

**SITE DATA**  
 PROJECT NAME: AAI PHARMA HEADQUARTERS  
 SITE ADDRESS: XXX PRIVATE DRIVE  
 NHC PIN: R04808-011-002-000  
 PROPERTY OWNER: AAI PHARMA SERVICES CORP  
 SOURCE DEED: DEED BOOK 5425, PAGE 2072  
 OVERALL SITE AREA: 1,448,695 SF (33.26 ACRES)  
 PROJECT AREA: 345,093 SF (7.92 ACRES)  
 DRAINAGE AREA: 217,913 SF (5.00 ACRES)  
 ZONING: AI (AIRPORT INDUSTRIAL)  
 PROPOSED USE: PROFESSIONAL OFFICES  
 CAMA LAND USE: URBAN

**DIMENSION REQUIREMENTS**

	REQUIRED	PROVIDED
FRONT SETBACK	50'	360'
SIDE SETBACK	0'	194.9' (R) / 105' (L)
REAR SETBACK	0'	223.4'
MAXIMUM HEIGHT	35'	

**BUILDING INFORMATION**  
 PROPOSED 2-STORY OFFICE BUILDING:  
 20,000 SF FOOTPRINT (GROSS 40,000 SF)

BLDG. COVERAGE / PROJECT AREA: 20,000 SF / 345,091 SF = 18.90%

**PARKING INFORMATION**

MINIMUM REQUIRED:	1 PER 300 SF = 133 SPACES
MAXIMUM ALLOWED:	1 PER 200 SF = 200 SPACES
PROVIDED:	148 SPACES

ACCESSIBLE SPACES REQUIRED: (1.25) 6 SPACES  
 ACCESSIBLE SPACES PROVIDED: 6 SPACES

BICYCLE SPACES REQUIRED: (MIN. 5 FOR 25-100 AUTO SPACES + 5 PER EA. 100 ADDITIONAL) 8 SPACES  
 BICYCLE SPACES PROVIDED: RACK OF 8 SPACES MIN.

**IMPERVIOUS CALCULATIONS**  
 WITHIN SUBJECT PARCEL:

PROPOSED BUILDING	20,000 SF
PROPOSED PAVEMENT	62,900 SF
PROPOSED SIDEWALK	7,200 SF
FUTURE DEVELOPMENT	53,200 SF
TOTAL	143,300 SF

WITHIN PRIVATE ROW:

PROPOSED+FUTURE PAVEMENT	800 SF
PROPOSED+FUTURE SIDEWALKS	300 SF
TOTAL	1,100 SF

**HVAC NOTE:**  
 HVAC WILL BE LOCATED ON THE ROOF SCREENED BY EXTERIOR WALLS.

**FLOOD NOTE:**  
 THIS TRACT LIES WITHIN DESIGNATED FLOOD ZONE X, ACCORDING TO FEMA FIRM COMMUNITY-PANEL NUMBER 3720312800J, BEARING AN EFFECTIVE DATE OF APRIL 3, 2006. ZONE "X" INCLUDES AREAS DETERMINED TO BE OUTSIDE THE 0.2% (500-YEAR) ANNUAL CHANCE FLOODPLAIN.

**SWAMP FOREST WETLANDS CONSERVATION RESOURCE IMPACTS**

TOTAL AREA OF CITY CONSERVATION RESOURCE 50' SETBACK LINE	57,813	SF
IMPERVIOUS IMPACT IN 100' SETBACK LINE	13,841	SF
PERCENTAGE (IMPERVIOUS/CITY CONSERVATION SETBACK) (SEC. 18-341 (D) (5))	23.94	% < 25%

- GENERAL NOTES:**
- ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE.
  - PROJECT SHALL COMPLY WITH ALL FEDERAL, STATE & NEW HANOVER COUNTY REGULATIONS.
  - GENERAL CONTRACTOR TO COORDINATE THE SIDEWALK CLOSURE AND PEDESTRIAN ACCESS PLAN WITH SKIPPER FUNDERBURG, Skipper.Funderburg@wilmingtonnc.gov. PRIOR TO ANY SIDEWALK CLOSURES.
  - INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS.
  - ALL HVAC EQUIPMENT WILL BE LOCATED ON THE ROOF.
  - 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 ALL PUBLIC STREETS ABUTTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.
  - THE CITY SHALL BE NOTIFIED IMMEDIATELY OF ANY TRAFFIC SIGNAL FACILITIES DAMAGED DURING CONSTRUCTION.
  - DAMAGED FACILITIES SHALL BE REPLACED, AT CONTRACTOR/DEVELOPER EXPENSE.

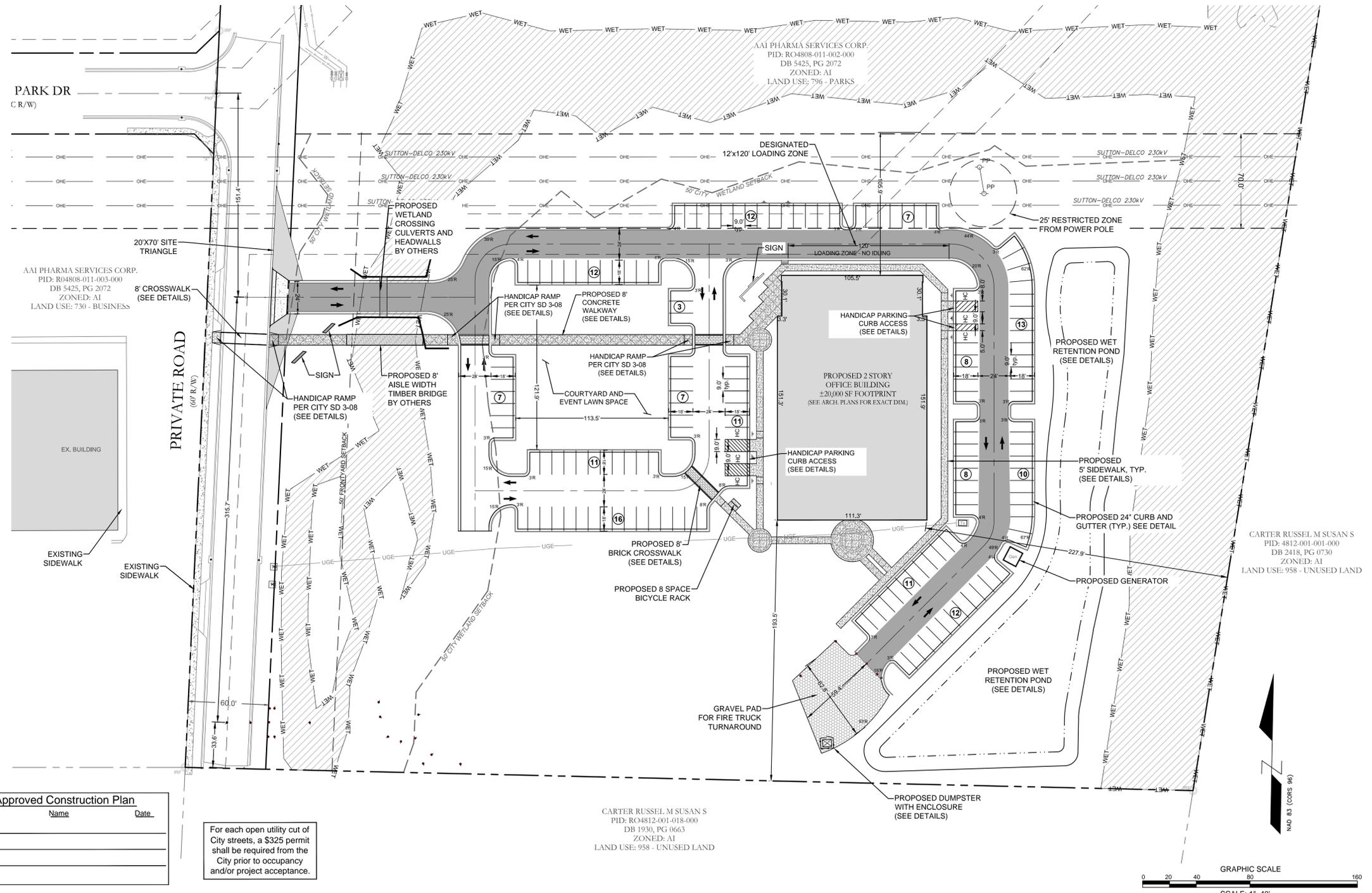
- FIRE & LIFE SAFETY NOTES:**
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS AND PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED ON SITE.
  - HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
  - TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALOWS PASSAGE BY VEHICLES.
  - CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
  - A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
  - UNDERGROUND FIRE LINE & PRIVATE WATER MAINS MUST BE PERMITTED & INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WFD - DIVISION OF FIRE & LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
  - CONSTRUCTION TYPE - IA BUSINESS OCCUPANCY (SPRINKLED).
  - ANY FDC MUST BE WITHIN 150' OF A FIRE HYDRANT & WITHIN 40' OF FIRE APPARATUS PLACEMENT.
  - LANDSCAPING OR PARKING CAN NOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT (3') CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC.

- CITY OF WILMINGTON SITE PLAN NOTES:**
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
  - ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING, OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
  - NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
  - 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, CONTACT TRAFFIC ENGINEERING REGARDING THE 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.
  - CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
  - CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
  - TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
  - 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.
  - STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
  - TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
  - 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.
  - ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
  - CONTACT TRAFFIC ENGINEERING AT 901-341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
  - WATER AND SEWER SERVICES SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.

- CITY OF WILMINGTON SITE PLAN NOTES (CONT):**
- PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910.341.3910 FOR INFORMATION.
  - CONTRACTOR DESIRES CFPUA 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.
  - ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 919-343-3910 FOR INFORMATION.
  - ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
  - ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCHR OR ASSE. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
  - CONTRACTOR SHALL MAINTAIN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
  - UNDERGROUND FIRE LINES(S) 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 910.341.0696.
  - NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
  - CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING, OR GRADING.

**LEGEND:**

	OHE	OVERHEAD ELECTRIC
	WET	WETLAND DELINEATION
		RIGHT OF WAY/BOUNDARY
		TRANSMISSION POWER ROW
		BOUNDARY LINE
		PROPOSED SETBACKS
		PROPOSED BUFFERS/EASEMENTS
		BUILDING HATCH
		CONCRETE PAVEMENT
		SIDEWALK
		ASPHALT PAVEMENT
		HEAVY DUTY ASPHALT PAVEMENT
		PAVERS, TYPE AS SPECIFIED



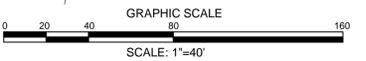
**WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**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.

CARTER RUSSEL M SUSAN S  
 PID: R04812-001-018-000  
 DB 1930, PG 0663  
 ZONED: AI  
 LAND USE: 958 - UNUSED LAND



**REVISIONS:**

No.	Description

**CLIENT INFORMATION:**  
**GK Cape Fear**  
 DEVELOPMENT

**PARAMOUNT ENGINEERING**  
 5911 Olander Drive, Suite 201  
 Wilmington, North Carolina 28403  
 (910) 791-6707 (O) (910) 791-6766 (F)  
 NC License #: C-2846

**SITE PLAN**  
 AAI PHARMA HEADQUARTERS  
 CITY OF WILMINGTON  
 NEW HANOVER CO., NORTH CAROLINA

**PROJECT STATUS:**  
 CONCEPTUAL LAYOUT: 9/10/15  
 FINAL DESIGN: 11/10/15  
 RELEASED FOR CONSTRUCTION: 04/11/16

**DRAWING INFORMATION:**  
 DATE: 04/11/16  
 SCALE: 1" = 40'  
 DRAWN BY: JAMES GAMBRE  
 CHECKED: JAMES GAMBRE



**C-2.0**  
 PEI JOB#: 15264.PE

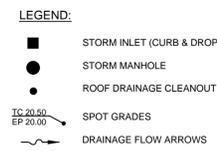
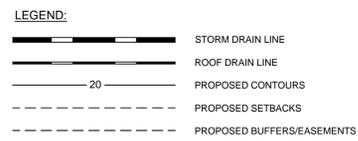
FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION



- EROSION CONTROL AND GRADING NOTES:**
- SEE GENERAL NOTES SHEET FOR GRADING, DRAINAGE, AND EROSION CONTROL NOTES AND DETAIL SHEETS FOR MORE INSTRUCTION.
  - SEE OVERALL GRADING AND DRAINAGE PLAN FOR PROPOSED FINISH GRADES AND STORM SCHEDULE.
  - CONTRACTOR SHALL COORDINATE WITH OWNER / OWNER'S REPRESENTATIVE REGARDING THE SITE'S EXISTING GRADE. EARTHWORK ACTIVITIES MAY HAVE TAKEN PLACE AFTER THE TIME THE SURVEY WAS COMPLETED.

- ASPHALT AREA AND BUILDING PAD NOTE:**
- SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE IN PAVEMENT AND STRUCTURAL AREAS, IN ACCORDANCE WITH THE E.C.S. CAROLINAS, LLC SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS REPORT DATED SEPT. 30, 2015.

- STORM DRAINAGE NOTES:**
- DRAINAGE EASEMENT AND STORMWATER SYSTEM MAINTENANCE IS THE RESPONSIBILITY OF THE DEVELOPER OR HOA, INCLUDING PONDS AND PIPES.
  - IMPERVIOUS MUST DRAIN TO THE DESIGNED STORMWATER SYSTEM UNLESS APPROVED PLANS SHOW OTHERWISE.
  - NO OBSTRUCTIONS ARE ALLOWED IN DRAINAGE EASEMENTS, INCLUDING FENCES.
  - STORM DRAINAGE STRUCTURES WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR H-20 LOADS AT A MINIMUM.
  - ALL CATCH BASIN (CB) RIM ELEVATIONS ARE LISTED AS THE "GUTTER OF FLOWLINE ELEVATION" WITHIN THE CURB SECTION. THE CONTRACTOR SHALL MAINTAIN A UNIFORM EDGE OF PAVEMENT (EP) WHEN PLACING THE STORM INLETS WITHIN THE CURB-LINE. FOR CATCH BASINS, THE RIM ELEVATION GIVEN IS 2 INCHES BELOW EP.
  - MANHOLE RIM ELEVATION SHOWN ABOVE IS FLUSH WITH PROPOSED GRADE. CONTRACTOR SHALL PROVIDE 3" CLEARANCE ABOVE PROPOSED GRADE WHEN PLACED IN A GRASS/PERVIOUS AREA; AND A FLUSH CONDITION WITH PROPOSED PAVEMENT OR IMPERVIOUS COVER.
  - PROPOSED BUILDINGS SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM ONLY.
  - PIPE MATERIAL CAN BE RCP OR HDPE. REFERENCE SPECIFICATIONS AND DRAWINGS.

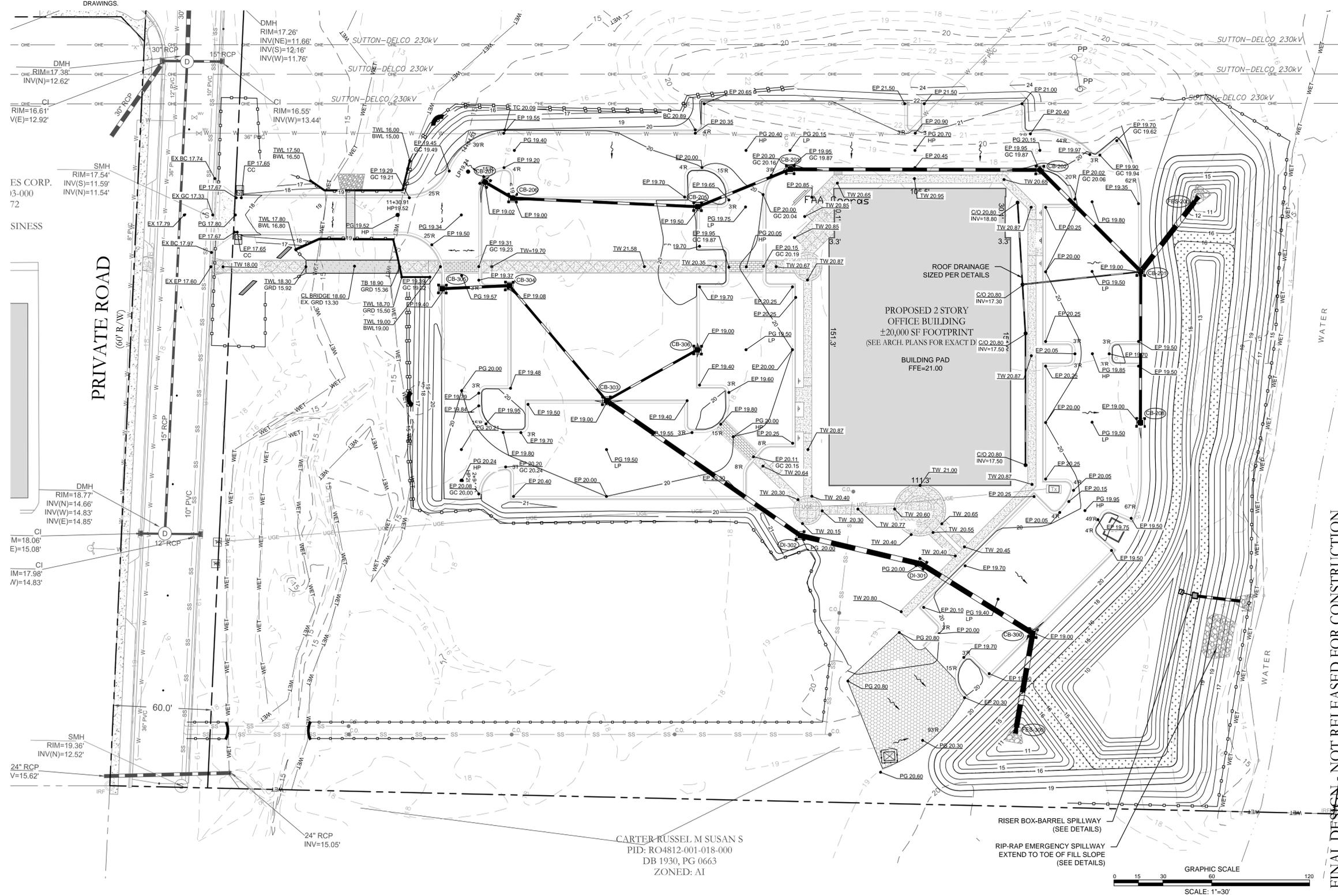


**STORM SCHEDULE:**

Upstream Node	Downstream Node	Upstream Invert	Downstream Invert	Diameter (In)	Pipe Length (ft)	Slope (%)	Upstream Rim Elev
CB-201	FES-200	11.30	11.00	36	54	0.56%	18.83
CB-202	CB-201	13.30	13.00	24	88	0.34%	19.78
CB-208	CB-201	15.75	14.80	18	92	1.03%	18.83
CB-203	CB-202	14.40	13.30	24	153	0.72%	19.78
CB-205	CB-203	14.80	14.40	18	61	0.65%	19.33
CB-206	CB-205	15.20	14.80	18	114	0.35%	18.83
CB-207	CB-206	15.30	15.20	18	20	0.50%	18.85
CB-300	FES-300	11.30	11.00	36	58	0.52%	18.83
DI-301	CB-300	12.00	11.30	36	80	0.87%	20.00
DI-302	DI-301	13.00	12.00	36	76	1.31%	20.00
CB-303	DI-302	14.70	13.00	30	145	1.17%	18.83
CB-304	CB-303	15.20	14.70	15	92	0.54%	18.91
CB-306	CB-303	15.00	14.70	15	64	0.47%	18.83
CB-305	CB-304	15.40	15.20	18	41	0.48%	19.23



- SPOT GRADE LEGEND:**
- CB = CATCH BASIN
  - DCB = DOUBLE CATCH BASIN
  - DI = DROP INLET
  - DDI = DOUBLE DROP INLET
  - YI = YARD INLET
  - MH = STORM MANHOLE
  - TC = TOP OF CURB ELEVATION
  - BC = BOTTOM OF CURB (GUTTER) ELEVATION
  - FL = FLOW LINE OF GUTTER
  - PG = PROPOSED GRADE (GROUND/GRAVEL)
  - PV = PROPOSED PAVEMENT
  - EP = EDGE OF PAVEMENT
  - EC = EDGE OF CONCRETE
  - HP = HIGH POINT ELEVATION
  - TW = SIDEWALK ELEVATION
  - CG = DITCH GRADE ELEVATION
  - CL = CENTERLINE
  - INV = INVERT
  - FES = FLARED END SECTION
  - TWL = TOP OF WALL
  - BWL = BOTTOM OF WALL



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

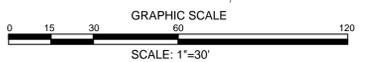
**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

**Approved Construction Plan**

Name	Date
Planning	
Traffic	
Fire	

CARTER-RUSSEL M SUSAN S  
PID: RO4812-001-018-000  
DB 1930, PG 0663  
ZONED: AI

RISER BOX-BARREL SPILLWAY (SEE DETAILS)  
RIP-RAP EMERGENCY SPILLWAY EXTEND TO TOE OF FILL SLOPE (SEE DETAILS)



FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

**CLIENT INFORMATION:**

**GK Cape Fear DEVELOPMENT**

**PARAMOUNT ENGINEERING, INC.**  
5911 Oleander Drive, Suite 201  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6760 (F)  
NC License #: C-2846

**EROSION CONTROL, GRADING, AND DRAINAGE PLAN**

AAI PHARMA HEADQUARTERS  
CITY OF WILMINGTON  
NEW HANOVER CO., NORTH CAROLINA

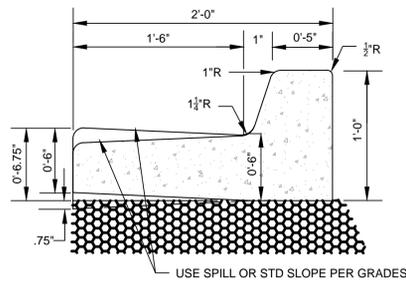
**PROJECT STATUS:**  
CONCEPTUAL LAYOUT: 8/31/15  
PRELIMINARY LAYOUT: 11/19/15  
RELEASED FOR CONST: 11/19/15

**DRAWING INFORMATION:**  
SCALE: 1"=30'  
DESIGNED: JMS  
CHECKED: JMS

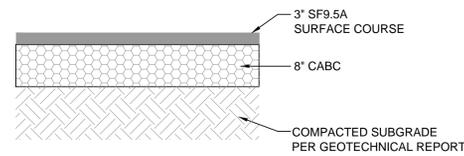
**SEAL:**  
NORTH CAROLINA PROFESSIONAL ENGINEER  
034354  
04/11/16  
JAMES BRANCO SMITH

**C-3.1**

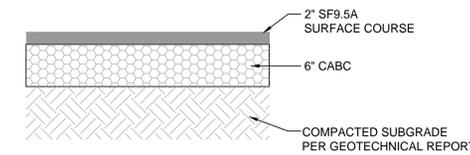
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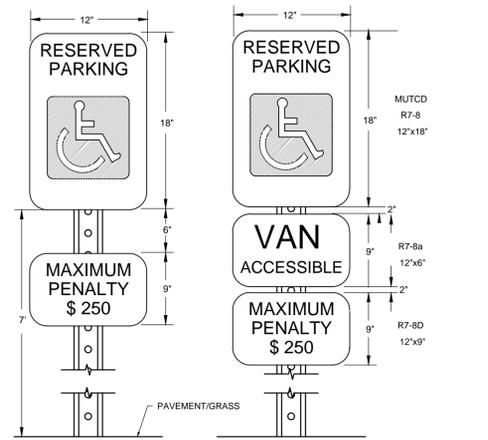
**24" CURB AND GUTTER (SPILL OR STD.)**  
NOT TO SCALE



**ASPHALT PAVEMENT SECTION (PARKING DRIVE AISLE TO DUMPSTER)**  
NOT TO SCALE

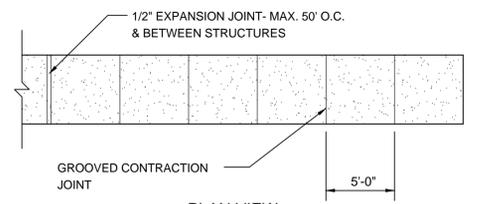
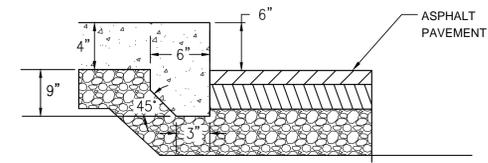
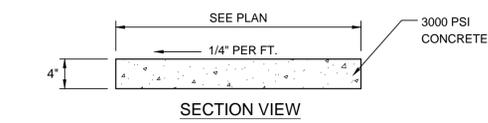
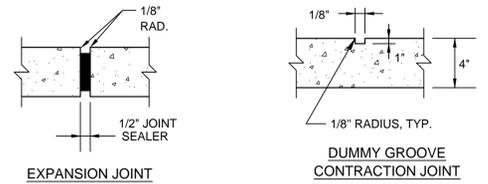


**ASPHALT PAVEMENT SECTION**  
NOT TO SCALE

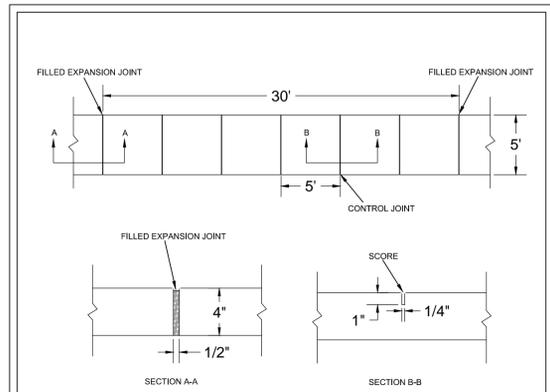


- NOTES:**
- METAL POST AND ALL HARDWARE SHALL BE GALVANIZED STEEL, ASTM A307-90. POST HOLES SHALL BE FILLED WITH GRANULAR BACKFILL IN 3-INCH TO 4-INCH LIFTS. THOROUGHLY HAND TAMP EACH LIFT AND CROWN BACKFILL AT TOP TO SHED WATER. CONCRETE FOR FOOTING SHALL BE PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
  - SIGNS SHALL BE CONSTRUCTED OF ALUMINUM, TYPE 6061-T6 AND IN CONFORMANCE WITH ASTM STD B-209. THICKNESS SHALL BE 0.80 INCHES.
  - TOP EDGE TREATMENT FILM SHALL BE 3" WIDE, CLEAR AND TRANSPARENT WITH A SUB-RESISTANT PRESSURE SENSITIVE NON-YELLOWING ADHESIVE, "SKOTCHCAL" TRANSPARENT FILM #639.
  - REFLECTIVE FACING MATERIAL SHALL BE SCOTCHLITE HIGH INTENSITY, MANUFACTURED BY 3M COMPANY.
  - SIGN LETTERING SHALL BE NPS MODIFIED CLARENDON TYPEFACE. UPPERCASE LETTERS SHALL BE 3.75" HEIGHT AND LOWERCASE LETTERS SHALL BE 2.5" HEIGHT WITH 3.75" SPACING BETWEEN LINES.
  - CORNER RADIUS OF SIGNS SHALL BE 2.5". ARROWS SHALL BE 5.625" LONG BY 3.75" HIGH.
  - MOUNT ON BUILDING OR METAL POST AS DIRECTED.

**HANDICAP SIGN DETAIL**  
NOT TO SCALE

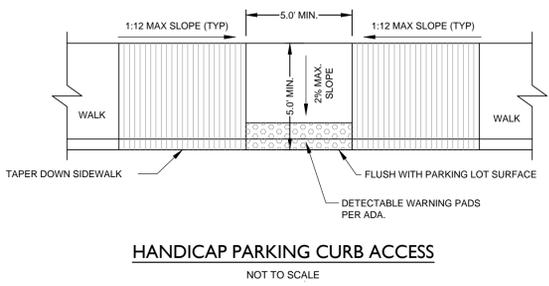
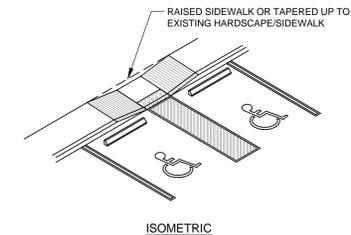


**ON-SITE SIDEWALK DETAIL**  
NOT TO SCALE



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

DATE: OCTOBER, 2010	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807</p>	SD 3-10
DRAWN: PB/JSR	SIDEWALK		
CHECKED: DEC			
SCALE: NOT TO SCALE			

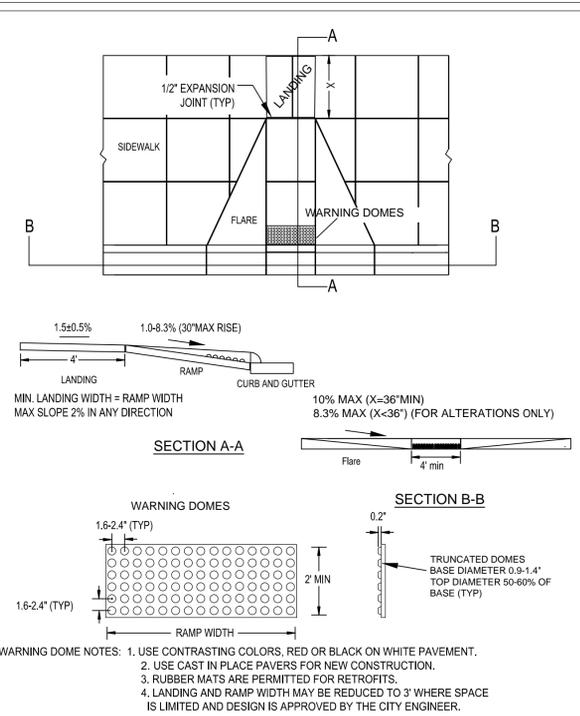


**HANDICAP PARKING CURB ACCESS**  
NOT TO SCALE

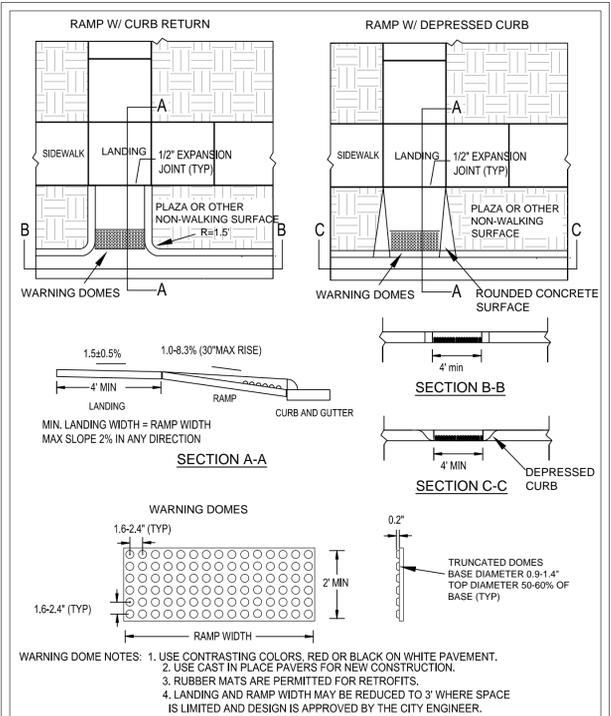
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

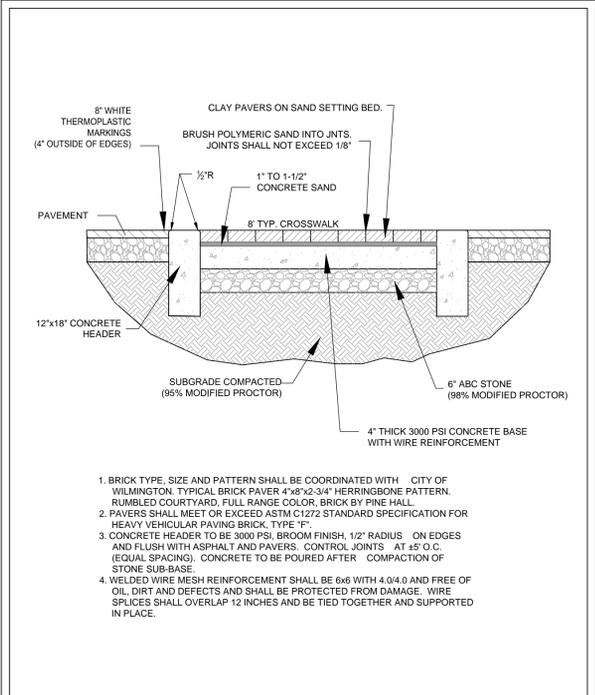
**Approved Construction Plan**  
Name \_\_\_\_\_ Date \_\_\_\_\_  
Planning \_\_\_\_\_  
Traffic \_\_\_\_\_  
Fire \_\_\_\_\_



DATE: DECEMBER, 2010	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807</p>	SD 3-07
DRAWN: PB/JSR	PERPENDICULAR CURB RAMP ADJACENT TO WALKING SURFACE		
CHECKED: DEC			
SCALE: NOT TO SCALE			



DATE: DECEMBER, 2010	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807</p>	SD 3-08
DRAWN: PB/JSR	PERPENDICULAR CURB RAMP ADJACENT TO PLAZA		
CHECKED: DEC			
SCALE: NOT TO SCALE			



DATE: NOVEMBER, 2011	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 3-102
DRAWN BY: JSR	BRICK CROSSWALK		
CHECKED BY: B.D.R./P.E.			
SCALE: NOT TO SCALE			

- BRICK TYPE, SIZE AND PATTERN SHALL BE COORDINATED WITH CITY OF WILMINGTON. TYPICAL BRICK PAVER 4"x8"x2-3/4" HERRINGBONE PATTERN. RUMBLING COURTYARD, FULL RANGE COLOR, BRICK BY PINE HALL.
- PAVERS SHALL MEET OR EXCEED ASTM C1272 STANDARD SPECIFICATION FOR HEAVY VEHICULAR PAVING BRICK, TYPE F7.
- CONCRETE HEADER TO BE 3000 PSI, BROOM FINISH, 1/2" RADIUS ON EDGES AND FLUSH WITH ASPHALT AND PAVERS. CONTROL JOINTS AT 5' O.C. (EQUAL SPACING). CONCRETE TO BE POURED AFTER COMPACTION OF STONE SUB-BASE.
- WELDED WIRE MESH REINFORCEMENT SHALL BE 6x6 WITH 4.0x4.0 AND FREE OF OIL, DIRT AND DEFECTS AND SHALL BE PROTECTED FROM DAMAGE. WIRE SPICES SHALL OVERLAP 12 INCHES AND BE TIED TOGETHER AND SUPPORTED IN PLACE.

REVISIONS:

**GK CapeFear**  
DEVELOPMENT

**PARAMOUNT**  
ENGINEERING  
5911 Olander Drive, Suite 201  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6760 (F)  
NC License #: C-2846

**DETAILS**  
AAI PHARMA HEADQUARTERS  
CITY OF WILMINGTON  
NEW HANOVER CO., NORTH CAROLINA

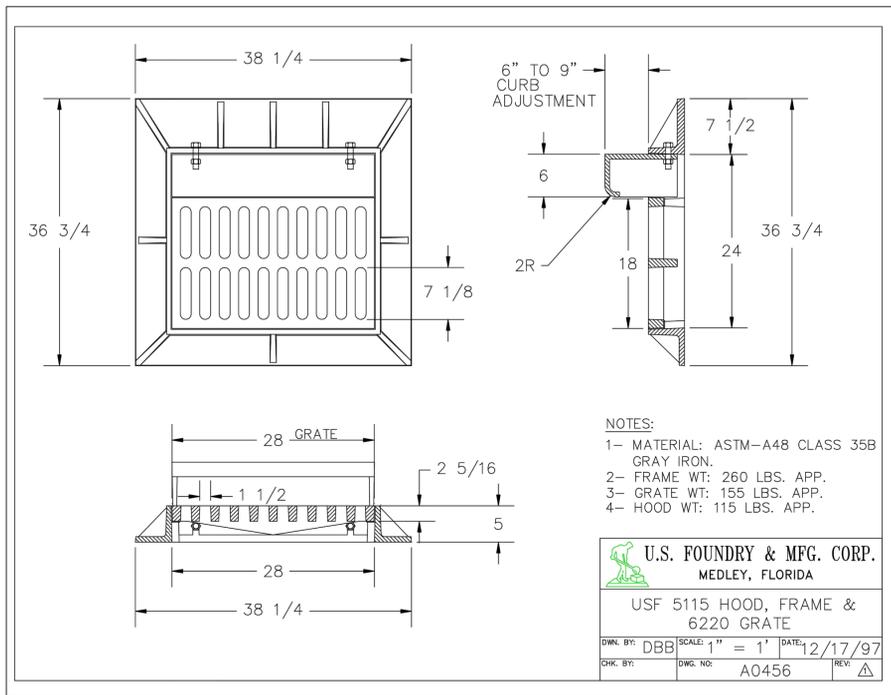
**PROJECT STATUS**  
CONCEPTUAL LAYOUT: 8/31/15  
PRELIMINARY LAYOUT: 11/10/15  
RELEASED FOR CONST: 11/10/15

**DRAWING INFORMATION**  
SCALE: 1"=40'  
DESIGNED: JRS  
CHECKED: JRS

**SEALED**  
NORTH CAROLINA PROFESSIONAL ENGINEER  
034354  
04/04/16  
JAMES BRANCH SMITH

**C-5.0**  
PEI JOB#: 15264.PE

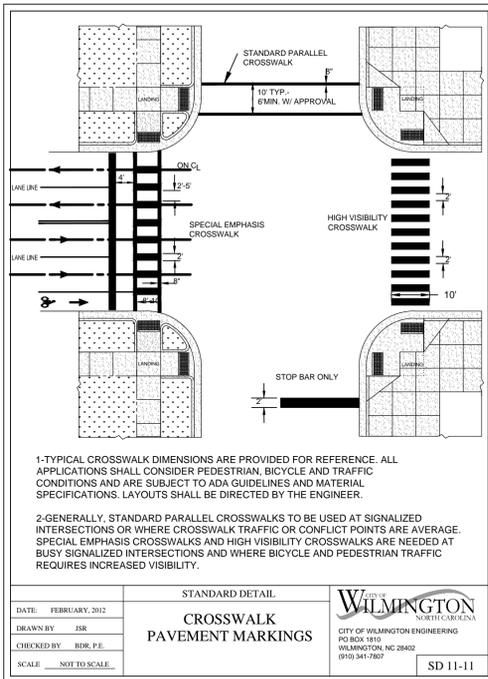
FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION



**STORM DRAINAGE NOTES:**

1. NO WAFFLE BOXES WILL BE ALLOWED IN THE CITY RIGHT-OF-WAY OR PUBLIC EASEMENTS. ALL STRUCTURES UNDER TRAFFIC SHALL BE TRAFFIC BEARING. THIS INCLUDES DRAINAGE STRUCTURES IN PARKING DRIVES AND DRIVEWAYS.
2. STORM DRAINAGE MANUFACTURING SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. CONTRACTOR SHALL PROVIDE CERTIFICATION FROM A LICENSED NORTH CAROLINA STRUCTURAL ENGINEER THAT PRECAST STRUCTURES PROVIDED MEET REQUIREMENTS FOR H2O LOADING

**24" HOOD, FRAME, AND GUTTER**

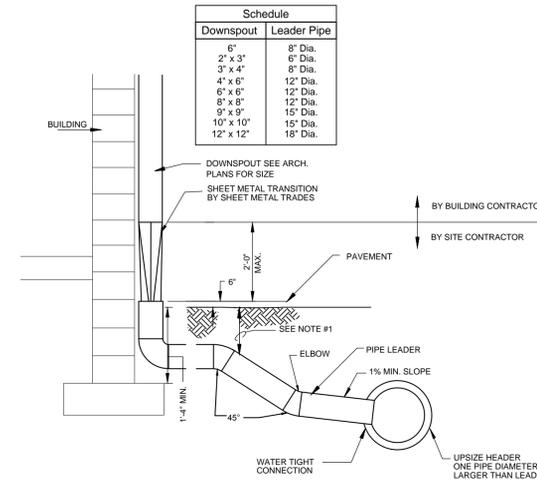
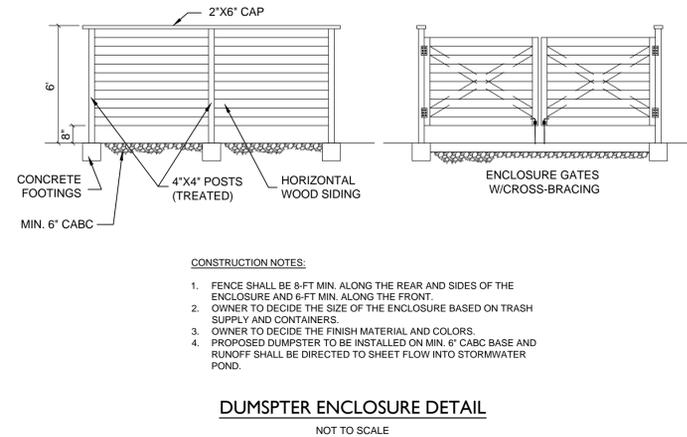
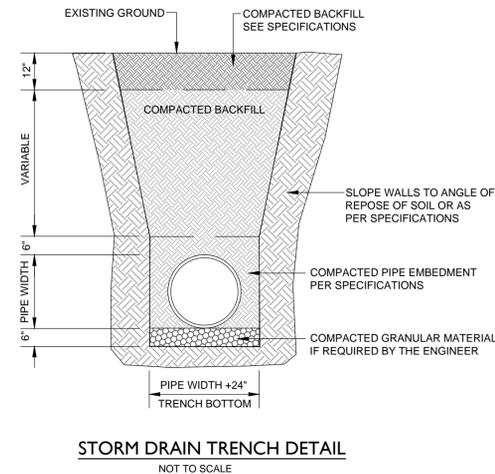


STANDARD DETAIL  
**CROSSWALK PAVEMENT MARKINGS**  
 DATE: FEBRUARY, 2012  
 DRAWN BY: JSR  
 CHECKED BY: BDR, P.E.  
 SCALE: NOT TO SCALE

U.S. FOUNDRY & MFG. CORP.  
 MEDLEY, FLORIDA  
 USF 5115 HOOD, FRAME & 6220 GRATE  
 DWN. BY: DBB SCALE: 1" = 1' DATE: 12/17/97  
 CHK. BY: DWG. NO: A0456 REV: A

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

SD 11-11



**DOWNSPOUT CONNECTION DETAIL**  
 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.

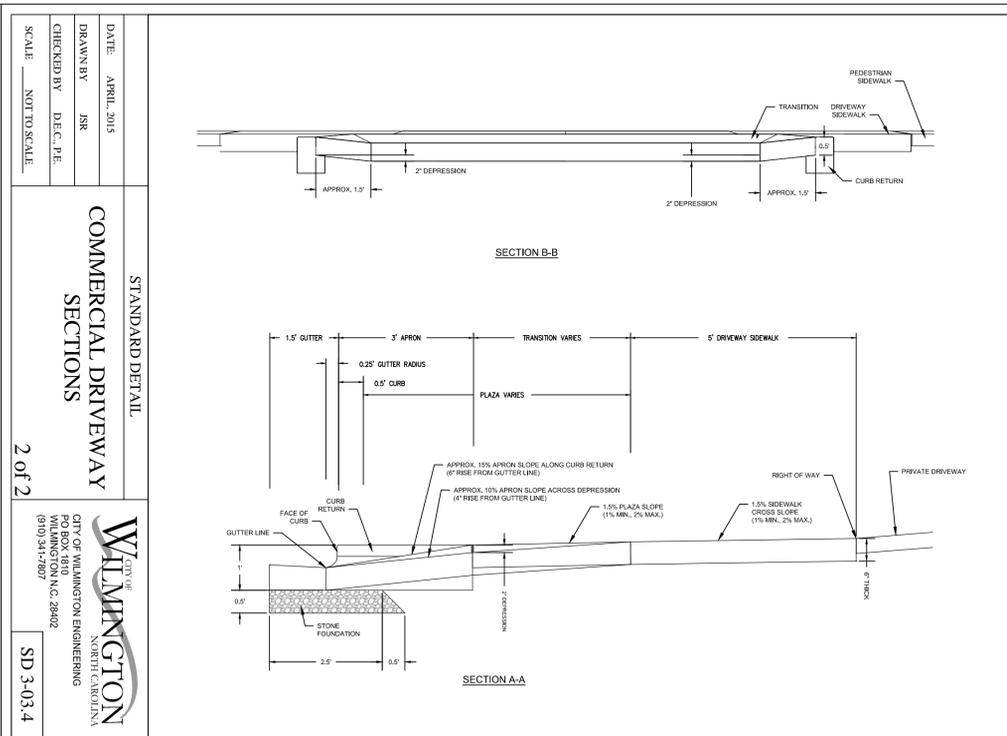
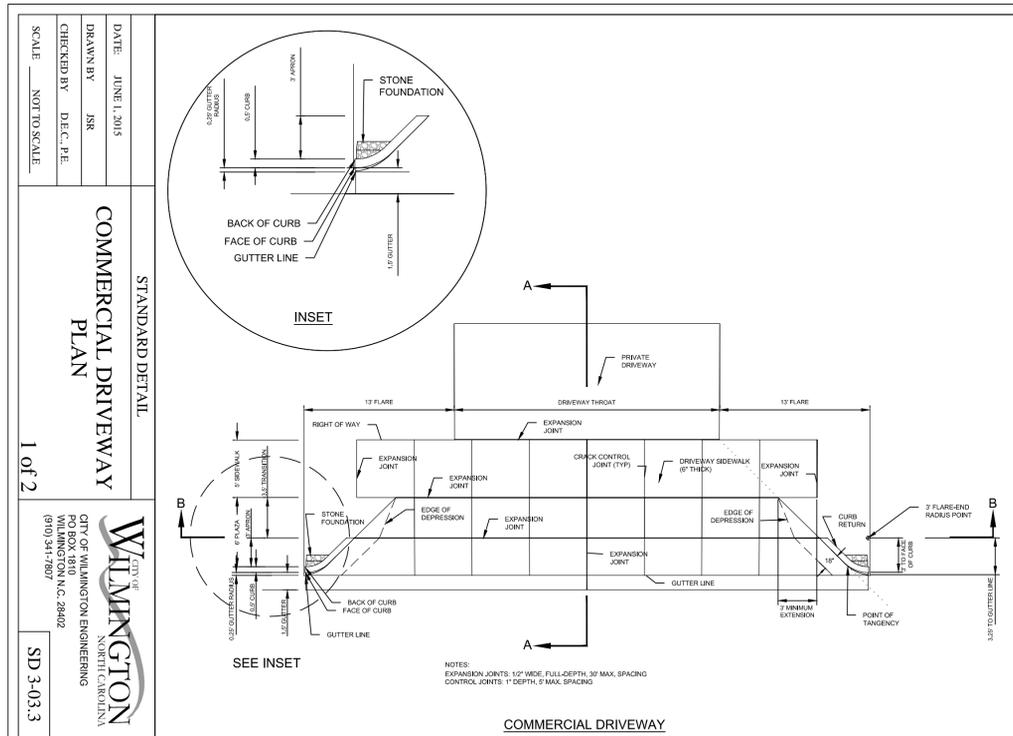
**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**

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

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



STANDARD DETAIL  
**COMMERCIAL DRIVEWAY SECTIONS**  
 DATE: APRIL, 2015  
 DRAWN BY: JSR  
 CHECKED BY: D.E.C. P.E.  
 SCALE: NOT TO SCALE

U.S. FOUNDRY & MFG. CORP.  
 MEDLEY, FLORIDA  
 USF 5115 HOOD, FRAME & 6220 GRATE  
 DWN. BY: DBB SCALE: 1" = 1' DATE: 12/17/97  
 CHK. BY: DWG. NO: A0456 REV: A

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

SD 3-03.3

STANDARD DETAIL  
**COMMERCIAL DRIVEWAY SECTIONS**  
 DATE: APRIL, 2015  
 DRAWN BY: JSR  
 CHECKED BY: D.E.C. P.E.  
 SCALE: NOT TO SCALE

U.S. FOUNDRY & MFG. CORP.  
 MEDLEY, FLORIDA  
 USF 5115 HOOD, FRAME & 6220 GRATE  
 DWN. BY: DBB SCALE: 1" = 1' DATE: 12/17/97  
 CHK. BY: DWG. NO: A0456 REV: A

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

SD 3-03.4

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:  
**GK CapeFear DEVELOPMENT**

**PARAMOUNT ENGINEERING, INC.**  
 5911 Olander Drive, Suite 201  
 Wilmington, North Carolina 28403  
 (910) 791-6707 (O) (910) 791-6760 (F)  
 NC License #: C-2846

DETAILS  
**AAI PHARMA HEADQUARTERS**  
**CITY OF WILMINGTON**  
**NEW HANOVER CO., NORTH CAROLINA**

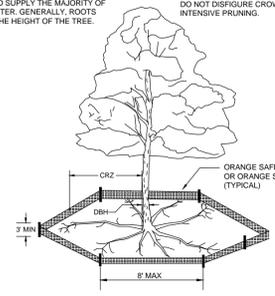
PROJECT STATUS:  
 CONCEPTUAL LAYOUT: 8/13/15  
 PRELIMINARY LAYOUT: 11/10/15  
 RELEASED FOR CONSTRUCTION: 04/11/16

DRAWING INFORMATION:  
 DATE: 04/11/16  
 SCALE: AS SHOWN  
 DESIGNED: JAS  
 CHECKED: JAS

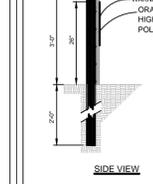
SEALED BY: JAS  
 PROFESSIONAL ENGINEER  
 NORTH CAROLINA  
 034354  
 04/11/16  
 ENGINEER  
 JAS BRANCH SMITH

PEI JOB#: 15264.PE

NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 20" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.



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



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

STANDARD DETAIL  
DATE: JAN. 2015  
DRAWN BY: JSR  
CHECKED BY: RDG, P.E.  
SCALE: NOT TO SCALE

**TREE PROTECTION DURING CONSTRUCTION**  
SHEET 1 of 2  
SD 15-09

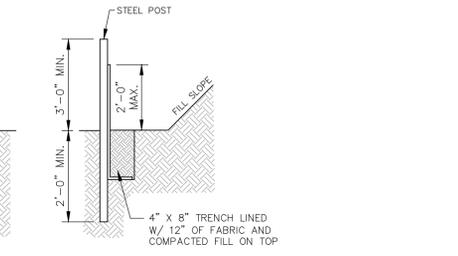
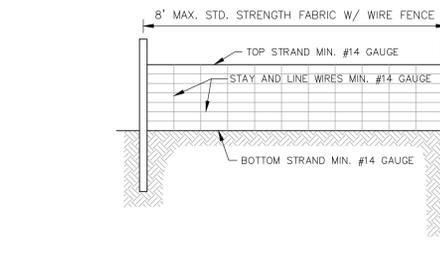
CITY OF WILMINGTON  
NORTH CAROLINA  
CITY OF WILMINGTON ENGINEERING  
PO BOX 1810  
WILMINGTON, NC 28402  
(910) 341-7807

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

STANDARD DETAIL  
DATE: JAN. 2015  
DRAWN BY: JSR  
CHECKED BY: RDG, P.E.  
SCALE: NOT TO SCALE

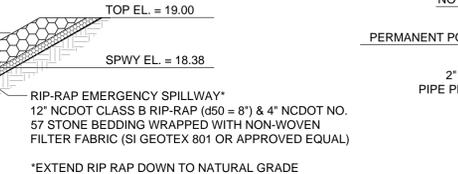
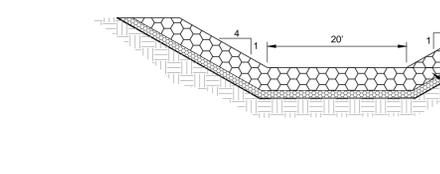
**TREE PROTECTION DURING CONSTRUCTION**  
SHEET 2 of 2  
SD 15-09

CITY OF WILMINGTON  
NORTH CAROLINA  
CITY OF WILMINGTON ENGINEERING  
PO BOX 1810  
WILMINGTON, NC 28402  
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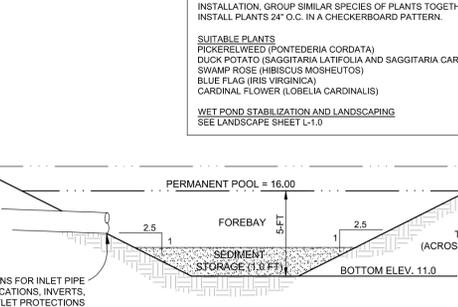
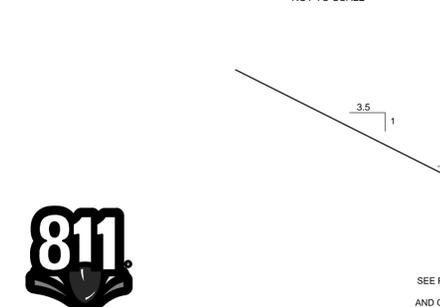


- NOTES:
1. WIRE FENCE (IF USED) SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6-INCHES.
  2. SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFIN'S OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD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

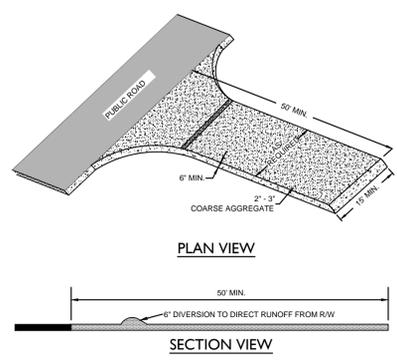
**TEMPORARY SILT FENCE**  
NOT TO SCALE



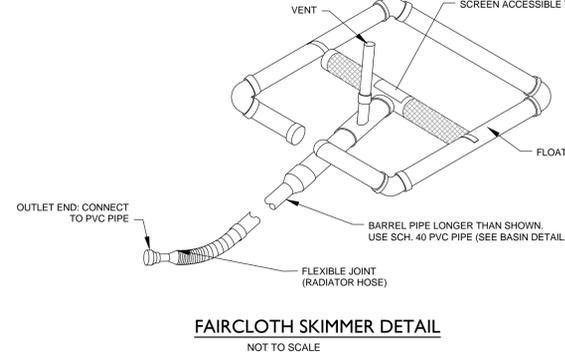
**POND EMERGENCY SPILLWAY**  
NOT TO SCALE



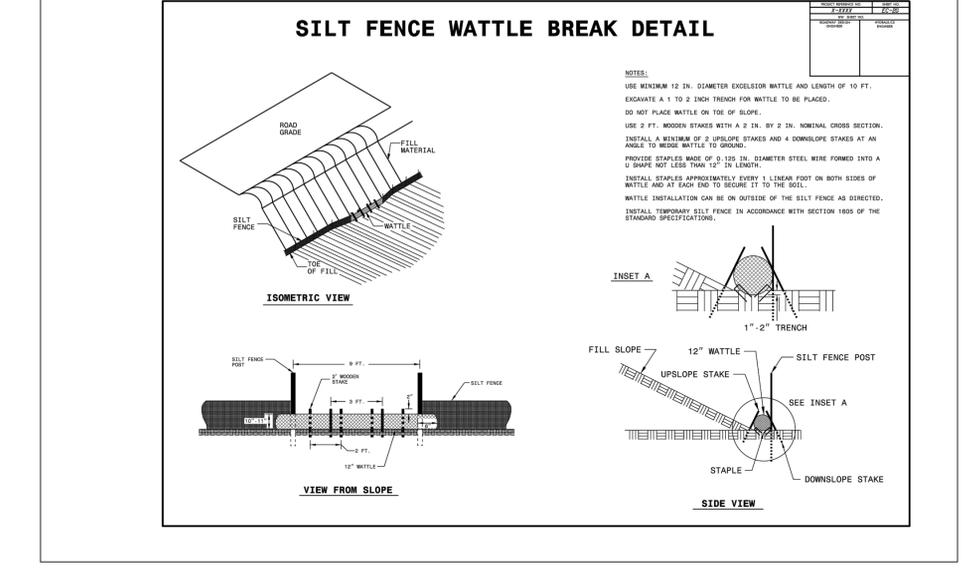
811  
Know what's below.  
Call before you dig.



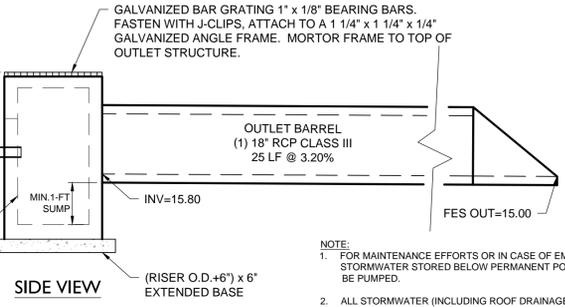
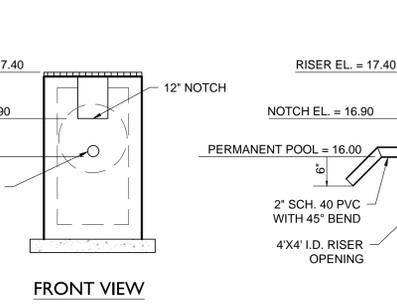
**TEMPORARY CONSTRUCTION ENTRANCE**  
NOT TO SCALE



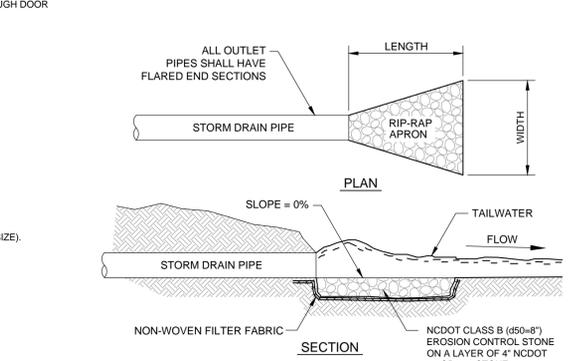
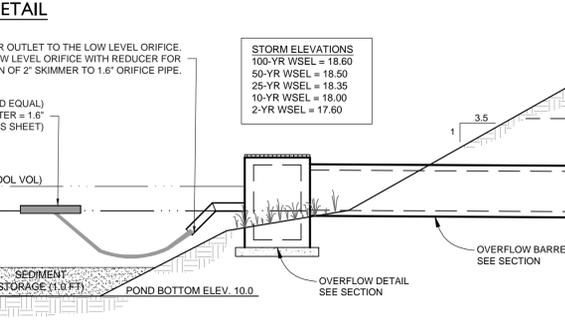
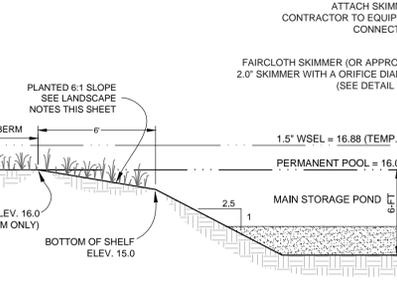
**FAIRCLOTH SKIMMER DETAIL**  
NOT TO SCALE



**WATTLE AND SILT FENCE WATTLE BREAK DETAILS**  
NOT TO SCALE



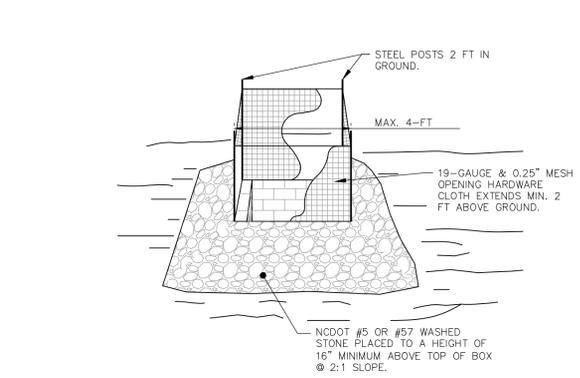
**POND OUTLET STRUCTURE DETAIL**  
NOT TO SCALE



**RIP-RAP APRON SCHEDULE**

RIPRAP LOCATIONS	PIPE DIA. (IN.)	LENGTH, La (ft)	UPSTREAM WIDTH x DIA. (FT.)	DOWNSTREAM WIDTH, W (FT.)	STONE THICKNESS (1 IN.)
FES 300	36	5.0	9.00	9.00	13.5'
FES 200	36	5.0	9.00	9.00	13.5'
POND OUTFALL	18	8.0	4.5	9.50	13.5'
WETLAND CROSSING	64"x43"	10	13.5	14.5	13.5'

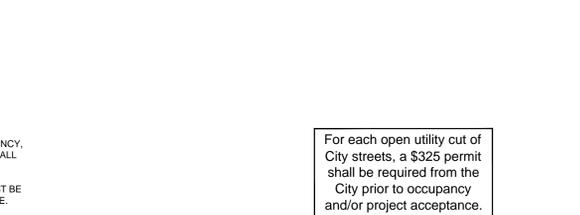
**RIP-RAP APRON DETAIL**  
NOT TO SCALE



- NOTES:
1. DRIVE 5-FOOT STEEL POSTS (1.25 lb/ft steel) 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 AT LEAST 19-GAUGE HARDWARE CLOTH WITH A 1/4-INCH MESH OPENING. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM FOR A MIN. 2 FEET ABOVE THE GROUND. PLACE A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING AND REMOVAL IS RECOMMENDED.
  3. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET. THE TOP ELEVATION OF THE STRUCTURE MUST BE AT LEAST 12-INCHES LOWER THAN THE SURROUNDING GROUND ELEVATION DOWNSLOPE FROM THE INLET TO ENSURE THAT STORM FLOWS GET INTO THE INTENDED INLET; UNLESS OTHER SEDIMENT-CONTROL DEVICES ARE INSTALLED TO PREVENT OFF-SITE SEDIMENT-RUNOFF.

ALTERNATE MEASURE:  
THE USE OF A PYRAMID SHAPED STEEL STRUCTURE OR PID CAN BE USED AS AN ALTERNATE MEASURE DEVICE. CONTACT TRIANGLE STORMWATER SOLUTIONS OR OTHER MANUFACTURERS.

**TEMPORARY INLET PROTECTION**  
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.

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
**APPROVED STORMWATER MANAGEMENT PLAN**  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_

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

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:  
**PARAMOUNT ENGINEERING**  
5911 Olander Drive, Suite 201  
Wilmington, North Carolina 28403  
(910) 791-6707 (O) (910) 791-6760 (F)  
NC License #: C-2846

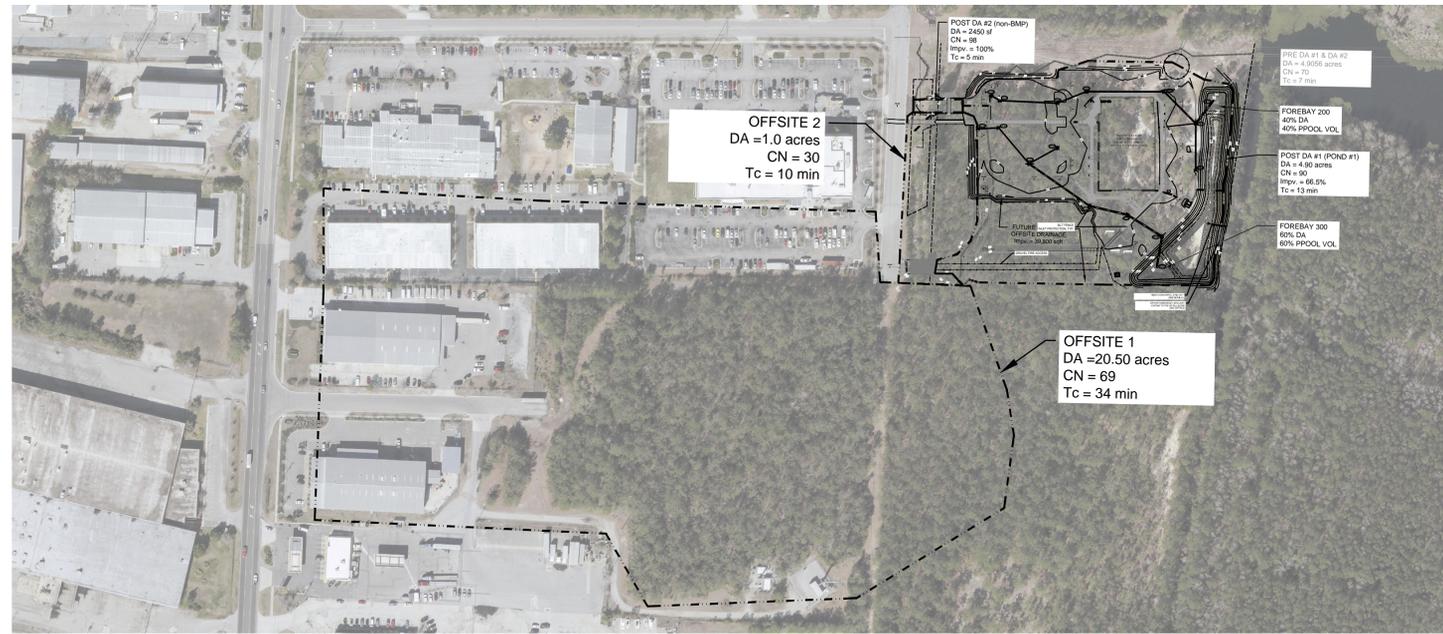
DETAILS

PROJECT STATUS:  
CONCEPTUAL LAYOUT: 8/13/15  
PRELIMINARY LAYOUT: 11/10/15  
RELEASED FOR CONSTRUCTION: \_\_\_\_\_

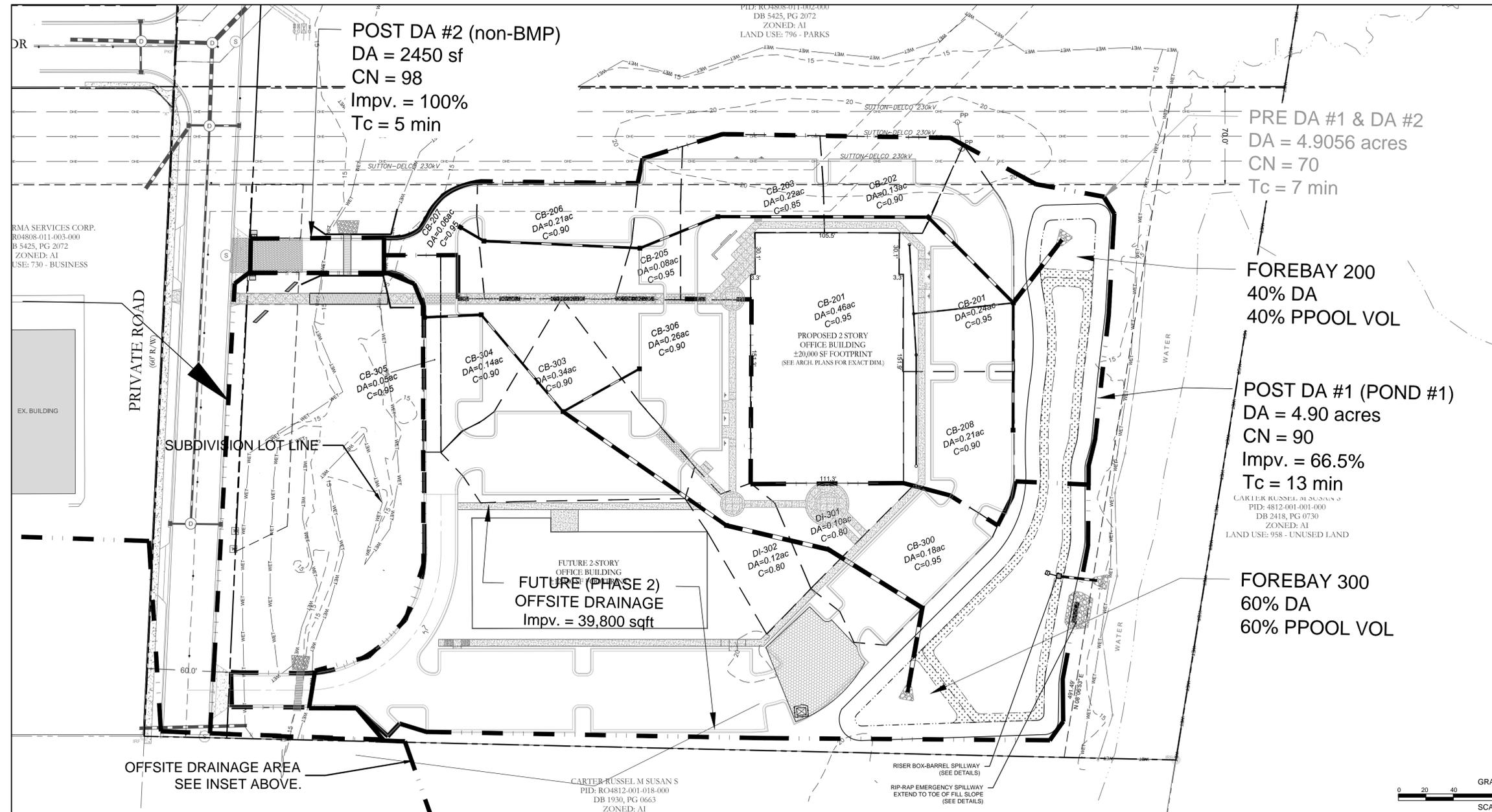
DRAWING INFORMATION:  
DATE: 04/11/16  
SCALE: 1"=40'  
DESIGNED: JES  
CHECKED: GMB

SEALED BY:  
NORTH CAROLINA PROFESSIONAL ENGINEER  
034954  
04/11/16  
JAMES BRUCE SMITH

**C-5.2**  
PEI JOB#: 15264.PE



OFFSITE DRAINAGE AREA



REVISIONS:

CLIENT INFORMATION:  
**GK CapeFear**  
 DEVELOPMENT

**PARAMOUNT**  
 ENGINEERING, INC.  
 5911 Oleander Drive, Suite 201  
 Wilmington, North Carolina 28403  
 (910) 791-6707 (O) (910) 791-6760 (F)  
 NC License #: C-2846

**DRAINAGE AREA MAP**  
**ONSITE AND OFFSITE AREAS**  
 AAI PHARMA HEADQUARTERS  
 CITY OF WILMINGTON  
 NEW HANOVER CO., NORTH CAROLINA

**PROJECT STATUS**  
 8/13/15  
 11/10/15  
 CONCEPTUAL LAYOUT:  
 PRELIMINARY LAYOUT:  
 RELEASED FOR CONST.

**DRAWING INFORMATION**  
 1"=40'  
 1"=40'  
 RPB  
 GUM  
 RPB  
 RPB  
 RPB  
 DESIGNED:  
 CHECKED:

**SEALED**  
 NORTH CAROLINA  
 PROFESSIONAL ENGINEER  
 SEAL  
 034354  
 04/11/16  
 JAMES BRANCY SMITH

**C-3.2**  
 PEI JOB#: 15264.PE

**SITE DATA**  
 PROJECT NAME: AAI PHARMA HEADQUARTERS  
 SITE ADDRESS: 2350 SCIENTIFIC PARK DRIVE  
 NHC PIN: R04808-011-002-000  
 PROPERTY OWNER: AAI PHARMA SERVICES CORP  
 SOURCE DEED: DEED BOOK 5425, PAGE 2072  
 OVERALL SITE AREA: 1,448,695 SF (33.26 ACRES)  
 PROJECT AREA: 345,093 SF (7.92 ACRES)  
 ZONING: AI (AIRPORT INDUSTRIAL)  
 PROPOSED USE: PROFESSIONAL OFFICES  
 CAMA LAND USE: URBAN

**DIMENSION REQUIREMENTS**

	REQUIRED	PROVIDED
FRONT SETBACK	50'	360'
SIDE SETBACK	0'	194.9' (R) / 105' (L)
REAR SETBACK	0'	223.4'
MAXIMUM HEIGHT	35'	

**BUILDING INFORMATION**  
 PROPOSED 2-STORY OFFICE BUILDING:  
 20,250 SF FOOTPRINT  
 40,500 SF TOTAL BUILDING AREA

**PARKING INFORMATION**  
 PARKING:  
 MINIMUM REQUIRED: 1 PER 300 SF = 135 SPACES  
 MAXIMUM ALLOWED: 1 PER 200 SF = 203 SPACES  
 PROVIDED: 161 SPACES

HANDICAP SPACES REQUIRED: 6 SPACES  
 HANDICAP SPACES PROVIDED: 6 SPACES

**HVAC NOTE:**  
 HVAC WILL BE LOCATED ON THE ROOF SCREENED BY EXTERIOR WALLS.

- LANDSCAPE NOTES:**
- CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
  - TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS OR AS OTHERWISE DICTATED BY LOCAL REGULATIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES.
  - STAKE ALL TREES AS SHOWN IN DETAIL OR AS OTHERWISE DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
  - ALL PLANT MATERIAL SHALL MEET THE CURRENT VERSION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
  - NO EXISTING TREES SHALL BE REMOVED WITHOUT WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
  - SET ALL TREES IN 5' MINIMUM DIAMETER PINE STRAW MULCH BED.
  - ALL SHRUB BEDS AND/OR PLANTING AREAS EXCLUDING SEEDED AREAS SHALL BE MULCHED WITH 3 INCH MINIMUM AND 4 INCH MAXIMUM DEPTH PINE STRAW MULCH UNLESS OTHERWISE NOTED.
  - PLANTING SOIL MIX: MIX EXISTING SOIL WITH THE SOIL AMENDMENTS AND FERTILIZERS IN THE QUANTITIES RECOMMENDED BY THE SOIL TESTING LABORATORY, THIRD PARTY RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE OR AS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
  - ANY AND ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. FAILURE IN OBTAINING APPROVAL MAY RESULT IN LIABILITY TO THE CONTRACTOR.
  - THE CONTRACTOR SHALL REPLACE DEAD AND/OR UNHEALTHY PLANT MATERIAL WITHIN 12 MONTHS OF ACCEPTANCE OF THE INSTALLED MATERIAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
  - THE CONTRACTOR SHALL PREPARE ALL SEEDED AREAS TO ASSURE THAT THE SUBGRADE HAS BEEN RAKED AND ROLLED TO ACCEPT THE SEED. ALL TURF AREAS MUST BE IRRIGATED OR HAND WATERED. ALL TURF AREAS SHOULD PROVIDE A SMOOTH SURFACE FREE OF DIPS AND UNLEVELLED GROUND. REFERENCE PLANT SCHEDULE FOR TURF SELECTION.
  - IRRIGATION SHALL BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATION CONTRACTOR IN THE STATE OF NORTH CAROLINA.
  - THE CONTRACTOR IS RESPONSIBLE FOR HAND WATERING THE INSTALLED PLANT MATERIAL FOR A PERIOD OF 6 MONTHS FROM THE ACCEPTANCE FROM THE OWNER OR OWNER'S REPRESENTATIVE IF IRRIGATION HAS NOT BEEN INSTALLED. ALL MATERIAL INCLUDING TURF AREAS SHALL BE HAND WATERED ONCE WEEKLY OR AS NEEDED TO ENSURE SURVIVAL OF PLANTS.
  - CONTRACTOR IS RESPONSIBLE FOR REMOVING TRASH, DEBRIS AND EXCESS MATERIALS FROM THE JOB SITE ONCE THE PROJECT IS COMPLETE. SECURING ANY MATERIALS LEFT ON SITE DURING THE COURSE OF THE PROJECT IS THE CONTRACTOR'S RESPONSIBILITY.
  - STREET TREES WILL BE PLANTED AS CLOSE TO CITY REGULATIONS AS POSSIBLE; HOWEVER, SITE CONDITIONS INCLUDING THE LOCATIONS OF DRIVEWAYS, SIGNS, ETC. MAY REQUIRE ADJUSTMENT FROM PROPOSED PLAN. PROPOSED POND BANK STABILIZATION WILL INCLUDE ORNAMENTAL GRASSES FROM TOP OF BANK TO WATER LEVEL AND WILL COMPLY WITH CITY STANDARD SD 15-16.
  - ALL PROPOSED VEGETATION WITHIN SIGHT DISTANCE TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' - 10' IN ACCORDANCE WITH SECTION 18-556 OF THE CITY OF WILMINGTON LAND DEVELOPMENT CODE.
  - IN CASES WHERE SIGHT DISTANCE TRIANGLES INTERFERE WITH OTHER REQUIRED BUFFER OR PLANTING AREAS, THE SIGHT DISTANCE TRIANGLE WAS MAINTAINED AND PLANTINGS WERE ADJUSTED TO ALLOW FOR PROPER SIGHT LINES.
  - AUTOMATIC IRRIGATION SYSTEM TO BE PROVIDED BY OWNER.
  - ALL TREE LOCATIONS WILL BE ADJUSTED AS NEEDED WITH LIGHT LOCATIONS.
  - TREES SHALL BE PLANTED NO LESS THAN 5' FROM SEWER AND WATER LINES.

**LANDSCAPE TABULATIONS**  
 SHADING REQUIREMENTS:  
 PROVIDED: 1.78 AC VUA x .20 = .37 AC REQUIRED  
 .37 AC OR 16,261 SF  
 24 LARGE CANOPY @ 707 SF = 16,968 SF  
 OR .39 AC

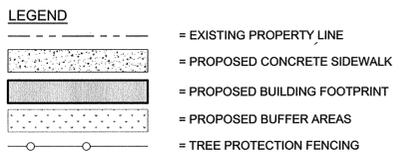
**FOUNDATION PLANTING:**  
 35' BLDG HT. X 105.52 (NORTH SIDE) = X 12% = 443.18 SF REQ'D; 592.18 SF PROVIDED  
 35' BLDG HT. X 111.33 (SOUTH SIDE) = X 12% = 467.59 SF REQ'D; 824.99 SF PROVIDED  
 35' BLDG HT. X 151.33 (WEST SIDE) = X 12% = 635.59 SF REQ'D; 1842.44 SF PROVIDED  
 35' BLDG HT. X 151.34 (EAST SIDE) = X 12% = 635.63 SF REQ'D; 1524.83 SF PROVIDED

**STREETYARD PLANTING:**  
 PRIVATE ROAD  
 REQ'D: 1 CANOPY TREE (3" CAL.), 6 SHRUBS (12" HGT) 600 SF  
 PHASE 1 CALCULATION: 232.7 LF OF ROADWAY X 25 = 5817.5 SF/600 SF = 9.7 (10)  
 10 X 1 CANOPY TREE = 10 REQ'D CANOPY TREE; 11 PROVIDED  
 10 X 6 SHRUBS = 60 REQ'D SHRUBS; 64 PROVIDED

**INTERIOR PARKING PLANTING:**  
 REQUIRED & PROVIDED: 1 CANOPY TREE/ ISLAND AND PLANTED GROUND COVER

**Plant Schedule**

Key	Qty	Common Name	Size & Specs.
<b>Parking Area Trees</b>			
LO	12	Live Oak 'Hightower'	3" cal. Min.
JZ	12	Japanese Zelkova	3" cal. Min.
CM	8	Crape Myrtle 'Tonto'	10' ht. multistem
<b>Streetyard Trees</b>			
SY	6	Sycamore	3" cal. Min.
BC	5	Bald Cypress	3" cal. Min.
<b>Shrubs</b>			
CL	25	Coastal Leucothoe	3 gal.
DP	13	Dwarf Palmetto	3 gal.
DYH	165	Dwarf Yaupon Holly	3 gal.
LOR	13	Loropetalum 'Ruby'	3 gal.
PITT	34	Japanese Yew (Taxus cuspidata)	3 gal.
RH	11	Red Holly	4" hgt.
SP	18	Saw Palmetto	3 gal.
WW	36	Wax Myrtle	4" hgt.
<b>Sod &amp; Mulch</b>			
		'Blackjack' Bermuda Seed	
		Pine Straw Mulch 3" Depth Min.	All plant beds.

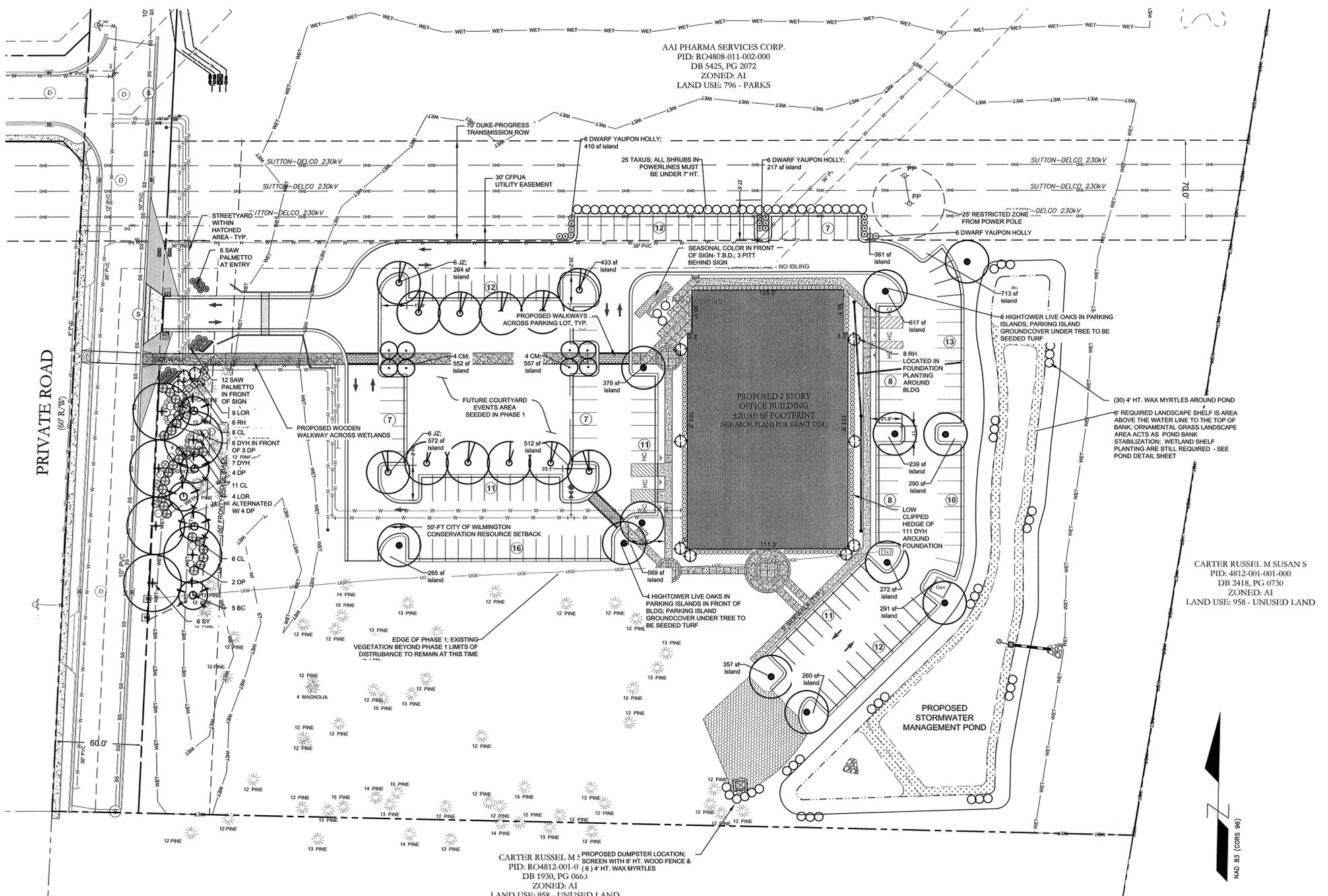
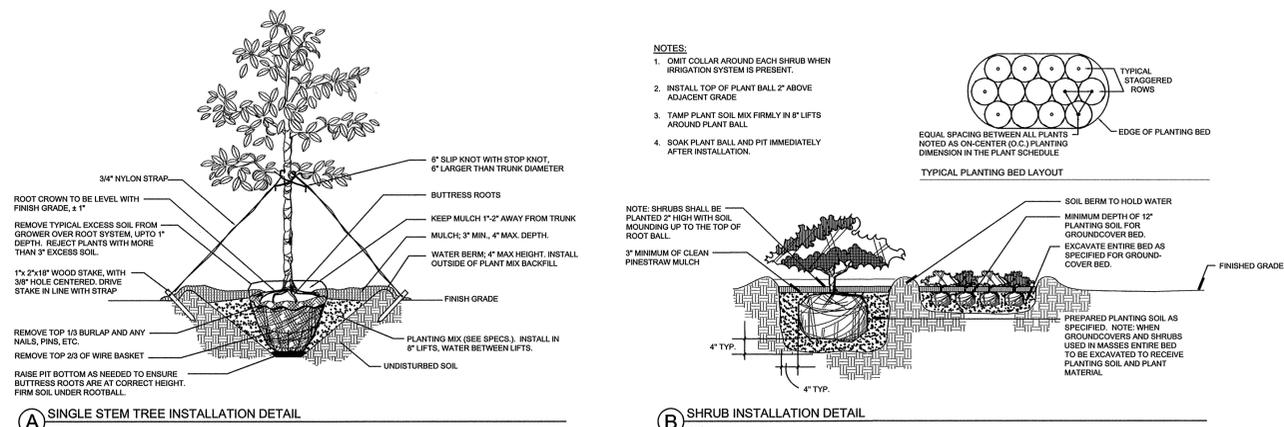


**STORMWATER POND SCHEDULE**

**ORNAMENTAL GRASSES**

Qty	Common Name	Size & Specs.
TBD	CROWN GRASS	1/3 total quantity of the pond stabilization plantings to be this variety; Size and quantities of all pond bank plantings will be determined upon construction of the ponds to assure the banks will be stabilized in accordance with all applicable rules and regulations
TBD	PINK MUHLY GRASS	1/3 total quantity of the pond stabilization plantings to be this variety
TBD	Corr Grass	1/3 total quantity of the pond stabilization plantings to be this variety

Ornamental Grass species may vary at time of installation, but all plantings will comply with City regulation SD 15-16.



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

**WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

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

**REVISIONS:**

Rev.	Description	Date
1	Plant installation in Powerline Easement per Duke Progress request.	2/28/16
2	Plant shift to new dumpster location	3/8/16
3	Revision addressing City comments	3/27/16
4	Revision addressing City comments per planning comments	4/12/16

**GK Cape Fear**  
 DEVELOPMENT

**PARAMOUNT ENGINEERING**  
 5911 Oleander Drive, Suite 201  
 Wilmington, North Carolina 28403  
 (910) 791-6707 (C) (910) 791-6760 (F)  
 NC License #: C-2846

**AAI PHARMA HEADQUARTERS**  
 CITY OF WILMINGTON  
 NEW HANOVER CO., NORTH CAROLINA

**PROJECT STATUS**  
 CONCEPTUAL LAYOUT: 8/18/15  
 PRELIMINARY LAYOUT: 11/10/15  
 RELEASED FOR CONSTRUCTION: 4/12/16

**DRAWING INFORMATION**  
 DATE: 4/12/16  
 SCALE: 1"=40'  
 DRAWN: G. LAUREN  
 CHECKED: R. BEE

**L-1.0**  
 PEI JOB#: 15264.PE

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION