE NOTES AND DETAILS TO ASSURE THAT THE CONTRACTOR IS AWARE OF THE REQUIREMENTS AT THE POINT IN TIME WHEN THEY ARE BIDDING THE PROJECT. IN ADDITION, PARAMOUNTE ENGINEERING HAS MADE A POINT IN THESE NOTES AND DETAILS, AS WELL AS IN OUR DRAWINGS, TO PROVIDE SLOPES / GRADES AND DIMENSIONS THAT COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ANSI A117.1 AND APPLICABLE LOCAL LAWS & REGULATIONS. IF THESE SLOPES / GRADES AND DIMENSIONS ARE NOT ACHIEVABLE, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER IMMEDIATELY AND BEFORE MOVING FORWARD WITH THE WORK.
3. THE CONTRACTOR SHALL NOTIFY PARAMOUNTE ENGINEERING IMMEDIATELY OF ANY CONFLICT BETWEEN THESE NOTES AND DETAILS AND OTHER PROJECT DRAWINGS, WHETHER BY PARAMOUNTE ENGINEERING OR OTHERS. THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK FOR WHICH THE ALLEGED CONFLICT HAS BEEN DISCOVERED UNTIL SUCH ALLEGED CONFLICT HAS BEEN RESOLVED. NO CLAIM SHALL BE MADE BY THE CONTRACTOR FOR DELAY OR DAMAGES AS A RESULT OF RESOLUTION OF ANY SUCH CONFLICT(S).
4. THESE ACCESSIBILITY NOTES AND DETAILS ARE INTENDED TO DEPICT SLOPE AND DIMENSIONAL REQUIREMENTS ONLY. REFER TO SIDEWALK, CURBING, AND PAVEMENT DETAILS FOR ADDITIONAL INFORMATION.

ACCESSIBLE ROUTE NOTES:

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES, PUBLIC STREETS OR SIDEWALKS, AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE.
3. WALKING SURFACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5.0% AND A MAXIMUM CROSS SLOPE OF 2.0%.
4. ANY WALKING SURFACE THAT IS PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5.0% IS A RAMP AND SHALL COMPLY WITH THE GUIDELINES FOR RAMPS OR CURB RAMPS.
5. TRANSITIONS BETWEEN RAMPS, WALKS, LANDINGS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4 INCH MAXIMUM VERTICAL CHANGE IN LEVEL PERMITTED).
6. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
7. THE MINIMUM CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES SHALL BE FORTY- EIGHT (48) INCHES MINIMUM MEASURED BETWEEN HANDRAILS WHERE HANDRAILS ARE PROVIDED (NC BUILDING CODE 1104.1 & 1104.2).
8. WHERE AN ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN OBJECT THAT IS LESS THAN FORTY-EIGHT (48) INCHES IN WIDTH, CLEAR WIDTH SHALL BE FORTY-TWO (42) INCHES MINIMUM. WHERE AN ACCESSIBLE ROUTE MAKES A 90 DEGREE TURN, CLEAR WIDTH SHALL BE FORTY-TWO (42) INCHES MINIMUM LEAVING THE TURN. THE CLEAR WIDTH APPROACHING AND LEAVING THE TURN MAY BE THIRTY-SIX (36) INCHES MINIMUM WHEN THE CLEAR WIDTH AT THE TURN IS SIXTY (60) INCHES MINIMUM. * SEE NOTE 7 ABOVE FOR NC CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES"
9. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN SIXTY (60) INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF TWO HUNDRED (200) FEET MAXIMUM. PASSING SPACES SHALL BE EITHER A SIXTY (60) INCH MINIMUM CLEAR WIDTH OR A FORTY-EIGHT (48) INCH MINIMUM CLEAR WIDTH. WALKING SURFACES THAT PROVIDE A FORTY-EIGHT (48) INCH MINIMUM TURNING SPACE, PROVIDED THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND FORTY- EIGHT (48) INCHES MINIMUM BEYOND THE INTERSECTION.
10. DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
11. DIRECTIONAL SIGNAGE INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE BUILDING ENTRANCE SHALL BE PROVIDED AT INACCESSIBLE BUILDING ENTRANCES.
12. WHERE POSSIBLE, DRAINAGE INLETS SHALL NOT BE LOCATED ON AN ACCESSIBLE ROUTE. IN THE EVENT THAT A DRAINAGE INLET MUST BE LOCATED ON AN ACCESSIBLE ROUTE, THE GRATE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), A117.1, THE NC BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS.

RAMP NOTES:

1. ANY PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5% SHALL BE CONSIDERED A RAMP.
2. THE MAXIMUM RUNNING SLOPE FOR A RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
3. THE CLEAR WIDTH OF AN EXTERIOR RAMP RUN SHALL BE FORTY EIGHT INCHES (NC BUILDING CODE 1104.1). WHERE HANDRAILS ARE PROVIDED ON THE RAMP RUN, THE CLEAR WIDTH SHALL BE MEASURED BETWEEN THE HANDRAILS.
4. THE RISE FOR ANY RAMP RUN SHALL BE THIRTY (30) INCHES MAXIMUM.
5. LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF RAMPS. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2.0% IN ANY DIRECTION. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING. THE LANDING CLEAR LENGTH SHALL BE SIXTY (60) INCHES LONG MINIMUM. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING OF SIXTY (60) INCHES BY SIXTY (60) INCHES MINIMUM.
6. RAMP RUNS WITH A RISE GREATER THAN SIX (6) INCHES SHALL HAVE HANDRAILS ON BOTH SIDES COMPLYING WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
7. FLOOR SURFACES OF RAMPS AND LANDINGS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
8. EDGE PROTECTION COMPLYING WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND ON EACH SIDE OF RAMP LANDINGS.
9. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, SHALL BE PROVIDED TO OVERLAP THE REQUIRED CLEARANCE. WHERE DOORS THAT ARE SUBJECT TO LOCKING ARE ADJACENT TO A RAMP LANDING, LANDINGS SHALL BE SIZED TO PROVIDE A COMPLAINT TURNING SPACE.

CURB RAMP NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE 36 INCHES (36) MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED. *NOTE NC BUILDING CODE REQUIRES EXTERIOR ACCESSIBLE ROUTES TO BE 48 INCHES MINIMUM WIDE (1104.1 & 1104.2).
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10%.
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESS AISLES. CURBS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. IT IS RECOMMENDED TO PROVIDE CURB RAMPS WITH A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH 408.12 A117.1, EXTENDING THE FULL WIDTH OF THE RAMP. REFERTO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES. THE NC BUILDING CODE DOES NOT CURRENTLY REQUIRE DETECTABLE WARNINGS AT CURB RAMPS, NOR DO THE 2010 ADA STANDARDS. HOWEVER US DOT ADA REGULATIONS DO REQUIRE THESE.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, 1/4 INCH WIDE BY 1/4 INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

NC ACCESSIBILITY NOTES CONTD.

PARKING SPACE NOTES:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESS AISLES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE AISLE. THE AISLE SHOULD BE 96 INCHES WIDE (OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS AISLE IS FIVE FEET). WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
3. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FOR ACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
5. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL BE INSTALLED AT A MINIMUM CLEAR HEIGHT OF SIXTY (60) INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.
13. SIGNAGE AT ACCESSIBLE PARKING SPACES REQUIRED BY THE NC BUILDING CODE SECTION 1108.1 SHALL COMPLY WITH THE REQUIREMENTS OF NORTH CAROLINA GENERAL STATUTE 20-27.6 AND 136-30 AND THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES. A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY MUST BE PROVIDED AT EACH ACCESSIBLE SPACE.
14. ACCESSIBLE PARKING SPACE, ACCESS AISLE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE (OR ANOTHER COLOR THAT CAN BE DISTINGUISHED FROM PAVEMENT).

PASSENGER LOADING ZONE NOTES:

1. PASSENGER LOADING ZONES SHALL PROVIDE VEHICULAR PULL-UP SPACE NINETY-SIX (96) INCHES WIDE MINIMUM AND TWENTY (20) FEET LONG MINIMUM.
2. PASSENGER LOADING ZONES SHALL PROVIDE A CLEARLY MARKED ACCESS AISLE THAT IS SIXTY (60) INCHES WIDE MINIMUM AND EXTENDS THE FULL LENGTH OF THE VEHICLE PULL-UP SPACE THEY SERVE.
3. ACCESS AISLE SHALL ADJOIN AN ACCESSIBLE ROUTE AND NOT OVERLAP THE VEHICULAR WAY.
4. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
5. FLOOR SURFACES OF VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT.
6. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SERVING THEM, SHALL PROVIDE A VERTICAL CLEARANCE OF ONE HUNDRED FOURTEEN (114) INCHES MINIMUM.

ACCESSIBLE ENTRANCE NOTES:

1. ACCESSIBLE ENTRANCES SHALL BE PROVIDED AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) AND THE NORTH CAROLINA BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. ENTRANCE DOORS, DOORWAYS AND GATES SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1 AND SHALL BE ON AN ACCESSIBLE ROUTE.

GENERAL STORM SEWER NOTES:

1. ALL STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WILMINGTON REQUIREMENTS AS SPECIFIED ON THE DRAWINGS AND IN THE PROJECT SPECIFICATIONS.
2. BEDDING FOR ALL STORM SEWER PIPE SHALL BE AS SPECIFIED ON THE DRAWINGS.
3. ALL STORM SEWER PIPES SHOWN AS RCP ON THE PLANS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, UNLESS INDICATED OTHERWISE ON PLANS.

ROOF DRAIN NOTE:

- 1) PROPOSED BUILDING SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM.

EXISTING UTILITY NOTES:

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

WETLAND NOTES:

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site 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

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none">Temporary grass seed covered with straw or other mulches and tackifiersHydroseedingRoll erosion control products with or without temporary grass seedAppropriately applied straw or other mulchPlastic sheeting	<ul style="list-style-type: none">Permanent grass seed covered with straw or other mulches and tackifiersGeotextile fabrics such as permanent soil reinforcement mattingHydroseedingShrubs or other permanent plantings covered with mulchUniform and evenly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt or retaining wallsRoll erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

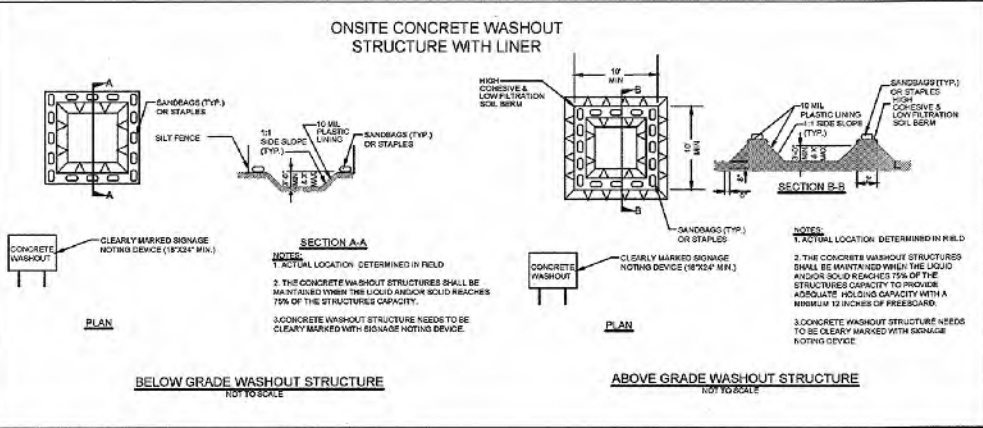
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measures, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discolorations, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Visible sedimentation is found outside site limits, then a record of the following shall be made: 2. Actions taken to clean up or stabilize the sediment that has left the site limits. 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 2. Description, evidence and date of corrective actions taken, and 3. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, construction of erosion and sediment control activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation
The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).

- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

- Anticipated bypasses and unanticipated bypasses.

- Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none">• Within 24 hours, an oral or electronic notification.• Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.• If the stream is named on the NC 309(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the Federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul style="list-style-type: none">• Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.43(m)(3)]	<ul style="list-style-type: none">• A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.43(m)(3)]	<ul style="list-style-type: none">• Within 24 hours, an oral or electronic notification.• Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(f)(7)]	<ul style="list-style-type: none">• Within 24 hours, an oral or electronic notification.• Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(f)(6).• Division staff may waive the requirement for a written report on a case-by-case basis.

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name: _____ Date: 8-2-19

Planning: _____ 8-2-19

Traffic: _____ 8-2-19

Fire: C. Webb 8/1/19

WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit #: 2019050
Signed: _____

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

PARAMOUNT ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

NPDES NCG01 NOTES
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

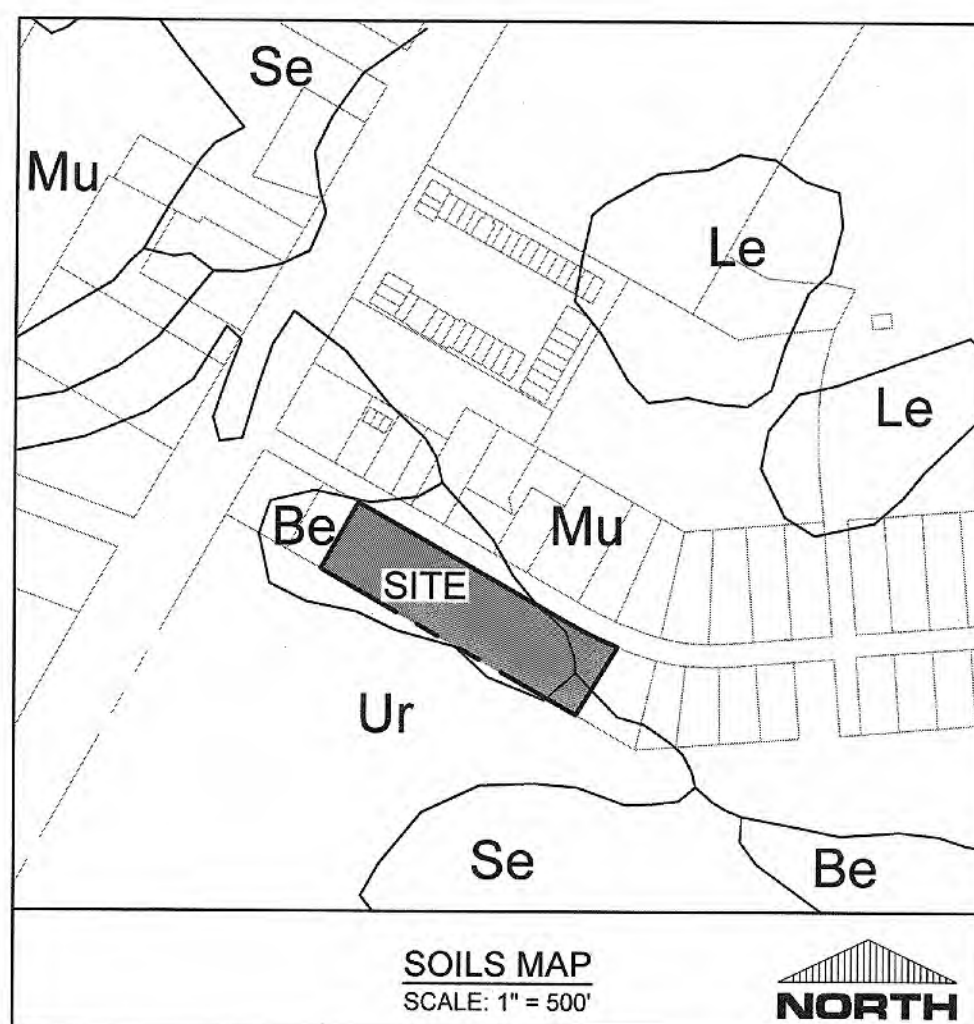
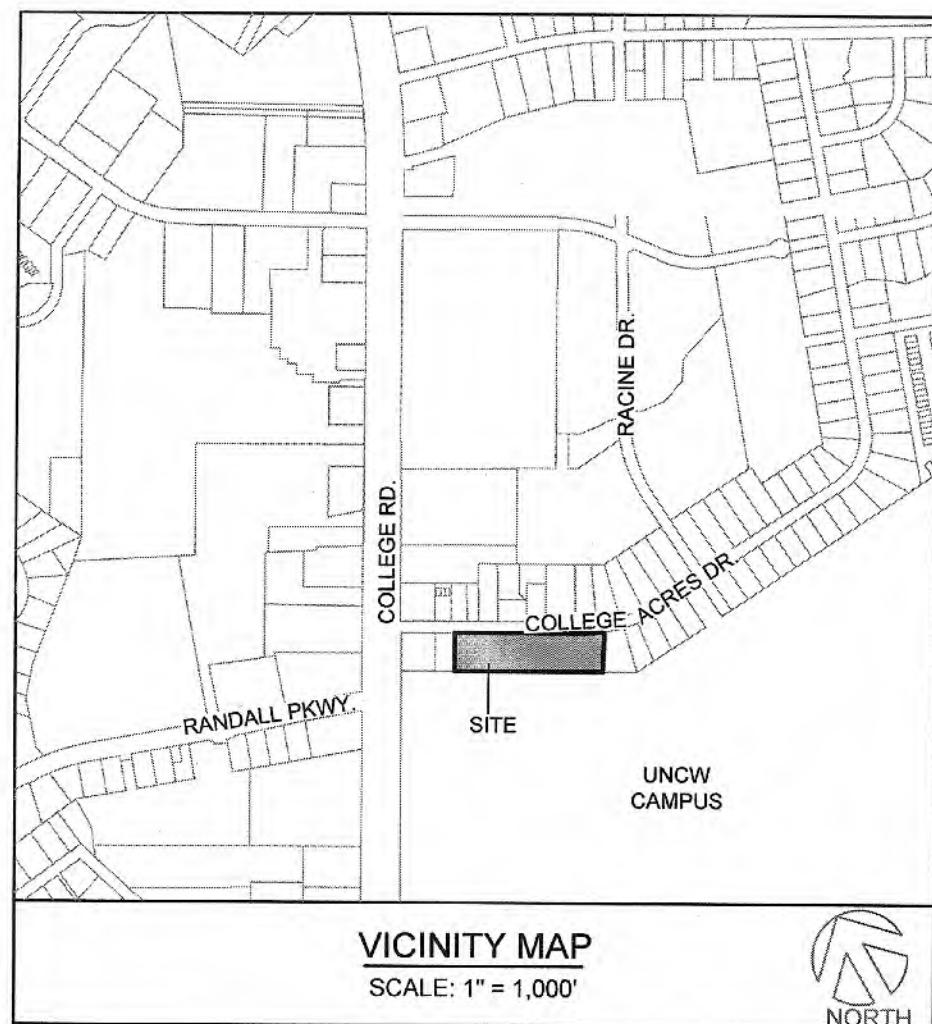
PROJECT STATUS:
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.

DRAWING INFORMATION:
DATE DESIGNED:
DATE CHECKED:
DATE APPROVED:

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

C-1.1

PEI JOB#: 18293 PE

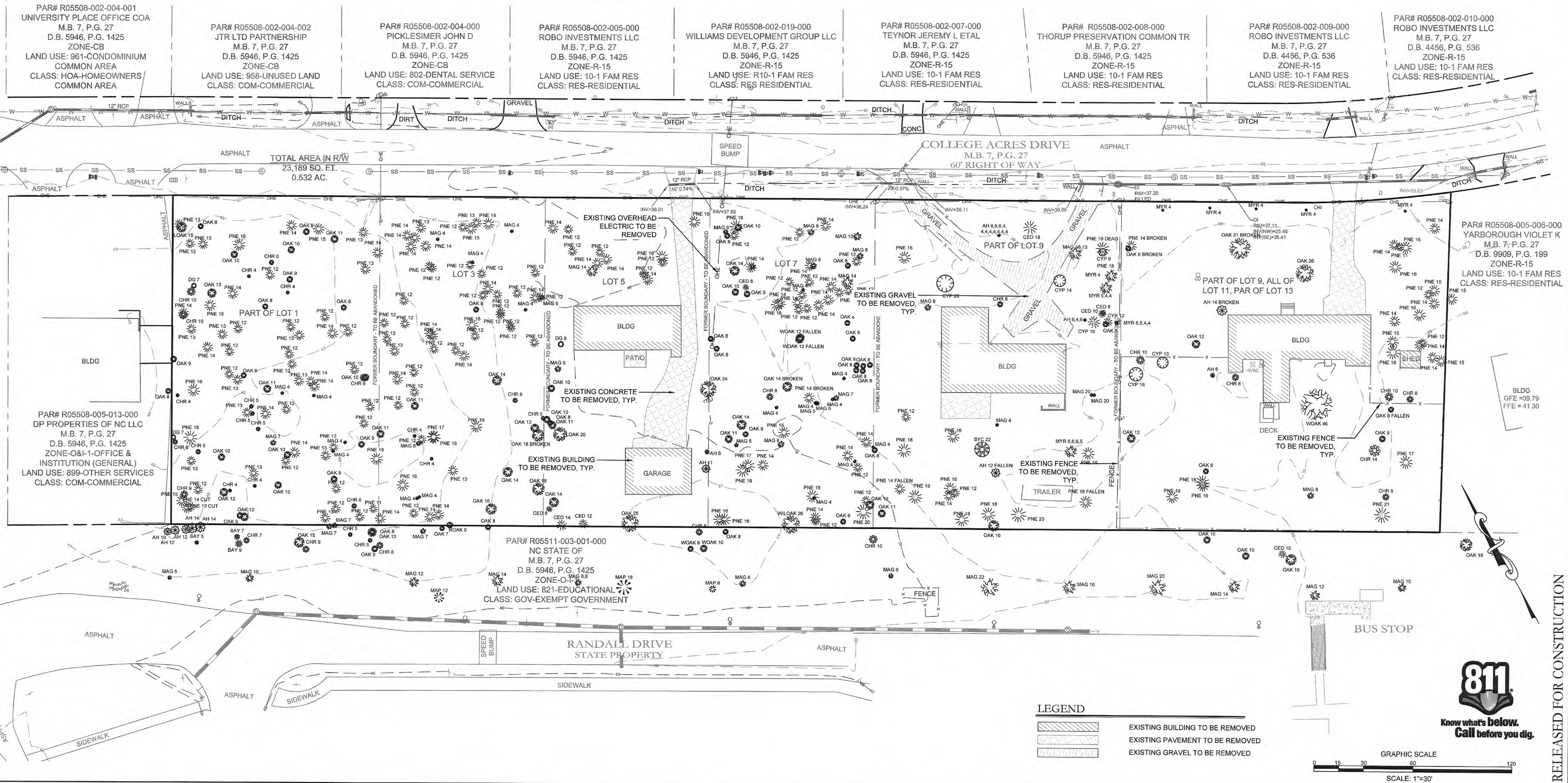


SITE INVENTORY DATA			
1. PREPARER OF THE PLAN:	PARAMOUNT ENGINEERING, INC. 122 CINEMA DRIVE WILMINGTON, NC 28403	9. VICINITY MAP:	SEE MAP THIS SHEET
2. APPLICANT NAME:	COLLEGE ACRES DEVELOPMENT, LLC 4702 OLEANDER DRIVE MYRTLE BEACH, SC 29577	10. TOPOGRAPHY:	SEE PLAN
3. SITE ADDRESS:	4722 COLLEGE ACRES DR. WILMINGTON, NC 28403	11. 100 YEAR FLOOD PLAIN BOUNDARY:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2018
4. PROPERTY OWNER:	C & D REAL ESTATE ASSOCIATES LLC 6208 TURTLE HALL DR WILMINGTON, NC 28409	12. LOCATION OF EXISTING DITCHES, CREEKS, AND STREAMS:	N/A
	BAKER KENNETH W GEORGIA M 514 LAKE POINTE DR YANCEYVILLE, NC 27379	13. SOILS:	BAYMEADE (Be), MURVILLE (Mu), URBAN (Ur) (SEE SOILS MAP THIS SHEET)
	BENNETT RESIDENTIAL PROP LLC 6801 MYRTLE GROVE RD WILMINGTON, NC 28409	14. CMAA AEC & ASSOCIATED SETBACKS:	N/A
	FAIRCLOTH H R 2027 CAROLINA BEACH RD WILMINGTON, NC 28401	15. CMAA LAND CLASSIFICATION:	URBAN
	BRONSON MICHAEL E PAMELA J 4738 COLLEGE ACRES DR WILMINGTON, NC 28403	16. CONSERVATION RESOURCES:	N/A
5. DEVELOPER:	COLLEGE ACRES DEVELOPMENT, LLC. 4702 OLEANDER DRIVE MYRTLE BEACH, SC 29577	17. LOCAL, STATE, OR FEDERAL HISTORIC OR ARCHAEOLOGICAL SITE:	N/A
6. PROPERTY BOUNDARY:	SEE PLAN	18. LOCATION OF CEMETERIES, BURIAL SITES, OR BURIAL GROUNDS:	N/A
7. ZONING:	O&I-1 (CD)	19. SQUARE FOOTAGE OF FORESTED AREA, HABITAT, AND DOMINANT SPECIES:	N/A
8. ADJACENT PROPERTY INFORMATION (OWNER AND ZONING):	SEE PLAN	20. SECTION 404 WETLANDS AND SECTION 10 WATERS:	N/A
		21. PROTECTED SPECIES OR HABITAT:	N/A
		22. THOROUGHFARES, BIKE ROUTES, SIDEWALKS, TRANSIT FACILITIES (EXISTING OR PROPOSED):	SEE PLAN & VICINITY MAP

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit: 2019050
Signed: [Signature]

Approved Construction Plan
Name: [Signature] Date: 8-2-19
Planning: [Signature] 8-2-19
Traffic: [Signature] 8-2-19
Fire: [Signature] 8-2-19

For each open utility cut of
City streets, a \$325 permit
shall be required from the
City prior to occupancy
and/or project acceptance.



REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

SITE INVENTORY PLAN
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS:
CONCEPTUAL LAYOUT:
FINAL DESIGN:
RELEASED FOR CONSTRUCTION:
DRAWING INFORMATION:
DATE: 8/1/19
SCALE: AS SHOWN
DESIGNED: [Signature]
CHECKED: [Signature]

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

C-2.0
PEI JOB#: 18293 PE

VICINITY MAP

SCALE: 1" = 1,000'

UNCW CAMPUS

NORTH

GENERAL NOTES

1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
2. ALL AREAS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
6. COMMON DUMPMSTER PROVIDED FOR DEVELOPMENT TRASH DISPOSAL.
7. CONTRACTOR SHALL REFER TO LANDSCAPE PLAN FOR SPECIFIC TREE REMOVAL AND OTHER LANDSCAPING DETAILS.
8. ALL UNDESIRABLE VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10'.
9. THERE ARE NO WETLANDS LOCATED ON SITE.

OBI -1	
- MINIMUM LOT AREA:	15,000 SF
- MINIMUM LOT WIDTH:	80'
- MAXIMUM LOT COVERAGE:	40%
- MINIMUM FRONT SETBACK:	20'
- MINIMUM REAR SETBACK:	20'
- MINIMUM INTERIOR SIDE SETBACK:	10'
- MINIMUM CORNER LOT SIDE SETBACK:	10'
- MAXIMUM BUILDING HEIGHT:	45'
PROVIDED BUILDING SETBACKS:	
- FRONT (COLLEGE ACRES DR):	20.28'
- REAR (RANDALL DR):	21.78'
- INTERIOR SIDE:	10' MIN.
- LOT COVERAGE:	28.9% (44,178 SF / 154,800 SF)
- BUILDING HEIGHT:	35'

IMPERVIOUS AREA:	
EXISTING BUILDING:	8,808 SF
EXISTING PAVEMENT:	4,059 SF
EXISTING GRAVEL:	2,326 SF
TOTAL EXISTING IMPERVIOUS:	15,193 SF
EXISTING TO BE REMOVED:	15,193 SF
PROPOSED BUILDING:	41,560 SF
PROPOSED PAVEMENT:	40,870 SF
PROPOSED SIDEWALKS:	12,710 SF
FUTURE:	3,000 SF
TOTAL NEW IMPERVIOUS:	98,130 SF

BUILDING SIZES:		
UNIT 1C	966 * 1	SQFT
UNITS 1 & 2	1,918 * 1	SQFT
UNITS 3-10	1,756 * 4	SQFT
UNITS 11-18	1,918 * 4	SQFT
UNITS 19-30	3,541 * 3	SQFT
UNITS 31-33	2,649 * 1	SQFT
UNITS 34-45	3,541 * 3	SQFT
TOTAL SQFT:	41,475	SQFT

STREET/YARD:	0&1 MULTIPLIER = 18 (775 LF OF FRONTAGE - 48' OF DRIVEWAY) X 18 = 13,986 SF REQUIRED 13,085 SF / 600 SF = 21.8 OR 22 CANOPY TREES, OR 85.4 OR 65 UNDERSTORY TREES 130.8 OR 131 SHRUBS (2" HG. AT PLANTING)
SIDE BUFFER:	20' DEPTH MIN., EXISTING VEGETATION TO SERVE AS BUFFER MATERIAL; SITE TO COMPLY WITH SECTION 18-503 OF THE CITY OF WILMINGTON LDC FOR SIDE BUFFER SOLUTIONS WHERE EXISTING VEGETATION IS FOUND TO BE INSUFFICIENT.
SCREENING:	ALL DUMPSTERS, HVAC, MECHANICAL EQUIPMENT AND ANY OTHER ITEMS REQUIRING SCREENING AS DEFINED BY THE CITY OF WILMINGTON LDC TO BE SCREENED IN ACCORDANCE WITH SECTION 18-504

"ALL EXISTING WATER AND SEWER UTILITIES ARE OWNED BY CPWA"
 SANITARY SEWER
 EXISTING - NONE
 MULTI-FAMILY - ASSUMING 120 GPD/BED
 PROPOSED - 45 MULTI-FAMILY UNITS TOTAL
 1,500 SF REPAV
 10 - 3 BDRM UNITS @ 360 GPD/UNIT = 3,600 GPD
 35 - 4 BDRM UNITS @ 480 GPD/UNIT = 16,800 GPD
 2 RETAIL EMPLOYEES @ 25 GPD = 50 GPD
 TOTAL SEWER FLOW = 20,450 GPD
 WATER
 EXISTING - NONE
 MULTI-FAMILY - ASSUMING 120 GPD/BED
 10 - 3 BDRM UNITS @ 360 GPD/UNIT = 3,600 GPD
 35 - 4 BDRM UNITS @ 480 GPD/UNIT = 16,800 GPD
 2 RETAIL EMPLOYEES @ 25 GPD = 50 GPD
 TOTAL WATER FLOW = 20,450 GPD

①8 4" BACKFLOW PREVENTER
 SEE DETAIL

①9 6" BACKFLOW PREVENTER
 SEE DETAIL

②0 2" WATER METER
 SEE DETAIL

②1 2" IRRIGATION METER
 SEE DETAIL

②2 FIRE HYDRANT, TYP.

① WIDE PARKING LOT
 AS SHOWN. USE HIGHWAY
 PAINT - WHITE (2 COATS).

② WHEEL STOP:
 6'-0" LONG CONCRETE. ANCHOR
 WITH (2) 1"-8" LONG #4 REBAR.
 DETAIL.

③ LINGMONT SIGN DISTANCE TRIANGLE:
 LINGMONT 20'X70' SIGN TRIANGLE

④ SIGN DISTANCE TRIANGLE:
 70'X70' TRIANGLE

⑤ TAPER:
 DETAIL

⑥ RACK:
 DETAIL

⑦ DOME MOUNTS

⑧ SIDEWALKS SHALL BE SHIFTED
 AROUND EXISTING UTILITY POLES
 AND MUST HAVE A MINIMUM OF
 12'-6" BETWEEN THE POLE AND
 EDGE OF SIDEWALK. TELEPHONE
 PEDESTALS TO BE RELOCATED BY
 OWNER.

⑨ 10' NON-MUNICIPAL EASEMENT

RESIDENTIAL:	1 PER UNIT MINIMUM (AS PER SECTION 18-257); 2.5 PER UNIT MAXIMUM 45 UNITS X 1 = 45 SPACES MIN. 45 UNITS X 2.5 = 112.5 OR 113 SPACES MAX.
RETAIL:	1 PER 400 SF = 1,900 SF/ 400 = 4.75 OR 5 SPACES MIN. 1 PER 200 SF = 1,900 SF/ 200 = 9.5 OR 10 SPACES MAX
TOTAL MIN.:	50 SPACES
TOTAL MAX.:	123 SPACES
TOTAL PROVIDED:	108 SPACES
RETAIL:	5 SPACES
RESIDENTIAL:	102 SPACES
<u>BICYCLE PARKING:</u>	
REQUIRED:	5 SPACE BICYCLE PARKING MINIMUM FOR THE FIRST PARKING SPACES AND 4.5 ADDITIONAL SPACES FOR AUTOMOTIVE PARKING SPACES THEREAFTER.
TOTAL PROVIDED:	36 SPACES

①	<u>CONCRETE DRIVE APRON:</u> CITY STD. DRIVEWAY SD 3-03 REFER TO DETAIL	⑪	<u>STRIPING:</u> PROVIDE 4' WIDE PARKING LOT STRIPING AS SHOWN. USE HIGHWAY MARKING PAINT - WHITE (2 COATS)
②	<u>LIGHT DUTY ASPHALT PAVING:</u> REFER TO DETAIL	⑫	<u>CONCRETE WHEEL STOP:</u> 5'W x 4" H x 6" LONG CONCRETE AND TO PAVING WITH (2) 1-6" LONG #4 REB REFER TO DETAIL
③	<u>STANDARD 24" CURB & GUTTER:</u> REFER TO DETAIL	⑬	CITY OF WILMINGTON SIGHT DISTANCE CITY OF WILMINGTON 20X170 SIGHT T
④	<u>24" SPILL CURB & GUTTER:</u> REFER TO DETAIL	⑭	<u>NCDOT SIGHT DISTANCE TRIANGLE:</u> NCDOT 10X170 SIGHT TRIANGLE
⑤	<u>CONCRETE SIDEWALK:</u> REFER TO DETAIL	⑮	<u>CURB END TAPER:</u> REFER TO DETAIL
⑥	<u>ACCESSIBLE SPACES AND SIGNAGE:</u> REFER TO DETAIL	⑯	<u>BICYCLE RACK:</u> BY OTHERS
⑦	<u>ACCESSIBLE RAMP:</u> REFER TO DETAIL	⑰	<u>TRUNCATED DOME MATS</u> PER CITY OF WILMINGTON
⑧	<u>EXISTING STREET LIGHTS</u>		
⑨ - ⑩	<u>N/A</u>		

PAR# R05508-002-004-001
UNIVERSITY PLACE OFFICE COA
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-CB
LAND USE: 961-CONDOMINIUM
COMMON AREA
CLASS: HOA-HOMEOWNERS
COMMON AREA

PAR# R05508-002-004-002
JTR LTD PARTNERSHIP
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-CB
LAND USE: 958-UNUSED LAND
CLASS: COM-COMMERCIAL

PAR# R05508-002-004-000
PICKLESIMER JOHN D
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-CB
LAND USE: 802-DENTAL SERVICE
CLASS: COM-COMMERCIAL

PAR# R05508-002-005-000
ROBO INVESTMENTS LLC
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL

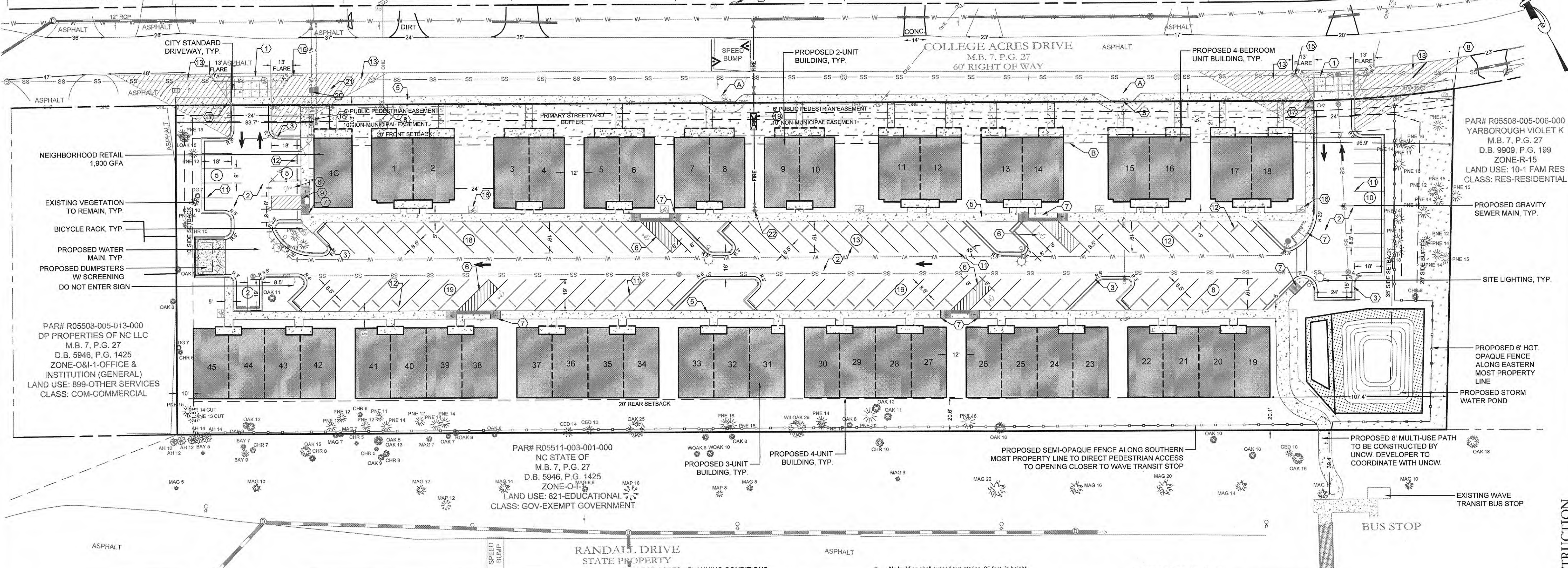
PAR# R05508-002-019-000
WILLIAMS DEVELOPMENT GROUP LLC
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-R-15
LAND USE: R10-1 FAM RES
CLASS: RES RESIDENTIAL

PAR# R03308-002-007-000
 TEYNOR JEREMY L ETAL
 M.B. 7, P.G. 27
 D.B. 5946, P.G. 1425
 ZONE-R-15
 LAND USE: 10-1 FAM RES
 CLASS: RES-RESIDENTIAL

M.B. 7, P.G. 27
 D.B. 5946, P.G. 1425
 ZONE-R-15
 LAND USE: 10-1 FAM RES
 CLASS: RES-RESIDENTIAL

ROBO INVESTMENTS LLC
M.B. 7, P.G. 27
D.B. 4456, P.G. 536
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL

PAR# R05508-002-010-000
ROBO INVESTMENTS LLC
M.B. 7, P.G. 27
D.B. 4456, P.G. 536
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL



1. The use and development of the subject property shall comply with all regulations and requirements imposed by the City of Wilmington Technical Code, the City of Wilmington Technical Standards Specifications Manual and any other applicable federal, state or local law, ordinance or regulation, as well as any condition stated below. In the event of a conflict, the more stringent requirement or higher standard shall apply.
2. Approval of this conditional district rezoning does not constitute technical approval of the site plan. Final approval by the Technical Review Committee and the issuance of all required permits must occur prior to release of the project for construction.
3. If, for any reason, any condition for approval is found to be illegal or invalid or if the applicant should fail to accept any condition following approval, the approval of the site plan for the district shall be null and void and no other proceedings shall be instituted to rezone the property to its previous zoning classification.
4. The use and development of the subject property shall be in accordance with the plan and elevations approved by City Council.
5. The proposed use shall be limited to a maximum of 17 buildings, containing 45 townhomes and a minimum of 1,900 square feet of neighborhood retail use.

6. No building shall exceed two stories, 35 feet, in height.
7. Building elevations shall be generally consistent with the submitted conceptual elevations.
8. Each residential unit along the College Acres Drive portion of the property shall have a direct sidewalk connection from the unit to the main sidewalk along College Acres Drive.
9. A decorative fence, six feet in height, shall be installed inside the buffer along the property line shared with the R-15 zoned parcel to the southeast.
10. All existing protected trees not located within the building footprint or impacted by essential site improvements shall be preserved or mitigated.
11. Exterior site lighting shall be installed so as not to shine directly onto adjacent residential parcels.
12. Any freestanding sign(s) on the site shall be monuminal style with landscaping around the base of the sign; no pole signs shall be permitted.
13. The creative standard shall not be used to satisfy the streetscape landscaping requirements.
14. All city, state, and federal regulations shall be followed.
15. All building facades along College Acres Drive shall include porches.

1. ALL PROPOSED VEGETATION WITHIN SITE TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10' PER SEC. 18-556 CoNW LDC AND SEC. 18-812 CoNW LDC.
2. TRIP GENERATION CALCULATION:
AM PEAK = 15 [ITE CODE 715 ÷ 852]

RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

PARAMOUNT

SITE PLAN

PROJECT STATUS:

Pr
reda
co
Wi

C

PEI .

COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

122 Cinema Drive
Wilmington, North Carolina 28403

COTTAGES AT COLLEGE ACRES
732 COLLEGE ACRES DRIVE

PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORM

DATE:

professional
ected on elec
copy per Cit
lmington P

 γ_2

JOB#: 18293

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(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

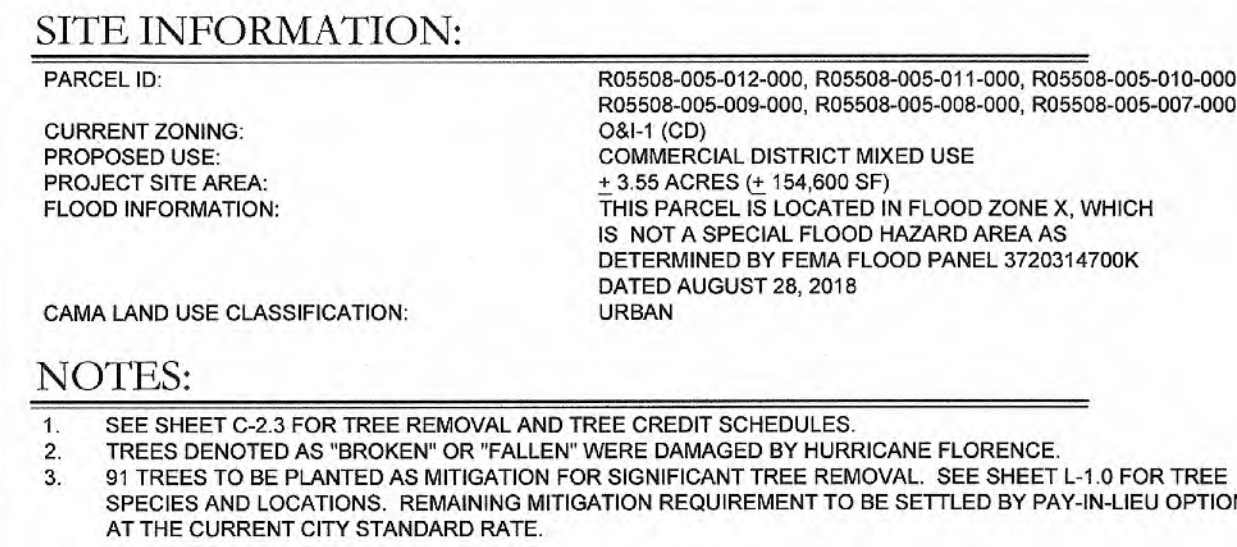
4/22 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

SCALE:
DESIGNED:
DRAWN:
CHECKED:

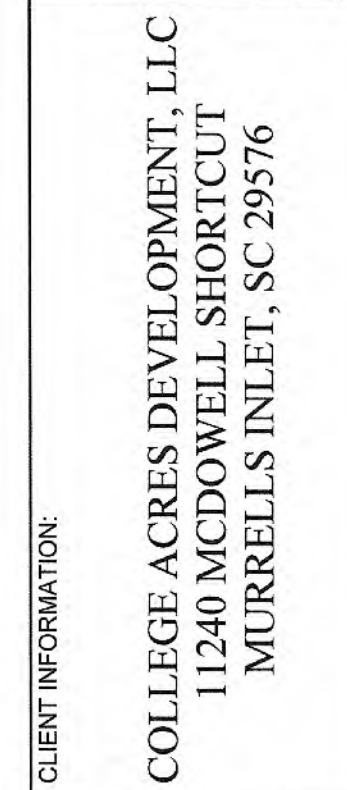
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REVISIONS:	



PARAMOUNT ENGINEERING CO.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #s. C 2846

TREE REMOVAL PLAN

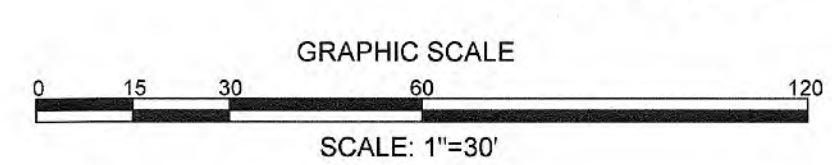
<p>PROJECT STATUS</p> <p>CONCEPTUAL LAYOUT; PRELIMINARY LAYOUT; FINAL DESIGN; RELEASED FOR CONST.</p>	<p>DRAWING INFORMATION</p> <p>DATE: 07.31.15 SCALE: 1" = 30' DESIGNED: JCH DRAWN: JCH</p>
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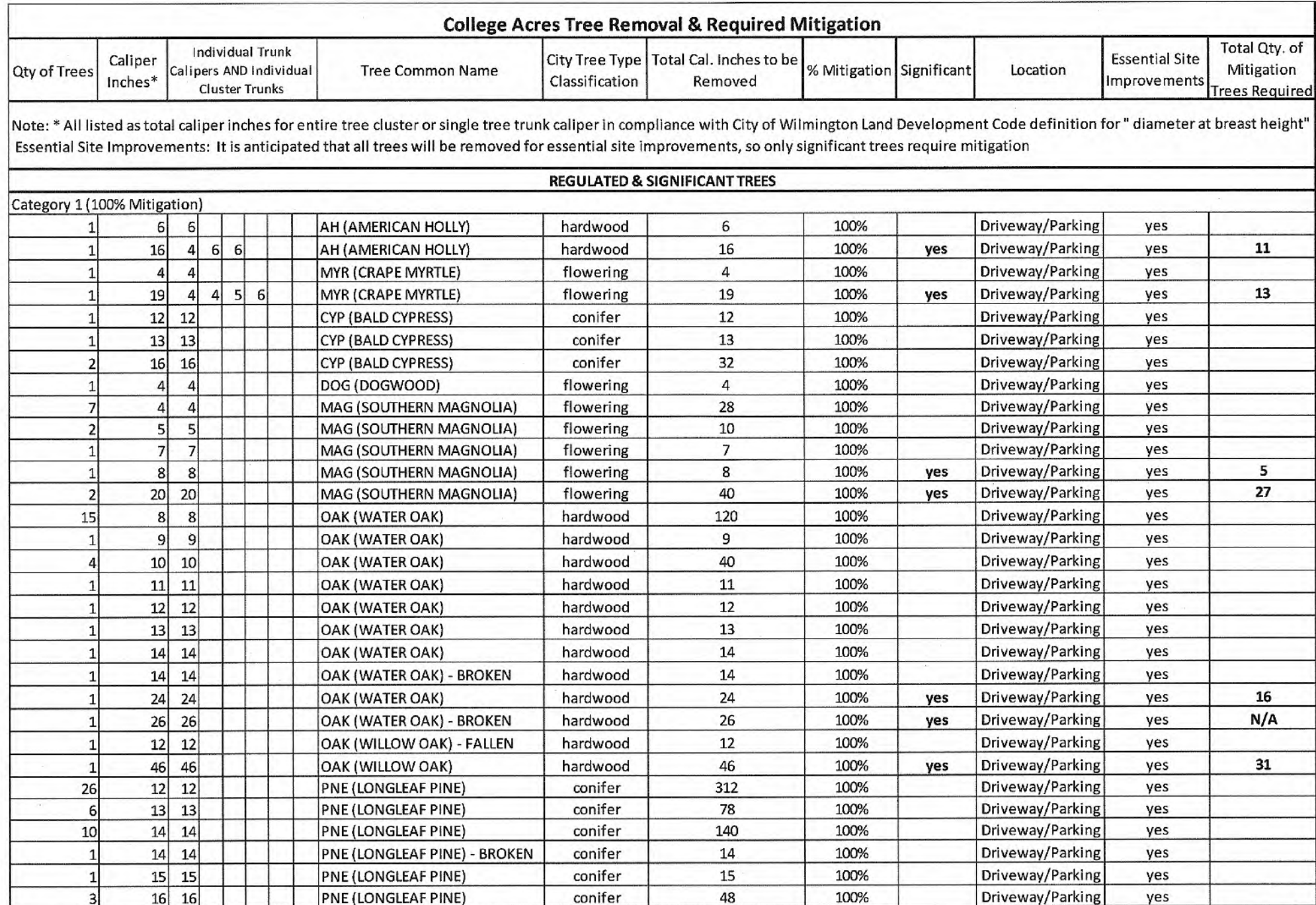
Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

C-2.2

PEI JOB#: 18293.PE

RELEASED FOR CONSTRUCTION





PARCEL ID:	R05508-005-012-000, R05508-005-011-000, R05508-005-010-000, R05508-005-009-000, R05508-005-007-000
CURRENT ZONING:	O&I-1 (CD)
PROPOSED USE:	COMMERCIAL DISTRICT MIXED USE
PROJECT SITE AREA:	± 3.55 ACRES (± 154,800 SF)
FLOOD INFORMATION:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2011
CAMA LAND USE CLASSIFICATION:	URBAN

1. SEE SHEET C-2.2 FOR TREE REMOVAL AND TREE CREDIT LOCATIONS.
2. TREES DENOTED AS "BROKEN" OR "FALLEN" WERE DAMAGED BY HURRICANE FLORENCE.
3. 91 TREES TO BE PLANTED AS MITIGATION FOR SIGNIFICANT TREE REMOVAL. SEE SHEET L-1.0 FOR TREE SPECIES AND LOCATIONS. REMAINING MITIGATION REQUIREMENT TO BE SETTLED BY PAY-IN-LIEU OPTION AT THE CURRENT CITY STANDARD RATE.

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

WILMINGTON
CITY OF
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 8/1/19 Permit # 2019050

Signed: Rick Phillips

1	52	4	4	4	4	4	4	AH (AMERICAN HOLLY)	hardwood	52	100%	yes	Building/Grading	yes	35
1	6	6						AH (AMERICAN HOLLY)	hardwood	6	100%		Building/Grading	yes	4
1	11	11						AH (AMERICAN HOLLY)	hardwood	11	100%	yes	Building/Grading	yes	7
1	12	12						AH (AMERICAN HOLLY) - FALLEN	hardwood	12	100%	yes	Building/Grading	yes	N/A
1	14	14						AH (AMERICAN HOLLY) - BROKEN	hardwood	14	100%	yes	Building/Grading	yes	N/A
5	4	4						MFR (CRAPE MYRTLE)	flowering	20	100%		Building/Grading	yes	
1	13	4	4	5				MFR (CRAPE MYRTLE)	flowering	13	100%	yes	Building/Grading	yes	9
1	23	5	6	6	6			MFR (CRAPE MYRTLE)	flowering	23	100%	yes	Building/Grading	yes	15
1	9	9						CYP (BALD CYPRESS)	conifer	9	100%		Building/Grading	yes	
1	14	14						CYP (BALD CYPRESS)	conifer	14	100%		Building/Grading	yes	
1	20	20						CYP (BALD CYPRESS)	conifer	20	100%		Building/Grading	yes	
12	4	4						MAG (SOUTHERN MAGNOLIA)	flowering	48	100%		Building/Grading	yes	
1	5	5						MAG (SOUTHERN MAGNOLIA)	flowering	5	100%		Building/Grading	yes	
3	6	6						MAG (SOUTHERN MAGNOLIA)	flowering	18	100%		Building/Grading	yes	
1	7	7						MAG (SOUTHERN MAGNOLIA)	flowering	7	100%		Building/Grading	yes	5
5	8	8						MAG (SOUTHERN MAGNOLIA)	flowering	40	100%	yes	Building/Grading	yes	27
1	14	14						MAG (SOUTHERN MAGNOLIA)	flowering	14	100%	yes	Building/Grading	yes	9
1	29	16						MAG (SOUTHERN MAGNOLIA)	flowering	29	100%	yes	Building/Grading	yes	19
1	8	8						OAK (WATER OAK) - BROKEN	hardwood	8	100%		Building/Grading	yes	
1	8	8						OAK (WATER OAK) - FALLEN	hardwood	8	100%		Building/Grading	yes	
6	8	8						OAK (WATER OAK)	hardwood	48	100%		Building/Grading	yes	
5	9	9						OAK (WATER OAK)	hardwood	45	100%		Building/Grading	yes	
6	10	10						OAK (WATER OAK)	hardwood	60	100%		Building/Grading	yes	
4	11	11						OAK (WATER OAK)	hardwood	44	100%		Building/Grading	yes	
3	12	12						OAK (WATER OAK)	hardwood	36	100%		Building/Grading	yes	
4	14	14						OAK (WATER OAK)	hardwood	56	100%		Building/Grading	yes	
1	16	16						OAK (WATER OAK)	hardwood	16	100%		Building/Grading	yes	
1	18	18						OAK (WATER OAK)	hardwood	18	100%		Building/Grading	yes	
1	18	18						OAK (WATER OAK) - BROKEN	hardwood	18	100%		Building/Grading	yes	
1	31	31						OAK (WATER OAK) - FALLEN	hardwood	31	100%	yes	Building/Grading	yes	N/A
35	12	12						PNE (LONGLEAF PINE)	conifer	420	100%		Building/Grading	yes	
8	13	13						PNE (LONGLEAF PINE)	conifer	104	100%		Building/Grading	yes	
25	14	14						PNE (LONGLEAF PINE)	conifer	350	100%		Building/Grading	yes	
1	14	14						PNE (LONGLEAF PINE) - BROKEN	conifer	14	100%		Building/Grading	yes	
1	14	14						PNE (LONGLEAF PINE) - FALLEN	conifer	14	100%		Building/Grading	yes	
5	15	15						PNE (LONGLEAF PINE)	conifer	75	100%		Building/Grading	yes	
13	16	16						PNE (LONGLEAF PINE)	conifer	208	100%		Building/Grading	yes	
1	16	16						PNE (LONGLEAF PINE) - FALLEN	conifer	16	100%		Building/Grading	yes	
3	17	17						PNE (LONGLEAF PINE)	conifer	51	100%		Building/Grading	yes	
8	18	18						PNE (LONGLEAF PINE)	conifer	144	100%		Building/Grading	yes	
1	18	18						PNE (LONGLEAF PINE) - DEAD	conifer	18	100%		Building/Grading	yes	
1	20	20						PNE (LONGLEAF PINE)	conifer	20	100%		Building/Grading	yes	
1	21	21						PNE (LONGLEAF PINE)	conifer	21	100%		Building/Grading	yes	
Total Category 1 Significant & Regulated Mitigation Trees Required:															233
Total Category 1 Regulated Trees To Be Removed with Essential Site Improvements:															274

Category 2 (75% Mitigation)													
1	8	8				CED (CEDAR)	conifer	8	75%		Driveway/Parking	yes	
1	10	10				CED (CEDAR)	conifer	10	75%		Driveway/Parking	yes	
2	8	8				CED (CEDAR)	conifer	16	75%		Building/Grading	yes	
1	18	18					conifer	18	75%		Building/Grading	yes	
1	22	22				SYC (SYCAMORE)	hardwood	22	75%		Building/Grading	yes	
Total Category 2 Significant & Regulated Mitigation Trees Required:												0	
Total Category 2 Regulated Trees To Be Removed with Essential Site Improvements:												6	
Category 3 (50% Mitigation)													
3	4	4				CHR (BLACK CHERRY)	flowering	12	50%		Driveway/Parking	yes	
1	5	5				CHR (BLACK CHERRY)	flowering	5	50%		Driveway/Parking	yes	
2	6	6				CHR (BLACK CHERRY)	flowering	12	50%		Driveway/Parking	yes	
2	8	8				CHR (BLACK CHERRY)	flowering	16	50%	yes	Driveway/Parking	yes	5
1	9	9				CHR (BLACK CHERRY)	flowering	9	50%	yes	Driveway/Parking	yes	3
3	10	10				CHR (BLACK CHERRY)	flowering	30	50%	yes	Driveway/Parking	yes	10
1	4	4				CHR (BLACK CHERRY)	flowering	4	50%		Building/Grading	yes	
3	5	5				CHR (BLACK CHERRY)	flowering	15	50%		Building/Grading	yes	
1	6	6				CHR (BLACK CHERRY)	flowering	6	50%		Building/Grading	yes	
1	8	8				CHR (BLACK CHERRY)	flowering	8	50%	yes	Building/Grading	yes	3
3	9	9				CHR (BLACK CHERRY)	flowering	27	50%	yes	Building/Grading	yes	9
1	10	10				CHR (BLACK CHERRY)	flowering	10	50%	yes	Building/Grading	yes	3
1	14	14				CHR (BLACK CHERRY)	flowering	14	50%	yes	Building/Grading	yes	5
Total Category 3 Significant & Regulated Mitigation Trees Required:												38	
Total Category 3 Regulated Trees To Be Removed with Essential Site Improvements:												6	
Total Qty. of Trees to be Removed (essential site improvements):													286
Total Qty. of Significant & Regulated Tree Mitigation:													271
Total Tree Credits:													162
Total Planted Replacement Trees:													91
Total Qty. of Mitigation Trees Required on Site (or Pay in Lieu Equivalent):													18

College Acres Tree Preservation Credit					
Qty of Trees	Caliper Inches *	Tree Common Name	Total Tree Caliper Inches to be Preserved	City Tree Mitigation Credit	Mitigation Credit for Preserved Trees (# of trees)
Note: * All listed as total caliper inches for entire tree cluster or single tree trunk caliper in compliance with City of Wilmington Land Development Code definition for " diameter at breast height"					
2	6	CHERRY	12	2	4
1	8	CHERRY	8	2	2
1	12	CEDAR	12	3	3
1	14	CEDAR	14	3	3
2	7	DOGWOOD	14	2	4
1	15	LIVE OAK	15	3	3
1	5	MAGNOLIA	5	1	1
1	7	MAGNOLIA	7	2	2
2	8	OAK	16	2	4
2	9	OAK	18	2	4
2	11	OAK	22	2	4
2	12	OAK	24	3	6
1	16	OAK	16	3	3
1	25	OAK	25	4.17	4
2	11	PINE	22	2	4
8	12	PINE	96	3	24
3	13	PINE	39	3	9
11	14	PINE	154	3	33
4	15	PINE	60	3	12
5	16	PINE	80	3	15
2	18	PINE	36	4	8
1	20	PINE	20	4	4
1	9	RED OAK	9	2	2
1	26	WILLOW OAK	26	4.33	4
TOTAL CALIPER INCHES RETAINED ON SITE			750		
			TOTAL TREE CREDITS		162

RELEASED FOR CONSTRUCTION

REVISIONS:

COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

PARAMOUNT

122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

TREE REMOVAL PLAN

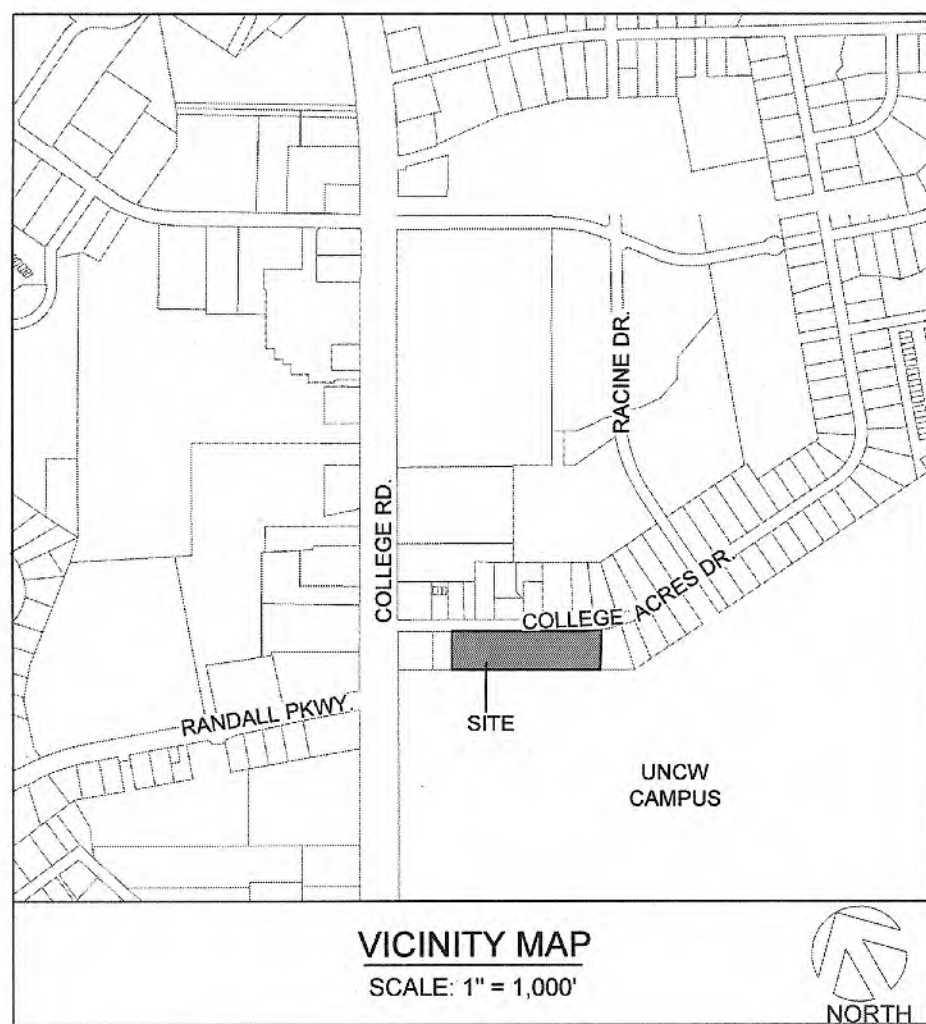
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

Professional Seal
 Redacted on electronic
 copy per City of
 Wilmington Policy

C-2.3

PEI JOB#: 18293.PE



SITE INFORMATION:

PARCEL ID: R05508-005-012-000, R05508-005-011-000, R05508-005-010-000, R05508-005-009-000, R05508-005-008-000, R05508-005-007-000
CURRENT ZONING: O&M-1 (CD)
PROPOSED USE: COMMERCIAL DISTRICT MIXED USE
PROJECT SITE AREA: ± 3.55 ACRES (± 154,600 SF)
FLOOD INFORMATION: THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2018
CAMA LAND USE CLASSIFICATION: URBAN

Approved Construction Plan	
Name	Date
Planning	8-2-19
Traffic	8-2-19
Fire	8/1/19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CITY OF WILMINGTON NORTH CAROLINA	
Public Services • Engineering Division	
APPROVED STORMWATER MANAGEMENT PLAN	
Date: 8/1/19	Permit # 1019050
Signed: <i>Rick Christman</i>	

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

PARAMOUNT ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE DEMOLITION PLAN
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS
CONCEPTUAL LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

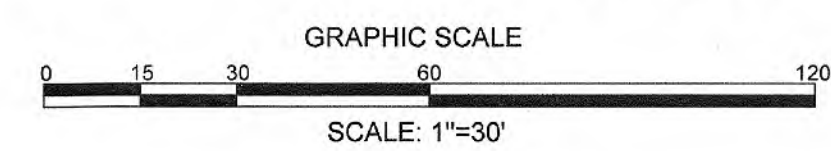
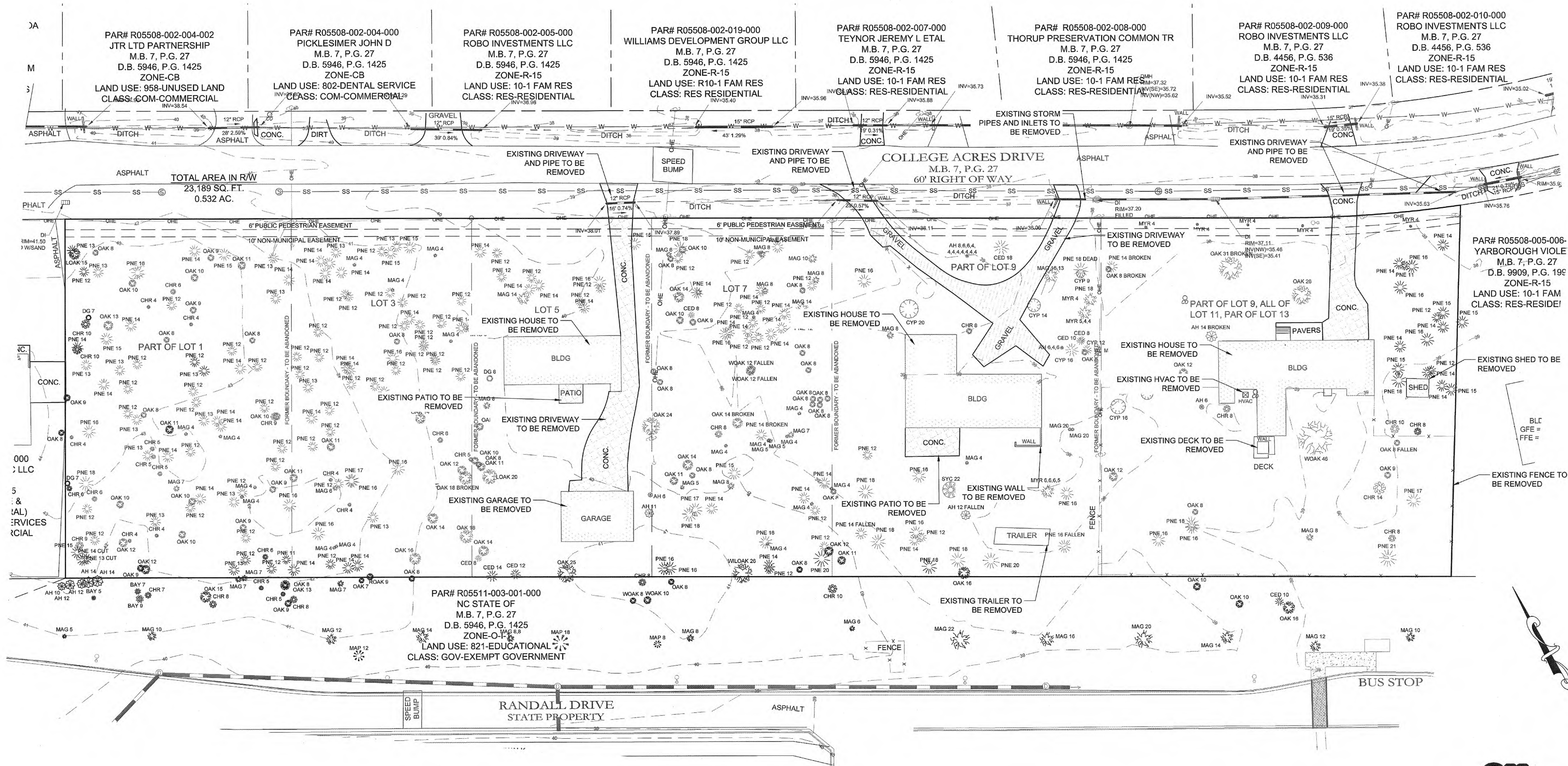
DRAWING INFORMATION
DATE: 07-31-19
SCALE: 1" = 30'
DESIGNED: JOW
CHECKED: JOW

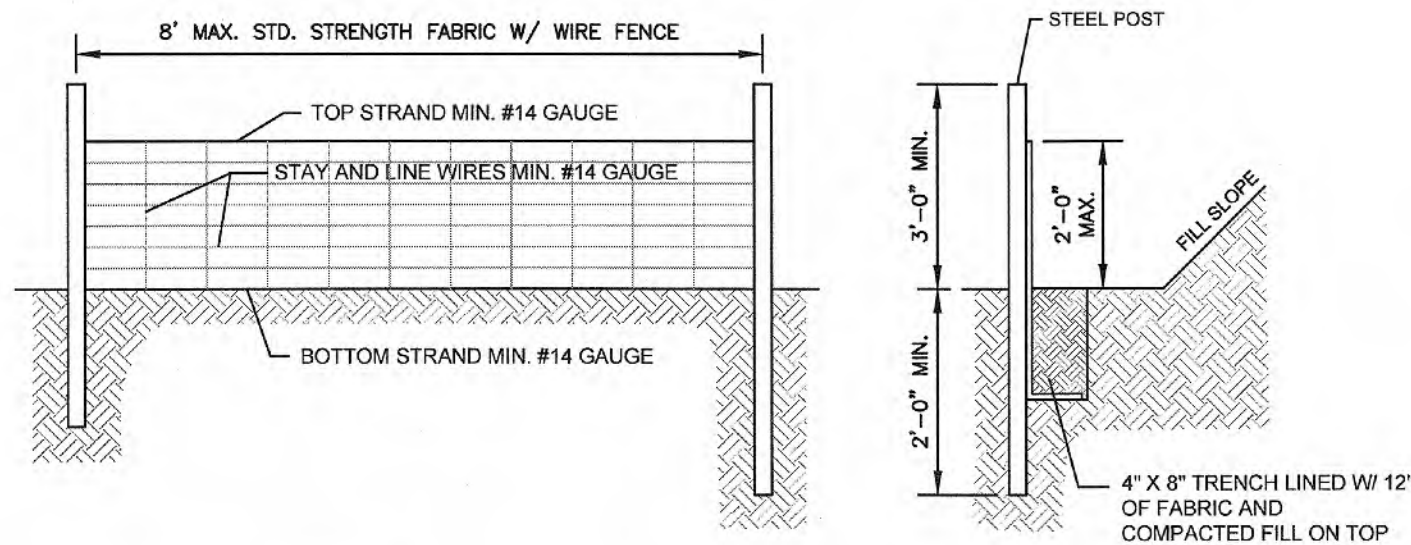
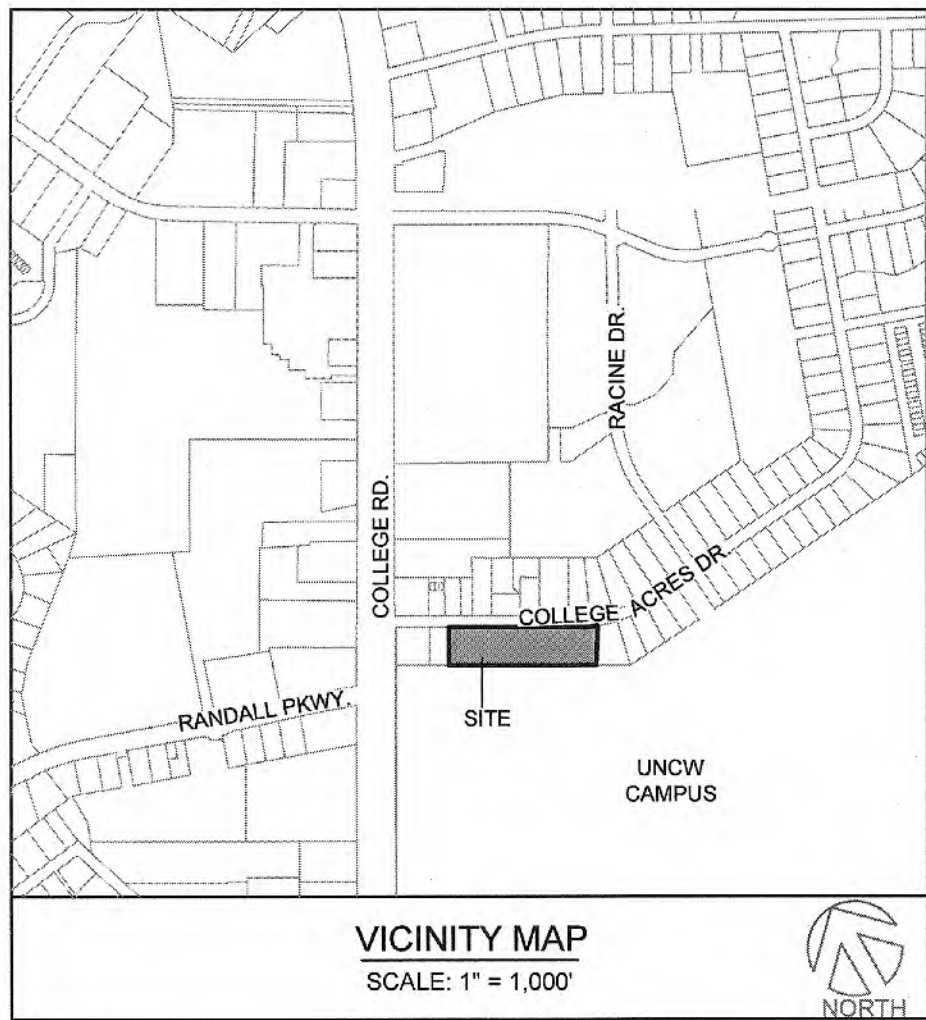
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copy per City of
Wilmington Policy

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PEI JOB#: 18293.PE

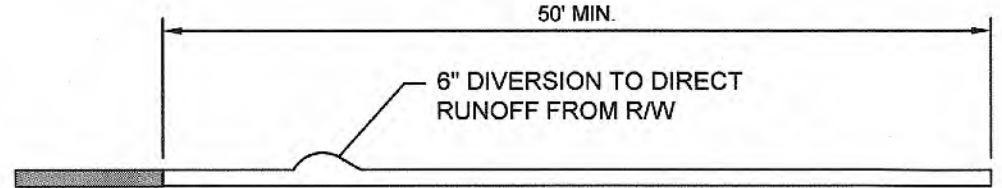
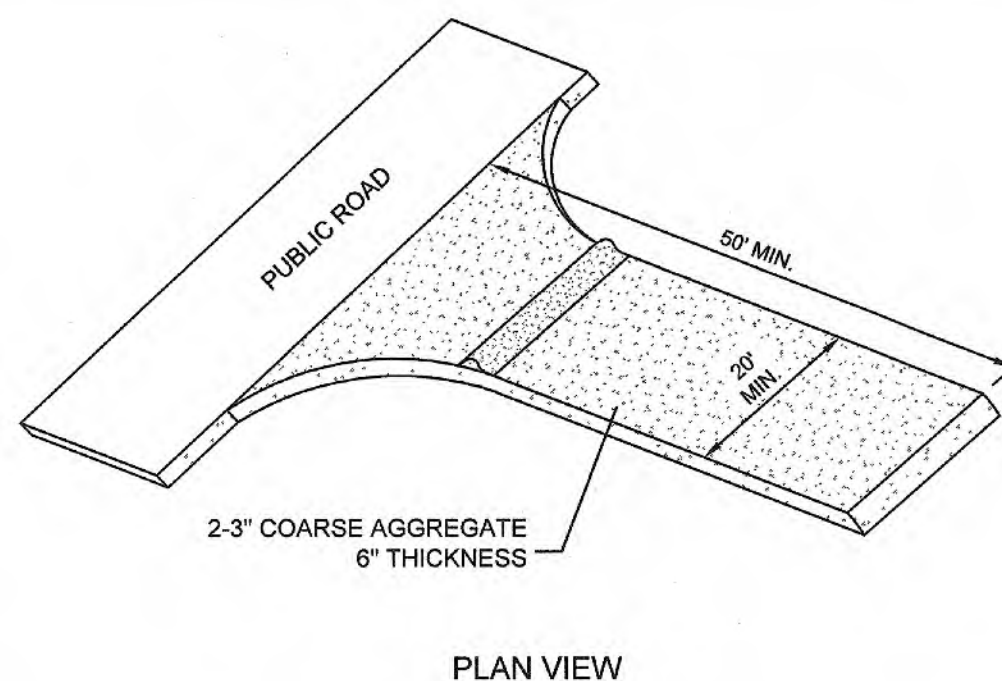
RELEASED FOR CONSTRUCTION



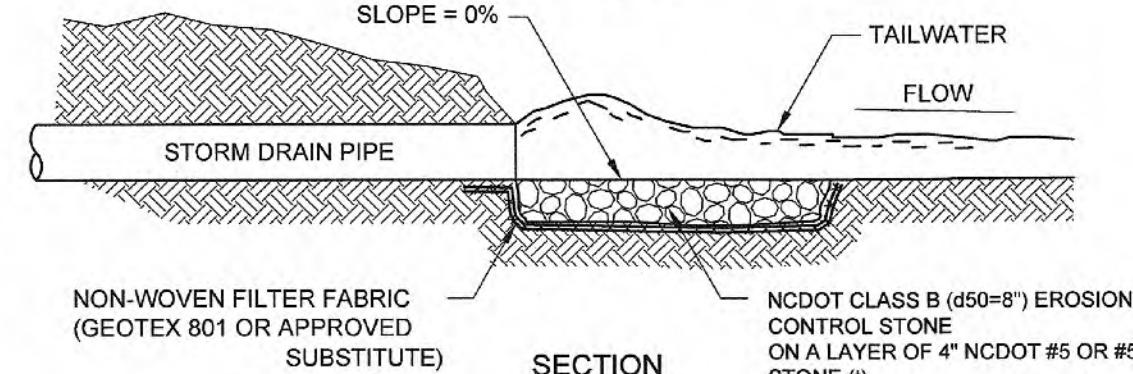
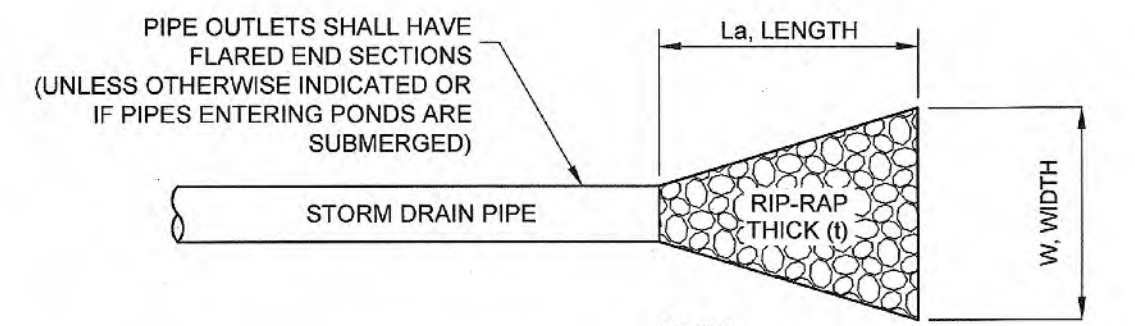
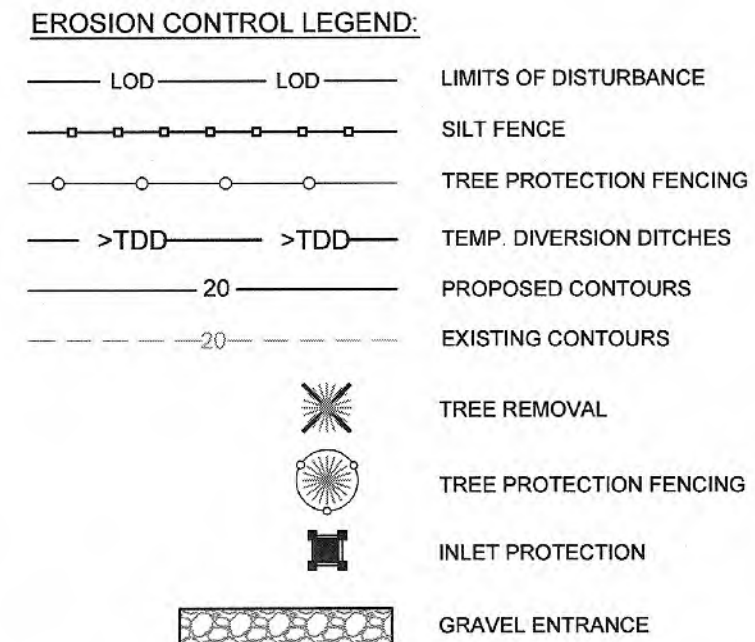


- NOTES:
1. WIRE FENCE (IF USED) SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6-INCHES.
 2. SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFIN'S OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS ACCORDING TO ASTM D 4355
 3. SEE THE NC EROSION CONTROL MANUAL FOR SPECIFICATIONS INSTALLING SEDIMENT FENCE USING THE SLICING METHOD MACHINERY.

TEMPORARY SILT FENCE
NOT TO SCALE



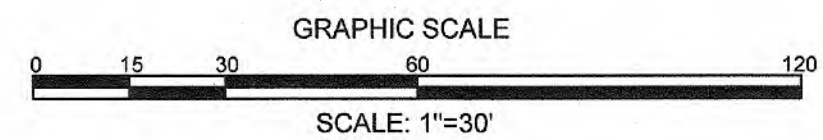
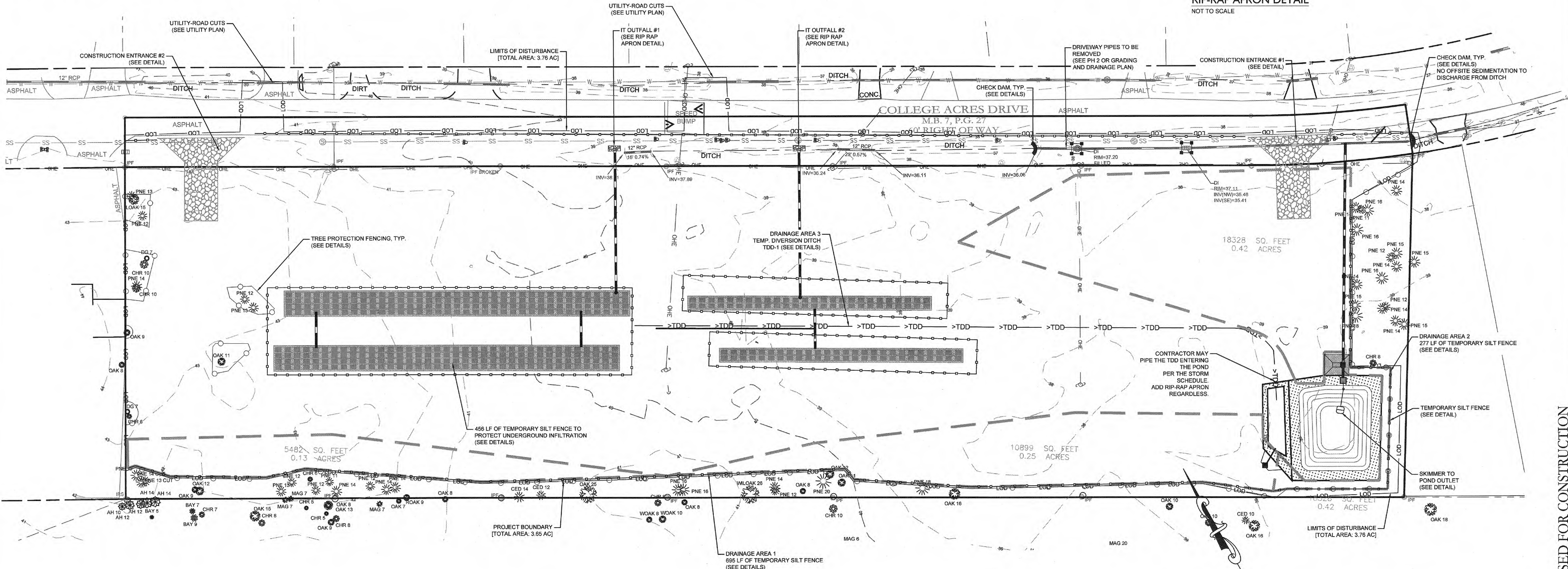
TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE



RIP-RAP APRON SCHEDULE

RIPRAP LOCATIONS	PIPE DIA. (IN.)	LENGTH, L _a (IN)	UPSTREAM WIDTH (FT.)	DOWNSIDE WIDTH, W (FT.)	STONE THICKNESS t (IN.)
IT OUTFALL #1	15	10.00	3.75	11.25	13.5
IT OUTFALL #2	15	10.00	3.75	11.25	13.5
ES 300	24	4.00	6.00	6.00	13.5
FES 400	15	6.00	3.75	7.25	13.5

RIP-RAP APRON DETAIL
NOT TO SCALE



WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit # 2019050
Signed: *Rich Christman*

Approved Construction Plan
Name: _____ Date: 8.2.19
Planning: *W. S. M. D.* 8-2-19
Traffic: *C. W. L.* 8/1/19
Fire: _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



REVISIONS:

NO.	DESCRIPTION	DATE

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORICUT
MURRELLS INLET, SC 29576

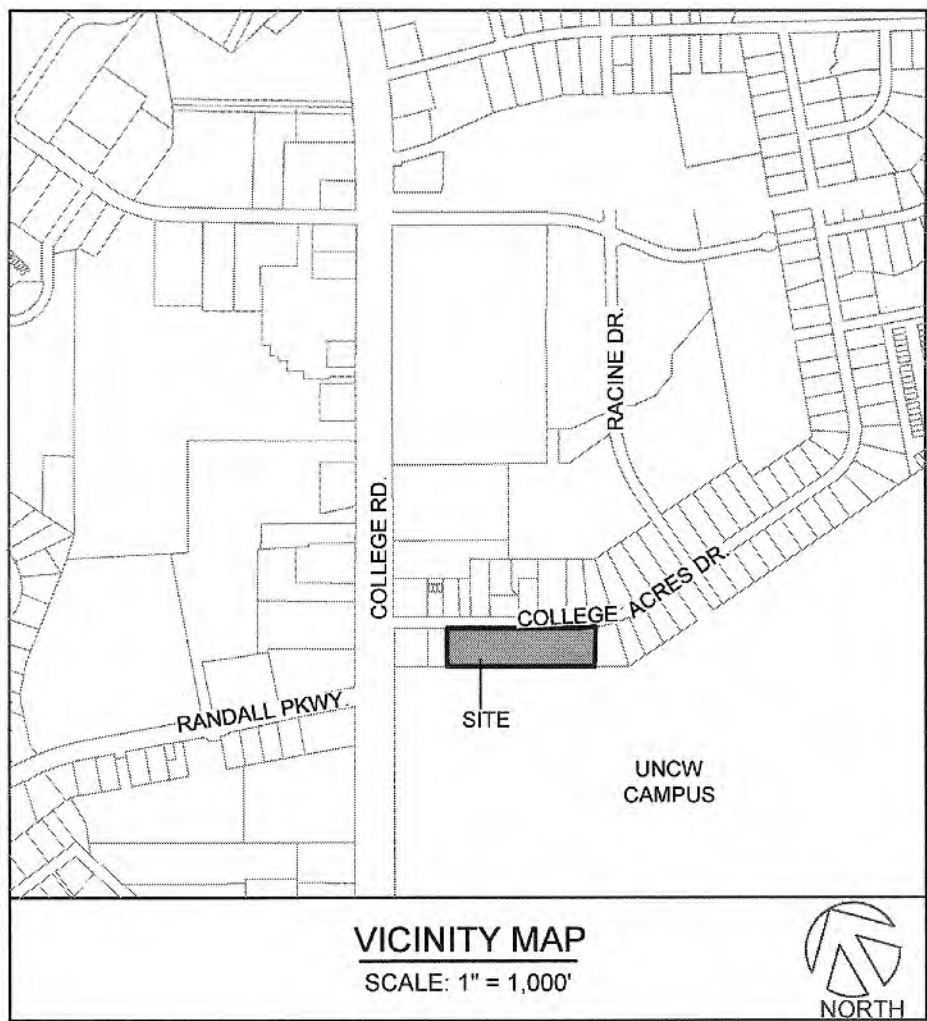
PARAMOUNT ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6766 (F)
NC License #: C-2846

EROSION CONTROL PH I
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS:
DESIGN: PRELIMINARY LAYOUT
RELEASED FOR CONSTRUCTION: 07/24/19
DATE: 07/24/19
SCALE: 1"=30'
DRAWN: CDR
CHECKED: JBS

Professional Seal
redacted on electronic copy per City of Wilmington Policy

C-3.0
PEI JOB#: 18293.PE



- NOTES:**
- 1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE STOCKPILE LOCATIONS ON SITE IF NOT SPECIFIED. SEE GENERAL NOTES SHEET FOR GRADING, DRAINAGE, AND EROSION CONTROL NOTES AND REQUIREMENTS. IN ADDITION, REFERENCE TECHNICAL SPECIFICATIONS AND DETAIL SHEETS FOR MORE INFORMATION.
 - 2.) SEE GRADING AND DRAINAGE PLANS FOR FINISH GRADES AND STORM PIPE SCHEDULE.
 - 3.) A GEOTECHNICAL ENGINEER OR INSPECTORS SHALL BE CONSULTED TO CONFIRM SUITABILITY OF SUBGRADE MATERIAL AND PROPER COMPACTION PER EARTHWORK SPECIFICATIONS IN FILL AREAS.
 - 4.) MATERIALS, INSTALLATION AND TESTING FOR PRIVATE UTILITIES SHALL BE IN ACCORDANCE WITH CFPUA SPECIFICATIONS.

ASPHALT AREA NOTE:

- 1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

BUILDING PAD NOTE:

- 1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

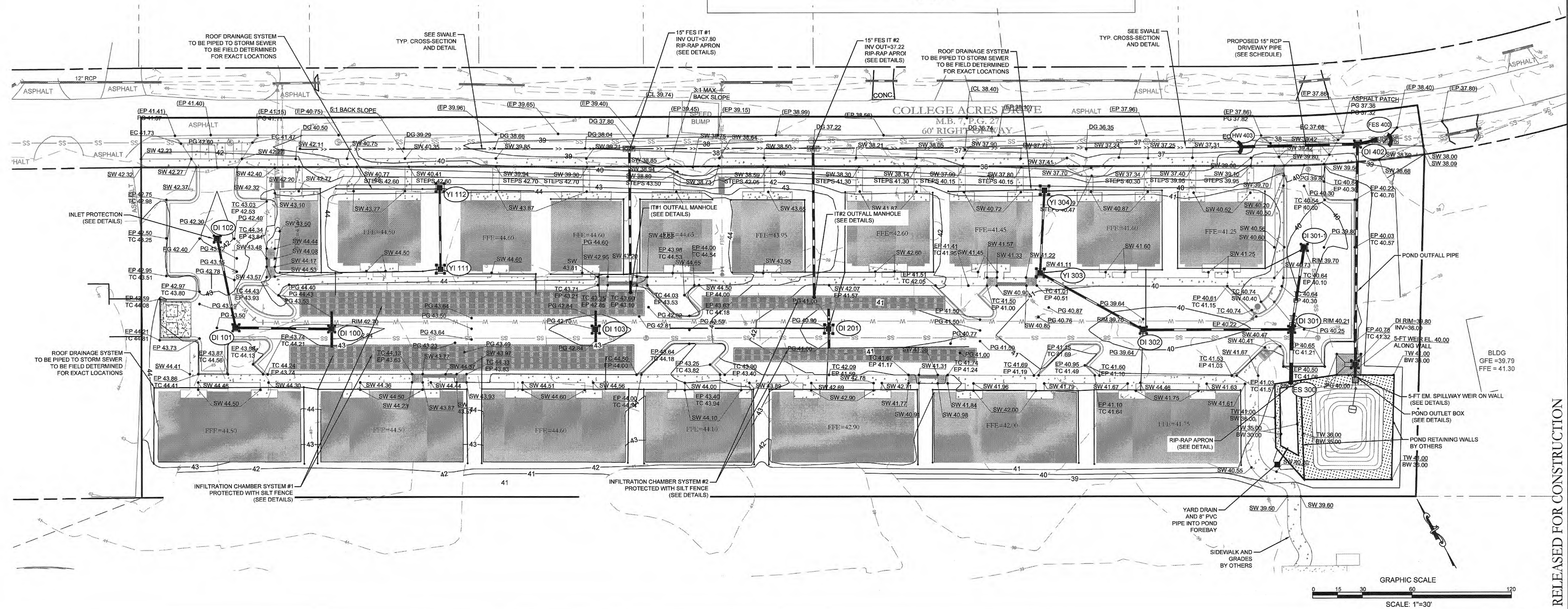
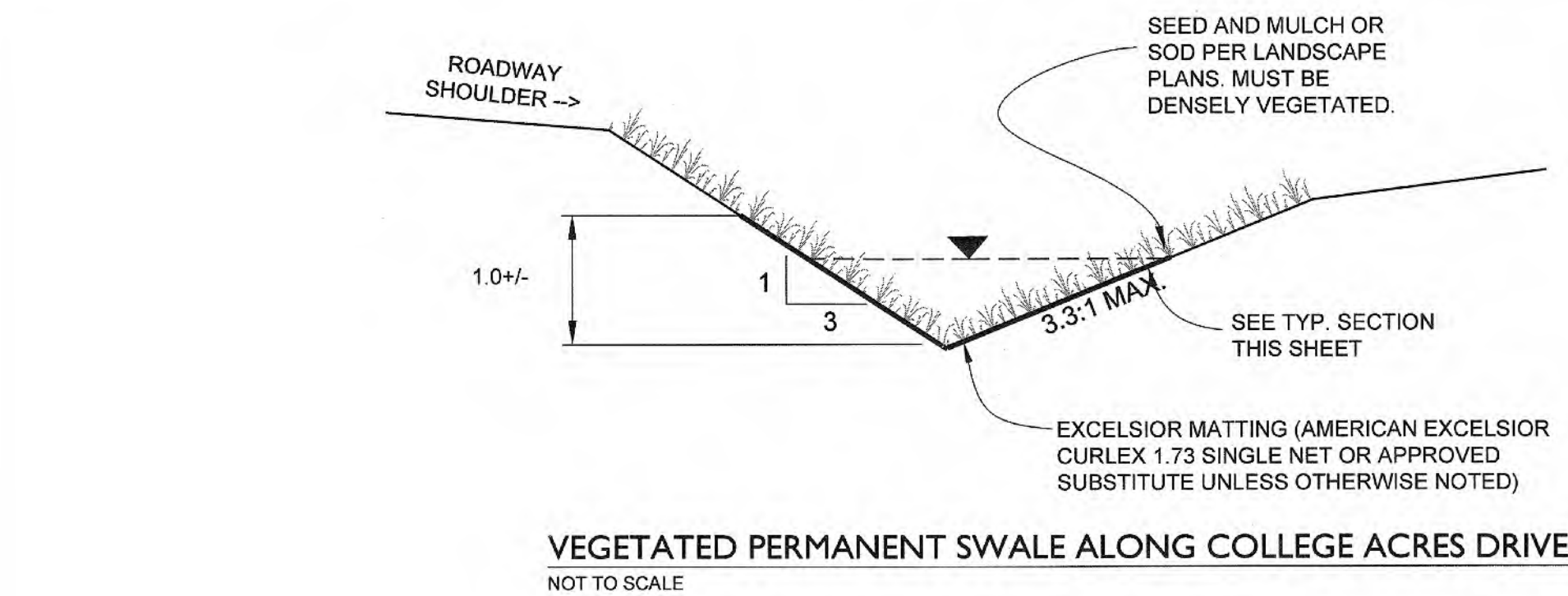
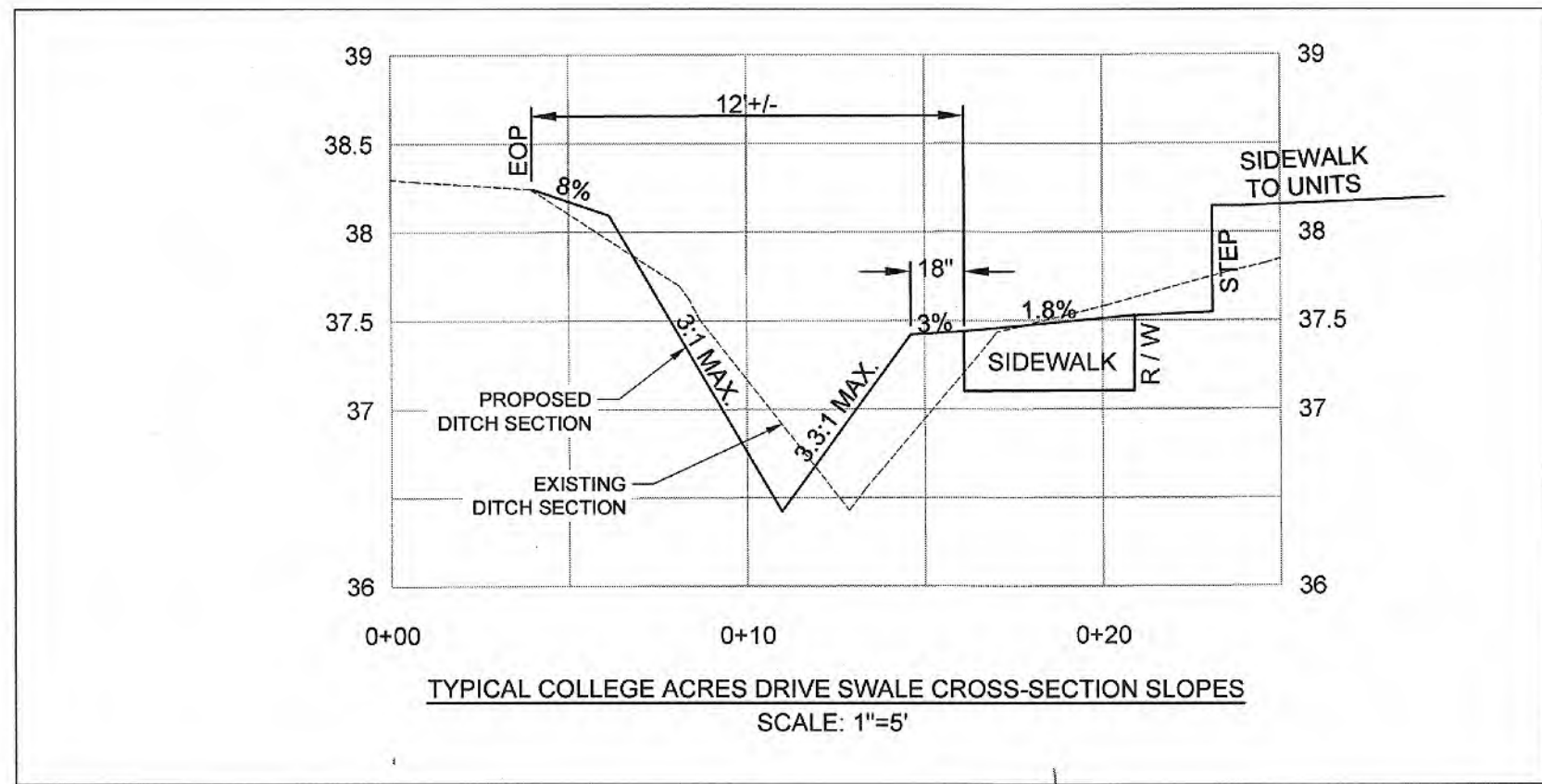
GRADING NOTES:

- 1.) SITE CONTRACTOR SHALL DETERMINE COSTS OF THE STAIRS FROM THE FRONT OF THE UNITS IN ADDITION TO ADDING A RETAINING WALL BEHIND THE PUBLIC SIDEWALK AND THE OWNER SHALL DETERMINE WHETHER OR NOT THE RETAINING WALL IS TO BE CONSTRUCTED. RETAINING WALLS WILL BE DESIGNED AND BUILT BY SUBCONTRACTORS AND NOT THE CIVIL ENGINEER.

STORM SCHEDULE:

Upstream Node	Downstream Node	Upstream Invert	Downstream Invert	Diameter (in)	Pipe Length (ft)	Slope (%)	Upstream Rim Elev
*DI 100	IT #1	39.20	39.20	15	20.0	0.00%	42.70
DI 101	DI 100	39.50	39.20	15	57.8	0.52%	43.00
DI 102	DI 101	39.80	39.50	12	55.0	0.55%	42.30
*DI 103	IT #1	39.20	39.20	20	20.0	0.00%	42.70
*YI 111	IT #1	39.75	39.50	12	13.6	1.84%	44.20
YI 112	YI 111	41.25	41.00	12	49.2	0.51%	43.75
*DI 201	IT #2	38.00	38.00	15	25.0	0.00%	40.90
DI 301	ES 300	35.50	35.00	24	32.1	1.56%	40.19
DI 302	DI 301	36.50	35.50	15	89.6	1.12%	39.70
YI 303	DI 302	37.00	36.50	12	71.2	0.70%	41.20
YI 304	YI 303	38.00	37.50	12	50.1	1.00%	40.50
DI 301-1	DI 301	35.70	35.50	15	50.3	0.40%	39.70
DI 402	FES 400	35.80	35.78	15	8.6	0.23%	38.50
FES 403	DI 402	35.85	35.80	15	70.7	0.07%	Ditch

* Structures with built-in Sumps - See Storm Details



WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit # 2019050
Signed: [Signature]

Approved Construction Plan
Name: [Name] Date: 8-2-19
Planning: [Signature] 8-2-19
Traffic: [Signature] 8-2-19
Fire: [Signature] 8-1-19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

- SPOT GRADE LEGEND:**
- PG = PROPOSED GRADE (GROUND)
 - EG = EXISTING GRADE
 - EP = EDGE OF PAVEMENT
 - EC = EDGE OF CONCRETE
 - TS = TOP OF SIDEWALK
 - BC/TC = TOP OF CURB ELEVATION
 - RIM = CENTER OF GRATE
 - CB = CATCH BASIN
 - DI = DROP INLET
 - YI = YARD INLET
 - MH = STORM MANHOLE
 - CL = CENTERLINE
 - INV = INVERT
 - C/O = TOP OF CLEANOUT
 - TW = TOP OF WALL
 - BW = BOTTOM OF WALL
 - EGS = EXISTING ELEVATIONS, TYP
 - DG = CENTER OF DITCH ELEVATION
 - HW = HEADWALL
 - FES = FLARED END SECTION

REVISIONS:

NO.	DESCRIPTION	DATE

CLIENT INFORMATION:

COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

PARAMOUNT ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

GRADING & DRAINAGE
PHASE II EROSION CONTROL

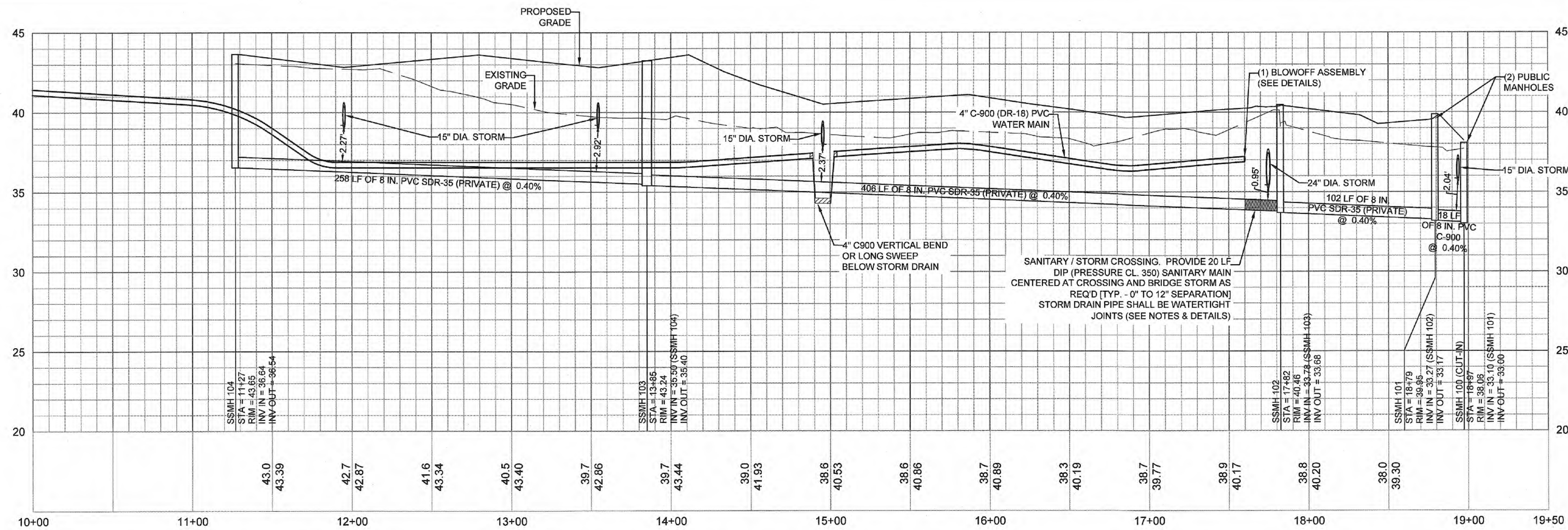
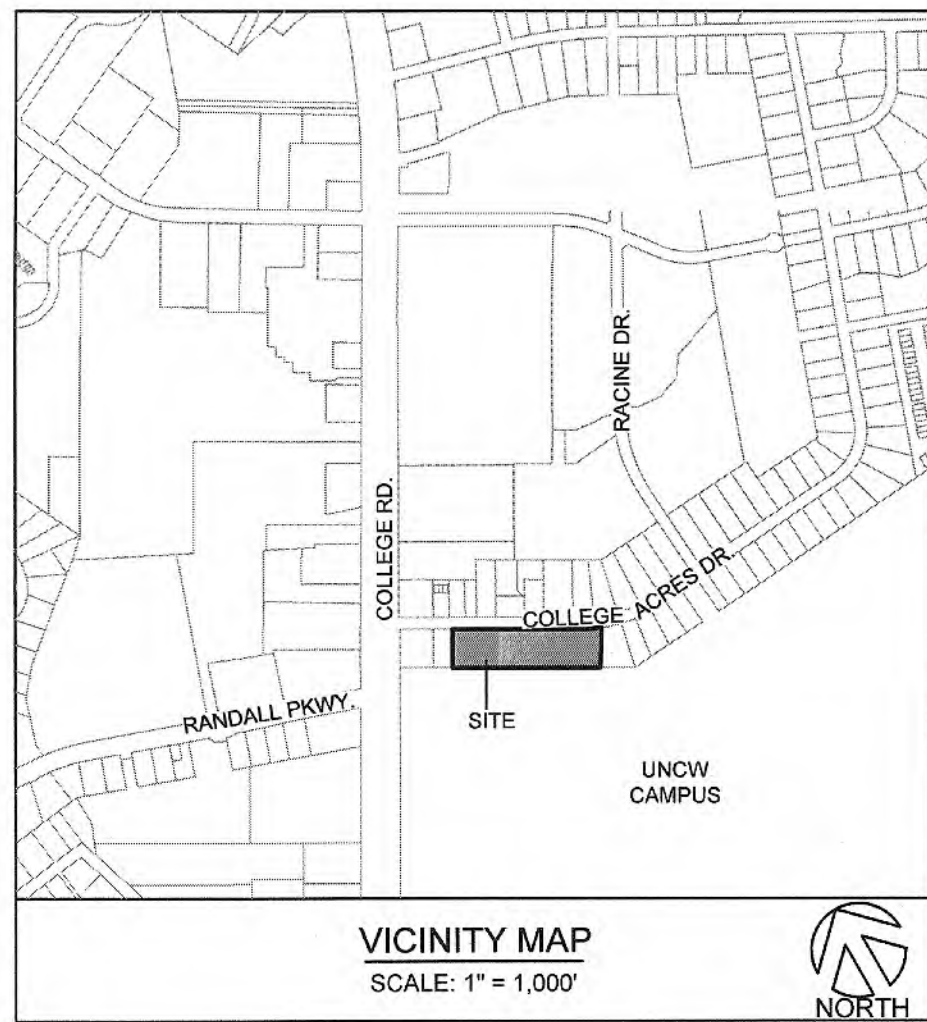
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS:
CONCEPTUAL LAYOUT
PRELIMINARY LAYOUT
RELEASED FOR CONSTRUCTION

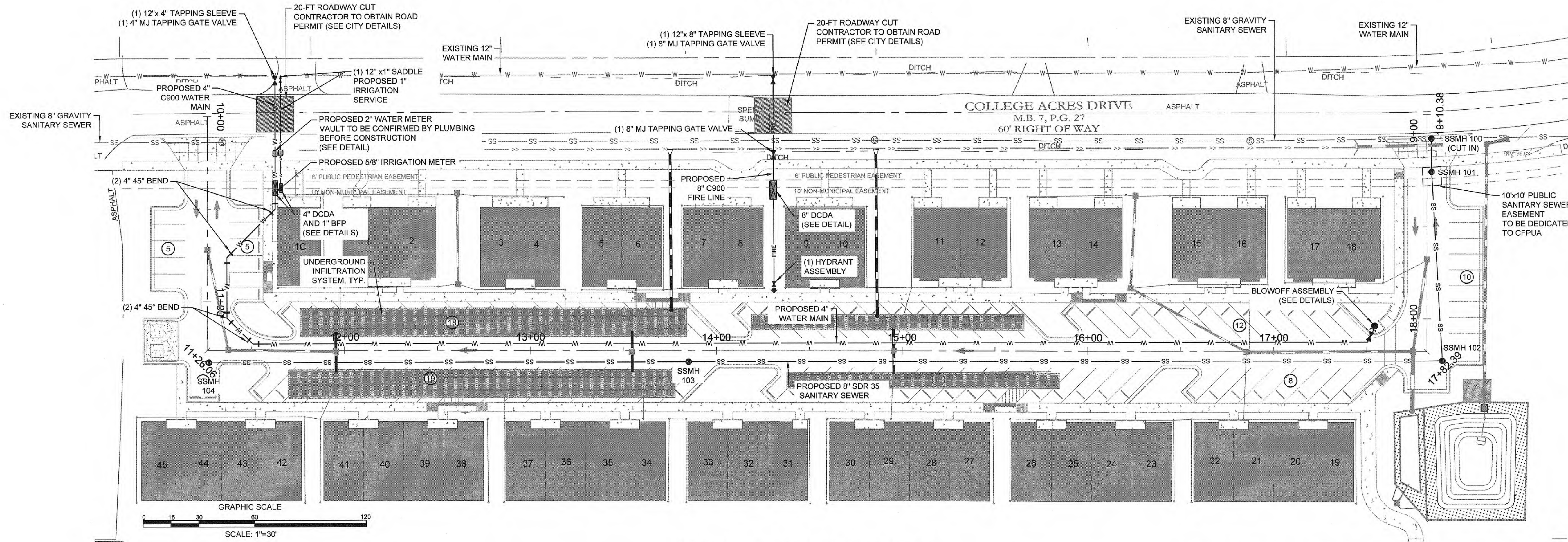
DRAWING INFORMATION:
DESIGNED BY: [Name]
SCALE: AS SHOWN
CHECKED BY: [Name]

Professional Seal redacted on electronic copy per City of Wilmington Policy

C-4.0
PEI JOB#: 18293.PE



WATER AND SEWER - PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



WATER AND SEWER - PLAN VIEW

City of Wilmington
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit # 2019050
Signed: Rick Christian
Approved Construction Plan
Name Date
Planning: [Signature] 8-2-19
Traffic: W. Brindley 8-2-19
Fire: C. Weber 8/1/19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:

- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
- SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT R/W LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
- ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
- NO FLEXIBLE COUPLINGS SHALL BE USED.
- ALL STAINLESS STEEL FASTENERS SHALL BE 316.

FIRE & LIFE SAFETY NOTES:

- FIRE HYDRANTS TO BE INSTALLED PER CITY OF WILMINGTON ORDINANCE AND CFPUA STANDARDS.
- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT.
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR THE COMMERCIAL RETAIL THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.



RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

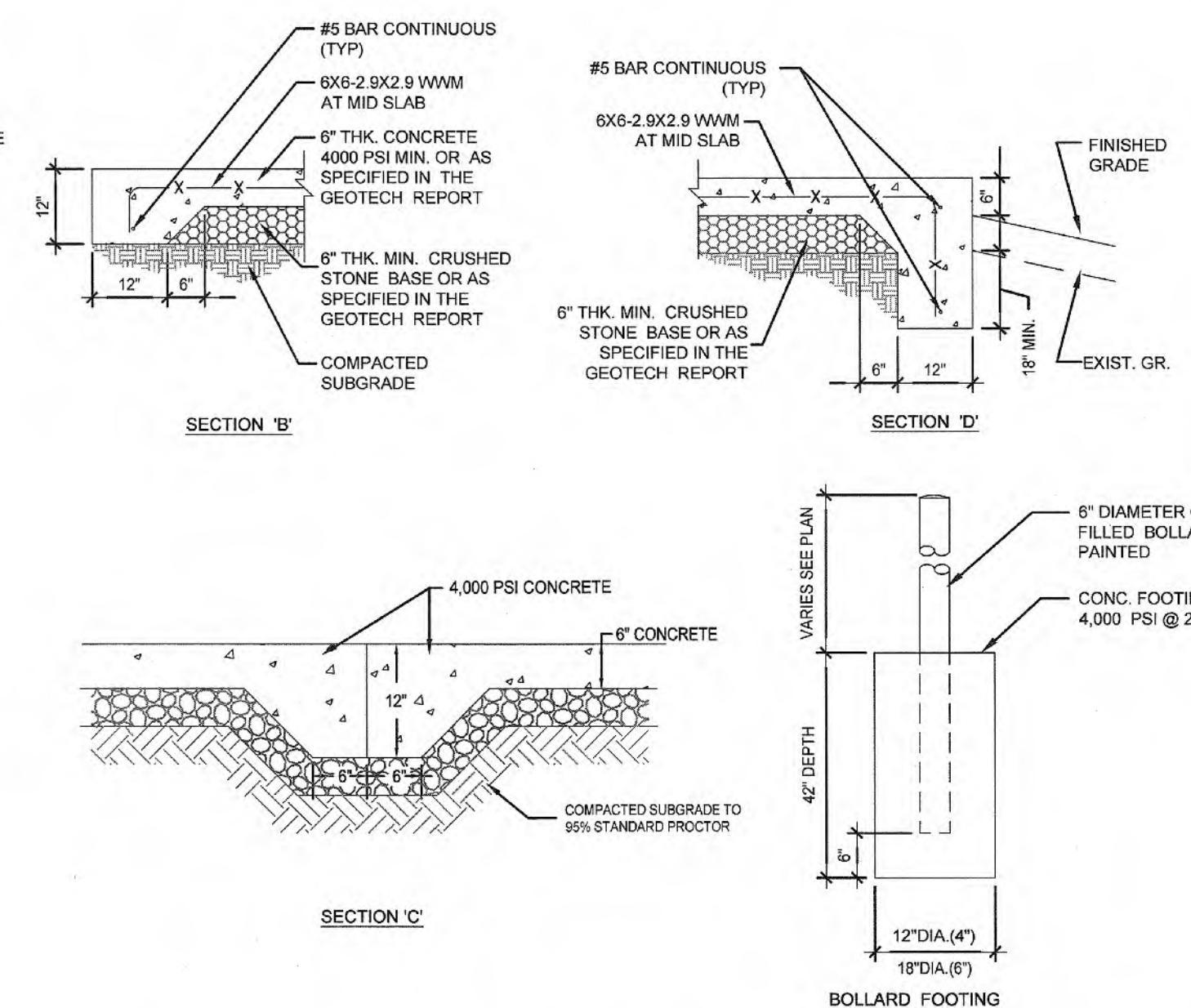
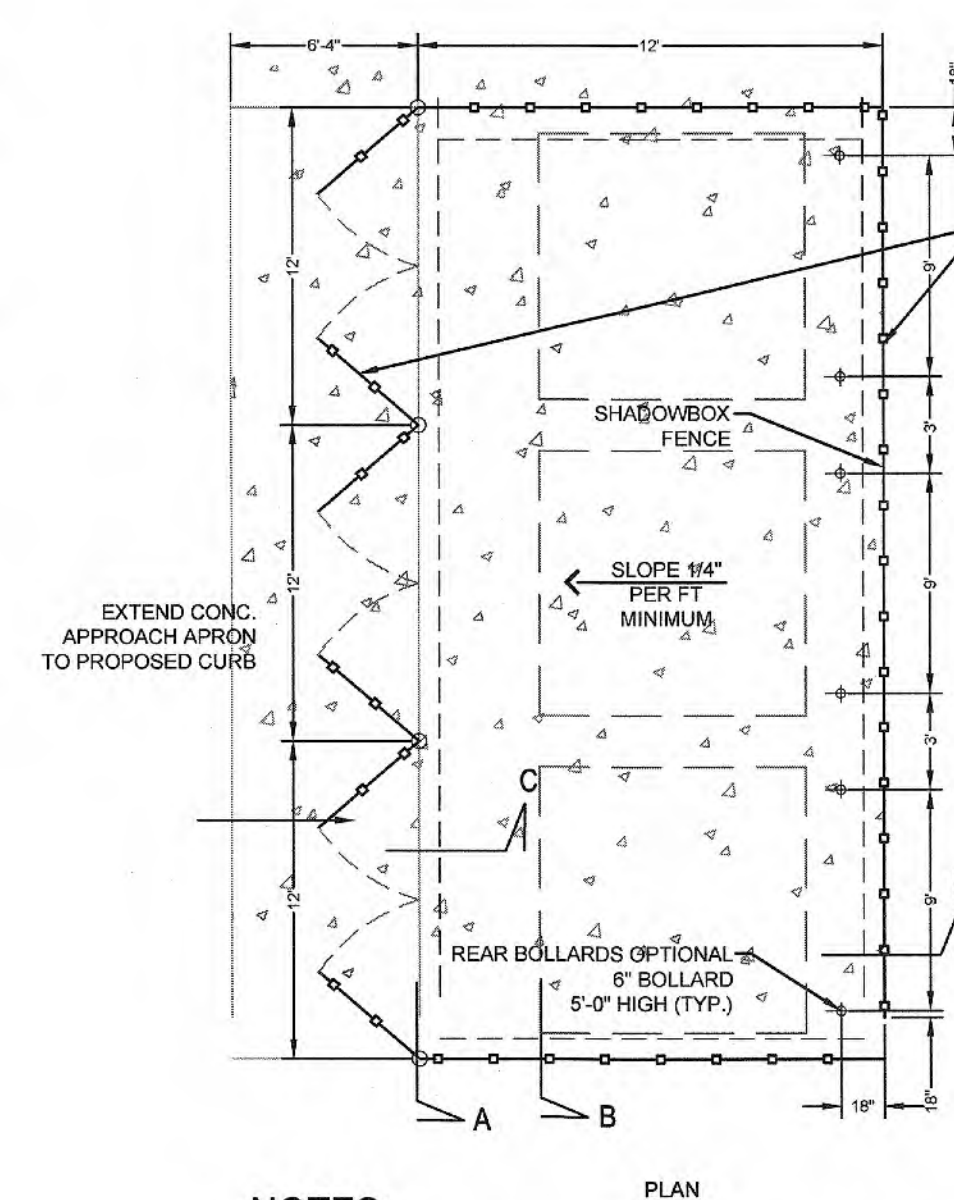
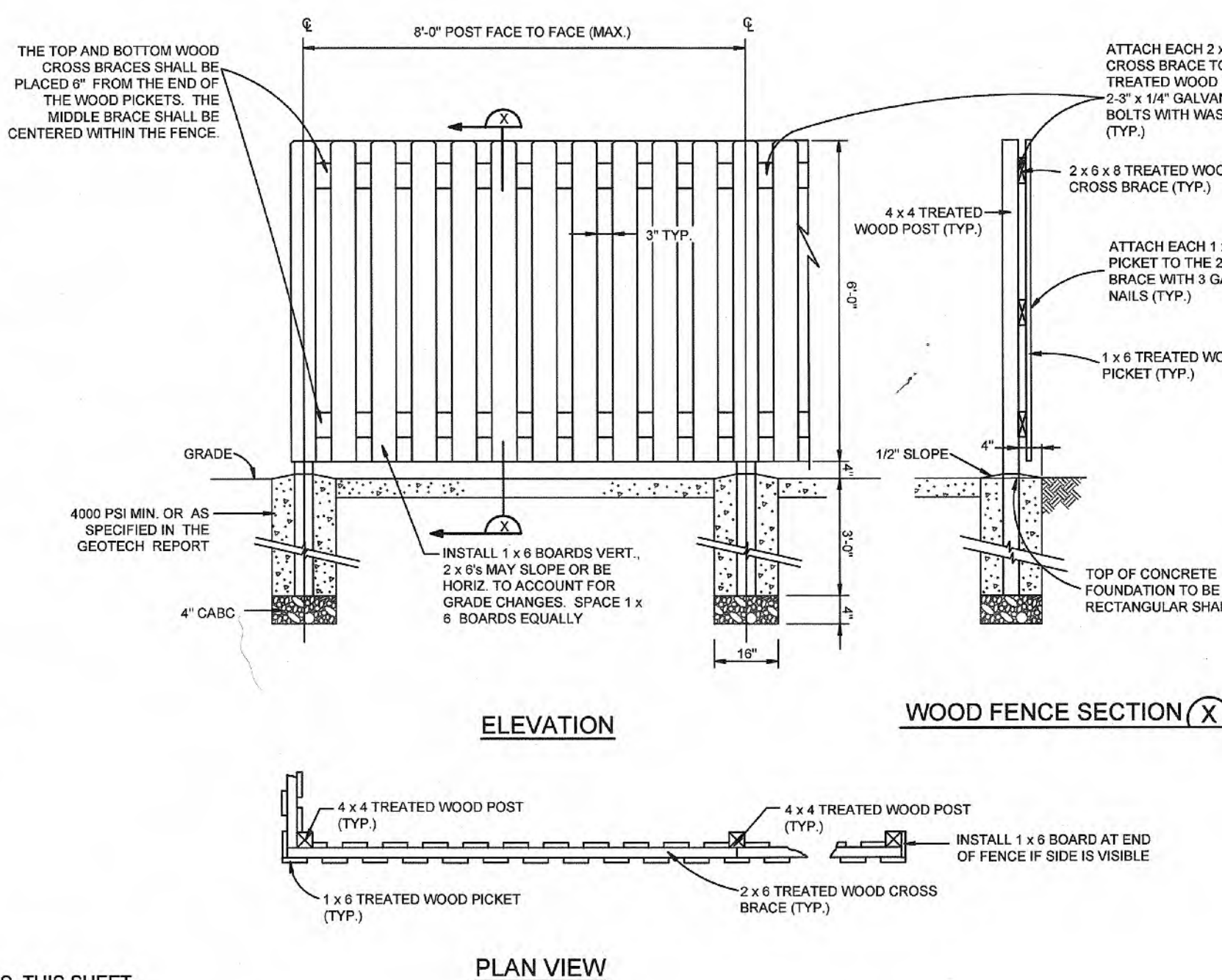
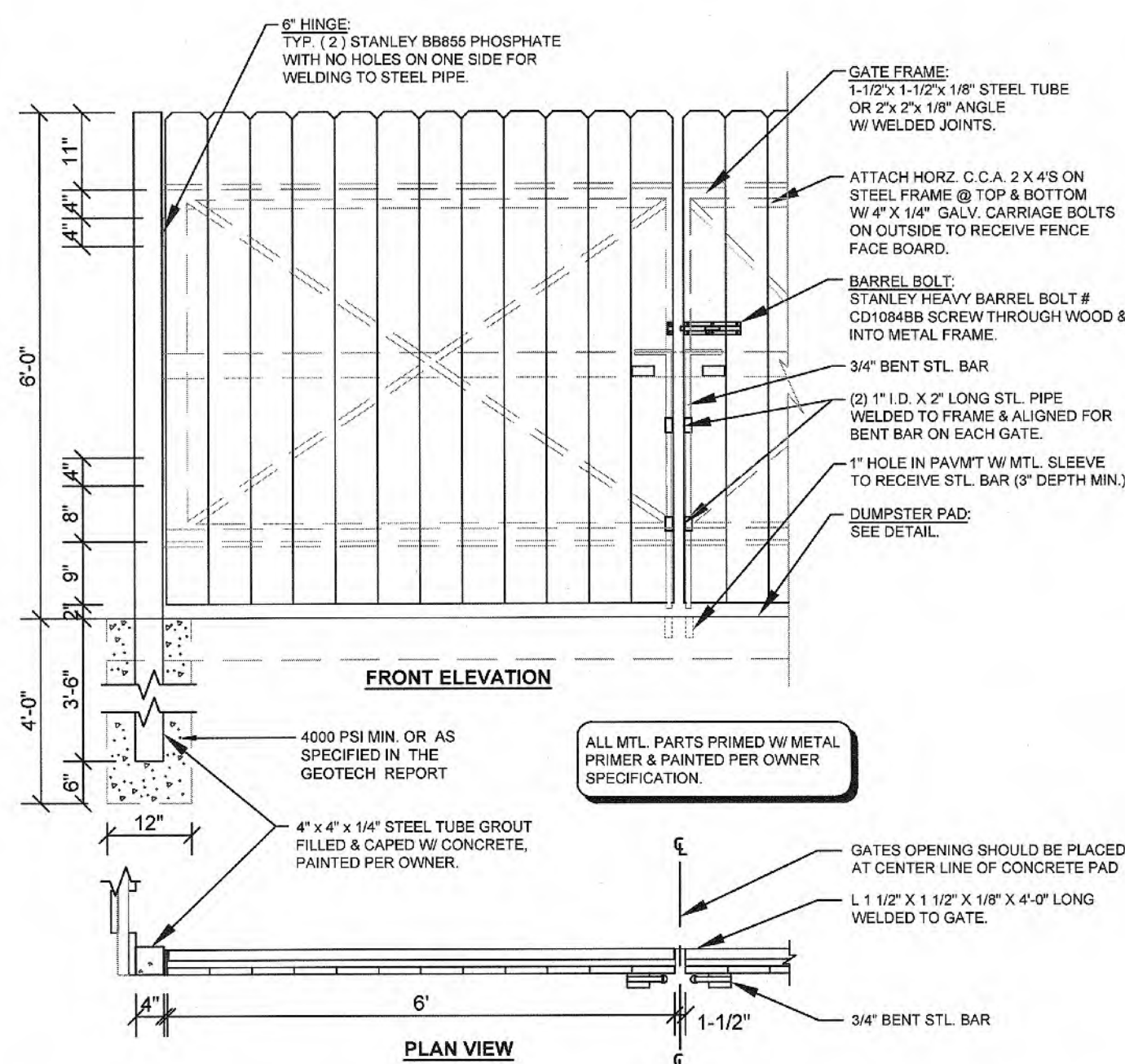
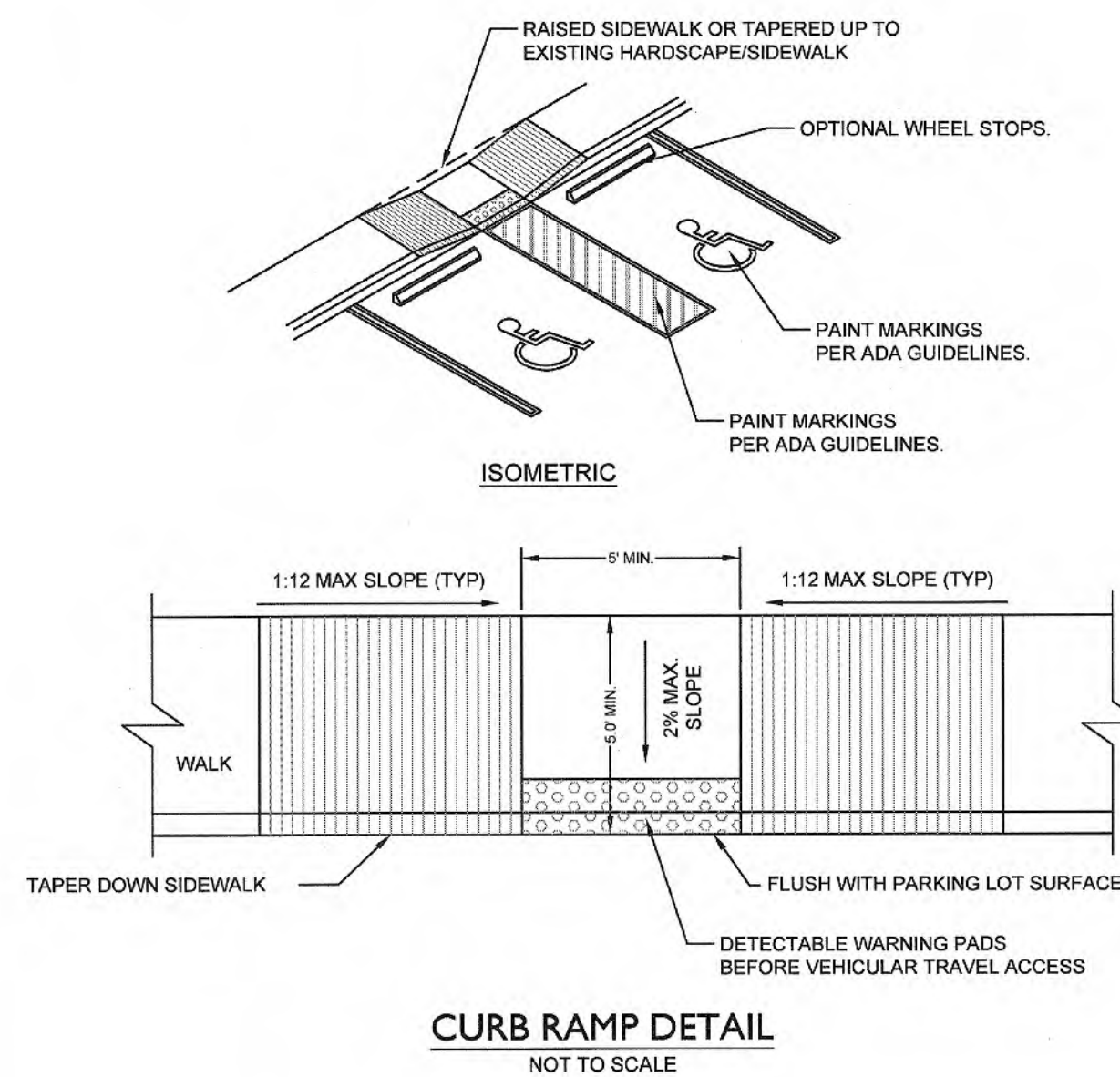
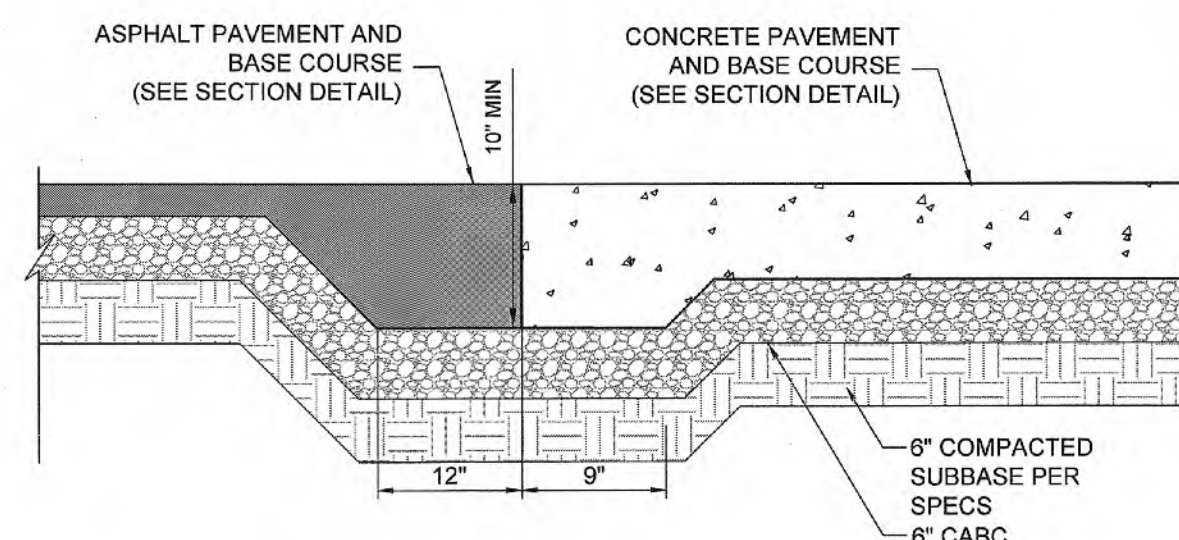
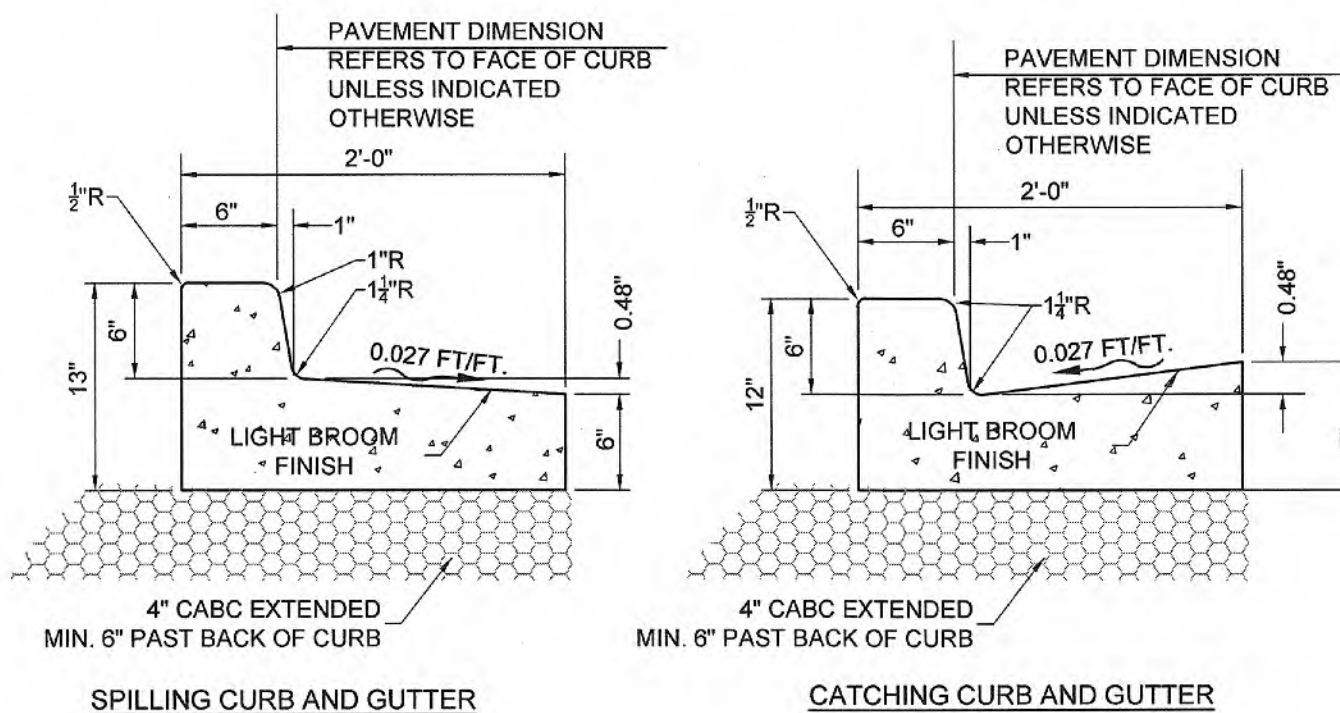
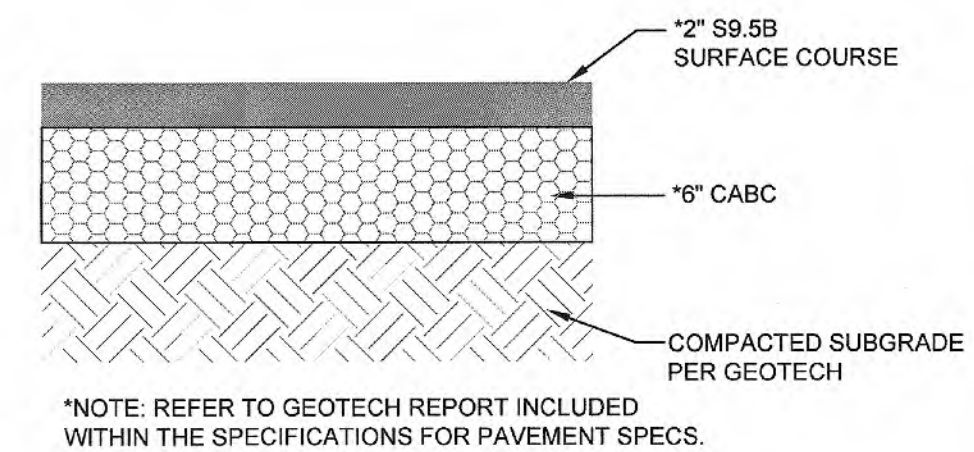
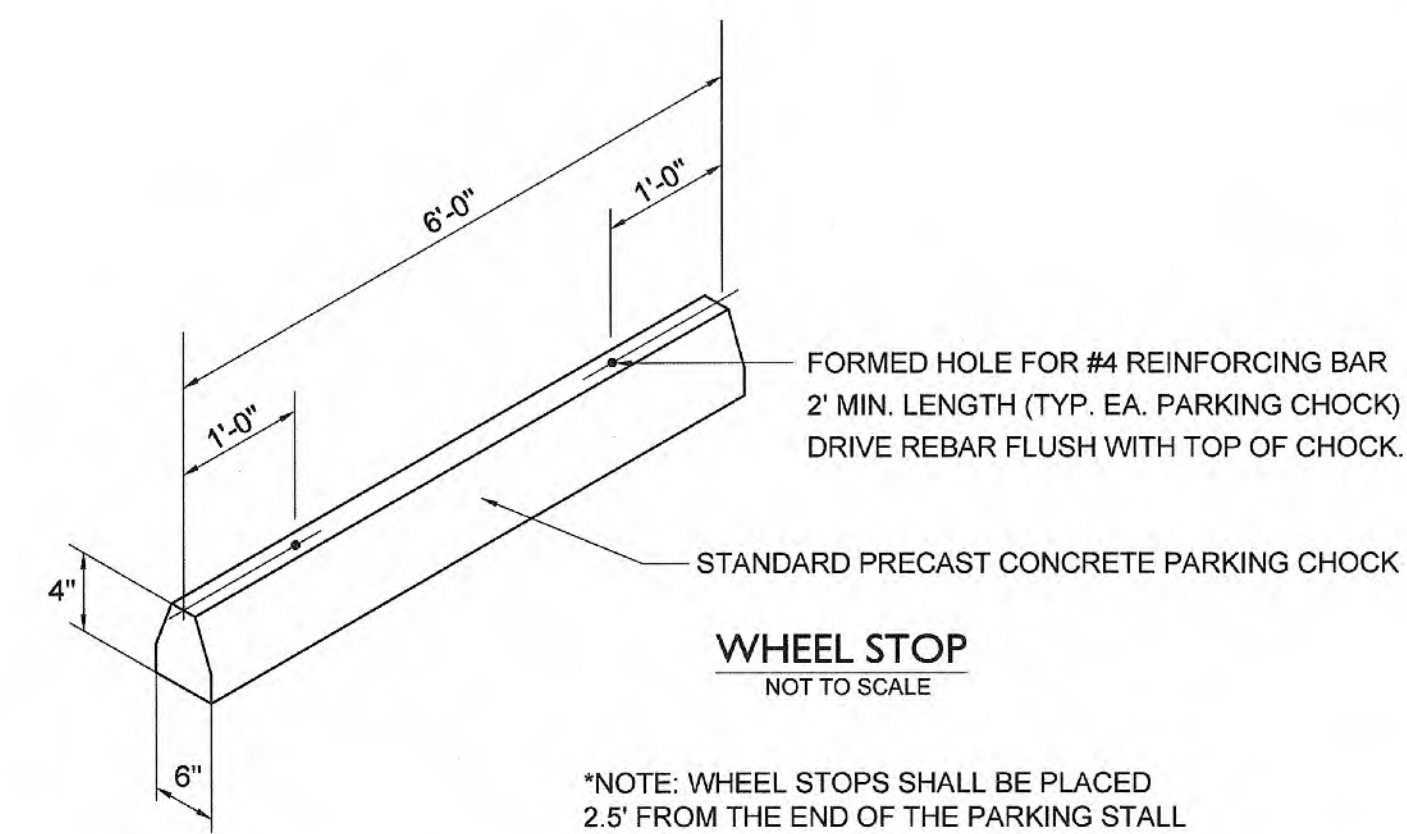
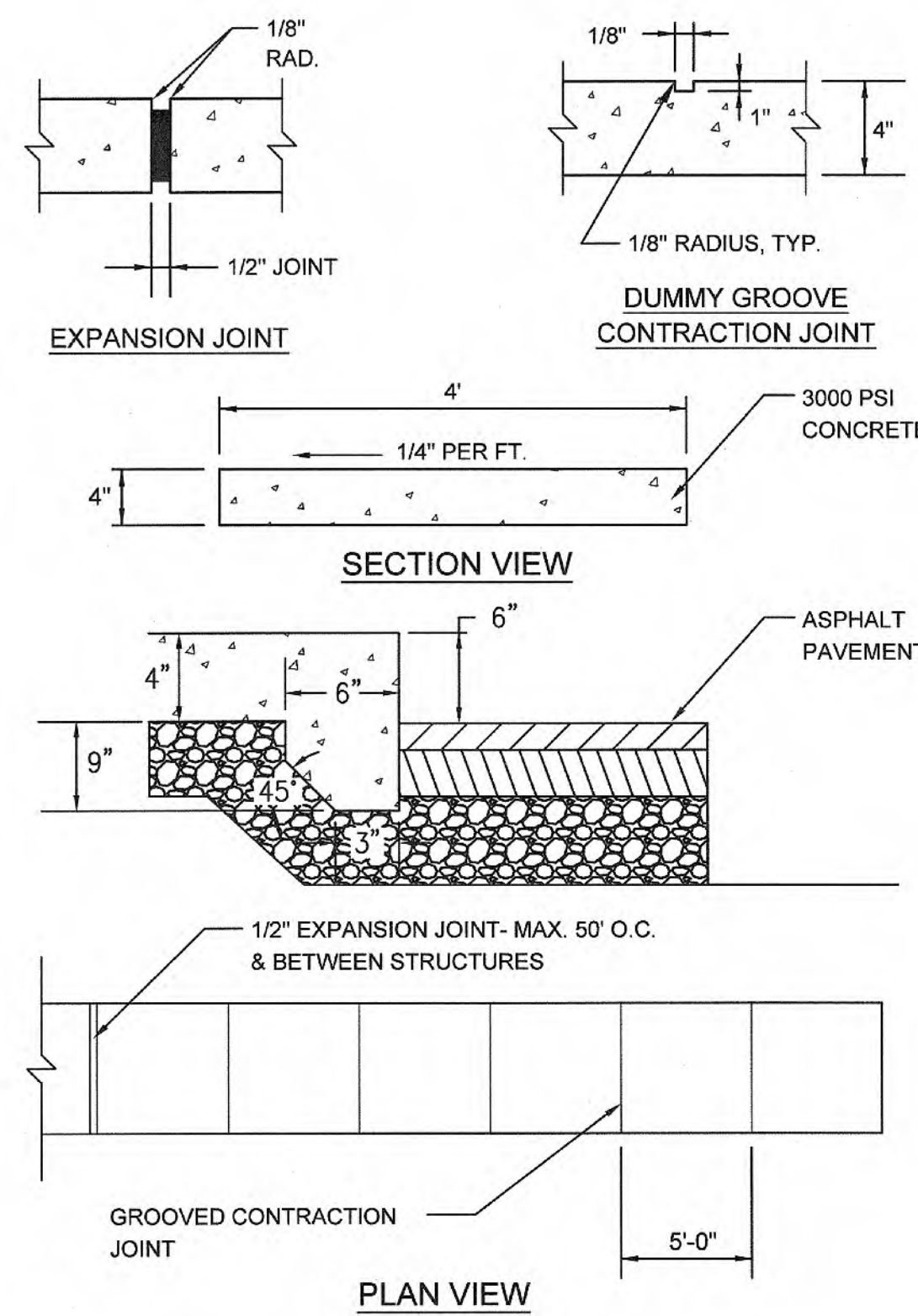
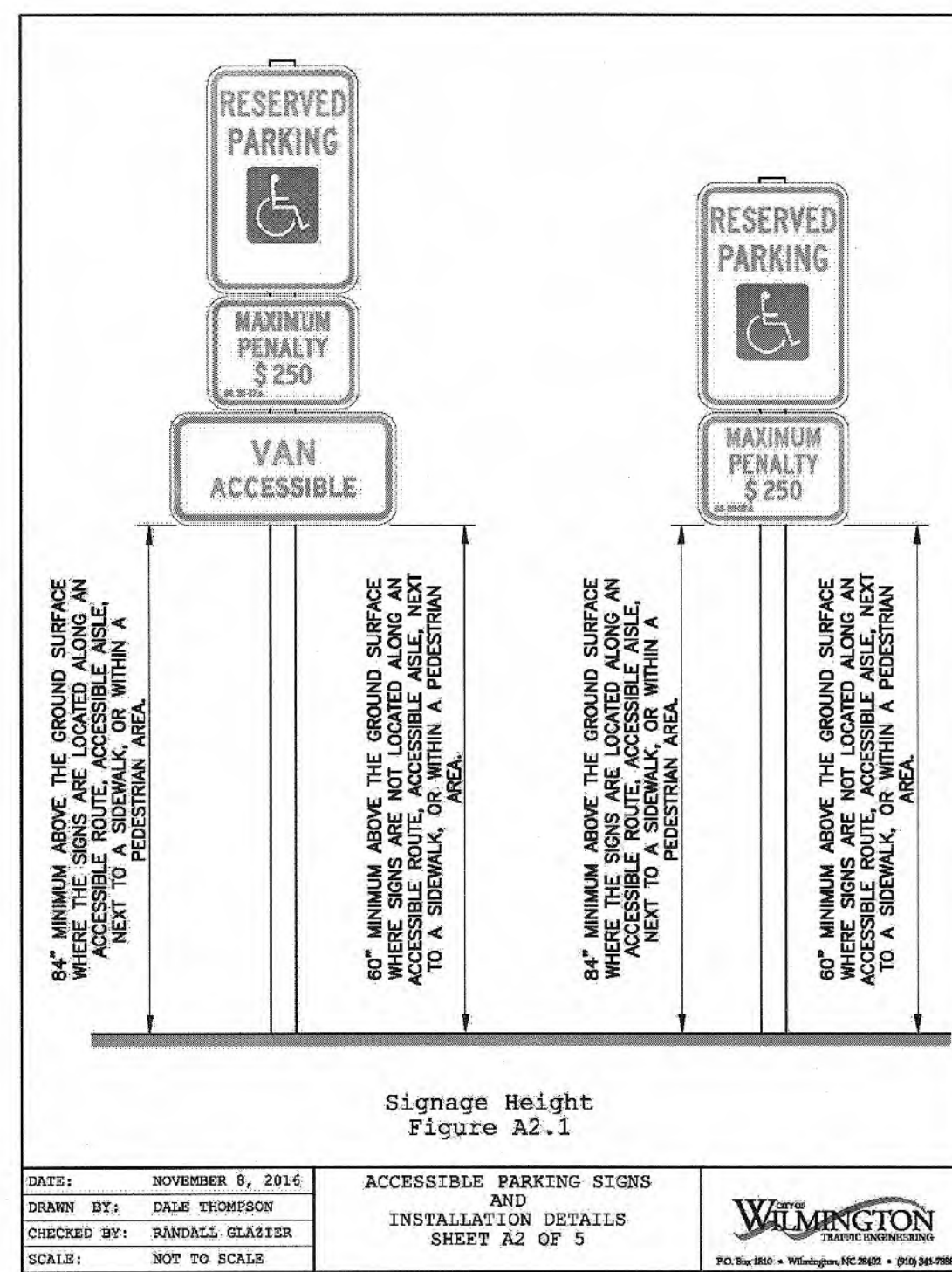
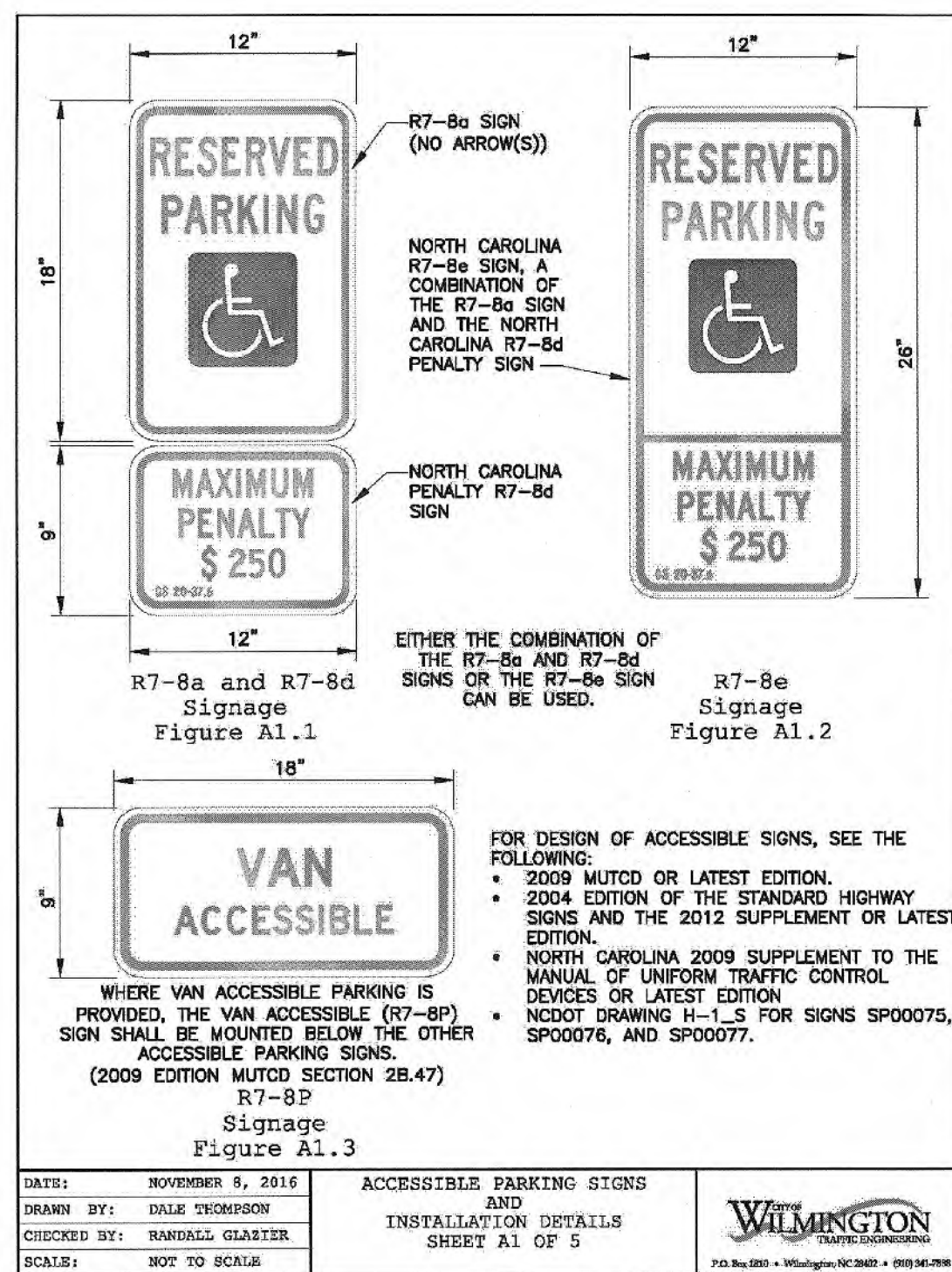
PARAMOUNT ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6700 (F)
NC License #: C-2846

PLAN & PROFILES
WATER & SEWER
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS
CONCEPTUAL LAYOUT
FINAL DESIGN
RELEASED FOR CONSTRUCTION
DRAWING INFORMATION
DATE: 8/1/19
SCALE: 1"=30'
DESIGNED: [Signature]
CHECKED: [Signature]

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

C-5.0
PEI JOB#: 18293.PE



WILMINGTON
CITY OF
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 8/1/19 Permit # 2019050

Signed: Rich Christensen

Approved Construction Plan

	Name	Date
Planning	<u>[Signature]</u>	<u>8-2-19</u>
Traffic	<u>W. Brown</u>	<u>8-2-19</u>
Fire	<u>C. Webb</u>	<u>8/1/19</u>

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

REVIEWS

CLIENT INFORMATION:

[illegible]

DETAILS

PROJECT STATUS

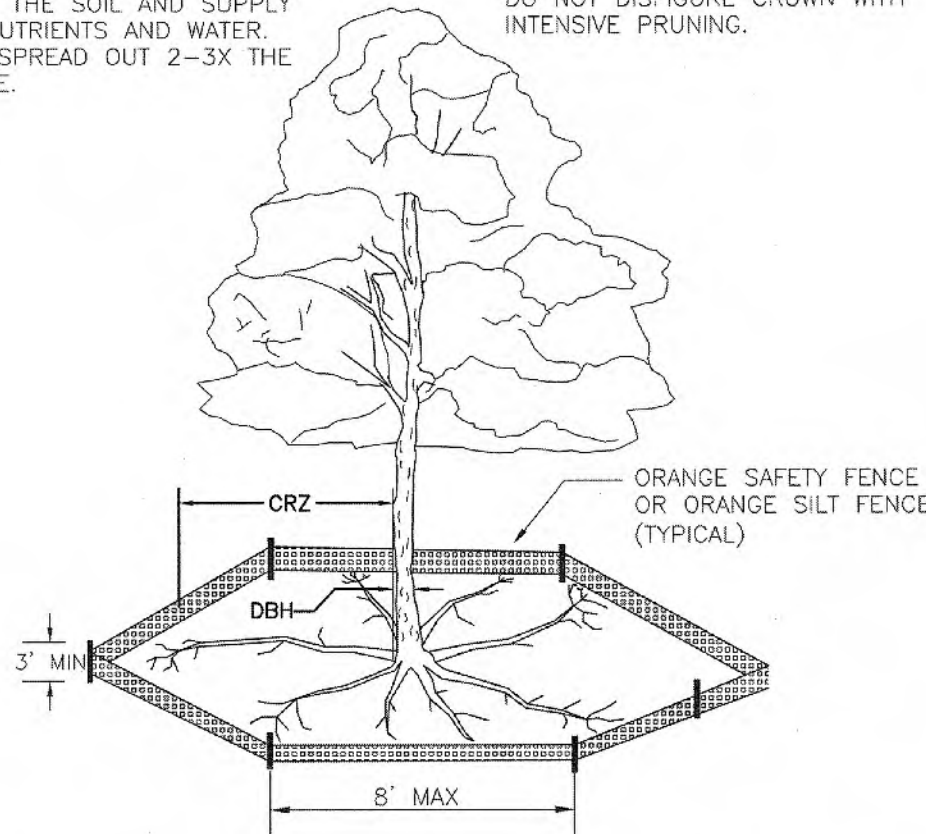
Professional Seal
Redacted on electronic
copy per City of
Wilmington Policy

C-6.0
PEI JOB#: 18293.PE

RELEASED FOR CONSTRUCTION

NOTE:
THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

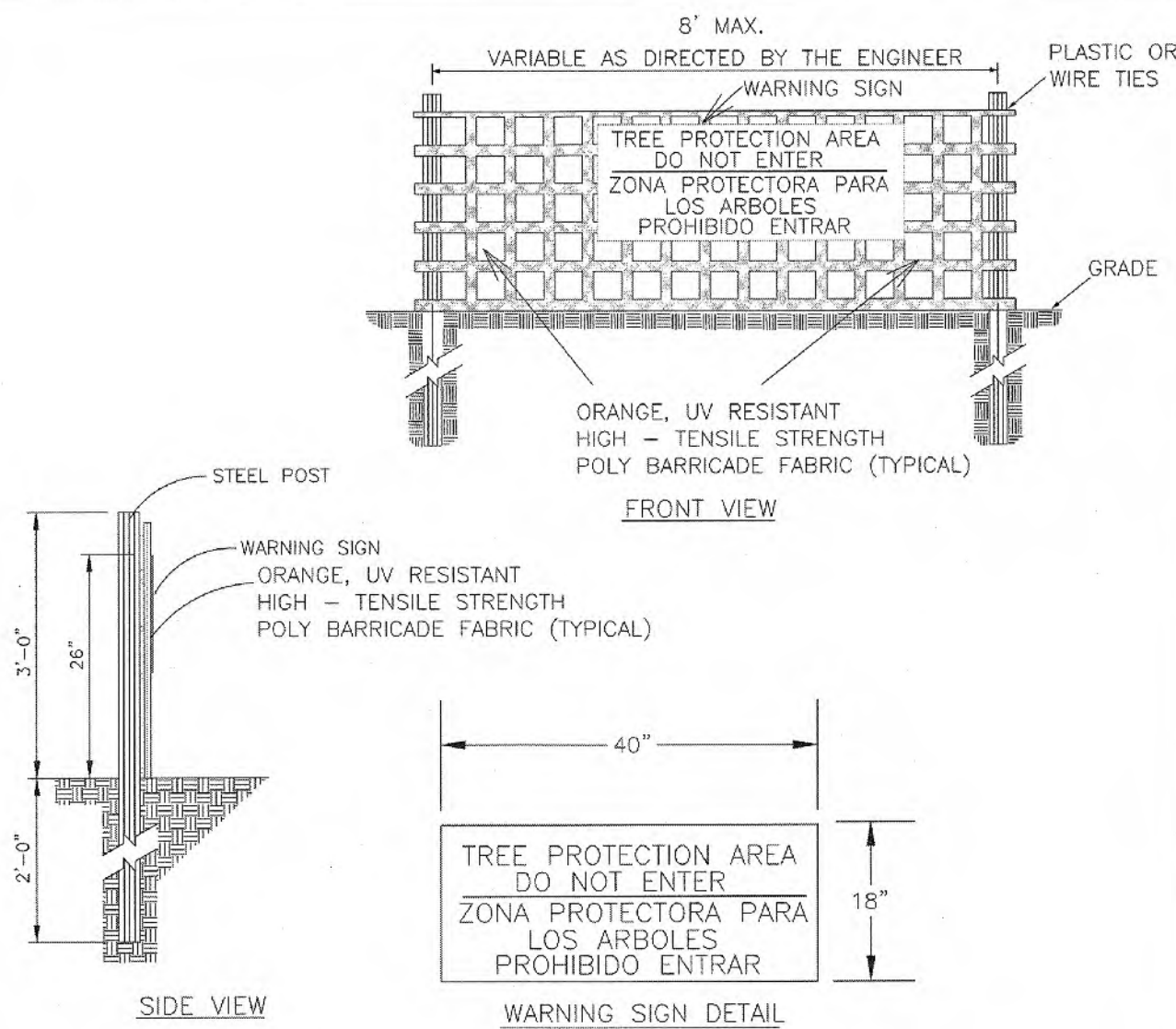
NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
 5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS, OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
 6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

DATE: JAN. 2015		DRAWN BY: JSR		CHECKED BY: RDG, P.E.		SCALE: NOT TO SCALE	
STANDARD DETAIL				TREE PROTECTION DURING CONSTRUCTION			
SHEET 1 of 2				SD 15-09			

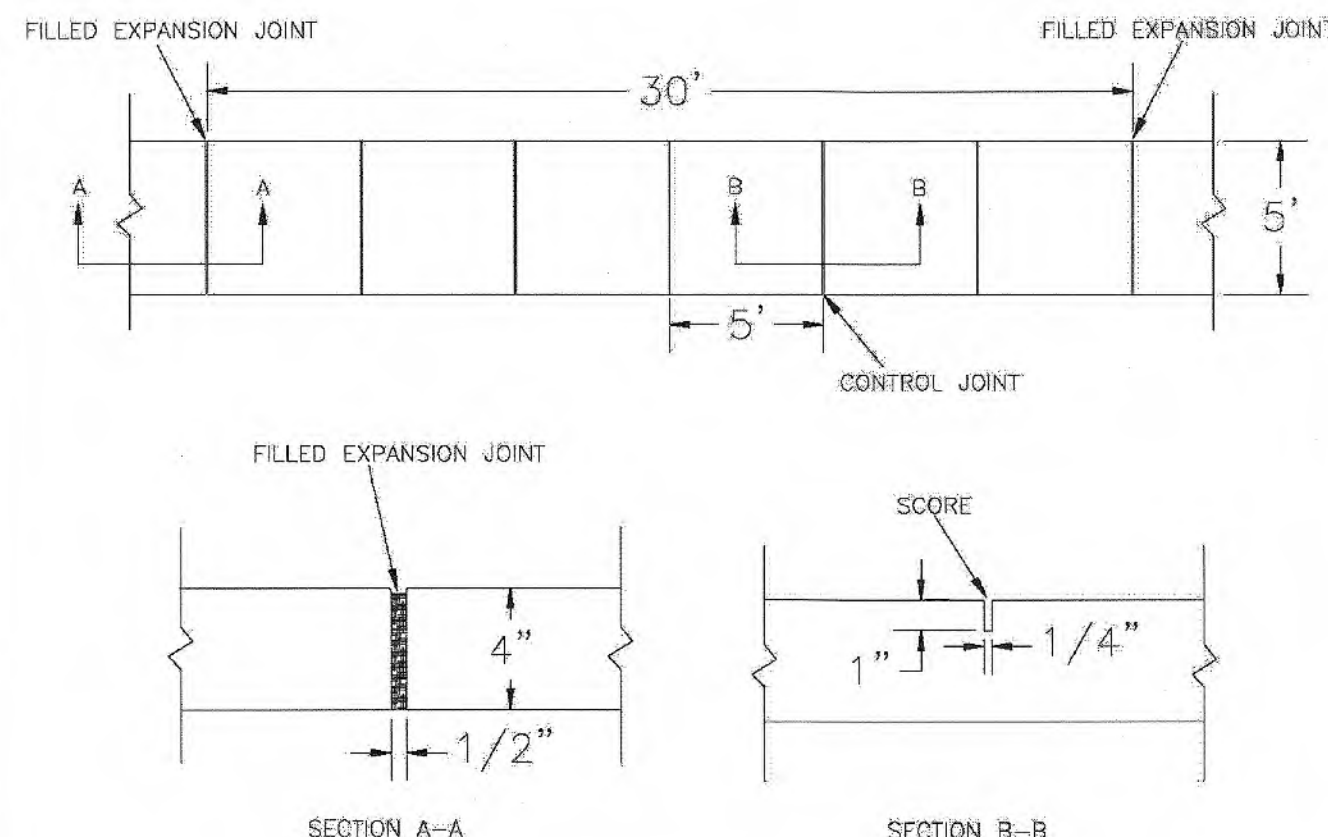
CITY OF WILMINGTON
NORTH CAROLINA
CITY OF WILMINGTON ENGINEERING
PO BOX 1810
WILMINGTON, NC 28402
(910) 341-7807



- NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
 2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
 4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
 5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
 6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

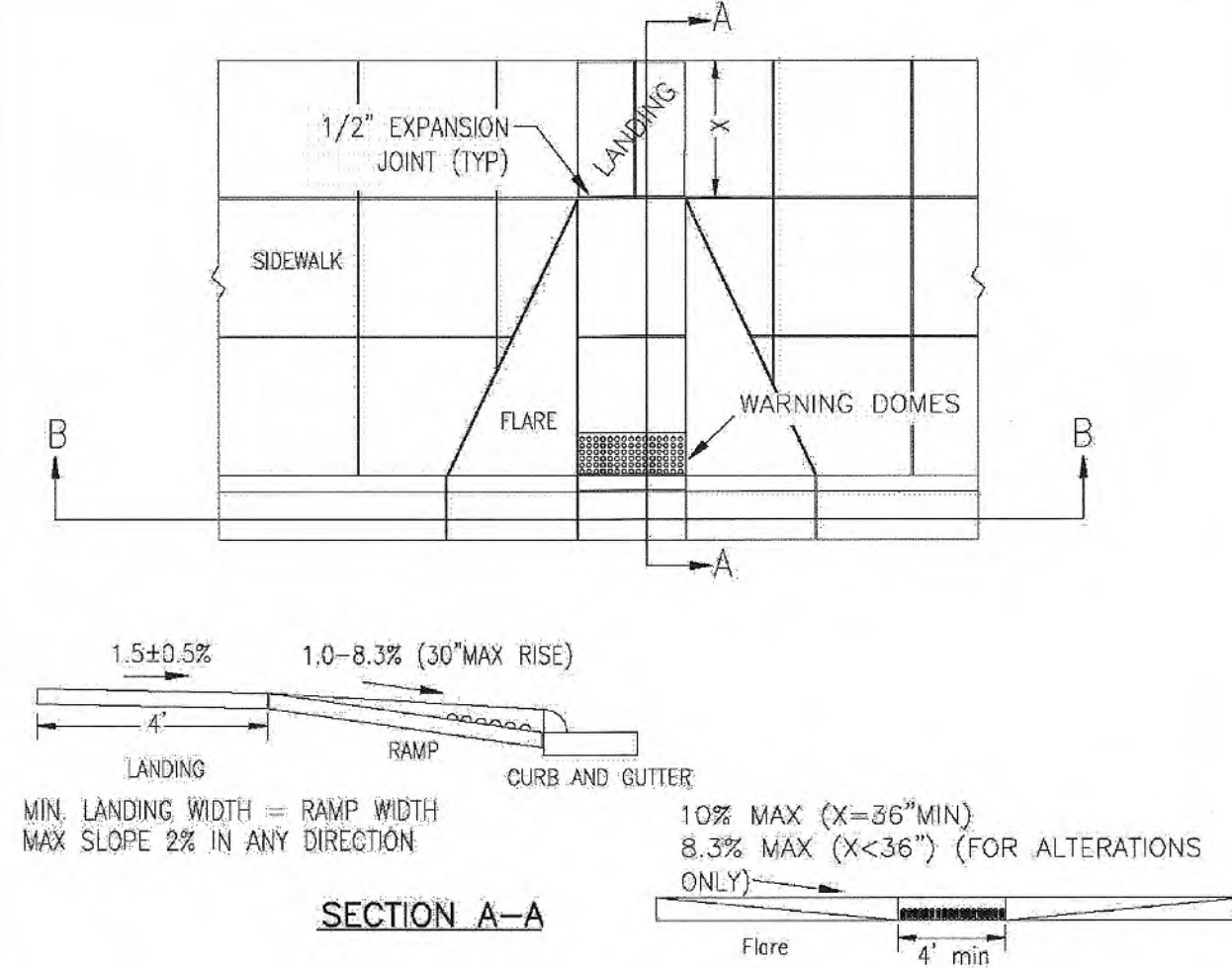
DATE: JAN. 2015		DRAWN BY: JSR		CHECKED BY: RDG, P.E.		SCALE: NOT TO SCALE	
STANDARD DETAIL				TREE PROTECTION DURING CONSTRUCTION			
SHEET 2 of 2				SD 15-09			

CITY OF WILMINGTON
NORTH CAROLINA
CITY OF WILMINGTON ENGINEERING
PO BOX 1810
WILMINGTON, NC 28402
(910) 341-7807



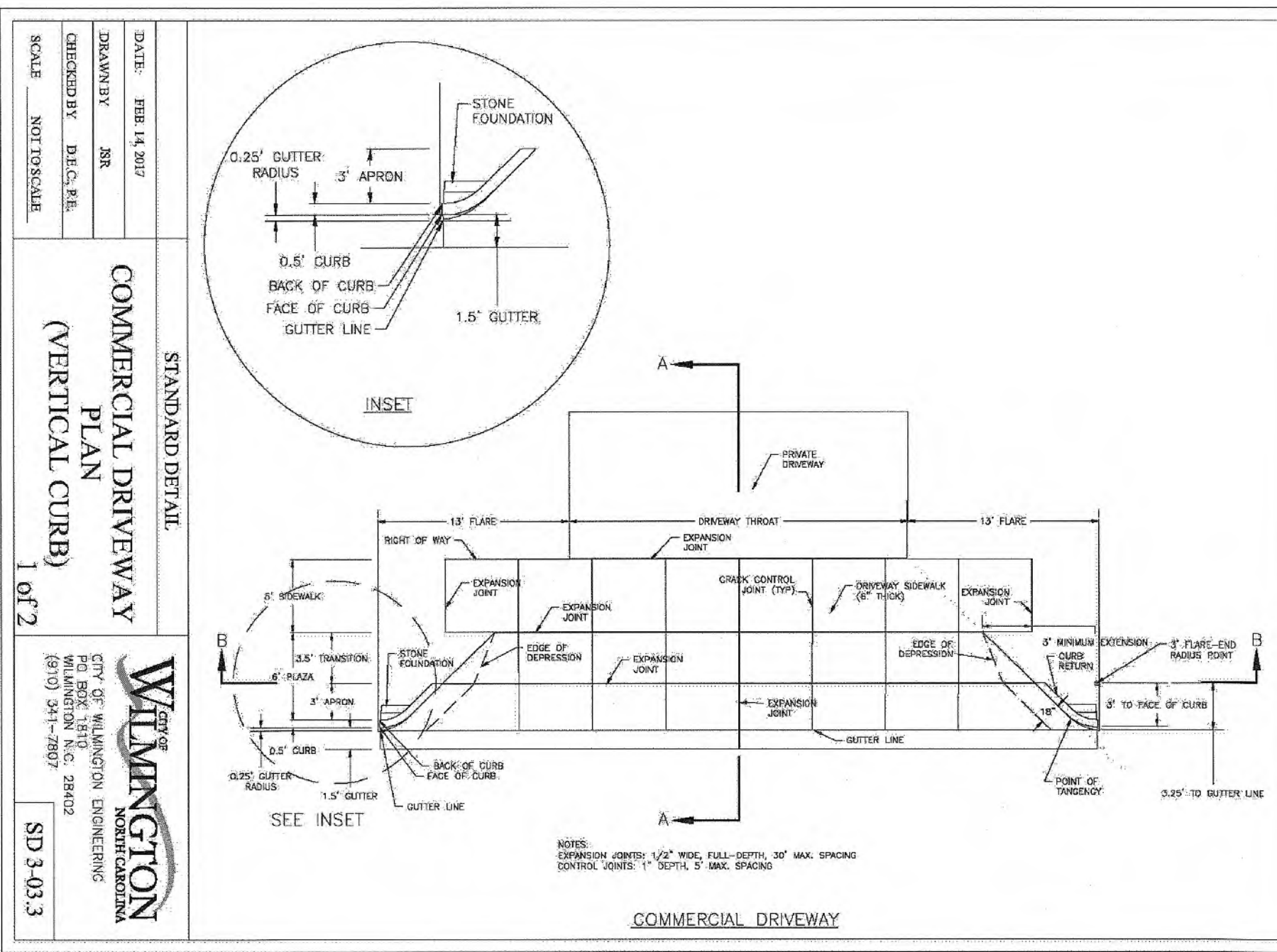
- NOTES:
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCOT STANDARDS.
 2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
 3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
 4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3,000 PSI.
 5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL.
 6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS.
 7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
 8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
 9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

DATE: OCTOBER, 2010		DRAWN: FB/RSR		CHECKED: DBC		SCALE: NOT TO SCALE	
STANDARD DETAIL				SIDEWALK			
SD 3-10				CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807			

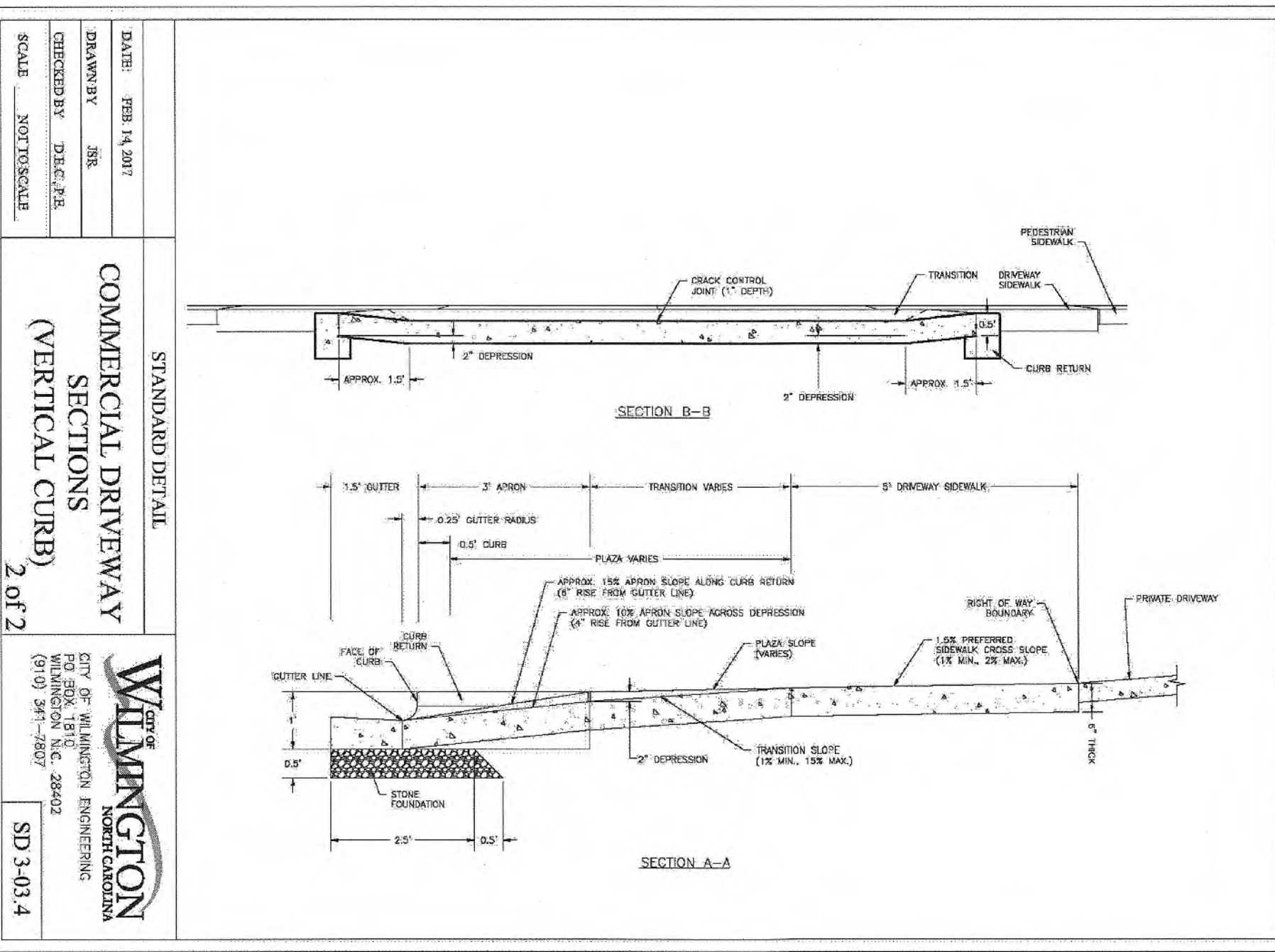


- WARNING DOME NOTES:
1. USE CONTRASTING COLORS, RED OR BLACK ON WHITE PAVEMENT.
 2. USE CAST IN PLACE PAVERS FOR NEW CONSTRUCTION.
 3. RUBBER MATS ARE PERMITTED FOR RETROFITS.
 4. LANDING AND RAMP WIDTH MAY BE REDUCED TO 3' WHERE SPACE IS LIMITED AND DESIGN IS APPROVED BY THE CITY ENGINEER.

DATE: DECEMBER, 2010		DRAWN: FB/RSR		CHECKED: DBC		SCALE: NOT TO SCALE	
STANDARD DETAIL				PERPENDICULAR CURB RAMP ADJACENT TO WALKING SURFACE			
SD 3-07				CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807			



DATE: FEB. 14, 2017		DRAWN: JSR		CHECKED: DBC		SCALE: NOT TO SCALE	
STANDARD DETAIL				COMMERCIAL DRIVEWAY PLAN (VERTICAL CURB)			
SD 3-03.3				CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807			



DATE: FEB. 14, 2017		DRAWN: JSR		CHECKED: DBC		SCALE: NOT TO SCALE	
STANDARD DETAIL				COMMERCIAL DRIVEWAY SECTIONS (VERTICAL CURB)			
SD 3-03.4				CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807			

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit # 2019050
Signed: *Rick Christman*
Approved Construction Plan
Name: _____ Date: 8.2.19
Planning: *W. Smith* 8-249
Traffic: *C. Wel* 8/1/19
Fire: _____

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

PARAMOUNT ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

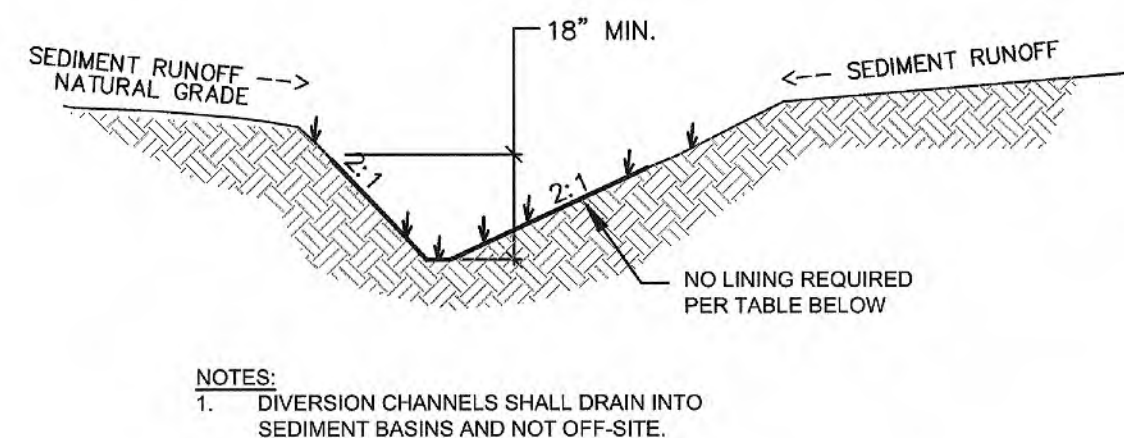
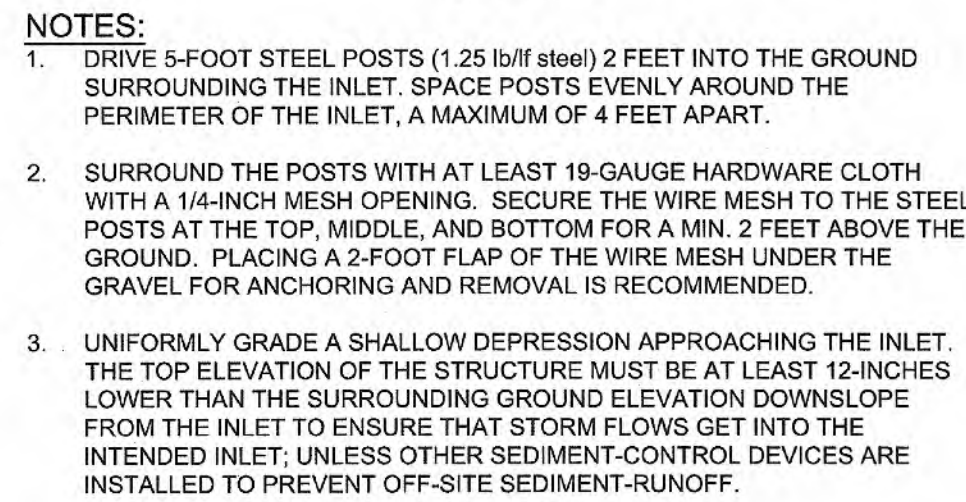
DETAILS
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS:
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
RELEASED FOR CONSTRUCTION:
DRAWING INFORMATION
SCALE: 1" = 10'-0"
DESIGNED: _____
CHECKED: _____

Professional Seal redacted on electronic copy per City of Wilmington Policy

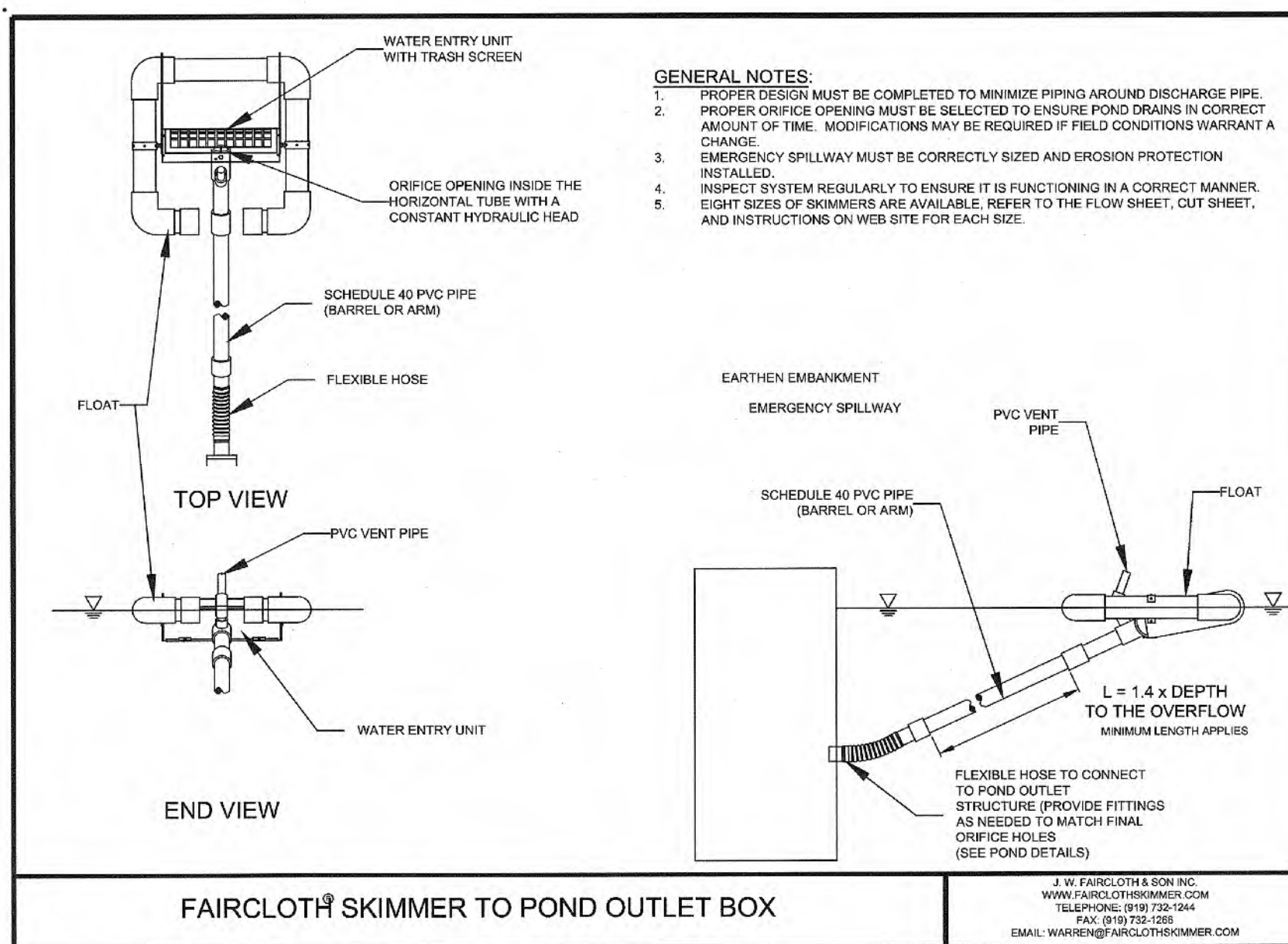
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PEI JOB#: 18293.PE

RELEASED FOR CONSTRUCTION

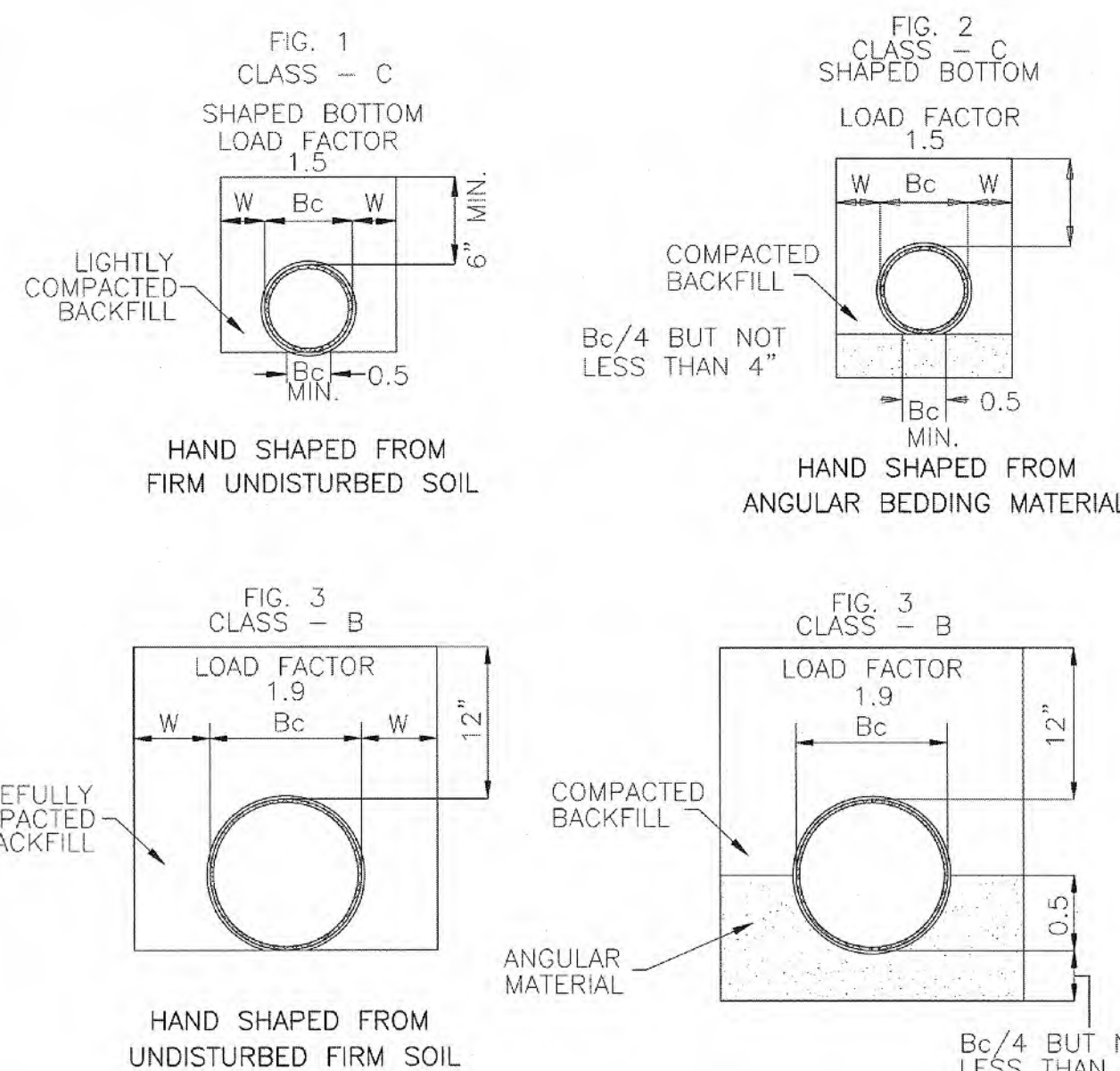
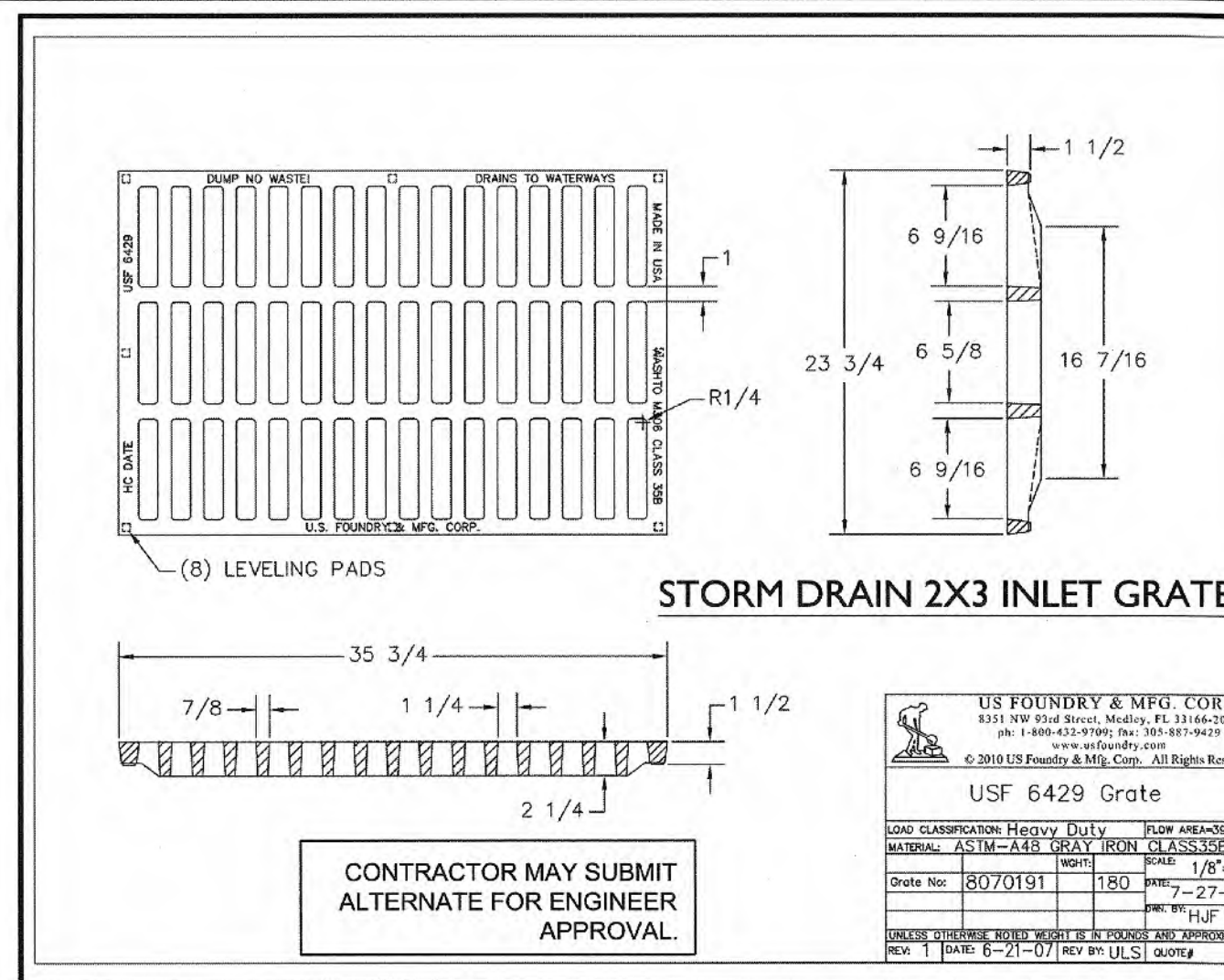



TDD #	Upstream Invert	Downstream Invert	Length (ft)	Slope (ft)	Excelsior Matting Y/N	No. Temp. Check Dams
1	39.50	38.50	427	0.002	N	0

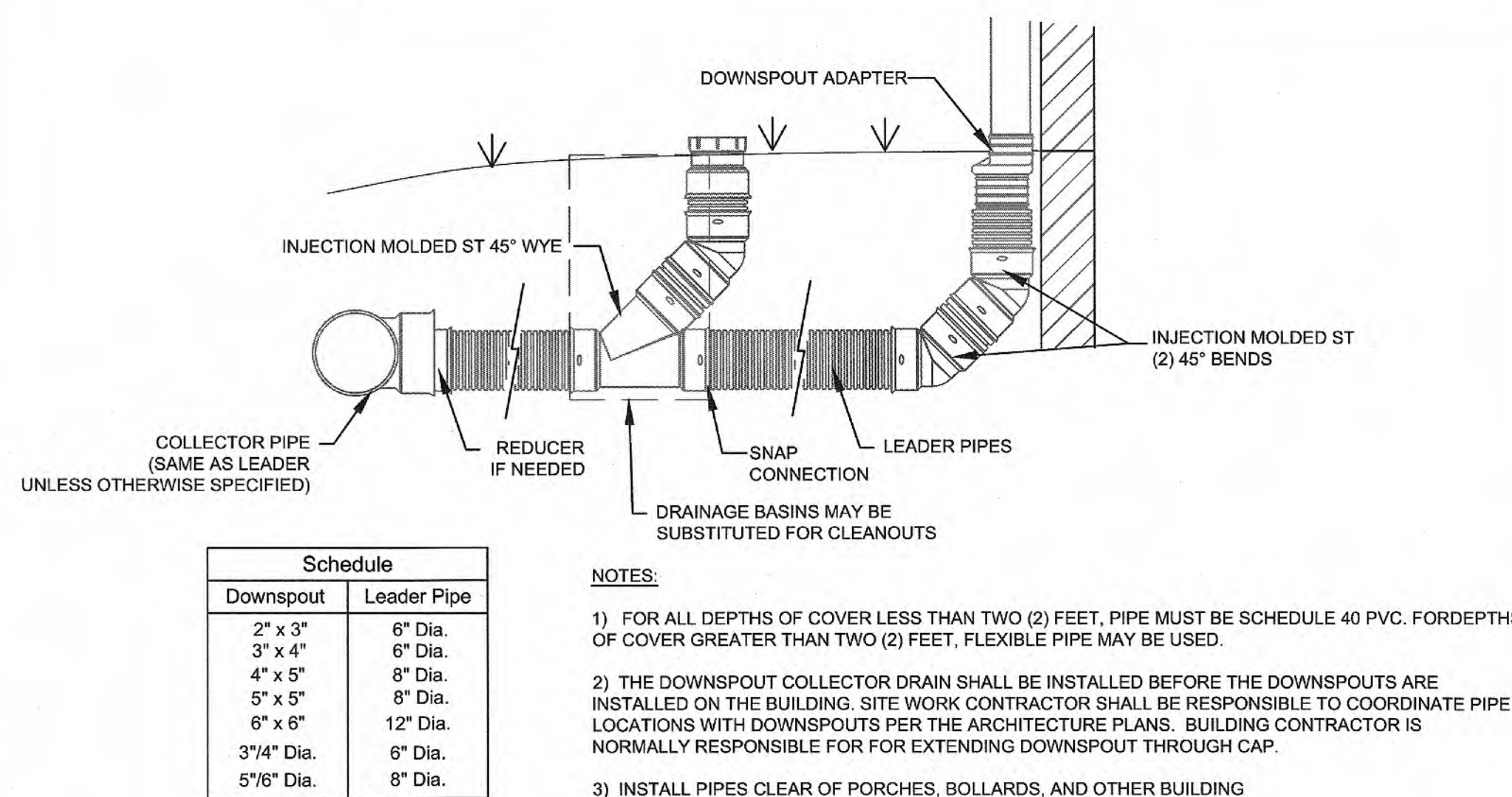
TEMPORARY DIVERSION DITCH
NOT TO SCALE



TEMPORARY SKIMMER DEWATERING DEVICE
NOT TO SCALE



DATE: 2001 DRAWN BY: JSR/CMR CHECKED BY: B.P., P.E. SCALE: NOT TO SCALE		STANDARD DETAIL GUIDELINES FOR BEDDING DETAILS, STORM SEWER CLASSES (B & C)	 CITY OF WILMINGTON ENGINEERING PO BOX 1610 WILMINGTON, NC 28402 (910) 341-7807
--	--	--	--



TYPICAL ROOF DRAINAGE WITH CLEANOUT
NOT TO SCALE

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



WILMINGTON
CITY OF
NORTH CAROLINA
Public Services • Engineering Division

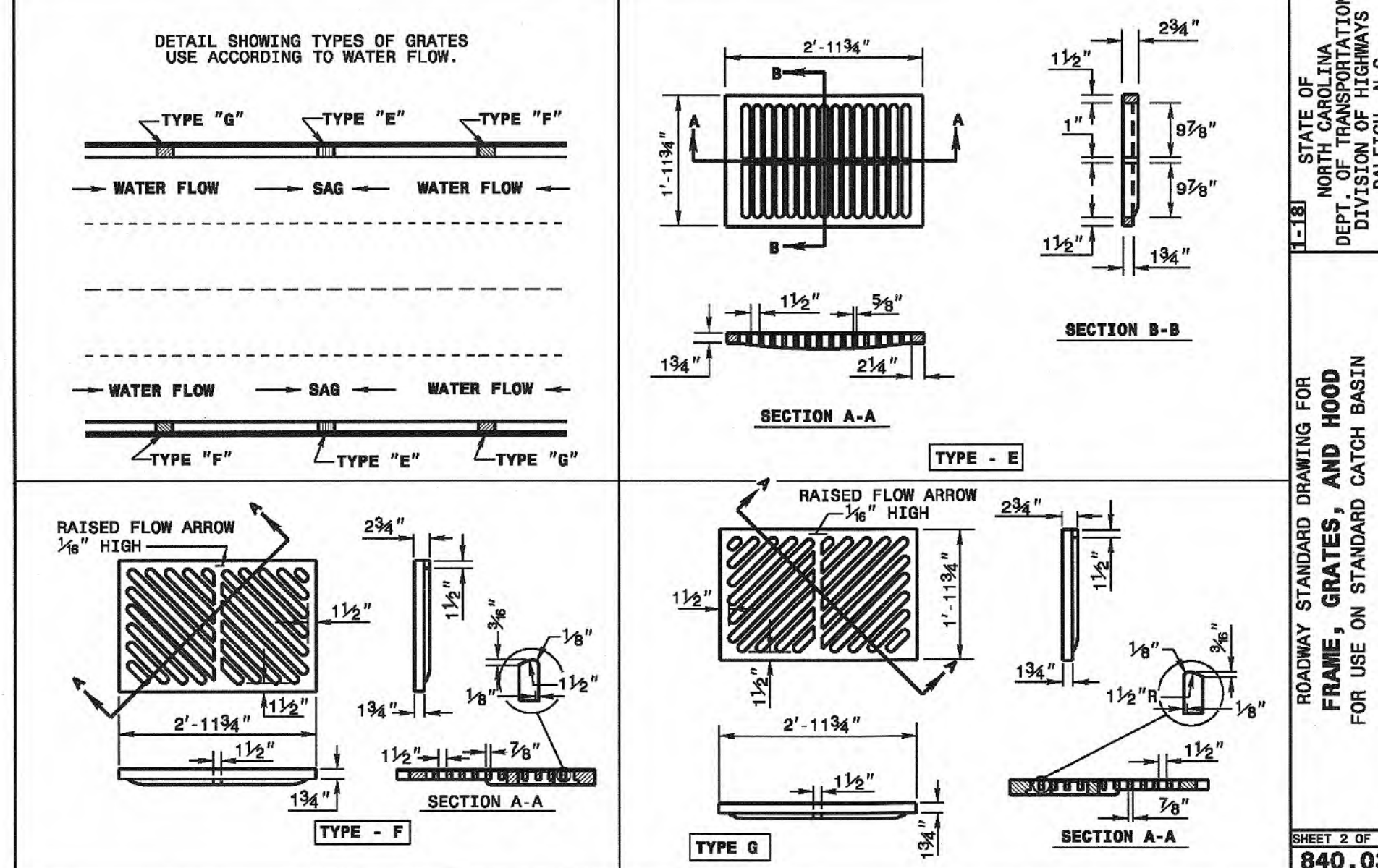
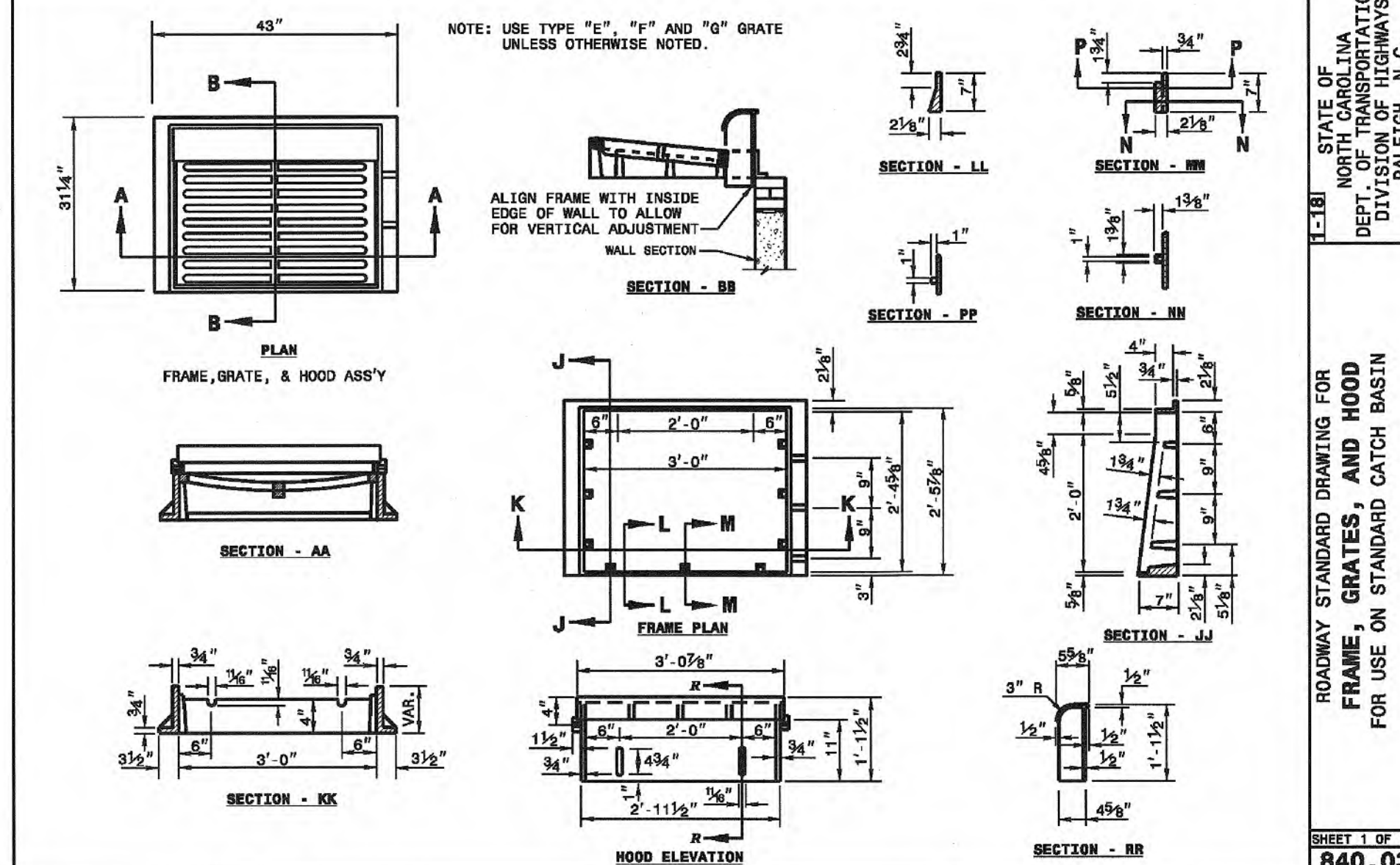
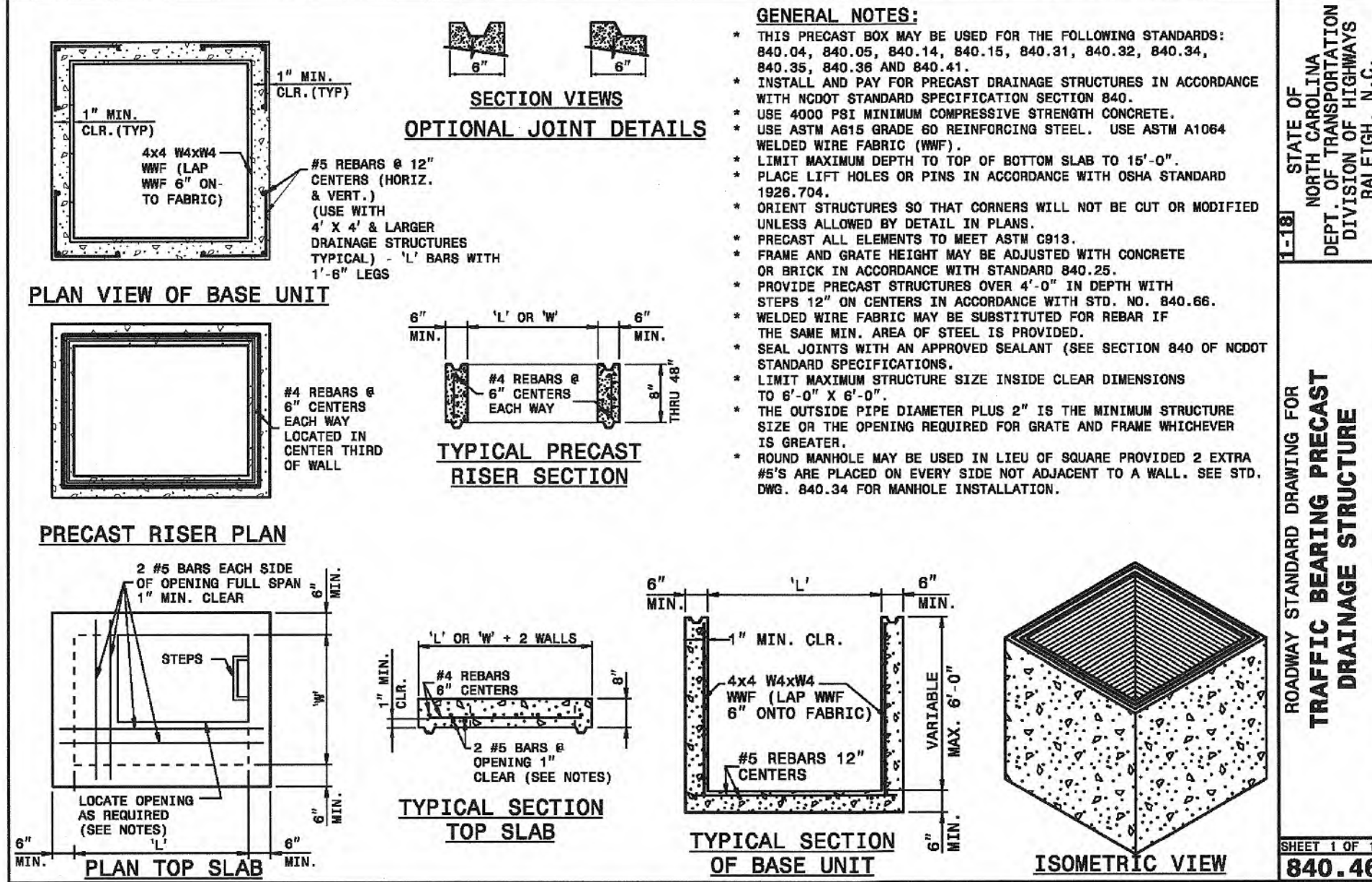
APPROVED STORMWATER MANAGEMENT PLAN

Date: 6/1/19 Permit # 1919050

Signed: *[Signature]*

Approved Construction Plan

	<u>Name</u>	<u>Date</u>
Planning		8-2-19
Traffic		8-2-19
Fire		8/1/19



REVISIONS:

CLIENT INFORMATION:

PARAMOUNT®

DETAILS
COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS:
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

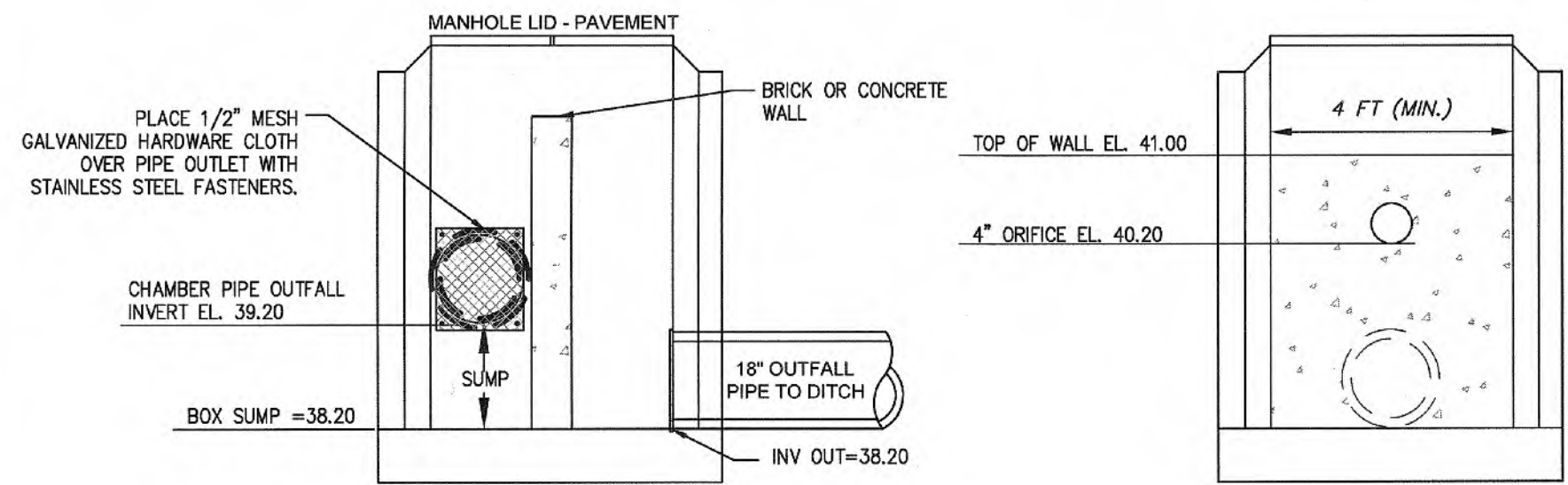
DRAWING INFORMATION:
DATE:
SCALE:
DESIGNED:
DRAWN:
CHECKED:

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

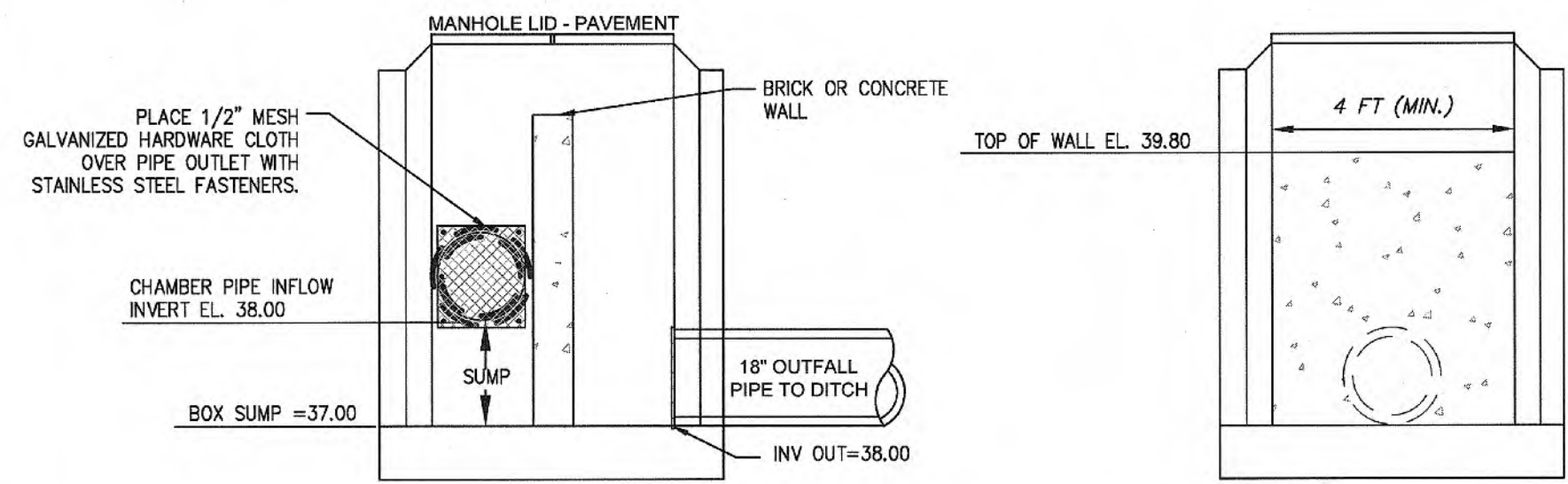
C-6.2

PEI JOB#: 18293,PE

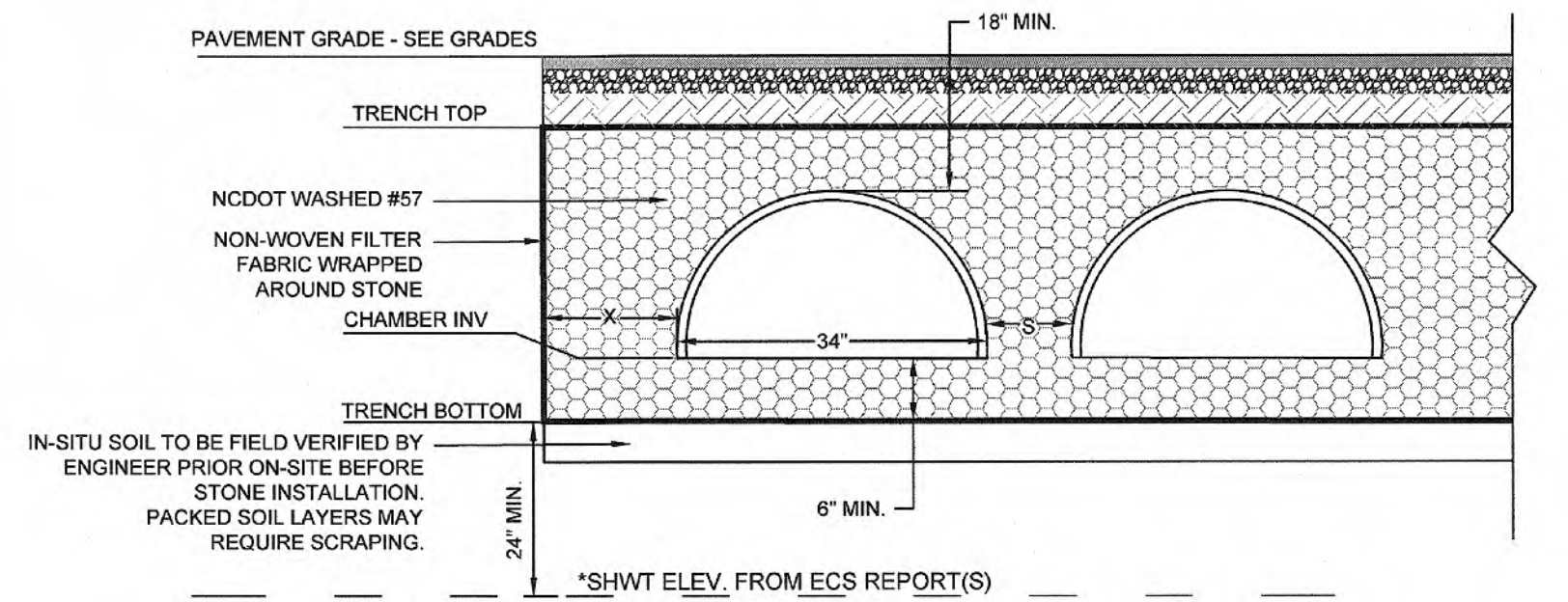
RELEASED FOR CONSTRUCTION



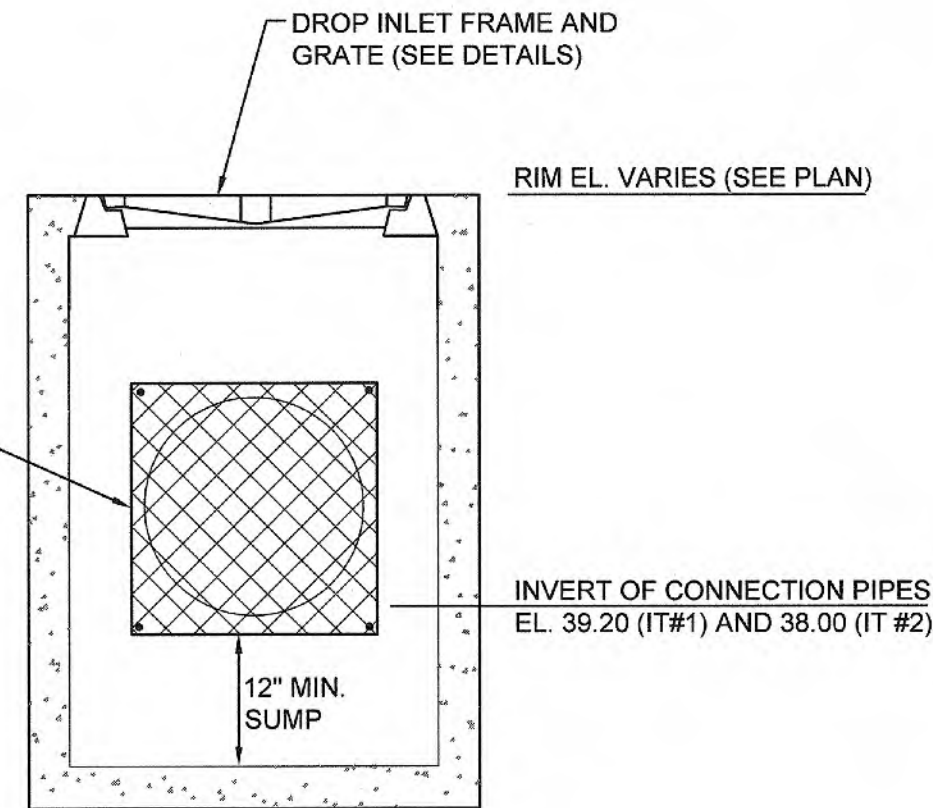
IT #1 - OUTFALL MANHOLE
NOT TO SCALE



IT #2 - OUTFALL MANHOLE
NOT TO SCALE

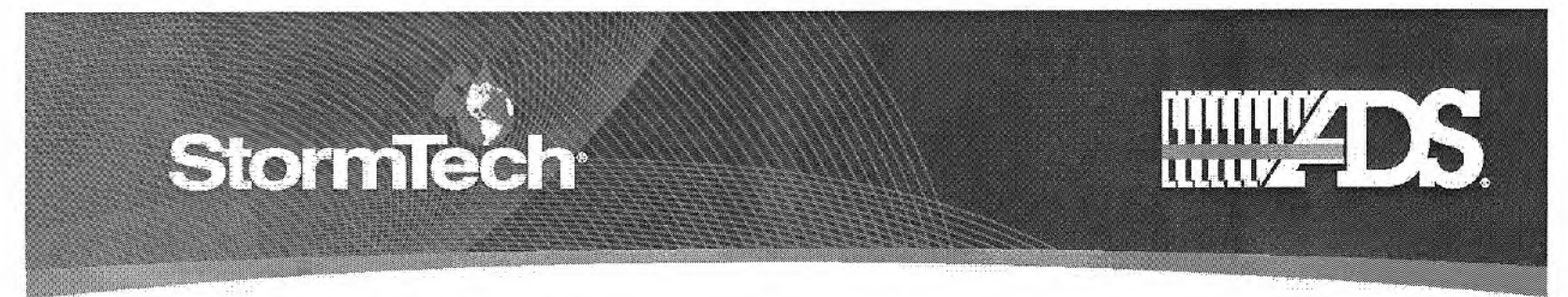


TYP. SECTION ADS SC-310 CHAMBERS
NOT TO SCALE



DROP INLET SECTION, TYP.
NOT TO SCALE

INFILTRATION SYSTEM TABLE		
DESIGN	INFILTRATION SYSTEM #1	INFILTRATION SYSTEM #2
# OF RUNS	8 (4 each side)	4 (2 each side)
CHAMBER SIZE (IN)	16"x34"	16"x34"
MIN. X (IN)	12"	12"
MIN. S (IN)	6"	6"
TRENCH WIDTH (FT)	14.83± (each side)	8.17± (each side)
TRENCH LENGTH (FT)	208	145
TRENCH BOTTOM ELEVATION	38.70	37.50
CHAMBER INVERT	39.20	38.00



SC-310 CHAMBER

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots, thus maximizing land usage for private (commercial) and public applications. StormTech chambers can also be used in conjunction with Green Infrastructure, thus enhancing the performance and extending the service life of these practices.

STORMTECH SC-310 CHAMBER

(not to scale)

Nominal Chamber Specifications

Size (L x W x H)
85.4" x 34.0" x 16.0"
2,170 mm x 864 mm x 406 mm

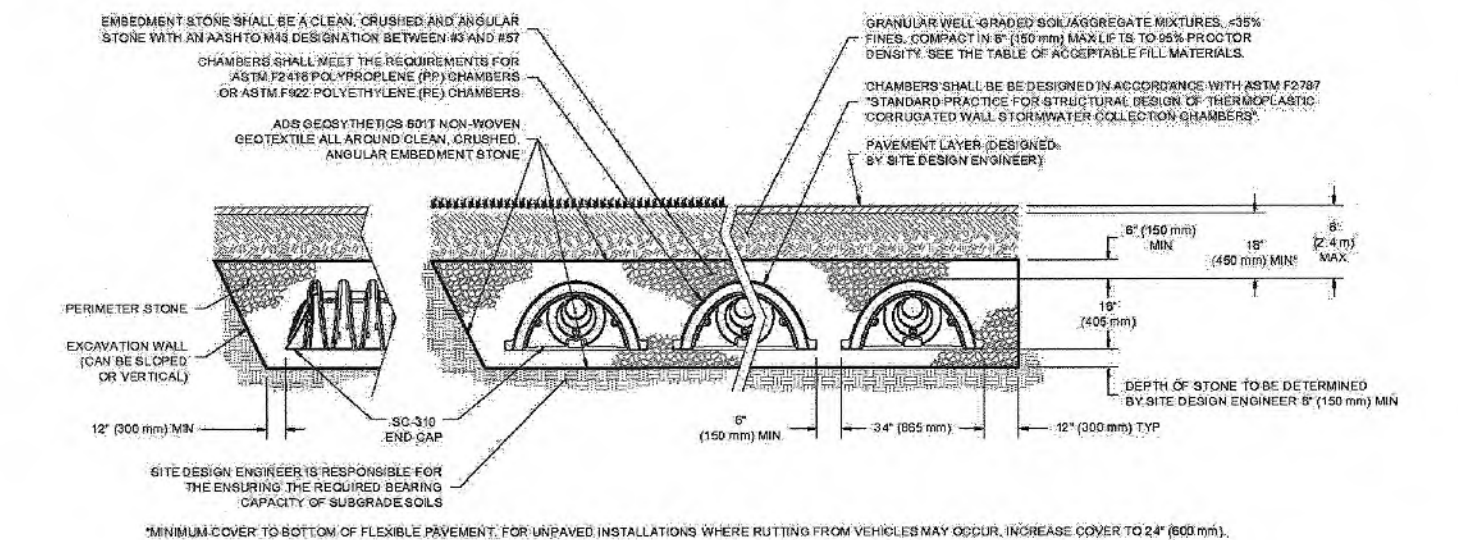
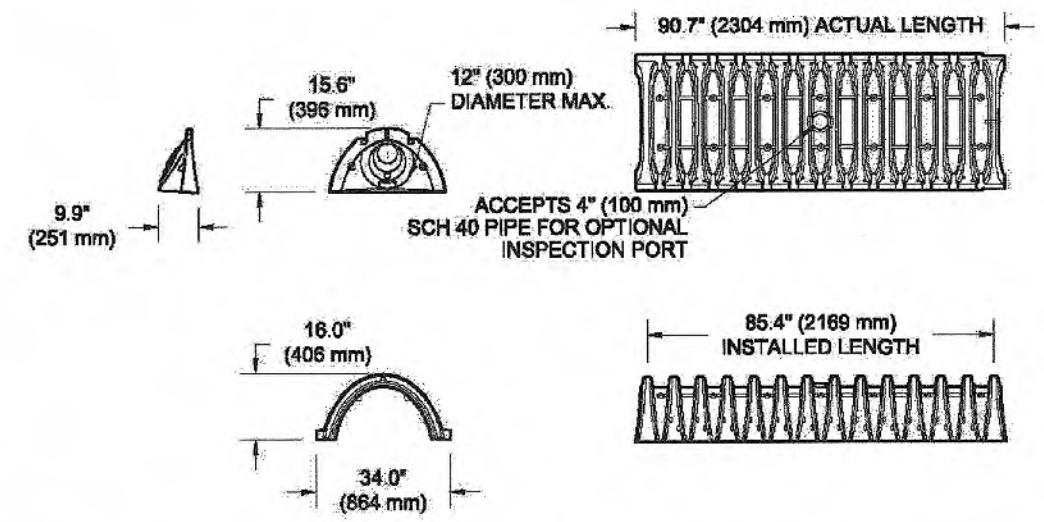
Chamber Storage
14.7 ft³ (0.42 m³)

Min. Installed Storage*
31.0 ft³ (0.88 m³)

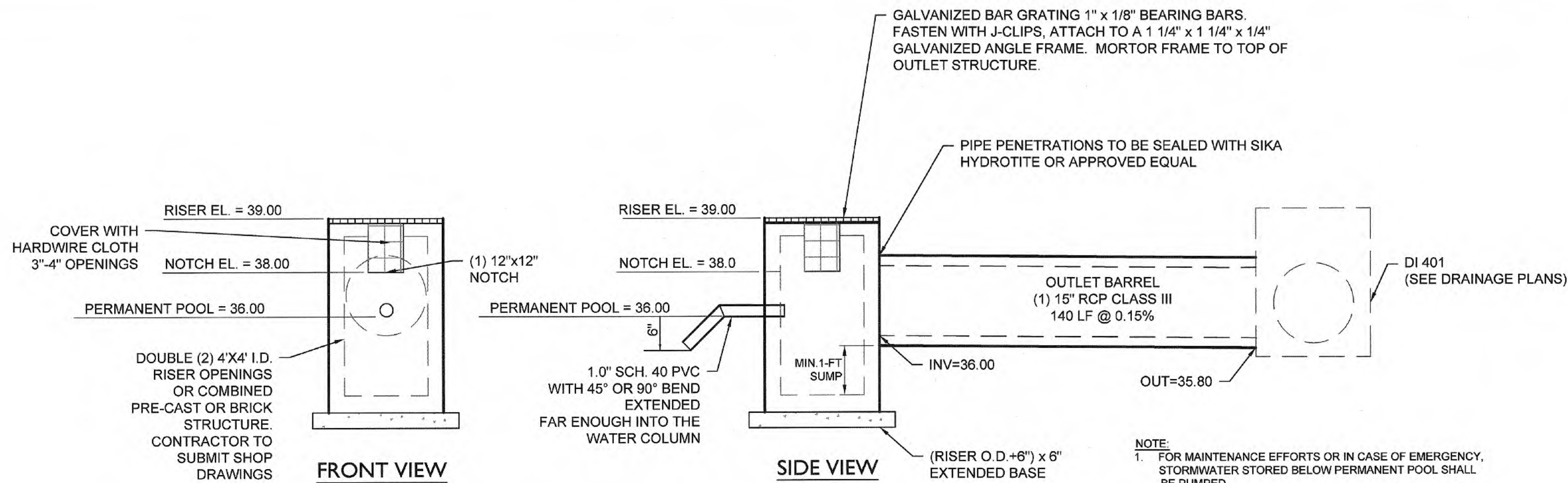
Weight
37.0 lbs (16.8 kg)

Shipping
41 chambers/pallet
108 and caps/pallet
18 pallets/truck

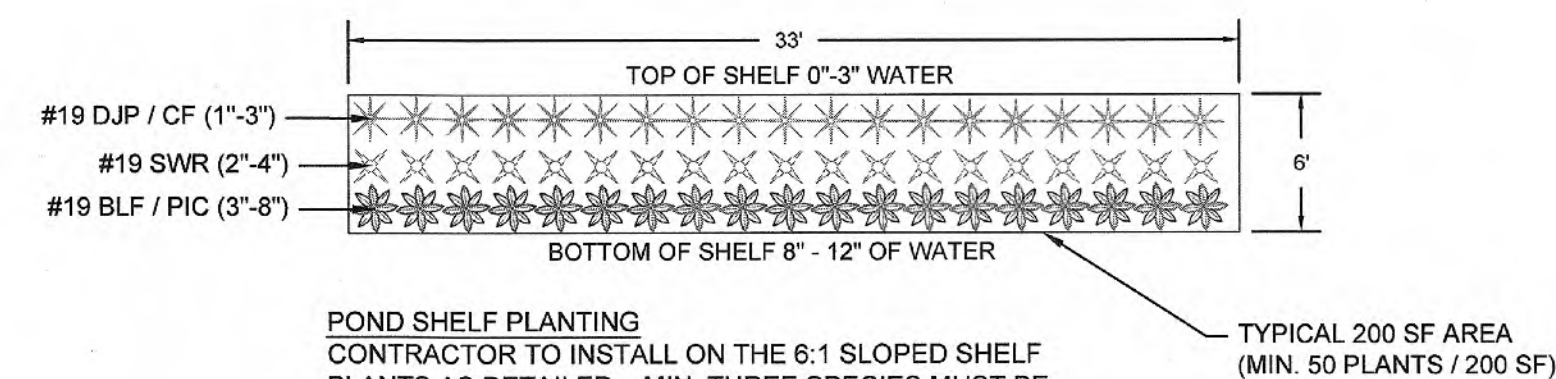
*Assumes 6" (150 mm) stone above and below chambers and 40% stone porosity.



ADS SC-310 TRENCH SYSTEM
NOT TO SCALE



POND OUTLET STRUCTURE DETAIL
NOT TO SCALE



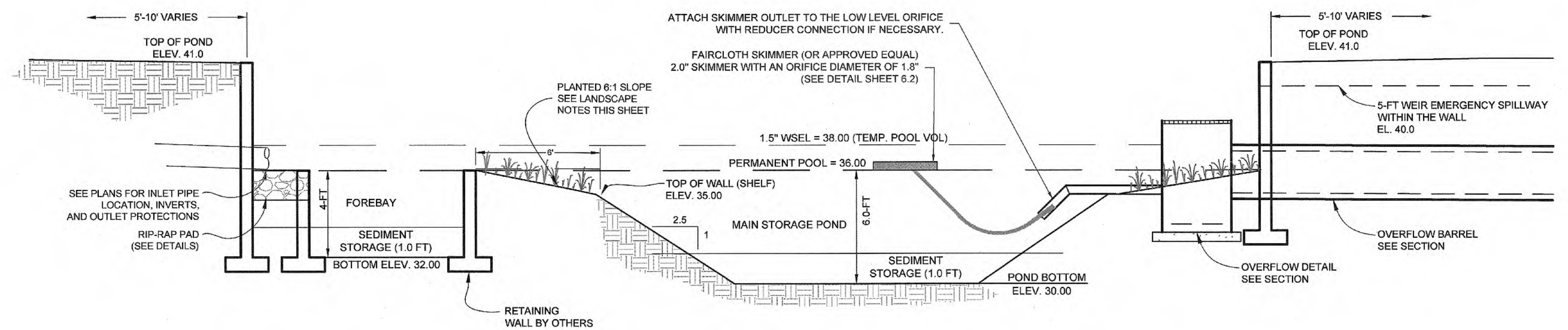
POND SHELF PLANTING

CONTRACTOR TO INSTALL ON THE 6:1 SLOPED SHELF PLANTS AS DETAILED. MIN. THREE SPECIES MUST BE PLANTED. TRIANGULAR SPACING @ 20" O.C.

SUITABLE PLANTS (PLANT SIZE = 2" PLUGS)

DJP - DWARF JOE PYE WEED (EUPATORIUM DUBIUM)
SWR - SWAMP ROSE (HIBISCUS MOSHEUTOS)
BLF - BLUE FLAG (IRIS VIRGINICA)
CF - CARDINAL FLOWER (LOBELIA CARDINALIS)

VEGETATIVE SHELF PLANTING SECTION



WET RETENTION POND (POND 1) DETAIL (AND SEDIMENT BASIN)
NOT TO SCALE

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit # 2019050
Signed: *[Signature]*
Approved Construction Plan
Name: *[Signature]* Date: 8-2-19
Planning: *[Signature]* 8-2-19
Traffic: *[Signature]* 8-2-19
Fire: *[Signature]* 8/1/19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

REVISIONS:

COLLEGE ACRES DEVELOPMENT, LLC
11240 MCDOWELL SHORTCUT
MURRELLS INLET, SC 29576

PARAMOUNT ENGINEERING

122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6700 (F)
NC License #: C-2846

DETAILS

COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS

CONCEPT LAYOUT
FINAL DESIGN
RELEASED FOR CONSTRUCTION

DRAWING INFORMATION

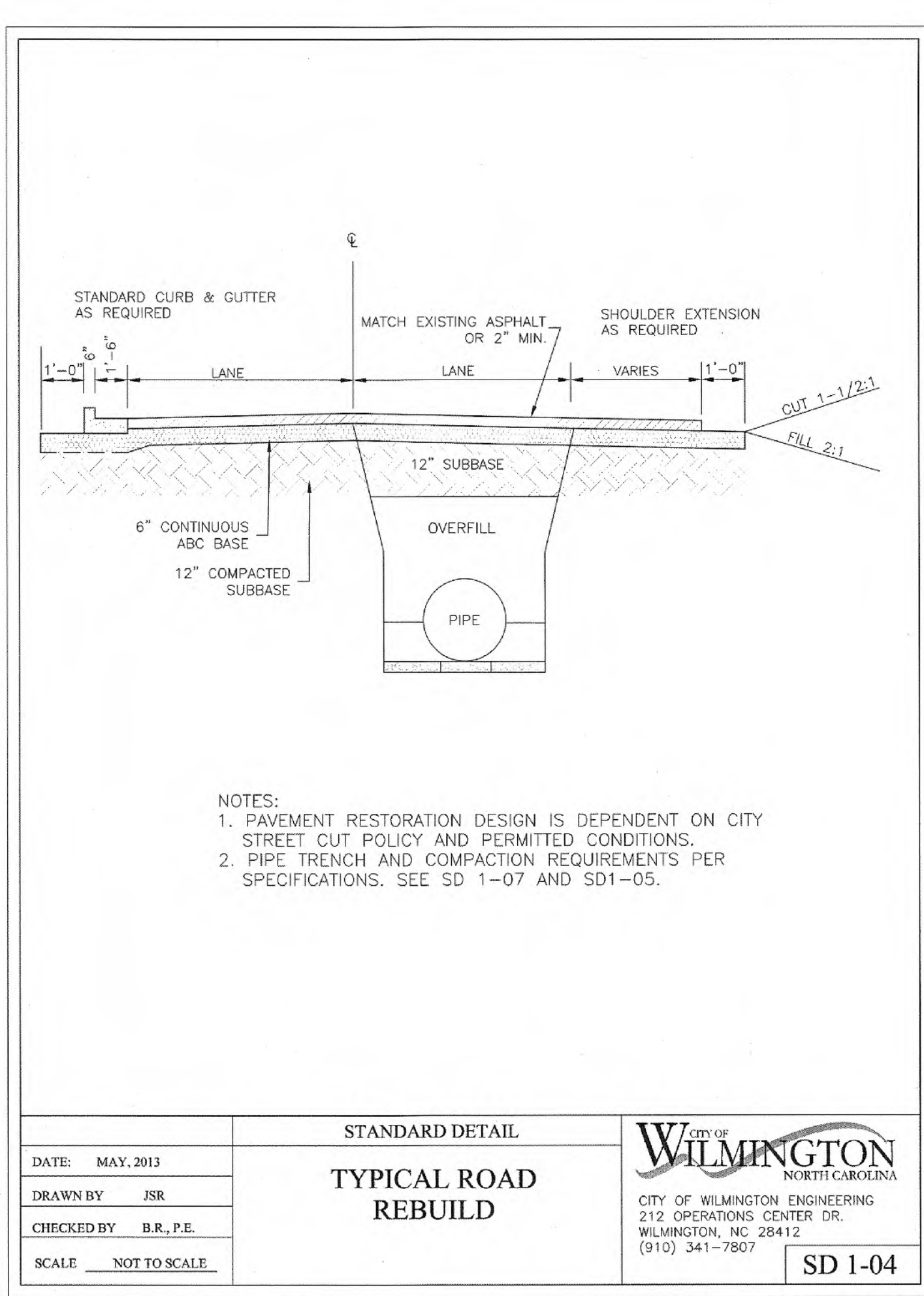
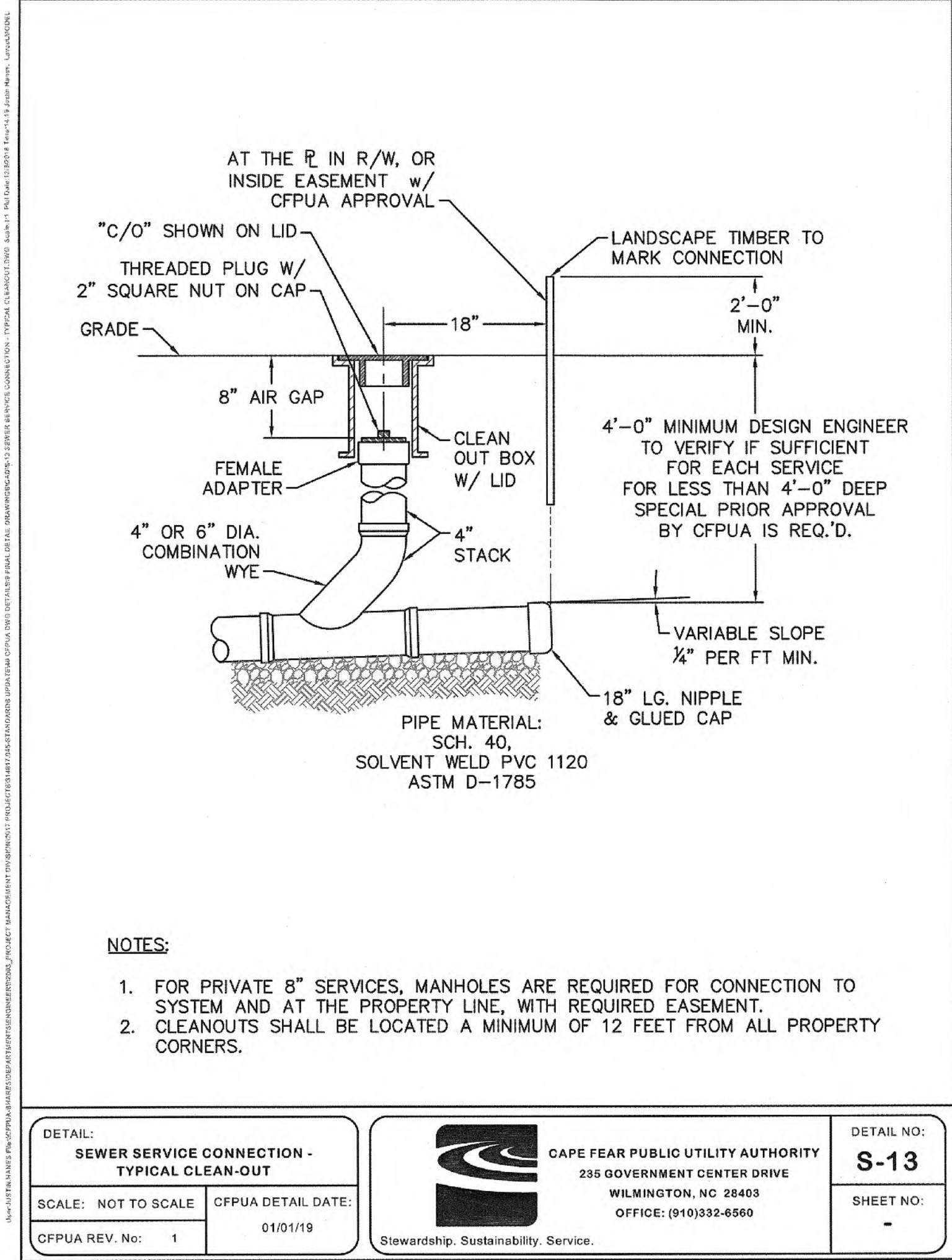
DESIGNED
SCALE
CHECKED

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy

C-6.3

PEI JOB#: 18293.PE

RELEASED FOR CONSTRUCTION



CITY OF WILMINGTON
NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 8/1/19 Permit # 2019050

Signed: *Frank Christman*

Approved Construction Plan

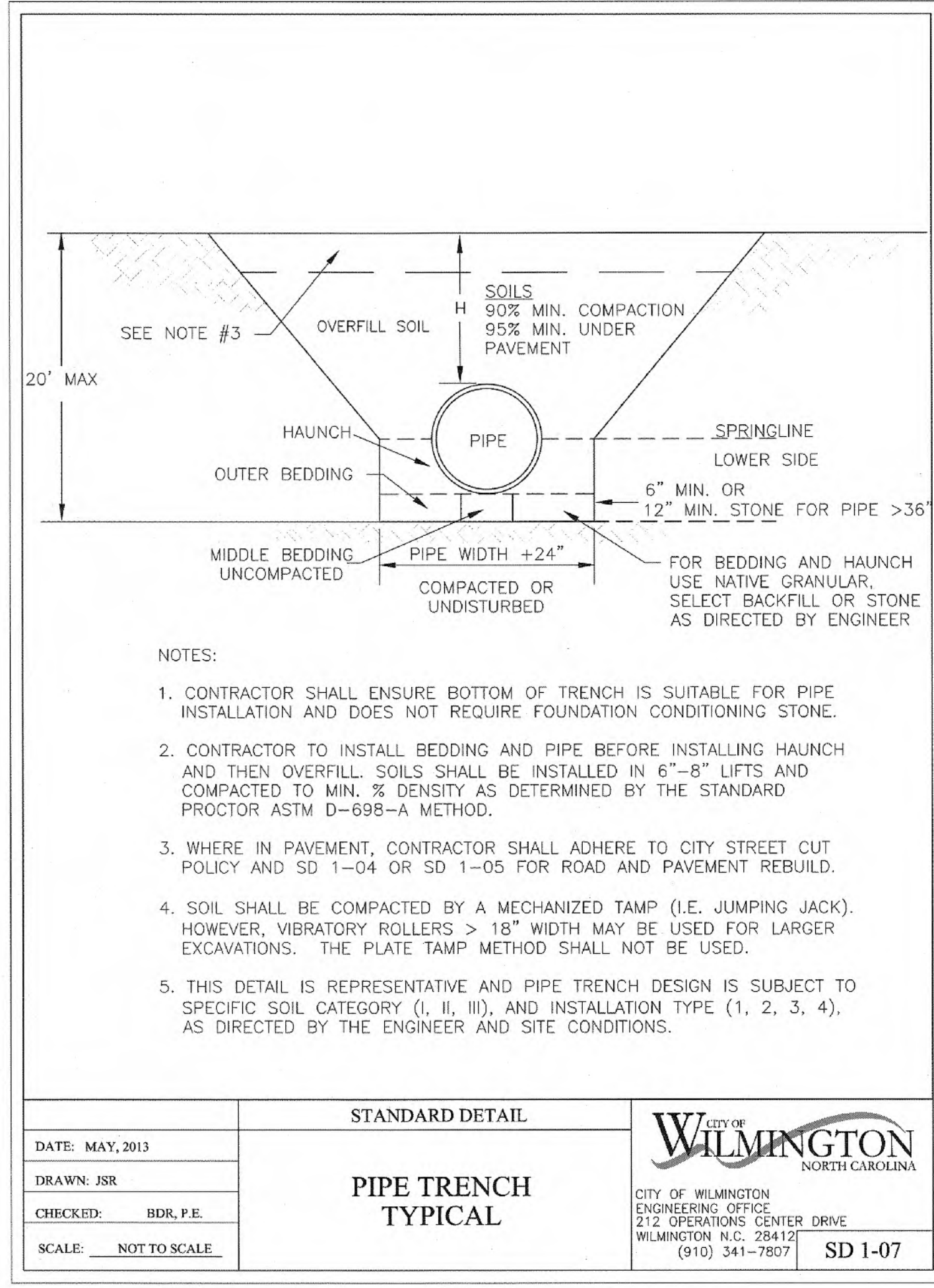
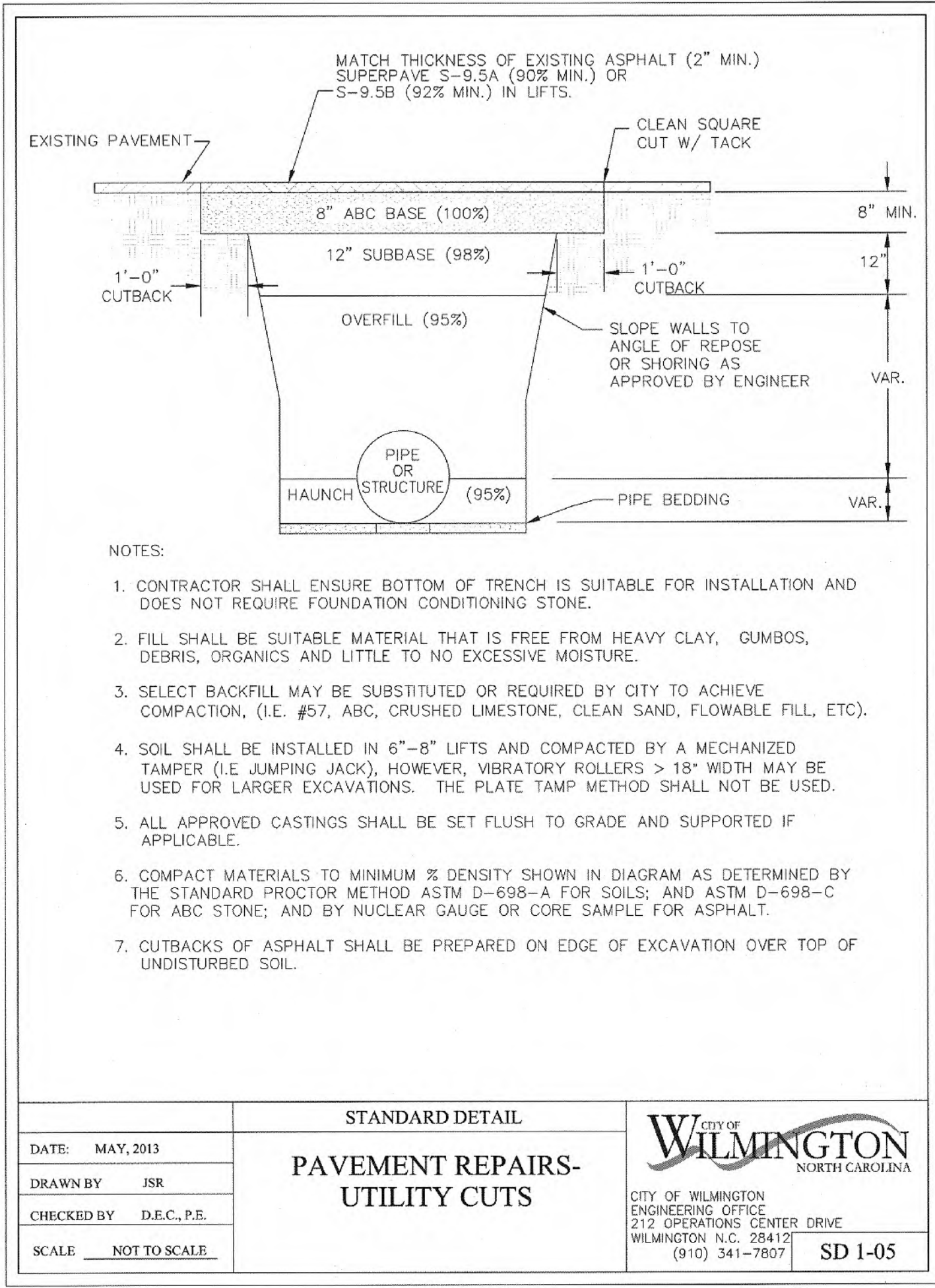
Name: *W. S. M. D.* Date: 8-2-19

Planning: *W. S. M. D.* 8-2-19

Traffic: *C. W. M.* 8-11-19

Fire: *C. W. M.* 8-11-19

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

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NC License #: C-2846

DETAILS

COTTAGES AT COLLEGE ACRES

4722 COLLEGE ACRES DRIVE

WILMINGTON, NC 28403

PROJECT STATUS

CONCEPTUAL LAYOUT:

PRELIMINARY LAYOUT:

RELEASED FOR CONST:

DRAWING INFORMATION

DATE: 07/24/19

SCALE: 1/8" = 1'-0"

DESIGNED: HDR

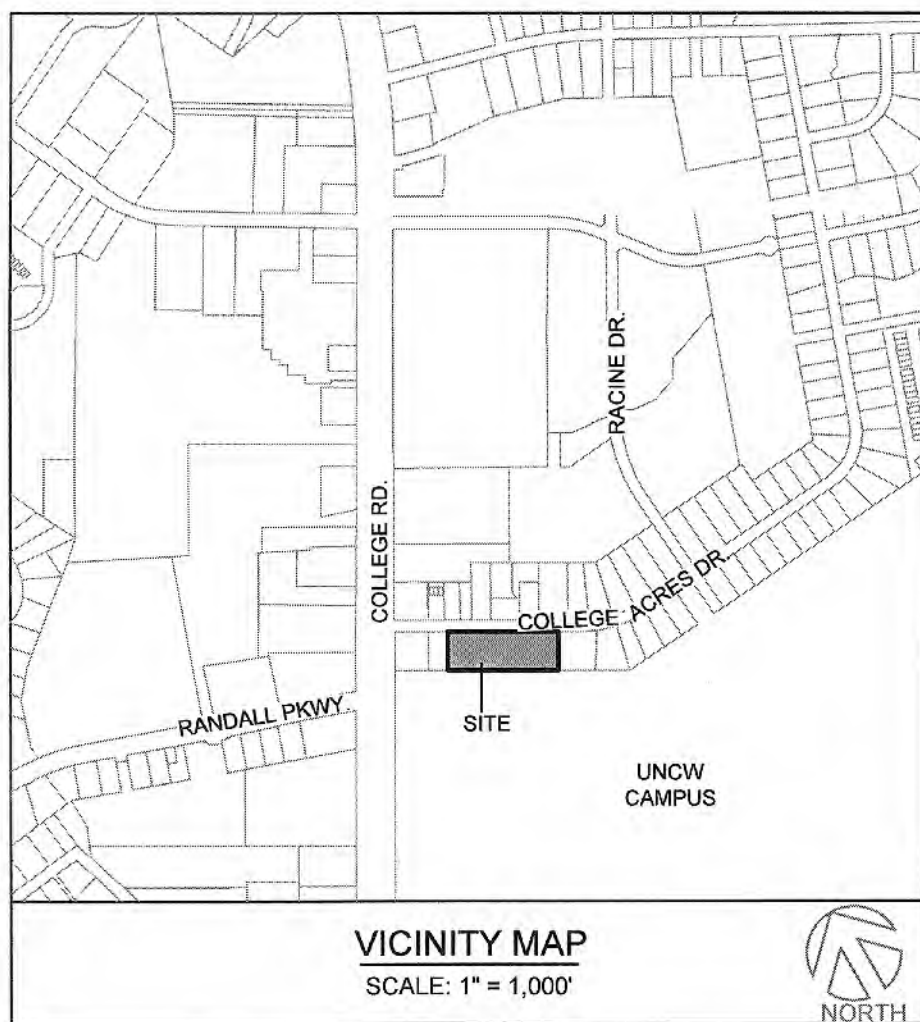
CHECKED: HDR

Professional Seal

redacted on electronic copy per City of Wilmington Policy

C-6.6

PEI JOB#: 18293.PE



SITE INFORMATION:

PARCEL ID: R05508-005-012-000, R05508-005-011-000, R05508-005-010-000, R05508-005-009-000, R05508-005-008-000, R05508-005-007-000
CURRENT ZONING: O&I (CD)
PROPOSED USE: COMMERCIAL DISTRICT MIXED USE
PROJECT SITE AREA: ± 3.55 ACRES (± 154,800 SF)
OWNER INFORMATION: C & D REAL ESTATE ASSOCIATES LLC
6208 TURTLE HALL DR
WILMINGTON, NC 28409
BAKER KENNETH W GEORGIA M
514 LAKE POINTE DR
YANCEYVILLE, NC 27379
BENNETT RESIDENTIAL PROP LLC
6601 MYRTLE GROVE RD
WILMINGTON, NC 28409
FAIRCLOTH H R
2027 CAROLINA BEACH RD
WILMINGTON, NC 28401
BRONSON MICHAEL E PAMELA J
4738 COLLEGE ACRES DR
WILMINGTON, NC 28403
FLOOD INFORMATION: THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2018 URBAN
CAMA LAND USE CLASSIFICATION: 10-1 FAM RES

GENERAL NOTES:

- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NC DOT STANDARDS.
- ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- COMMON DUMPSTER PROVIDED FOR DEVELOPMENT TRASH DISPOSAL.
- CONTRACTOR SHALL REFER TO LANDSCAPE PLAN FOR SPECIFIC TREE REMOVAL AND OTHER LANDSCAPING DETAILS.
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10'.

BUFFER / SCREENING INFORMATION:

STREETYARD: O&I MULTIPLIER = 18
(775 LF OF FRONTAGE - 48' OF DRIVEWAY) X 18 = 13,965 SF REQUIRED
(13,086 SF / 600 SF = 21.8 OR 22 CANOPY TREES, OR 65.4 OR 65 UNDERSTORY TREES, 130.8 OR 131 SHRUBS (12' HGT. AT PLANTING)
PROVIDED: 13,285 SF, 65 UNDERSTORY TREES, AND 131 SHRUBS
SIDE BUFFER: IMPERVIOUS SURFACE INSIDE STREETYARD: 1,132 SF / 13,285 SF = 9%
(ONLY APPLICABLE TO EASTERN BOUNDARY SHARED WITH PARCEL R05508-005-009-000)
20' DEPTH MIN. EXISTING VEGETATION TO SERVE AS BUFFER MATERIAL; SITE TO COMPLY WITH SECTION 18-503 OF THE CITY OF WILMINGTON LDC FOR SIDE BUFFER SOLUTIONS WHERE EXISTING VEGETATION IS FOUND TO BE INSUFFICIENT.
SCREENING: ALL DUMPSTERS, HVAC, MECHANICAL EQUIPMENT AND ANY OTHER ITEMS REQUIRING SCREENING AS DEFINED BY THE CITY OF WILMINGTON LDC TO BE SCREENED IN ACCORDANCE WITH SECTION 18-504.

LANDSCAPE CALCULATIONS:

REQUIRED FOUNDATION PLANTINGS (BLDG LENGTH X BLDG HGT X 12%)
REQUIRED:
TYPE A: (50 X 28) X 0.12 = 168 SF
TYPE B: (42.67 X 28) X 0.12 = 143.37 SF
TYPE C: (84.33 X 28) X 0.12 = 218.15 SF
TYPE D: (86 X 28) X 0.12 = 288.96 SF
NEIGHBORHOOD RETAIL: (84.96 X 28) X 0.12 = 218.26 SF
PROVIDED:
TYPE A: 214 SF
TYPE B: 187 SF
TYPE C: 372 SF
TYPE D: 439 SF
NEIGHBORHOOD RETAIL: 218 SF
PARKING REQUIREMENTS: 1 CANOPY TREE / ISLAND, GROUNDCOVER OR SHRUBS
SHADE CALCULATIONS: 20% OF 40,874 SF IMPERVIOUS AREA
REQUIRED: 8,175 SF
PROVIDED: 8,798 SF
8,494 SF = (12) CANOPY TREES
314 SF = (1) UNDERSTORY TREE

LANDSCAPE NOTES:

- CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- TREES SHALL BE LOCATED NO CLOSER THAN 5 FEET FROM SEWER/WATER CONNECTIONS OR AS OTHERWISE DICTATED BY LOCAL REGULATIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES.
- ALL PLANT MATERIAL SHALL MEET THE CURRENT VERSION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
- NO TREE, OTHER THAN THOSE SHOWN ON APPROVED PLANS FOR REMOVAL WITH THESE PLANS AND/OR TREE REMOVAL PERMIT PLANS, SHALL BE REMOVED WITHOUT WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- ALL SHRUB BEDS AND/OR PLANTING AREAS EXCLUDING TURF AREAS SHALL BE MULCHED WITH 3 INCH MINIMUM AND 4 INCH MAXIMUM DEPTH PINE STRAW MULCH UNLESS OTHERWISE NOTED.
- ALL PLANTS, 4 FEET OR LESS APART, WILL BE CONNECTED IN ONE PLANTING BED. ALL GROUPS OF PLANTS SHOULD BE WITHIN ONE PLANTING BED WITH THE EDGE OF MULCH EXTENDING 2 FEET BEYOND THE EDGE OF PLANT MASS. ALL SINGLE TREES (INCLUDING BOTH PROPOSED AND EXISTING TREES) SHOULD HAVE A CIRCLE OF MULCH NOT LESS THAN 5 FEET DIAMETER.
- PLANTING SOIL MIX: MIX EXISTING SOIL WITH THE SOIL AMENDMENTS AND FERTILIZERS IN THE QUANTITIES RECOMMENDED BY THE SOIL TESTING LABORATORY. THIRD PARTY RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE OR AS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- ANY AND ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. FAILURE IN OBTAINING APPROVAL MAY RESULT IN LIABILITY TO THE CONTRACTOR.
- THE CONTRACTOR SHALL REPLACE DEAD AND/OR UNHEALTHY PLANT MATERIAL WITHIN 12 MONTHS OF ACCEPTANCE OF THE INSTALLED MATERIAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL PREPARE ALL SEEDED OR SODDED AREAS TO ASSURE THAT THE SUBGRADE HAS BEEN RAKED AND ROLLED TO ACCEPT THE SOD/SEED. ALL SOD/SEED AREAS MUST BE IRRIGATED OR HAND WATERED. ALL SOD SHALL BE PLACED WITH STAGGERED JOINTS AND NO GAPS BETWEEN SOD JOINTS. SOD SHOULD BE ROLLED AFTER INSTALLATION. ALL SEEDED AND/OR SODDED AREAS SHOULD PROVIDE A SMOOTH SURFACE FREE OF DIPS AND UNLEVELED GROUND.
- IRRIGATION SHALL BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATION CONTRACTOR IN THE STATE OF NORTH CAROLINA.
- IF IRRIGATION IS REQUIRED, PLANS AND SPECIFICATIONS FOR THE IRRIGATION DESIGN SHALL BE SUBMITTED TO THE OWNER OR OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PURCHASE OR INSTALLATION OF THE MATERIALS.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING TRASH, DEBRIS AND EXCESS MATERIALS FROM THE JOB SITE ONCE THE PROJECT IS COMPLETE. SECURING ANY MATERIALS LEFT ON SITE DURING THE COURSE OF THE PROJECT IS THE CONTRACTOR'S RESPONSIBILITY.
- ALL DISTURBED AREAS NOT DESIGNATED FOR SOD SHALL BE SEED.
- ALL LANDSCAPE ISLANDS ARE NOT TO BE SEED. LANDSCAPE ISLANDS TO BE MULCHED AS PER OWNER OR OWNER'S REPRESENTATIVE SPECIFICATION.
- ALL VEGETATION PROPOSED WITHIN SIGHT DISTANCE AREAS SHALL NOT INTERFERE WITH SIGHT DISTANCE FROM 30' TO 10'.
- PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES, AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

PLANT SCHEDULE

MITIGATION TREES	QTY	BOTANICAL / COMMON NAME	SIZE	
SMA	23	Magnolia grandiflora Southern Magnolia	3" cal	
LLP	66	Pinus palustris Longleaf Pine	3" cal	
LO-M	2	Quercus virginiana Southern Live Oak	3" cal	
CANOPY TREES	QTY	BOTANICAL / COMMON NAME	SIZE	
LO	12	Quercus virginiana Southern Live Oak	2.5" cal min.	
UNDERSTORY TREE	QTY	BOTANICAL / COMMON NAME	SIZE	
MCM	30	Lagerstroemia x 'Muskogee' Lavender Crape Myrtle	8' - 10' H; Multi-Stem	
LGM	36	Magnolia g. 'Little Gem' Dwarf Southern Magnolia	8' - 10' H	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONTAINER	SPACING
AZA	106	Azalea indica 'Formosa' Formosa Azalea	7 gal	4' o.c.
BUX	122	Buxus m. 'Wintergreen' Wintergreen Boxwood	7 gal	30" o.c.
DYH	37	Ilex vomitoria 'Nana' Dwarf Yaupon	12" H min.	3' o.c.
LOR	147	Loropetalum c. 'Ruby' Ruby Loropetalum	7 gal	4' o.c.
PV	56	Pltosporum t. 'Variegata' Variegated Mock Orange	7 gal	4' o.c.
POD	87	Podocarpus m. maki Shrubby Yew Podocarpus	7 gal	3' o.c.
ORNAMENTAL GRASSES	QTY	BOTANICAL / COMMON NAME	CONTAINER	SPACING
PM	100	Muhlenbergia capillaris Pink Muhly	1 gal	3' o.c.
CAS	24	Pennisetum a. 'Cassian' Cassian Fountain Grass	1 gal	2' o.c.
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	SPACING
AJ	1,310	Trachelospermum a. 'Asiatic' Asiatic Jasmine	1 gal	18" o.c.

PAR# R05508-002-004-001
UNIVERSITY PLACE OFFICE COA
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-CB
LAND USE: 961-CONDOMINIUM
COMMON AREA
CLASS: HOA-HOMEOWNERS
COMMON AREA

JTR LTD PARTNERSHIP
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-CB
LAND USE: 958-UNUSED LAND
CLASS: COM-COMMERCIAL

PICKLESIMER JOHN D
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-CB
LAND USE: 802-DENTAL SERVICE
CLASS: COM-COMMERCIAL

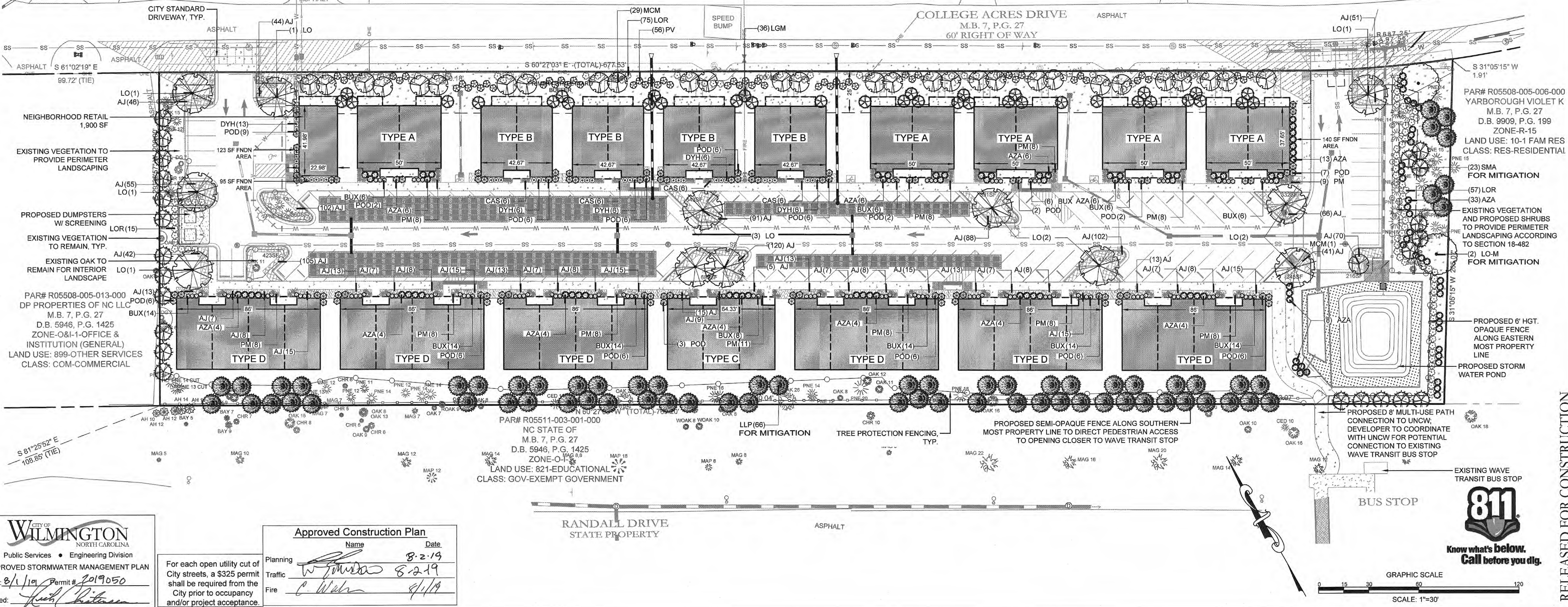
35508-002-005-000
ROBO INVESTMENTS LLC
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL

PAR# R05508-002-019-000
WILLIAMS DEVELOPMENT GROUP LLC
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL

PAR# R05508-002-007-000
TEYNOR JEREMY L ETAL
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL

PAR# R05508-002-008-00
THORUP PRESERVATION COM
M.B. 7, P.G. 27
D.B. 5946, P.G. 1425
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL

PAR# R05508-005-006-000
YARBOROUGH VIOLET K
M.B. 7, P.G. 27
D.B. 5909, P.G. 199
ZONE-R-15
LAND USE: 10-1 FAM RES
CLASS: RES-RESIDENTIAL



WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 8/1/19 Permit # 2019050
Signed: [Signature]

For each open utility cut of
City streets, a \$325 permit
shall be required from the
City prior to occupancy
and/or project acceptance.

Approved Construction Plan	
Name	Date
Planning	8-2-19
Traffic	8-2-19
Fire	8/1/19

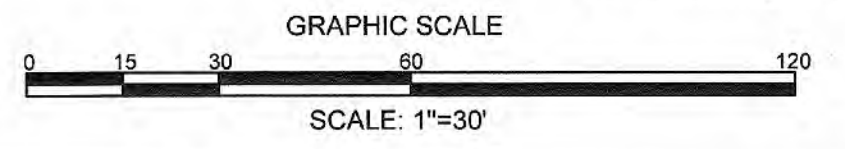
RANDALL DRIVE
STATE PROPERTY

LLP(66)
FOR MITIGATION

TREE PROTECTION FENCING,
TYP.

PROPOSED SEMI-OPAQUE FENCE ALONG SOUTHERN
MOST PROPERTY LINE TO DIRECT PEDESTRIAN ACCESS
TO OPENING CLOSER TO WAVE TRANSIT STOP

BUS STOP



RELEASED FOR CONSTRUCTION

CLIENT INFORMATION:

PARAMOUNT ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

LANDSCAPE PLAN

COTTAGES AT COLLEGE ACRES
4722 COLLEGE ACRES DRIVE
WILMINGTON, NC 28403

PROJECT STATUS
CONCEPT LAYOUT
PRELIMINARY LAYOUT
RELEASED FOR CONSTRUCTION
DRAWING INFORMATION
DATE: 8/1/19
DESIGNED BY: [Signature]
CHECKED BY: [Signature]

Professional Seal
redacted on electronic
copy per City of
Wilmington Policy
L-1.0
PEI JOB#: 18233.PE