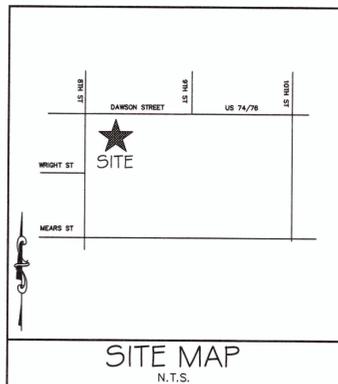


NEW HANOVER COUNTY  
 CITY OF WILMINGTON, NORTH CAROLINA  
**JERVAY HOUSE II**  
**809 VIRGIE RHODES LANE**



**MARCH 21, 2013**  
 (REV 1 TRC COMMENTS 04/26/13)  
 (REV 2 TRC COMMENTS 05/10/13)



VICINITY MAP  
NOT TO SCALE

**ARCHITECT**  
 ED CONLON  
 TISE-KIESTER ARCHITECTS  
 119 EAST FRANKLIN STREET  
 SUITE 300  
 CHAPEL HILL, NC 27514  
 (919) 967-0158

**PROJECT ENGINEER / REPRESENTATIVE:**  
 RICHARD CHRISTENSEN, PE  
 MCKIM & CREED, INC.  
 243 NORTH FRONT STREET  
 WILMINGTON, NORTH CAROLINA 28401  
 rchristensen@mckimcreed.com  
 (910) 343-1048

**OWNER**  
 WILMINGTON HOUSING AUTHORITY  
 1524 SOUTH 16TH STREET  
 WILMINGTON, NC 28401  
 (910)341-7700

**SHEET INDEX**

SHEET NO.	FILE NO.	DESCRIPTION
1	G-001	COVER
2	G-002	GENERAL NOTES
3	CX-101	EXISTING CONDITIONS
4	CX-102	EXISTING CONDITIONS WITH AERIAL IMAGE
5	CE-101	SEDIMENTATION & EROSION CONTROL PLAN
6	CD-101	DEMOLITION PLAN
7	CS-101	SITE PLAN
8	CG-101	GRADING & STORMDRAIN PLAN
9	CU-101	UTILITY PLAN
10	CL-101	LANDSCAPE PLAN
11	CS-501	SITE DETAILS
12	CE-501	SEDIMENTATION & EROSION CONTROL DETAILS
13	CL-501	LANDSCAPE DETAILS
14	CU-501	SSD-1 CFPWA SANITARY SEWER STANDARD DETAILS
15	CU-502	SSD-2 CFPWA SANITARY SEWER STANDARD DETAILS
16	CU-503	SSD-3 CFPWA SANITARY SEWER STANDARD DETAILS
17	CU-504	SSD-4 CFPWA SANITARY SEWER STANDARD DETAILS
18	CU-505	WSD-1 WATER DISTRIBUTION SYSTEM STANDARD DETAILS
19	CU-506	WSD-2 WATER DISTRIBUTION SYSTEM STANDARD DETAILS



PHONE# 1-800-632-4949

**MCKIM & CREED**  
 243 North Front Street  
 Wilmington, North Carolina 28401  
 Phone: (910)343-1048 , Fax: (910)251-8282  
 NC LICENSE NO. F-1222  
 www.mckimcreed.com

**TISE-KIESTER ARCHITECTS**  
**TKa**  
 119 E. Franklin St. Suite 300  
 Chapel Hill, NC 27514  
 Tel: 919.967.0158  
 Fax: 919.967.0159  
 www.tisekiester.com



**ISSUED FOR REVIEW**  
**NOT FOR CONSTRUCTION**

STANDARD NOTE

NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS.

SEEDBED PREPARATION

- 1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTRANCE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW\*).
5. CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. \* APPLY: AGRICULTURAL LIMESTONE - 2 TONS/ACRE
FERTILIZER - 1000 LBS/ACRE (10-10-10)
SUPERPHOSPHATE - 500 LBS/ACRE (20%)
MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)
ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE

TEMPORARY SEEDING table with columns: GRASS TYPE, AMOUNT/1000 SF., TIME OF SEEDING, INITIAL. Includes rows for RYE GRASS, BROWNTOP MILLET, BERMUDA COMMON, FESCUE, TALL (KENTUCKY 31), SERICIA LESPEDEZA (SLOPES).

GROUND STABILIZATION CRITERIA table with columns: SITE AREA DESCRIPTION, STABILIZATION TIMEFRAME, STABILIZATION TIMEFRAME EXCEPTIONS. Includes rows for PERIMETER DIKES, SWALES, DITCHES AND SLOPES, HIGH QUALITY WATER ZONES, SLOPES STEEPER THAN 3:1, SLOPES 3:1 OR FLATTER, ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1.

DEMOLITION NOTES

- 1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH FIELD DEMOLITION CONDITIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED DEBRIS ASSOCIATED WITH THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
3. 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.
4. 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.
5. 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.
6. 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.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING UTILITIES THAT REMAIN IN SERVICE DURING DEMOLITION.
8. 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 OWNERS REPRESENTATIVE AND ENGINEER PRIOR TO PROJECT CLOSEOUT. COORDINATE INSPECTION WITH THE OWNER AND ENGINEER PRIOR TO PROJECT CLOSEOUT.
9. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CONTACTING THE ENGINEER FOR THE REQUIRED INSPECTIONS ON THE PROJECT.
10. 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

- 1. 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.
2. 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.
3. THE MATERIAL FOR BACKFILLING SHALL BE FREE FROM ALL PERISHABLE AND OBJECTABLE 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.

UTILITY NOTES

- 1. SCHEDULE A PRECONSTRUCTION MEETING WITH CAPE FEAR PUBLIC UTILITY AUTHORITY 48 HOURS PRIOR TO CONSTRUCTION OF WATER AND SEWER LINES.
2. WATER AND SANITARY SEWER UTILITY MAINS ARE PRIVATE BEYOND THE PUBLIC STREET RIGHT-OF-WAY.
3. THIS PROJECT SHALL COMPLY WITH THE CPDUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THE "FINAL APPROVAL".
4. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CPDUA REQUIREMENTS. WATER METERS(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THE "FINAL APPROVAL".
5. BACKFLOW PREVENTION AND METERS WILL BE PROVIDED FOR BOTH FIRE LINES (RPZ) AND 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 CPDUA PRIOR TO INSTALLING UNITS TO GIVE CPDUA THE OPTION TO VERIFY INSTALLATION PROCEDURES.
5.1. REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR DOMESTIC WATER SERVICE
5.2. REDUCED PRESSURE DETECTOR ASSEMBLY WILL BE UTILIZED FOR THE BACKFLOW PREVENTER ON THE FIRE SERVICE.
6. IF THE CONTRACTOR DESIRES CPDUA 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.
7. WATER: 1.5" & 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, CL235 (DR-18).
8. SANITARY SEWER: FOR PIPE SIZES 4" AND 6" PIPE SHALL BE SCH 40 CONFORMING TO THE REQUIREMENTS OF ASTM D1785 WITH SOLVENT WELD JOINTS CONFORMING TO ASTM D2872. FOR PIPE SIZES 8" THROUGH 12" PIPE SHALL BE CLASS 150, DR18 CONFORMING TO THE REQUIREMENTS OF AWWA C900 WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D3212 OR ASTM D3139.
9. 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.
10. 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 MAIN VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
11. 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.
12. MAXIMUM BENDING RADIUS FOR 8" C-900 PVC WATER MAIN BENDS IS 380' (ONE-HALF MANUFACTURER'S RECOMMENDED ALLOWABLE LONGITUDINAL BENDING).
13. FIRE SPRINKLERS WILL BE PROVIDED FOR BUILDING.
14. 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.
15. MINIMUM OF 36" COVERAGE ABOVE ALL WATERMAINS.
16. MINIMUM OF 36" VERTICAL SEPARATION BETWEEN WATERLINES AND STORMDRAIN CURB INLETS.

RELATION OF WATER MAINS TO SEWERS:

- 1. LATERAL SEPARATION OF 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:
1.1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
1.2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND ABOVE THE TOP OF THE SEWER.
2. 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.
3. 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.
4. 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 ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.

STORM DRAINAGE AND GRADING NOTES

- 1. 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 AFTER EACH STORM EVENT OF 1/2 INCH OR GREATER, WITH ONE WEEKLY INSPECTION MINIMUM. NCDENR STANDARD INSPECTION REPORTS SHALL BE PREPARED AND SIGNED WITH COPIES PROVIDED TO THE OWNER, ARCHITECT, AND ENGINEER, BY THE CONTRACTOR.
2. 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.
3. SEDIMENT / EROSION DEVICES SHALL BE CHECKED BY THE CONTRACTOR DAILY. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.
4. 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.
5. 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.

EROSION CONTROL NOTES

- 1. 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.
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF STATE LAW AND IS SUBJECT TO A FINE.
3. A GROUND COVER MUST BE PROVIDED ON EXPOSED SLOPES WITHIN 15 WORKING DAYS OR 21 CALENDAR DAYS (WHICHEVER IS SHORTER), FOLLOWING COMPLETION OF ANY PHASE OF GRADING, AND, A PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 10 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
4. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NEW HAMOVER COUNTY.
5. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
6. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
7. 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 UNLESS WRITTEN APPROVAL IS GRANTED BY THE EROSION CONTROL OFFICER.

EROSION CONTROL MAINTENANCE PLAN:

- 1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH.
2. 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.
3. 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.
4. ALL AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONE 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.
6. 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.
7. SEE NPDES PERMIT COVERAGE NOTES FOR STABILIZATION TIME FRAMES AND VEGETATION PLAN SPECIFICATIONS.
8. CONTRACTOR SHALL FOLLOW NPDES NCG 010000 PERMIT CONDITIONS THAT INCLUDE SELF-INSPECTION AND RECORD KEEPING.

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:

- 1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. 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.
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE TEMPORARILY AND MEET CITY AND/OR NCDOT STANDARDS.
4. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
5. 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.
6. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY APRON PANELS AND CURB & GUTTER SECTIONS SHALL BE REPLACED BY THE CONTRACTOR.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
8. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE CPDUA 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.
9. CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
10. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.

TREE PROTECTION NOTES

- 1. PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
2. NO LAND DISTURBANCE, INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE PROJECT BOUNDARY SHOWN ON THE PLANS, UNLESS OTHERWISE NOTED. TREE PROTECTION FENCING IS SHOWN OUTSIDE OF PROJECT BOUNDARY FOR PROTECTION OF EXISTING TREES IS CLOSE PROXIMITY TO PROPOSED CONSTRUCTION. [18-457(B)]
3. PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. [18-458]
4. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS. [18-457(D)]
5. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED BY THE LANDSCAPE ARCHITECT. [18-458]
6. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS. [18-456(d)]
7. REGULATED AND SIGNIFICANT TREES IN THE STREET YARD [18-456(c)] AND ANY TREES IN ANY REQUIRED BUFFERS [18-456(d)] ARE REQUIRED TO BE RETAINED. TREE PROTECTION FENCING SHOWN ON PLANS DELINEATES TREES TO BE RETAINED.

NOTE COW(18-458)

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

FIRE PROTECTION NOTES

- 1. HYDRANT MUST BE WITHIN 150' OF THE FDC.
2. THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. 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.
4. HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
5. COMBUSTIBLE MATERIALS MAY NOT BE STORED OR ERECTED ONSITE WITHOUT CITY FIRE INSPECTOR APPROVAL.
6. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
7. 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.
8. A MINIMUM OF 3" SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES.
9. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
10. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.

TISE-KIESTER ARCHITECTS logo with TKa and contact information: 119 E. Franklin St. Suite 300 Chapel Hill, NC 27514 Tel: 919.967.0158 Fax: 919.967.0159 www.tisekiesler.com

ENGINEER: McKim & Creed., Inc. 243 North Front St. Wilmington, NC 28401 910-343-1048

OWNER: Wilmington Housing Authority 1524 South 16th St. Wilmington, NC 28401

Jervay House II

809 Virgie Rhodes Lane

Job Number: 63320002

Date: 030113

Revisions:

REV. 1 TRC COMMENTS 04/28/13

REV. 2 TRC COMMENTS 05/10/13

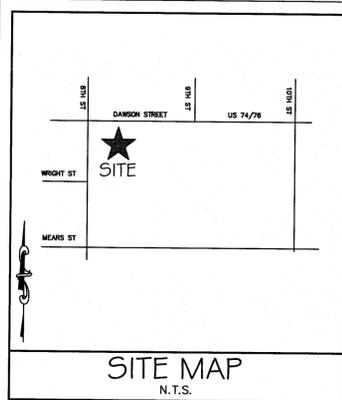
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GENERAL NOTES Sheet

G-002

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Approved Construction Plan

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

1 inch

**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

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

**TISE-KIESTER ARCHITECTS**

**TKa**

119 E. Franklin St. Suite 300  
Chapel Hill, NC 27514  
Tel: 919.967.0158  
Fax: 919.967.0159  
www.tisekiester.com

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910-343-1048

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**Jervay House II**

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REV. 2 TRC COMMENTS 05/10/13

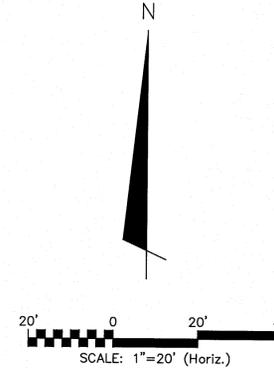
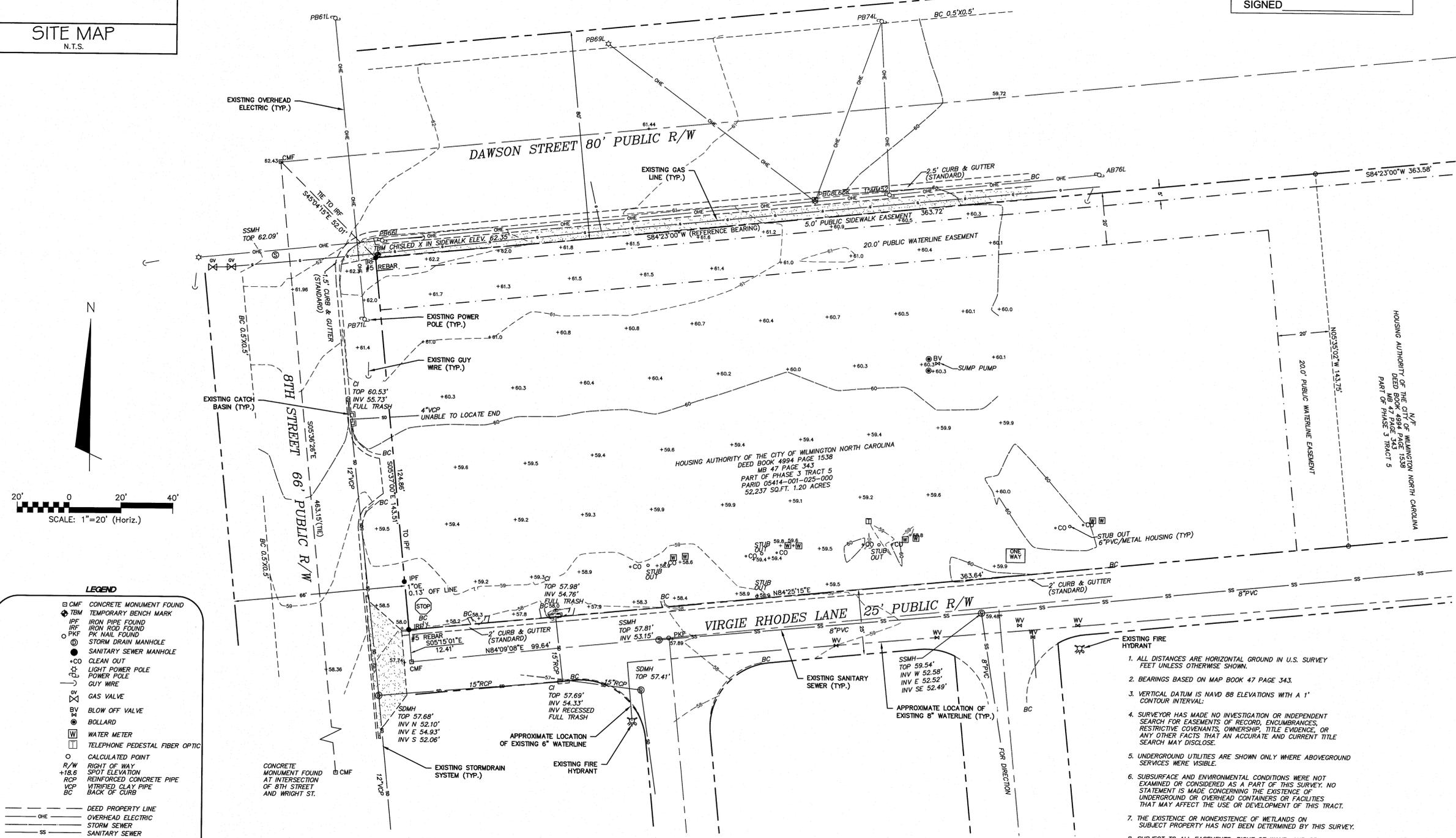
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EXISTING CONDITIONS

Sheet

**CX-101**

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- LEGEND**
- CMF CONCRETE MONUMENT FOUND
  - TBM TEMPORARY BENCH MARK
  - IPF IRON PIPE FOUND
  - IRF IRON ROD FOUND
  - PKF PK NAIL FOUND
  - SMH STORM DRAIN MANHOLE
  - CO SANITARY SEWER MANHOLE
  - CP CLEAN OUT
  - LP LIGHT POWER POLE
  - PP POWER POLE
  - GW GUY WIRE
  - GV GAS VALVE
  - BV BLOW OFF VALVE
  - BOLLARD
  - WM WATER METER
  - TELEPHONE PEDESTAL FIBER OPTIC
  - CP CALCULATED POINT
  - R/W RIGHT OF WAY
  - +10.0 SPOT ELEVATION
  - RCP REINFORCED CONCRETE PIPE
  - VCP VITRIFIED CLAY PIPE
  - BC BACK OF CURB
  - DEED PROPERTY LINE
  - OHE OVERHEAD ELECTRIC
  - SS STORM SEWER
  - SS SANITARY SEWER
  - GL GAS LINE
  - RIGHT OF WAY
  - ROAD CENTERLINE
  - CONCRETE HATCH

1. ALL DISTANCES ARE HORIZONTAL GROUND IN U.S. SURVEY FEET UNLESS OTHERWISE SHOWN.
2. BEARINGS BASED ON MAP BOOK 47 PAGE 343.
3. VERTICAL DATUM IS NAVD 88 ELEVATIONS WITH A 1' CONTOUR INTERVAL.
4. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP, TITLE EVIDENCE, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
5. UNDERGROUND UTILITIES ARE SHOWN ONLY WHERE ABOVEGROUND SERVICES WERE VISIBLE.
6. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
7. THE EXISTENCE OR NONEXISTENCE OF WETLANDS ON SUBJECT PROPERTY HAS NOT BEEN DETERMINED BY THIS SURVEY.
8. SUBJECT TO ALL EASEMENTS, RIGHT OF WAYS, AND OR ENCUMBRANCES THAT MAY EFFECT THIS PROPERTY.
9. EASEMENT TO BELL SOUTH DEED BOOK 3508 PAGE 735 10' WIDE STRIP ALONG ANY ACCESS AND TO ANY BUILDING FROM DAWSON STREET.
10. EASEMENT TO CAROLINA POWER AND LIGHT DEED BOOK 3509 PAGE 732 30' WIDE ON ALL OVERHEAD LINES AND 10' ON ALL UNDERGROUND AND 10' AROUND ANY FOUNDATION OF ANY ENCLOSURE.
11. THIS PROPERTY LIES IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP PANEL NUMBER 3127, MAP NUMBER 3720312700J DATED APRIL 3, 2006.
12. THERE ARE NO EXISTING TREES WITHIN THE SURVEY LIMITS OF THE PROPERTY.
13. PARCEL IS A 1.20 ACRE PORTION OF AN OVERALL 2.0 ACRE TRACT.





**LEGEND**

CMF	CONCRETE MONUMENT FOUND	---	DEED PROPERTY LINE
TBM	TEMPORARY BENCH MARK	---	OVERHEAD ELECTRIC
IPF	IRON PIPE FOUND	---	STORM SEWER
IRF	IRON ROD FOUND	---	SANITARY SEWER
PKF	PK NAIL FOUND	---	GAS LINE
SMH	STORM DRAIN MANHOLE	---	RIGHT OF WAY
SM	SANITARY SEWER MANHOLE	---	ROAD CENTERLINE
CO	CLEAN OUT	---	CONCRETE HATCH
LP	LIGHT POWER POLE		
PP	POWER POLE		
GW	GUY WIRE		
GV	GAS VALVE		
BOV	BLOW OFF VALVE		
B	BOLLARD		
W	WATER METER		
TF	TELEPHONE PEDESTAL FIBER OPTIC		
CP	CALCULATED POINT		
R/W	RIGHT OF WAY		
+18.6	SPOT ELEVATION		
RCP	REINFORCED CONCRETE PIPE		
VCP	VITRIFIED CLAY PIPE		
BC	BACK OF CURB		

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

1 inch

**STORMWATER MANAGEMENT PLAN**

**APPROVED**

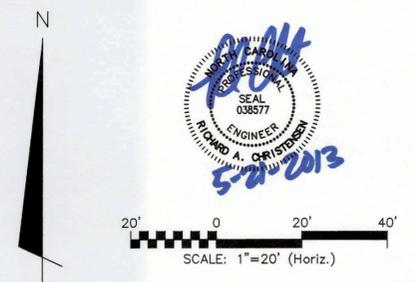
CITY OF WILMINGTON

ENGINEERING DEPARTMENT

DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_

SIGNED \_\_\_\_\_

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# Jervay House II

809 Virgie Rhodes Lane

Job Number: 63320002

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REV. 1 TRC COMMENTS 04/28/13

REV. 2 TRC COMMENTS 05/10/13

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_



**ISSUED FOR REVIEW - NOT FOR CONSTRUCTION**

EXISTING CONDITIONS WITH AERIAL IMAGE

Sheet

## CX-102

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910-343-1048

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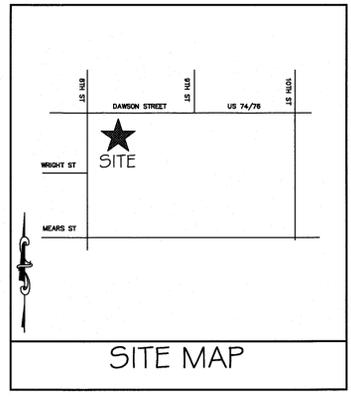
REV. 2 TRC COMMENTS 05/10/13

**ISSUED FOR REVIEW - NOT FOR CONSTRUCTION**

SEDIMENTATION & EROSION CONTROL PLAN

Sheet  
**CE-101**

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**LEGEND**

- CMF CONCRETE MONUMENT FOUND
- ◆ TBM TEMPORARY BENCH MARK
- IPF IRON PIPE FOUND
- IRF IRON ROD FOUND
- PKF PK NAIL FOUND
- SDM STORM DRAIN MANHOLE
- SSMH SANITARY SEWER MANHOLE
- CO CLEAN OUT
- LPP LIGHT POWER POLE
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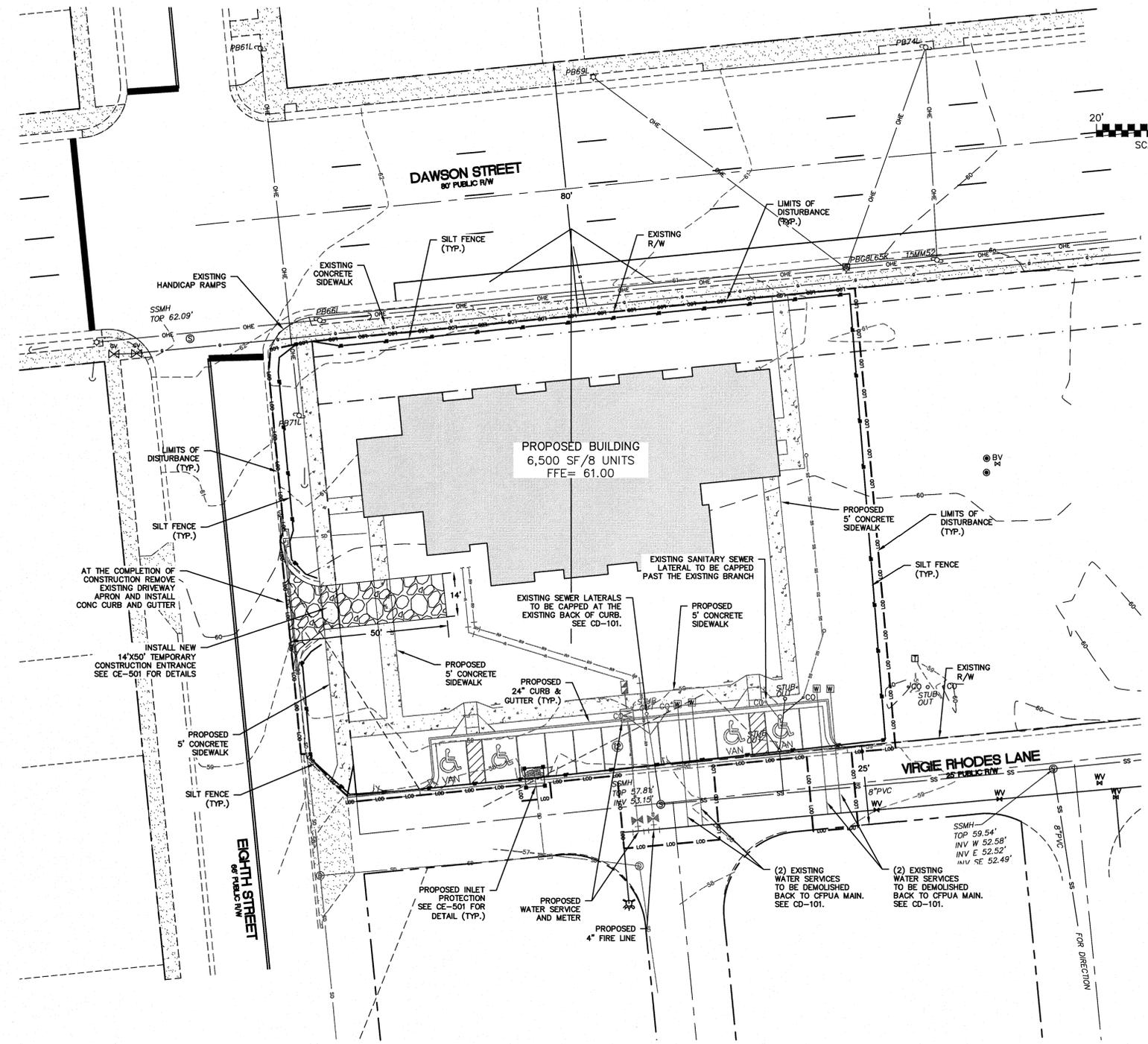
  

- DEED PROPERTY LINE
- OHE OVERHEAD ELECTRIC
- SS STORM SEWER
- SS SANITARY SEWER
- G GAS LINE
- R/W RIGHT OF WAY
- ROAD CENTERLINE

CONCRETE HATCH

**EROSION CONTROL CONSTRUCTION SEQUENCE:**

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM NCDENR.
2. SCHEDULE MANDATORY PRE-CONSTRUCTION MEETING WITH LAND QUALITY (WILMINGTON #910-796-7215) 48 HOURS PRIOR TO CONSTRUCTION TO DISCUSS EROSION CONTROL MEASURES.
3. ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
4. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AS SHOWN. CONTRACTOR SHALL MAINTAIN A SUFFICIENT GRAVEL ENTRANCE UNTIL FINAL SUBGRADE IS ESTABLISHED. IF DIRT/MUD GETS ON THE STREET, THEN A WASH RACK WILL NEED TO BE INSTALLED.
5. INSTALL SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. TREE PROTECTION FENCING AND ADDITIONAL SILT FENCE MAY BE REQUIRED.
6. INSTALL TEMPORARY INLET PROTECTION DEVICE AS DETAILED ON THE PLANS. CONTRACTOR TO MONITOR THIS DEVICE FOLLOWING MORE THAN 1/2-INCH OF RAINFALL AND AT LEAST WEEKLY FOR SILT AND DEBRIS BUILDUP. REMOVE THE SILT AND DEBRIS AS NEEDED TO ENSURE PROPER FILTRATION.
7. COMMENCE GRUBBING AND ROUGH GRADING WITHIN THE LIMITS OF CONSTRUCTION.
8. COMMENCE DEMOLITION AS SHOWN ON CD-101. ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF, SALVAGED, OR RECYCLED PER THE PROJECT SPECIFICATIONS.
9. COORDINATE DISCONNECTION OF EXISTING UTILITIES:
  - ELECTRICAL SERVICES AND POLES WITH DUKE ENERGY
  - TELEPHONE SERVICES AND POLES WITH BELL SOUTH
  - CABLE WITH TIME WARNER CABLE
  - SEWER AND WATER SERVICES WITH CAPE FEAR PUBLIC UTILITY AUTHORITY
  - STORM DRAINAGE SYSTEM WITH CITY OF WILMINGTON
10. PROVIDE TEMPORARY STABILIZATION AND SEEDING AS NECESSARY TO PREVENT EROSION. REFER TO SHEET CE-501 FOR GROUND STABILIZATION CRITERIA AND SEEDING SCHEDULE.
11. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR TO REQUEST FINAL SITE INSPECTION BY NCDENR INSPECTOR TO ALLOW REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES.
12. INSTALL LANDSCAPING AND ESTABLISH FINAL GRADES AS SHOWN ON CG-101.
13. INSTALL PERMANENT SEEDING. REFER TO GROUND STABILIZATION CRITERIA TABLE FOR AREAS THAT REQUIRE 7-DAY STABILIZATION. ALL OTHER AREAS NOT REQUIRING 7-DAY STABILIZATION SHALL BE STABILIZED WITHIN 14 DAYS.
14. REMOVE SEDIMENT FROM ALL STORM DRAIN PIPES.
15. SILT FENCE MUST REMAIN INSTALLED AND FUNCTIONING PROPERLY UNTIL THE LIMITS OF CONSTRUCTION HAVE BEEN PERMANENTLY STABILIZED.
16. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDENR REGULATIONS.
17. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.



**EROSION CONTROL NOTES:**

1. ANY GRADING BEYOND THE DEDUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE NCDENR-DLO EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE. **LIMITS OF DISTURBANCE 0.65 ACRES (28,231.24 SF).**
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE NCDENR-DLO EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE. ANY BUILDER THAT ANTICIPATES THE DISTURBANCE OF MORE THAN 1 CUMULATIVE ACRE WILL BE REQUIRED TO GET AN EROSION CONTROL PERMIT FROM NCDENR-DIVISION OF LAND QUALITY.
3. GROUND COVER MUST BE PROVIDED ON EXPOSED SLOPES WITHIN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. ALL OTHER AREAS SHOULD BE STABILIZED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER, AFTER ANY PHASE OF ACTIVITY.
4. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF NCDENR-DLO.
5. SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
6. ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UP ON BY FIELD INSPECTOR, ENGINEER, AND OWNER.
7. IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 WORKING DAYS, ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED UNLESS WRITTEN APPROVAL IS GRANTED BY THE EROSION CONTROL OFFICER.
8. WITHIN 24 HOURS FOLLOWING ANY RAIN EVENT, THE CONTRACTOR SHALL INSPECT AND REPAIR, AS NECESSARY, ALL DAMAGED EROSION CONTROL MEASURES.
9. ALL ACTIVITY WILL BE COMPLETE PRIOR TO ANY RAIN EVENT.

**EROSION CONTROL MAINTENANCE PLAN:**

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AND REPAIRED, AS NECESSARY, EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH.
2. 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.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. STONE CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS TRACKED ON TO THE PAVEMENT. STONE 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.
6. 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.
7. SEE NPDES PERMIT COVERAGE NOTES FOR STABILIZATION TIME FRAMES AND VEGETATION PLAN SPECIFICATIONS.
8. CONTRACTOR SHALL FOLLOW NPDES NCG 01.0000 PERMIT CONDITIONS THAT INCLUDE SELF-INSPECTION AND RECORD KEEPING.

**LIMITS OF DISTURBANCE - (28,231.24 sf) 0.65 acres**      **LAT: 34° 13' 28" N**  
**LONG: 77° 56' 15" W**

Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	

**STORMWATER MANAGEMENT PLAN**  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

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





# Jervay House II

809 Virgie Rhodes Lane

Job Number: 63320002

Date: 030113

Revisions:

REV. 1 TRC COMMENTS 04/26/13

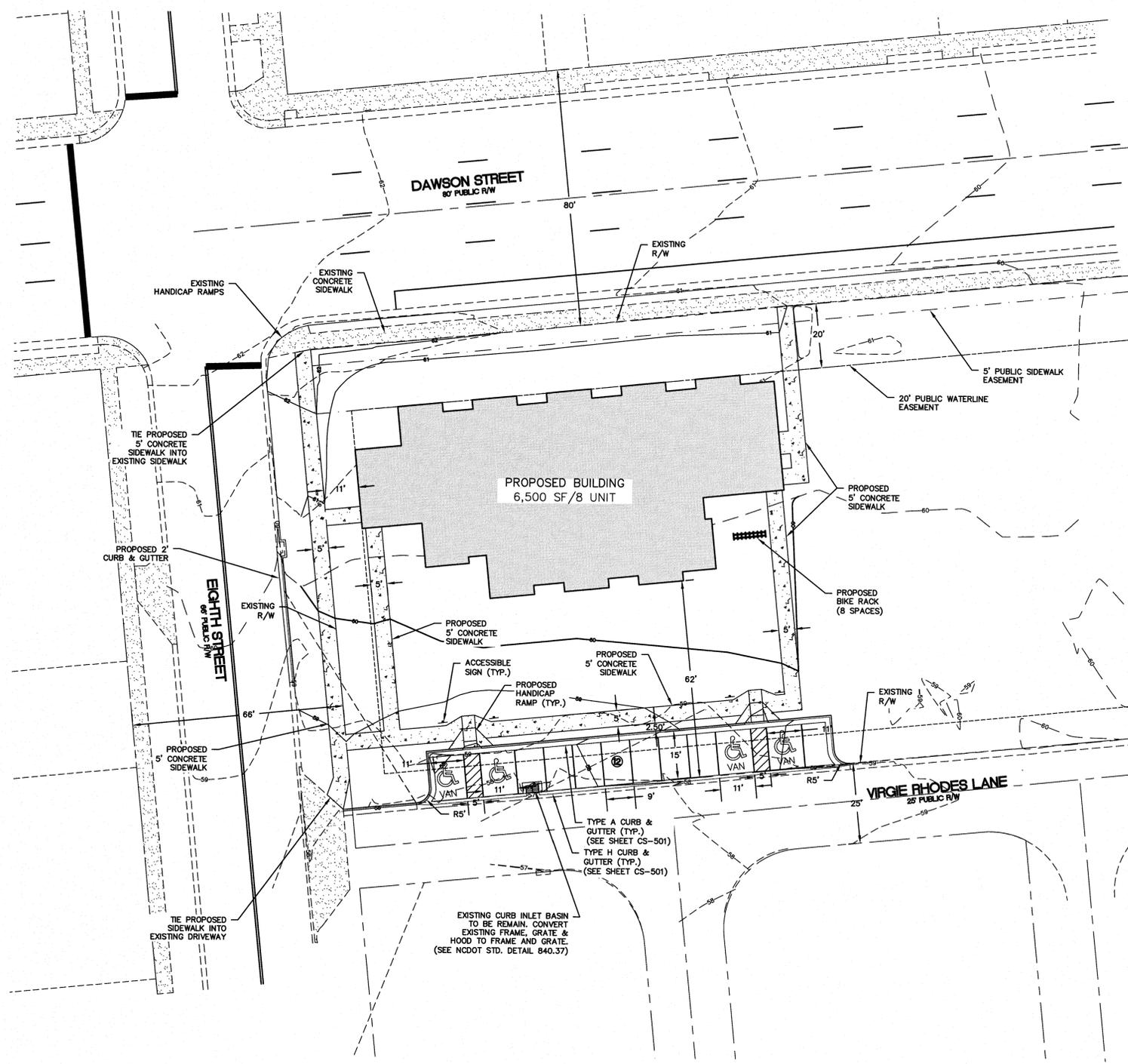
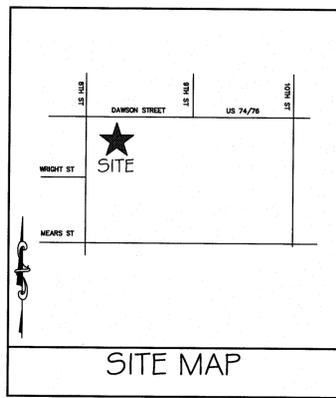
REV. 2 TRC COMMENTS 05/10/13

ISSUED FOR REVIEW - NOT FOR CONSTRUCTION

SITE PLAN  
Sheet

**CS-101**

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SITE DATA TABLE		JERVAY II	
PARCEL ADDRESS	809 VIRGIE RHODES LANE	REQUIRED	PROPOSED
BUILDING SETBACKS			
FRONT	5' MIN	20	
REAR	5' MIN	62	
SIDE (INTERIOR)	5' MIN	204	
SIDE (CORNER)	PER BLOCK FACE		15
TAX PARCEL IDENTIFICATION NUMBER:	R05414-001-025-000		
ZONING/OVERLAY DISTRICT:	UMX/DAWSON-WOOSTER		
TOTAL ACREAGE WITHIN THE PROJECT BOUNDARY	14.34 ACRES (624,650 SF)		
TOTAL ACREAGE WITHIN THE PROJECT PARCEL BOUNDARY	2.0 ACRES (87,120 SF)		
BUILDING SIZE WITH SQUARE FOOTAGE	6,502 GROSS SF		
NC BUILDING CODE CONSTRUCTION TYPE	R-2		
BUILDING LOT COVERAGE	7.46%		
NUMBER OF UNITS	8 - 1 BEDROOM		
NUMBER OF BUILDINGS	1		
BUILDING HEIGHT	45' MAX - 12' AVG. PROPOSED		
NUMBER OF STORIES & SQUARE FEET PER FLOOR	1 STORY - FIRST FLOOR - 6,500 SF		
TOTAL AMOUNT OF DISTURBED AREA	0.65 ACRES (28,314 SF)		
CAMA LAND USE CLASSIFICATION	URBAN		
EXISTING IMPERVIOUS AREA	0 SF		
<b>IMPERVIOUS AREA (PROPOSED)</b>			
ROOF TOPS	6,502 SF		
ROADWAYS	0 SF		
PARKING	1,978 SF		
SIDEWALKS	2,533 SF		
TOTAL POST DEVELOPMENT/%	11,013 SF / 12.64%		
TOTAL PRE DEVELOPMENT/%	0 SF / 0.00%		
<b>PARKING CALCULATIONS</b>			
PROPOSED USE:	RESIDENTIAL		
MINIMUM NUMBER OF SPACES REQUIRED	12		
	1.5 SPACE PER UNIT		
MAXIMUM NUMBER OF SPACES ALLOWED	20		
	2.5 SPACE PER UNIT		
SPACES PROVIDED	12		
EXISTING USE:	UNDEVELOPED		
SPACES EXISTING	0		
ACCESSIBLE SPACES REQUIRED	1		
ACCESSIBLE SPACES PROVIDED	4 (3 VAN)		
BICYCLE PARKING SPACES REQUIRED	8		
BICYCLE PARKING SPACES PROVIDED	8		
ON-SITE DISTURBANCE PROPOSED	28,231 SF (0.65 ACRES)		

SEC. 18-529. EACH PARKING SPACE LOCATED AT THE PERIMETER OF A PARKING FACILITY SHALL BE EQUIPPED WITH A CURB, WHEEL STOP, OR SIMILAR DEVICE TO PREVENT VEHICLE ENCRoACHMENT BEYOND PROPERTY LINES OF PARKING LOTS AND INTO PEDESTRIAN LINES OR TRAFFIC AISLES.

PROJECT WILL PROVIDE A NFPA 13R FIRE SPRINKLER SYSTEM FOR THE BUILDING.

PROJECT WILL DISPOSE OF SOLID WASTE THROUGH THE USE OF CARTS.

**GENERAL NOTES:**

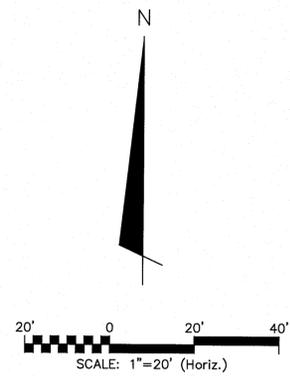
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

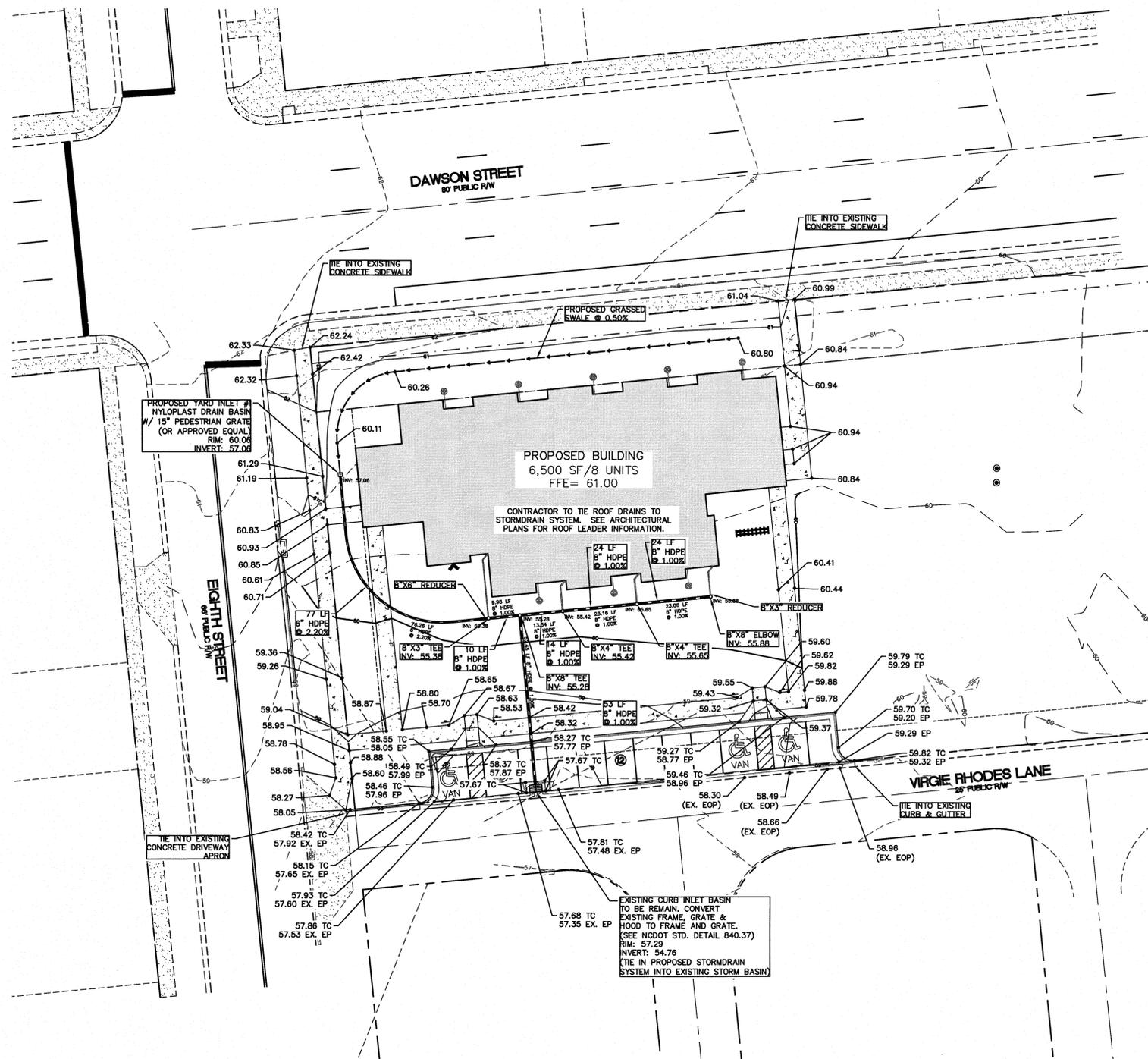
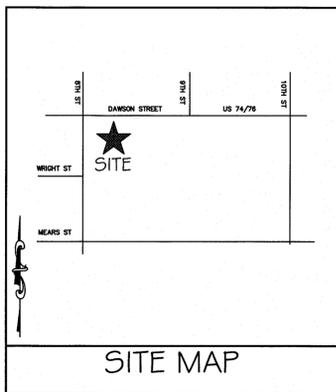
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STORMWATER MANAGEMENT PLAN  
**APPROVED**  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
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**STORM DRAINAGE AND GRADING NOTES:**

1. IN ACCORDANCE WITH NC GENERAL STATUTES, NPDES REGULATIONS, AND NHC REQUIREMENTS, STORMWATER DISCHARGE OUTFALLS SHALL BE INSPECTED BY THE CONTRACTOR. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR AFTER EACH STORM EVENT OF 1/2 INCH OR GREATER, WITH ONE WEEKLY INSPECTION MINIMUM. NC DENR STANDARD INSPECTION REPORTS SHALL BE PREPARED AND SIGNED WITH COPIES PROVIDED TO THE OWNER, ARCHITECT, AND ENGINEER, BY THE CONTRACTOR.
2. INLET PROTECTION SHALL BE INSTALLED AROUND ALL STORM INLETS WITHIN THE LIMITS OF DISTURBANCE. STRUCTURES SHALL BE CONSTRUCTED TO FINAL PROPOSED CONDITION UPON STABILIZATION OF CONTRIBUTING GROUND SURFACES AND REMOVAL OF SEDIMENT FROM STORM PIPES.
3. SEDIMENT / EROSION DEVICES SHALL BE CHECKED BY THE CONTRACTOR DAILY. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.
4. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ARCHITECT 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.
5. 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.
6. WHEN HAND SEEDING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD AND TACKED OVER SEEDING AREA WITHIN 24 HOURS OF SEEDING.
7. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER ON SLOPES THAT ARE 4:1 OR STEEPER, MULCH WILL BE ANCHORED.
8. NO LAND DISTURBANCE, INCLUDING TREE REMOVAL, IS TO OCCUR OUTSIDE THE LIMITS SHOWN.

**STORM DRAINAGE NOTES:**

1. DO NOT PLANT TREES WITHIN UTILITY AND DRAINAGE EASEMENTS.
2. 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).
3. THE CONTRACTOR SHALL CONTACT ONECALL BEFORE COMMENCING ANY WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WHETHER INDICATED ON THE DRAWINGS OR NOT. THE CONTRACTOR WILL ASSURE THE PRESENCE ONSITE OF A REPRESENTATIVE OF THE GAS COMPANY WHEN WORKING IN THE VICINITY OF ANY GAS MAINS.

**CITY OF WILMINGTON STANDARD NOTES:**

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. 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.
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
4. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
5. 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.
6. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY APRON PANELS AND CURB & GUTTER SECTIONS SHALL BE REPLACED BY THE CONTRACTOR.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
8. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE SHALL APPLY WITH THE OFPWA 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.
9. CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
10. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.

**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.

**NOTE COW(18-458)**

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

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

1 inch

Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	

<b>STORMWATER MANAGEMENT PLAN</b>	
<b>APPROVED</b>	
CITY OF WILMINGTON	
ENGINEERING DEPARTMENT	
DATE	PERMIT #
SIGNED	



**TISE-KIESTER ARCHITECTS**

**TKa**

119 E. Franklin St. Suite 300  
Chapel Hill, NC 27514  
Tel: 919.967.0158  
Fax: 919.967.0159  
www.tisekiester.com

ENGINEER:  
McKim & Creed., Inc.  
243 North Front St.  
Wilmington, NC 28401  
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**Jervay House II**

809 Virgie Rhodes Lane

Job Number: 63320002  
Date: 030113

Revisions:

REV. 1 TRC COMMENTS 04/26/13

REV. 2 TRC COMMENTS 05/10/13

**ISSUED FOR REVIEW - NOT FOR CONSTRUCTION**

GRADING AND STORMDRAIN PLAN

Sheet

**CG-101**

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**FIRE PROTECTION NOTES:**

1. HYDRANT MUST BE WITHIN 150' OF THE FDC.
2. THE FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. 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.
4. COMBUSTIBLE MATERIALS MAY NOT BE STORED OR ERRECTED ONSITE WITHOUT CITY FIRE INSPECTOR APPROVAL.
5. 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.
6. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM UNDERGROUND UTILITIES.
7. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.

**UTILITY NOTES:**

1. SCHEDULE A PRECONSTRUCTION MEETING WITH CAPE FEAR PUBLIC UTILITY AUTHORITY 48 HOURS PRIOR TO CONSTRUCTION OF WATER AND SEWER LINES.
2. WATER AND SANITARY SEWER UTILITY MAINS ARE PRIVATE BEYOND THE PUBLIC STREET RIGHT-OF-WAY.
3. THIS PROJECT SHALL COMPLY WITH THE CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND NCDENR HAS ISSUED THE "FINAL APPROVAL".
4. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CFPWA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO CFPWA AND APPROVED BY USCFCOCHR OR ASSE.
  - 5.1. REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR DOMESTIC WATER SERVICE
  - 5.2. REDUCED PRESSURE DETECTOR ASSEMBLY WILL BE UTILIZED FOR THE BACKFLOW PREVENTER ON THE FIRE SERVICE.
6. IF THE CONTRACTOR DESIRES CFPWA 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.
7. WATER: 1.5" & 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, CL235 (DR-18).
8. SANITARY SEWER: FOR PIPE SIZES 4" AND 6" PIPE SHALL BE SCH 40 CONFORMING TO THE REQUIREMENTS OF ASTM D1785 WITH SOLVENT WELD JOINTS CONFORMING TO ASTM D2672. FOR PIPE SIZES 8" THROUGH 12", PIPE SHALL BE CLASS 150, DR18 CONFORMING TO THE REQUIREMENTS OF AWWA C900 WITH ELASTOMERIC PUSH-ON JOINTS CONFORMING TO ASTM D3212 OR ASTM D3139.
9. 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.
10. 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.
11. 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.
12. FIRE SPRINKLERS WILL BE PROVIDED FOR BUILDING.
13. 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 ADJUTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.
14. MINIMUM OF 36" COVERAGE ABOVE ALL WATERMANS.
15. MINIMUM OF 36" VERTICAL SEPARATION BETWEEN WATERLINES AND STORMDRAIN CURB INLETS.

**RELATION OF WATER MAINS TO SEWERS:**

1. LATERAL SEPARATION OF 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:
  - 1.1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
  - 1.2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND ABOVE THE TOP OF THE SEWER.
2. 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.
3. 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.
4. 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 ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.

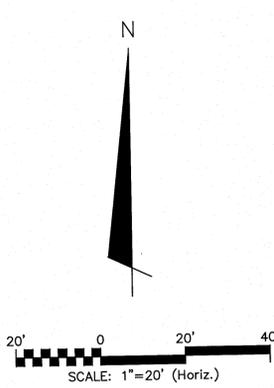
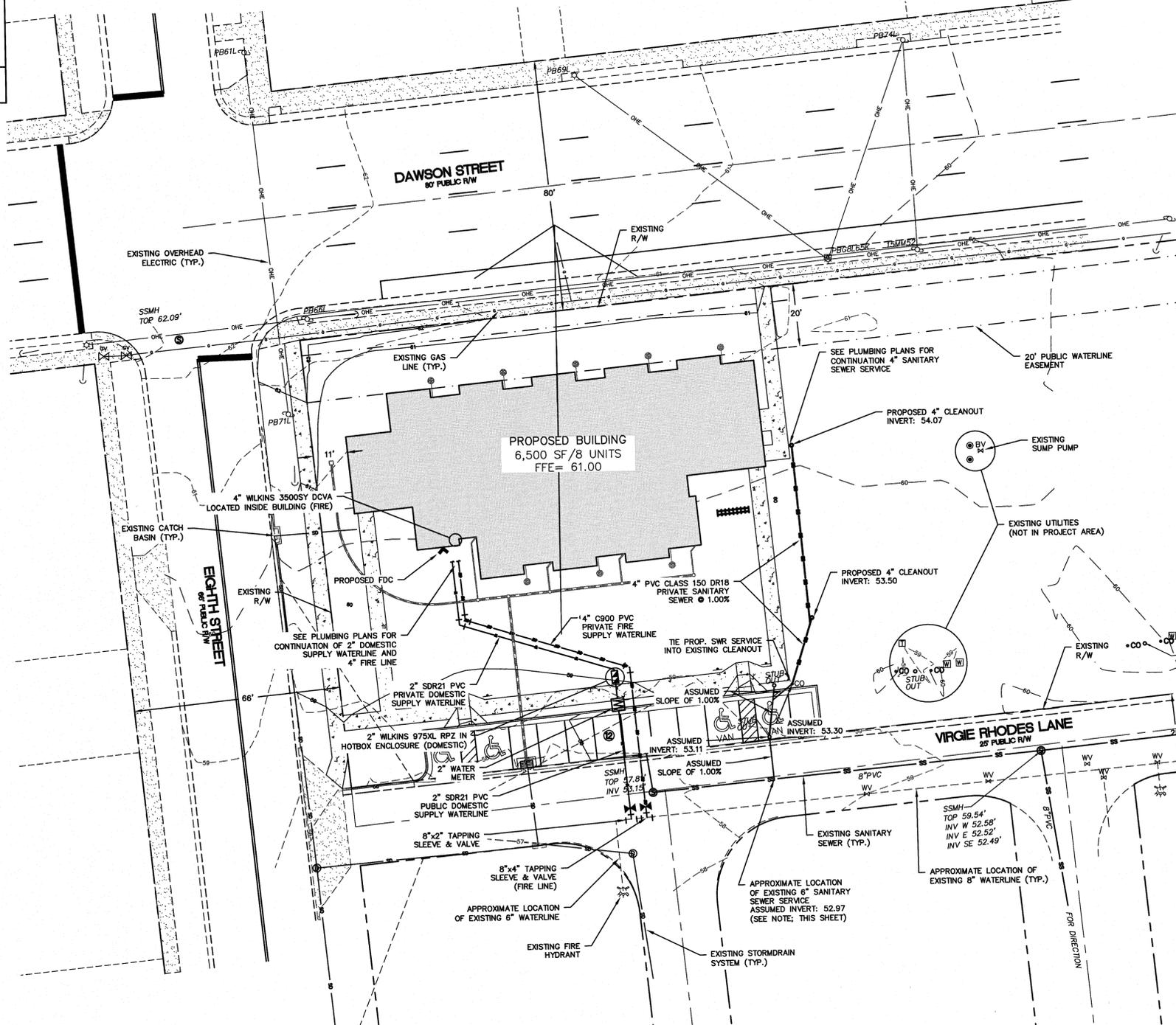
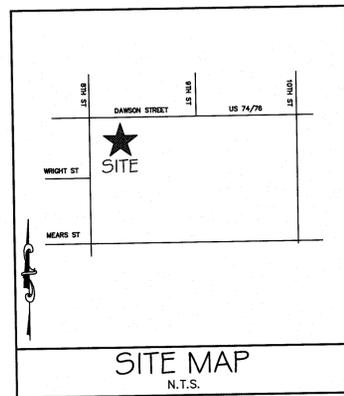
**ADDITIONAL TREATMENTS:**

HVAC EQUIPMENT, AIR CONDITIONING WINDOW UNITS, AND OTHER ELECTRICAL EQUIPMENT SHALL NOT BE LOCATED ON STREET FRONTAGES. ALL SUCH EQUIPMENT SHALL BE PLACED IN THE INTERIOR YARDS OR ON THE ROOF OF THE BUILDING AND SCREENED FROM THE RIGHT OF WAY. THROUGH-WALL MECHANICAL UNITS ARE PERMITTED ON ANY FACADE IF THEY ARE INCORPORATED INTO THE DESIGN OF THE BUILDING, FLUSH WITH THE FACADE ON WHICH THEY ARE LOCATED, CONCEALED BY A VENT COVER AND HAVE AN INTERNAL DRIP SYSTEM FOR CONDENSATION. UTILITY METERS, TRANSFORMERS AND FIXED TRASH DISPOSAL RECEPTACLES THAT CANNOT BE CONCEALED FROM THE PUBLIC RIGHT OF WAY SHALL BE SCREENED WITH AN OPAQUE FENCE OR WALL.

**WATER AND SEWER CAPACITY:**

1. WATER 0 GPD (CURRENT USE)
2. WATER 1920 GPD (PROPOSED USE)
3. SEWER 0 GPD (CURRENT USE)
4. SEWER 1920 GPD (PROPOSED USE)

NOTE: ELEVATIONS OF EXISTING 6" SANITARY SEWER SERVICE UNKNOWN. MINIMUM SLOPE OF 1.0% WAS ASSUMED FOR DESIGN. ELEVATIONS TO BE VERIFIED BY CONTRACTOR AND ANY DIFFERENCES SHALL BE PROVIDED TO THE ENGINEER FOR ANALYSIS.

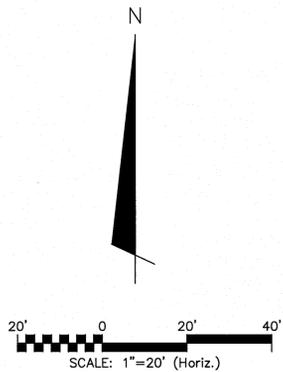
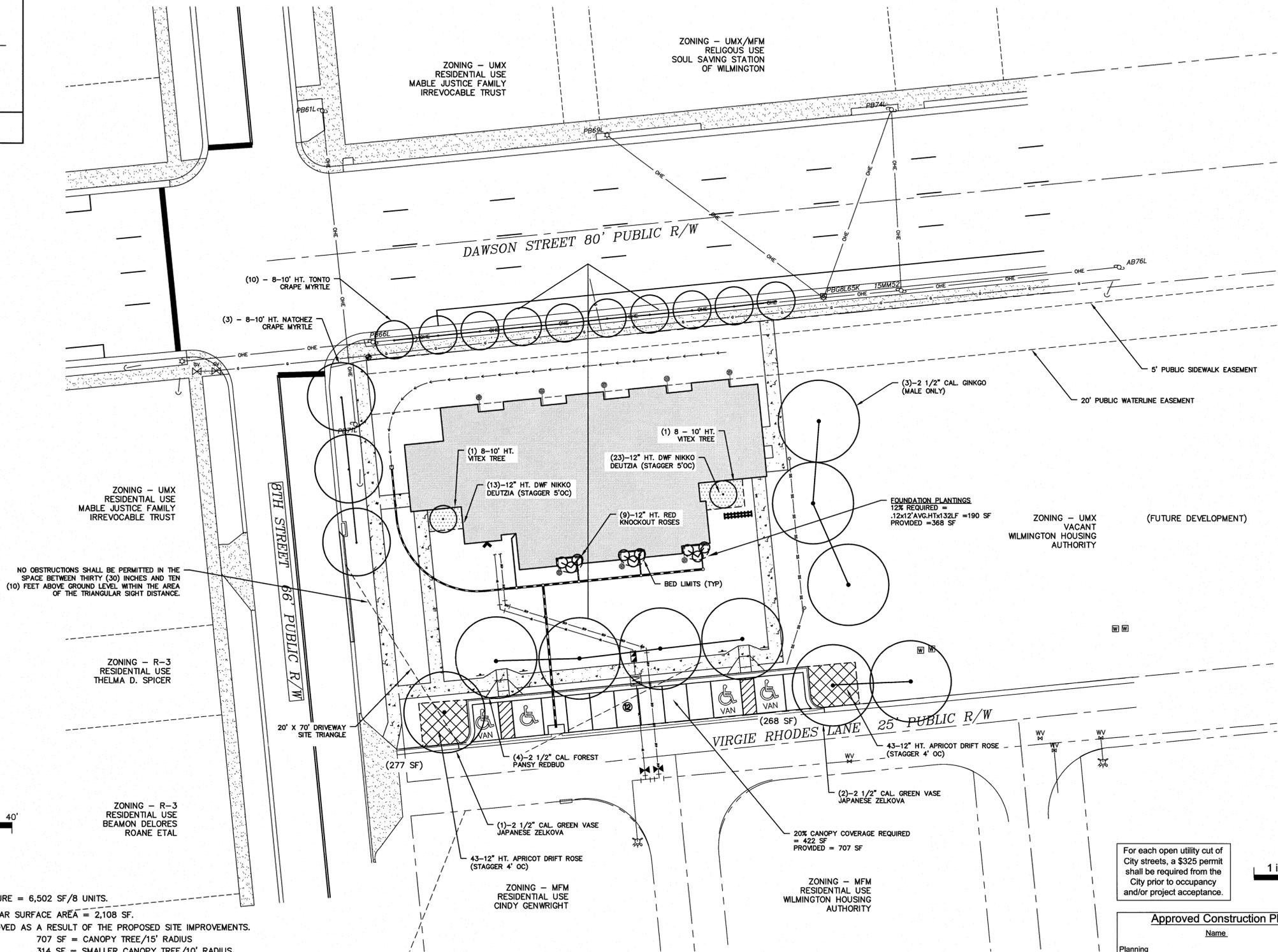
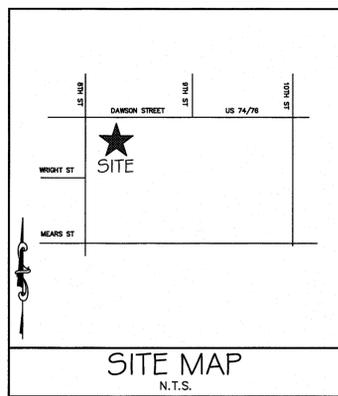


STORMWATER MANAGEMENT PLAN  
APPROVED  
CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_

Approved Construction Plan  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
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.





**NOTES:**

- TOTAL SQUARE FOOTAGE OF STRUCTURE = 6,502 SF/8 UNITS.
- TOTAL SQUARE FOOTAGE OF VEHICULAR SURFACE AREA = 2,108 SF.
- NO SIGNIFICANT TREES WILL BE REMOVED AS A RESULT OF THE PROPOSED SITE IMPROVEMENTS.
- CANOPY COVERAGE CALCULATIONS:  
707 SF = CANOPY TREE/15' RADIUS  
314 SF = SMALLER CANOPY TREE/10' RADIUS  
PERIMETER TREES BASED ON % OVERHANG
- TREE REQUIREMENT CALCULATIONS:  
0.65 ACRES DISTURBED X 15 TREES/ACRE = 10 REQUIRED TREES  
PROPOSED: 10 NEW PLANTINGS  
PRESERVED: NONE EXISTING  
TOTAL: 10 TREES
- PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- ALL PLANTED AND RETAINED LIVING MATERIAL REQUIRED TO MEET THE PROVISIONS OF THE CITY OF WILMINGTON LAND DEVELOPMENT CODE, SHALL BE PERPETUALLY PROTECTED AND MAINTAINED TO PROFESSIONALLY ACCEPTED STANDARDS BY JOINT AND SEVERAL RESPONSIBILITY OF THE OWNER, OCCUPANT, TENANT, AND REPRESENTATIVE AGENTS OF THE PROPERTY ON WHICH THE MATERIAL IS LOCATED.
- FUTURE TRANSFORMER WILL BE FULLY SCREENED WITH EVERGREEN SHRUBS 36" IN HEIGHT SPACED FOR 100% OPACITY.

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1 inch

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**STORMWATER MANAGEMENT PLAN APPROVED**

CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
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**TISE-KIESTER ARCHITECTS**

**TKa**

119 E. Franklin St. Suite 300  
Chapel Hill, NC 27514  
Tel: 919.967.0158  
Fax: 919.967.0159  
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**ENGINEER:**  
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REV. 1 TRC COMMENTS 04/26/13

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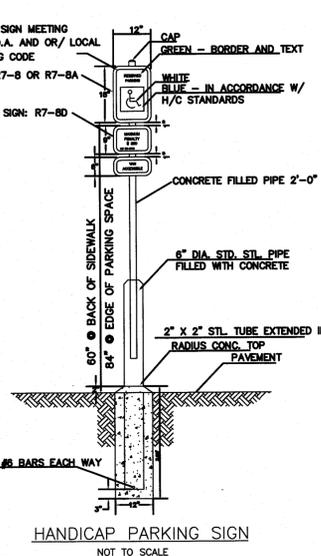
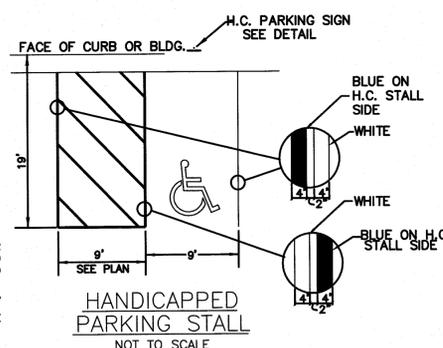
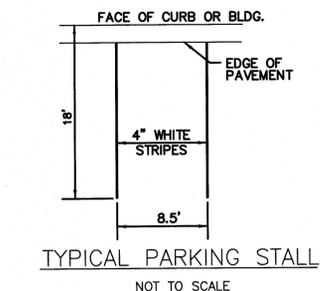
LANDSCAPE PLAN  
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**CL-101**

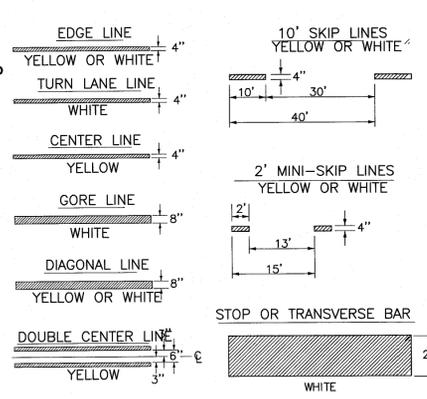
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**GENERAL CONSTRUCTION NOTES:**

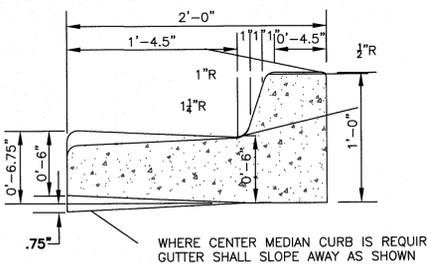
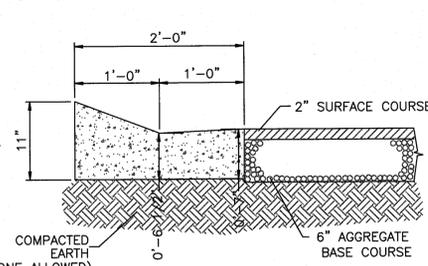
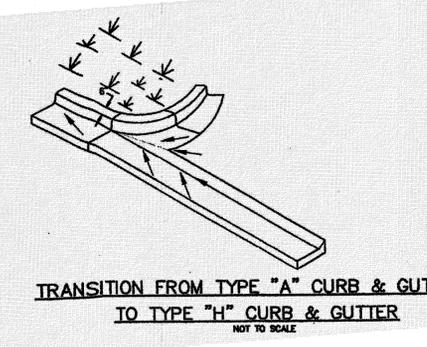
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WILMINGTON, NORTH CAROLINA UNLESS OTHERWISE NOTED.
- ALL TREES, STUMPS, ROOT MAT, ETC. SHALL BE ENTIRELY REMOVED REGARDLESS OF DEPTH. BURNING OF ORGANIC MATERIAL WITHIN THE PROJECT LIMITS IS NOT PERMITTED. OPEN BURIAL OF DOWNED TREES AND STUMPS IS PERMITTED. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. CHIPPED MATERIALS MUST BE REMOVED PRIOR TO THE LACEMENT 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 FOR REVIEW AND APPROVAL BY APPLICABLE REGULATORY AGENCIES AND PRIOR TO UTILIZATION BY THE CONTRACTOR. NO AREAS DESIGNATED AS WETLANDS SHALL 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 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.
- APPROVED COVERS TO PREVENT MATERIAL FROM LEAVING THE TRUCKS MUST BE INSTALLED OVER ALL LOADED TRUCKS HAULING BORROW EXCAVATED MATERIAL AND/OR FINE AGGREGATES TO OR FROM THE PROJECT SITE OVER STATE MAINTAINED ROADS. THE TRUCKS SHALL BE FULLY COVERED TO PREVENT MATERIAL FROM LEAVING THE TRUCK DURING HAULING. ANY MATERIALS DELIVERED, TRANSPORTED, OR REMOVED IN UNCOVERED TRUCKS WILL BE INCORPORATED INTO THE PROJECT OR REMOVED FROM THE SITE WITH NO ADDITIONAL PAYMENT TO THE CONTRACTOR FOR FURNISHING, REMOVING, OR PLACING THE MATERIALS INVOLVED.
- DRIVEWAYS ARE NOT TO BE LOCATED OVER WATER METERS OR SEWER CLEANOUTS. METERS WILL NOT BE SET IF WATER METER BOXES, SEWER CLEAN-OUTS, VALVE BOXES OR OTHER APPURTENANCES ARE DAMAGED OR IMPROPERLY POSITIONED.
- EXISTING PAVING, CONCRETE, AND OTHER UNSUITABLE MATERIALS SHALL NOT BE USED AS FILL AND SHALL BE DISPOSED OF OUTSIDE THE PROJECT LIMITS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR IS RESPONSIBLE FOR PERMITTING AND FEES FOR DISPOSAL.



**ASPHALT PAVEMENT SECTION (LIGHT DUTY PAVEMENT)**  
NOT TO SCALE



**PAVEMENT MARKING DETAIL**  
NOT TO SCALE



**GENERAL NOTES**

- IN ACCORDANCE WITH N.C.G.S. 136-44.14, ALL STREET CURBS BEING CONSTRUCTED OR RECONSTRUCTED SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY HANDICAPPED ON EACH SIDE OF ROAD, WHERE CURBS AND SIDEWALKS ARE PROVIDED AND AT OTHER MAJOR POINTS OF PEDESTRIAN FLOW.
- WHEELCHAIR RAMPS SHALL BE LOCATED AS INDICATED IN DETAIL DRAWINGS; HOWEVER, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
- CURB RAMPS SHALL HAVE DETECTABLE WARNINGS EXTENDING THE FULL WIDTH OF THE RAMP AND A MINIMUM OF 2'-FT. IN LENGTH.

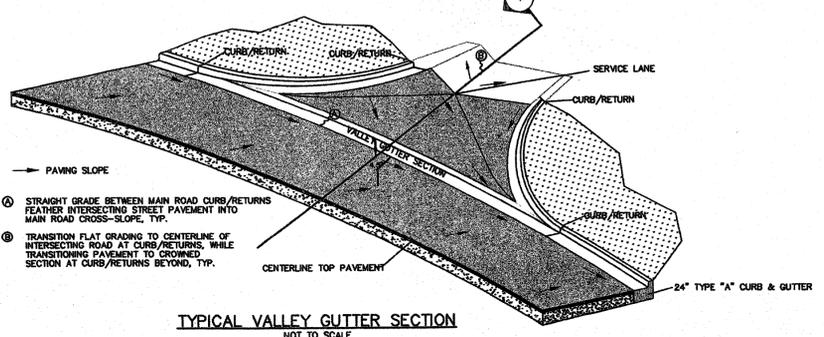
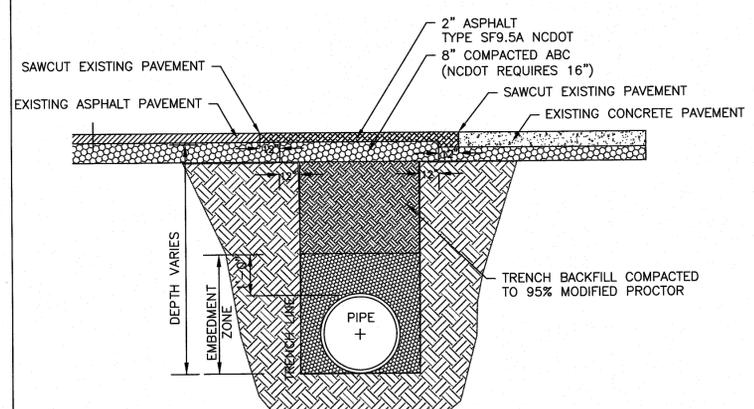
**CONSTRUCTION NOTES**

- CONSTRUCTION SHALL CONFORM WITH CONSTRUCTION STANDARDS OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAR STREET.
- WHEELCHAIR RAMPS SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
- A 1/2-IN. EXPANSION JOINT SHALL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
- IN NO CASE SHALL THE WIDTH OF A CURB RAMP OR CURB CUT BE LESS THAN 40-IN. (3'-FT. 4-IN.), NOT INCLUDING THE FLARED SIDES.
- TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
- THE MAXIMUM SLOPE ON THE CURB RAMP RUN IS 1:12.
- THE MAXIMUM CROSS SLOPE OF THE CURB RAMP IS 1:50.
- MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
- ANY RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES AND A LEVEL AREA AT LEAST 48-IN. LONG BETWEEN THE CURB RAMPS.
- DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.95-IN., A HEIGHT OF NOMINAL 0.2-IN. AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35-IN. AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

**ADDITIONAL NOTES**

- STOP BARS SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT.
- PARKING SHALL BE ELIMINATED A MINIMUM OF 20 FEET BACK OF THE PEDESTRIAN CROSSWALK.
- ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION. THIS DOCUMENT IS AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402.
- CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
- THE BOTTOM OF DIAGONAL (CORNER TYPE) CURB RAMPS AT MARKED CROSSINGS SHALL HAVE 48-IN. MINIMUM CLEAR SPACE WITHIN THE MARKINGS.
- IF DIAGONAL CURB RAMPS HAVE FLARED SIDES, THEY SHALL HAVE AT LEAST A 24-IN. LONG SEGMENT OF STRAIGHT CURB LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.

**SD 8-09**

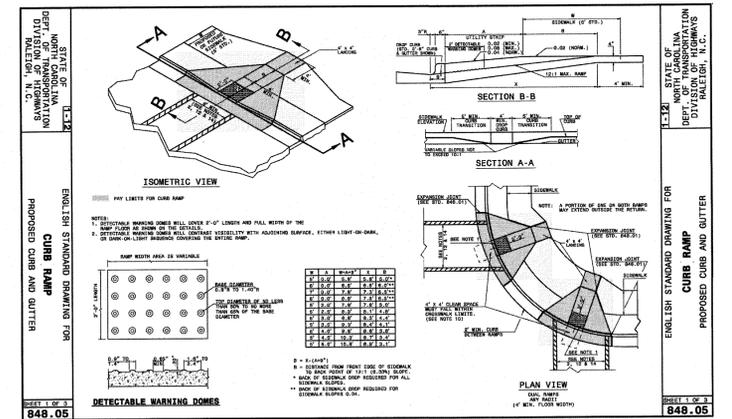


- NOTES:**
- BACKFILL TO BE INSTALLED IN 6" LIFTS (MAXIMUM) AND COMPACTED TO A MINIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED A.A.S.H.T.O. STANDARD METHOD T-99
  - CUT - BACK TO BE PREPARED AFTER TRENCH BACKFILLING AND COMPACTION

**STANDARD SHOWING METHOD MAKING PAVEMENT REPAIRS WHERE PIPE IS INSTALLED**

**PAVEMENT REPAIR DETAIL**  
SD 1-16  
NOT TO SCALE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS WILMINGTON, N.C.	ENGLISH STANDARD DRAWING FOR CURB RAMPS NOTES	ENGLISH STANDARD DRAWING FOR CURB RAMPS NOTES
DATE: 8-1-84 SCALE: 1" = 4'-0"	DATE: 8-1-84 SCALE: 1" = 4'-0"	DATE: 8-1-84 SCALE: 1" = 4'-0"



**TISE-KIEFER ARCHITECTS**  
**TKa**  
119 E. Franklin St. Suite 300  
Chapel Hill, NC 27514  
Tel: 919.967.0158  
Fax: 919.967.0159  
www.tisekiester.com

**ENGINEER:**  
McKim & Creed, Inc.  
243 North Front St.  
Wilmington, NC 28401  
910-343-1048

**OWNER:**  
Wilmington Housing  
Authority  
1524 South 16th St.  
Wilmington, NC 28401

**Jervay House II**

809 Virgie Rhodes Lane

Job Number: 63320002  
Date: 030113

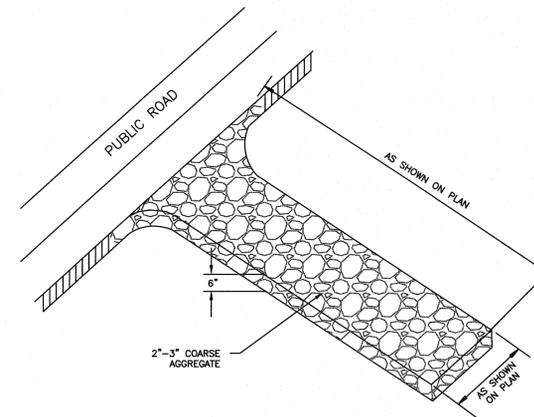
Revisions:  
REV. 1 TRC COMMENTS 04/26/13  
REV. 2 TRC COMMENTS 05/10/13

**ISSUED FOR REVIEW - NOT FOR CONSTRUCTION**

Site Details  
Sheet  
**CS-501**  
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**SEEDBED PREPARATION:**

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTRANCE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW\*).
5. CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. APPLY:
  - AGRICULTURAL LIMESTONE - 2 TONS/ACRE
  - FERTILIZER - 1000 LBS/ACRE (10-10-10)
  - SUPERPHOSPHATE - 500 LBS/ACRE (20%)
  - MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)
  - ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE



CONSTRUCTION ENTRANCE/EXIT

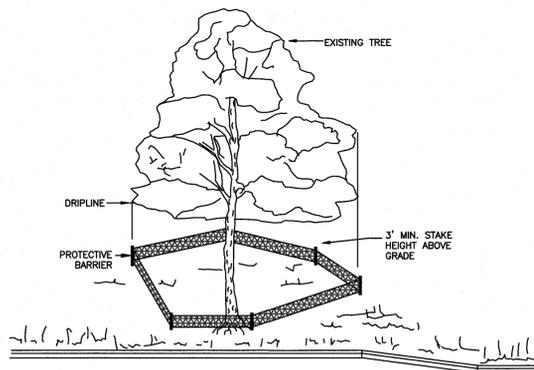
SD 13-03  
NOT TO SCALE

TEMPORARY SEEDING			
GRASS TYPE	AMOUNT/ 1000 S.F.	TIME OF SEEDING	INITIAL
RYE GRASS	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
BROWNTOP MILLET	1-2 LBS.	JUNE - AUGUST	25 LBS. 10-10-10

PERMANENT SEEDING			
GRASS TYPE	AMOUNT/ 1000 S.F.	TIME OF SEEDING	INITIAL
BERMUDA COMMON	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
FESCUE TALL (KENTUCKY 31)	5-7 LBS.	JUNE - AUGUST FEB. - OCT.	25 LBS. 10-10-10
SERICEA LESPEDeza (SLOPES)	1-2 LBS.	MARCH - APRIL	25 LBS. 10-10-10

GROUND STABILIZATION CRITERIA		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, 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)



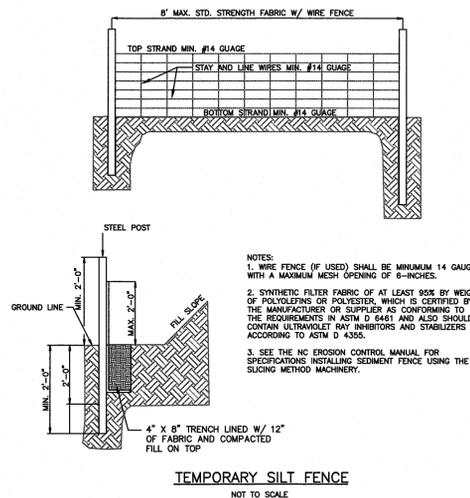
**NOTE**  
TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRIFLINE. DRIP LINE - THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES.

**METHOD OF TREE PROTECTION DURING CONSTRUCTION**

SD 15-08  
NOT TO SCALE

**TREE PROTECTION NOTES:**

1. NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS. [18-457(b)]
2. PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. [18-458]
3. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS. [18-457(d)]
4. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS. [18-458]
5. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. [18-458]
6. REGULATED AND SIGNIFICANT TREES IN THE STREET YARD [18-456(c)] AND ANY TREES IN ANY REQUIRED BUFFERS [18-456(d)] ARE REQUIRED TO BE RETAINED.



**NOTES:**  
1. WIRE FENCE (IF USED) SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 8-INCHES.  
2. SYNTHETIC FILTER FABRIC OF AT LEAST 90% BY WEIGHT OF POLYESTER OR POLYPROPYLENE, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 4841 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

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

1 inch

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

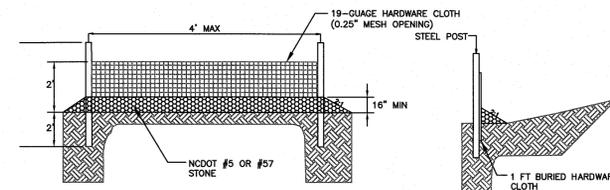
Fire \_\_\_\_\_

**STORMWATER MANAGEMENT PLAN**  
**APPROVED**

CITY OF WILMINGTON  
ENGINEERING DEPARTMENT

DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_

SIGNED \_\_\_\_\_



- NOTES:**
1. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
  2. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 1-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
  3. PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.

**GUIDELINES FOR HARDWARE CLOTH & GRAVEL INLET PROTECTION**

SD 13-01  
NOT TO SCALE



**TISE-KIESTER ARCHITECTS**

**TKa**

119 E. Franklin St. Suite 300  
Chapel Hill, NC 27514  
Tel: 919.967.0158  
Fax: 919.967.0159  
www.tisekiester.com

**ENGINEER:**  
McKim & Creed., Inc.  
243 North Front St.  
Wilmington, NC 28401  
910-343-1048

**OWNER:**  
Wilmington Housing Authority  
1524 South 16th St.  
Wilmington, NC 28401

**Jervay House II**

809 Virgie Rhodes Lane

Job Number: 63320002

Date: 030113

Revisions:

REV. 1 TRC COMMENTS 04/26/13

REV. 2 TRC COMMENTS 05/10/13

**ISSUED FOR REVIEW - NOT FOR CONSTRUCTION**

SEDIMENTATION & EROSION CONTROL DETAILS

Sheet

**CE-501**

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ENGINEER:  
McKim & Creed., Inc.  
243 North Front St.  
Wilmington, NC 28401  
910-343-1048

OWNER:  
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Authority  
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LANDSCAPE DETAILS

Sheet

**CL-501**

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1 inch

**Approved Construction Plan**

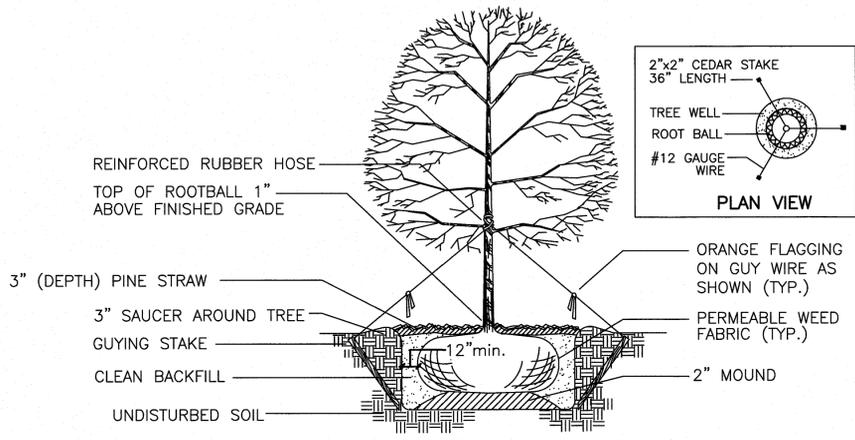
Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_

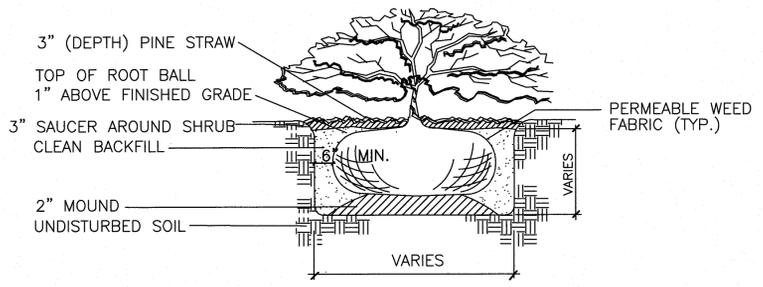
**STORMWATER MANAGEMENT PLAN**

**APPROVED**

CITY OF WILMINGTON  
ENGINEERING DEPARTMENT  
DATE \_\_\_\_\_ PERMIT # \_\_\_\_\_  
SIGNED \_\_\_\_\_



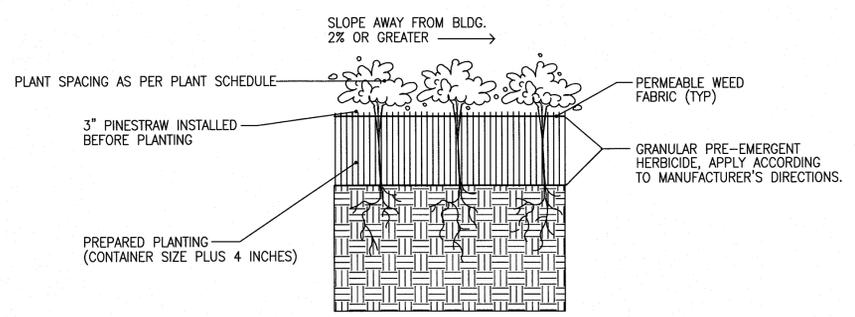
**TREE PLANTING DETAIL**  
NO SCALE



**SHRUB PLANTING DETAIL**  
NO SCALE

**PLANTING NOTES:**

1. ALL TOPSOIL SHALL BE RETAINED AND REUSED IN PLANTING HOLES AFTER DIGGING HAS BEEN COMPLETED. USE ANY EXCESS SOIL FROM THE PLANTING PIT AS WELL TO FORM A SAUCER 2" TO 4" HIGH AROUND THE PLANT. SAUCERS SHALL BE THE SAME DIAMETER OR SLIGHTLY LARGER THAN THE ROOT BALL.
2. MULCHING SHALL BE COMPLETED WITHIN 48 HOURS AFTER PLANTING OF NEW PLANT MATERIAL. MULCH SHALL BE SPREAD TO A DEPTH OF 3" FOR INDIVIDUALLY PLANTED TREES AND SHRUBS AND SHOULD COVER THE ENTIRE SAUCER AREA OF EACH PLANT.
3. ALL PLANTS SHALL BE "WATERED IN" BY FLOODING THE BACKFILLED HOLE WITHIN THE SAME WORKING DAY UPON WHICH THEY WERE PLANTED. DURING AND IMMEDIATELY AFTER WATERING, ALL PLANTS SHALL BE ADJUSTED AS NECESSARY TO INSURE CORRECT DEPTH OF PLANTING, VERTICAL ALIGNMENT AND/OR TO COMPENSATE FOR SETTLING. SOIL SHALL BE FIRMED AROUND EACH PLANT AS FINAL ADJUSTMENTS ARE MADE.
4. PLANTS SHALL BE SET PLUMB AND HELD IN POSITION UNTIL SUFFICIENT SOIL HAS BEEN FIRMLY PLACED AROUND THE ROOTS OR BALL. PLANTS SHALL BE SET AT GROUND LEVEL OR NO MORE THAN 2" ABOVE THE EXISTING GRADE. THIS IS TO ENSURE ADEQUATE RECEPTION OF OXYGEN AND MOISTURE TO THE ROOTS OF THE PLANT.
5. CLEAR, REMOVE AND DISPOSE OF BRUSH, SNAGS, AND RUBBISH WITHIN 60° OF THE PLANTING HOLE. GRADE THE AREA TO MEET THE EXISTING LANDSCAPE UNLESS PLANTING ON A SLOPE.
6. PLANT ALL NEW PLANT MATERIAL AT ORIGINAL FIELD GROWN LEVEL. TAMP SOIL MIX BELOW ROOT BALL.
7. PLANTING HOLES ASSOCIATED WITH PROPOSED TREES SHOULD BE SLOPED (NOT COMPACTED) AND A MINIMUM OF 18-24 INCHES WIDER THAN THE DIAMETER OF THE ROOT BALL. TREES WILL BE INSTALLED SUCH THAT THE TOP OF THE ROOT MASS IS LEVEL WITH THE SURFACE OF THE PLANTING HOLE. TREES SHALL ALSO BE INSTALLED 3-5 INCHES ABOVE GRADE ON SITES CONTAINING CLAY.



**GROUNDCOVER/PERENNIAL PLANTING DETAIL**

NO SCALE





ENGINEER:  
McKim & Creed., Inc.  
243 North Front St.  
Wilmington, NC 28401  
910-343-1048

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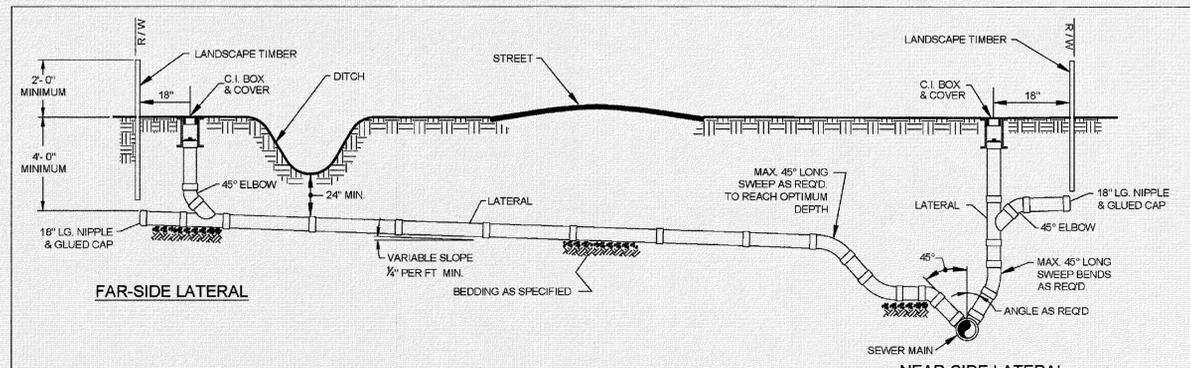
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CFPUA SANITARY SEWER STANDARD DETAILS (SSD-2)

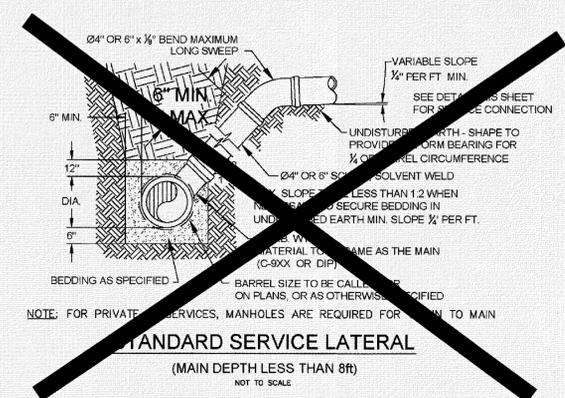
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**CU-502**

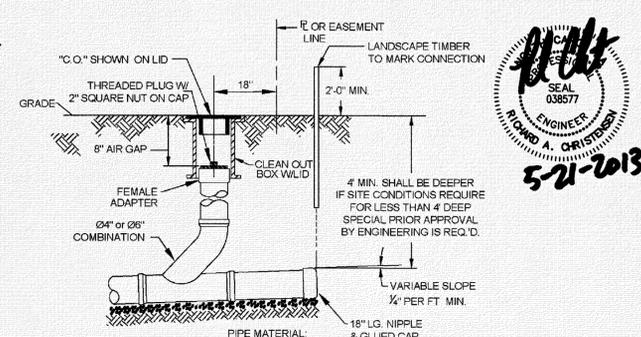
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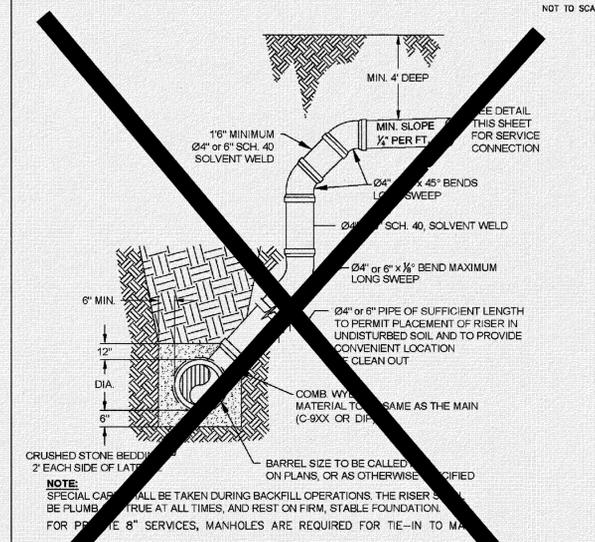
NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN  
**STANDARD SERVICE CONNECTION TO SANITARY SEWER**  
NOT TO SCALE



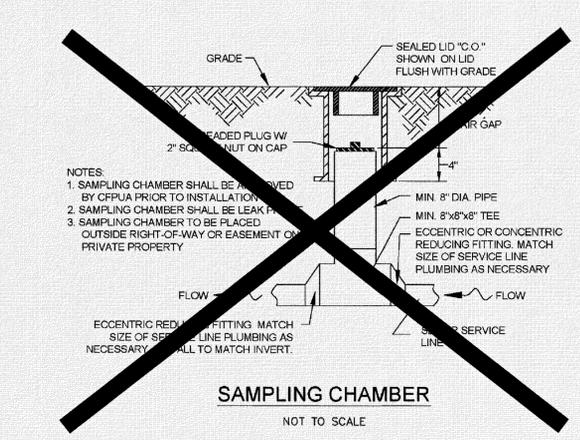
NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN  
**STANDARD SERVICE LATERAL**  
(MAIN DEPTH LESS THAN 8ft)  
NOT TO SCALE



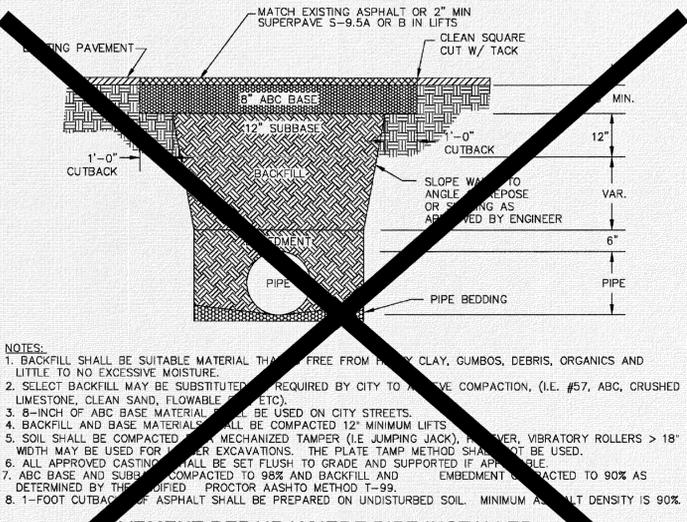
NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN  
**SERVICE CONNECTION & CLEAN-OUT**  
NOT TO SCALE



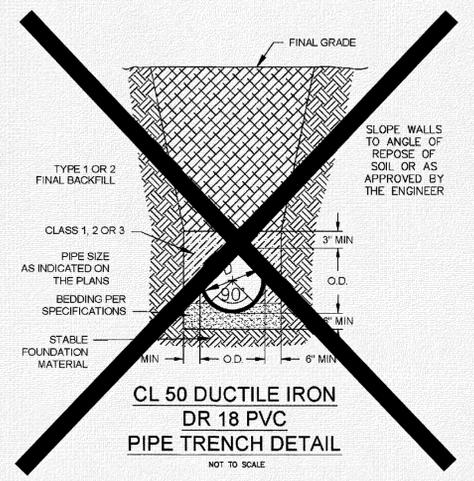
NOTE: SPECIAL CARE SHALL BE TAKEN DURING BACKFILL OPERATIONS. THE RISERS SHALL BE PLUMB & TRUE AT ALL TIMES, AND REST ON FIRM, STABLE FOUNDATION.  
FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN  
**DEEP SERVICE LATERAL**  
(MAIN DEPTH GREATER THAN 8ft)  
NOT TO SCALE



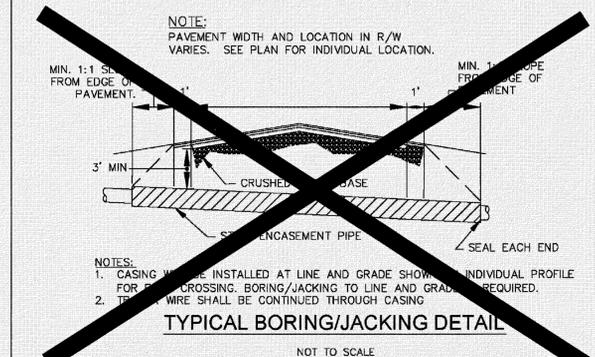
NOTE: 1. SAMPLING CHAMBER SHALL BE PROVIDED BY CFPUA PRIOR TO INSTALLATION.  
2. SAMPLING CHAMBER SHALL BE LEAK PROOF.  
3. SAMPLING CHAMBER TO BE PLACED OUTSIDE RIGHT-OF-WAY OR EASEMENT OR PRIVATE PROPERTY.  
**SAMPLING CHAMBER**  
NOT TO SCALE



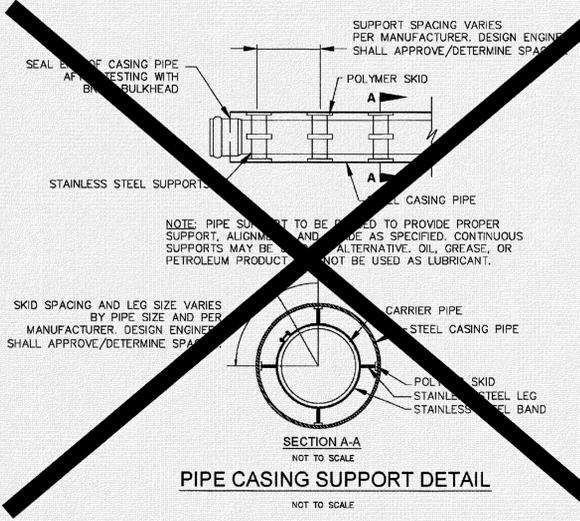
NOTE: 1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.  
2. SELECT BACKFILL MAY BE SUBSTITUTED AS REQUIRED BY CITY TO MEET COMPACTION. (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE, ETC.)  
3. 8-INCH OF ABC BASE MATERIAL SHALL BE USED ON CITY STREETS.  
4. BACKFILL AND BASE MATERIALS SHALL BE COMPACTED 12" MINIMUM LIFTS.  
5. SOIL SHALL BE COMPACTED BY MECHANIZED TAMPER (I.E. JUMPING JACK), TAMPER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR DEEPER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.  
6. ALL APPROVED CASTING SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.  
7. ABC BASE AND SUBFILL SHALL BE COMPACTED TO 98% AND BACKFILL AND EMBEDMENT CONTACTED TO 90% AS DETERMINED BY THE PROCTOR KASHITO METHOD T-99.  
8. 1-FOOT CUTBACK OF ASPHALT SHALL BE PREPARED ON UNDISTURBED SOIL. MINIMUM ASPHALT DENSITY IS 90%.  
**PAVEMENT REPAIR WHERE PIPE INSTALLED**  
(FOR PRIVATE ROADS AND PAVED AREAS; CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)  
NOT TO SCALE



**CL 50 DUCTILE IRON DR 18 PVC PIPE TRENCH DETAIL**  
NOT TO SCALE



NOTE: 1. CASING PIPE SHALL BE INSTALLED AT LINE AND GRADE SHOWN ON INDIVIDUAL PROFILE FOR BORING/JACKING TO LINE AND GRADE. 2. TIE WIRE SHALL BE CONTINUED THROUGH CASING.  
**TYPICAL BORING/JACKING DETAIL**  
NOT TO SCALE



NOTE: PIPE SUPPORT TO BE USED TO PROVIDE PROPER SUPPORT, ALIGNMENT AND GRADE AS SPECIFIED. CONTINUOUS SUPPORTS MAY BE USED AS AN ALTERNATIVE. OIL, GREASE, OR PETROLEUM PRODUCTS SHALL NOT BE USED AS LUBRICANT.  
**PIPE CASING SUPPORT DETAIL**  
NOT TO SCALE

- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
  - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
  - THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
  - THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
  - THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN & STOCKPILE AREAS (TO ARRANGE AND INSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

**THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04**

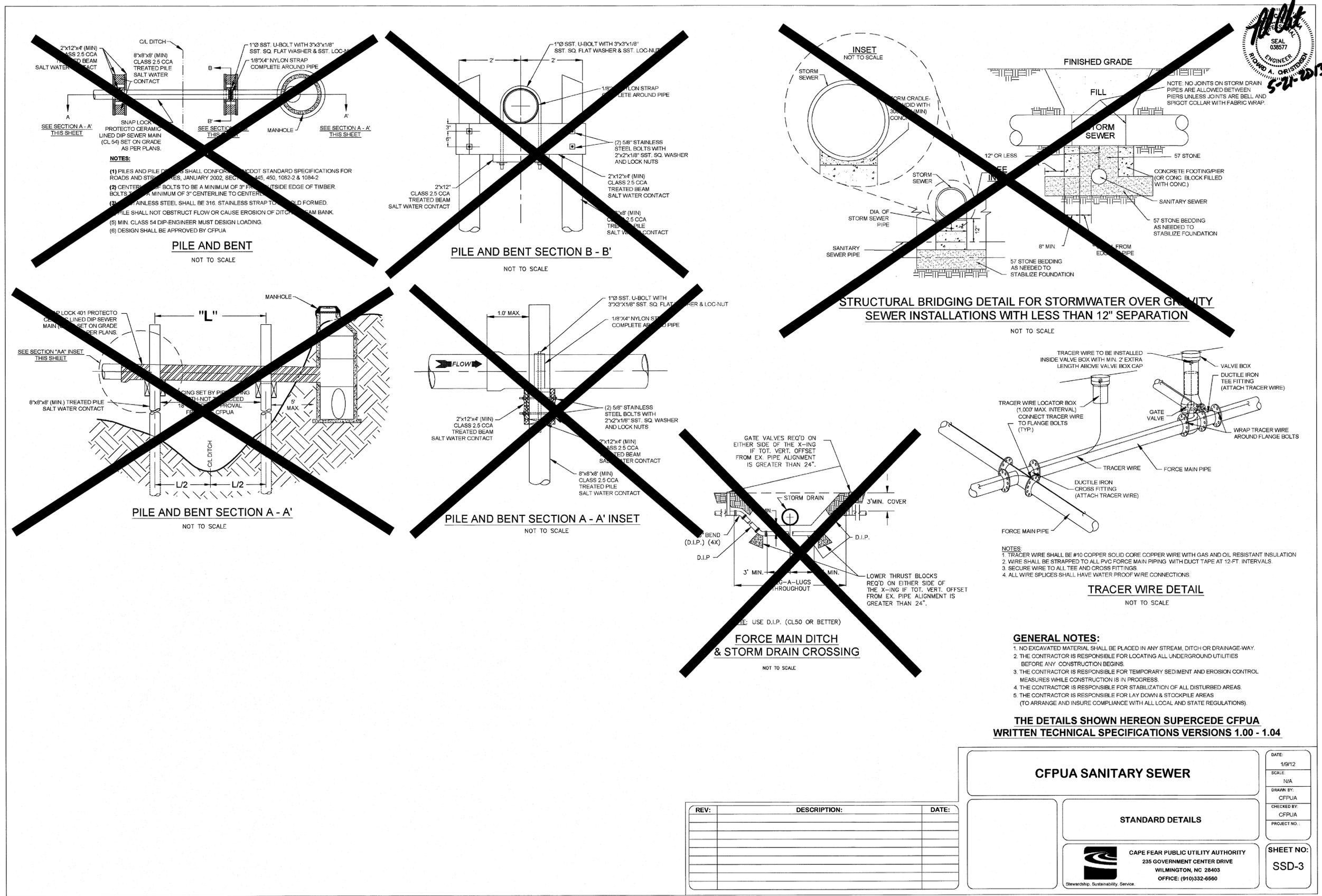
REV:	DESCRIPTION:	DATE:
1	SAMPLING CHAMBER REVISED	10/26/12

<b>CFPUA SANITARY SEWER</b>		DATE: 1/9/12
<b>STANDARD DETAILS</b>		SCALE: N/A
CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560		DRAWN BY: CFPLJA
Stewardship Sustainability Service		CHECKED BY: CFPLJA
SHEET NO: SSD-2		PROJECT NO.:

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*Handwritten:* SEAL 038577  
ENGINEER  
TISE-KIESTER ARCHITECTS  
5-21-2013



REV:	DESCRIPTION:	DATE:

<b>CFPUA SANITARY SEWER</b>		DATE: 1/9/12
<b>STANDARD DETAILS</b>		SCALE: N/A
CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560		DRAWN BY: CFPUA
Stewardship. Sustainability. Service.		CHECKED BY: CFPUA
SHEET NO: <b>SSD-3</b>		PROJECT NO.:

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ENGINEER:  
McKim & Creed., Inc.  
243 North Front St.  
Wilmington, NC 28401  
910-343-1048

OWNER:  
Wilmington Housing  
Authority  
1524 South 16th St.  
Wilmington, NC 28401

**Jervay  
House II**

809 Virgie Rhodes Lane

Job Number: 63320002

Date: 030113

Revisions:

REV. 1 TRC COMMENTS 04/26/13

REV. 2 TRC COMMENTS 05/10/13

**ISSUED FOR REVIEW -  
NOT FOR CONSTRUCTION**

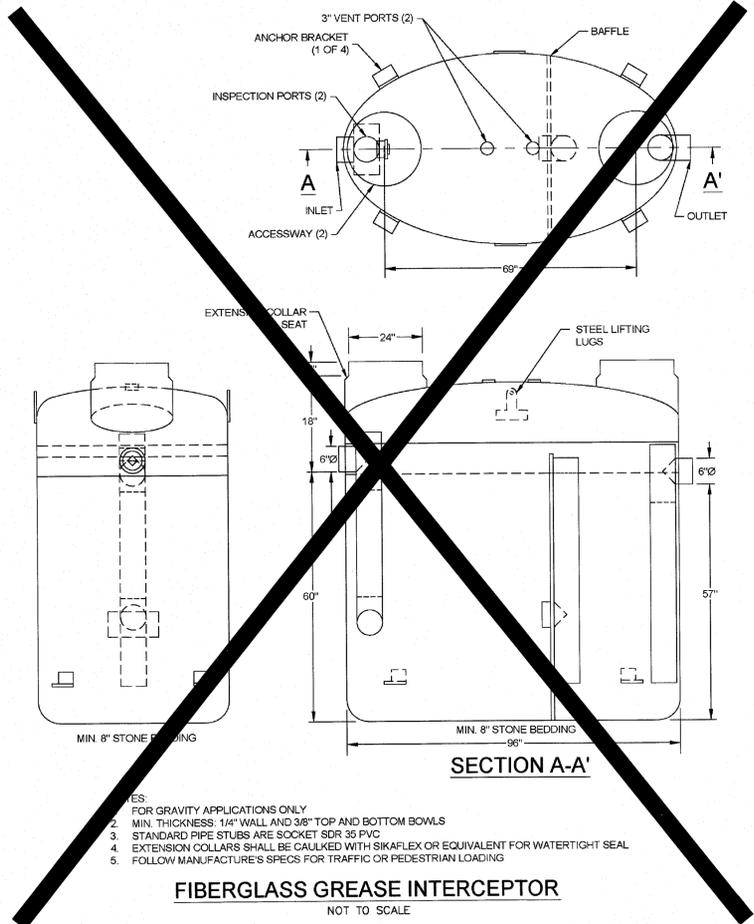
CFPUA SANITARY SEWER  
STANDARD DETAILS (SSD-4)

Sheet

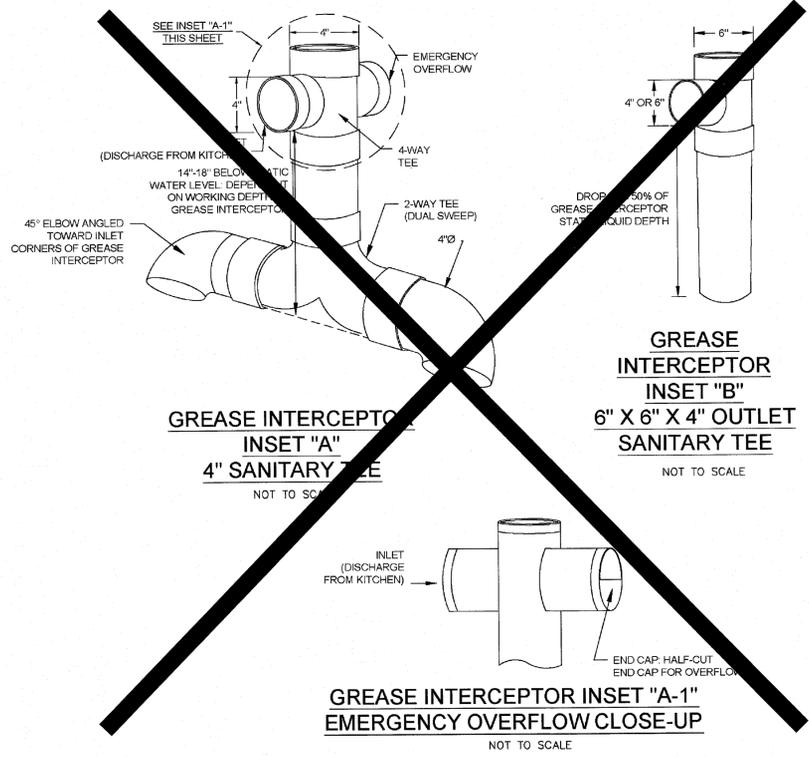
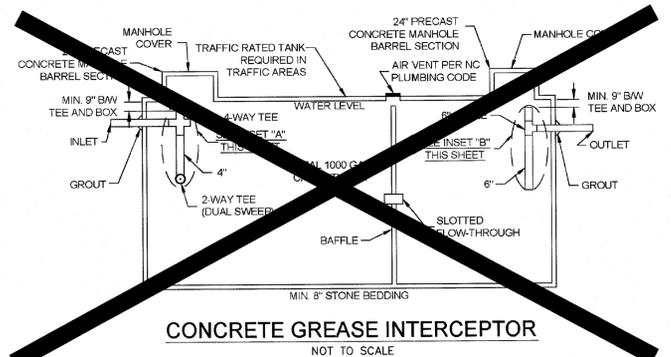
**CU-504**

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*Richard A. Christens*  
SEAL  
038577  
ENGINEER  
RICHARD A. CHRISTENS  
5-21-2013



- NOTES:
- FOR GRAVITY APPLICATIONS ONLY
  - MIN. THICKNESS: 1/4" WALL AND 3/8" TOP AND BOTTOM BOWLS
  - STANDARD PIPE STUBS ARE SOCKET SDR 35 PVC
  - EXTENSION COLLARS SHALL BE CAULKED WITH SIKAFLEX OR EQUIVALENT FOR WATERTIGHT SEAL
  - FOLLOW MANUFACTURE'S SPECS FOR TRAFFIC OR PEDESTRIAN LOADING



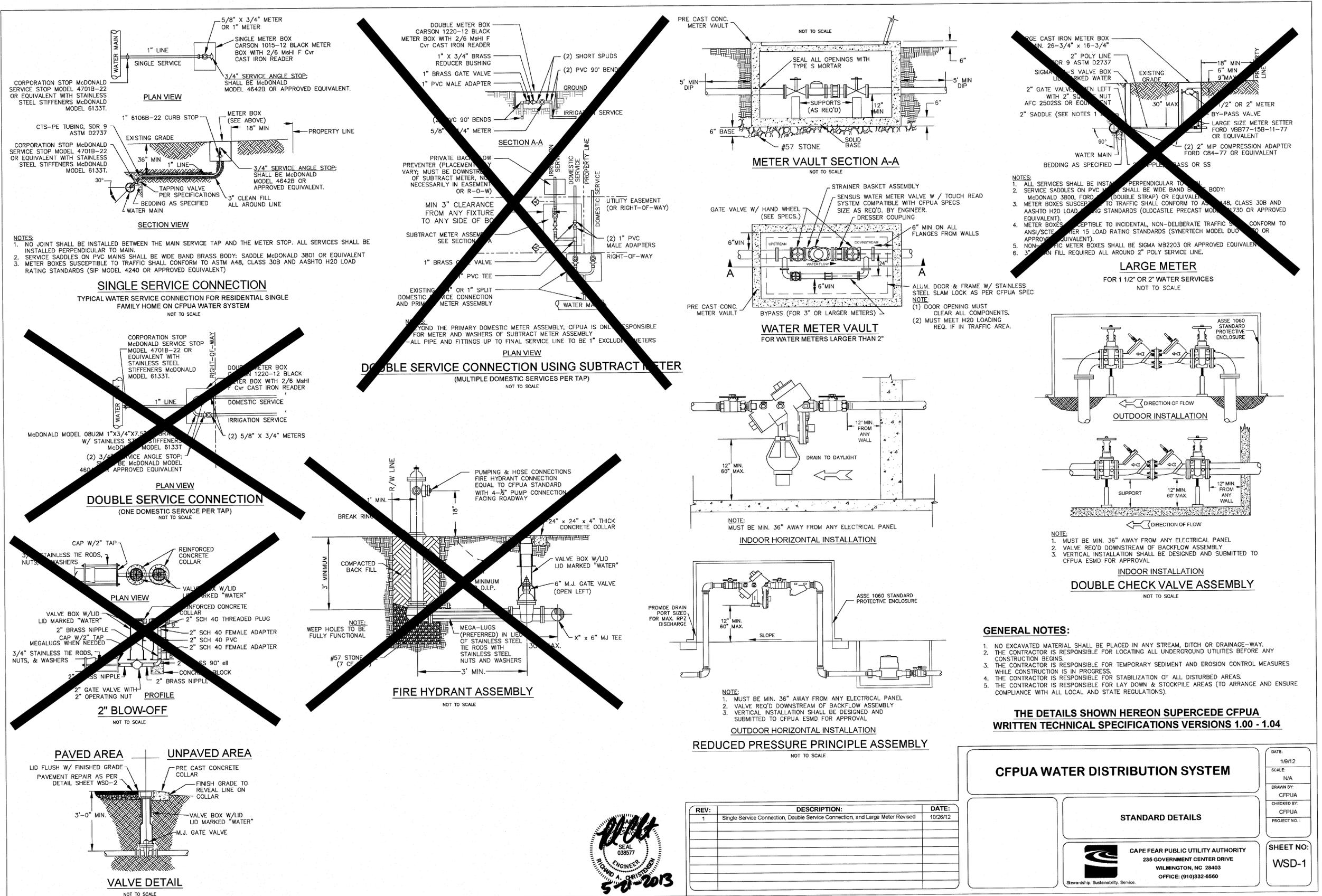
- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
  - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
  - THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
  - THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
  - THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN & STOCKPILE AREAS (TO ARRANGE AND INSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

**THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04**

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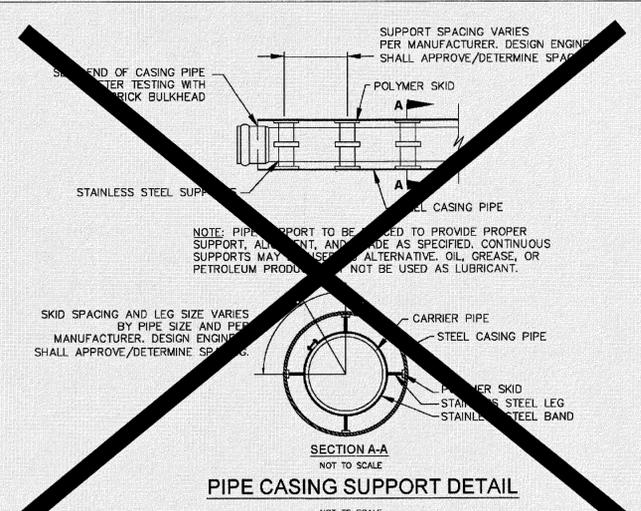
<b>CFPUA SANITARY SEWER</b>		DATE: 1/9/12
<b>STANDARD DETAILS</b>		SCALE: N/A
 CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 <small>Stewardship. Sustainability. Service.</small>		DRAWN BY: CFPUA
		CHECKED BY: CFPUA
		PROJECT NO.:
		SHEET NO.:
		SSD-4

ISSUED FOR REVIEW - NOT FOR CONSTRUCTION

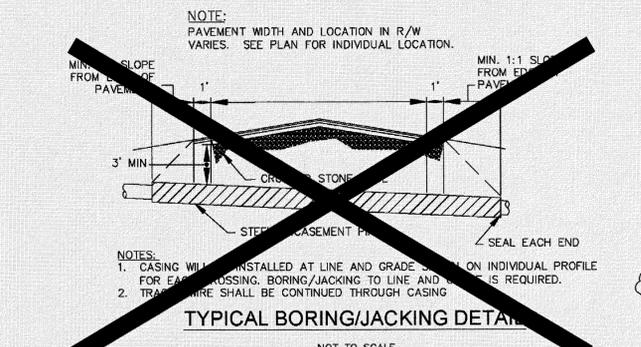


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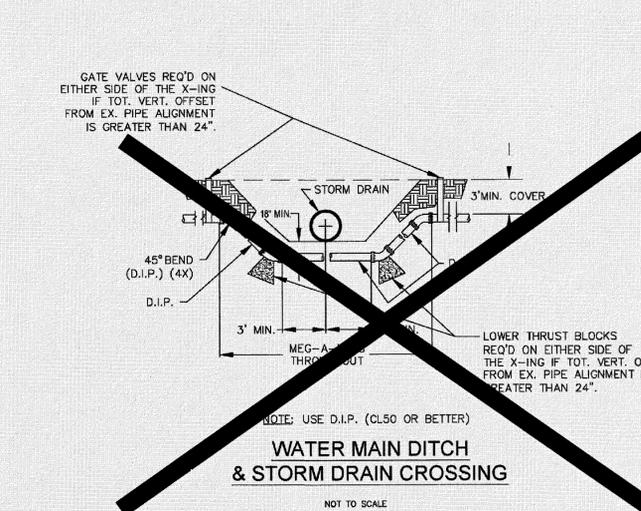
ISSUED FOR REVIEW -  
NOT FOR CONSTRUCTION



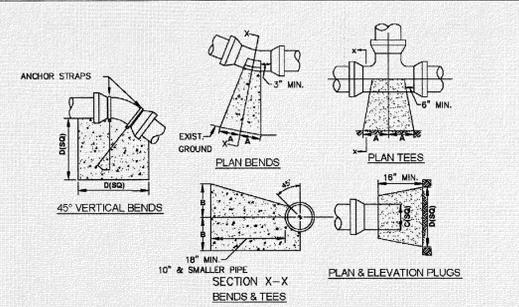
**PIPE CASING SUPPORT DETAIL**  
NOT TO SCALE



**TYPICAL BORING/JACKING DETAIL**  
NOT TO SCALE



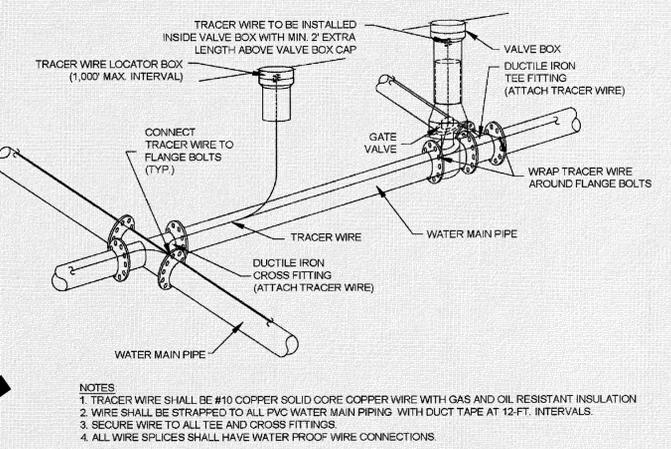
**WATER MAIN DITCH & STORM DRAIN CROSSING**  
NOT TO SCALE



SIZE	90° BENDS		45° BENDS		22 1/2° BENDS		TEES/PLUGS		45° VERT. BENDS
	A	B	A	B	A	B	A	B	
3"	8"	6"	5"	6"	3"	7"	6"	8"	27"
4"	8"	9"	5"	8"	3"	11"	6"	9"	28"
6"	14"	11"	9"	9"	8"	8"	12"	9"	36"
8"	16"	16"	12"	12"	10"	13"	14"	13"	42"
10"	18"	22"	15"	14"	14"	16"	18"	15"	50"
12"	20"	28"	18"	17"	18"	18"	22"	18"	62"
14"	26"	29"	21"	19"	18"	18"	26"	20"	72"
16"	33"	29"	25"	21"	20"	21"	32"	21"	83"
18"	40"	30"	28"	24"	22"	23"	36"	24"	88"

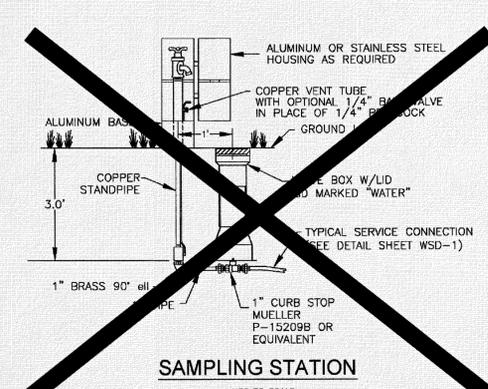
NOTES: 1. BASED ON 160 PSI TEST PRESSURE AND 2000 PSF SOIL BEARING CAPACITY.  
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.  
3. USE MEG-A-LUG (PREFERRED) IN LIEU OF BLOCKING AND RODDING.

**THRUST BLOCK DETAIL**  
NOT TO SCALE

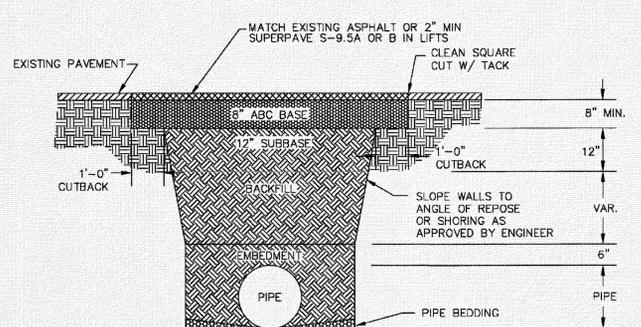


NOTES: 1. TRACER WIRE SHALL BE #10 COPPER SOLID CORE COPPER WIRE WITH GAS AND OIL RESISTANT INSULATION.  
2. WIRE SHALL BE STRAPPED TO ALL PVC WATER MAIN PIPING WITH DUCT TAPE AT 12-FT. INTERVALS.  
3. SECURE WIRE TO ALL TEE AND CROSS FITTINGS.  
4. ALL WIRE SPLICES SHALL HAVE WATER PROOF WIRE CONNECTIONS.

**TRACER WIRE DETAIL**  
NOT TO SCALE

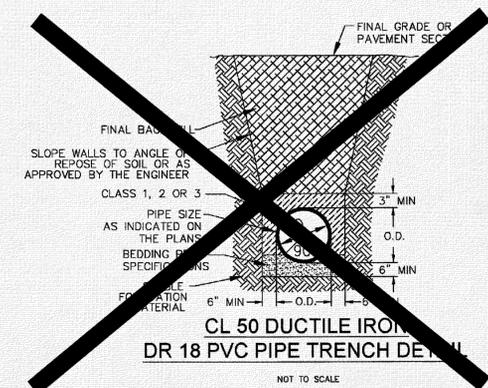


**SAMPLING STATION**  
NOT TO SCALE



NOTES: 1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.  
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).  
3. 8-INCH OF ABC BASE MATERIAL SHALL BE USED ON CITY STREETS.  
4. BACKFILL AND BASE MATERIALS SHALL BE COMPACTED 12" MINIMUM LIFTS.  
5. SOIL SHALL BE COMPACTED BY A MECHANIZED TAMPER (I.E. JUMPING JACK), HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.  
6. ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.  
7. ABC BASE AND SUBBASE COMPACTED TO 98% AND BACKFILL AND EMBEDMENT COMPACTED TO 90% AS DETERMINED BY THE MODIFIED PROCTOR AASHTO METHOD T-99.  
8. 1-FOOT CUTBACKS OF ASPHALT SHALL BE PREPARED ON UNDISTURBED SOIL. MINIMUM ASPHALT DENSITY IS 90%.

**PAVEMENT REPAIR WHERE PIPE INSTALLED**  
(FOR PRIVATE ROADS AND PAVED AREAS;  
CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY  
RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)  
NOT TO SCALE



**CL 50 DUCTILE IRON OR 18 PVC PIPE TRENCH DETAIL**  
NOT TO SCALE

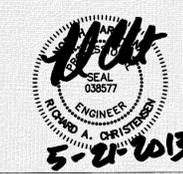
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<b>CFPUA WATER DISTRIBUTION SYSTEM</b>			DATE: 1/9/12
STANDARD DETAILS			SCALE: N/A
CAPE FEAR PUBLIC UTILITY AUTHORITY 236 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560			DRAWN BY: CFPLA
SHEET NO.: WSD-2			CHECKED BY: CFPLA
PROJECT NO.:			PROJECT NO.:

REV:	DESCRIPTION:	DATE:



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