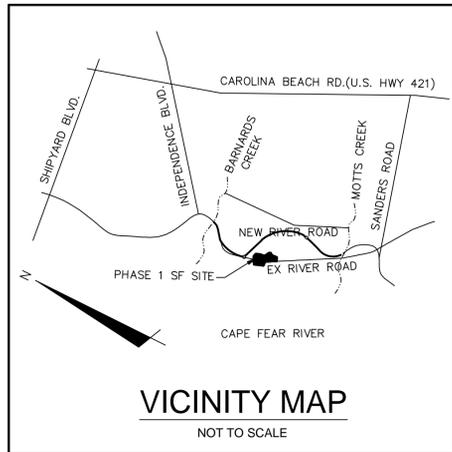


# RIVERLIGHTS PHASE I CONVENTIONAL CITY OF WILMINGTON, NC

NOVEMBER 25, 2015

## TECHNICAL REVIEW COMMITTEE RESUBMITTAL



ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION

**COUNTY AND AGENCY CONTACTS**

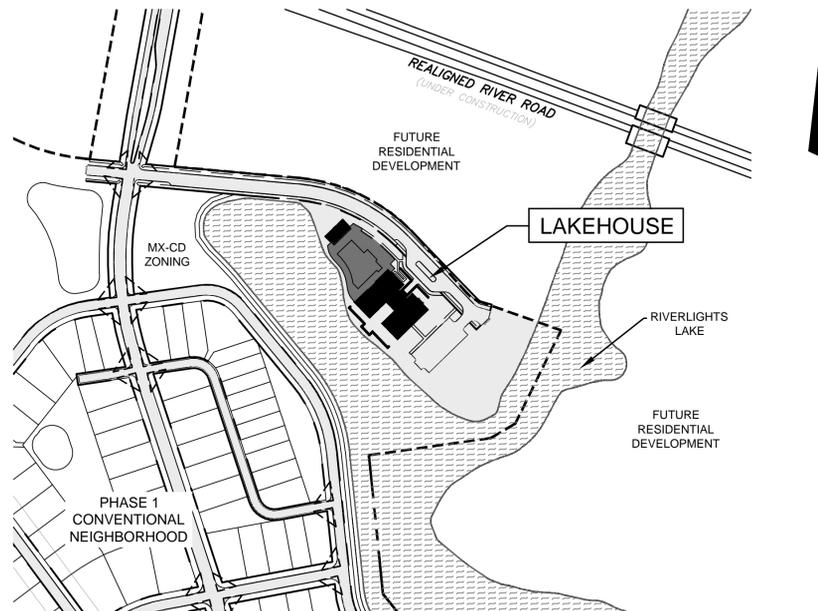
**A. City of Wilmington  
Planning Department  
102 North Third Street  
PO BOX 1810  
Wilmington, NC 28402-1810  
(910)341-7800  
Contact: Ron Satterfield  
Email: Ron.Satterfield@wilmingtonnc.gov**

**B. City of Wilmington  
Engineering  
212 Operations Center Drive  
PO BOX 1810  
Wilmington, NC 28402-1810  
(910) 341-7807  
Contact: Rob Gordon  
Email: Rob.Gordon@wilmingtonnc.gov**

**C. New Hanover County  
Sediment and Erosion Control  
230 Government Center Drive, Suite 160  
Wilmington, NC 28403  
(910) 798-7432  
Contact: Beth Wetherill  
Email: BWetherill@nhcgov.com**

**D. Cape Fear Public Utility Authority  
235 Government Center Drive  
Wilmington, NC 28403  
(910) 332-6626  
Contact: David Dailey  
Email: David.Dailey@cfpua.org**

**E. NCDENR  
Division of Environmental Health  
Public Water Supply Section  
1634 Mail Service Center  
Raleigh, NC 27699-1634  
(919) 707-9051  
Contact: Tammy Kaufman  
Email: tammy.kaufman@ncdenr.gov**



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**PROJECT DATA**

**NAME OF PROJECT:**  
RIVERLIGHTS- PHASE 1 CONVENTIONAL NEIGHBORHOOD  
WILMINGTON, NORTH CAROLINA

**OWNER/DEVELOPER:**  
NNP IV-CAPE FEAR RIVER, LLC  
3410 RIVER ROAD, SUITE 103  
WILMINGTON, NC 28412  
PHONE: (704)813-8697  
CONTACT: DOUG BROWN

**PREPARED BY:**  
MCKIM & CREED, INC  
243 NORTH FRONT ST  
WILMINGTON, NC 28401  
PHONE: (910)343-1048  
FAX: (910)251-8282  
CONTACT: NICK LAURETTA, PE  
EMAIL: NLAURETTA@MCKIMCREED.COM



**CONSTRUCTION NOTES**

- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH NEW HANOVER COUNTY AND THE CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
- CONTRACTOR IS FULLY RESPONSIBLE FOR ACQUIRING THE LOCATION OF EXISTING UTILITIES FROM THE APPROPRIATE PARTIES PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES, USING FLAGMEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
- THESE DRAWINGS SHOW INFORMATION OBTAINED FROM THE AVAILABLE RECORDS REGARDING PIPES, CONDUITS, TELEPHONE LINES, AND OTHER STRUCTURES AND CONDITIONS WHICH EXIST ALONG THE LINES OF WORK AND BELOW THE SURFACE OF THE GROUND. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITIES FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION, AND SUCH INFORMATION IS BEING SHOWN ONLY FOR THE CONVENIENCE OF THE CONTRACTOR WHO MUST VERIFY THE INFORMATION TO HIS OWN SATISFACTION DURING THE BIDDING AND CONSTRUCTION PHASES. IF THE CONTRACTOR RELIES ON SAID INFORMATION, HE DOES SO AT HIS OWN RISK. THE GIVING OF THE INFORMATION ON THE CONTRACT DRAWINGS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO SUPPORT AND PROTECT ALL PIPES, CONDUITS, TELEPHONE LINES, AND OTHER STRUCTURES, WHETHER ABOVE OR BELOW GRADE.
- SHOULD ANY DAMAGE OCCUR TO EXISTING UTILITIES, IT SHALL BE REPAIRED SOLELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL VERIFY EXISTING INVERTS PRIOR TO CONSTRUCTION OF UNDERGROUND UTILITIES. TEST PITTING OF EXISTING LINES PRIOR TO CONSTRUCTION, IF NECESSARY, SHALL BE COORDINATED WITH THE OWNER.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, PROJECT SPECIFICATIONS, AND LOCAL BUILDING CODES.
- ALL DISTURBED AREAS SHALL BE SMOOTHLY GRADED TO PROMOTE POSITIVE DRAINAGE AND STABILIZED WITH TOPSOIL, SEED, AND MULCH. IF SETTLEMENT OCCURS, TOPSOIL, SEEDING, AND MULCH SHALL BE REPEATED UNTIL SETTLEMENT SUBSIDES. (SEE EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS.)
- WATER MAINS WILL BE INSTALLED AT A DEPTH THAT WILL PROVIDE 36" COVER OVER THE PIPES BELOW PROPOSED GRADE UNLESS SHOWN OTHERWISE ON THESE PLANS OR DIRECTED OTHERWISE BY THE ENGINEER.
- WHEREVER SEWER OR WATER MAINS CROSS ONE ANOTHER, A MINIMUM VERTICAL CLEARANCE OF 18" SHALL BE PROVIDED BETWEEN THE BOTTOM OF THE WATER PIPE AND THE TOP OF THE SEWER PIPE.
- WHEREVER SEWER OR WATER MAINS RUN PARALLEL TO EACH OTHER, A MINIMUM HORIZONTAL SEPARATION OF 10' SHALL BE PROVIDED, OR 18" VERTICAL SEPARATION.
- IF NEITHER OF THESE CONDITIONS (#10 OR #11 ABOVE) CAN BE MET, THEN THE SEWER SHALL BE CLASS 50 DIP, MINIMUM OF 20 LF CENTERED OVER THE CROSSING.
- ALL WATER VALVES, BOXES, AND FIRE HYDRANT ASSEMBLES SHALL BE SET AND ADJUSTED TO FINISHED GRADE.
- THE OWNER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, BOTH TEMPORARY AND PERMANENT.
- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL SURVEY CONTROL PRIOR TO STAKING OUT CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- ANY PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED SOLELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS.
- FIRE HYDRANTS SHALL BE PLACED A MINIMUM DISTANCE OF 6 FEET FROM BACK OF CURB AND SHALL HAVE A CLEAR SPACE OF 3 FEET FROM ANY PERMANENT STRUCTURE PER CPWA STANDARDS.
- ALL SELECT AND BORROW MATERIAL SHALL MEET CRITERIA SET FORTH BY SECTIONS 1016 AND 1018 OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS FOR ROADS AND STRUCTURES. SEE SECTION --- FOR PLACEMENT AND COMPACTION INFORMATION.
- THE ENGINEER AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION OF THE PIPES PRIOR TO CONSTRUCTION. IF DAMAGE OCCURS TO THESE PIPES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE PIPE(S).
- EXISTING PAVING, CONCRETE, AND OTHER UNSUITABLE MATERIALS INCLUDING UNDERCUT EXCAVATION SHALL NOT BE USED AS FILL MATERIAL AND SHALL BE DISPOSED OF OUTSIDE THE PROJECT LIMITS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING AND FEES FOR DISPOSAL.
- ALL TREES, STUMPS, ROOT MAT, ETC. SHALL BE ENTIRELY REMOVED REGARDLESS OF DEPTH. BURNING OF ORGANIC MATERIAL WITHIN THE PROJECT LIMITS IS NOT PERMITTED. OPEN BURIAL OF DOWNED TREES AND STUMPS IS NOT PERMITTED. CHIPPED MATERIALS MUST BE REMOVED PRIOR TO THE PLACEMENT OF EMBANKMENT OR TOPSOIL.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO OBTAIN OFF-SITE SPOIL AREAS FOR DISPOSAL OF EXCESS AND/OR UNSUITABLE MATERIALS AS NECESSARY. OFF-SITE SPOIL AREAS MUST BE SUBMITTED TO THE ENGINEER AND APPLICABLE REGULATORY AGENCIES PRIOR TO UTILIZATION BY THE CONTRACTOR. NO AREAS DESIGNATED AS WETLANDS WILL BE PERMITTED FOR USE AS A DISPOSAL SITE. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER THAT NO WETLANDS WILL BE IMPACTED. THE ENGINEER WILL NOT CONSIDER ANY DELAYS OR MONETARY CLAIMS OF ANY NATURE RESULTING FROM THE CONTRACTOR'S FAILURE OR DIFFICULTY IN FINDING NECESSARY DISPOSAL SITES TO MEET THE TIME FRAMES AND CAPACITIES REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PLANS, PERMITS, EROSION AND SEDIMENT CONTROL MEASURES, ETC. REQUIRED BY THE APPROPRIATE REGULATORY AGENCIES FOR UTILIZING OFF-SITE SPOIL AREAS. THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO UTILIZING THE OFF-SITE SPOIL AREAS. ALL COSTS FOR PROCURING AND UTILIZING THE OFF-SITE SPOIL AREAS ARE TO BE INCIDENTAL TO THE BASE BID.

**DEMOLITION NOTES**

- THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH FIELD DEMOLITION CONDITIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED DEBRIS ASSOCIATED WITH THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST GENERATED BY THE WORK, INCLUDING BUT NOT LIMITED TO DEMOLITION AND CONSTRUCTION ACTIVITIES, SITE VEHICULAR TRAFFIC AND RELATED OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO BEGINNING ANY DEMOLITION. CONTRACTOR SHALL CONTACT NC ONE CALL AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF DISCONNECTING AND ABANDONING ALL EXISTING UTILITIES WITH THE OWNER UNLESS OTHERWISE NOTED. ALL EXISTING UTILITIES AND ASSOCIATED PIPING, ETC. NOT IN USE ON THE SITE SHALL BE PROPERLY ABANDONED AND REMOVED AS REQUIRED. COORDINATE WITH THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING UTILITIES THAT REMAIN IN SERVICE DURING DEMOLITION.
- THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS AND SLOPES ON AND OFF SITE IN ACCORDANCE WITH THE EROSION CONTROL MEASURES SPECIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE WHO IS RESPONSIBLE FOR PROVIDING THE PERMANENT STABILIZATION MEASURES AND THE TYPE OF PERMANENT MEASURES PRIOR TO BEGINNING DEMOLITION AND CONSTRUCTION. THE PERMANENT STABILIZATION MEASURES SHALL BE IN PLACE AND ACCEPTABLE TO THE OWNER'S REPRESENTATIVE AND ENGINEER PRIOR TO PROJECT CLOSEOUT. COORDINATE INSPECTION WITH THE OWNER AND ENGINEER PRIOR TO PROJECT CLOSEOUT.
- THE CONTRACTOR IS PROJECT FOR COORDINATING AND CONTACTING THE ENGINEER FOR THE REQUIRED INSPECTIONS ON THE PROJECT.
- WETLANDS DO EXIST ON SITE AND ARE NOTED ON THE PLANS. UNLESS OTHERWISE INDICATED, THE WETLANDS SHALL NOT BE DISTURBED DURING CONSTRUCTION OF THIS PROJECT.

**EXCAVATION, GRADING, AND BACKFILLING NOTES**

- ANY UNDERCUTTING IN GOOD SOIL SHALL BE REPLACED AND THE REPLACEMENT MATERIAL SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM DENSITY OBTAINED AT OPTIMUM MOISTURE CONTENT, AS DETERMINED BY THE ASTM D 698 STANDARD PROCTOR TEST METHOD. IN THE EVENT THAT MATERIAL ENCOUNTERED AT PIPE GRADE, SUBGRADE OF PARKING OR ROADWAYS AND SUBGRADE OF BUILDING FOUNDATIONS IS FOUND TO BE SOFT, SPONGY, OR IN ANY OTHER WAY UNSUITABLE, THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER IMMEDIATELY. SUCH UNSUITABLE MATERIAL SHALL BE REMOVED TO A DEPTH AS SPECIFIED BY THE GEOTECHNICAL ENGINEER AND REPLACED WITH A MINIMUM OF SIX (6) INCHES OF STONE, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- BEFORE BACKFILLING IS COMMENCED OVER PIPES AND OTHER INSTALLATIONS, EARTH FILL SHALL BE SOLIDLY TAMPED AROUND AND ABOVE THE PIPE TO A DEPTH OF ONE (1) FOOT ABOVE THE TOP OF THE PIPE. CARE SHALL BE TAKEN TO PREVENT ANY DISTURBANCE TO THE PIPE OR DAMAGE TO NEWLY MADE JOINTS. THE FILLING OF THE TRENCH SHALL BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES OF THE PIPES IN SUCH A MANNER THAT INJURIOUS SIDE PRESSURES DO NOT OCCUR.
- THE MATERIAL FOR BACKFILLING SHALL BE FREE FROM ALL PERISHABLE AND OBJECTIONABLE MATERIALS. BEFORE PLACING ANY BACKFILL, ALL RUBBISH, FORM, BLOCKS, WIRES OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM EXCAVATION. THE BACK-FILLING OVER PIPES SHALL BE PLACED IN LAYERS NOT OVER SIX (6) INCHES THICK AND COMPACTED TO A MINIMUM DENSITY OF NINETY-FIVE (95) PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR COMPACTION TEST TO A DEPTH OF 12 INCHES BELOW FINISHED GRADE. THE LAST 12 INCHES OF BACKFILL SHALL BE PLACED IN LAYERS NOT OVER SIX (6) INCHES THICK AND COMPACTED TO A MINIMUM DENSITY OF NINETY-EIGHT (98) PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR COMPACTION TEST.

**STORM DRAINAGE AND GRADING NOTES**

- IN ACCORDANCE WITH NC GENERAL STATUTES, NPDES REGULATIONS, AND NCDENR REQUIREMENTS, STORMWATER DISCHARGE OUTFALLS SHALL BE INSPECTED BY THE CONTRACTOR. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR ONCE A WEEK AND WITHIN 24 HOURS OF EACH STORM EVENT OF 1/2 INCH OR GREATER. NCDENR STANDARD INSPECTION REPORTS SHALL BE COMPLETED ONCE A WEEK AND WITHIN 24 HOURS OF EVERY 1/2 INCH OR GREATER RAINFALL WITH COPIES PROVIDED TO THE OWNER, ARCHITECT, AND ENGINEER, BY THE CONTRACTOR.
- INLET PROTECTION SHALL BE INSTALLED AROUND OUTFALL. DEVICES SHALL BE CONSTRUCTED TO FINAL PROPOSED CONDITION UPON STABILIZATION OF CONTRIBUTING GROUND SURFACES AND REMOVAL OF SEDIMENT FROM STORM PIPES.
- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- UNLESS OTHERWISE NOTED, GRADES AND SPOT ELEVATIONS NOTED ON PLANS INDICATE FINISHED GRADE OR PAVEMENT SURFACE. ALL DIMENSIONS ARE MEASURED TO THE BACK OF CURB UNLESS OTHERWISE INDICATED.

**UTILITY NOTES**

- SCHEDULE A PRECONSTRUCTION MEETING WITH CAPE FEAR PUBLIC UTILITY AUTHORITY 48 HOURS PRIOR TO CONSTRUCTION OF WATER AND SEWER LINES.
  - WATER AND SANITARY SEWER UTILITY MAINS ARE CONTAINED WITH PUBLIC RIGHT-OF-WAY. MAINS ARE PRIVATE BEYOND THE PUBLIC RIGHT-OF-WAY.
  - THIS PROJECT SHALL COMPLY WITH THE CPFWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THE "FINAL APPROVAL".
  - ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CPFWA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO CPFWA AND APPROVED BY USCFCCOHR OR ASSE.
  - BACKFLOW PREVENTION WILL BE PROVIDED FOR BOTH FIRE LINES (RPDA) AND COMMERCIAL DOMESTIC SERVICE (RPZ). FIRE LINE BACKFLOW PREVENTER AND DOMESTIC SERVICE BACKFLOW PREVENTER WILL BE LOCATED AS SHOWN ON THE UTILITY PLANS. INSTALLER OF BACKFLOW PREVENTERS MUST CONTACT CPFWA PRIOR TO INSTALLING UNITS TO GIVE CPFWA THE OPTION TO VERIFY INSTALLATION PROCEDURES.
  - REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR DOMESTIC WATER SERVICE
  - REDUCE PRESSURE DETECTOR ASSEMBLY WILL BE UTILIZED FOR THE BACKFLOW PREVENTER ON THE FIRE SERVICE.
  - IF THE CONTRACTOR DESIRES CPFWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
  - WATER: 2" PVC MAINS SHALL BE CONSTRUCTED USING ASTM D2241, IPS, GASKETED PIPE, SDR 21, 4"-12" PVC MAINS AND SERVICES SHALL BE CONSTRUCTED USING AWWA C-900 PVC, CL150 (DR-18).
  - SANITARY SEWER: FOR PIPE SIZES 4" AND 6" PIPE SHALL BE SCH 40 CONFORMING TO THE REQUIREMENTS OF ASTM D1785 WITH SULVENT WELD JOINTS CONFORMING TO ASTM D2672. FOR PIPE SIZES 8" THROUGH 12", PIPE SHALL BE CLASS 150, DR19 CONFORMING TO THE REQUIREMENTS OF AWWA C900 WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D3212 OR ASTM D3139.
  - WATER AND SEWER SERVICES CANNOT BE ACTIVATED ON NEW MAINS UNTIL ENGINEER'S CERTIFICATION AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY PUBLIC WATER SUPPLY SECTION OF NCDENR AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY OF NCDENR.
  - PVC WATER MAINS AND POLYETHYLENE SERVICES ARE TO BE MARKED WITH NO. 10 SINGLE STRAND INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
  - SITE UTILITY CONTRACTOR TO PROVIDE WATER AND SANITARY SEWER SERVICE TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR SHALL COORDINATE SITE PLAN CONNECTIONS WITH THE ARCHITECTURAL BUILDING PLANS.
  - MAXIMUM BENDING RADIUS FOR 8" C-900 PVC WATER MAIN BENDS IS 380" (ONE-HALF MANUFACTURER'S RECOMMENDED ALLOWABLE LONGITUDINAL BENDING).
  - FIRE SPRINKLERS WILL BE PROVIDED FOR BUILDING.
  - UNDERGROUND UTILITIES: ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND TERMINAL FACILITIES FOR STREET LIGHTING ALONG THE PUBLIC STREETS ABUTTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.
  - MINIMUM OF 36" COVERAGE ABOVE ALL WATERMANS.
  - MINIMUM OF 36" VERTICAL SEPARATION BETWEEN WATERLINES AND STORMDRAIN CURB INLETS.
- RELATION OF WATER MAINS TO SANITARY SEWERS:**
- LATERAL SEPARATION OF SANITARY SEWERS AND WATER MAINS: WATER MAINS SHALL BE LAID AT LEAST 10 FEET Laterally FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION, IN WHICH CASE:
    - THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
    - THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND ABOVE THE TOP OF THE SEWER.
  - CROSSING A WATER MAIN OVER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 24 INCHES ABOVE THE TOP OF THE SEWER MAIN. UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
  - CROSSING A WATER MAIN UNDER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
  - CROSSING A SEWER MAIN/WATER MAIN OVER OR UNDER A STORM DRAIN: WHENEVER IT IS NECESSARY FOR A SEWER MAIN/WATER MAIN TO CROSS A STORM DRAIN PIPE, THE SEWER MAIN/WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE OUTSIDE OF THE SEWER MAIN/WATER MAIN NEAREST TO THE OUTSIDE OF THE STORM DRAIN PIPE SHALL MAINTAIN A 24 INCH CLEAR SEPARATION DISTANCE HORIZONTAL, OR THE SEWER MAIN/WATER MAIN SHALL EITHER BE CONSTRUCTED OF DUCTILE IRON PIPE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.

**MATERIALS AND EASEMENT NOTES:**

- ALL CATCH BASINS ARE NCDOT STD 840.01
- ALL DROP INLETS IN TRAFFIC AREAS ARE NCDOT STD 840.35. ALL DROP INLETS IN LANDSCAPE AREAS ARE CITY OF WILMINGTON STD 2-02 & 14-04.
- ALL STORM DRAINAGE PIPING TO BE CLASS III RCP, UNLESS OTHERWISE NOTED
- ALL STORM DRAINAGE PIPING CONVEYING DISCHARGE FROM THE PUBLIC RIGHT-OF-WAY SHALL BE CONTAINED WITHIN A PUBLIC DRAINAGE EASEMENT WHOSE WIDTH IS DETERMINED BY THE DEPTH OF BURY
- A PUBLIC UTILITY EASEMENT SHALL BE RESERVED WITHIN THE STREET RIGHT-OF-WAY. A 10' NON-MUNICIPAL EASEMENT SHALL BE RESERVED ALONG BOTH SIDES OF ALL STREETS
- WATER AND SANITARY SEWER UTILITIES ARE PUBLIC - CAPE FEAR PUBLIC UTILITY AUTHORITY

**EROSION CONTROL NOTES**

- ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
- GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF STATE LAW AND IS SUBJECT TO A FINE.
- GROUND COVER MUST BE PROVIDED ON EXPOSED SLOPES WITHIN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING; AND, A PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
- ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NEW HANOVER COUNTY.
- SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
- ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
- IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER), ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED.
- WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
- ALL ACTIVITY AND INSTALLATION OF EROSION CONTROL MATTING WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.

**EROSION CONTROL MAINTENANCE PLAN:**

- ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF EVERY ONE-HALF (0.5) INCH OR GREATER RAINFALL OCCURRENCE.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
- ALL AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
- STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONES WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS REQUIRED.
- INSPECT TEMPORARY DIVERSIONS AND CHECK DAMS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE AND CHECK DAM. 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.
- INSPECT TEMPORARY SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
- CHECK THE SEDIMENT BASIN EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
- INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (0.5" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED. INLET PROTECTION SHOULD BE CLEANED OUT WHEN IT IS HALF FULL.
- INSPECT TEMPORARY SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
- REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.
- INSPECT THE SKIMMER FOR CLOGGING. PULL THE SKIMMER TO THE SIDE OF THE BASIN AND REMOVE ANY DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER AND THE ARM OR BARREL PIPE FOR CLOGGING; IF CLOGGED, REMOVE THE DEBRIS.

**NOTE (G.S. 113A-57 (2))**

THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

**CITY OF WILMINGTON STANDARD NOTES**

- CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- ONCE STREETS ARE OPEN TO TRAFFIC, THE DEVELOPER SHALL CONTACT TRAFFIC ENGINEERING TO REQUEST INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- 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.
- ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING SHALL BE REPLACED BY THE CONTRACTOR.
- CONTACT CITY OF WILMINGTON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CAPE FEAR PUBLIC UTILITY AUTHORITY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
- CONTACT TRAFFIC ENGINEERING TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS.

**NOTE COW(18-458)**

NO EQUIPMENT IS ALLOWED ONSITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED BY THE ENGINEER.

**FIRE PROTECTION NOTES**

- HYDRANT MUST BE WITHIN 150' OF THE FDC.
- THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT AND FDC.
- HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB PER CITY OF WILMINGTON STANDARDS. HYDRANTS WILL BE LOCATED WITHIN 6' OF THE CURB PER CPWA STANDARDS.
- COMBUSTIBLE MATERIALS MAY NOT BE STORED OR ERECTED ONSITE WITHOUT CITY FIRE INSPECTOR APPROVAL.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
- UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES
- CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.

**UTILITY COMPANY CONTACTS**

DUKE/PROGRESS ENERGY: SID LIVINGSTON/MARK HATFIELD (910) 452-2777  
 DUKE ENERGY (TRANSMISSION): BILL WILDER (910) 772-4903  
 AT&T (BELLSOUTH): JAMES BATSON (910) 452-5300  
 TIME WARNER CABLE: ROBERT JOHN (910) 216-4494  
 PIEDMONT NATURAL GAS: PAUL GONKA (910) 512-2841  
 DJ MEDEIROS (910) 431-3233  
 CAPE FEAR PUBLIC UTILITY AUTHORITY (910) 332-6550

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

REV. NO.	DESCRIPTIONS/REVISIONS	DATE



243 North Front Street  
 Wilmington, North Carolina 28401  
 Phone: (910)343-1048, Fax: (910)251-8282  
 License: F-1222  
 www.mckimcreed.com

**RIVERLIGHTS LAKE HOUSE**  
 North America SEKISUI HOUSE, LLC  
 Newland by COMMUNITIES

**RIVERLIGHTS LAKE HOUSE**

**GENERAL CIVIL NOTES**

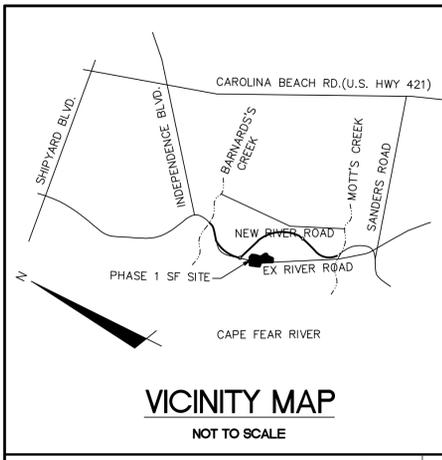
DATE: 20NOV2015  
 MCE PROJ. #: 27350129  
 DRAWN: EEM/KCBE  
 DESIGNED: KCBE  
 CHECKED: NUL  
 PROJ. MGR.: RMC

SCALE: HORIZONTAL: N/A  
 VERTICAL: N/A

MAC FILE NUMBER: C-002  
 DRAWING NUMBER: C1

STATUS: 75% SUBMITTAL  
 ISSUED FOR PERMITTING

REVISION: A



**LEGEND**

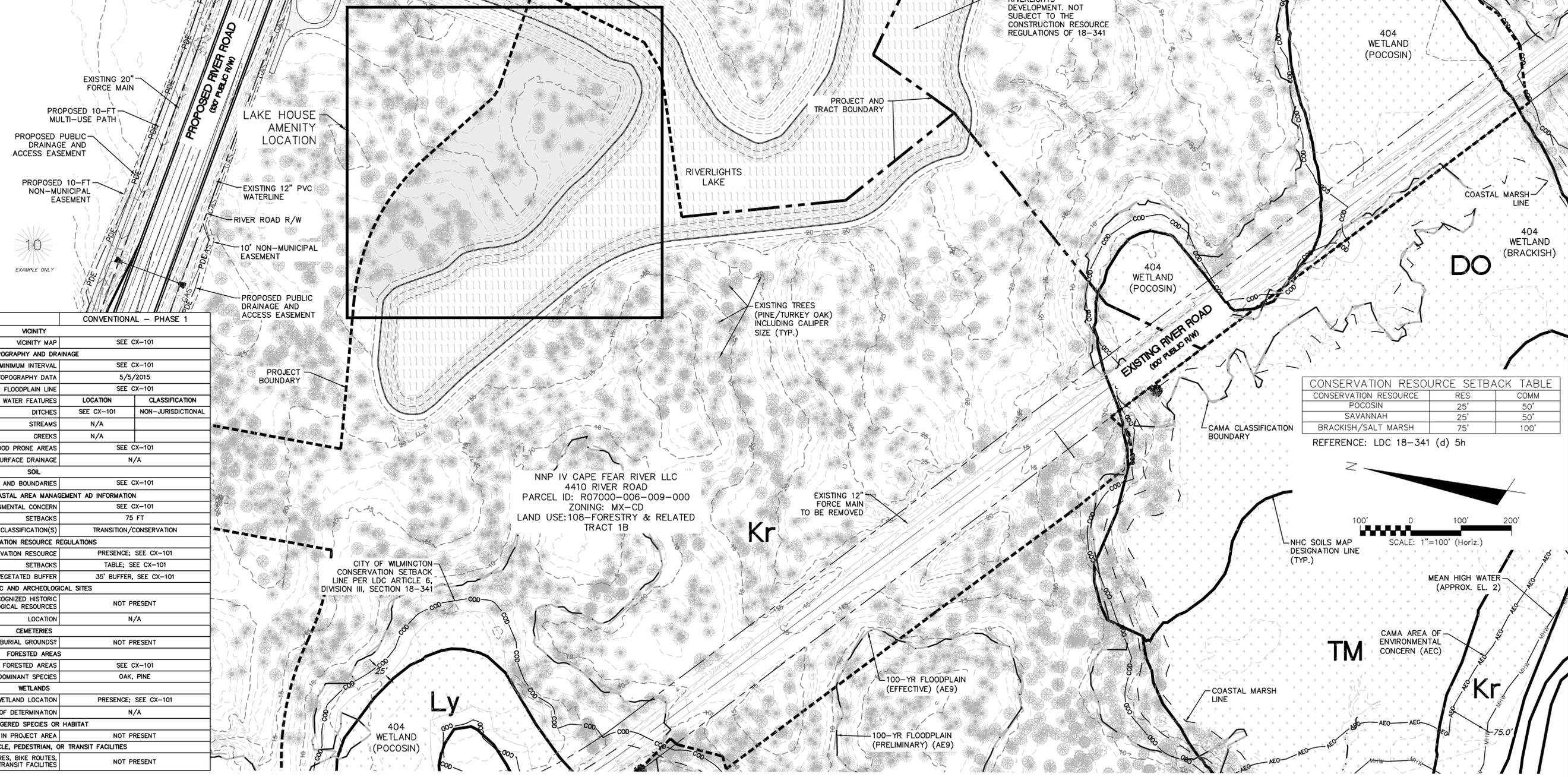
	RBC	REBAR & CAP
	PP	POWER POLE
	SSM	SANITARY SEWER MANHOLE
	W	WETLAND
	OHE	OVERHEAD ELECTRIC LINE
	COD	CITY OF WILMINGTON CONSERVATION RESOURCE SETBACK LINE
	SS	SANITARY SEWER MAIN
	MHW	MEAN HIGH WATER
	AEO	AREA OF ENVIRONMENTAL CONCERN
	100-yr Floodplain (Preliminary)	100-YEAR FLOODPLAIN (PRELIMINARY)
	100-yr Floodplain (Effective)	100-YEAR FLOODPLAIN (EFFECTIVE)
	CM	COASTAL MARSH LINE
	35' CRV	35' CONSERVATION RESOURCE VEGETATED BUFFER
	TPF	TREE PROTECTION FENCE
	LOD	LIMITS OF DISTURBANCE
	SF	SILT FENCE
	TDD	TEMPORARY DIVERSION DITCH

- GENERAL NOTES:**
- FLOODPLAIN INFORMATION WAS OBTAINED FROM NC FLOODPLAIN MAPPING FLOOD RISK INFORMATION SYSTEM PROGRAM. RIVERLIGHTS IS LOCATED WITHIN FIRM MAP 3720312400K, PANEL 3124 AS REVISED JUNE 02, 2006.
  - ITEMS DESIGNATED AS "PROPOSED" ARE PART OF THE RIVER ROAD REALIGNMENT PROJECT THAT IS CURRENTLY UNDER CONSTRUCTION. RIVER ROAD CONSTRUCTION TO BE COMPLETE SPRING 2016.
  - WETLANDS SHOWN IN THIS PORTION OF RIVERLIGHTS WERE DESCRIBED AS POCOSIN (25' SETBACK) AND BRACKISH (75' SETBACK). CONSERVATION RESOURCE SETBACK LINES WERE GENERATED OUTSIDE OF THE RESOURCE BASED ON THE DESIGNATION.
  - FINISHED FLOOR ELEVATIONS OFF ALL INHABITABLE STRUCTURES WILL BE MIN. 2- FEET ABOVE BASE FLOOD ELEVATION. CLOMR PROCESS IS CURRENTLY BEING COORDINATED WITH THE CITY OF WILMINGTON FLOODPLAIN MANAGER AND FEMA FOR LOT FILL AREA WITHIN EXISTING FLOODPLAIN.
  - RIVERLIGHTS CONVENTIONAL NEIGHBORHOOD DOES NOT CONTAIN ANY LOCAL, STATE, OR FEDERALLY RECOGNIZED HISTORIC STRUCTURES OR ARCHEOLOGICAL SITES ON SITE. RIVERLIGHTS WAS ISSUED A NOTICE OF NO FURTHER ACTION LETTER DATED JUNE 2, 2008 FOLLOWING COMPLETION OF AN EA/SEPA DOCUMENT.
  - PLATS AND DOCUMENTS SHALL BE RECORDED TO PROVIDE PERPETUAL PROTECTIONS FOR CONSERVATION RESOURCES AND BUFFERS AND PROHIBIT IMPERVIOUS SURFACES WITHIN THE BUFFER, UNLESS EXCEPTIONS ARE PROVIDED BY THE LAND DEVELOPMENT CODE (LDC).
  - ANY IMPROVEMENTS ENCRANCHING INTO THE CONSERVATION RESOURCE SETBACK SHALL BE IN ACCORDANCE WITH 18-341.

**NOTE:**  
EXISTING TREE CALIPER INCH SIZE IS SHOWN WITHIN THE TREE SYMBOL

**TREE LEGEND**

	CEDAR
	GUM
	HOLLY
	OAK
	MAPLE
	PINE



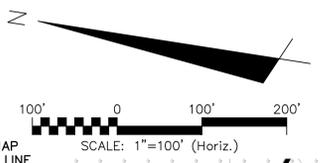
**SITE DATA TABLE**

CONVENTIONAL - PHASE 1	
VICINITY	SEE CX-101
TOPOGRAPHY AND DRAINAGE	SEE CX-101
2-FT TOPOGRAPHY MINIMUM INTERVAL	SEE CX-101
DATE OF TOPOGRAPHY DATA	5/5/2015
100-YR FLOODPLAIN LINE	SEE CX-101
LOCATION OF NATURAL WATER FEATURES	LOCATION CLASSIFICATION
DITCHES	SEE CX-101 NON-JURISDICTIONAL
STREAMS	N/A
CREEKS	N/A
FLOOD PRONE AREAS	SEE CX-101
AREAS OF NATURALLY CONCENTRATED SURFACE DRAINAGE	N/A
SOIL	
SOIL TYPE(S) AND BOUNDARIES	SEE CX-101
NORTH CAROLINA COASTAL AREA MANAGEMENT AD INFORMATION	
CAMA AREA OF ENVIRONMENTAL CONCERN	SEE CX-101
SETBACKS	75 FT
CAMA LAND USE CLASSIFICATION(S)	TRANSITION/CONSERVATION
CONSERVATION RESOURCE REGULATIONS	
PRESENCE OF CONSERVATION RESOURCE	PRESENCE; SEE CX-101
SETBACKS	TABLE; SEE CX-101
VEGETATED BUFFER	35' BUFFER, SEE CX-101
HISTORIC AND ARCHEOLOGICAL SITES	
LOCAL, STATE, OR FEDERALLY RECOGNIZED HISTORIC STRUCTURE(S) OR ARCHEOLOGICAL RESOURCES	NOT PRESENT
LOCATION	N/A
CEMETERIES	
CEMETERIES, BURIAL SITES, OR BURIAL GROUNDS?	NOT PRESENT
FORESTED AREAS	
BOUNDARIES OF FORESTED AREAS	SEE CX-101
DOMINANT SPECIES	OAK, PINE
WETLANDS	
404/SECTION 10 WETLAND LOCATION	PRESENCE; SEE CX-101
METHOD OF DETERMINATION	N/A
ENDANGERED SPECIES OR HABITAT	
ENDANGERED SPECIES OR HABITAT IN PROJECT AREA	NOT PRESENT
AUTOMOBILE, BICYCLE, PEDESTRIAN, OR TRANSIT FACILITIES	
EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS, AND TRANSIT FACILITIES	NOT PRESENT

**CONSERVATION RESOURCE SETBACK TABLE**

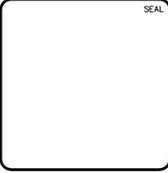
CONSERVATION RESOURCE	RES	COMM
POCOSIN	25'	50'
SAVANNAH	25'	50'
BRACKISH/SALT MARSH	75'	100'

REFERENCE: LDC 18-341 (d) 5h



**REVISIONS**

REV. NO.	DESCRIPTIONS	DATE
J	CFRJA RE-SUBMITTAL	10/28/2015
I	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE RESUBMITTAL	10/12/2015
H	CFRJA SUBMITTAL	09/10/2015
G	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE RESUBMITTAL	08/10/2015
F	NEW HANOVER COUNTY EROSION CONTROL RE-SUBMITTAL	08/03/2015
E	NEW HANOVER COUNTY EROSION CONTROL RE-SUBMITTAL	07/09/2015
D	CITY OF WILMINGTON TREE REMOVAL SUBMITTAL	06/22/2015
C	NEW HANOVER COUNTY EROSION CONTROL SUBMITTAL	05/21/2015
B	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	05/06/2015
A	CITY OF WILMINGTON SUBDIVISION REVIEW BOARD SUBMITTAL	03/04/2015



**MCKIM & CREED**  
243 North Front Street  
Wilmington, North Carolina 28401  
Phone: (910)343-1048, Fax: (910)251-8282  
License: F-1222  
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**RIVERLIGHTS**  
Newland by COMMUNITIES  
NORTH AMERICA SENIUS HOUSE, LLC

**RIVERLIGHTS LAKE HOUSE**  
EXISTING CONDITIONS

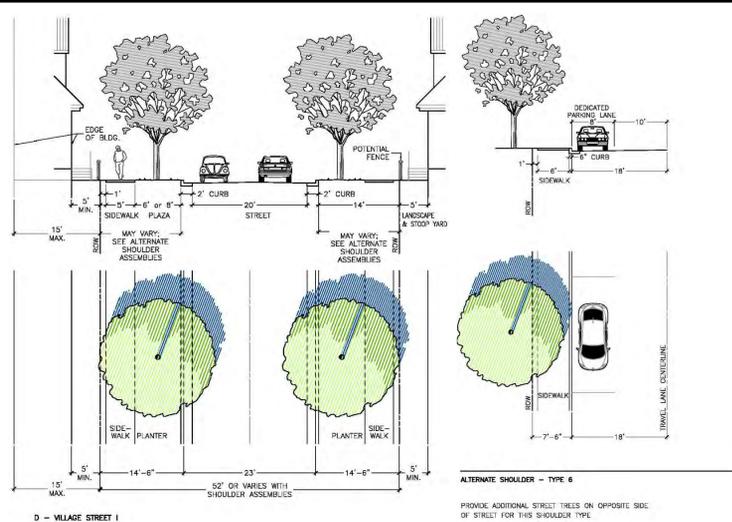
DATE: 25NOV2015  
MCE PROJ. #: 27350129  
DRAWN: EEM/KCBE  
DESIGNED: KCBE  
CHECKED: NJL  
PROJ. MGR: RMC

SCALE: HORIZONTAL: 1"=100'  
VERTICAL: N/A

M&C FILE NUMBER: CX-101  
DRAWING NUMBER: 3

STATUS: PRELIMINARY PLANS  
ISSUED FOR PERMITTING

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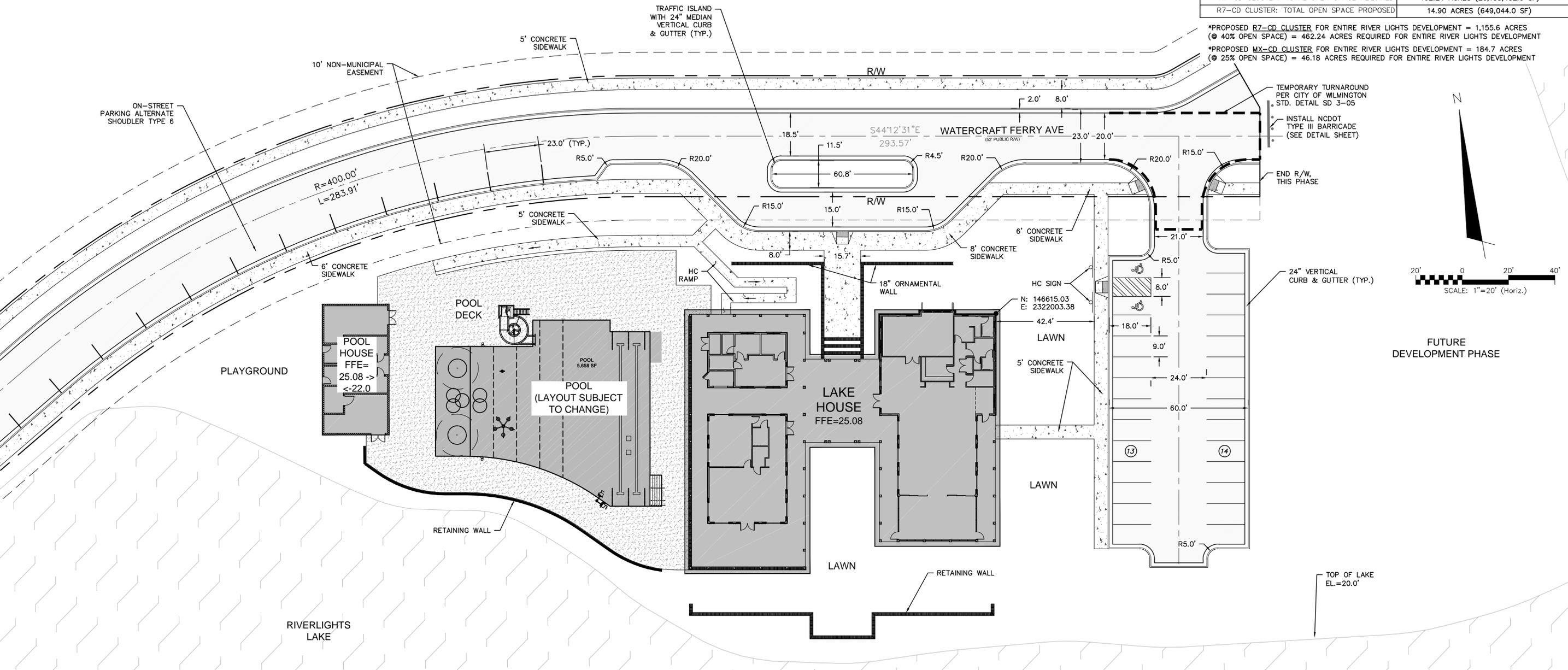
**CITY OF WILMINGTON NOTES:**

- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.

**NOTE:**  
PROJECT AREA IS COVERED UNDER TREE REMOVAL PERMIT 2015034, EROSION AND SEDIMENT CONTROL PERMIT GPD#28-15, AND EARLY GRADING RELEASE 2015034.

SITE DATA TABLE		CONVENTIONAL NEIGHBORHOOD-PHASE 1	
PARCEL ADDRESS	4410 RIVER ROAD	TAX PARCEL IDENTIFICATION NUMBER	R07000-006-009-000
ZONING DISTRICT	MX CD/R7-CD CLUSTER	CAMA LAND USE CLASSIFICATION	TRANSITION AND CONSERVATION
WATER BODY CLASSIFICATION	SC	TOTAL ACREAGE WITHIN RIVER LIGHTS BOUNDARY	1,329.41 ACRES ( 57,909,099.6 SF)
TOTAL ACREAGE PHASE 1 CONVENTIONAL BOUNDARY	66.88 ACRES (2,913,334 SF)	TOTAL ACREAGE PHASE 1 CONVENTIONAL BOUNDARY	66.88 ACRES (2,913,334 SF)
PROPOSED NUMBER OF LOTS	107 SINGLE FAMILY	PROPOSED NUMBER OF LOTS	107 SINGLE FAMILY
TOTAL WETLANDS WITHIN PROJECT TRACT	6.94 ACRES (302,298.01 SF)	TOTAL WETLANDS WITHIN PROJECT TRACT	6.94 ACRES (302,298.01 SF)
TOTAL WETLANDS IMPACTS	0 ACRES (0 SF)	TOTAL WETLANDS IMPACTS	0 ACRES (0 SF)
AREA INSIDE COD SETBACK REQUIRED	5.07 ACRES (220,841.05 SF)	AREA INSIDE COD SETBACK REQUIRED	5.07 ACRES (220,841.05 SF)
AREA INSIDE COD SETBACK PROVIDED	5.07 ACRES (220,841.05 SF)	AREA INSIDE COD SETBACK PROVIDED	5.07 ACRES (220,841.05 SF)
MX-CD CLUSTER: TOTAL PARKING REQUIRED	0 SPACES	MX-CD CLUSTER: TOTAL PARKING PROVIDED	51 SPACES
R7-CD CLUSTER: TOTAL PARKING REQUIRED	0 SPACES	R7-CD CLUSTER: TOTAL PARKING PROVIDED	20 SPACES
TOTAL HANDICAP SPACES REQUIRED	0 SPACES	TOTAL HANDICAP SPACES PROVIDED	5 SPACES
TOTAL BICYCLE SPACES PROVIDED	0 SPACES	TOTAL BICYCLE SPACES PROVIDED	0 SPACES
MX-CD CLUSTER: TOTAL OPEN SPACE REQUIRED	46.18 ACRES (2,011,600.8 SF)*	MX-CD CLUSTER: TOTAL OPEN SPACE PROPOSED	11.72 ACRES (510,523.2 SF)
R7-CD CLUSTER: TOTAL OPEN SPACE REQUIRED	462.24 ACRES (20,133,432.0 SF)*	R7-CD CLUSTER: TOTAL OPEN SPACE PROPOSED	14.90 ACRES (649,044.0 SF)

**FUTURE DEVELOPMENT PHASE**



\*PROPOSED R7-CD CLUSTER FOR ENTIRE RIVER LIGHTS DEVELOPMENT = 1,155.6 ACRES (@ 40% OPEN SPACE) = 462.24 ACRES REQUIRED FOR ENTIRE RIVER LIGHTS DEVELOPMENT  
 \*PROPOSED MX-CD CLUSTER FOR ENTIRE RIVER LIGHTS DEVELOPMENT = 184.7 ACRES (@ 25% OPEN SPACE) = 46.18 ACRES REQUIRED FOR ENTIRE RIVER LIGHTS DEVELOPMENT

REV. NO.	DESCRIPTIONS / REVISIONS	DATE



**MCKIM & CREED**  
 243 North Front Street  
 Wilmington, North Carolina 28401  
 Phone: (910)343-1048, Fax: (910)251-8282  
 License: F-1222  
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**RIVERLIGHTS**  
 by Newland COMMUNITIES  
 NORTH AMERICA SEKISUI HOUSE, LLC

**RIVERLIGHTS LAKE HOUSE**  
**OVERALL SITE PLAN**

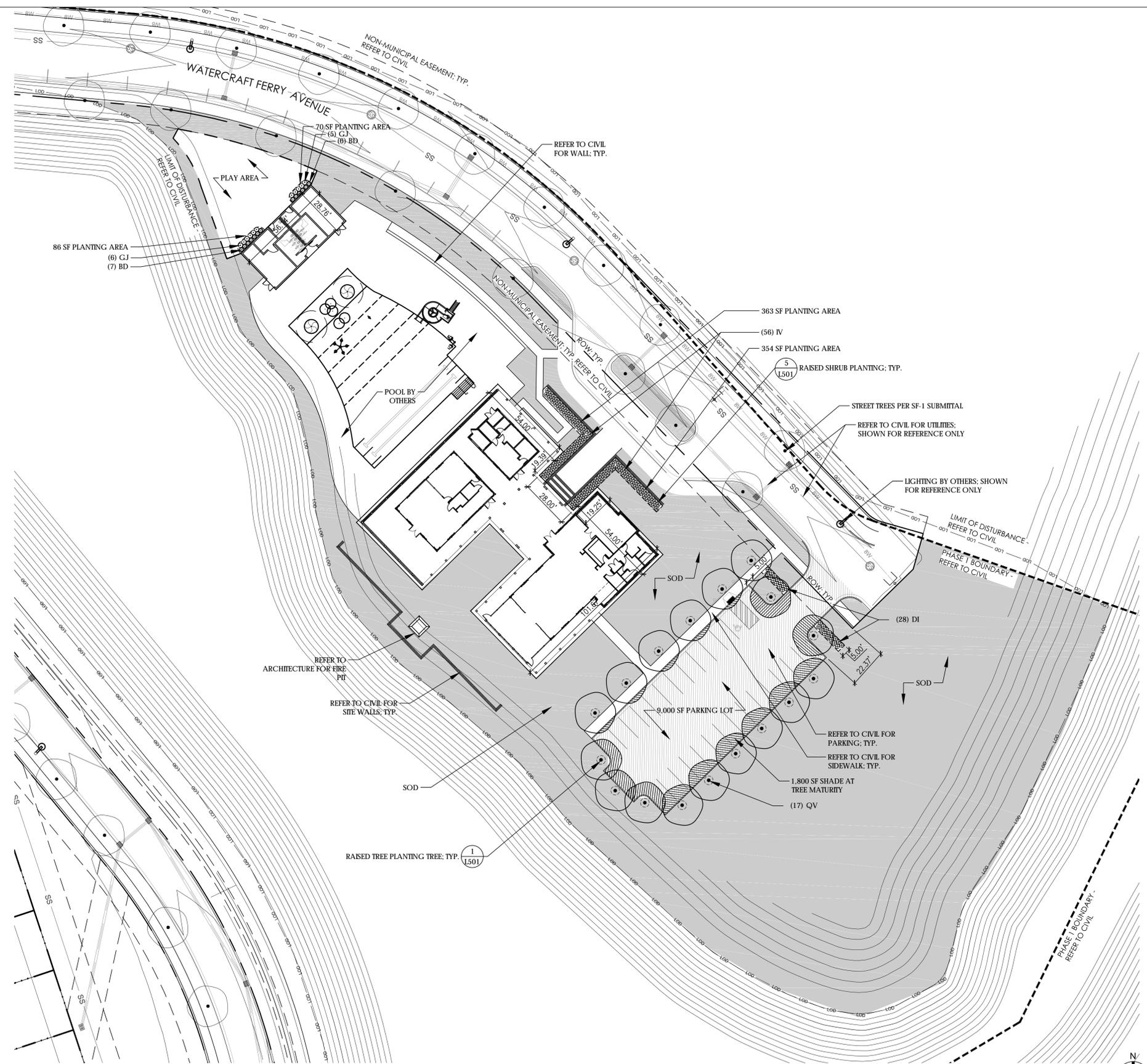
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MCE PROJ. #: 27350129	HORIZONTAL: 1"=20'	DRAWING NUMBER: 4
DRAWN: EEM/KCBE	VERTICAL: N/A	REVISION: ----
DESIGNED: KCBE	STATUS: <b>PRELIMINARY PLANS</b>	
CHECKED: NIL	ISSUED FOR PERMITTING	
PROJ. MGR.: RMC		

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**LANDSCAPE DATA TABLE:**

**PARKING LOT SHADE REQUIREMENT**  
 20% SHADE COVER FOR PARKING LOT PAVED SURFACE PROVIDED AT MATURE GROWTH

REQUIRED: 20% OF 9,000SF = 1,800 SQUARE FEET  
 PROVIDED: 1,800 SQUARE FEET OF SHADE AT TREE MATURITY

**FOUNDATION PLANTING REQUIREMENT LAKE HOUSE:**  
 LINEAR FEET OF FACADE X HEIGHT OF FACADE MULTIPLIED BY 12% = REQUIRED SQUARE FOOT OF PLANT MATERIAL

REQUIRED:  
 [276.24 LF (14 HT)] = 3,867.36 SF X 12% = 464 SF  
 PROVIDED:  
 717 SF PLANTING AREA

**FOUNDATION PLANTING REQUIREMENT SECONDARY STRUCTURE:**  
 AREA OF FACADE = LINEAR FEET X HEIGHT OF FACADE MULTIPLIED BY 12%

REQUIRED:  
 [85 LF (12 HT)] = 1,020 SF X 12% = 122 SF  
 PROVIDED:  
 156 SF PLANTING AREA

- PLANTING NOTES**
- EXISTING UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR SHALL CONTACT THE CITY OF WILMINGTON AT 1-800-632-4949 FOR LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND EXISTING UTILITIES TO REMAIN.
  - NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.
  - PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF DISCREPANCIES BETWEEN THE PLAN AND PLANT LIST QUANTITIES, THE PLAN SHALL TAKE PRECEDENCE.
  - AFTER THE SITE IS STABILIZED AND FREE OF SEDIMENTATION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES, SILT, RIP RAP AND TEMPORARY STONE STAGING AREAS FOR REPLACEMENT WITH PLANTING SOIL. PROVIDE PLANTING ACCORDING TO THE LANDSCAPE PLAN.
  - TEMPORARY EROSION CONTROL SEED MUST BE FULLY REMOVED PRIOR TO PREPARATION OF PERMANENT SEED, SOD OR LANDSCAPE BEDS.
  - UNLESS OTHERWISE NOTED IN THE PLANT LIST, THE CONTRACTOR SHALL OBTAIN AND INSTALL ONLY PLANT MATERIAL THAT IS GROWN ON ITS OWN ROOT - GRAFTED OR BUDDED PLANT MATERIAL WILL BE REJECTED.
  - ALL TREES SHALL BE OBTAINED FROM THE NURSERY WITH EXPOSED ROOT CROWNS. B&B MATERIAL DELIVERED TO SITE WITH BURIED OR RECENTLY BURIED ROOT CROWNS WILL BE REJECTED.
  - FURNISHED PLANT MATERIAL SHALL MEET THE MINIMUM HEIGHT OR MINIMUM SPREAD DIMENSIONS SHOWN IN THE PLANT LIST HEADINGS. THE CONTRACTOR SHALL UTILIZE THE MOST STRINGENT DIMENSION SHOWN ON THE PLANT LIST.
  - DO NOT PLANT IN STORM WATER CONVEYANCE SWALES OR PROVIDE FINE GRADING THAT DISRUPTS FLOW OR CHANGES LONGITUDINAL SLOPES.
  - PLANT THE OUTER EDGES OF EACH PLANTING GROUP FOLLOWING THE BED OUTLINE ACCORDING TO THE PLAN. ONCE A SATISFACTORY MATCHED OUTER SHAPE IS OBTAINED, FILL THE CENTER OF EACH AREA WITH PLANTS ACCORDING TO THE PLAN AND SPACING NOTES.
  - THE PLANTING LAYOUT WITHIN PLANTING BEDS SHOULD BE SHIFTED TO MINIMIZE CONFLICTS WITH EXISTING TREE ROOTS.
  - THE CONTRACTOR SHALL SOD ALL DISTURBED AREAS INCLUDING CONSTRUCTION ACCESS OUTSIDE PROJECT LIMITS.
  - REFER TO CIVIL DRAWINGS FOR ABBREVIATIONS AND LEGENDS.

**PLANTING SCHEDULE - LAKE HOUSE**

SYM	QTY	BOTANICAL NAME	COMMON NAME	CAL/RT	MIN. HT.	MIN. SPR.	REMARKS
<b>SHADE TREES</b>							
QV	17	QUERCUS VIRGINIANA 'CATHEDRAL'	CATHEDRAL LIVE OAK	2 1/2"			
<b>EVERGREEN SHRUBS</b>							
DI	28	DISTYLUM 'BLUE CASCADE'	BLUE CASCADE DISTYLUM	CONT.	12"	12"	FULL DENSE
GJ	11	GARDENIA JASMINOIDES	GARDENIA	CONT.	12"	12"	FULL DENSE
IV	56	ILEX VOMITORIA 'NANA'	DWARF YALPON HOLLY	CONT.	12"	12"	FULL DENSE
<b>DECIDUOUS SHRUBS</b>							
BD	13	Buddleia DAVIDI CV.	DWARF BUTTERFLY BUSH	CONT.	12"	12"	FULL DENSE
<b>SOD</b>							
	68,300 SF	BERMUDA	TIFWAY 419				SAND BASED GROWN SOD

**A1 LAKE HOUSE PLANTING PLAN**  
 SCALE: 1" = 30'-0"



REV. NO.	TRC SUBMITTAL	DESCRIPTIONS REVISIONS	DATE
			11/25/2015



**MCKIM & CREED**

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 www.mckimcreed.com

**Surface**

Surface 678, P.A.  
 215 Market Street, Suite 150  
 Durham, NC 27701  
 www.surface678.com  
 p: 919-419-1199  
 f: 919-419-1669

**PLANTING PLAN**

**RIVER LIGHTS LAKE HOUSE**

DATE: 11/25/2015  
 MCE PROJ. #  
 DRAWN: JL  
 DESIGNED: JC, ED  
 CHECKED: JC, ED  
 PROJ. MGR.: JC

SCALE: AS SHOWN  
 M&C FILE NUMBER: DRAWING NUMBER: **L161**

STATUS: FINAL DESIGN  
 REVISION:





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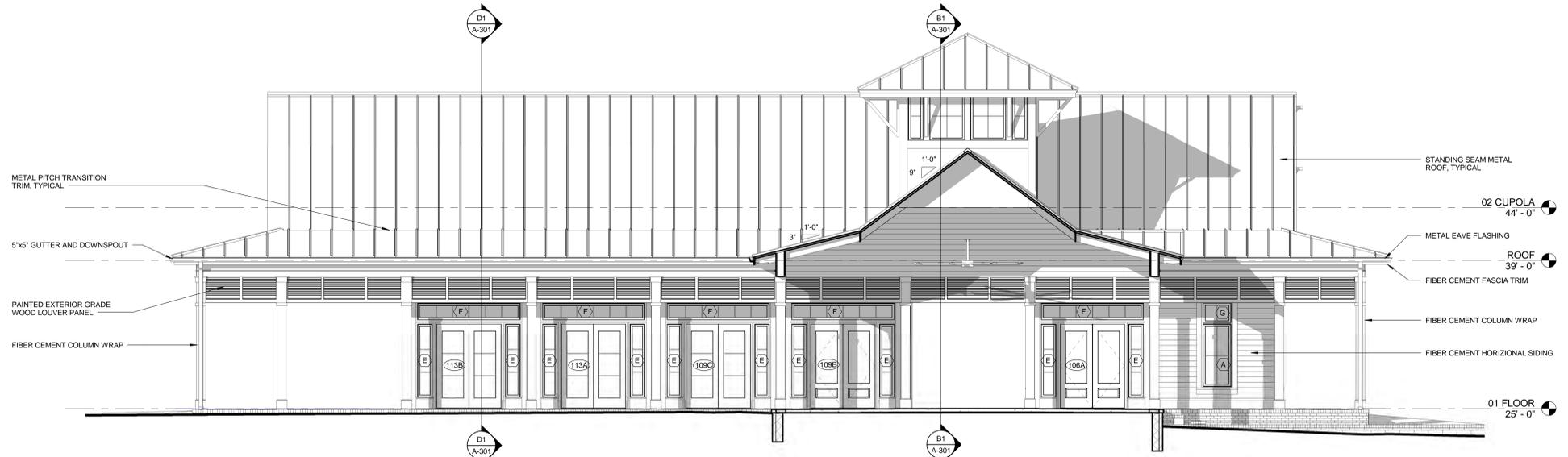
REVISIONS:

No.	Description	Date

PROJECT: 7105-136307  
DATE: 11.20.15  
DRAWN BY: DCW  
CHECKED BY: LLMDCW

EXTERIOR ELEVATIONS

A-201



D1 EAST ELEVATION - COURTYARD  
3/16" = 1'-0"



B1 EAST ELEVATION  
3/16" = 1'-0"



A1 NORTH ELEVATION  
3/16" = 1'-0"

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REVISIONS:

No.	Description	Date

PROJECT: 7105-136307  
DATE: 11.20.15  
DRAWN BY: DCW  
CHECKED BY: LLMDCW

EXTERIOR ELEVATIONS

A-202



D1 WEST ELEVATION - COURTYARD  
3/16" = 1'-0"



C1 WEST ELEVATION  
3/16" = 1'-0"



A1 SOUTH ELEVATION  
3/16" = 1'-0"



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No.	Description	Date

PROJECT: 7105-136307  
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CHECKED BY: LLMDCW

EXTERIOR ELEVATIONS AND PERSPECTIVE VIEWS

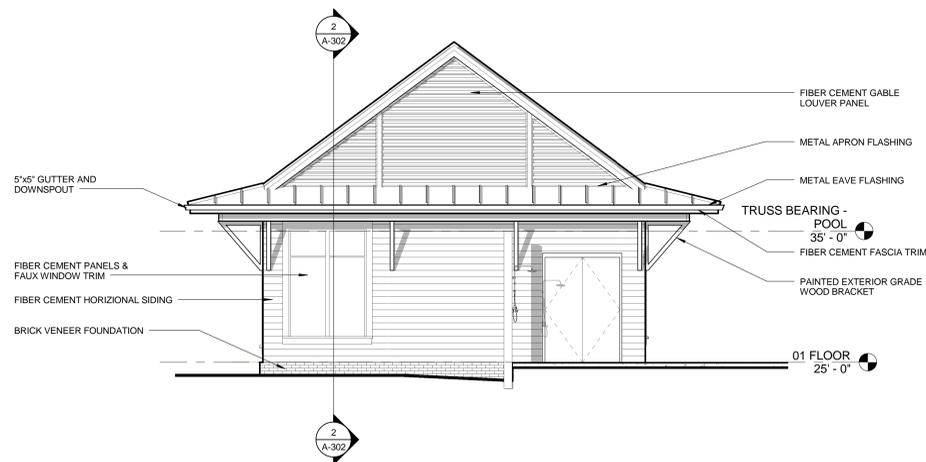
A-203



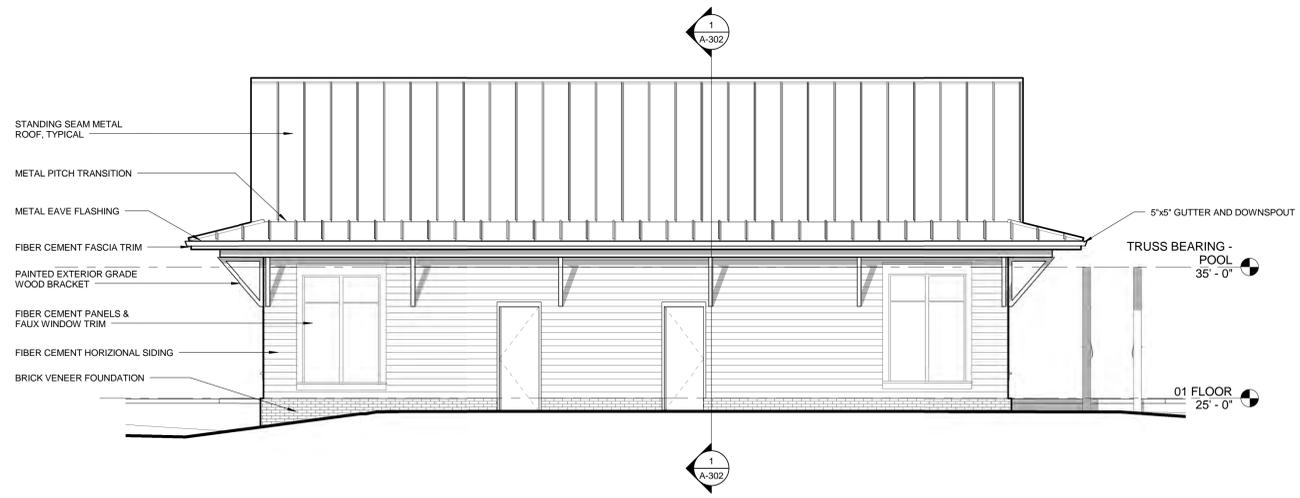
D1 EXTERIOR PERSPECTIVE FROM LAKE



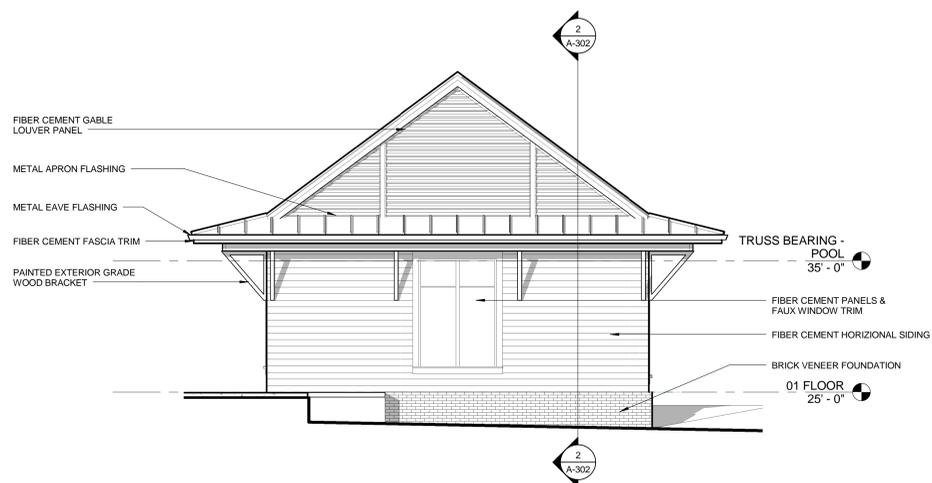
D4 EXTERIOR PERSPECTIVE AT ENTRANCE



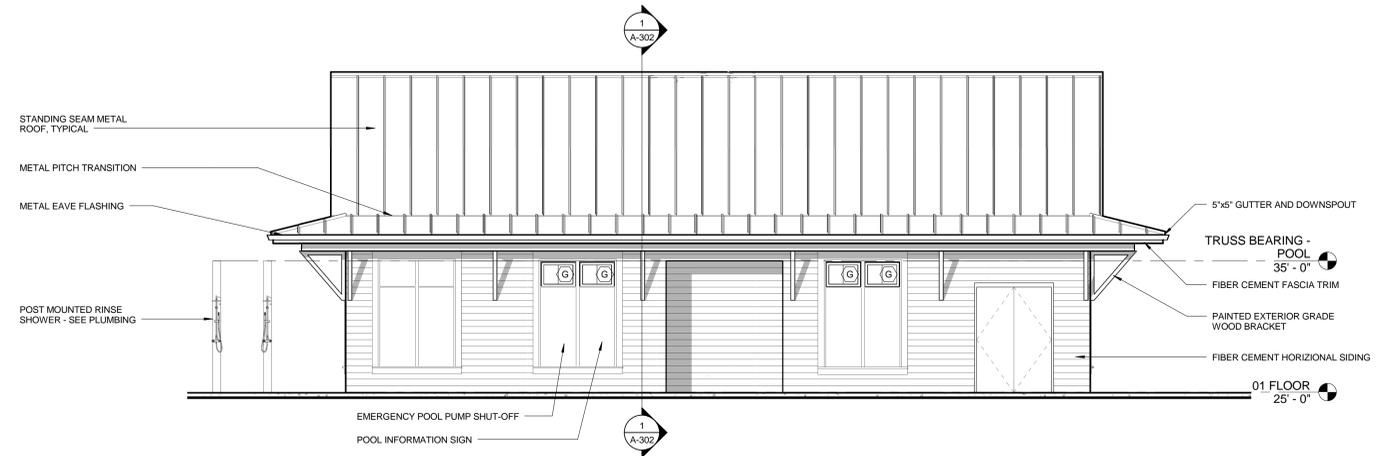
B1 SOUTH ELEVATION - POOL BUILDING  
3/16" = 1'-0"



B4 WEST ELEVATION - POOL BUILDING  
3/16" = 1'-0"



A1 NORTH ELEVATION - POOL BUILDING  
3/16" = 1'-0"



A4 EAST ELEVATION - POOL BUILDING  
3/16" = 1'-0"

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