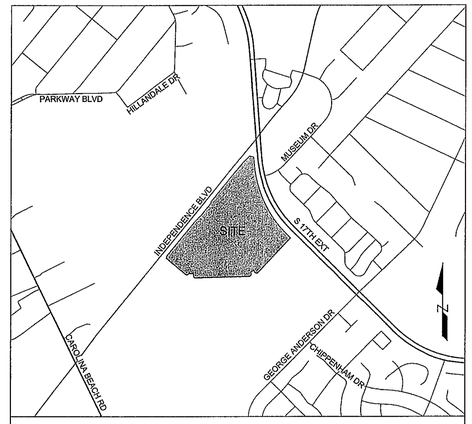
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B' - PHASE I

WILMINGTON, NORTH CAROLINA

ENGINEERING SUBMITTAL SET
SEPTEMBER 2015

PROJECT ADDRESS:
3401 INDEPENDENCE BLVD
Wilmington, NC 28412



VICINITY MAP
SCALE: 1" = 1000'

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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: 01/14/16 Permit # 2016004
Signed: [signature]

Approved Construction Plan

	Name	Date
Planning	JLO	1-13-16
Traffic	Will Robertson	1-14-16
Fire	SF	1-14-16

NOTICE REQUIRED

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

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

CONTACT "CAROLINA ONE CALL" AT
1-800-632-4949

CONTACT THESE UTILITIES

CITY OF WILMINGTON, DEVELOPMENT SERVICES
ATTN: JIM DIEPENBROCK
PH: 910-341-3257

PIEDMONT NATURAL GAS
ATTN: CARL PAQUET
PH: 910-350-2242

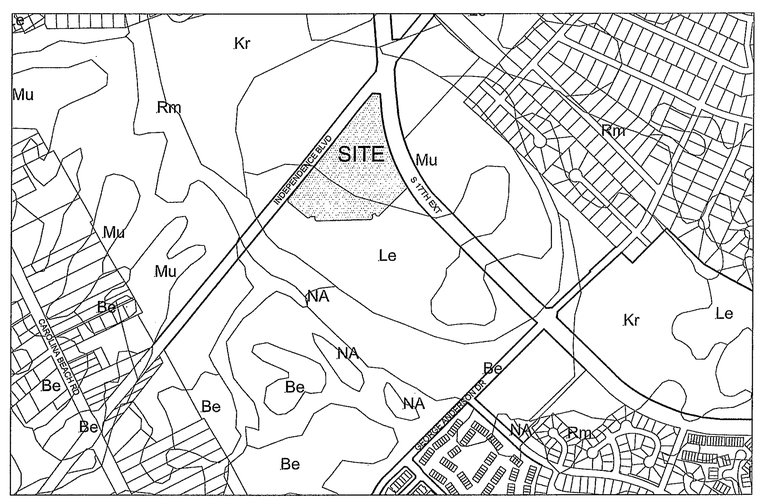
EMERGENCY DIAL 911
POLICE - FIRE - RESCUE

CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)
ATTN: FRANK STYERS
PH: 910-332-6570

DUKE ENERGY PROGRESS
ATTN: KEVIN LEATHERWOOD
PH: 910-602-4304

BELL SOUTH
ATTN: STEVE DAYVAULT
PH: 910-392-8712

TIME WARNER CABLE
PH: 910-763-4638



SOILS MAP
SCALE: 1"=500'

OWNER:
COLLETT - CAMERON PROPERTIES
2508 INDEPENDENCE BLVD. SUITE 202
WILMINGTON, NORTH CAROLINA 28412
ATTN: ED GOODWIN

CIVIL ENGINEERS, LAND PLANNERS & LANDSCAPE ARCHITECTS:
PARAMOUNTE ENGINEERING, INC.
5911 OLEANDER DRIVE, SUITE 201
WILMINGTON, NORTH CAROLINA 28403
ATTN: DAN WEEKS, RLA (910) 791-6707

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
C-1.0	GENERAL NOTES
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C-2.0	OVERALL SITE PLAN
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C-3.0	EROSION CONTROL PLAN PH 1
C-3.1	EROSION CONTROL PLAN PH 2
C-3.2	OVERALL GRADING & DRAINAGE
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C-5.5	SANITARY SEWER PROFILES
C-6.0	EROSION CONTROL DETAILS
C-7.0 - C-7.7	DETAILS
EXH1.0 - EXH1.3	TREE OVERLAY EXHIBIT

PREPARED BY:
PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC license #: C-2846
PROJECT # 14222.PE

Know what's below. Call before you dig.

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS 01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

COVER SHEET
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.14.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: TGC
CHECKED:

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 042303 ENGINEER DANIEL J. FISK
01.05.16

C-0.0

PEI JOB#: 14222.PE

COORDINATION NOTES:

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

GENERAL NOTES:

1. TREE INVENTORY AND TOPOGRAPHIC SURVEY COMPLETED BY HANOVER DESIGN SERVICES, P.A. THE SURVEY SHALL BE FIELD VERIFIED BY CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE OWNER, OWNERS REPRESENTATIVE AND/OR PARAMOUNTE ENGINEERING, INC. IMMEDIATELY.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE DOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 1 (800) 632-4949 AN ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.

DEMOLITION NOTES:

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

TRAFFIC NOTES:

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

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

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

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

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUNDCOVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. GROUND COVER SHALL BE PROVIDED ON ALL OTHER DISTURBED AREAS WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK. (NO SEPARATE PAYMENT).
3. THE CONTRACTOR SHALL NOTIFY PLAN APPROVING AUTHORITY ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NEW HANOVER COUNTY FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY EITHER THE REVIEWING AGENCY OR THE ENGINEER. (NO SEPARATE PAYMENT).
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE IMPROVED SHALL BE SODDED OR SEEDED AS INDICATED AND STABILIZED.
10. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.

GENERAL EROSION AND SEDIMENT CONTROL NOTES (CONT.):

11. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
12. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. (NO SEPARATE PAYMENT). NCDENR'S FINAL APPROVAL IS REQUIRED.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. (NO SEPARATE PAYMENT).
14. WHEN CROSSING CREEK OR DRAINAGE-WAY, THE DIVISION OF WATER QUALITY SHALL BE CONTACTED PRIOR TO DISTURBING A CREEK. THE CONTRACTOR SHALL INSTALL RIP-RAP WITH FABRIC ALONG DISTURBED BANKS AND CHANNEL AND RESTORE SLOPES TO ORIGINAL CONTOURS, BUT NOT STEEPER THAN 2:1 MAXIMUM. DISTURBED CREEK AREA SHALL BE STABILIZED IMMEDIATELY.

MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. INLET PROTECTION - INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH 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.
6. SEDIMENT BASIN/SEDIMENT TRAPS - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO WITHIN ONE HALF OF THE DESIGN DEPTH. PLACE SEDIMENT IN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, PIPING, AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
7. SKIMMER - INSPECT SKIMMER AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL TO MAKE SURE THAT THE INTAKE MECHANISM, ORIFICE, OR DISCHARGE PIPE IS NOT CLOGGED WITH TRASH OR SEDIMENT. IF THE BASIN IS DRY, MAKE SURE THAT ANY VEGETATION GROWING ON THE BOTTOM IS NOT HOLDING THE SKIMMER DOWN. TAKE SPECIAL PRECAUTION IN WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.
8. OUTLET PROTECTION - INSPECT RIP RAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
9. EMERGENCY SPILLWAY / FOREBAY PROTECTION - AFTER EVERY HIGH-WATER EVENT INSPECT THE INTEGRITY OF THE LINED SPILLWAY AND THE ADJACENT EARTHEN BANKS. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE. REPAIR ANY VOIDS IN THE RIP RAP LINED APRONS. RE-ESTABLISH ANY LOOSE STONES, AND FIX GAPS IN THE ADJACENT VEGETATIVE COVER.
10. GRASS SWALES - INSPECT SWALES WEEKLY AND AFTER EVERY RAINFALL EVENT. AFTER GRASS HAS BEEN ESTABLISHED INSPECT THE SWALES PERIODICALLY AND AFTER EVERY HEAVY (½ INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. INSPECT THE CHANNEL OUTLET AND ALL ROAD CROSSINGS FOR BANK STABILITY AND EVIDENCE OF PIPING OR SCOUR HOLES. REMOVE ALL SIGNIFICANT SEDIMENT ACCUMULATIONS TO MAINTAIN THE DESIGNED CARRYING CAPACITY. KEEP THE GRASS IN A HEALTHY, VIGOROUS CONDITION AT ALL TIMES, SINCE IT IS THE PRIMARY EROSION PROTECTION FOR THE CHANNEL.

PERMANENT SEEDING SCHEDULE - MIXTURE 5CP

Seeding Mixture

SPECIES	RATE (LB/ACRE)
CENTIPEDE GRASS	10-20

Seeding Dates

MARCH - JUNE

Soil Amendments

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 300 LB/ACRE 10-10-10 FERTILIZER.

Mulch

DO NOT MULCH.

Maintenance

FERTILIZE VERY SPARINGLY--20 LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTIPEDE GRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

TEMPORARY SEEDING-LATE WINTER/EARLY SPRING

Seeding Mixture

WINTER AND EARLY SPRING

SPECIES	RATE (LB/ACRE)
RYE (GRAIN)	120
ANNUAL LESPEDEZA (KOBE IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)	50

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

SUMMER

SPECIES	RATE (LB/ACRE)
GERMAN MILLET	40

FALL

SPECIES	RATE (LB/ACRE)
RYE (GRAIN)	120

Seeding dates

COASTAL PLAIN - DEC.1-APR. 15 - LATE WINTER AND EARLY SPRING
APRIL 15 - AUG. 15 - SUMMER
AUG. 15 - DEC. 30 - FALL

Soil amendments

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

Mulch

APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

Maintenance

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

SITE NOTES :

1. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
3. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
4. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
5. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
6. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
7. ALL UTILITIES TO SERVICE PROPOSED STRUCTURE SHALL BE UNDERGROUND ON SITE.
8. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
9. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
10. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER, THE CITY OF WILMINGTON, NEW HANOVER COUNTY, OR CFPUA, RESPECTIVELY.
11. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL" TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
12. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
13. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
14. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE REFLECTIVE MARKINGS AND SHALL CONFORM TO NCDOT. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
15. ALL PARKING LOT DIMENSIONS ARE FROM FACE OF CURB UNLESS NOTED OTHERWISE.
16. LANDSCAPE PLANTINGS AT ENTRANCE/ EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS IN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS PER LOCAL STANDARDS.
17. SEEDING TO BE INSTALLED TO LOCAL REQUIREMENTS & STANDARD PRACTICES.
18. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.
19. PROPERTY OWNER'S ASSOCIATION (POA) WILL BE RESPONSIBLE FOR ALL PRIVATE RIGHT OF WAY AND LANDSCAPE MAINTENANCE WITHIN THE PROJECT.

NC ACCESSIBILITY NOTES:

GENERAL NOTES:

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

ACCESSIBLE ROUTE NOTES:

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

RAMP NOTES:

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

CURB RAMP NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE 36 INCHES (36) MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED. *NOTE NC BUILDING CODE REQUIRES EXTERIOR ACCESSIBLE ROUTES TO BE 48 INCHES MINIMUM WIDE (1104.1 & 1104.2).*
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10%.
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESS AISLES. CURBS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. IT IS RECOMMENDED TO PROVIDE CURB RAMPS WITH A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH 406.12 A117.1, EXTENDING THE FULL WIDTH OF THE RAMP. REFERTO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES. THE NC BUILDING CODE DOES NOT CURRENTLY REQUIRE DETECTABLE WARNINGS AT CURB RAMPS, NOR DO THE 2010 ADA STANDARDS - HOWEVER US DOT ADA REGULATIONS DO REQUIRE THESE.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, ½ INCH WIDE BY ¼ INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

PARKING SPACE NOTES:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESS AISLES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE AISLE. THE AISLE SHOULD BE 96 INCHES WIDE (OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS AISLE IS FIVE FEET). WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
3. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FORACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
5. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPTFOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL BE INSTALLED AT A MINIMUM CLEAR HEIGHT OF SIXTY (60) INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.
13. SIGNAGE AT ACCESSIBLE PARKING SPACES REQUIRED BY THE NC BUILDING CODE SECTION 1106.1SHALL COMPLY WITH THE REQUIREMENTS OF NORTH CAROLINA GENERAL STATUTE 20-37.6 AND 136-30 AND THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES. A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY MUST BE PROVIDED AT EACH ACCESSIBLE SPACE.
14. ACCESSIBLE PARKING SPACE, ACCESS AISLE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE (OR ANOTHER COLOR THAT CAN BE DISTINGUISHED FROM PAVEMENT).

PASSENGER LOADING ZONE NOTES:

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

ACCESSIBLE ENTRANCE NOTES:

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

GENERAL UTILITY NOTES

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

STORM WATER NOTES

1. TOTAL SITE AREA = 1,523,729 SF (34.98 AC)
2. DISTURBED AREA = SEE EROSION CONTROL PLANS (C-3.0)
3. ALLOCATED IMPERVIOUS AREA DRAINING TO STORMWATER SYSTEM = 1,084,491 SF (24.90 AC)

WETLAND NOTES:

1) NO WETLANDS EXISTS ON THIS SITE.

ROOF DRAIN NOTE:

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

EXISTING UTILITY NOTES:

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

LEGEND

Symbol	Description
WET	= EXISTING WETLANDS
	= EXISTING PROPERTY LINE
21	= EXISTING CONTOURS
IPF	= IRON PIPE FOUND
IRF	= IRON ROD FOUND
CMF	= CONCRETE MONUMENT
	= TELEPHONE PEDESTAL
UT	= UNDERGROUND TELEPHONE
TR	= TRANSFORMER PEDESTAL (PAD)
	= PROPOSED DROP INLET
	= PROPOSED CURB INLET
	= PROPOSED STORM SEWER
D	= PROPOSED STORM DRAIN MANHOLE
CI-8	= PROPOSED CURB INLET
DI-8	= PROPOSED DROP INLET
MH-8	= PROPOSED STORM DRAIN MANHOLE
PG=49.90	= PROPOSED SPOT ELEVATIONS
35	= PROPOSED CONTOUR
	= PROPOSED DRAINAGE AREAS
	= PROPOSED SILT FENCE
LOD	= PROPOSED LIMITS OF DISTURBANCE
	= PROPOSED TREE PROTECTION FENCING
	= PROPOSED INLET PROTECTION
	= PROPOSED TRAFFIC ARROW
	= PROPOSED WOOD SHADOWBOX FENCE
	= PROPOSED SIGN
SS	= PROPOSED SANITARY SEWER SERVICE
C.O.	= PROPOSED SANITARY SEWER CLEANOUT
	= EX. ASPHALT AREA TO BE MILLED 1-INCH AND OVERLAYED
	= PROPOSED ASPHALT PAVEMENT SECTION
	= PROPOSED CONCRETE CURB & GUTTER

STABILIZATION TIME FRAMES:

"IN THE EVENT THAT THE GOVERNING AGENCIES TIMEFRAME FOR STABILIZATION VARY, CONTRACTOR SHALL MEET THE MORE STRINGENT REQUIREMENT.

NEW HANOVER COUNTY LAND QUALITY STABILIZATION TIME FRAME NOTE:

DENUDED AREAS MUST BE STABILIZED WITH FIFTEEN (15) WORKING DAYS OF CEASE OF ANY PHASE OF ACTIVITY. ALL SLOPES MUST BE STABILIZED WITHIN TWENTY-ONE (21) CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY. THIS INCLUDES SLOPES, SWALES, CHANNELS AND STOCKPILES.

NPDES WATER QUALITY STABILIZATION TIME FRAMES

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' 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' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES

Approved Construction Plan

	Name	Date
Planning	[signature]	1-13-15
Traffic	[signature]	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 01/14/16 Permit # 2016004

Signed: [signature]

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

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

NCDENR PWSS WATER PERMIT #: ____

WATER CAPACITY: ____ GPD

DWQ SEWER PERMIT #: ____

SEWER CAPACITY: ____ GPD

SEWER SHED # AND PLANT: ____

SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

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

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:

Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

GENERAL NOTES

THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

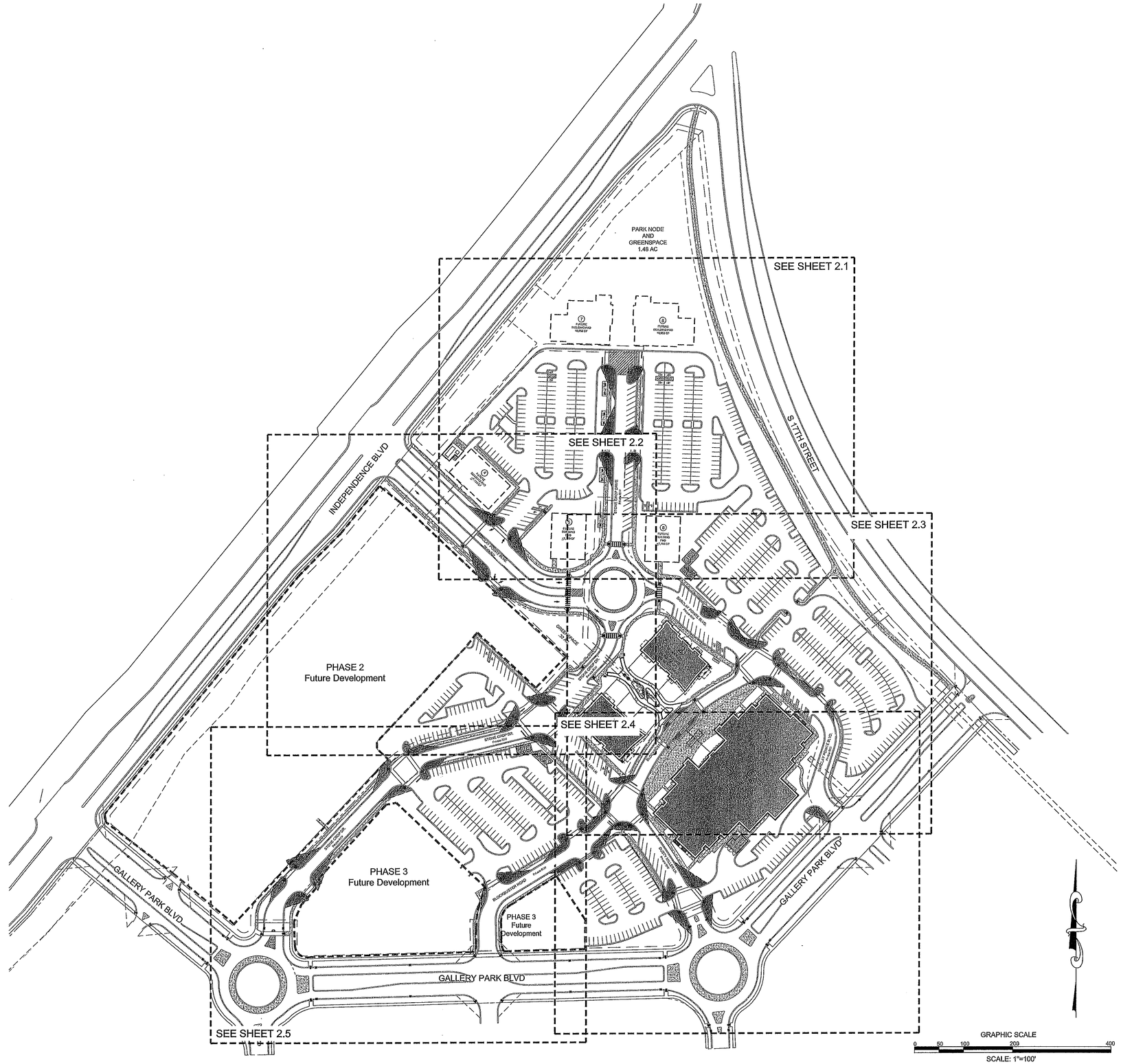
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISK 01.05.16

C-1.0

PEI JOB#: 14222.PE



FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	[illegible]	1-13-16
Traffic	W. Sanderson	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [illegible]

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:

Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

SITE PLAN
INDEX SHEET
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 03.14.15
SCALE: 1" = 100'
DESIGNED: DMW
DRAWN: JCM
CHECKED: JAE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER 040501 01.05.16 DANIEL J. FISK

INDEX

PEI JOB#: 14222.PE

SITE INFORMATION

PARCEL ID:	R06500-003-004-000
CURRENT ZONING:	RB-CD & O&I -1-CD
PROPOSED USE:	MIXED USE
TOTAL SITE AREA:	34.98 ACRES
OWNER INFORMATION:	COLLETT - CAMERON PROPERTIES 1201 GLEN MEADE RD WILMINGTON NC, 28401
FLOOD INFORMATION:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720312500J, DATED APRIL 3, 2006
CAMA LAND USE CLASSIFICATION:	URBAN
DRAINAGE EASEMENTS:	MB 51 PG 9-13

TOTAL IMPERVIOUS AREA:

EXISTING (GALLERY PARK BLVD PLANS):	2,177	SF
BUILDINGS:	74,395	SF
PAVEMENT:	511,993	SF
SIDEWALKS:	68,753	SF
FUTURE:	427,173	SF
TOTAL:	**1,084,491**	**SF**

ZONING ACREAGE:	RB-CD:	34.12 AC
	O&I 1:	0.77 AC

PHASE 1 TABULATIONS

- TOTAL PH 1 AREA:	27.75 AC
- TOTAL BUILDING SF:	± 73,100 SF
THEATER SF:	± 54,500 SF
BUILDING 1:	± 9,300 SF
BUILDING 2:	± 9,300 SF
- BUILDING COVERAGE:	27.75 AC/ 73,100 SF = 17% COVERAGE

DIMENSIONAL REQUIREMENTS

RB - REGIONAL BUSINESS

- MINIMUM LOT AREA:	1 ACRE
- MINIMUM LOT WIDTH:	100'
- MAXIMUM LOT COVERAGE:	40%
- MINIMUM FRONT SETBACK:	0' (RB-CD)
- MINIMUM REAR SETBACK:	15'
- MINIMUM INTERIOR SIDE SETBACK:	0'
- MINIMUM CORNER LOT SIDE SETBACK:	25'
- MAXIMUM BUILDING HEIGHT:	35'

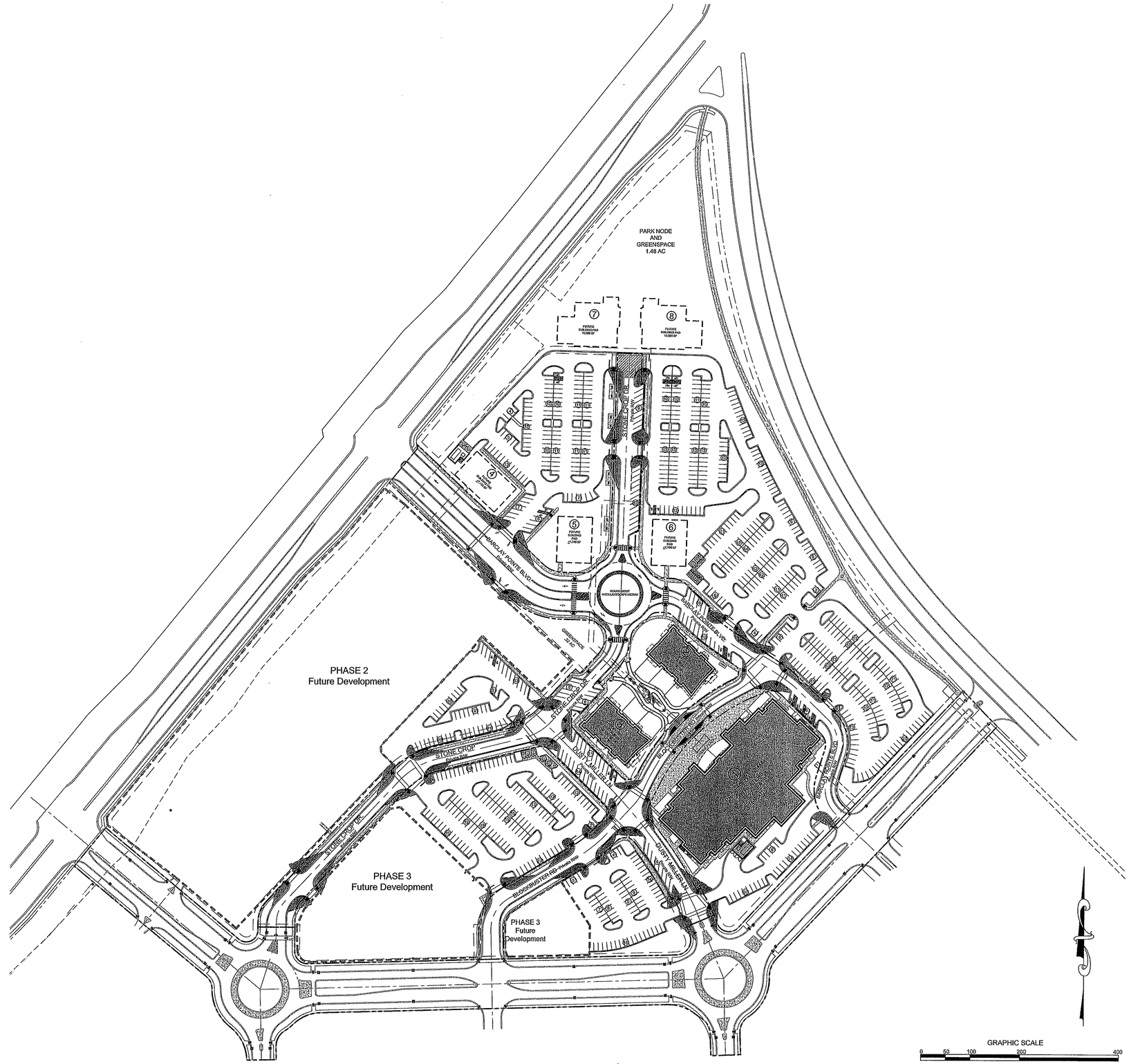
O&I-1 - OFFICE & INSTITUTIONAL 1

- MINIMUM LOT AREA:	15,000 SF
- MAXIMUM LOT COVERAGE:	40%
- MINIMUM LOT WIDTH:	80'
- MINIMUM FRONT SETBACK:	20'
- MINIMUM REAR SETBACK:	20'
- MINIMUM INTERIOR SIDE SETBACK:	10'
- MINIMUM CORNER LOT SIDE SETBACK:	20'
- MAXIMUM BUILDING HEIGHT:	45'

PHASE 1 PARKING DATA

TOTAL REQUIRED:		915 SPACES
THEATER PARKING REQUIRED:	1 SPACE/ 4 SEATS; 2,822 SEATS/4 =	705 SPACES
RESTAURANT PARKING REQUIRED:	1 SPACE/ 80 SF - KITCHEN AREA; 18,600 SF - 6,000 SF = 12,600 SF/ 60 SF =	210 SPACES
TOTAL PROVIDED:		944 SPACES

TOTAL HANDICAP SPACES REQUIRED:	19 SPACES INCLUDING 3 VAN SPACES
TOTAL PROVIDED:	22 SPACES INCLUDING 6 VAN SPACES
TOTAL BIKE PARKING REQUIRED:	20 SPACES PER CITY ORDINANCE SECTION 18-528F
TOTAL BIKE PARKING PROVIDED:	20 SPACES PROVIDED



NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire		1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

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NC License #: C-2846

OVERALL SITE PLAN
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION

DATE:	01.05.16
SCALE:	1"=100'
DESIGNED:	DHW
DRAWN:	DHW
CHECKED:	AHE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISK
01.05.16

C-2.0

PEI JOB#: 14222.PE

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
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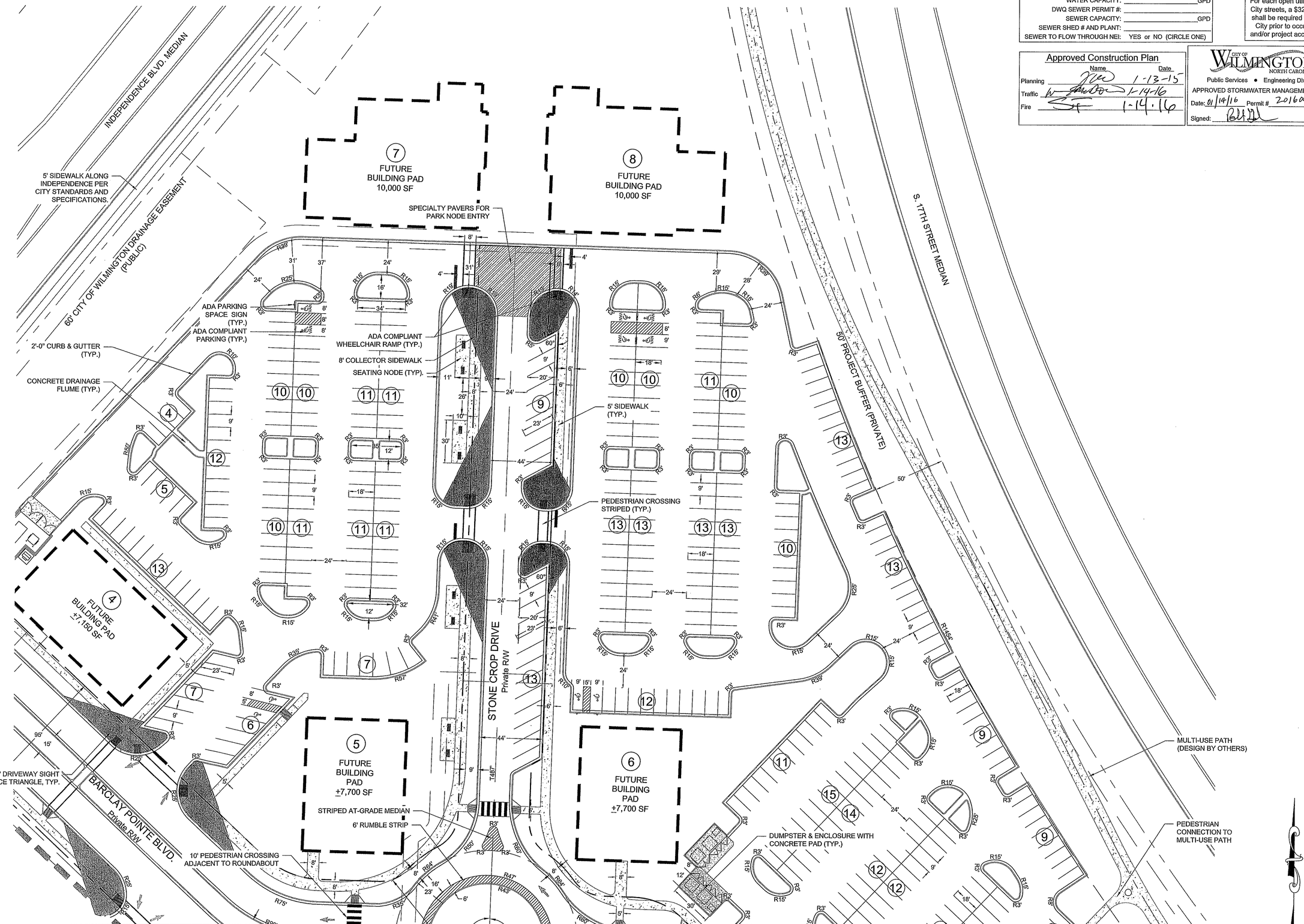
Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire		1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:



SEE SHEET 2.2

SEE SHEET 2.3

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
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SITE PLAN
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

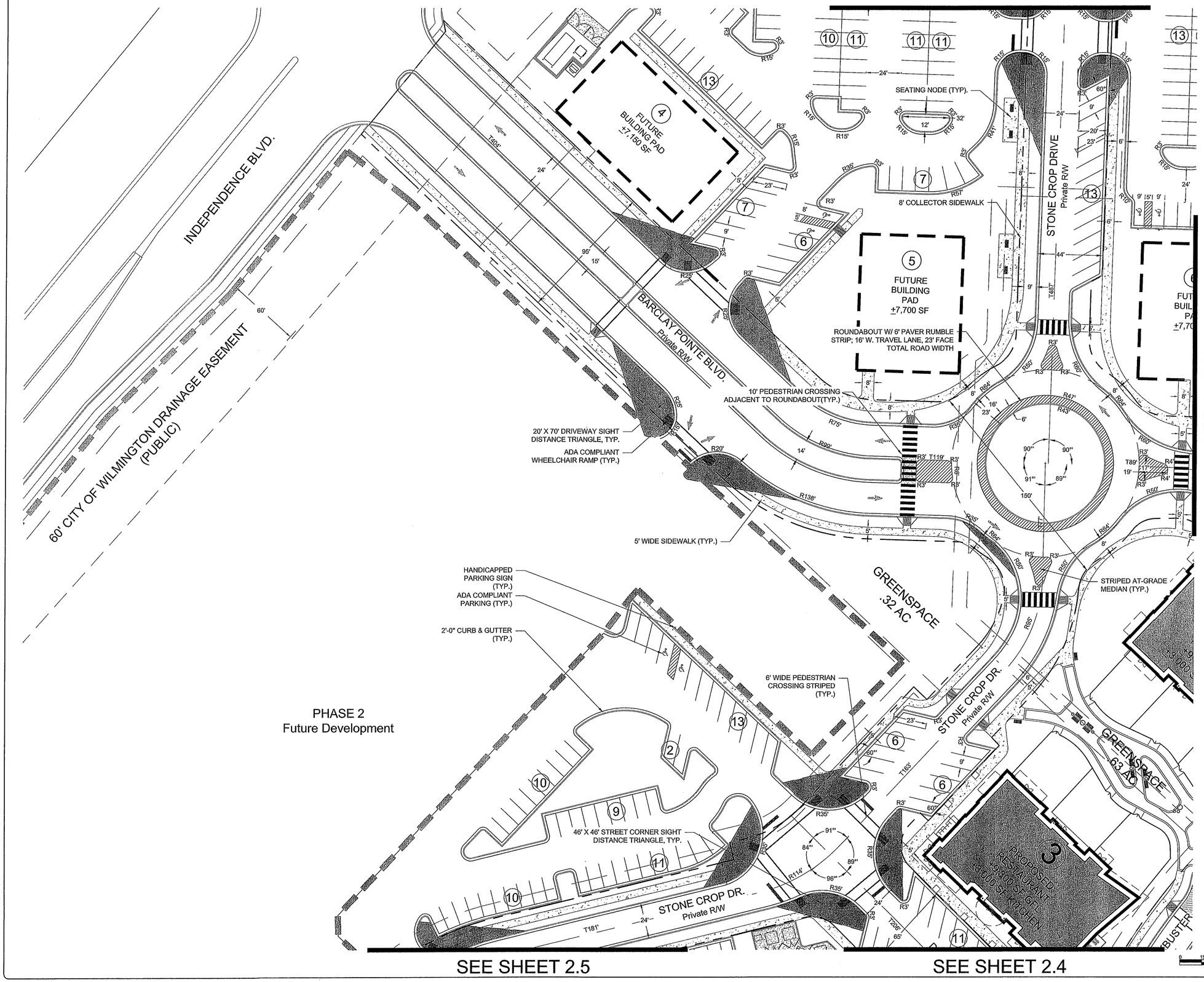
PROJECT STATUS:
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 04.14.15
SCALE: 1"=30'
DESIGNED: DMW
DRAWN BY: ACE
CHECKED:

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISH

C-2.1

PEI JOB#: 14222.PE



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SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

Approved Construction Plan

	Name	Date
Planning	[signature]	1-13-15
Traffic	[signature]	1-14-16
Fire	SF	1.14.16

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FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

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NORTH CAROLINA

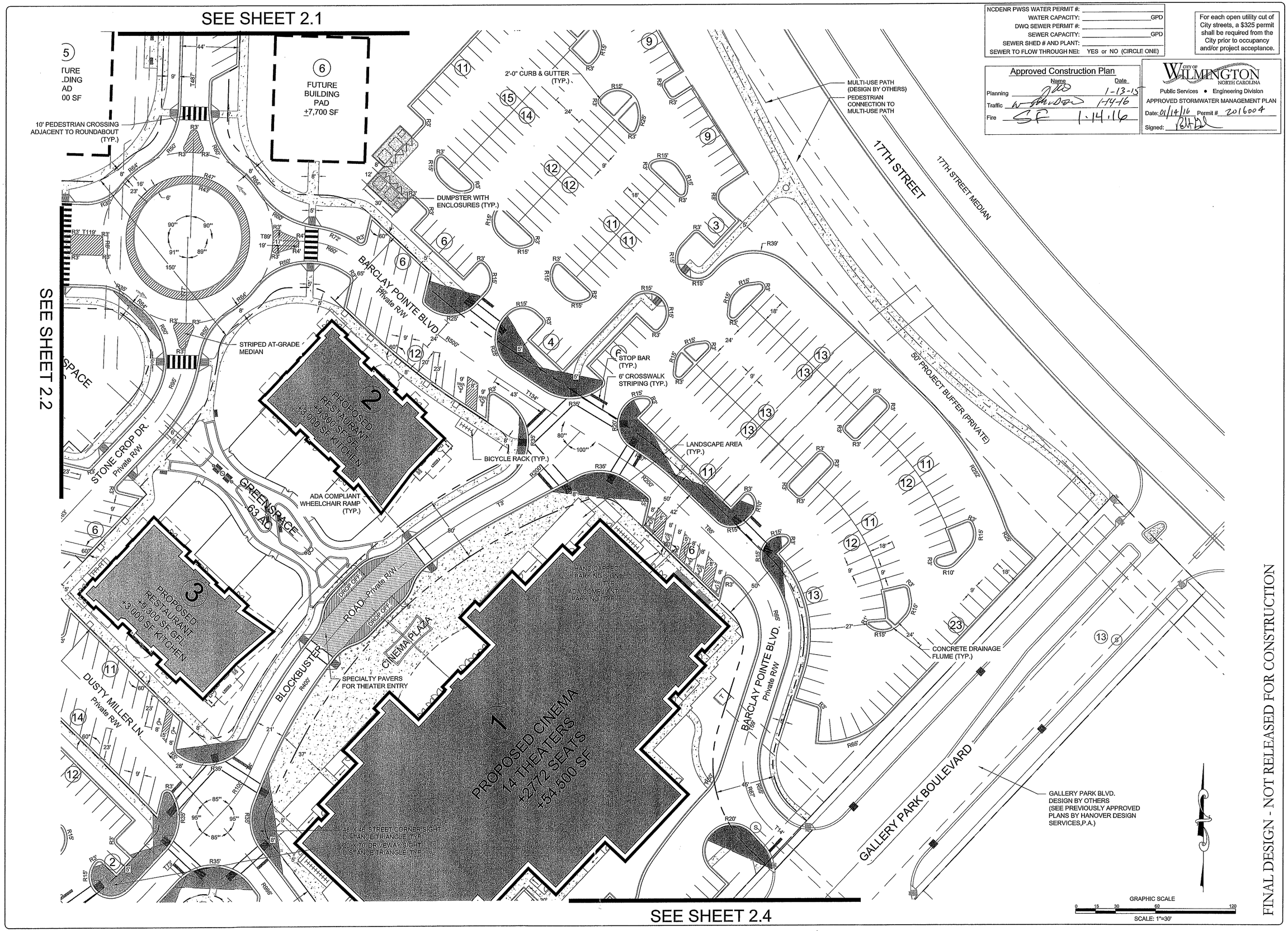
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 06.14.15
SCALE: 1" = 30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 01.05.16 ENGINEER DANIEL J. FISK

C-2.2

PEI JOB#: 14222.PE



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Approved Construction Plan

	Name	Date
Planning	[signature]	1-13-15
Traffic	[signature]	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

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SITE PLAN
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CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISK
01.05.16

C-2.3

PEI JOB#: 14222.PE

SEE SHEET 2.2

SEE SHEET 2.3

SEE SHEET 2.5

PROPOSED RESTAURANT +9,000 SF GFA +3,000 SF KITCHEN

PROPOSED CINEMA 14 THEATERS +2772 SEATS +54,500 SF

BLOCKBUSTER ROAD - Private R/W

DROP OFF

CINEMA PLAZA

SPECIALTY PAVERS FOR THEATER ENTRY

HANDICAPPED PARKING SIGN (TYP.) (ADA COMPLIANT PARKING (TYP.)

16' X 16' STREET CORNER SIGHT DISTANCE TRIANGLE (TYP.)

LANDSCAPE AREA (TYP.)

BICYCLE RACK (TYP.)

DUMPSTER WITH ENCLOSURES (TYP.)

LOADING SERVICE AREA

DUSTY MILLER LN. Private R/W

BARCLAY POINTE BLVD. Private R/W

2'-0" CURB & GUTTER (TYP.)

10' W. U/G ELEC. EASEMENT

CONCRETE DRAINAGE FLUME (TYP.)

20' X 70' DRIVEWAY SIGHT DISTANCE TRIANGLE, TYP.

STOP BAR (TYP.)

6' CROSSWALK STRIPING (TYP.)

ADA COMPLIANT WHEELCHAIR RAMP (TYP.)

GALLERY PARK BOULEVARD

GALLERY PARK BLVD. DESIGN BY OTHERS (SEE PREVIOUSLY APPROVED PLANS BY HANOVER DESIGN SERVICES,P.A.)

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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Approved Construction Plan

	Name	Date
Planning	JWO	1-13-15
Traffic	[illegible]	1-14-16
Fire	[illegible]	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [illegible]

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

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SITE PLAN
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CITY OF WILMINGTON
NORTH CAROLINA

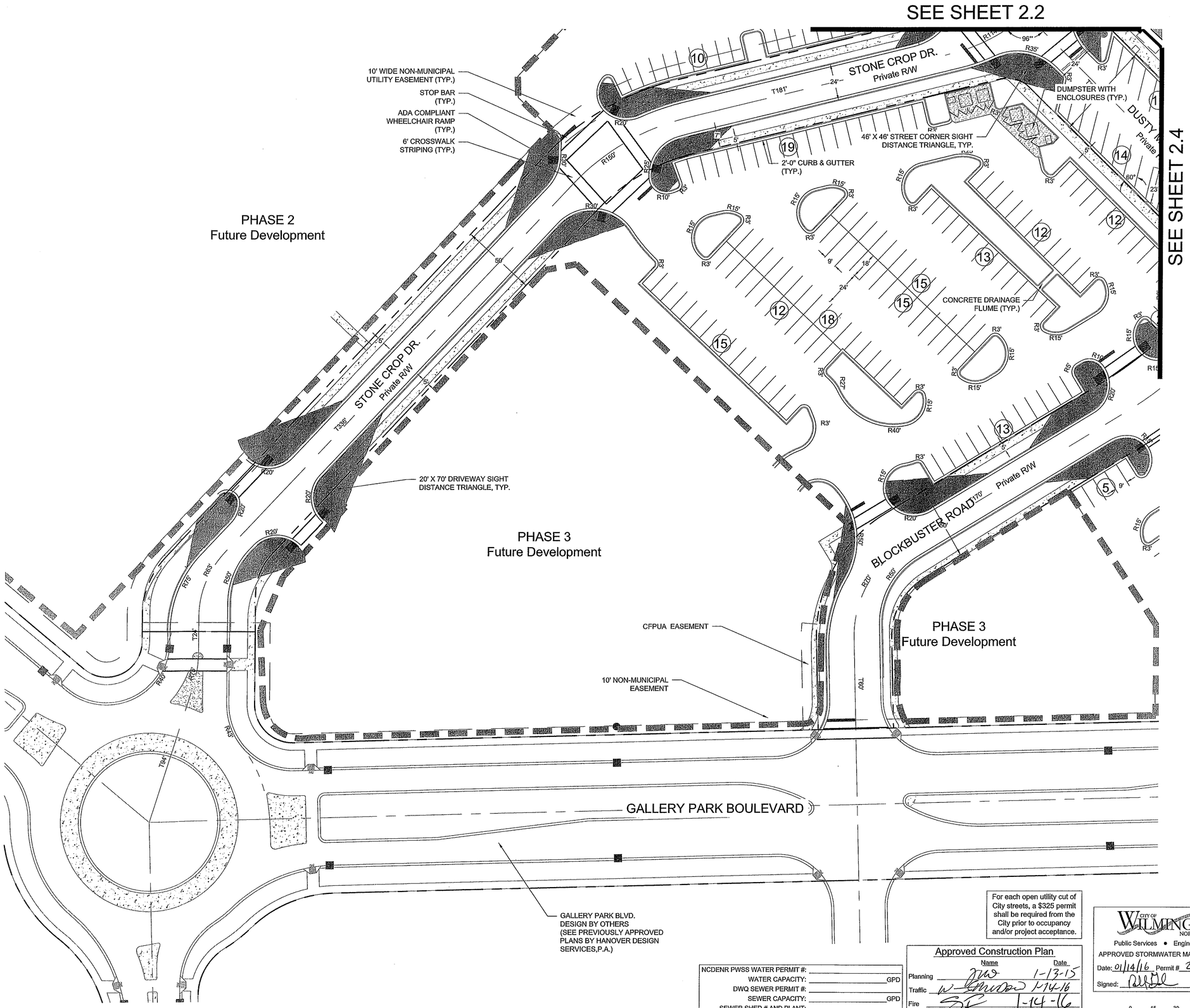
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: JWO
DRAWN: JCM
CHECKED: AHE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040301 01.05.16 DANIEL J. FISK

C-2.4

PEI JOB#: 14222.PE



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WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

Approved Construction Plan

	Name	Date
Planning	JWO	1-13-15
Traffic	W. Simmons	1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

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NORTH CAROLINA

PROJECT STATUS
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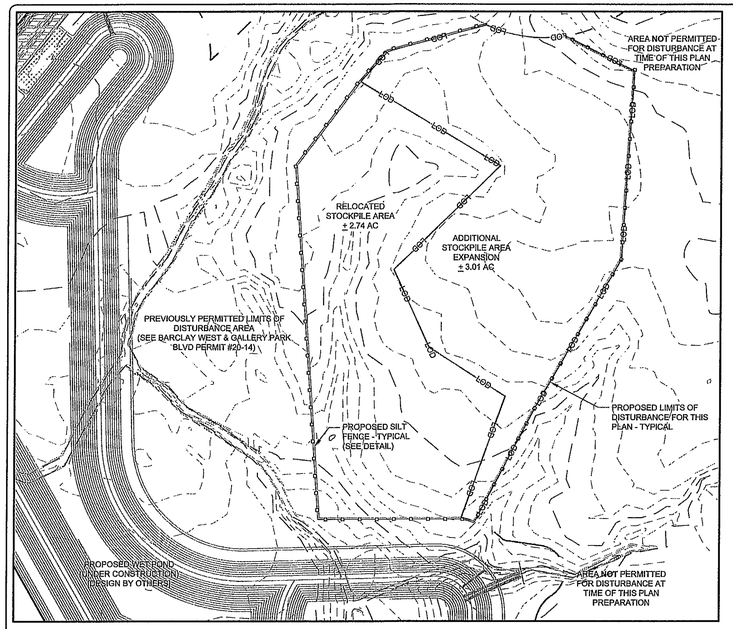
PRELIMINARY LAYOUT:
FINAL DESIGN:
READY FOR CONST:

DRAWING INFORMATION
DATE: 03.14.16
SCALE: 1"=30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040301 01.05.16 DANIEL J. FISK

C-2.5

PEI JOB#: 14222.PE



RELOCATED STOCKPILE AREA PLAN

SCALE: 1" = 100'

NOTES:

1.) SEE GENERAL NOTES SHEET (C-1.0) FOR GRADING, DRAINAGE AND EROSION CONTROL NOTES AND DETAILS FOR MORE INFORMATION.

2.) LIMITS OF DISTURBANCE:

PREVIOUSLY PERMITTED =	46.45 AC (19.67 AC + 26.78 AC)
ADDITIONAL =	24.71 AC (21.70 AC + 3.01 AC)
TOTAL =	71.16 AC

3.) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.

4.) CONTRACTOR SHALL GAIN ACCESS TO SITE THROUGH THE EXISTING CONSTRUCTION ENTRANCE ALONG GEORGE ANDERSON DRIVE AND LIMITS OF DISTURBANCE DEPICTED ON THE BARCLAY WEST GALLERY PARK BOULEVARD PLANS PREPARED BY HANOVER DESIGN SERVICES DATED 04.21.15 LAST REVISED 06.09.15 UNTIL INGRESS / EGRESS IS ALLOWED AND APPROVED ALONG GALLERY PARK BOULEVARD.

5.) 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 SHOWN WAS COMPLETED.

6.) GEOTECHNICAL TESTING HAS NOT BEEN PERFORMED ON-SITE. A GEOTECHNICAL ENGINEER SHALL BE CONSULTED TO CONFIRM SUITABILITY OF SUBGRADE MATERIAL AND PROPER COMPACTION IN FILL AREAS.

7.) IT IS POSSIBLE THAT CONSTRUCTION OF GALLERY PARK BOULEVARD MAY BE ONGOING AT THE TIME OF CLEARING AND MASS GRADING CONSTRUCTION AS DEPICTED ON THESE PLANS. CONTRACTOR SHALL COORDINATE WITH OWNER / OWNER'S REPRESENTATIVE SCHEDULE AND CONSTRUCTION ACTIVITIES TO MINIMIZE DELAYS OR INTERFERENCE WITH ANY OTHER CONTRACTORS OR SUBCONTRACTORS.

8.) PER HANOVER DESIGN SERVICES, P.A. SURVEY AND PLANS DATED 04.21.15 LAST REVISED 06.09.15, "404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018."

9.) PERMITTED EROSION CONTROL LIMITS OF DISTURBANCE TAKEN FROM BARCLAY WEST GALLERY PARK BOULEVARD PLANS PREPARED BY HANOVER DESIGN SERVICES, P.A. DATED 04.21.15 LAST REVISED 06.09.15.

10.) THE PROPOSED GALLERY PARK BOULEVARD AND WET DETENTION POND AS SHOWN HAVE BEEN TAKEN FROM A CAD FILE PROVIDED BY HANOVER DESIGN SERVICES, P.A. ON 08.04.15. ALL GRADE TIE-INS, ROAD CONNECTIONS, AND UTILITY CONNECTIONS SHALL BE FIELD VERIFIED TO CONFIRM THAT THE AS-BUILT CONDITIONS MATCH THE DESIGN CONDITIONS AS DEPICTED. CONTRACTOR SHALL CONTACT THE OWNER AND ENGINEER WITH ANY DISCREPANCIES.

BUILDING PAD NOTE:

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

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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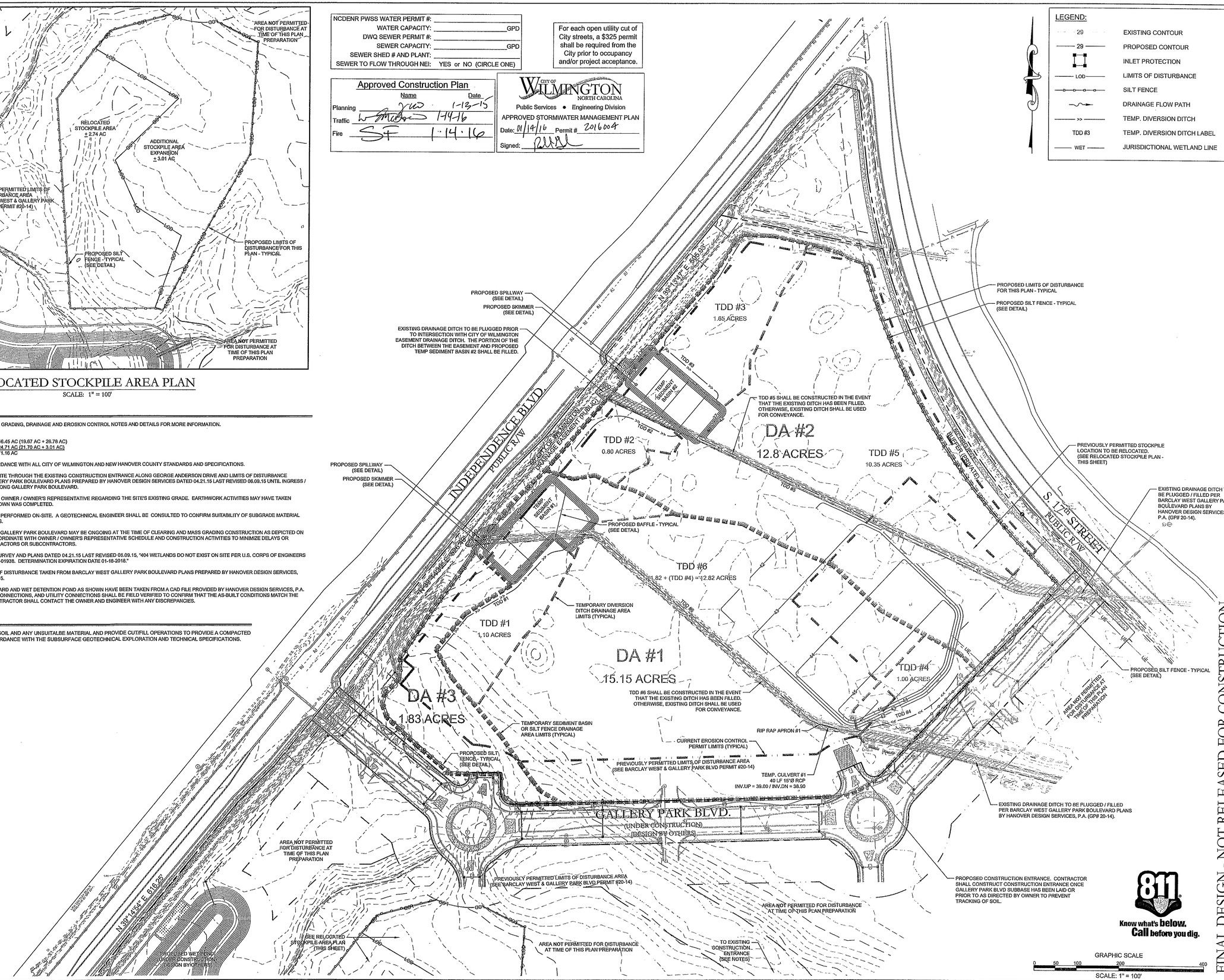
Approved Construction Plan	Name	Date
Planning	[illegible]	1-13-15
Traffic	[illegible]	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/19/16 Permit # 2016004
Signed: [illegible]

LEGEND:

29	EXISTING CONTOUR
29	PROPOSED CONTOUR
	INLET PROTECTION
LOD	LIMITS OF DISTURBANCE
	SILT FENCE
	DRAINAGE FLOW PATH
>>	TEMP. DIVERSION DITCH
TDD #3	TEMP. DIVERSION DITCH LABEL
WET	JURISDICTIONAL WETLAND LINE



FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER NHC COMMENTS	05.02.15
2) ADDED "ADDITIONAL STOCKPILE AREA EXPANSION"	10.21.15
3) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15

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EROSION CONTROL PLAN
PHASE I
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 08.04.15
SCALE: 1" = 100'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040801 ENGINEER DANIEL J. FISK
11.23.15

C-3.0

PEI JOB#: 14222.PE

LEGEND:

— — — 29 — — —	EXISTING CONTOUR
——— 29 ———	PROPOSED CONTOUR
	INLET PROTECTION
——— LOD ———	LIMITS OF DISTURBANCE
—o—o—o—o—	SILT FENCE
	DRAINAGE FLOW PATH
——— >> ———	TEMP. DIVERSION DITCH
TDD #3	TEMP. DIVERSION DITCH LABEL
——— WET ———	JURISDICTIONAL WETLAND LINE

NOTATION:

CB = CATCH BASIN
DCB = DOUBLE CATCH BASIN
DI = DROP INLET
DDI = DOUBLE DROP INLET
YI = YARD INLET
MH = STORM MANHOLE
GP = STORM STRUCTURE BY OTHERS (SEE HANOVER DESIGN SERVICES, P.A. PLANS)

NOTES:

1.) SEE GENERAL NOTES SHEET (C-1.0) FOR GRADING, DRAINAGE AND EROSION CONTROL NOTES AND DETAILS FOR MORE INFORMATION.

2.) SEE SHEET C-3.0 FOR EROSION CONTROL PLAN PHASE I.

3.) SEE SHEET C-3.2 FOR THE POINTE AT BARCLAY PROPOSED STORM DRAINAGE "STORM SCHEDULE".

4.) SEE FINE GRADING PLANS (SHEETS C-3.3 THROUGH C-3.6) FOR PROPOSED SPOT ELEVATIONS.

5.) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.

6.) CONTRACTOR SHALL GAIN ACCESS TO SITE THROUGH THE EXISTING CONSTRUCTION ENTRANCE ALONG GEORGE ANDERSON DRIVE AND LIMITS OF DISTURBANCE DEPICTED ON THE BARCLAY WEST GALLERY PARK BOULEVARD PLANS PREPARED BY HANOVER DESIGN SERVICES DATED 04.21.15 LAST REVISED 06.09.15 UNTIL INGRESS / EGRESS IS ALLOWED AND APPROVED ALONG GALLERY PARK BOULEVARD.

7.) 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 SHOWN WAS COMPLETED.

8.) GEOTECHNICAL TESTING HAS BEEN PERFORMED ON-SITE BY ECS CAROLINAS, LLP (REFER TO REPORT). A GEOTECHNICAL ENGINEER SHALL BE CONSULTED TO CONFIRM SUITABILITY OF SUBGRADE MATERIAL AND PROPER COMPACTION IN FILL AREAS.

9.) IT IS POSSIBLE THAT CONSTRUCTION OF GALLERY PARK BOULEVARD MAY BE ONGOING AT THE TIME OF CONSTRUCTION AS DEPICTED ON THESE PLANS, CONTRACTOR SHALL COORDINATE WITH OWNER / OWNER'S REPRESENTATIVE SCHEDULE AND CONSTRUCTION ACTIVITIES TO MINIMIZE DELAYS OR INTERFERENCE WITH ANY OTHER CONTRACTORS OR SUBCONTRACTORS.

10.) PER HANOVER DESIGN SERVICES, P.A. SURVEY AND PLANS DATED 04.21.15 LAST REVISED 06.09.15, "404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018."

11.) PERMITTED EROSION CONTROL LIMITS OF DISTURBANCE TAKEN FROM BARCLAY WEST GALLERY PARK BOULEVARD PLANS PREPARED BY HANOVER DESIGN SERVICES, P.A. DATED 04.21.15 LAST REVISED 06.09.15.

12.) THE PROPOSED GALLERY PARK BOULEVARD AND WET DETENTION POND AS SHOWN HAVE BEEN TAKEN FROM A CAD FILE PROVIDED BY HANOVER DESIGN SERVICES, P.A. ON 06.04.15. ALL GRADE TIE-INS, ROAD CONNECTIONS, AND UTILITY CONNECTIONS SHALL BE FIELD VERIFIED TO CONFIRM THAT THE AS-BUILT CONDITIONS MATCH THE DESIGN CONDITIONS AS DEPICTED. CONTRACTOR SHALL CONTACT THE OWNER AND ENGINEER WITH ANY DISCREPANCIES.

ASPHALT AREA NOTE:

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

BUILDING PAD NOTE:

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

SEDIMENT BASIN NOTE:

TRACT B IS A PORTION OF THE OVERALL (107+/- ACRE) DRAINAGE AREA THAT FLOWS TO THE BARCLAY WEST SEDIMENT BASIN. THE SEDIMENT BASIN WAS DESIGNED AND PERMITTED THROUGH PLANS PREPARED BY HANOVER DESIGN SERVICES, PA AND SIGNED AND SEALED BY DAVID S. HOLLIS, PE (NCPE 20007).

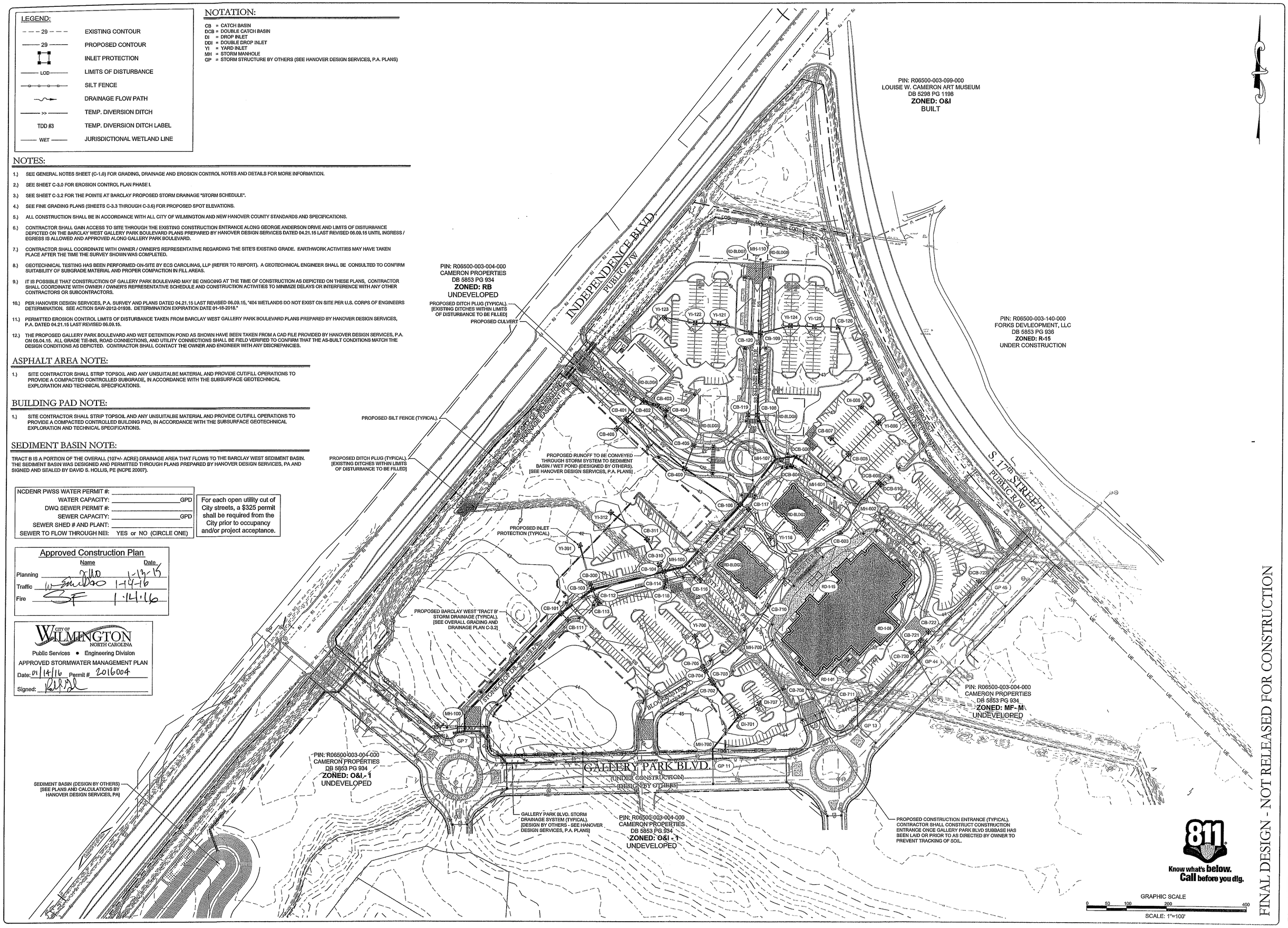
NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	[illegible]	1-13-15
Traffic	[illegible]	1-14-16
Fire	[illegible]	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [illegible]



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

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS 01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties

PARAMOUNTE ENGINEERING, P.C.
5011 Oleander Drive, Suite 201

EROSION CONTROL PLAN
PHASE II
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B

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

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 01.05.16 DANIEL J. [illegible]

C-3

PEI JOB#: 142[illegible]

STORM SCHEDULE:

Upstream Node	Downstream Node	Diameter (in)	Upstream Invert	Downstream Invert	Pipe Length (ft)	Slope (%)	Upstream Rim Elev	Downstream Rim Elev	Pipe Material
MH-100	GP 7	60	33.31	33.20	42	0.25	43.75	42.70	RCP III
CB-101	MH-100	60	34.18	33.31	349	0.25	42.17	43.75	RCP III
CB-103	CB-101	60	34.43	34.18	98	0.25	41.70	42.17	RCP III
CB-104	CB-103	60	34.89	34.43	185	0.25	41.72	41.70	RCP IV
MH-105	CB-104	60	35.02	34.89	53	0.25	42.11	41.72	RCP IV
CB-106	MH-105	60	35.54	35.02	208	0.25	42.10	42.11	RCP IV
MH-107	CB-106	54	35.90	35.54	144	0.25	42.12	42.10	RCP IV
CB-108	MH-107	42	36.20	35.90	120	0.25	41.94	42.12	RCP III
CB-109	CB-108	42	36.72	36.20	206	0.25	41.91	41.94	RCP IV
MH-110	CB-109	24	37.75	37.22	177	0.30	44.40	41.91	RCP III
CB-111	CB-101	18	38.00	37.75	24	1.04	42.17	42.17	RCP III
CB-112	CB-103	18	37.63	37.38	25	1.02	41.60	41.70	RCP III
CB-113	CB-112	15	38.00	37.88	12	1.00	41.50	41.60	RCP III
CB-114	CB-104	18	36.69	36.44	25	1.02	41.61	41.72	RCP III
CB-115	CB-114	18	36.84	36.69	15	1.00	41.56	41.61	RCP III
CB-116	MH-105	18	37.00	36.48	52	1.01	41.84	42.11	RCP III
CB-117	CB-106	18	37.20	36.96	24	1.01	42.11	42.10	RCP III
YI-118	CB-117	18	37.66	37.20	92	0.50	42.00	42.11	RCP III
CB-119	CB-108	18	38.00	37.76	24	0.99	41.94	41.94	RCP III
CB-120	CB-109	30	37.25	37.18	26	0.28	42.00	41.91	RCP III
YI-121	CB-120	30	37.45	37.25	81	0.25	41.75	42.00	RCP III
YI-122	YI-121	24	37.66	37.50	60	0.26	41.75	41.75	RCP III
YI-123	YI-122	18	38.00	37.81	79	0.25	41.75	41.75	RCP III
YI-124	CB-109	24	37.38	37.19	77	0.25	41.75	41.91	RCP III
YI-125	YI-124	24	37.53	37.38	60	0.25	41.75	41.75	RCP III
CB-126	YI-125	15	38.25	38.10	60	0.25	41.75	41.75	RCP III
CB-300	CB-103	30	35.40	35.35	15	0.33	41.50	41.70	RCP III
YI-301	CB-300	30	35.70	35.40	100	0.30	41.50	41.50	RCP III
CB-310	CB-104	24	36.00	35.80	20	1.01	41.51	41.72	RCP III
CB-311	CB-310	24	36.21	36.00	71	0.30	42.62	41.51	RCP III
YI-312	CB-311	24	36.55	36.21	113	0.30	41.50	42.62	RCP III
CB-400	CB-105	36	36.43	36.01	167	0.25	41.53	42.10	RCP III
CB-401	CB-400	30	36.91	36.43	194	0.25	41.47	41.53	RCP III
CB-402	CB-401	24	37.25	37.05	63	0.30	41.47	41.47	RCP III
CB-403	CB-402	18	37.86	37.75	37	0.30	41.93	41.47	RCP III
CB-404	CB-403	18	37.94	37.86	27	0.30	42.19	41.93	RCP III
CB-405	CB-400	18	37.79	37.48	63	0.50	41.53	41.53	RCP III
DI-406	CB-401	18	37.75	37.65	33	0.30	41.50	41.47	RCP III
DCB-600	MH-107	36	36.48	36.35	49	0.25	41.61	42.12	RCP IV
MH-601	CB-600	36	36.71	36.48	95	0.25	42.79	41.61	RCP IV
MH-602	MH-601	24	37.52	37.26	103	0.25	43.27	42.79	RCP III
CB-603	MH-602	18	38.29	38.02	91	0.30	43.56	43.27	RCP III
DCB-604	CB-600	18	37.80	37.53	27	1.02	41.55	41.61	RCP IV
CB-605	MH-601	24	36.97	36.76	82	0.25	41.90	42.79	RCP III
YI-606	CB-605	18	37.74	37.47	108	0.25	41.90	41.90	RCP III
CB-607	CB-605	15	37.87	37.72	60	0.25	41.90	41.90	RCP III
DI-608	CB-606	15	38.14	37.99	60	0.25	41.90	41.90	RCP III
DCB-609	MH-602	24	37.70	37.52	70	0.25	41.75	43.27	RCP III
DCB-610	DCB-609	18	38.22	38.20	10	0.25	41.90	41.75	RCP III
MH-700	GP 11	36	36.08	36.00	25	0.30	45.50	44.12	RCP III
DI-701	MH-700	36	36.39	36.08	105	0.30	41.71	45.50	RCP III
CB-702	DI-701	36	36.70	36.39	104	0.30	41.98	41.71	RCP III
CB-703	CB-702	30	36.74	36.70	13	0.28	41.98	41.98	RCP III
CB-704	CB-703	24	36.81	36.74	24	0.30	41.98	41.98	RCP III
CB-705	CB-704	24	36.85	36.81	13	0.32	41.92	41.98	RCP III
YI-706	CB-705	18	37.59	37.35	78	0.30	41.65	41.92	RCP III
DI-707	DI-701	24	37.07	36.89	60	0.30	41.71	41.71	RCP III
CB-708	DI-707	18	37.78	37.57	70	0.30	43.11	41.71	RCP III
MH-709	CB-704	15	38.95	38.36	119	0.50	43.05	41.98	RCP III
CB-710	MH-709	15	39.51	38.95	111	0.50	43.55	43.05	RCP III
CB-711	GP 13	18	37.22	36.90	65	0.50	42.75	43.69	RCP III
CB-720	GP 44	24	37.94	37.80	29	0.50	42.60	42.86	RCP III
CB-721	CB-720	18	38.64	38.44	39	0.50	43.14	42.60	RCP III
CB-722	CB-721	18	38.77	38.64	27	0.50	43.14	43.14	RCP III
DCB-723	GP 45	18	37.94	37.80	29	0.50	42.00	42.53	RCP IV
RD-1-01	CB-711	18	38.19	37.22	97	1.00	44.73	42.75	HDPE
RD-1-02	RD-1-01	15	40.30	39.86	44	0.99	45.20	44.73	HDPE
RD-1-03	RD-1-02	15	40.61	40.30	32	1.00	45.20	45.20	HDPE
RD-1-04	RD-1-03	12	41.19	40.86	33	1.00	45.00	45.20	HDPE
RD-1-05	RD-1-04	8	41.83	41.52	31	1.00	45.00	45.00	HDPE
RD-1-06	CB-720	18	38.89	38.44	64	0.70	44.26	42.60	HDPE
RD-1-07	RD-1-06	8	39.93	39.74	31	0.60	44.20	44.26	HDPE
RD-1-08	RD-1-06	15	39.31	39.14	28	0.60	44.40	44.26	HDPE
RD-1-09	RD-1-08	15	39.58	39.31	44	0.60	45.00	44.40	HDPE
RD-1-10	RD-1-09	15	40.24	39.58	112	0.60	45.35	45.00	HDPE
RD-1-11	RD-1-10	15	40.44	40.24	33	0.60	45.60	45.35	HDPE
RD-1-12	RD-1-11	15	40.63	40.44	32	0.60	45.60	45.60	HDPE
RD-1-13	RD-1-12	12	41.10	40.88	36	0.60	45.60	45.60	HDPE
RD-1-14	RD-1-13	12	41.27	41.10	28	0.60	45.60	45.60	HDPE
RD-1-15	CB-603	8	39.75	39.12	125	0.50	44.78	43.56	HDPE
RD-BLDG2	YI-118	15	38.18	37.91	53	0.50	43.25	42.00	HDPE
RD-BLDG3	CB-116	12	37.89	37.50	39	1.00	43.57	41.84	HDPE
RD-BLDG4	CB-402	12	38.35	38.25	21	0.50	42.75	41.47	HDPE
RD-BLDG5	CB-405	12	38.44	38.29	29	0.50	42.57	41.53	HDPE
RD-BLDG6	CB-108	12	39.00	38.58	42	0.99	43.14	41.94	HDPE
RD-BLDG7	MH-110	12	38.59	38.42	35	0.50	44.50	44.40	HDPE
RD-BLDG8	MH-110	12	38.46	38.42	9	0.51	44.50	44.40	HDPE

SEE SHEET C-3.5 FOR BUILDING #1 ROOF DRAIN SYSTEM LABELS.

NOTATION:

CB = CATCH BASIN
DI = DROP INLET
YI = YARD INLET
GP = STORM STRUCTURE BY OTHERS (SEE HANOVER DESIGN SERVICES, P.A. PLANS)
DCB = DOUBLE CATCH BASIN
DDI = DOUBLE DROP INLET
MH = STORM MANHOLE

STORMWATER MANAGEMENT WET POND NOTE:

TRACT B IS A PORTION OF THE OVERALL (107+/- ACRE) DRAINAGE AREA THAT FLOWS TO THE BARCLAY WEST WET POND NO. 1. THE WET POND WAS DESIGNED AND PERMITTED THROUGH PLANS PREPARED BY HANOVER DESIGN SERVICES, PA AND SIGNED AND SEALED BY DAVID S. HOLLIS, PE (NCPE 20007).

NOTES:

1.) SEE GENERAL NOTES SHEET (C-1.0) FOR GRADING, DRAINAGE AND EROSION CONTROL NOTES AND DETAILS FOR MORE INFORMATION.

2.) SEE FINE GRADING PLANS (SHEETS C-3.3 THROUGH C-3.6) FOR PROPOSED SPOT ELEVATIONS.

3.) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.

4.) 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 SHOWN WAS COMPLETED.

5.) GEOTECHNICAL TESTING HAS BEEN PERFORMED ON-SITE BY ECS CAROLINAS, LLP (REFER TO REPORT). A GEOTECHNICAL ENGINEER SHALL BE CONSULTED TO CONFIRM SUITABILITY OF SUBGRADE MATERIAL AND PROPER COMPACTION IN FILL AREAS.

6.) IT IS POSSIBLE THAT CONSTRUCTION OF GALLERY PARK BOULEVARD MAY BE ONGOING AT THE TIME OF CONSTRUCTION AS DEPICTED ON THESE PLANS. CONTRACTOR SHALL COORDINATE WITH OWNER / OWNER'S REPRESENTATIVE SCHEDULE AND CONSTRUCTION ACTIVITIES TO MINIMIZE DELAYS OR INTERFERENCE WITH ANY OTHER CONTRACTORS OR SUBCONTRACTORS.

7.) PER HANOVER DESIGN SERVICES, P.A. SURVEY AND PLANS DATED 04.21.15 LAST REVISED 06.09.15, "404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018."

8.) THE PROPOSED GALLERY PARK BOULEVARD AND WET DETENTION POND AS SHOWN HAVE BEEN TAKEN FROM A CAD FILE PROVIDED BY HANOVER DESIGN SERVICES, P.A. ON 06.04.15. ALL GRADE TIE-INS, ROAD CONNECTIONS, AND UTILITY CONNECTIONS SHALL BE FIELD VERIFIED TO CONFIRM THAT THE AS-BUILT CONDITIONS MATCH THE DESIGN CONDITIONS AS DEPICTED. CONTRACTOR SHALL CONTACT THE OWNER AND ENGINEER WITH ANY DISCREPANCIES.

ASPHALT AREA NOTE:

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

BUILDING PAD NOTE:

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

DRAINAGE NOTES:

1.) DRAINAGE EASEMENT AND STORMWATER SYSTEM MAINTENANCE IS THE RESPONSIBILITY OF THE DEVELOPER OR HOA, INCLUDING PONDS, PIPES, AND INFILTRATION BASINS AND TRENCHES.

2.) ALL IMPERVIOUS MUST DRAIN TO THE DESIGNED STORMWATER SYSTEM, PER THE APPROVED PLANS.

3.) NO OBSTRUCTIONS ARE ALLOWED IN DRAINAGE EASEMENTS, INCLUDING FENCES.

4.) ALL STORM DRAINAGE STRUCTURES SHALL MEET NCDOT STANDARDS AND SPECIFICATIONS AND SHALL BE TRAFFIC RATED FOR H-20 LOADS AT A MINIMUM.

5.) ALL CATCH BASIN (CB) RIM ELEVATIONS AND YARD INLET (YI) THROAT ELEVATIONS ARE LISTED AS THE "GUTTER OF FLOWLINE ELEVATION" WITHIN THE CURB SECTION. THE CONTRACTOR SHALL MAINTAIN A UNIFORM EDGE OF PAVEMENT (EOP) WHEN PLACING THE STORM INLETS WITHIN THE CURB-LINE (SEE "CURB TRANSITION" DETAIL). FOR CATCH BASINS WITHIN A TRANSITION FROM 24" STANDARD CURB & GUTTER, THE RIM ELEVATION GIVEN IS 1 INCH BELOW EOP.

6.) MANHOLE RIM ELEVATION SHOWN ABOVE IS FLUSH WITH PROPOSED GRADE. CONTRACTOR SHALL PROVIDE 6" CLEARANCE ABOVE PROPOSED GRADE WHEN PLACED IN A GRASS/PERVIOUS AREA; AND A FLUSH CONDITION WITH PROPOSED PAVEMENT OR IMPERVIOUS COVER.

7.) PROPOSED BUILDINGS SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM.

8.) CONTRACTOR SHALL ADJUST ALL FRAMES OF EX. UTILITY INFRASTRUCTURE WITHIN ASPHALT OVERLAY AREAS TO MATCH PROPOSED GRADES.

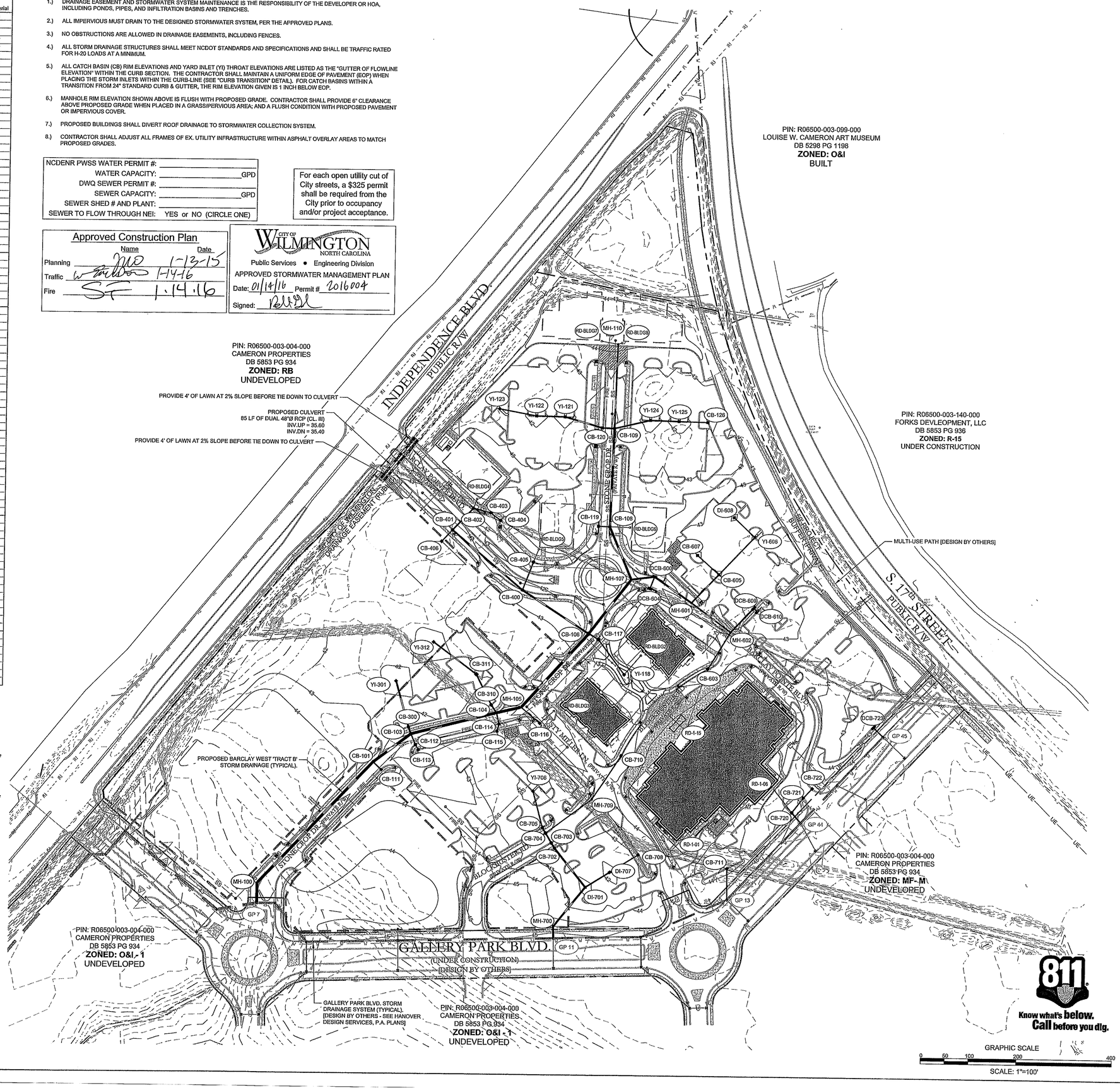
NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	[illegible]	1-13-15
Traffic	[illegible]	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [illegible]



FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS 01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202

PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 799-2707 (O) (910) 791-4750 (F)

OVERALL GRADING & DRAINAGE PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON

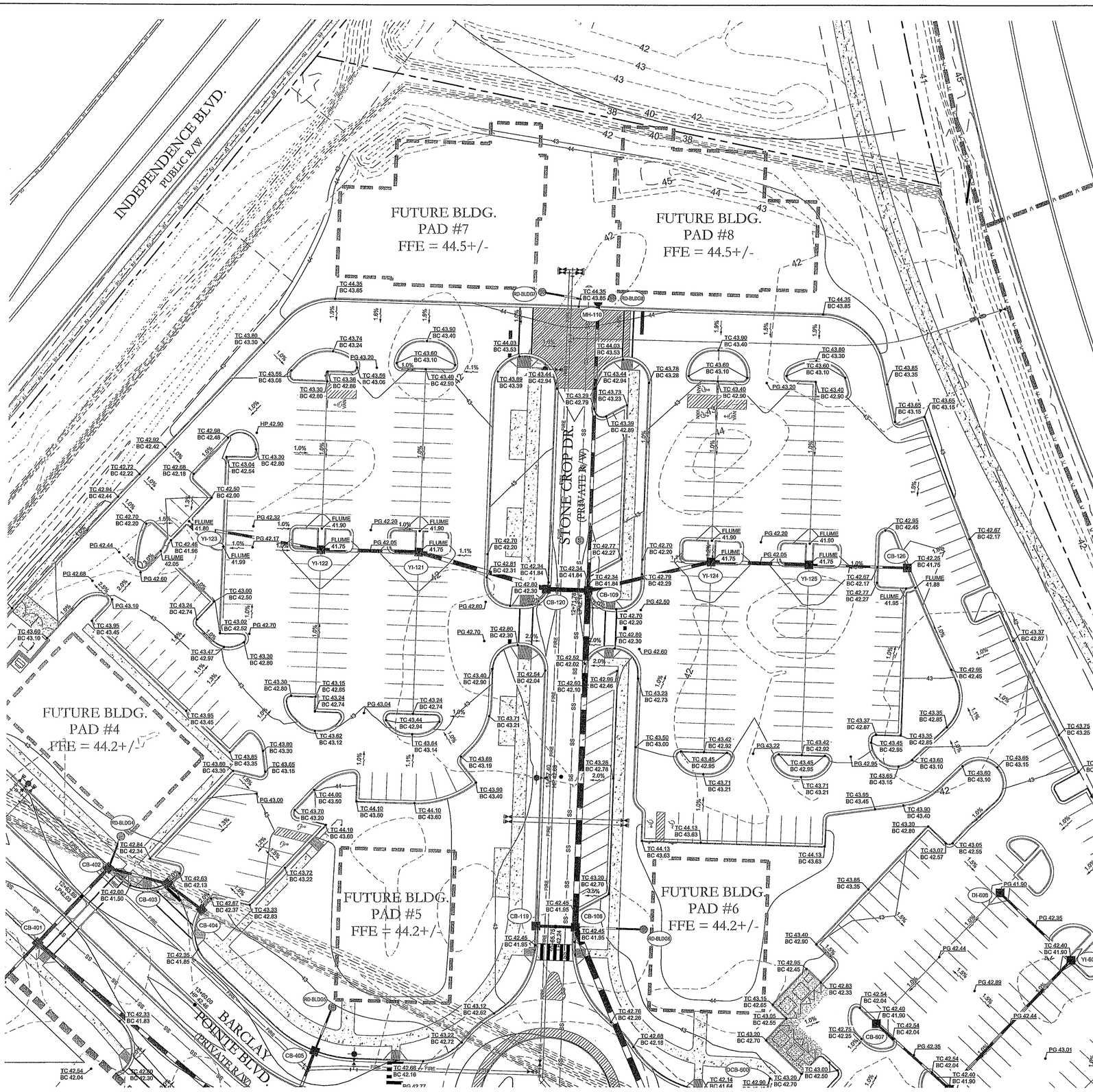
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 04.14
SCALE: 1"=100'
DESIGNED: DJF

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 01.05.16 DANIEL J. SISK

C-3.2

PEI JOB#: 14222.PE



SEE SHEET C-3.4

SEE SHEET C-3.5

GRAPHIC SCALE

0 15 30 60 120

SCALE: 1"=30'

NOTES:

1.) SEE GENERAL NOTES SHEET (C-1.0) FOR GRADING, DRAINAGE AND EROSION CONTROL NOTES AND DETAILS FOR MORE INFORMATION.

2.) SEE OVERALL GRADING AND DRAINAGE PLAN (SHEET C-3.2) FOR PROPOSED STORM SCHEDULE.

3.) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.

4.) 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 SHOWN WAS COMPLETED.

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NOTATION:

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
PG = PROPOSED GRADE
HP = HIGH POINT ELEVATION
SW = SIDEWALK ELEVATION
FLUME = CONCRETE DRAINAGE FLUME FLOWLINE ELEVATION

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: 01/14/16 Permit # 2016004
Signed:

Approved Construction Plan	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire	SF	1.14.16

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Know what's below. Call before you dig.

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

PARAMOUNTE ENGINEERING, P.C.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 791-5707 (O) (910) 791-5760 (F)
NC License #: C-2846

FINE GRADING PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

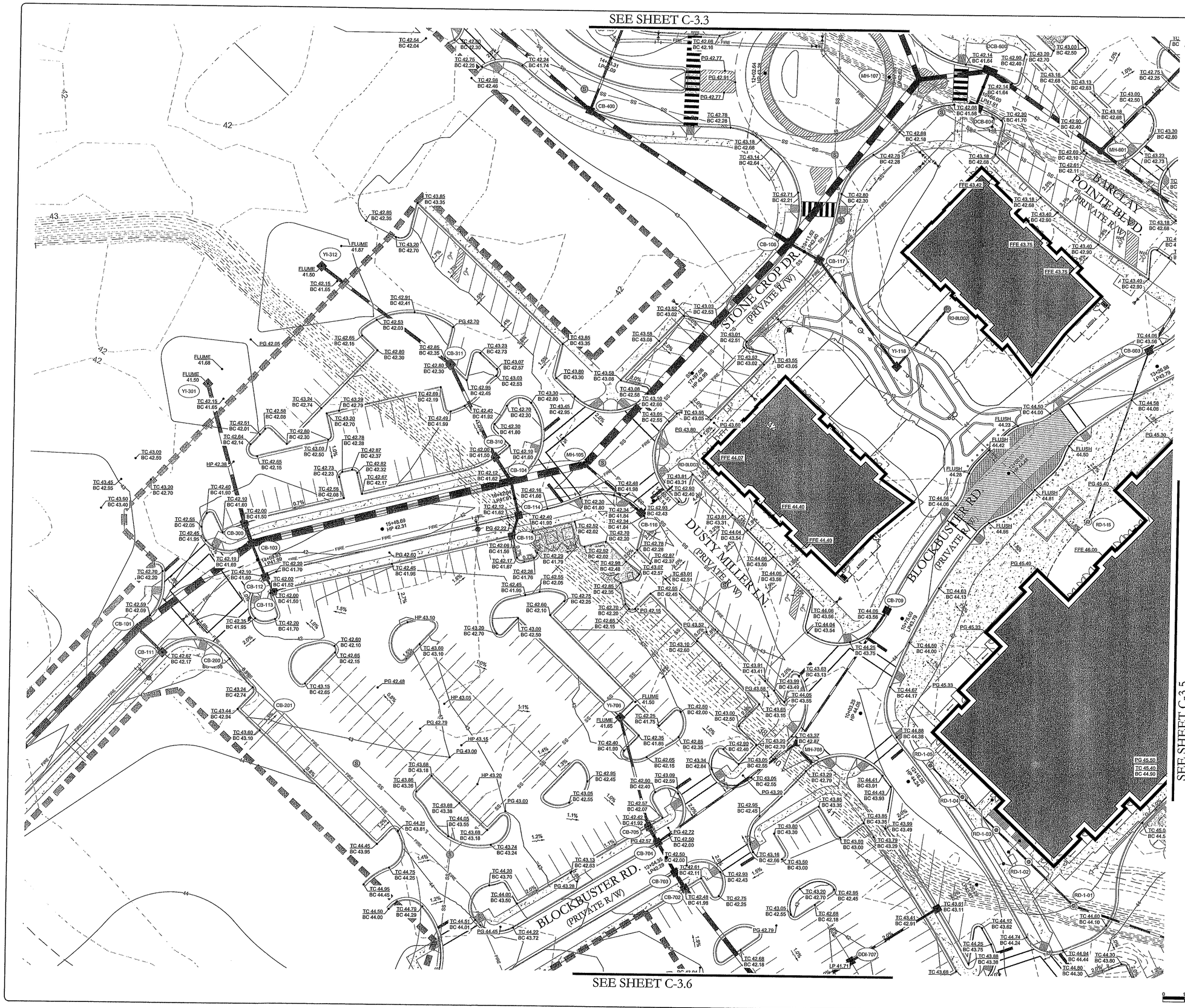
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
READY FOR CONST.:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1"=30'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TDC

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISH

C-3.3

PEI JOB#: 14222.PE



REFERENCE:

SEE SHEET C-3.3 FOR ALL REFERENCES, NOTES AND NOTATION.

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

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Approved Construction Plan

	Name	Date
Planning	[signature]	1-13-15
Traffic	[signature]	1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS 01.05.16

CLIENT INFORMATION:
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FINE GRADING PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

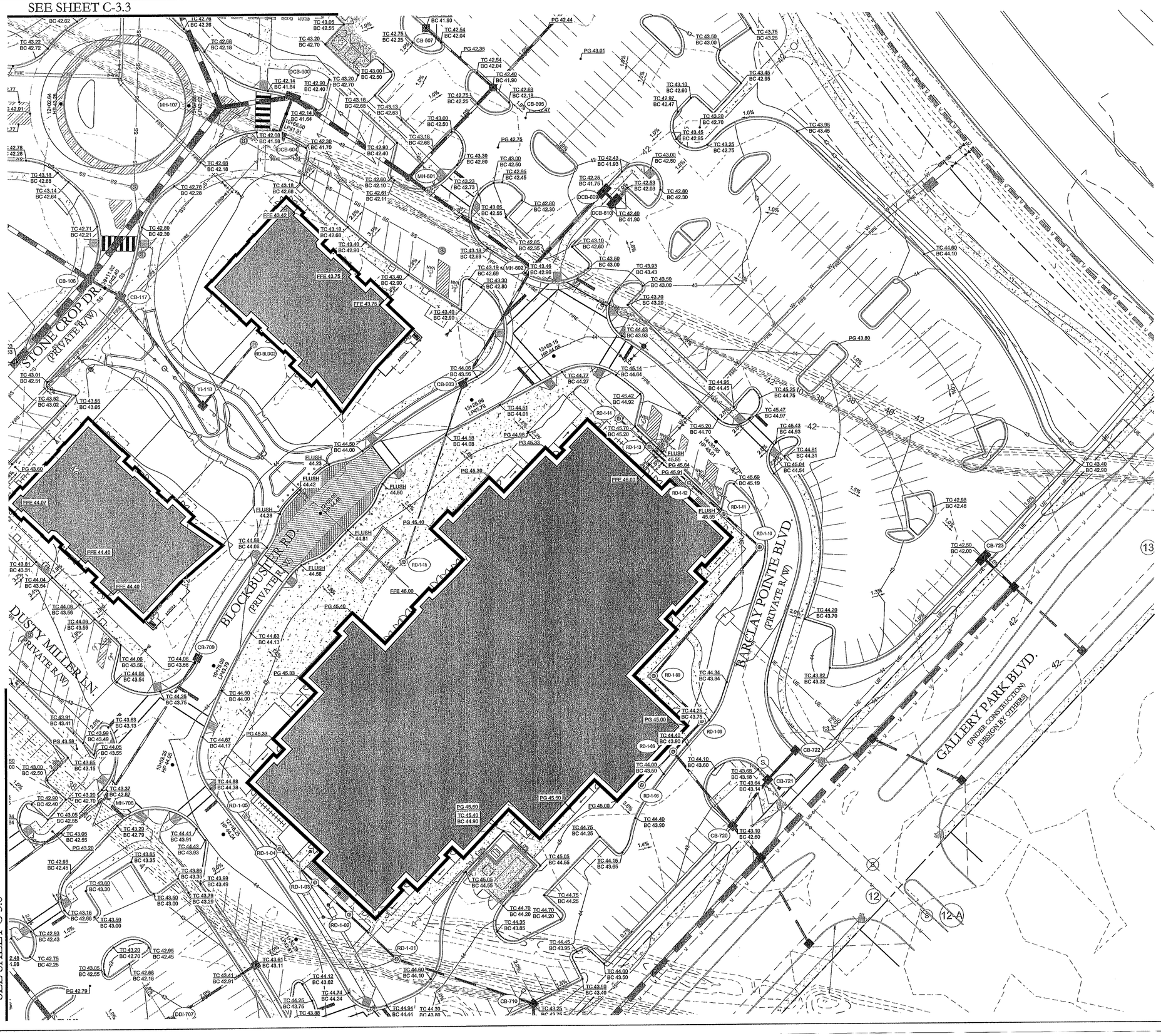
DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER DANIEL J. FISK 040501 01.05.16

C-3.4

PEI JOB#: 14222.PE

SEE SHEET C-3.3



SEE SHEET C-3.6

REFERENCE:

SEE SHEET C-3.3 FOR ALL REFERENCES, NOTES AND NOTATION.

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NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire		1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

Know what's below. Call before you dig.

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
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FINE GRADING PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

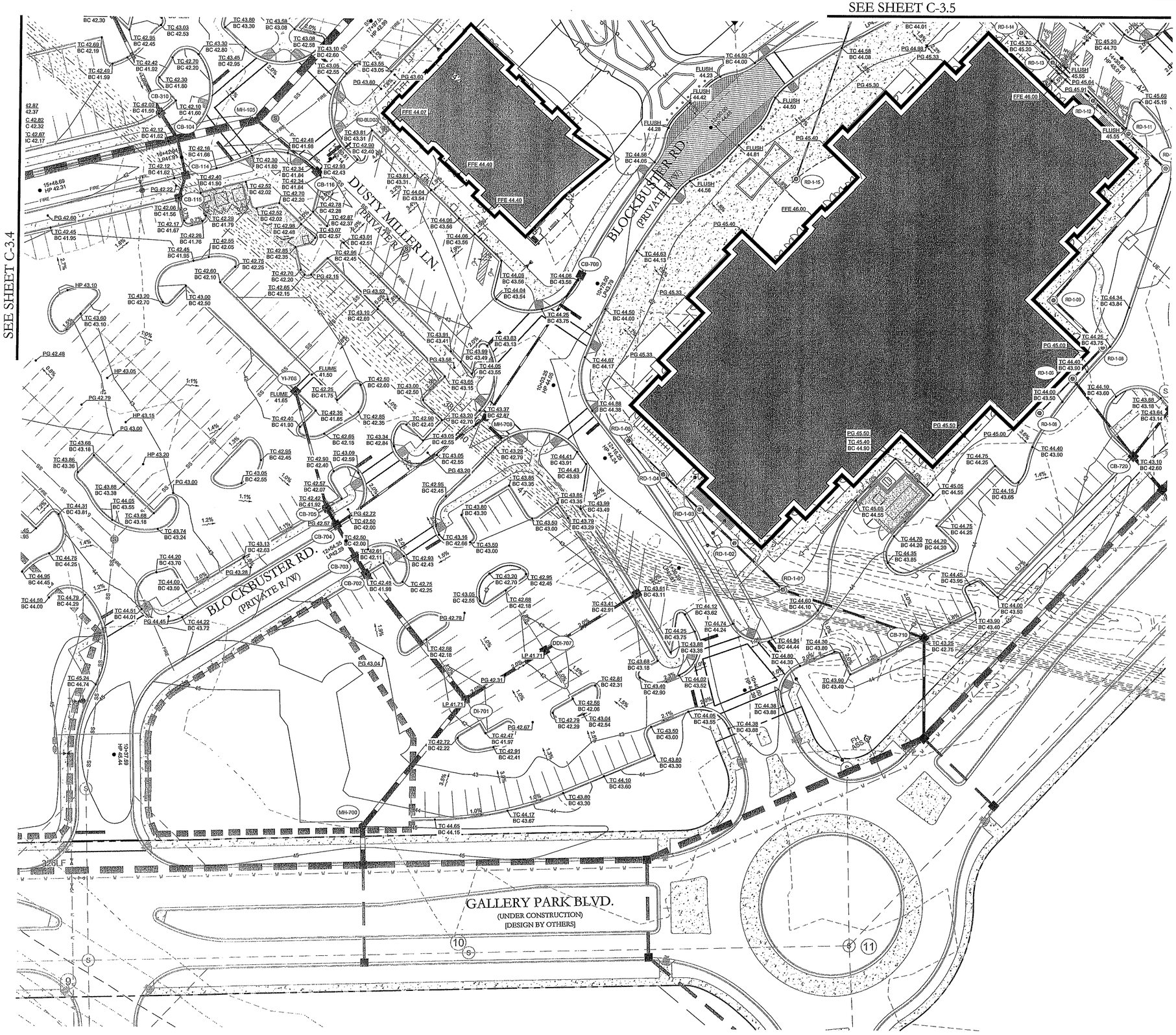
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 08.14.15
SCALE: 1" = 30'
DESIGNED: DJF
DRAWN: JLB
CHECKED: TGC

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 01.05.16 DANIEL J. FISK

C-3.5

PEI JOB#: 14222.PE



REFERENCE:

SEE SHEET C-3.3 FOR ALL REFERENCES, NOTES AND NOTATION.

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

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire		1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
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FINE GRADING PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

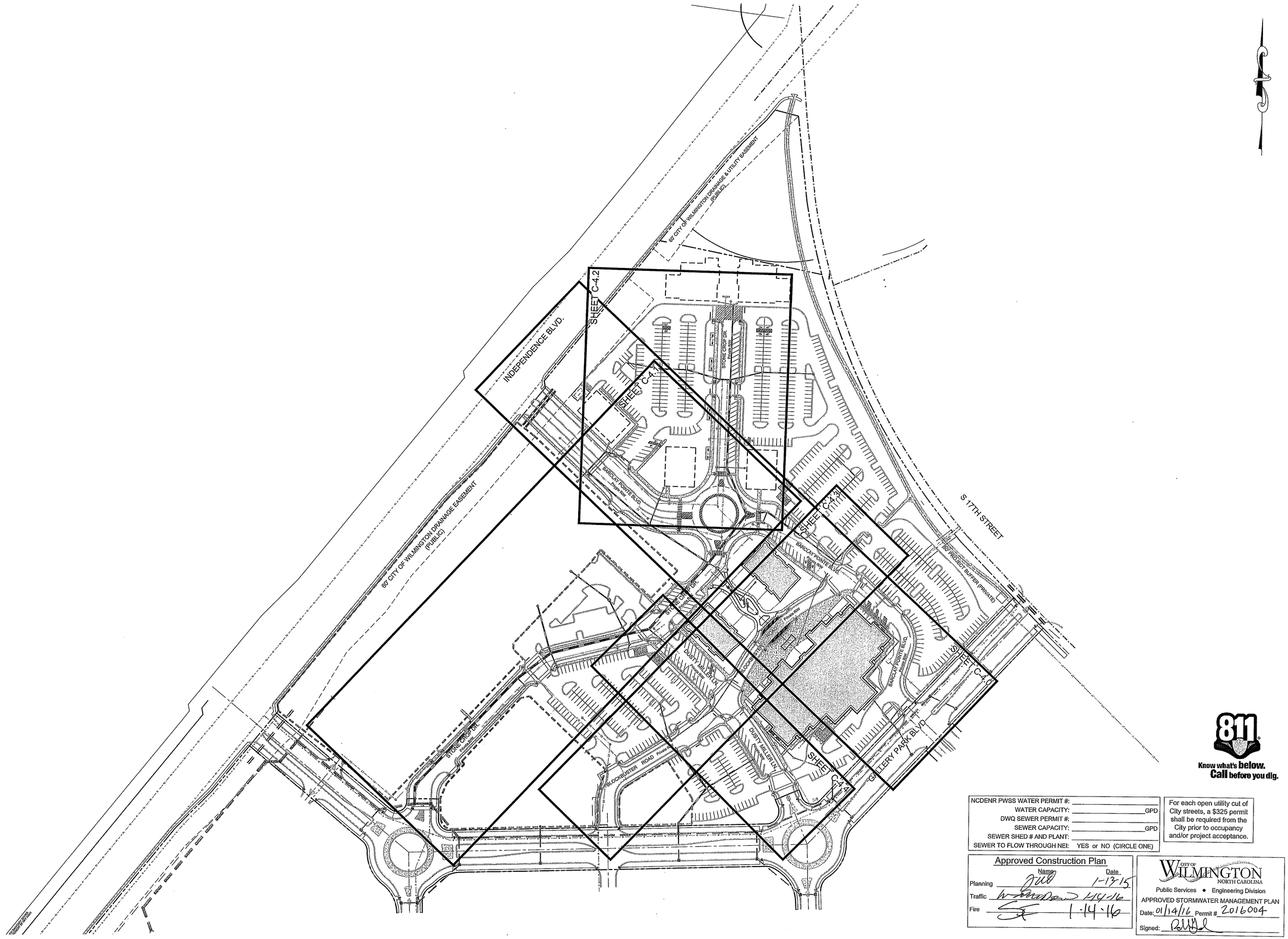
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09-14-15
SCALE: 1"=30'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040301 01-05-16 DANIEL J. RISK

C-3.6

PEI JOB#: 14222.PE



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

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	JWB	1-13-15
Traffic	[signature]	1-14-16
Fire	[signature]	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

GRAPHIC SCALE
0 50 100 200 400
SCALE: 1"=100'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:

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PLAN AND PROFILES
INDEX SHEET
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

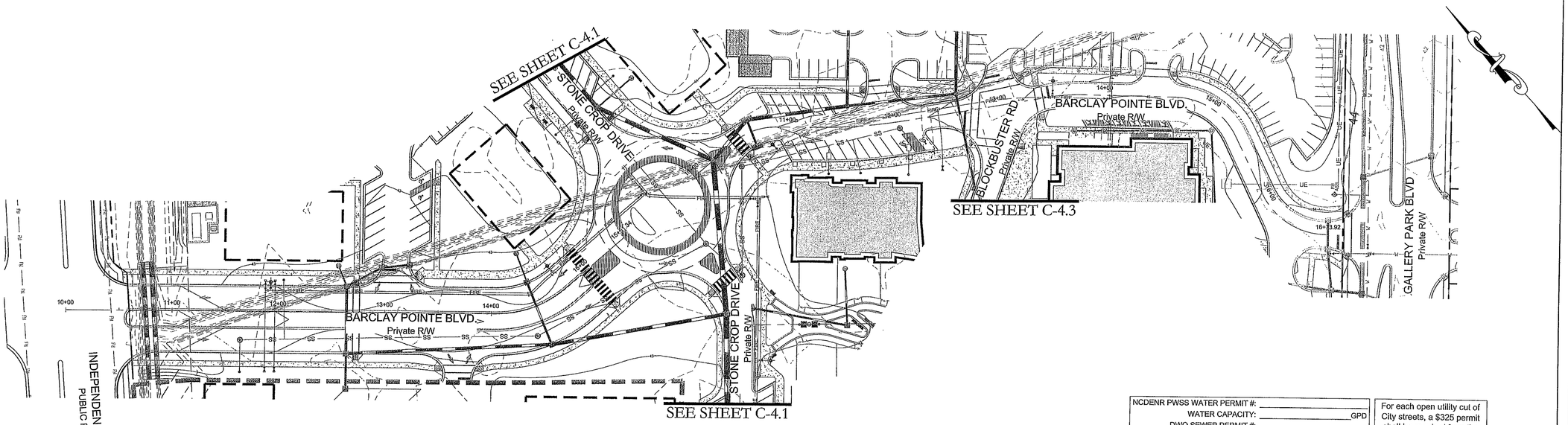
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 100'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040301 01.05.16 DANIEL J. FISK

INDEX

PEI JOB#: 14222.PE



BARCLAY POINTE BOULEVARD - PLAN VIEW

SCALE: 1"=50'

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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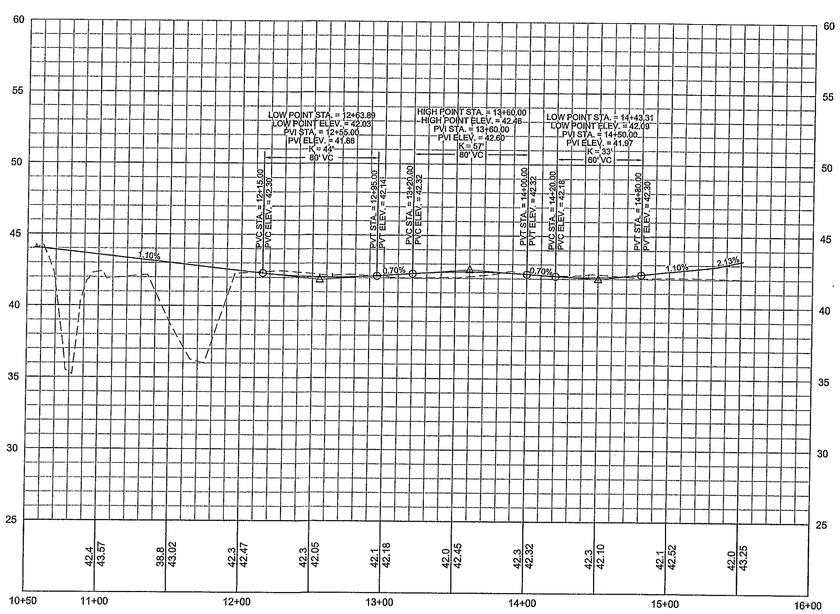
Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire	SF	1.14.16

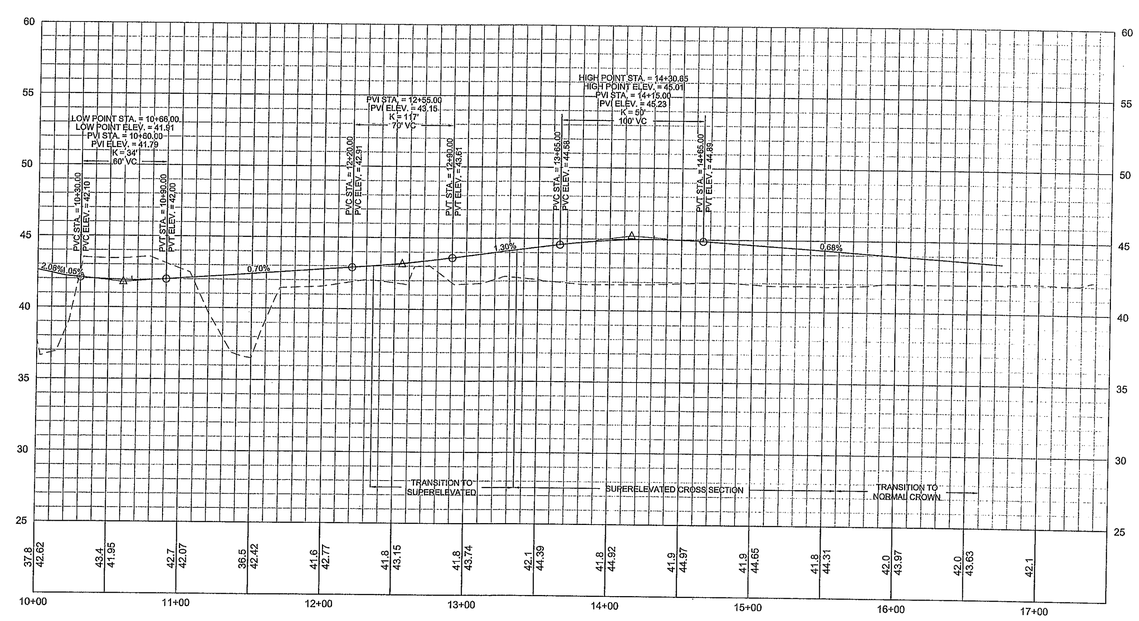
CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:



BARCLAY POINTE BOULEVARD - PROFILE VIEW

(INDEPENDANCE BLVD. TO TRAFFIC CIRCLE)
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

Know what's below. Call before you dig.



BARCLAY POINTE BOULEVARD - PROFILE VIEW

(TRAFFIC CIRCLE TO GALLERY PARK BLVD.)
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
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Wilmington, NC

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

PLAN AND PROFILES
BARCLAY POINTE BOULEVARD
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

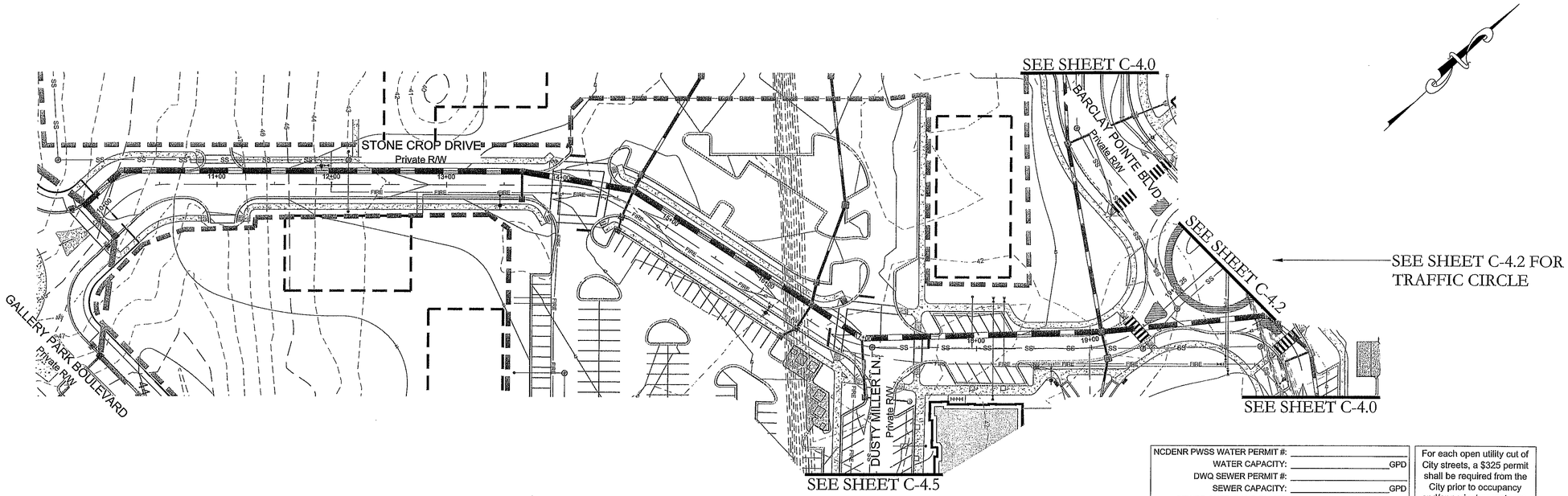
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 50'
DESIGNED: DJF
DRAWN: TGC
CHECKED:

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISHER

C-4.0

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

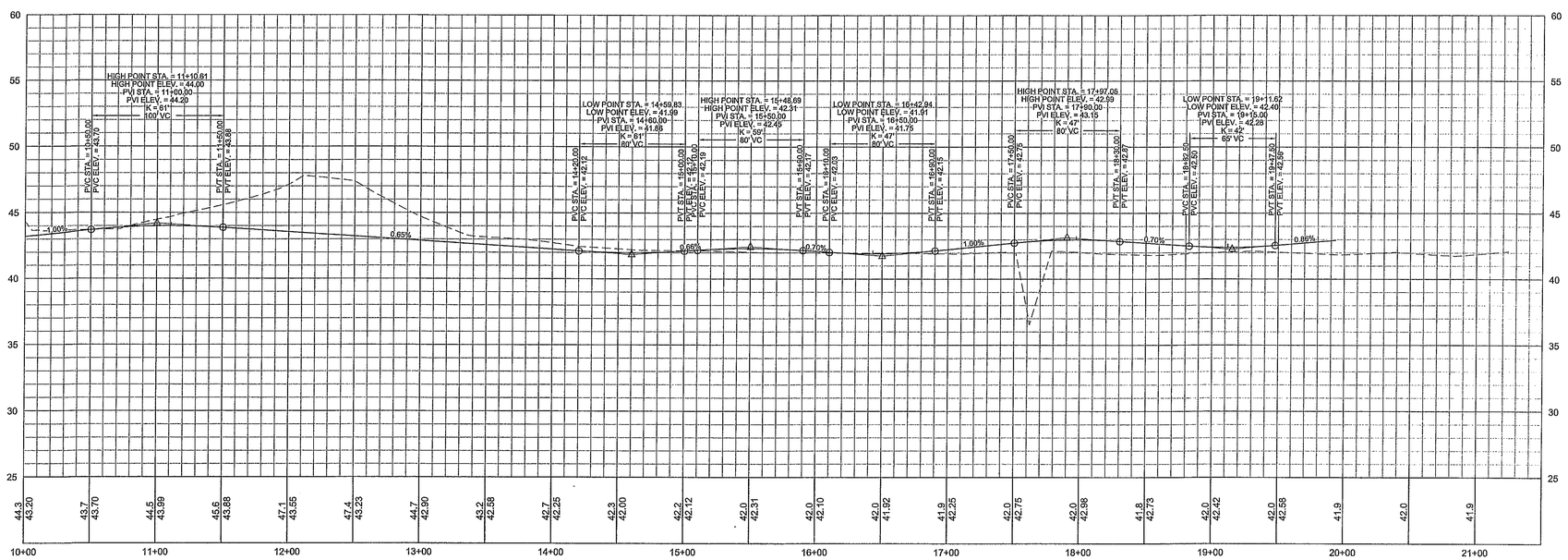
Approved Construction Plan

	Name	Date
Planning	[signature]	1-13-15
Traffic	[signature]	1-14-16
Fire	[signature]	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

STONE CROP DRIVE - PLAN VIEW

SCALE: 1"=50'



STONE CROP DRIVE - PROFILE VIEW

(GALLERY PARK BLVD. TO TRAFFIC CIRCLE)
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS 01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
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Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

PLAN AND PROFILES
STONE CROP DRIVE
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

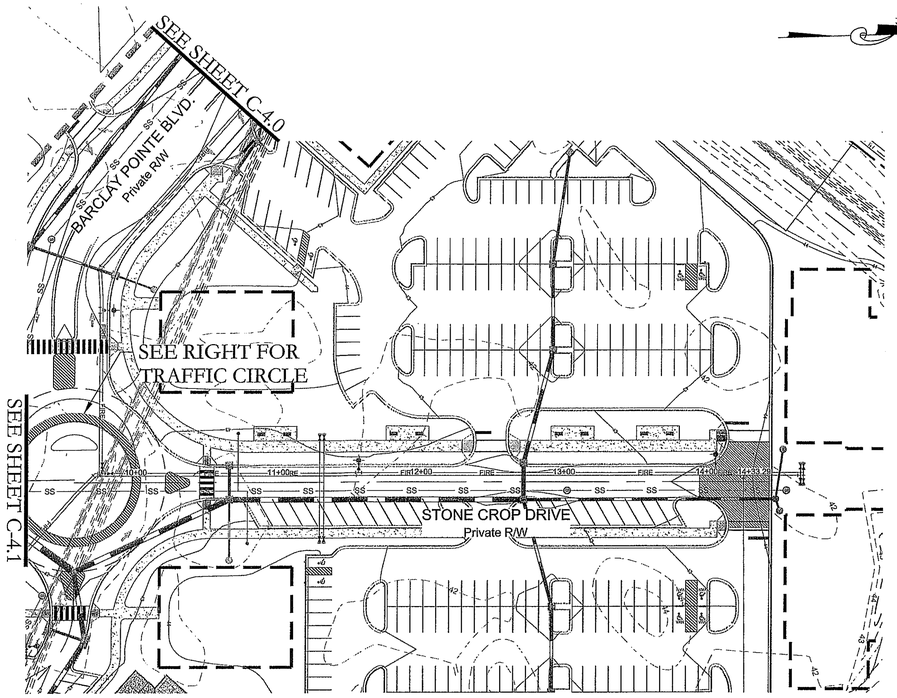
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 50'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 01.05.16 DANIEL J. FISK

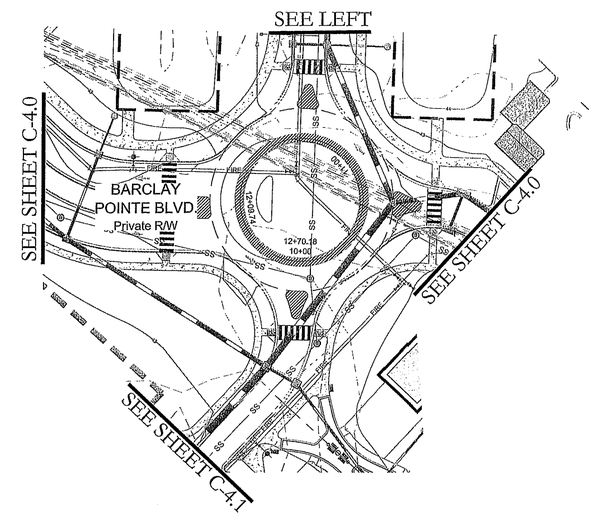
C-4.1

PEI JOB#: 14222.PE



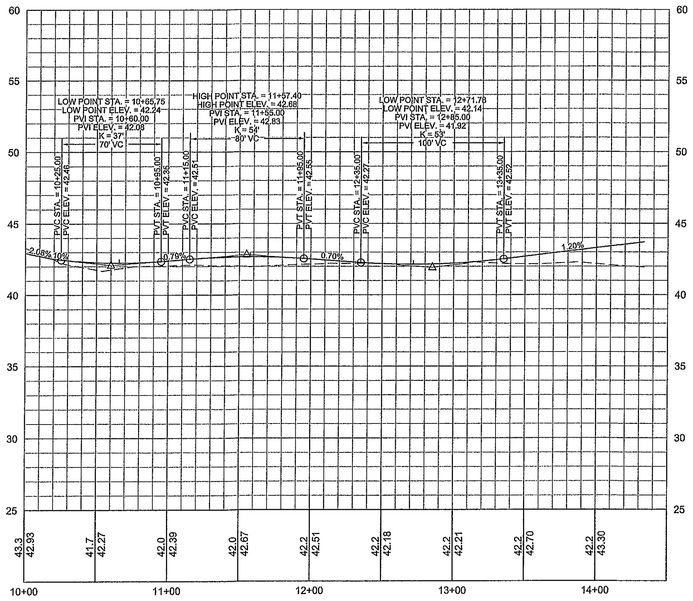
STONE CROP DRIVE - PLAN VIEW

SCALE: 1"=50'



TRAFFIC CIRCLE - PLAN VIEW

SCALE: 1"=50'



STONE CROP DRIVE - PROFILE VIEW

(TRAFFIC CIRCLE TO END)
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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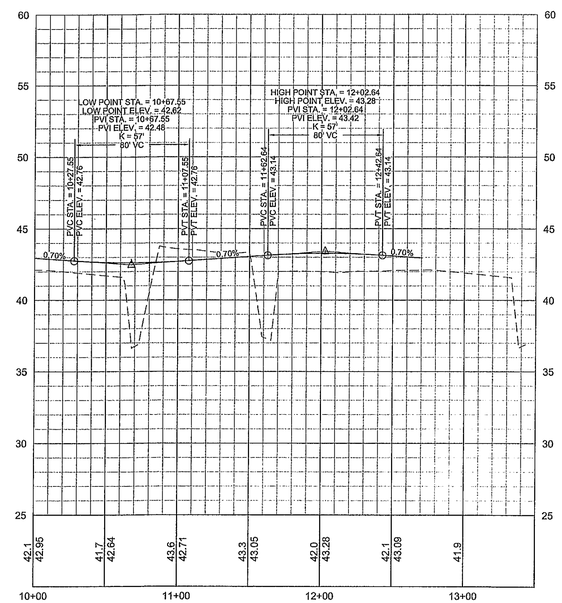
Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire		1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 20160004
Signed:

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



TRAFFIC CIRCLE - PROFILE VIEW

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
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(910) 791-6707 (O) (910) 791-6760 (F)
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PLAN AND PROFILES
STONE CROP DRIVE & TRAFFIC CIRCLE
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

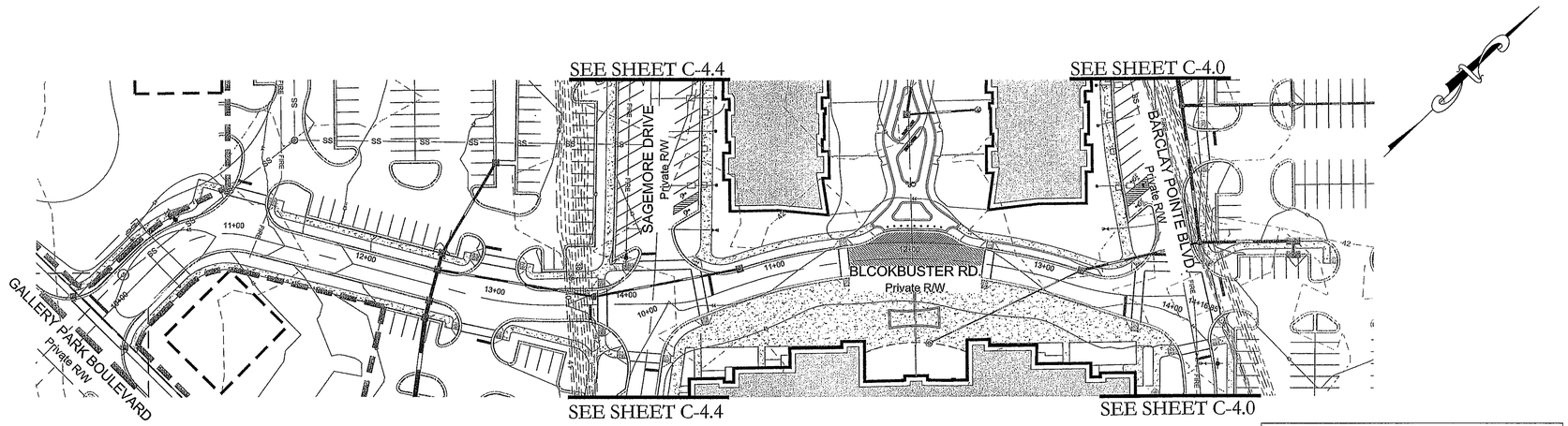
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 50'
DESIGNED: DJF
DRAWN: DJF
CHECKED: DJF

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISK 01.05.16

C-4.2

PEI JOB#: 14222.PE



BLOCKBUSTER ROAD - PLAN VIEW

SCALE: 1"=50'

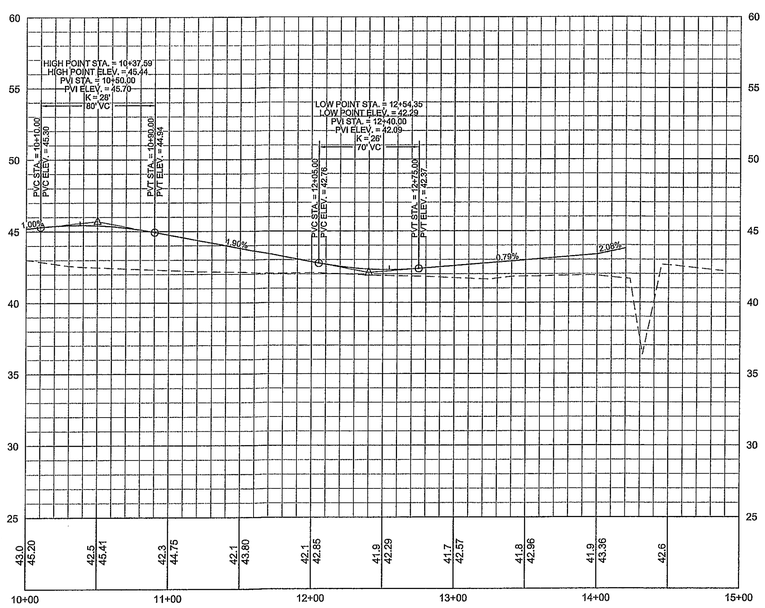
NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	MO	1-13-15
Traffic	[illegible]	1-14-16
Fire	ST	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 20160004
Signed: [illegible]



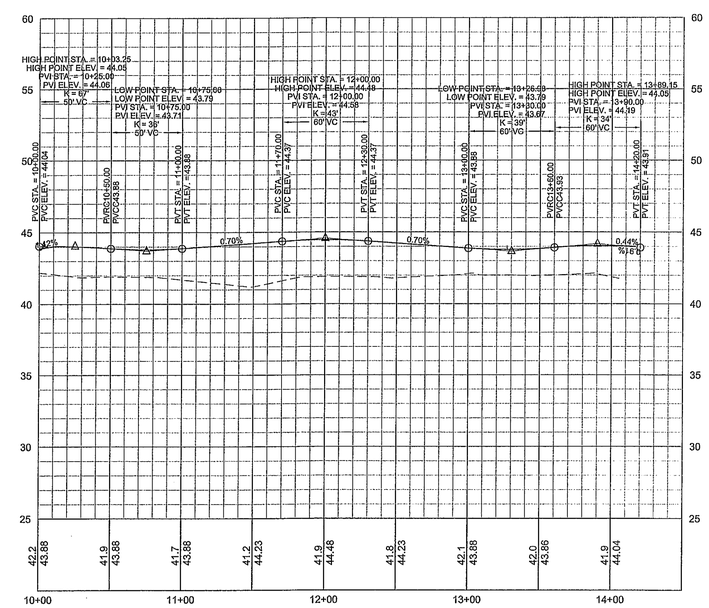
BLOCKBUSTER ROAD - PROFILE VIEW

(GALLERY PARK BLVD. TO SAGEMORE DRIVE)

HORIZONTAL SCALE: 1"=50'

VERTICAL SCALE: 1"=5'

Know what's below. Call before you dig.



BLOCKBUSTER ROAD - PROFILE VIEW

(SAGEMORE DRIVE TO POINTE BOULEVARD)

HORIZONTAL SCALE: 1"=50'

VERTICAL SCALE: 1"=5'

GRAPHIC SCALE

0 25 50 100 200

SCALE: 1"=50'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:	
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:

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Wilmington, NC

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NC License #: C-2846

PLAN AND PROFILES
BLOCKBUSTER ROAD
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

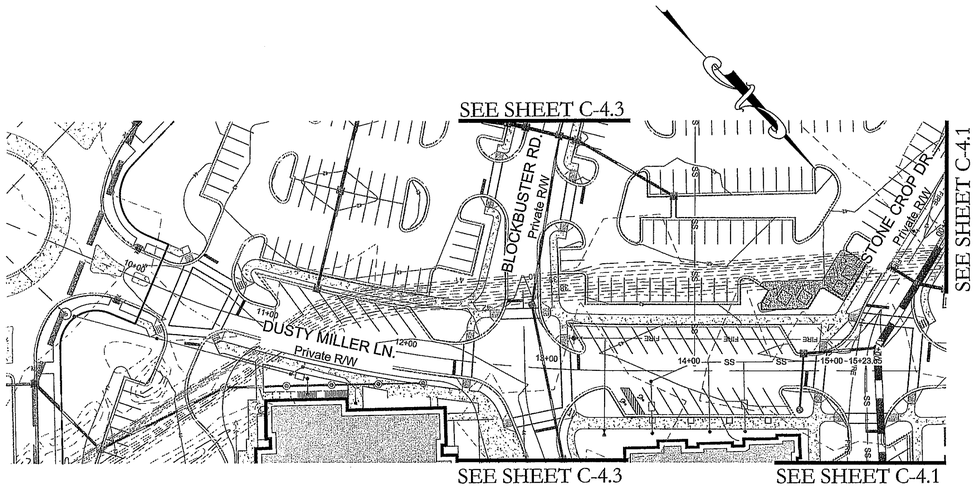
DRAWING INFORMATION

DATE:	09.14.15
SCALE:	1"=50'
DESIGNED:	DJF
DRAWN:	DJF
CHECKED:	DJF
DESIGNED:	TBG

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISK

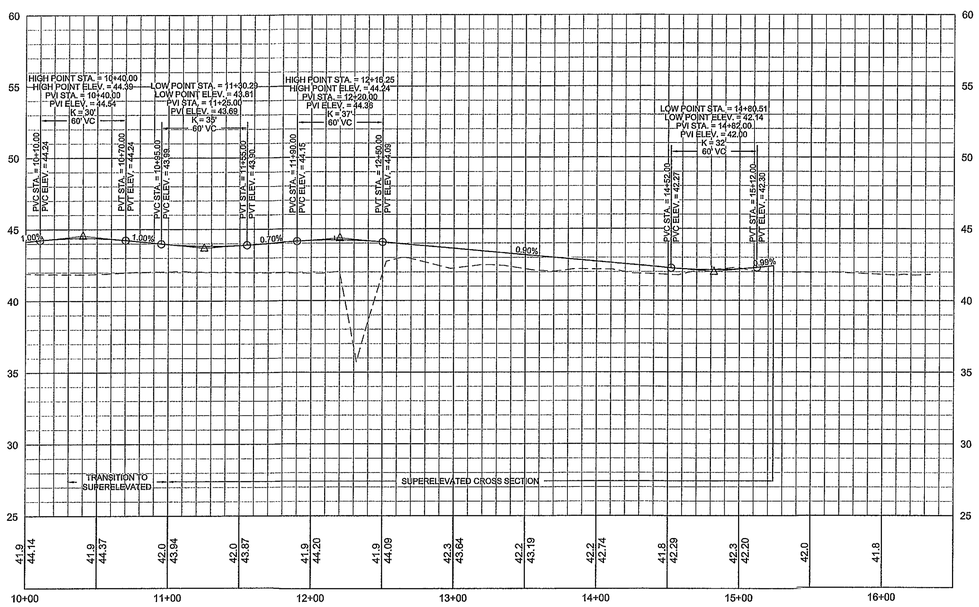
C-4.3

PEI JOB#: 14222.PE



DUSTY MILLER LANE - PLAN VIEW

SCALE: 1"=50'



DUSTY MILLER LANE - PROFILE VIEW

HORIZONTAL SCALE: 1"=50'

VERTICAL SCALE: 1"=5'

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

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire		1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

GRAPHIC SCALE
0 25 50 100 200
SCALE: 1"=50'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

PLAN AND PROFILES
DUSTY MILLER LANE
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

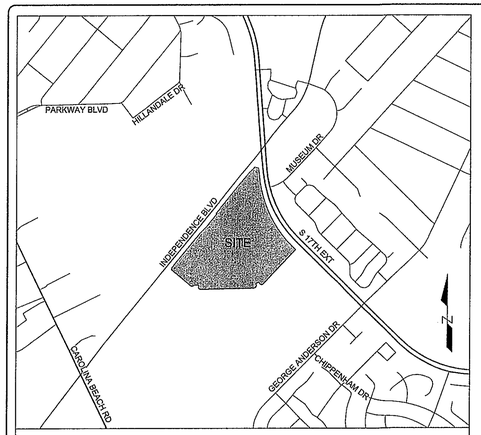
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 50'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TDC

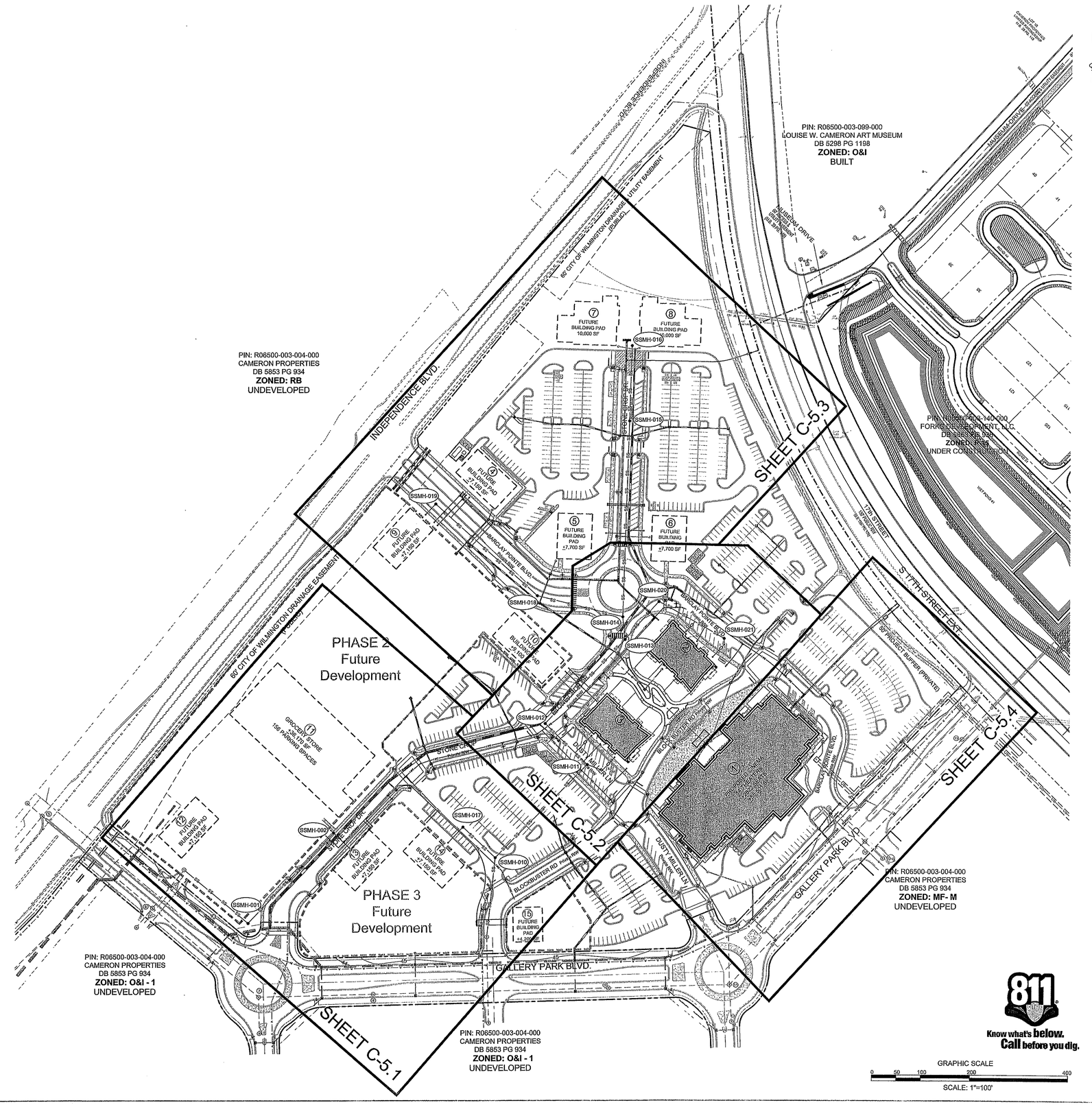
SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISHER

C-4.4

PEI JOB#: 14222.PE



VICINITY MAP
SCALE: 1" = 1000'



NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	JWD	1-13-15
Traffic	W Enderson	1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016 004
Signed: [signature]

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS 01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

OVERALL UTILITY PLAN
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

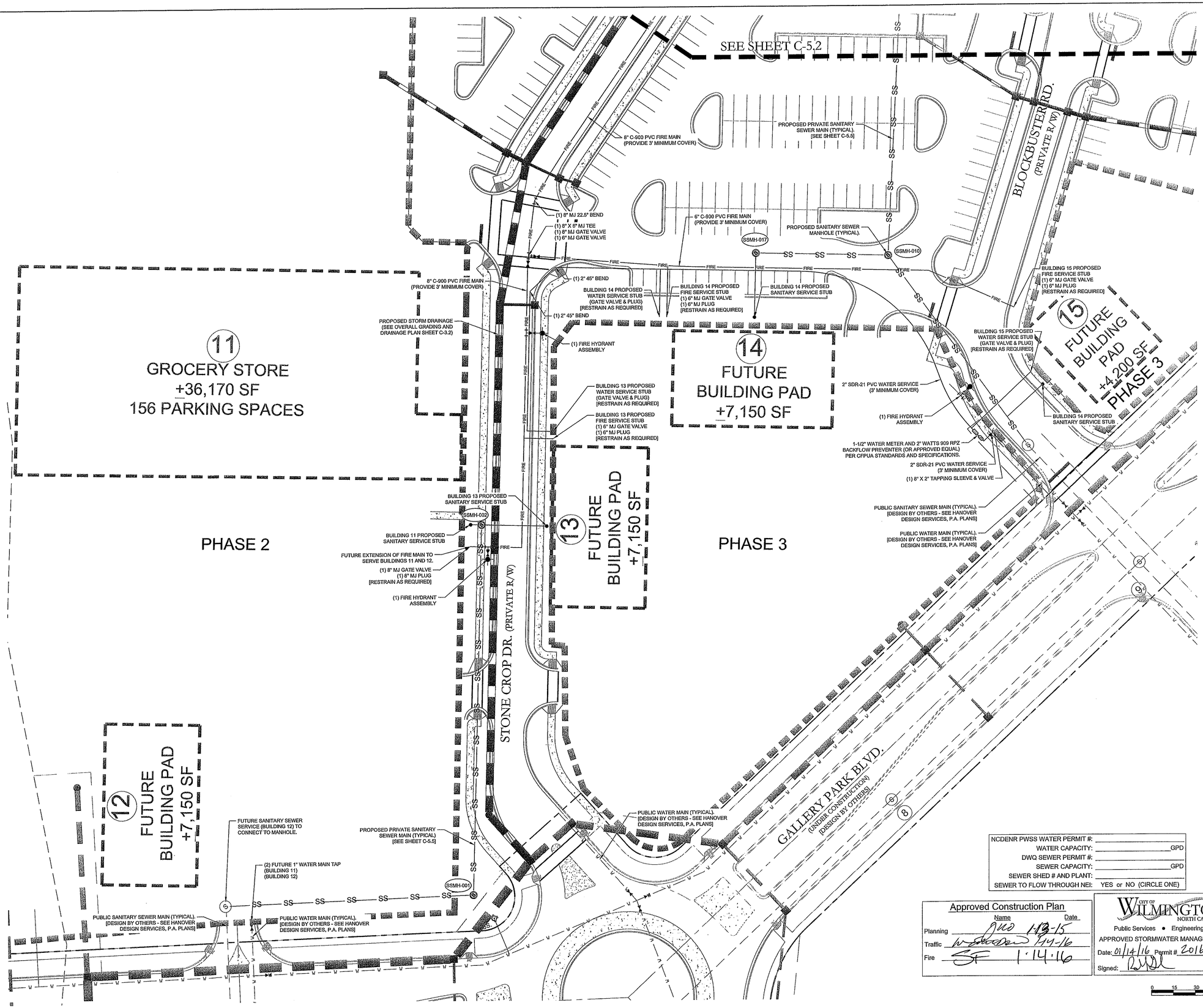
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 100'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 040501
01.05.16
DANIEL J. FISK

C-5.0

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	DHO	1-13-15
Traffic	W. Edwards	1/14/16
Fire	SF	1·14·16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit #: 2016004
Signed: _____

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) ISSUED FOR BID	11.05.15
2) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
3) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

UTILITY PLAN
CYPRESS MOSS DR & PHASE 2 & 3
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

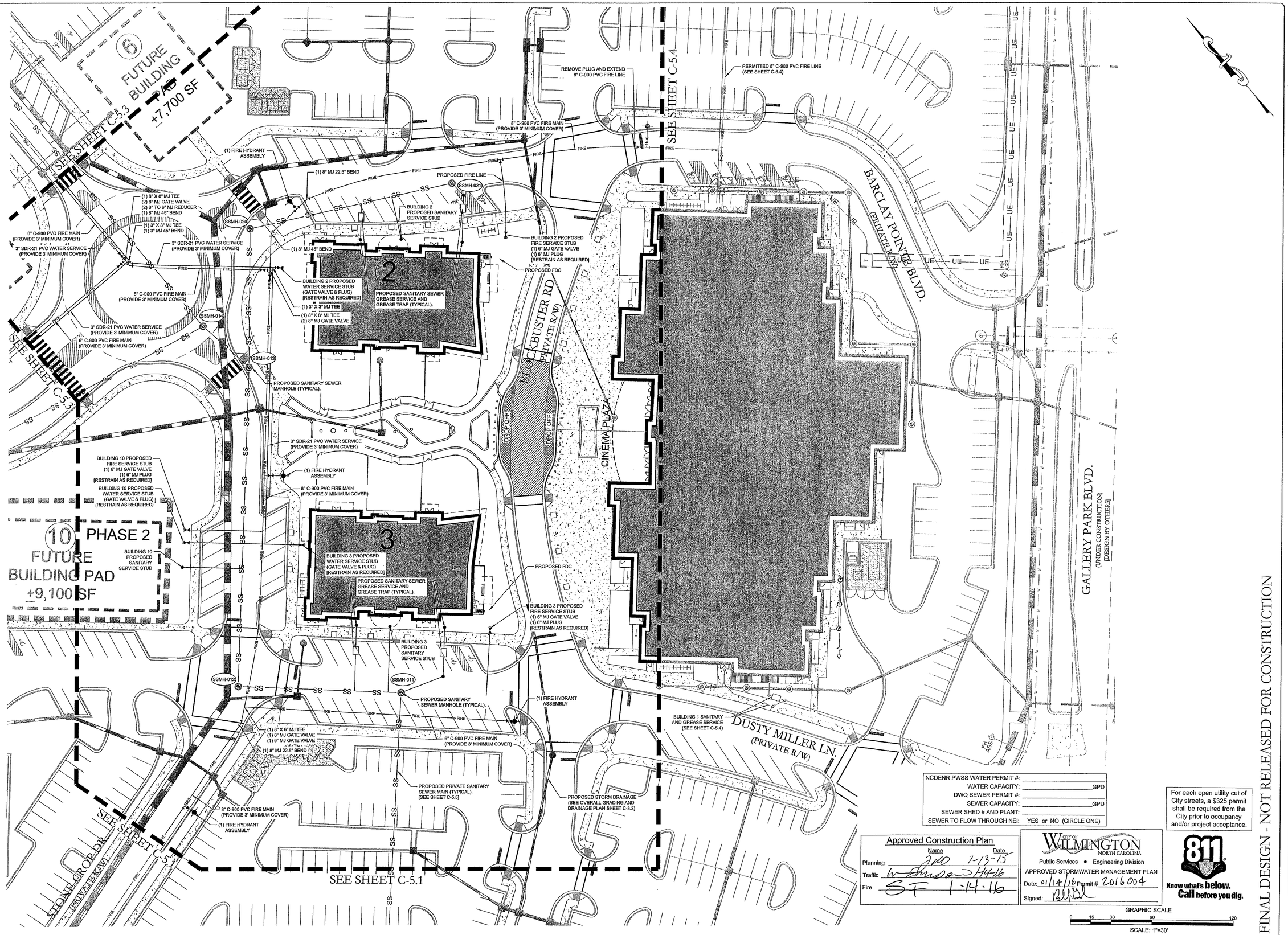
PROJECT STATUS:
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 08.14.15
SCALE: 1" = 30'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISK 01.05.16

C-5.1

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	[illegible]	1-13-15
Traffic	[illegible]	1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [illegible]

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) ISSUED FOR BID	11.05.15
2) PER CITY OF WILMINGTON ENGINEERING COMMENTS	1.23.16
3) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

UTILITY PLAN
BUILDINGS 2 & 3
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

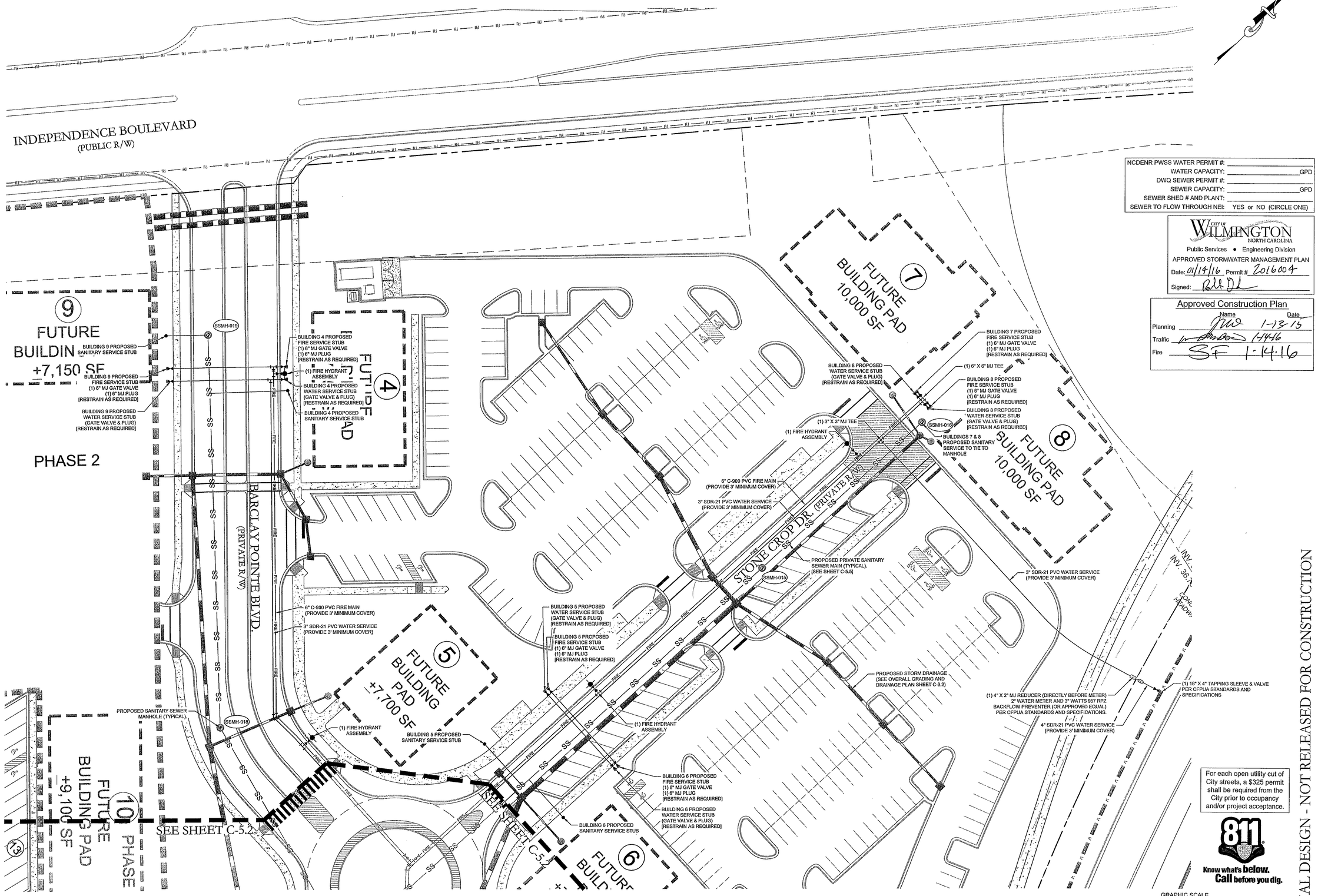
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DJF
DRAWN: JLB
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. PISK
01.05.16

C-5.2

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit #: 2016004
Signed:

Approved Construction Plan

	Name	Date
Planning		1-13-16
Traffic		1-14-16
Fire	SF	1-14-16

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

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

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) ISSUED FOR BID	11.06.15
2) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
3) PER CITY OF WILMINGTON TRC COMMENTS	01.05.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

UTILITY PLAN
BUILDINGS 4, 5, 6, 7 & 8
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

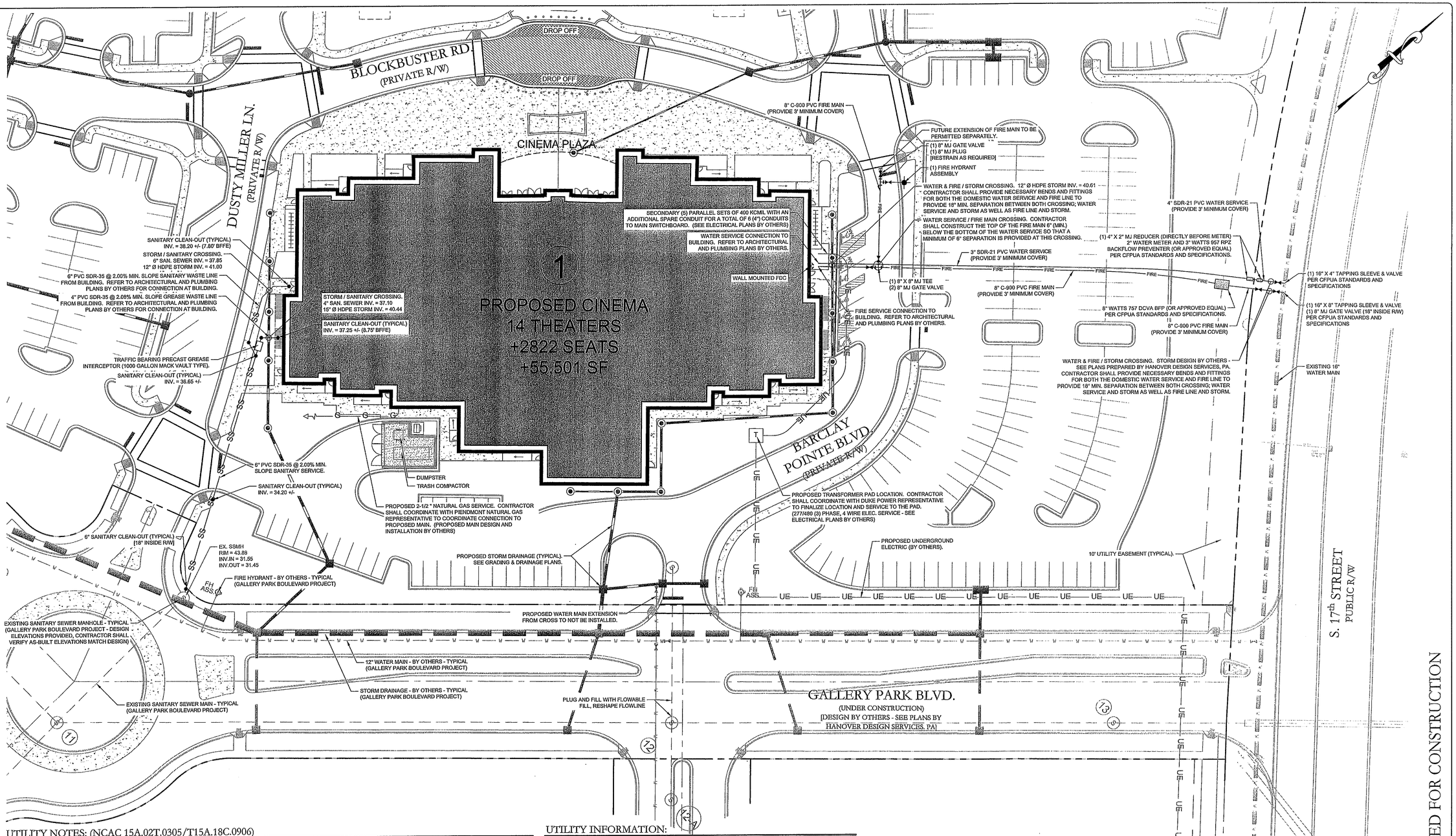
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 06.11.15
SCALE: 1"=30'
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 01.05.16 ENGINEER DANIEL J. FISH

C-5.3

PEI JOB#: 14222.PE



UTILITY NOTES: (NCAC 15A.02T.0305/T15A.18C.0906)

1. WATER MAINS SHALL BE LAID SO AS TO PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FROM SEWERS. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN CAN BE INSTALLED AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, EITHER IN A SEPARATE TRENCH, OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.
2. WHEN CROSSING A WATER MAIN OVER A SEWER, THE WATER MAIN SHALL BE LAID AT LEAST 18 INCHES ABOVE THE SEWER. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS THAT MEET WATER MAIN STANDARDS. THE DUCTILE IRON PIPE SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING WITH A SECTION OF WATER MAIN PIPE CENTERED ON THE CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER 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. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
4. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.
5. WHERE VERTICAL CLEARANCE IS LESS THAT 18" BETWEEN WATER MAIN AND STORM DRAIN, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.

GENERAL NOTES:

1. REFER TO GENERAL NOTES (C-1.0).
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON, CFPUA, AND NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.
3. THE PROPOSED GALLERY PARK BOULEVARD AND ASSOCIATED UTILITIES AS SHOWN HAVE BEEN TAKEN FROM A CAD FILE PROVIDED BY HANOVER DESIGN SERVICES, P.A. ON 06.04.15. ALL GRADE TIE-INS, ROAD CONNECTIONS, AND UTILITY CONNECTIONS SHALL BE FIELD VERIFIED TO CONFIRM THAT THE AS-BUILT CONDITIONS MATCH THE DESIGN CONDITIONS AS DEPICTED. CONTRACTOR SHALL CONTACT THE OWNER AND ENGINEER WITH ANY DISCREPANCIES.

UTILITY INFORMATION:

SANITARY SEWER

THIS PHASE OF THE PROJECT IS CONSTRUCTING A SANITARY SEWER GRAVITY SERVICE FOR THE PROPOSED CINEMA BUILDING THAT WILL CONNECT TO AN EXISTING MANHOLE IN GALLERY PARK BOULEVARD. FUTURE DEVELOPMENT WITHIN THE POINTE AT BARCLAY TRACT B' WILL INCLUDE THE DESIGN OF A PRIVATE SEWER MAIN WITHIN THE PROPERTY THAT WILL CONNECT TO THE EXISTING PUBLIC MAIN ALONG GALLERY PARK BOULEVARD WHICH WILL BE PERMITTED SEPARATELY. SANITARY SEWER ALLOCATION IS PROVIDED BY CFPUA.

WATER

A 16-INCH WATER MAIN IS LOCATED WITHIN THE S. 17TH STREET RIGHT OF WAY. A 12-INCH WATER MAIN HAS BEEN PROPOSED THROUGH THE BARCLAY WEST SUBMISSION BY HANOVER DESIGN SERVICES, PA WITHIN THE GALLERY PARK BOULEVARD RIGHT OF WAY. THIS PHASE OF THE PROJECT IS CONSTRUCTING A 3-INCH WATER SERVICE TO THE CINEMA AND A PORTION OF A 6-INCH FIRE MAIN THAT WILL CONNECT TO THE EXISTING WATER MAIN ALONG S. 17TH STREET. FUTURE DEVELOPMENT WITHIN THE POINTE AT BARCLAY TRACT B' WILL INCLUDE ADDITIONAL SERVICE TAP(S) AND THE EXTENSION OF THE FIRE MAIN WHICH WILL BE PERMITTED SEPARATELY. DOMESTIC WATER ALLOCATION PROVIDED BY CFPUA.

PROJECTED WASTEWATER / WATER DEMANDS

IN ORDER TO PROJECT THE WASTEWATER DEMAND PER THE 2T RULES, THE BEST USE TO MODEL THE CINEMA WOULD BE A CHURCH WITH KITCHEN (5 GPD/SEAT).
2,822 SEATS * 5 GPD/SEAT = 14,110 GPD

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Approved Construction Plan	Name	Date
Planning	JWB	1-13-15
Traffic	[illegible]	1-14-16
Fire	ST	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [illegible]

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD SEWER NOTES:

1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT R/W LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.

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

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) REDUCED METER SIZE AND CFPUA REDLINES	11.05.15
2) PER CFPUA REDLINES	11.13.15
3) PER CITY OF WILMINGTON ENGINEERING COMMENTS.	11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

UTILITY PLAN
BUILDING #1
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

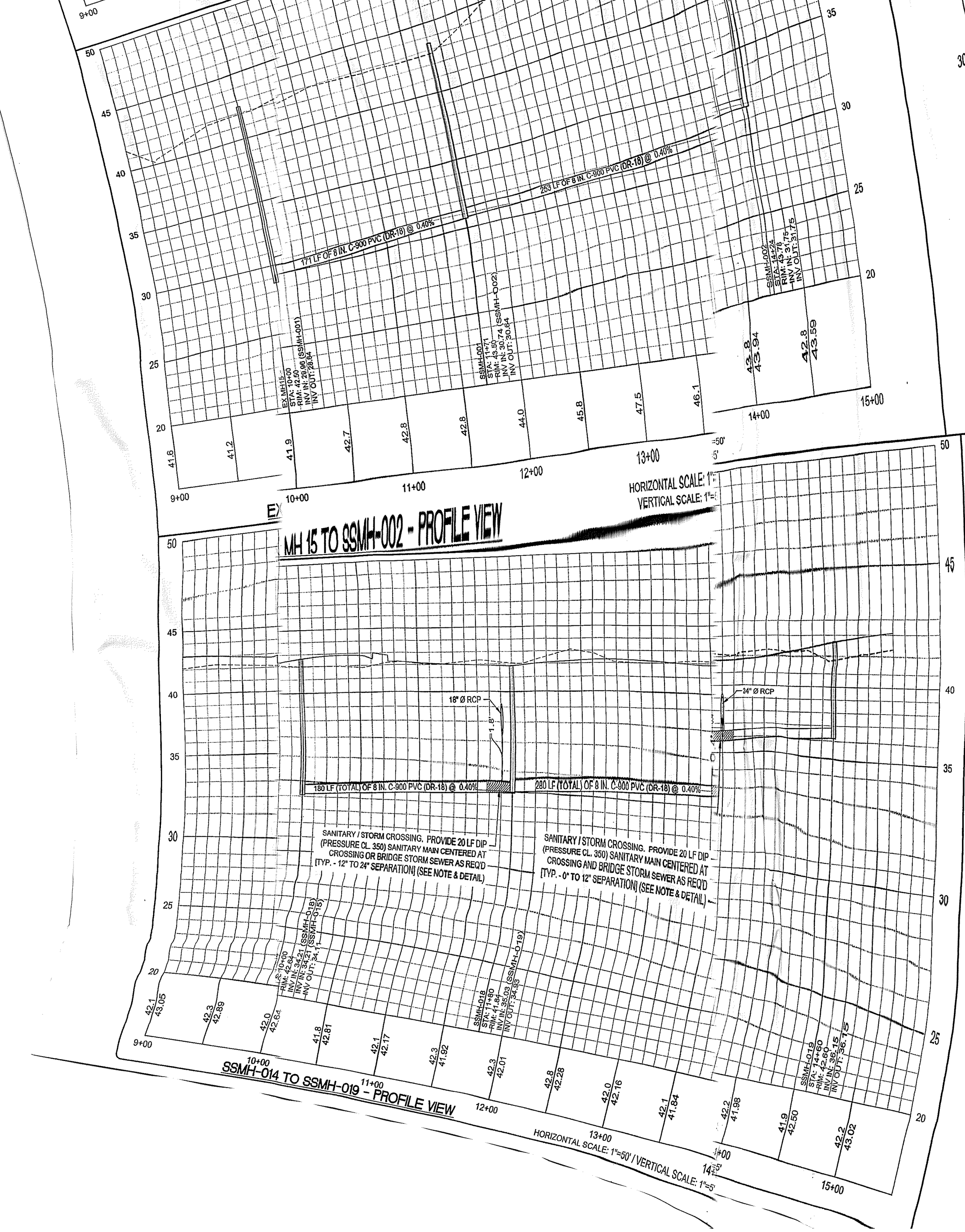
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 01.12.15
SCALE: 1"=30'
DESIGNED: DJF
DRAWN: JB
CHECKED: TGC

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 040301 11.23.15 ENGINEER DANIEL J. FISH

C-5.4

PEI JOB#: 14222.PE



UTILITY NOTES: (NCAC 15A.02T.030... 05 / T15A.18C.0906)

1. WATER MAINS SHALL BE LAID SO AS TO PROVIDE A MINIMUM HORIZONTAL SEPARATION ... FT FROM SEWERS. IF CONDITIONS EXIST SUCH THAT ... SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN CAN BE INSTALLED AT LEAST 18 I... ABOVE THE TOP OF THE SEWER, EITHER IN A SEPARATE TRENCH, OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.

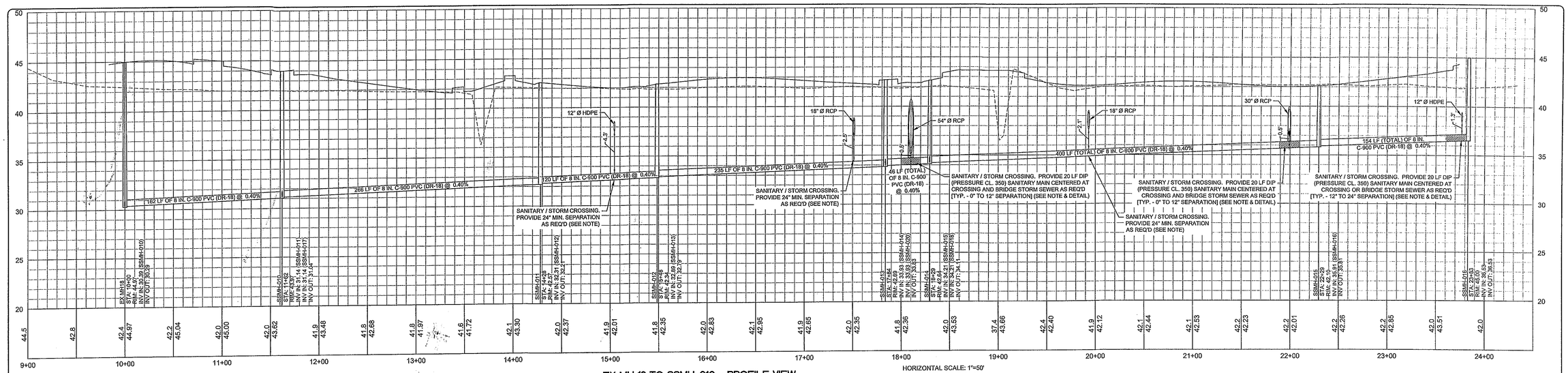
2. WHEN CROSSING A WATER MAIN OVER A SEWER, THE WATER MAIN SHALL BE LAID AT ... INCHES ABOVE THE SEWER. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS THAT MEET WATER MAIN STANDARDS. THE DUCTILE IRON PIPE SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING WITH A SECTION OF WATER MAIN PIPE CENTERED ON THE CROSSING.

3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER 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. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

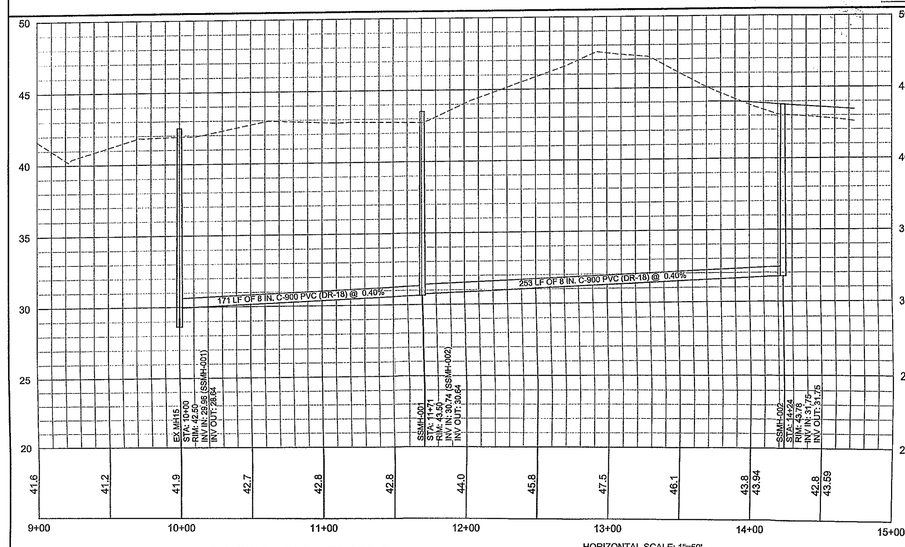
4. WHERE VERTICAL CLEARANCE IS LESS THAN 18" BETWEEN WATER MAIN AND STORM DRAIN, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.

5. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM ... EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.

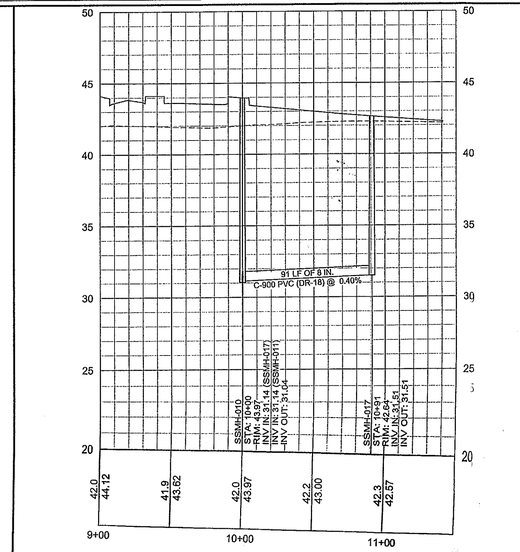
NSS WATER PERMIT #:
WATER CAPACITY
WQ SEWER



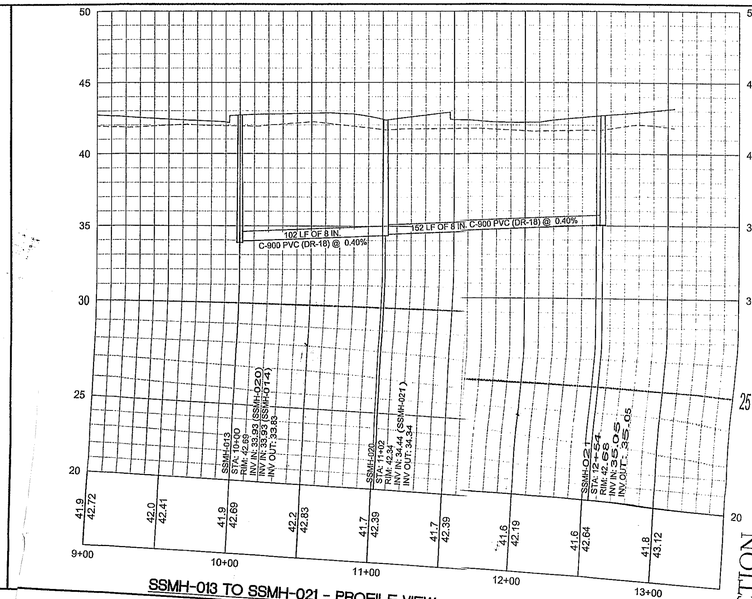
EX MH 18 TO SSMH-016 - PROFILE VIEW



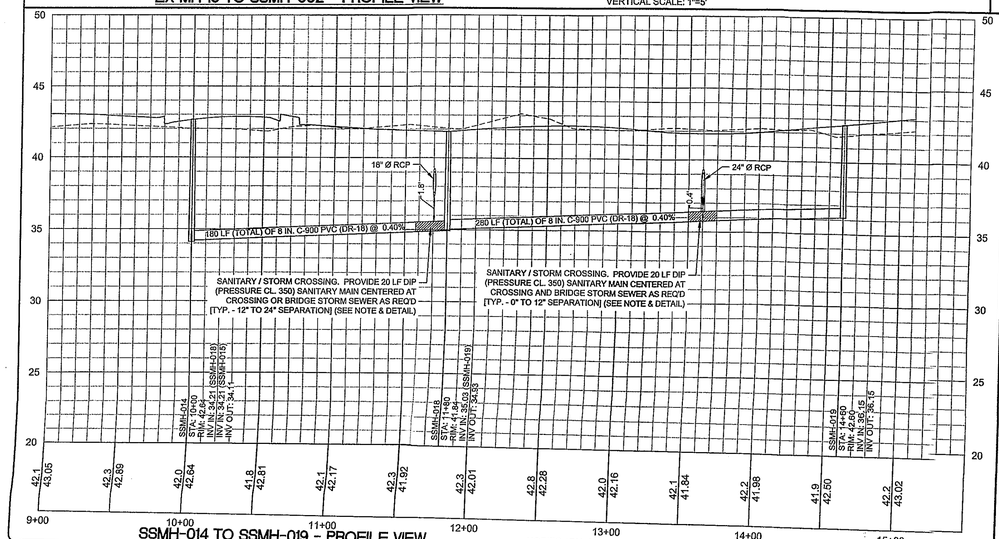
EX MH 15 TO SSMH-002 - PROFILE VIEW



SSMH-010 TO SSMH-017 - PROFILE VIEW



SSMH-013 TO SSMH-021 - PROFILE VIEW



SSMH-014 TO SSMH-019 - PROFILE VIEW

UTILITY NOTES: (NCAC 15A.02T.0305 / T15A.18C.0906)

1. WATER MAINS SHALL BE LAID SO AS TO PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FROM SEWERS. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN CAN BE INSTALLED AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, EITHER IN A SEPARATE TRENCH, OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.
2. WHEN CROSSING A WATER MAIN OVER A SEWER, THE WATER MAIN SHALL BE LAID AT LEAST 18 INCHES ABOVE THE SEWER. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS THAT MEET WATER MAIN STANDARDS. THE DUCTILE IRON PIPE SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING WITH A SECTION OF WATER MAIN PIPE CENTERED ON THE CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER 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. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
4. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.
5. WHERE VERTICAL CLEARANCE IS LESS THAT 18" BETWEEN WATER MAIN AND STORM DRAIN, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
NCDENR DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
NCDENR SEWER SHED # AND PLANT: _____
NCDENR TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Approved Construction Plan

		Date
Planning		1-13-15
Traffic		1-14-16
Fire		1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
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.

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

GRAPHIC SCALE 0 15 30 60 120

REVISIONS:
1) ISSUED FOR BID 11.05.15
2) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

SANITARY SEWER PROFILES
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

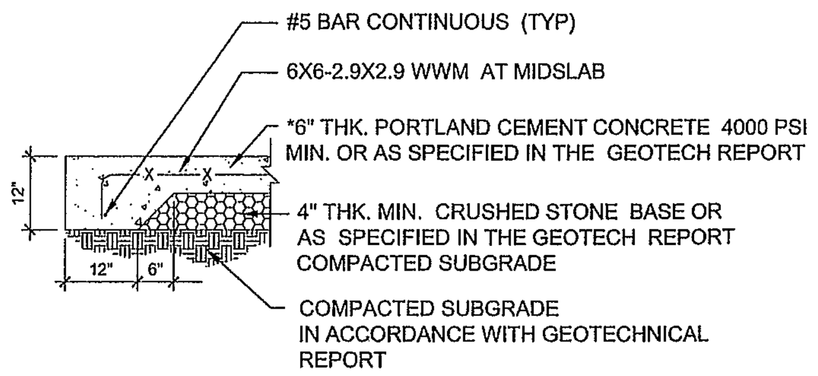
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 11.05.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: TCF
CHECKED: TCF

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISH

C-5.5

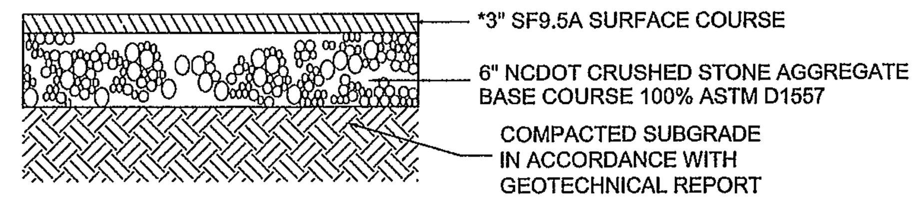
FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION



* 8" AT DUMPSTER AREAS PER GEOTECH REPORT

CONCRETE PAVING SECTION

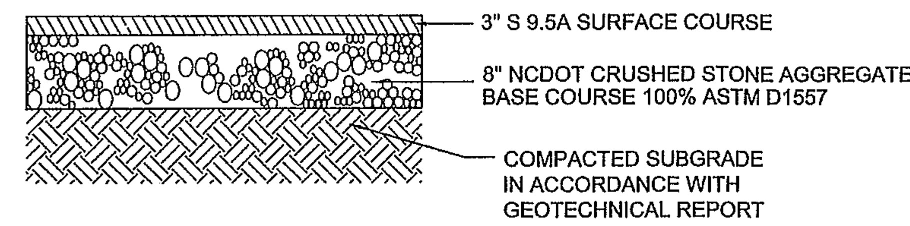
NOT TO SCALE



LIGHT DUTY ASPHALT PAVING SECTION

NOT TO SCALE

Notes: Pavement sections are minimum sections per the City of Wilmington standards and details and Geotech Report prepared by ECS Carloinas, LLP and shall be augmented relative to field conditions during construction as recommended by Geotech.
*A City variance will be requested to allow for a 2" SF9.5A surface course in the 'Light Duty' pavement areas.

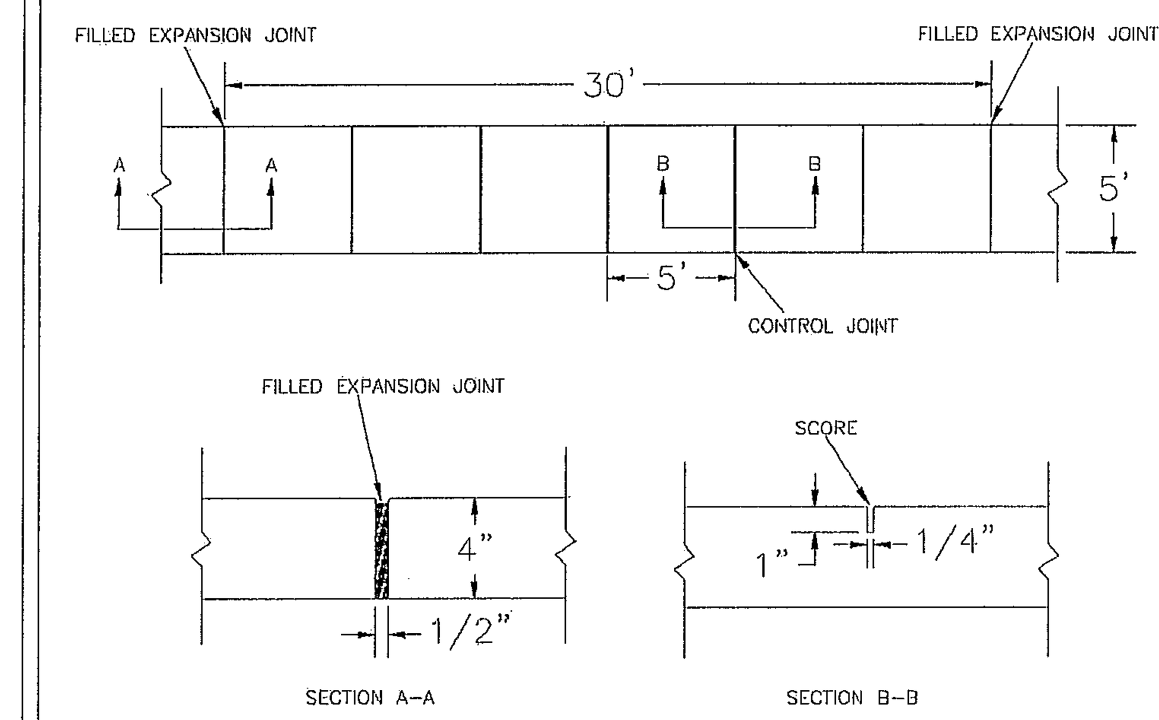


Note: Proposed on project roadways

HEAVY DUTY ASPHALT PAVING SECTION

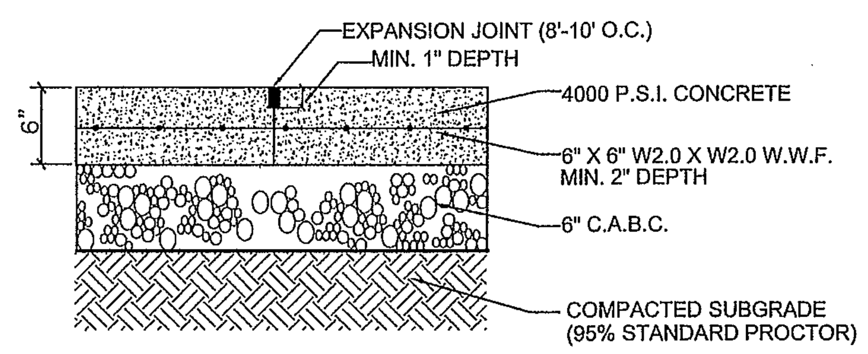
NOT TO SCALE

Notes: Pavement sections are minimum sections per the City of Wilmington standards and details and Geotech Report prepared by ECS Carloinas, LLP and shall be augmented relative to field conditions during construction as recommended by Geotech.



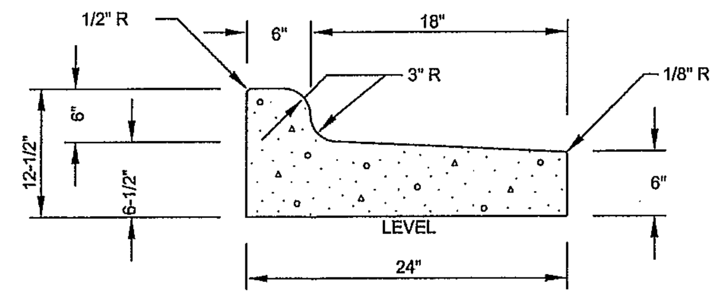
NOTES:
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
2. SANITARY SEWER CLEAN–OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION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

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



REINFORCED CONCRETE DETAIL

NOT TO SCALE

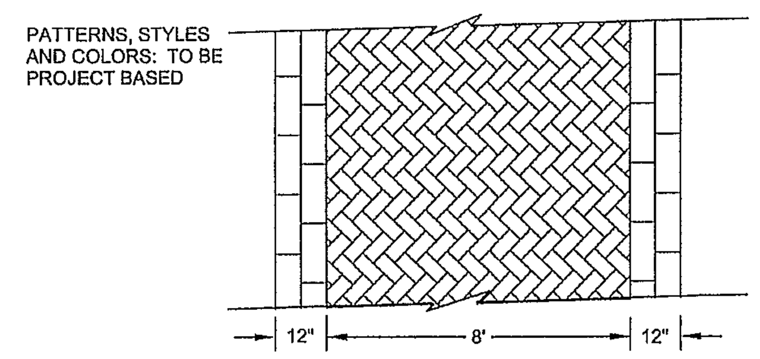


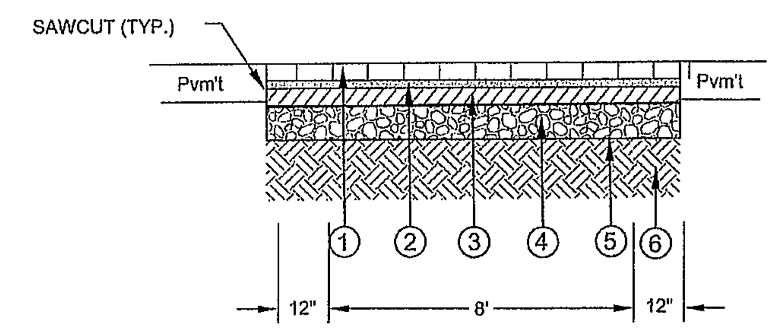
(TO BE USED WHEN PAVEMENT IS SLOPED AWAY FROM ISLAND OR AS SPECIFIED BY THE APPROPRIATE CITY/COUNTY ENGINEERING DEPARTMENT OR THE DESIGN ENGINEER.)

24" CURB AND GUTTER (REVERSE SLOPE)

NOT TO SCALE

FOR USE WHERE SUBJECTED TO VEHICULAR TRAFFIC



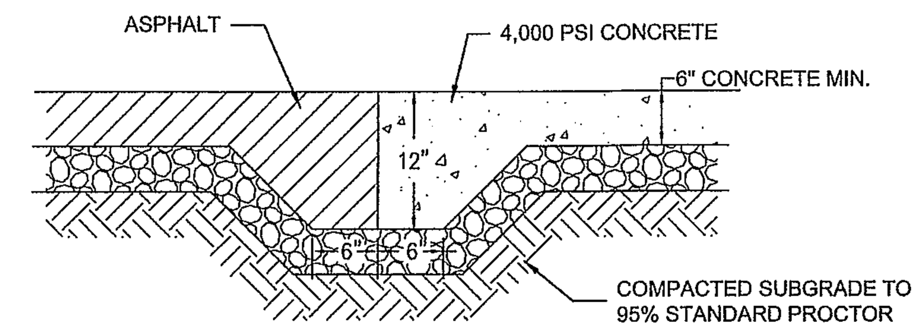


1. 3-1/8" PAVER BLOCK (DUST TOP W / SAND)
2. 1" THICK 1:10 DRY CEMENT TO SAND RATIO MIX
3. 6" 3,000 P.S.I. CONCRETE W / FIBER
4. 8" CRUSHER RUN #21B BASE MATERIAL
5. GEOTEXTILE FABRIC, TURNED UP ALONG PERIMETER
6. COMPACTED SOIL SUB-GRADE (ASTM D1557 TO 95%)

NOTES:
1. GEOTEXTILE FABRIC IS TO BE AMOCO PROPEX 2002 OR APPROVED EQUAL.

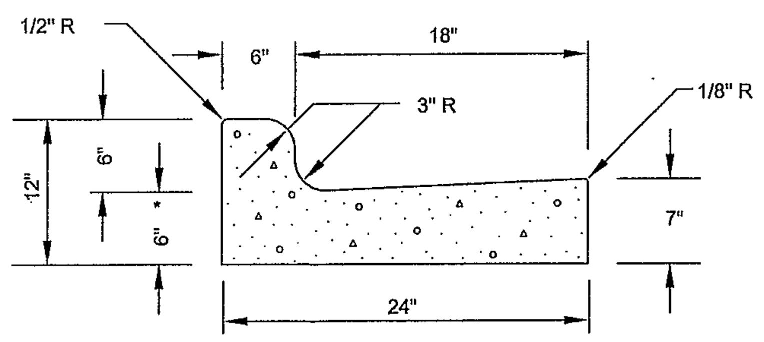
PAVERS IN VEHICULAR AREAS

NOT TO SCALE



ASPHALT TO CONCRETE PAVEMENT TRANSITION

NOT TO SCALE

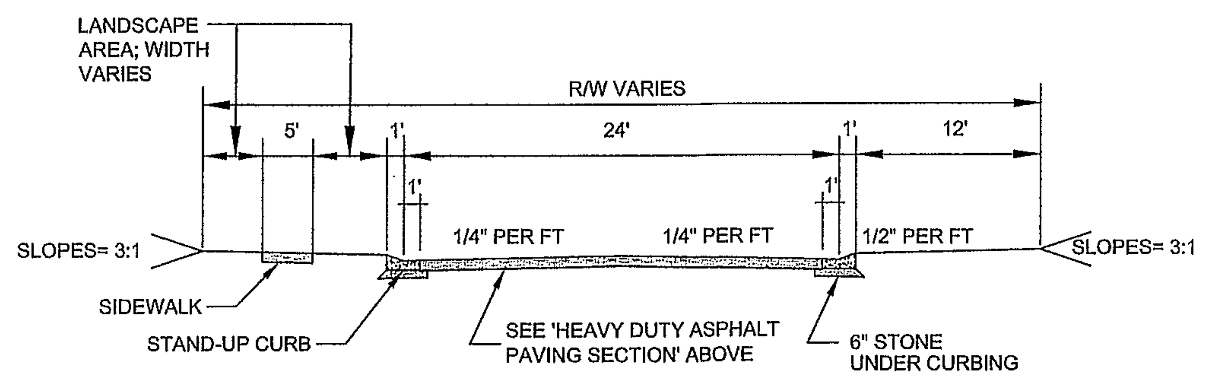


24" CURB AND GUTTER

NOT TO SCALE

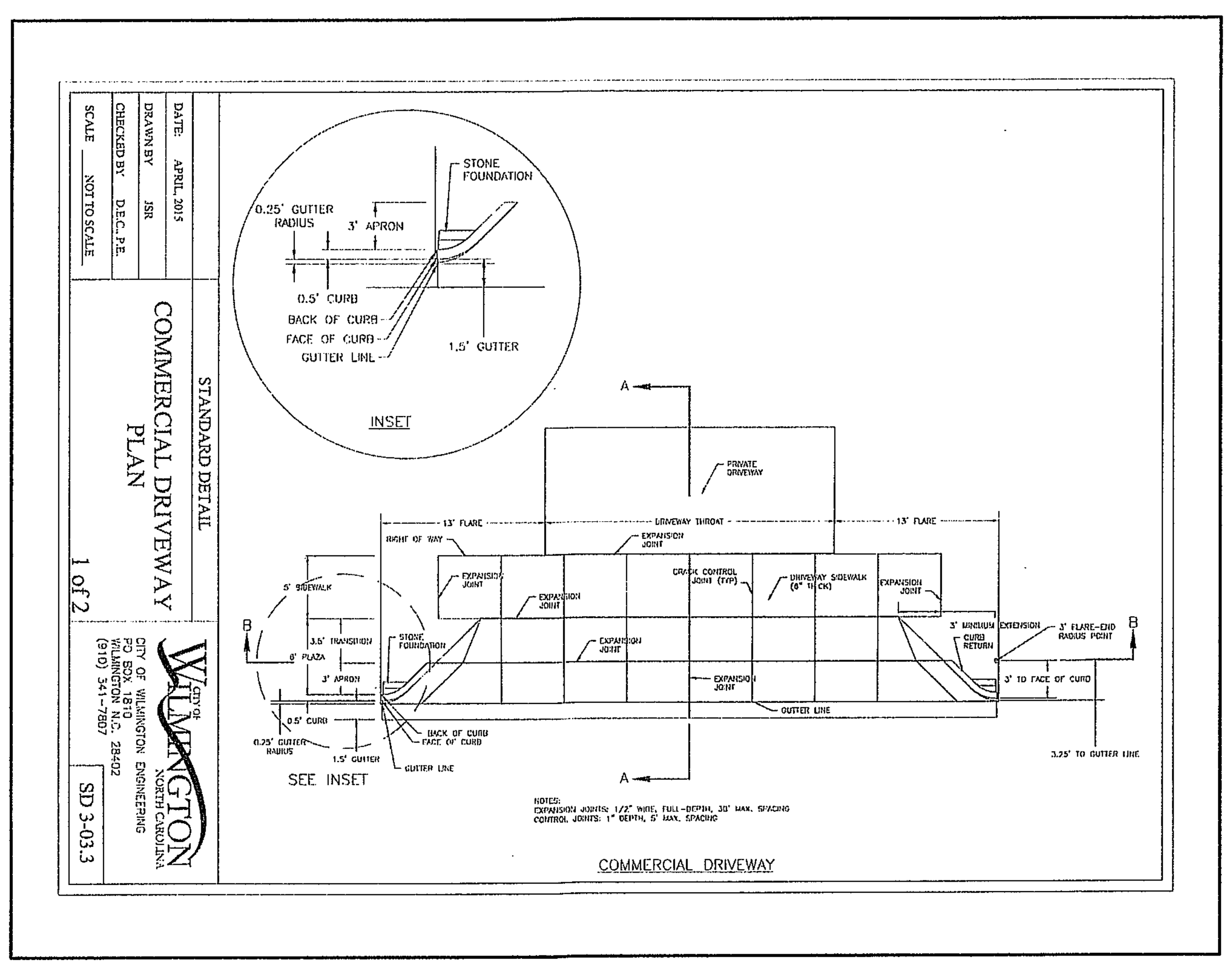
GENERAL NOTES:

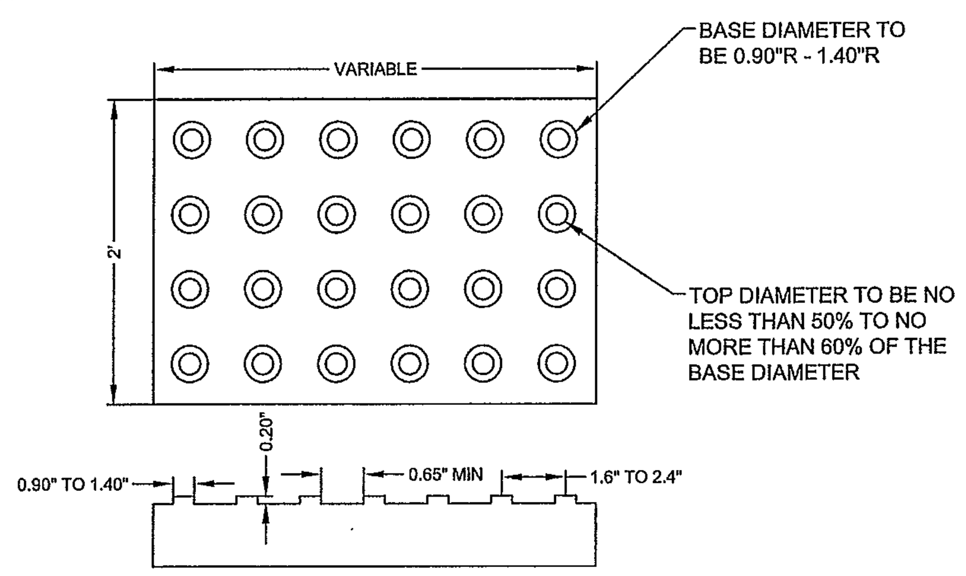
CONTRACTION JOINTS SHALL BE SPACED AT MAX. 10' INTERVALS, EXCEPT THAT A 15 FOOT SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10 FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED. ALL CONTRACTION JOINTS EXCEPT IN 8" X 6" MEDIAN CURB SHALL BE FILLED WITH JOINT SEALER. EXPANSION JOINTS SHALL BE SPACED AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.



TYPICAL PRIVATE ROAD CROSS SECTION

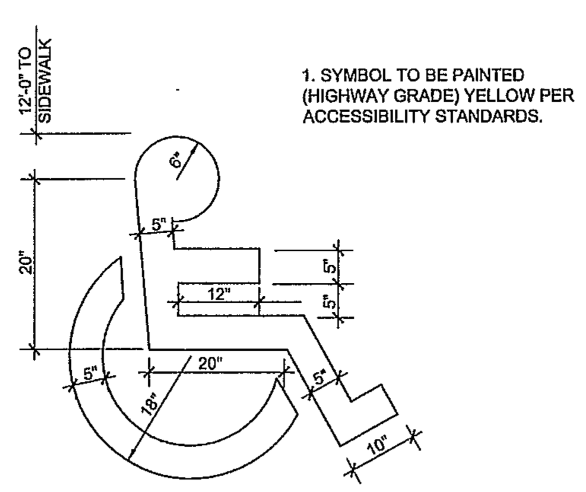
NOT TO SCALE





DETECTABLE WARNING MAT

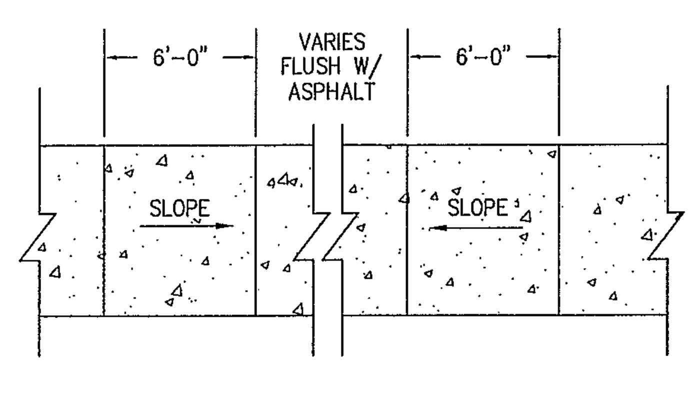
NOT TO SCALE



1. SYMBOL TO BE PAINTED (HIGHWAY GRADE) YELLOW PER ACCESSIBILITY STANDARDS.

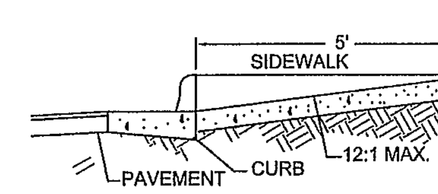
HANDICAPPED PARKING SYMBOL

NOT TO SCALE

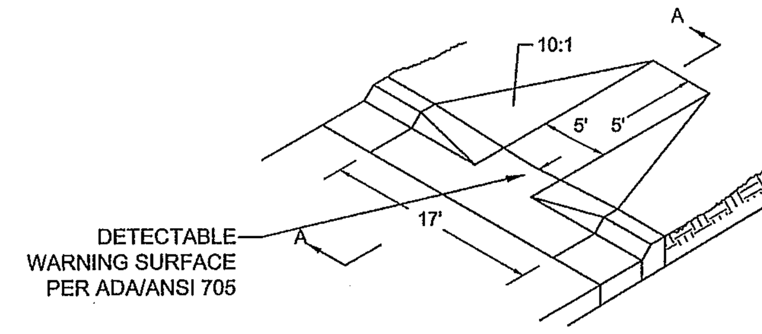


WHEELCHAIR RAMP (FLUSH PAVING)

NOT TO SCALE

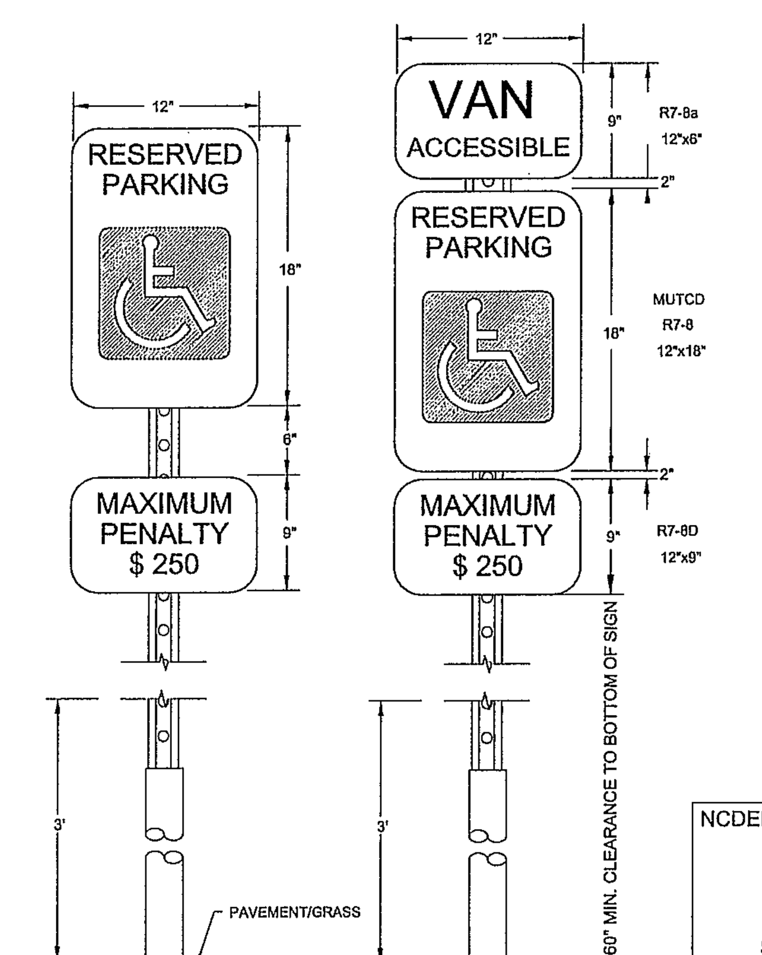


SECTION A-A



WHEELCHAIR RAMP (DROP CURB)

NOT TO SCALE



NOTES:
1. METAL POST AND ALL HARDWARE SHALL BE GALVANIZED STEEL, ASTM A307-90.
2. 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.
3. CONCRETE FOR FOOTING SHALL BE PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.
4. SIGNS SHALL BE CONSTRUCTED OF ALUMINUM, TYPE 6061-T6 AND IN CONFORMANCE WITH ASTM STD B-209. THICKNESS SHALL BE 0.80 INCHES.
5. TOP EDGE TREATMENT FILM SHALL BE 3" WIDE, CLEAR AND TRANSPARENT WITH A SUB-RESISTANT PRESSURE SENSITIVE NON-YELLOWING ADHESIVE, "SKOTCHCAL" TRANSPARENT FILE #639 OR APPROVED EQUAL.
6. REFLECTIVE FACING MATERIAL SHALL BE SCOTCHLITE HIGH INTENSITY, MANUFACTURED BY 3M COMPANY OR APPROVED EQUAL.
7. 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.
8. CORNER RADIUS OF SIGNS SHALL BE 2.5" ARROWS SHALL BE 5.625" LONG BY 3.75" HIGH.
9. MOUNT ON BUILDING OR METAL POST AS DIRECTED.

ADA COMPLIANT PARKING SIGN

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.

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

Approved Construction Plan

	Name	Date
Planning	JLW	1-13-15
Traffic	W [signature]	1-14-16
Fire	SF	1·14·16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15
2) PER CITY OF WILMINGTON TRC COMMENTS	01.04.16

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

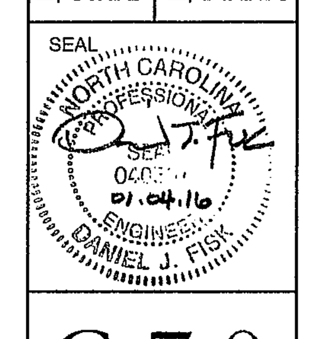
DETAILS

THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

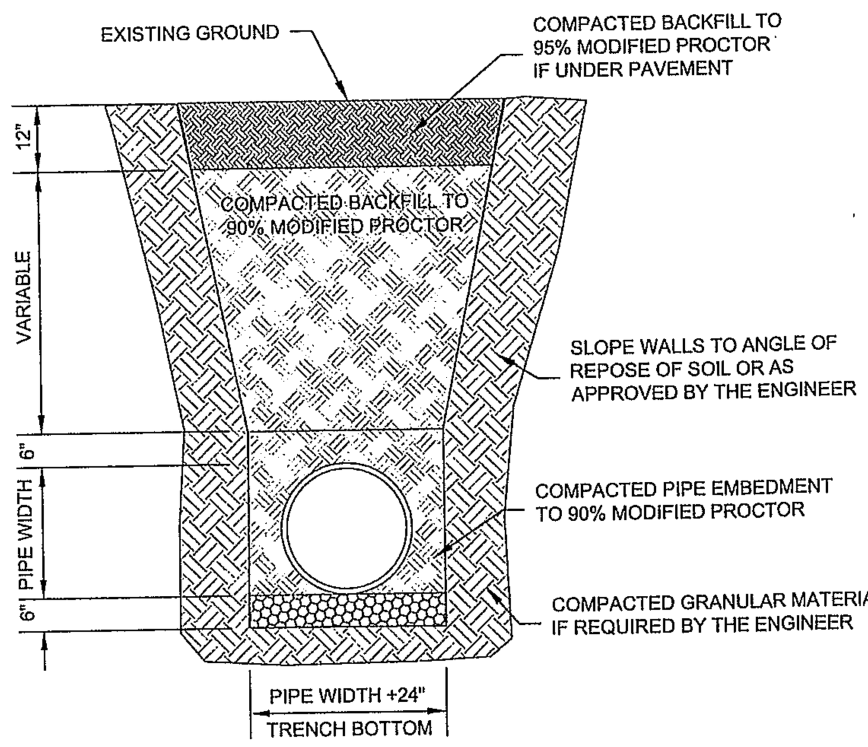
DRAWING INFORMATION
DATE: 09.14.15
SCALE: AS NOTED
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL

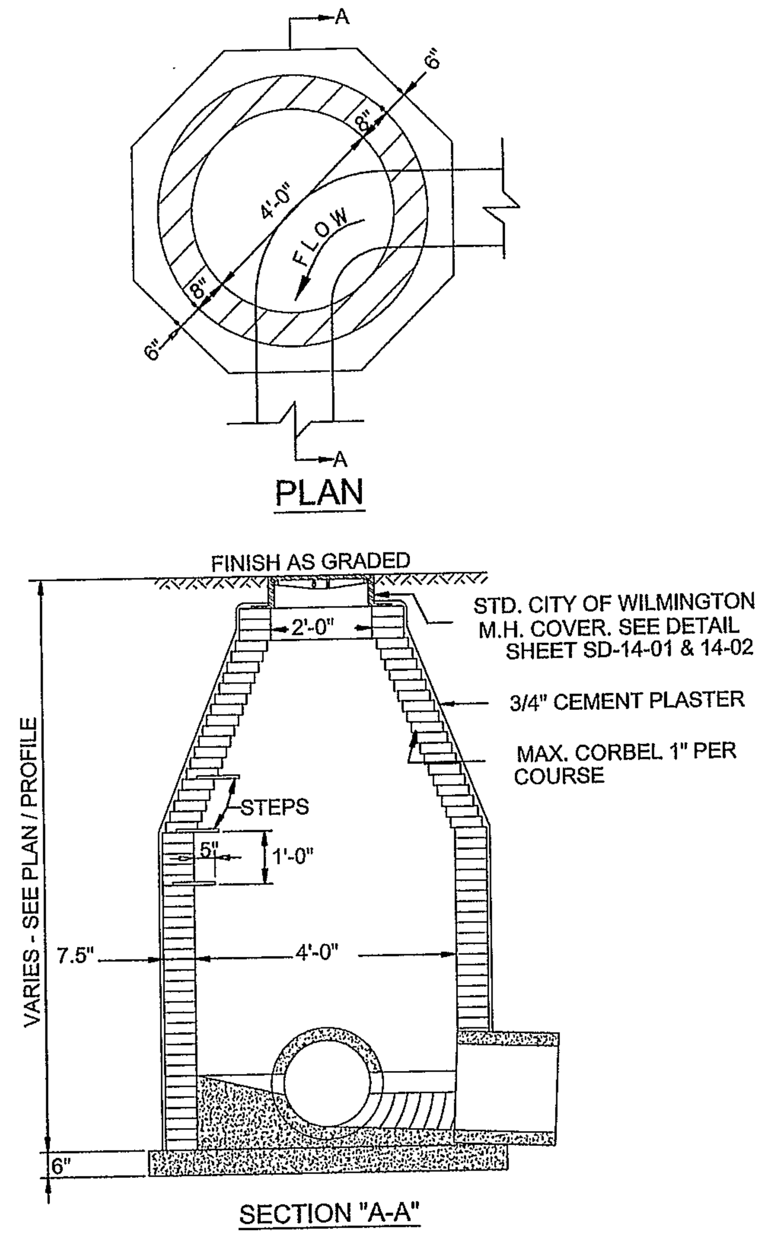


C-7.0

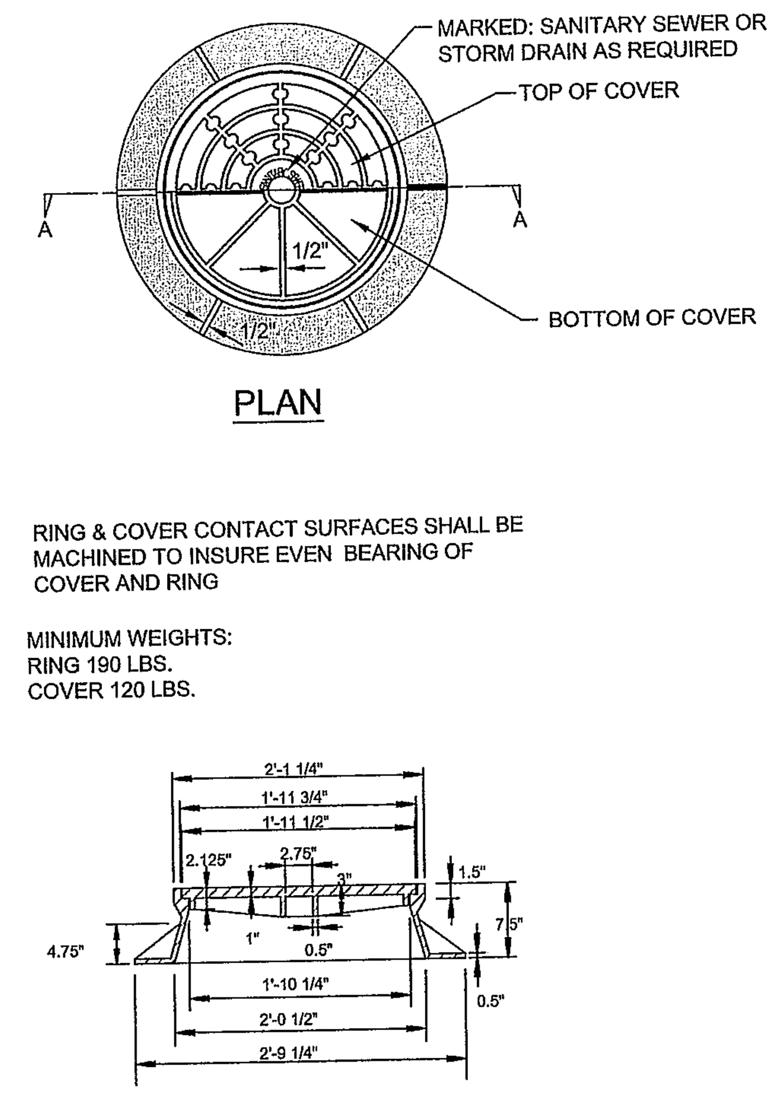
PEI JOB#: 14222.PE



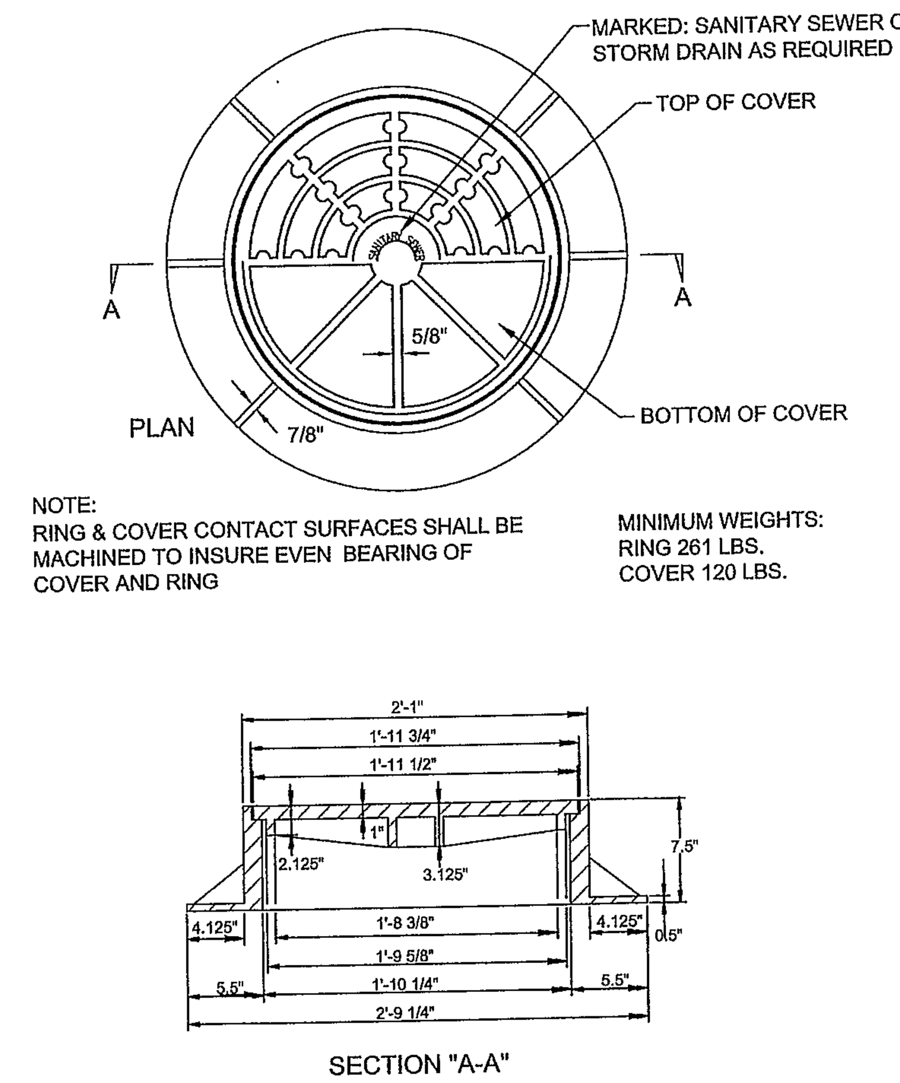
STANDARD PIPE TRENCH DETAIL
SD 1-07
NOT TO SCALE



GUIDELINES FOR STORM DRAIN MANHOLE
SD 2 -03



STANDARD MANHOLE RING AND COVER
SD 14-01
NOT TO SCALE



STANDARD MANHOLE RING & COVER
SD 14-02
NOT TO SCALE

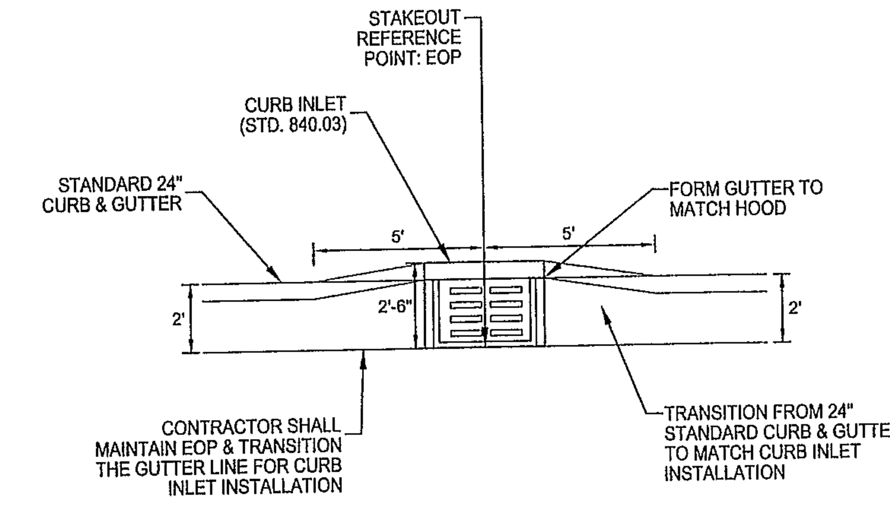
NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	JMO	1-13-15
Traffic	W Simpson	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: [signature]

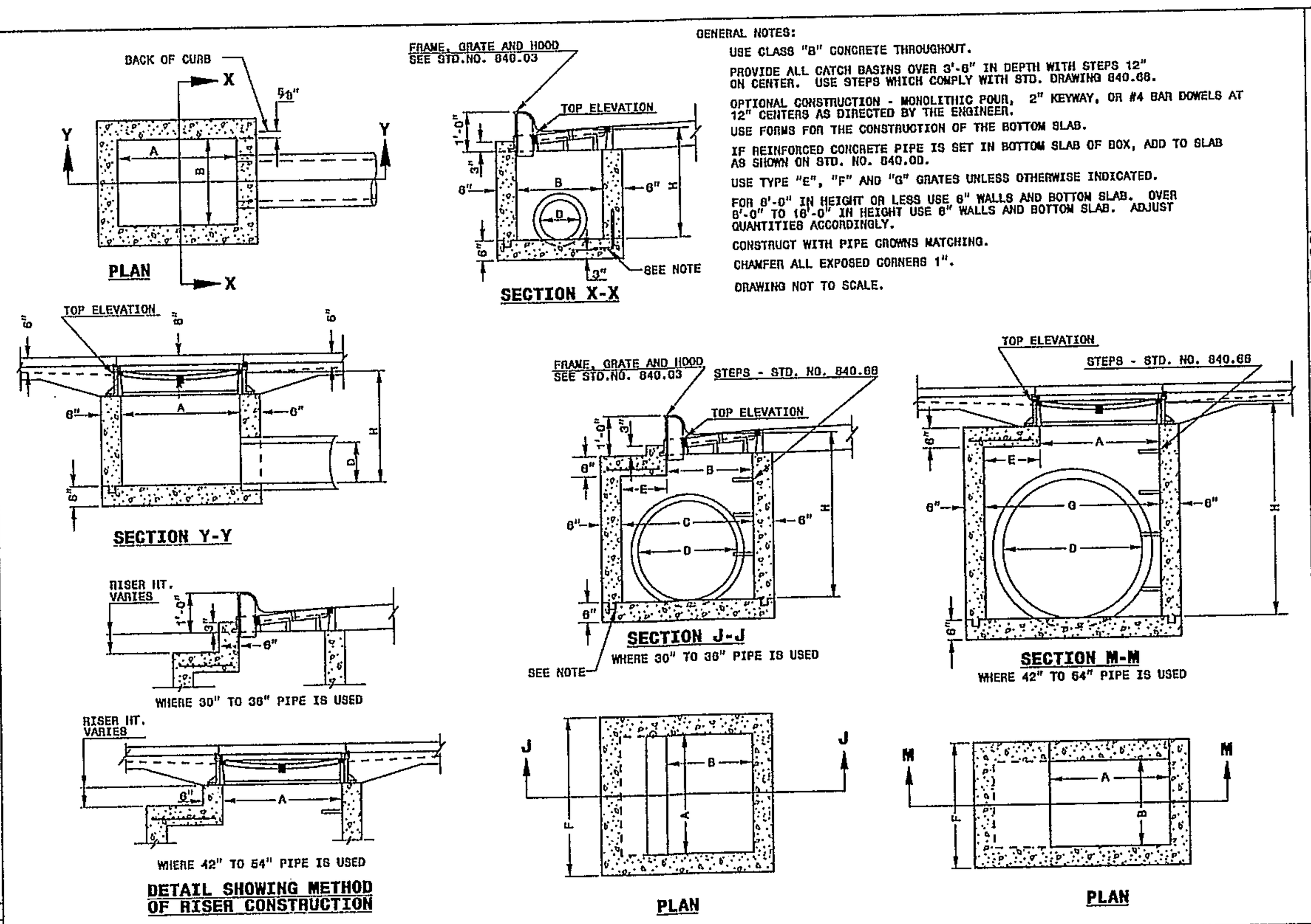


CURB TRANSITION DETAIL (24" STANDARD)
NOT TO SCALE

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
7-06

ENGLISH STANDARD DRAWING FOR
CONCRETE CATCH BASIN
12" THRU 54" PIPE

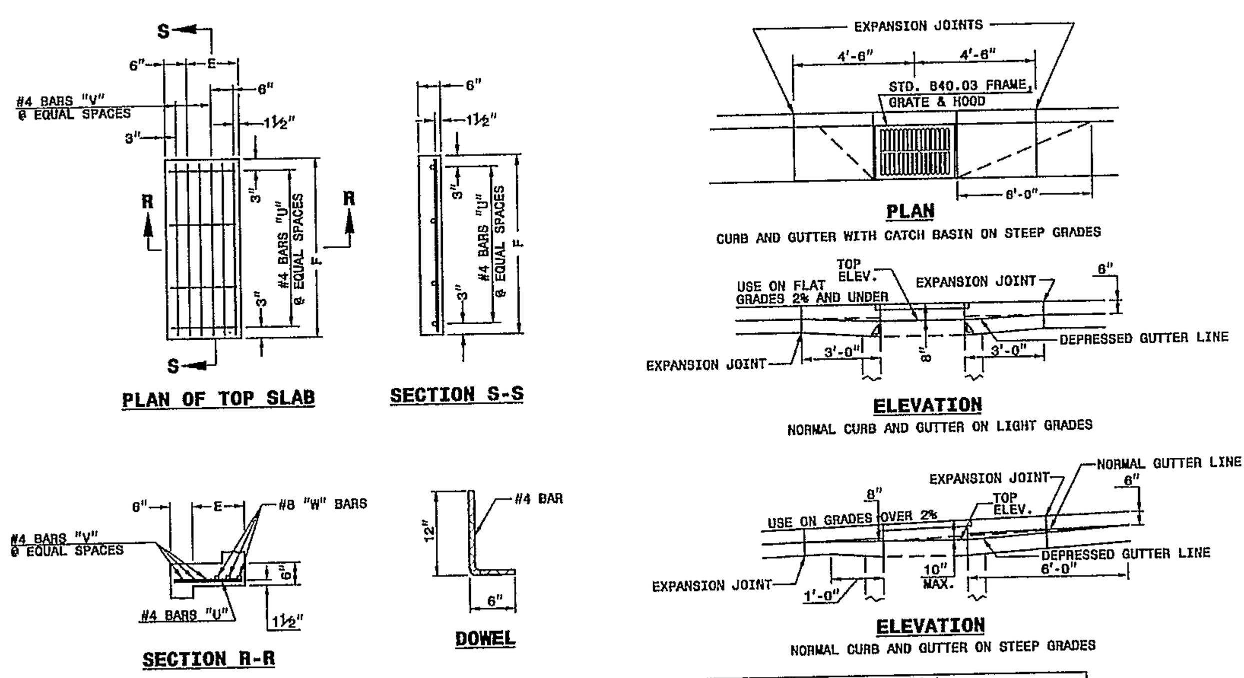
GENERAL NOTES:
USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.
FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
CONSTRUCT WITH PIPE CROWNS MATCHING.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.



SHEET 1 OF 2
840.02

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
7-06

ENGLISH STANDARD DRAWING FOR
CONCRETE CATCH BASIN
12" THRU 54" PIPE



MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN(BASED ON MIN. HEIGHT, H, WITH NO RISER) *

DIMENSIONS OF BOX AND PIPE						COVER DIMENSION		BARS-U		BARS-V		BARS-W		TOTAL LBS.	CU.YDS. CONC. IN BOX			DEDUCTIONS ONE PIPE	
PIPE	SPAN	WIDTH	WIDTH	SPAN	MIN. HEIGHT	E	F	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH		TOP SLAB	BOTTOM SLAB	TOT. CONC. FOR MINIMUM HEIGHT, H	C.M.	R.C.
D	A	B	C	G	H														
--					2'-9"	--	--	--	--	--	--	--	--	--	--	0.235	0.772	0.015	0.028
12"	3'-0"	2'-2"	--	--	2'-9"											0.235	0.829	0.023	0.036
15"	3'-0"	2'-2"			3'-0"											0.235	0.887	0.033	0.049
18"	3'-0"	2'-2"			3'-3"											0.235	1.001	0.059	0.085
24"	3'-0"	2'-2"			3'-9"										0.123	0.321	1.433	0.092	0.127
30"	3'-0"	2'-2"	3'-4"		4'-3"	1'-2"	4'-0"	4	1'-5"	2	3'-9"	3	3'-9"	39	0.161	0.358	1.714	0.132	0.178
36"	3'-0"	2'-2"	3'-10"		4'-9"	1'-8"	4'-0"	4	1'-11"	3	3'-9"	3	3'-9"	43	0.112	0.318	1.738	0.180	0.243
42"	3'-0"	2'-2"		4'-6"	5'-3"	1'-5"	3'-2"	4	1'-8"	2	2'-11"	3	2'-11"	32	0.145	0.352	2.052	0.235	0.317
48"	3'-0"	2'-2"		5'-0"	5'-9"	2'-0"	3'-2"	4	2'-3"	3	2'-11"	3	2'-11"	35	0.180	0.386	2.387	0.297	0.401
54"	3'-0"	2'-2"		5'-7"	6'-3"	2'-7"	3'-2"	4	2'-10"	5	2'-11"	3	2'-11"	41					

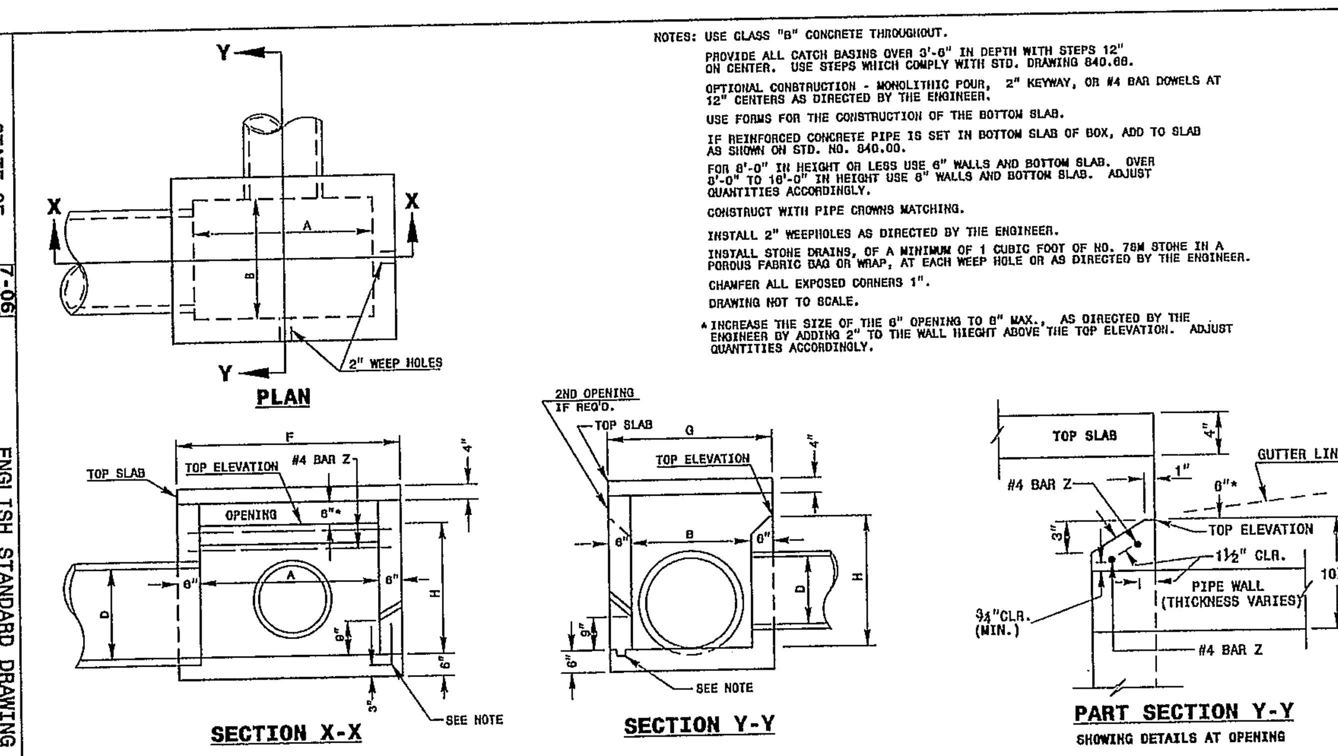
* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

SHEET 2 OF 2
840.02

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
7-06

ENGLISH STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
12" THRU 48" PIPE

NOTES: USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
CONSTRUCT WITH PIPE CROWNS MATCHING.
INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.
INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.
* INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX., AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HEIGHT ABOVE THE TOP ELEVATION. ADJUST QUANTITIES ACCORDINGLY.



MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)

DIM'S OF BOX & PIPE				REINFORCING						TOP & BOT. SLAB DIMENSIONS		CU. YDS. CONC. IN BOX			TOTAL QUANTITIES BOX & SLABS		DEDUCTION ONE PIPE		DED. ONE 6" THROAT OPENING
PIPE	SPAN	WIDTH	HEIGHT	BARS - X		BARS - Y		BARS - Z											
D	A	B	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	F	G	TOP SLAB	BOT. SLAB	WALL/FT. HT.	LBS. REINF.	YD³ (MIN H)	C.S.	R.C.	YD³
				4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.048	0.015	0.032	0.046
12"	3'-6"	2'-3"	1'-10"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.108	0.023	0.036	0.046
15"	3'-6"	2'-3"	2'-1"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.228	0.340	0.284	35	1.379	0.033	0.049	0.053
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.228	0.340	0.284	35	1.621	0.059	0.085	0.053
24"	4'-0"	2'-8"	2'-10"	5	4'-3"	9	4'-9"	2	4'-9"	5'-0"	4'-6"	0.278	0.417	0.315	43	1.916	0.092	0.127	0.053
30"	4'-0"	3'-6"	3'-4"	5	4'-9"	10	5'-3"	2	5'-3"	5'-6"	5'-0"	0.340	0.610	0.352	51	2.390	0.132	0.178	0.059
36"	4'-6"	4'-0"	3'-10"	5	5'-3"	12	5'-9"	2	5'-9"	6'-0"	5'-6"	0.407	0.611	0.389	64	2.914	0.180	0.243	0.066
42"	5'-0"	4'-6"	4'-4"	5	5'-9"	13	5'-6"	2	5'-8"	6'-0"	6'-0"	0.444	0.666	0.407	68	3.298	0.235	0.317	0.066
48"	5'-0"	5'-0"	4'-10"																

SHEET 1 OF 2
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STATE OF NORTH CAROLINA
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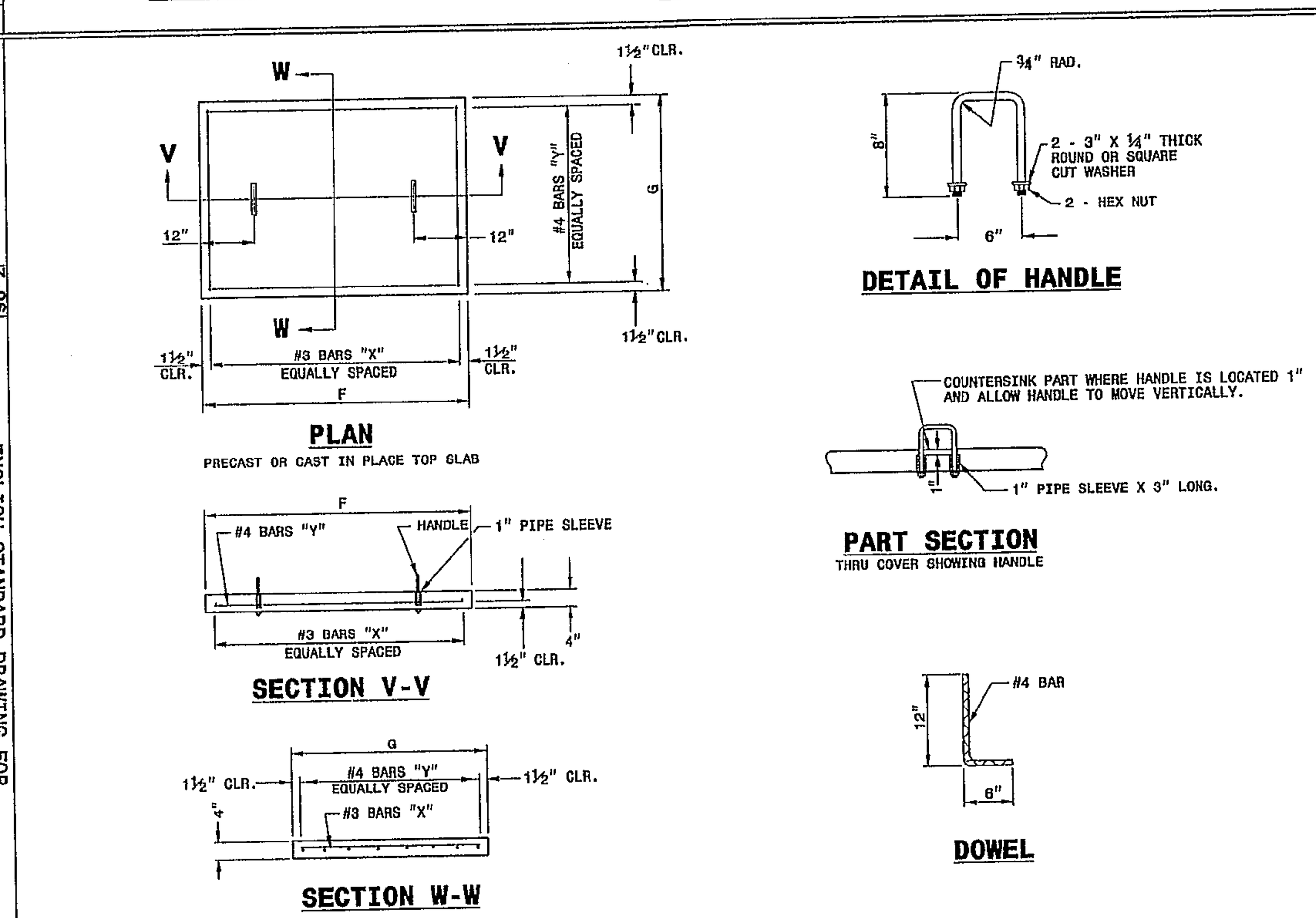
ENGLISH STANDARD DRAWING FOR
CONCRETE OPEN THROAT CATCH BASIN
12" THRU 48" PIPE



SHEET 2 OF 2
840.04

STATE OF NORTH CAROLINA
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DIVISION OF HIGHWAYS
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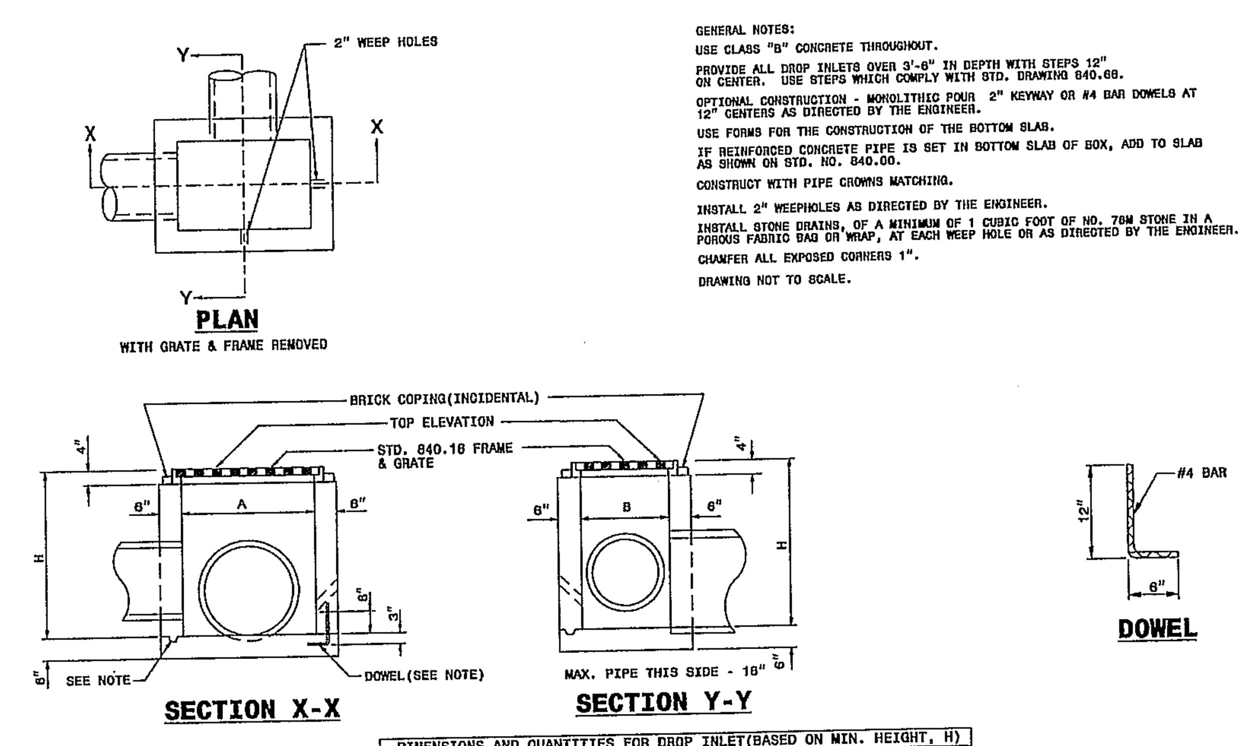
7-06

ENGLISH STANDARD DRAWING FOR
CONCRETE DROP INLET
12" THRU 30" PIPE

GENERAL NOTES:
USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
CONSTRUCT WITH PIPE CROWNS MATCHING.
INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.
INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.
CHAMFER ALL EXPOSED CORNERS 1".
DRAWING NOT TO SCALE.



DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN. HEIGHT, H)

DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT	BOTTOM SLAB	WALL PER FT. HT.	TOTAL CONCRETE FOR MINIMUM HEIGHT, H	C.M.	R.C.
D	A	B	H					
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015	0.028
15"	/	/	2'-3"	/	/	0.648	0.023	0.036
18"	/	/	2'-6"	/	/	0.703	0.033	0.049
24"	/	/	3'-0"	/	/	0.814	0.059	0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092	0.127

SHEET 1 OF 1
840.14

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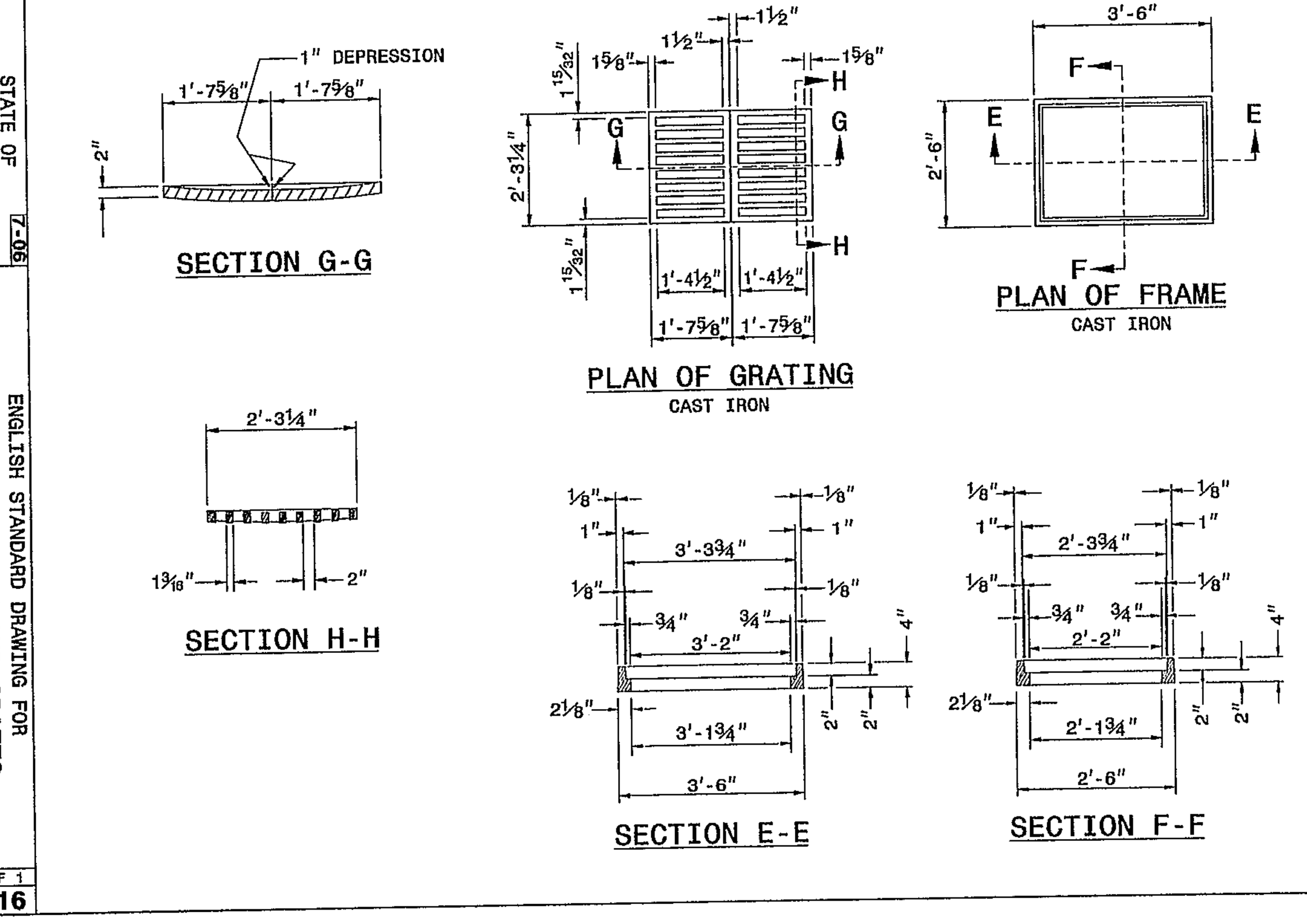
ENGLISH STANDARD DRAWING FOR
DROP INLET FRAME AND GRATES
FOR USE WITH STD. DWG.S 840.14 AND 840.15



SHEET 1 OF 1
840.16

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

DETAILS

THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.14.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 DANIEL J. FISK 11.23.15

C-7.1

PEI JOB#: 14222.PE

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RALEIGH, N.C.

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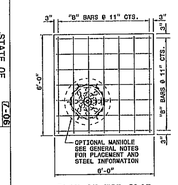
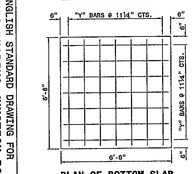
ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING JUNCTION BOX
FOR USE WITH PIPES 42" AND UNDER

SHEET 1 OF 2
840.34

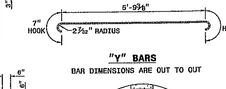


PLAN OF TOP SLAB

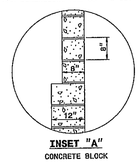


PLAN OF BOTTOM SLAB

DOWEL "C"

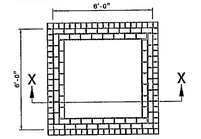


"Y" BARS
BAR DIMENSIONS ARE OUT TO OUT

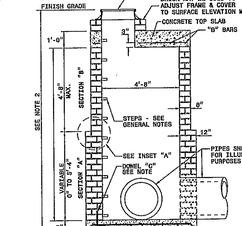


INSET "A"
CONCRETE BLOCK

NOTE 1: CONSTRUCT SECTION "B" OF THE PROPOSED WALL 8" THICK. AND SECTION "A" 12" THICK.
NOTE 2: IF PROPOSED STRUCTURE EXCEEDS 12'-0" VERTICAL HEIGHT A DESIGN WILL BE REQUIRED FOR APPROVAL.
NOTE 3: USE SINGLE MAT REINFORCING STEEL; EXCEPT DOUBLE MAT STEEL MAY BE USED IN LIEU OF HOOK BARS IN BASE SLAB.



PLAN
(WITHOUT TOP)



SECTION X-X
(WITH TOP)

GENERAL NOTES:

USE STANDARD OR JUMBO BRICK FOR WALL CONSTRUCTION. SOLID CONCRETE BRICK OR BLOCK ARE OPTIONAL WALL CONSTRUCTION MATERIAL

PRECAST UNITS MADE OF CLASS "AA" CONCRETE MAY BE USED IN LIEU OF BRICK MASONRY CONTRUCTION. SUBMIT DESIGN OF PRECAST UNITS FOR APPROVAL PRIOR TO CONSTRUCTION.

INCLUDE ALL ADJUSTMENTS TO WALLS, SLABS OR REINFORCING MATERIAL IN THE UNIT PRICE BID FOR EACH UNIT.

INSTALL OPTIONAL MANHOLE IN POSITION AS DIRECTED BY THE ENGINEER. CUT OR BEND ALL REBAR CROSSING THIS OPENING TO ALLOW 2" MINIMUM CONCRETE COVERAGE. ENCLOSE THE OPENING WITH 8 "A" BARS TIED TO TO THE REBAR MAT AND SET SO A MINIMUM OF 3" CONCRETE COVER IS ATTAINED. REFERENCE STD. NO. 840.54 FOR MANHOLE INFORMATION.

PROVIDE JUNCTION BOXES WITH MANHOLES OVER 3'-6" IN DEPTH WITH STEPS PLACED ON 12" CENTERS. REFERENCE STD. NO. 840.66.

SPACE DOWEL "C" BARS AT A MAXIMUM OF 12" CENTERS.

MAXIMUM DEPTH OF THIS UNIT AS SHOWN IS 12'.

CONSTRUCT THE JUNCTION BOX IN ACCORDANCE WITH SECTIONS 830, 832, 834 AND 840 OF THE STANDARD SPECIFICATIONS.

BILL OF MATERIAL

BAR	QTY.	SIZE	LENGTH	WEIGHT
A	8	#5	1'-2"	9.7
B	14	#5	2'-6"	60.3
C	28	#4	1'-6"	28.1
Y	14	#5	6'-11¼"	101.6
STEEL TOTAL WEIGHT				217.6
CU. YDS. CLASS "AA" CONC.				2.6
CU. YDS. BRICK/FT. HT. (8")				0.53
CU. YDS. BRICK/FT. HT. (12")				0.64

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ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING JUNCTION BOX
FOR USE WITH PIPES 42" AND UNDER

SHEET 2 OF 2
840.34

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DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
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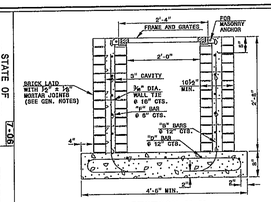
Z-06

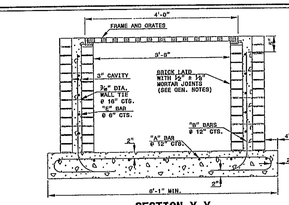
ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING JUNCTION BOX
FOR CAST IRON DOUBLE FRAME AND GRATES

SHEET 1 OF 2
840.35

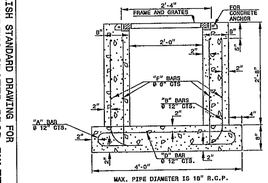


SECTION X-X

BRICK ALT.

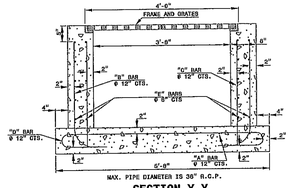


SECTION Y-Y



SECTION X-X

CONCRETE ALT.



SECTION Y-Y

NOTES:
- VERTICAL AND HORIZONTAL DIMENSIONS MAY BE ADJUSTED AS THE FIELD CONDITIONS AND/OR ALTERNATE DESIGN REQUIRE.
- MAXIMUM HEIGHT FOR THIS STRUCTURE IS 14'-0".
- MAKE ALL ADJUSTMENTS AS DIRECTED BY THE ENGINEER.
- DEPTH OF STEEL GRATE WILL REQUIRE DEEPER SEAT ALONG EXHAUST WALLS.

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ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING GRATED DROP INLET
FOR CAST IRON DOUBLE FRAME AND GRATES

SHEET 1 OF 2
840.35

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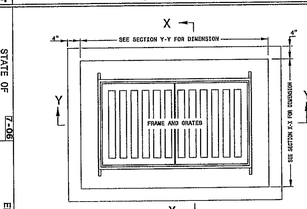
DIVISION OF HIGHWAYS
RALEIGH, N.C.

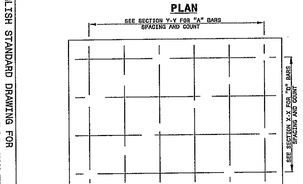
Z-06

ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING GRATED DROP INLET
FOR USE WITH PIPES 42" AND UNDER

SHEET 1 OF 2
840.34



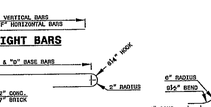
PLAN



PLAN OF BASE

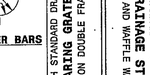
BILL OF MATERIALS

	COMMON		CONCRETE ALT.			BRICK ALT.		
BAR	SIZE		LENGTH	QUANTITY	WEIGHT	LENGTH	QUANTITY	WEIGHT
A	#5		2'-4½"	8	38.3	2'-7½"	8	42.7
B	#5		3'-1½"	16	68.3	3'-4½"	16	68.3
C	#4		1'-6"	14	28.9	-in-	-in-	42.4
D	#5		3'-0½"	4	33.6	3'-0½"	4	33.6
E	#5		3'-0"	20	85.8	3'-3"	20	91.3
F	#5		4'-9"	20	67.3	4'-6"	10	48.7
REINF. STEEL (TOTAL WEIGHT LBS.)					388.8			292.7
CONCRETE IN BASE CLASS "AA" (CUBIC YARDS)					2.69			2.69
CONCRETE IN WALLS CLASS "AA" (CUBIC YARDS)					0.62			-0-
CONCRETE IN WALL (CLASS "A" (CUBIC YARDS)					-0-			0.35
BRICK IN WALL (CUBIC YARDS)					-0-			0.81
CONCRETE IN TOP (CUBIC YARDS)					1.48			1.03
CONCRETE IN BRICK TOP (CUBIC YARDS)					1.48			1.03
CONC. CUBIC YARDS IN WALL/FOOT OF HEIGHT					0.39			0.14
BRICK CUBIC YARDS IN WALL/FOOT OF HEIGHT					-0-			0.26
LBS. OF REINF. STEEL IN WALL/FOOT OF HEIGHT					94.6			47.8



STRAIGHT BARS

BASE BARS



CORNER BARS

GENERAL NOTES:
- USE CLASS "AA" CONCRETE FOR CAST IN PLACE CONCRETE BOX.
- USE CLASS "B" CONCRETE IN THE WALL CAVITY FOR REINFORCED BRICK CONSTRUCTION AND CLASS "AA" FOR THE FOOTING BASE.
- CHAMFER ALL EXPOSED CONCRETE CORNERS 1".
- USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
- IF PIPES ARE SET IN THE BASE FOLLOW CONSTRUCTION PROCEDURES SHOWN BY STD. DWG. 840.00.
- PRECAST UNITS MADE OF CLASS "AA" CONCRETE MAY BE USED IN LIEU OF BRICK MASONRY CONSTRUCTION.
- INCLUDE REINFORCING STEEL COST IN THE UNIT OR LINEAR FOOT BID PRICE FOR "MASONRY DRAINAGE STRUCTURE".
- REFERENCE STD. DWG. 840.25 FOR FRAME ANCHORAGE.
- CONCRETE BRICK, JUMBO BRICK AND 4" SOLID CONCRETE BLOCK WILL BE PERMITTED.
- CONCRETE FOR BRICK BOX REFER TO SECTION 832 OF THE STANDARD SPECIFICATIONS.
- PROVIDE GRATED DROP INLETS OVER 3'-0" DEEP WITH STEPS SPACED 12" ON CENTER AS DIRECTED BY STD. DWG. 840.66.
- FRAME AND GRATES ARE SEPARATE CONTRACT ITEMS.

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ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING GRATED DROP INLET
FOR CAST IRON DOUBLE FRAME AND GRATES

SHEET 2 OF 2
840.35

STATE OF NORTH CAROLINA
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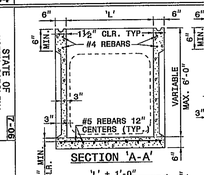
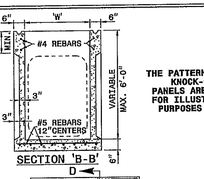
Z-06

ENGLISH STANDARD DRAWING FOR
PRECAST DRAINAGE STRUCTURE
(SOLID AND WAFFLE WALL)

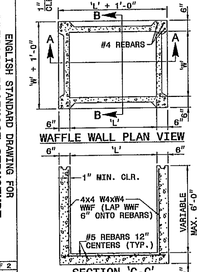
SHEET 1 OF 2
840.45



SECTION 'A-A'

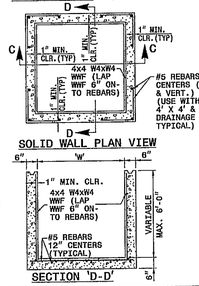


SECTION 'B-B'



WAFFLE WALL PLAN VIEW

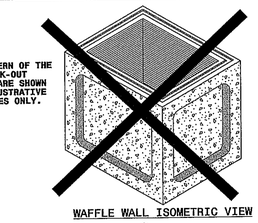
SECTION 'C-C'



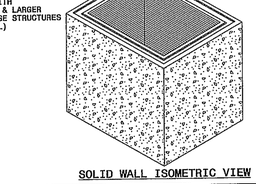
SOLID WALL PLAN VIEW

SECTION 'D-D'

THE PATTERN OF THE KNOCK-OUT PANELS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.



WAFFLE WALL ISOMETRIC VIEW



SOLID WALL ISOMETRIC VIEW

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ENGLISH STANDARD DRAWING FOR
PRECAST DRAINAGE STRUCTURE
(SOLID AND WAFFLE WALL)

SHEET 2 OF 2
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RALEIGH, N.C.

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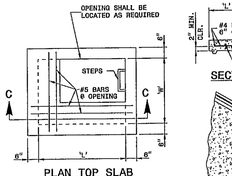
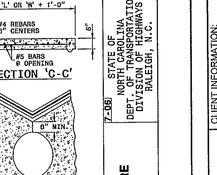
ENGLISH STANDARD DRAWING FOR
PRECAST DRAINAGE STRUCTURE
(GENERAL NOTES AND DETAILS)

SHEET 1 OF 2
840.45

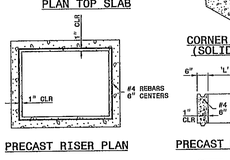
GENERAL NOTES:
- THIS PRECAST BOX MAY BE USED FOR THE FOLLOWING STANDARDS: 840.01, 840.02, 840.04, 840.05, 840.11, 840.12, 840.14, 840.15, 840.17, 840.18, 840.19, 840.26, 840.27, 840.28, 840.31, 840.32 AND 840.41.
- INSTALL PRECAST DRAINAGE STRUCTURES AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 840.
- DO NOT PLACE PRECAST DRAINAGE STRUCTURES UNDER TRAFFIC OR WHERE TRAFFIC WILL BE DETOURED.
- USE 4000 PSI CONCRETE.
- PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185.
- LIMIT MAXIMUM DEPTH TO TOP OF BOTTOM SLAB FOR WAFFLE WALL STRUCTURES TO 10'-0"; LIMIT SOLID WALL STRUCTURE TO 15'-0".
- PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
- CUT OR FORM OPENINGS FOR PIPE TO PROVIDE REQUIRED SIZE AND LOCATION. ORIENT WAFFLE WALL STRUCTURES SO THAT PIPES ENTER THROUGH THE KNOCKOUT/WAFFLE PANELS ONLY. PIPES MAY ENTER THROUGH THE CORNERS OF SOLID WALL BOXES IF A MINIMUM OF 6" OF WALL IS PROVIDED ABOVE THE HOLE.
- ALL ELEMENTS PRECAST TO MEET ASTM C913.
- FRAME AND GRATE HEIGHT MAY BE ADJUSTED WITH CONCRETE OR BRICK IN ACCORDANCE WITH STANDARD 840.25.
- PROVIDE PRECAST STRUCTURES OVER 4'-0" IN DEPTH WITH STEPS AS DIRECTED BY THE ENGINEER.
- WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
- SEAL JOINTS WITH A FLEXIBLE BUTYL RUBBER BASE CONFORMING TO FEDERAL SPECIFICATION SS-S-21A, AASHTO M-198, TYPE B - BUTYL RUBBER.
- LIMIT MAXIMUM STRUCTURE SIZE TO INSIDE CLEAR DIMENSIONS OF 5'-0" X 5'-0".
- THE OUTSIDE PIPE DIAMETER PLUS 2" OR THE OPENING REQUIRED FOR FRAME AND GRATE IS THE MINIMUM STRUCTURE SIZE WHICHEVER IS GREATER.
- USE MANHOLE FRAME AND COVER AS INDICATED ON THE PLANS. REINFORCE OPENING AS SHOWN ON THIS SHEET.



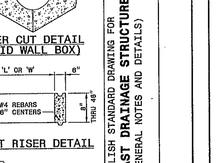
PLAN TOP SLAB



SECTION 'C-C'

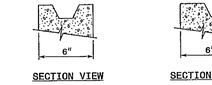


PRECAST RISER PLAN



PRECAST RISER DETAIL

CORNER CUT DETAIL
(SOLID WALL BOX)



SECTION VIEW

SECTION VIEW

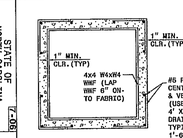
OPTIONAL JOINT DETAILS

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

Z-06

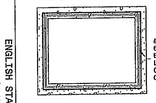
ENGLISH STANDARD DRAWING FOR
PRECAST DRAINAGE STRUCTURE
(GENERAL NOTES AND DETAILS)

SHEET 2 OF 2
840.45

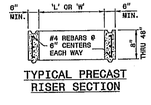


PLAN VIEW OF BASE UNIT

SECTION VIEWS
OPTIONAL JOINT DETAILS



PRECAST RISER PLAN



TYPICAL PRECAST
RISER SECTION

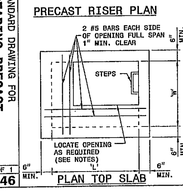
GENERAL NOTES:
- THIS PRECAST BOX MAY BE USED FOR THE FOLLOWING STANDARDS: 840.04, 840.05, 840.14, 840.15, 840.31, 840.32, 840.34, 840.35, 840.36 AND 840.41.
- INSTALL AND PAY FOR PRECAST DRAINAGE STRUCTURES IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATION SECTION 840.
- USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.
- USE ASTM A615 GRADE 60 REINFORCING STEEL. USE ASTM A185 WELDED WIRE FABRIC (WWF).
- LIMIT MAXIMUM DEPTH TO TOP OF BOTTOM SLAB TO 15'-0".
- PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
- ORIENT STRUCTURES SO THAT CORNERS WILL NOT BE CUT OR MODIFIED UNLESS ALLOWED BY DETAIL IN PLANS.
- PRECAST ALL ELEMENTS TO MEET ASTM C913.
- FRAME AND GRATE HEIGHT MAY BE ADJUSTED WITH CONCRETE OR BRICK IN ACCORDANCE WITH STANDARD 840.25.
- PROVIDE PRECAST STRUCTURES OVER 4'-0" IN DEPTH WITH STEPS 12" ON CENTERS IN ACCORDANCE WITH STD. NO. 840.66.
- WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR IF THE SAME MIN. AREA OF STEEL IS PROVIDED.
- SEAL JOINTS WITH AN APPROVED SEALANT (SEE SECTION 840 OF NCDOT STANDARD SPECIFICATIONS.
- LIMIT MAXIMUM STRUCTURE SIZE INSIDE CLEAR DIMENSIONS TO 6'-0" X 6'-0".
- THE OUTSIDE PIPE DIAMETER PLUS 2" IS THE MINIMUM STRUCTURE SIZE OR THE OPENING REQUIRED FOR GRATE AND FRAME WHICHEVER IS GREATER.
- ROUND MANHOLE MAY BE USED IN LIEU OF SQUARE PROVIDED 2 EXTRA #5'S ARE PLACED ON EVERY SIDE NOT ADJACENT TO A WALL. SEE STD. DWG. 840.34 FOR MANHOLE INSTALLATION.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

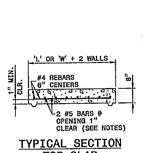
Z-06

ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE

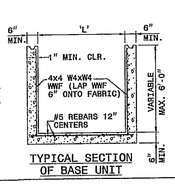
SHEET 1 OF 1
840.46



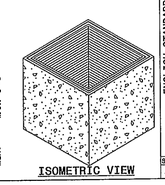
PLAN TOP SLAB



TYPICAL SECTION
TOP SLAB



TYPICAL SECTION
OF BASE UNIT



ISOMETRIC VIEW

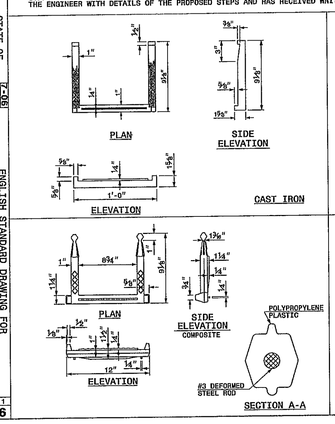
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

Z-06

ENGLISH STANDARD DRAWING FOR
TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE

SHEET 1 OF 1
840.46

NOTES:
INSTALL ALL STEPS PROTRUDING 4" FROM INSIDE FACE OF STRUCTURE WALL.
STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS OF THE PROPOSED STEPS AND HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.

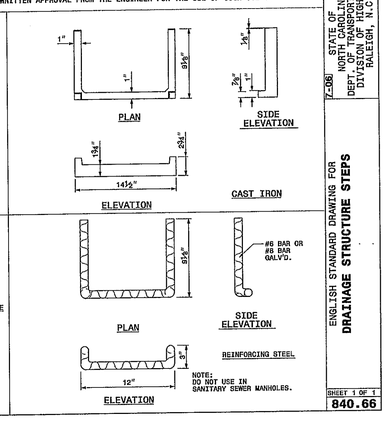


STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

Z-06

ENGLISH STANDARD DRAWING FOR
DRAINAGE STRUCTURE STEPS

SHEET 1 OF 1
840.66



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

Z-06

ENGLISH STANDARD DRAWING FOR
DRAINAGE STRUCTURE STEPS

SHEET 1 OF 1
840.66

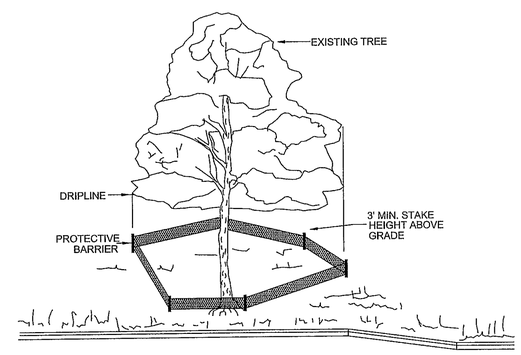
NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	JWO	1-13-15
Traffic	W	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: RWB



NOTE:
TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION AND A PROTECTIVE BARRIER IS TO BE INSTALLED AT THE DRIPLINE.
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

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 791-5707 (O) (910) 791-6760 (F)
NC License #: C-2846

DETAILS
THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

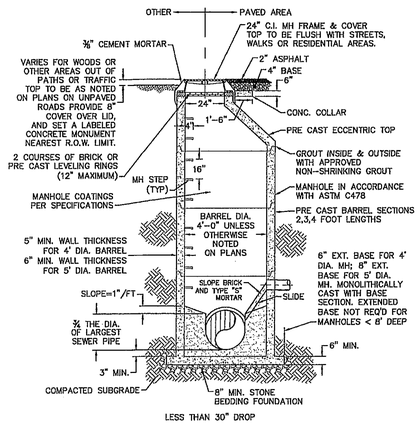
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY DESIGN:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 06.14.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: TGC
CHECKED:

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISH
11-23-15

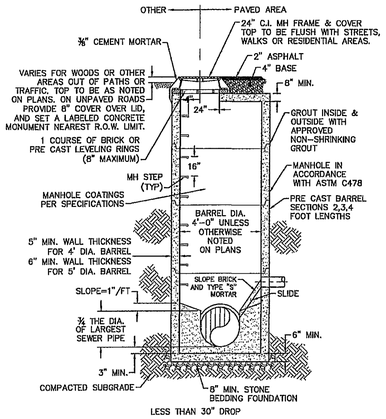
C-7.2

PEI JOB#: 14222.PE



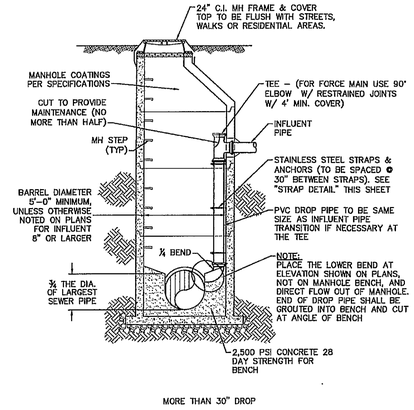
PRECAST CONCRETE OFFSET MANHOLE TYPICAL

NOT TO SCALE



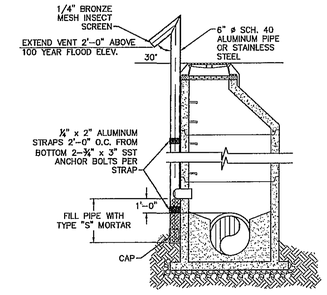
PRECAST CONCRETE FLAT TOP MANHOLE TYPICAL

NOT TO SCALE



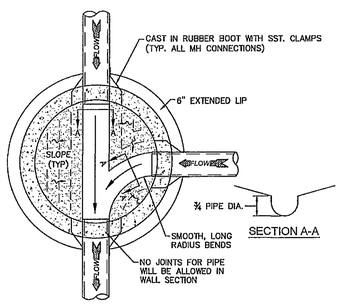
DROP MANHOLE

NOT TO SCALE



STANDARD VENT MANHOLE

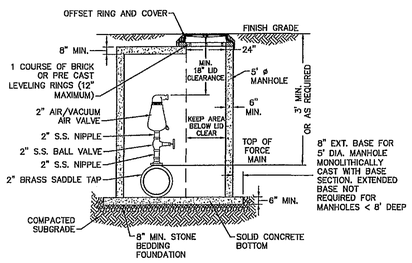
NOT TO SCALE



SECTION A-A

MANHOLE FLOOR PLAN

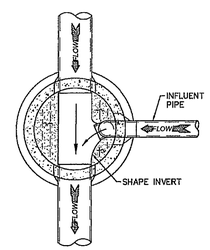
NOT TO SCALE



NOTES:
1. CONTRACTOR TO INSTALL VALVE AND MANHOLE AT SUFFICIENT DEPTH TO ALLOW FOR ACCESS.
2. FORCE MAIN TO BE OFFSET IN MANHOLE TO KEEP AREA BELOW LID CLEAR.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. USE CAST IN RUBBER BOOT WITH SST. CLAMPS FOR ALL MH CONNECTIONS, INCLUDING FORCE MAIN.

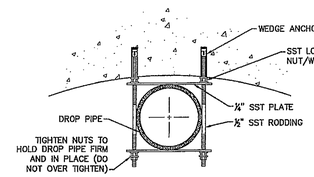
AIR/ VACUUM AND AIR RELEASE COMBINATION VALVE

NOT TO SCALE



DROP MANHOLE FLOOR PLAN

NOT TO SCALE



NOTE: ALL PARTS TO BE SST.

STRAP DETAIL

NOT TO SCALE

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD SEWER NOTES:

1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.

STANDARD SEWER NOTES

(REQUIRED ON ALL SEWER PLAN AND PROFILE SHEETS)

GENERAL NOTES:
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
3. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
4. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
5. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE 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	AIR / VACUUM AND AIR RELEASE COMBINATION VALVE REVISED	10/26/12
2	STANDARD SEWER NOTE #6 REVISED	12/10/12
3	REVISED STANDARD VENT MANHOLE TO EXTEND VENT 2'-0" ABOVE 100 YR FLOOD	11/20/14

CFPUA SANITARY SEWER

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560
Stewardship. Sustainability. Service.

DATE: 1/0/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

SHEET NO: SSD-1

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	AUG	1-13-15
Traffic	[illegible]	1-14-16
Fire	SF	1.14.16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: _____

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 799-5707 (O) 910 791-6760 (F)
NC License #: C-2846

DETAILS
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

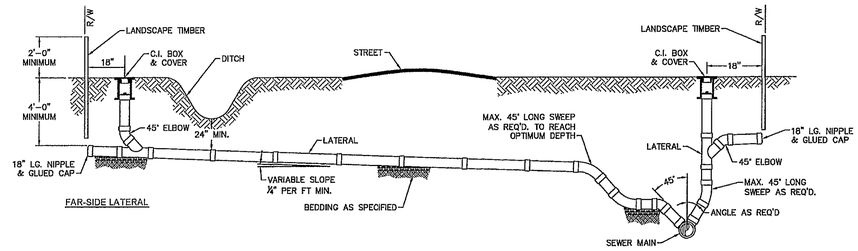
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 10.12.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040501 ENGINEER DANIEL J. FISH 11.23.15

C-7.3

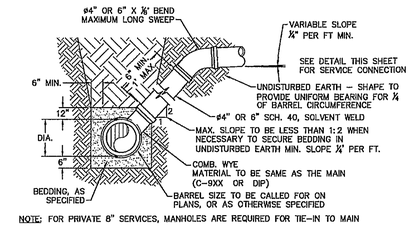
PEI JOB#: 14222.PE



NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN

STANDARD SERVICE CONNECTION TO SANITARY SEWER

NOT TO SCALE

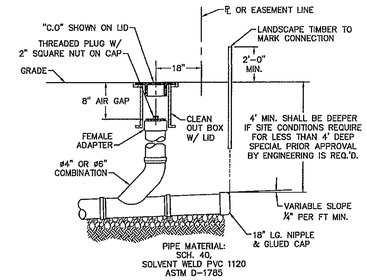


NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN

MAIN DEPTH LESS THAN 8 FT

STANDARD SERVICE LATERAL

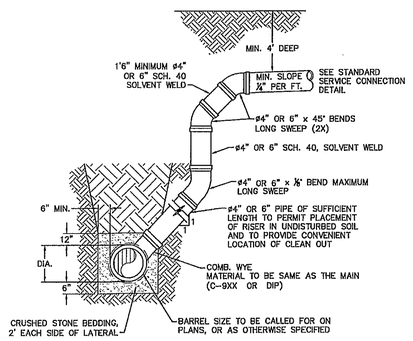
NOT TO SCALE



NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN

SERVICE CONNECTION & CLEAN-OUT

NOT TO SCALE

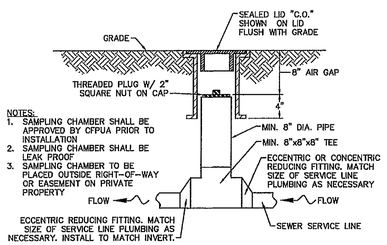


NOTES:
1. SPECIAL CARE SHALL BE TAKEN DURING BACKFILL OPERATIONS. THE RISER SHALL BE PLUMB AND TRUE AT ALL TIMES, AND REST ON FIRM, STABLE FOUNDATION.
2. FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN.

MAIN DEPTH GREATER THAN 8 FT

DEEP SERVICE LATERAL

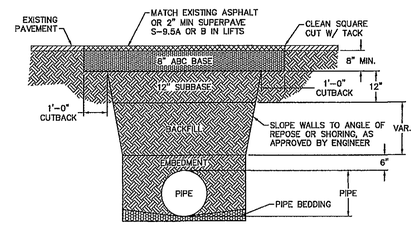
NOT TO SCALE



NOTES:
1. SAMPLING CHAMBER SHALL BE APPROVED BY CFPUA PRIOR TO INSTALLATION
2. SAMPLING CHAMBER SHALL BE LEAK PROOF
3. SAMPLING CHAMBER TO BE PLACED OUTSIDE RIGHT-OF-WAY OR EASEMENT ON PRIVATE PROPERTY

SAMPLING CHAMBER

NOT TO SCALE

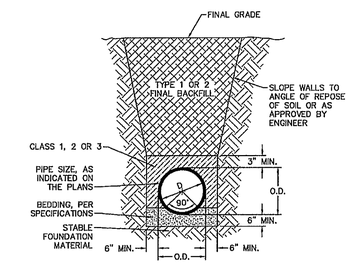


NOTES:
1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
3. 8-INCH OF ABC 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%.

(FOR PRIVATE ROADS AND PAVED AREAS; CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)

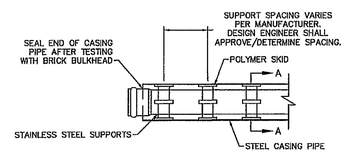
PAVEMENT REPAIR WHERE PIPE INSTALLED

NOT TO SCALE



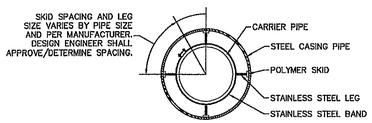
TYPICAL TRENCH DETAIL

NOT TO SCALE



PLAN

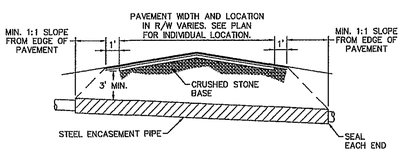
NOTE: PIPE SUPPORT TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED. CONTINUOUS SUPPORTS MAY BE USED AS ALTERNATIVE. OIL, GREASE, OR PETROLEUM PRODUCT MAY NOT BE USED AS LUBRICANT.



SECTION A-A

PIPE CASING SUPPORT DETAIL

NOT TO SCALE



NOTES:
1. CASING WILL BE INSTALLED AT LINE AND GRADE SHOWN ON INDIVIDUAL PROFILE FOR EACH CROSSING. BORING/JACKING TO LINE AND GRADE IS REQUIRED.
2. TRACER WIRE SHALL BE CONTINUED THROUGH CASING.

TYPICAL BORING/ JACKING DETAIL

NOT TO SCALE

GENERAL NOTES:
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
3. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
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5. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE 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	10/28/12

CFPUA SANITARY SEWER

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6566
Stewardship. Sustainability. Service.

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

SHEET NO: SSD-2

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		1-13-16
Traffic		1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: _____

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 799-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

DETAILS

THE POINTE AT BARCLAY
BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

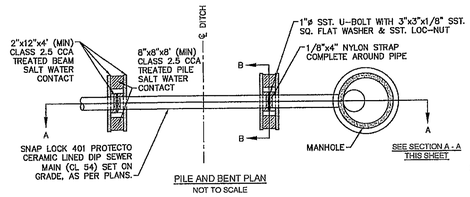
PROJECT STATUS:
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION
DATE: 10.12.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 040503 ENGINEER DANIEL J. FISK
11.23.15

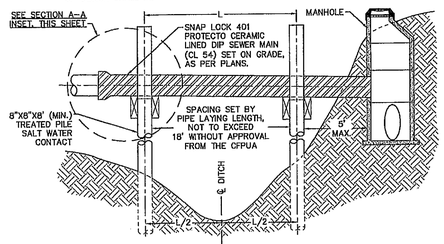
C-7.4

PEI JOB#: 14222.PE



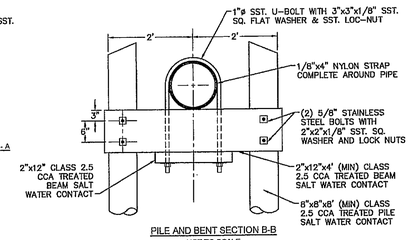
PILE AND BENT PLAN
NOT TO SCALE

NOTES:
1. PILES AND PILE DRIVING SHALL CONFORM TO NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, JANUARY 2002, SECTIONS 445, 450, 1082-2 & 1084-2.
2. CENTERLINE OF BOLTS TO BE A MINIMUM OF 3" FROM OUTSIDE EDGE OF TIMBER. BOLTS TO BE A MINIMUM OF 3" CENTERLINE TO CENTERLINE.
3. ALL STAINLESS STEEL SHALL BE 316. STAINLESS STRAP TO BE COLD FORMED.
4. PILE SHALL NOT OBSTRUCT FLOW OR CAUSE EROSION OF DITCH/STREAM BANK.
5. MIN. CLASS 54 DIP-ENGINEER MUST DESIGN LOADING.
6. DESIGN SHALL BE APPROVED BY CFPUA.

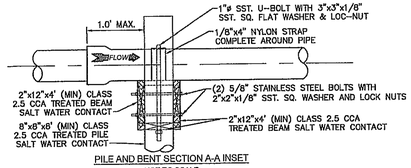


PILE AND BENT SECTION A-A
NOT TO SCALE

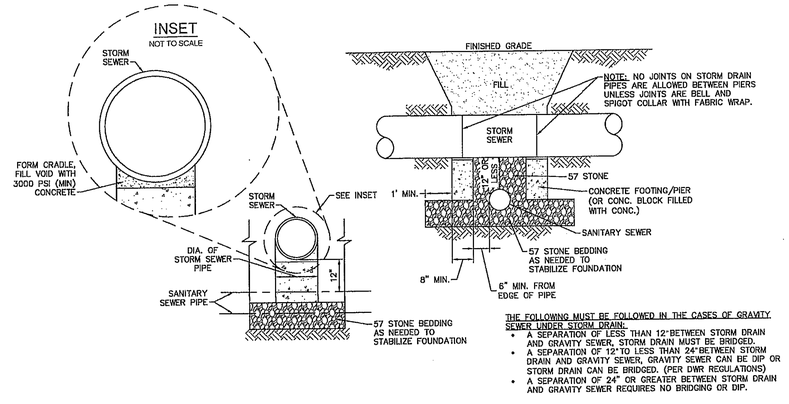
SD-20 PILE AND BENT DETAIL
NOT TO SCALE



PILE AND BENT SECTION B-B
NOT TO SCALE

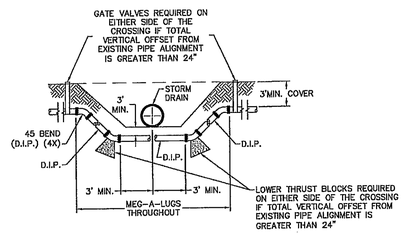


PILE AND BENT SECTION A-A INSET
NOT TO SCALE



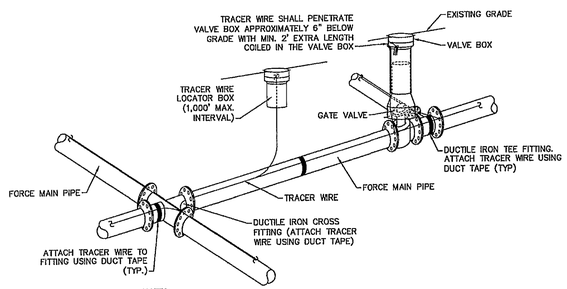
THE FOLLOWING MUST BE FOLLOWED IN THE CASES OF GRAVITY SEWER UNDER STORM DRAIN:
- A SEPARATION OF LESS THAN 12" BETWEEN STORM DRAIN AND GRAVITY SEWER, STORM DRAIN MUST BE BRIDGED.
- A SEPARATION OF 12" TO LESS THAN 24" BETWEEN STORM DRAIN AND GRAVITY SEWER, GRAVITY SEWER CAN BE DIP OR STORM DRAIN CAN BE BRIDGED. (PER DWR REGULATIONS)
- A SEPARATION OF 24" OR GREATER BETWEEN STORM DRAIN AND GRAVITY SEWER REQUIRES NO BRIDGING OR DIP.

SD-24 STRUCTURAL BRIDGING DETAIL FOR STORMWATER OVER GRAVITY SEWER INSTALLATIONS WITH LESS THAN 12" SEPARATION
NOT TO SCALE



NOTE: USE D.I.P. (CL50 OR BETTER)

SD-18 FORCE MAIN DITCH AND STORM DRAIN CROSSING
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 FORCE MAIN PIPING WITH DUCT TAPE AT 12 FOOT INTERVALS ALONG THE PIPE.
3. SECURE WIRE TO ALL TEE AND CROSS FITTINGS WITH DUCT TAPE.
4. ALL SPLICES IN THE WIRE SHALL BE MADE WITH 3M DBR DIRECT BURY SPLICE KIT AN UNDERGROUND RATED, WATERTIGHT, AND APPROVED SPLICE CONNECTOR OR APPROVED EQUAL.

SD-21 TRACER WIRE DETAIL
NOT TO SCALE

GENERAL NOTES:
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV:	DESCRIPTION:	DATE:
1	ADDED NOTES TO THE STRUCTURAL BRIDGING DETAIL	03/11/15
2	Revised Tracer Wire Detail	10/20/15

CFPUA SANITARY SEWER

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560
Stewardship. Sustainability. Service.

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

SHEET NO: SSD-3

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	JWO	1-13-15
Traffic	W.E. Wheddon	1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15
2) PER CFPUA DETAIL REVISION 12.18.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 799-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

DETAILS
THE POINTE AT BARCLAY
"BARCLAY WEST TRACT B"
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 10.12.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

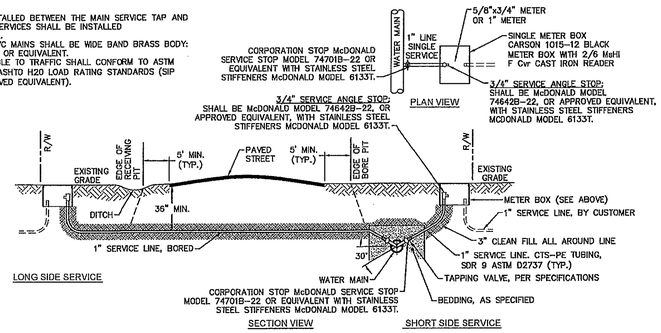
SEAL 040501 NORTH CAROLINA PROFESSIONAL ENGINEER DANIEL J. FISK 12.18.15

C-7.5

PEI JOB#: 14222.PE

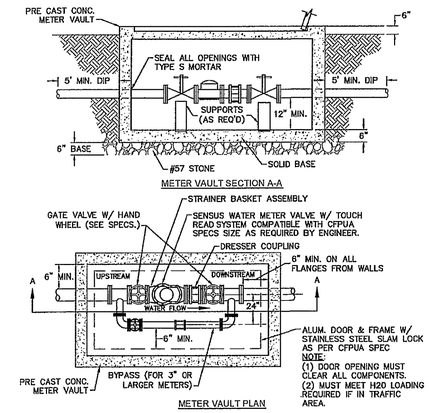
FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

NOTES:
1. NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: SADDLE McDONALD 3801 OR EQUIVALENT.
3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (SIP MODEL 4242, OR APPROVED EQUIVALENT).



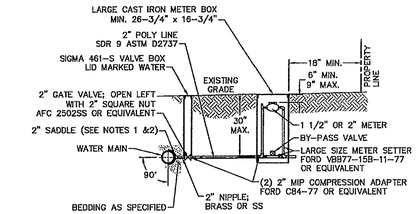
NOTE:
TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPUA WATER SYSTEM

SINGLE SERVICE CONNECTION
NOT TO SCALE



FOR WATER METERS LARGER THAN 2"

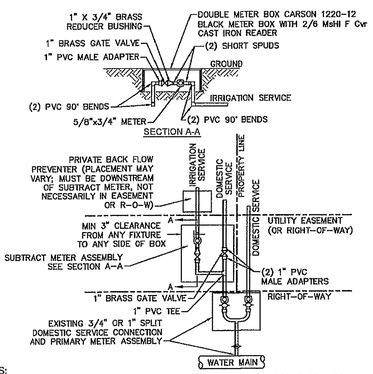
WATER METER VAULT
NOT TO SCALE



NOTES:
1. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: McDONALD 3800, FORD S90 (DOUBLE STRAP) OR EQUIVALENT.
3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (OLDCASTLE PRECAST MODEL B1730 OR APPROVED EQUIVALENT).
4. METER BOXES SUSCEPTIBLE TO INCIDENTAL, NON-DELIBERATE TRAFFIC SHALL CONFORM TO ANSI/SCTE 77 TIER 15 LOAD RATING STANDARDS (SYNERTECH MODEL DUO 17x30 OR APPROVED EQUIVALENT).
5. NON-TRAFFIC METER BOXES SHALL BE SIGMA MB2203 OR APPROVED EQUIVALENT.
6. 3" CLEAN FILL REQUIRED ALL AROUND 2" POLY SERVICE LINE.

FOR 1-1/2" OR 2" WATER SERVICES

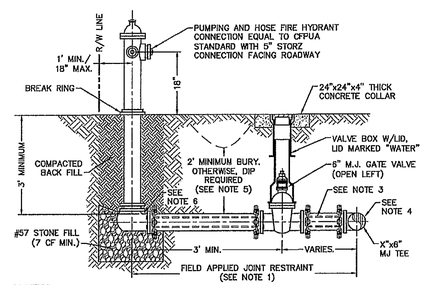
LARGE METER
NOT TO SCALE



NOTES:
1. BEYOND THE PRIMARY DOMESTIC METER ASSEMBLY, CFPUA IS ONLY RESPONSIBLE FOR METER AND WASHERS OF SUBTRACT METER ASSEMBLY.
2. ALL PIPE AND FITTINGS UP TO FINAL SERVICE LINE TO BE 1" EXCLUDING METERS.

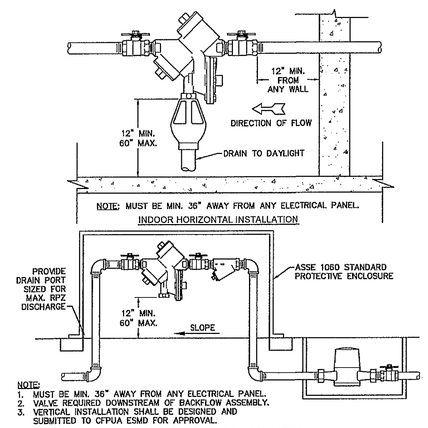
(MULTIPLE DOMESTIC SERVICES PER TAP)

DOUBLE SERVICE CONNECTION USING SUBTRACT METER
NOT TO SCALE



NOTES:
1. JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI OR C-900 PVC PIPE AS MANUFACTURED BY EBAA IRON, SIGMA, STAR PIPE PRODUCTS OR APPROVED EQUAL.
2. WHEN HYDRANT LEGS REQUIRE FULL LENGTH PIPE SECTIONS, OVER BELL RESTRAINT SYSTEM SHALL HAVE 316 STAINLESS STEEL HARNESS AND FASTENERS.
3. CONTINUOUS 316 STAINLESS STEEL RODS (TEE TO VALVE AND VALVE TO HYDRANT) MAY BE USED WITH COR-BLUE MJ T-BOLT AND GASKET KITS, AS AN ALTERNATIVE.
4. HYDRANT TEE SHALL BE RESTRAINED ON EACH SIDE OF MAIN PLUS ANY VALVE, FITTING, OR JOINT IN MAIN WITHIN 10-FEET OF HYDRANT TEE.
5. HYDRANT AND VALVE SHALL BE PLACED OUTSIDE DITCH LIMITS.
6. WEEP HOLES OPEN AND UNBLOCKED TO DRAIN.

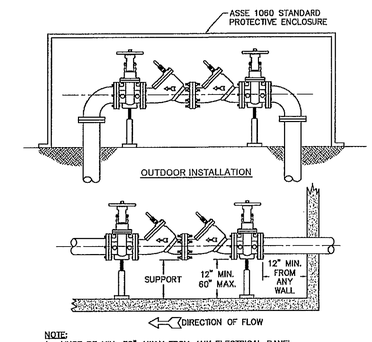
FIRE HYDRANT ASSEMBLY
NOT TO SCALE



NOTE:
1. MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
2. VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
3. VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL.

OUTDOOR HORIZONTAL INSTALLATION

REDUCED PRESSURE PRINCIPLE ASSEMBLY
NOT TO SCALE



NOTE:
1. MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
2. VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
3. VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL

INDOOR INSTALLATION

DOUBLE CHECK VALVE ASSEMBLY
NOT TO SCALE

GENERAL NOTES:
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV:	DESCRIPTION:	DATE:
1	Single Service Connection, Double Service Connection, and Large Meter Revised	10/26/12
2	Single Service Connection and Fire Hydrant Details Revised	7/23/13
3	Fire Hydrant Detail Revised	01/03/14
4	Revised Fire Hydrant Assembly To Show 5" STORZ Connection	04/10/15

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560
Stewardship. Sustainability. Service.

DATE:	1/9/12
SCALE:	N/A
DRAWN BY:	CFPUA
CHECKED BY:	CFPUA
PROJECT NO.:	
SHEET NO:	WSD-1

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning	MD	1-13-15
Traffic	W Smith	1/14/16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed: _____

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

1) PER CITY OF WILMINGTON ENGINEERING COMMENTS	11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

DETAILS
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

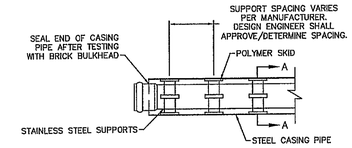
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 10.23.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: YGC

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040501 11.23.15 DANIEL J. FISK

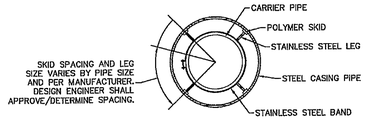
C-7.6

PEI JOB#: 14222.PE



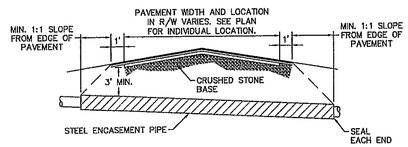
PLAN

NOTE: PIPE SUPPORT TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED. CONTINUOUS SUPPORTS MAY BE USED AS ALTERNATIVE. OIL, GREASE, OR PETROLEUM PRODUCT MAY NOT BE USED AS LUBRICANT.



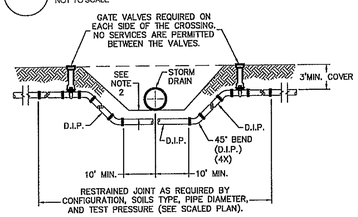
SECTION A-A

WD-15 PIPE CASING SUPPORT DETAIL
NOT TO SCALE



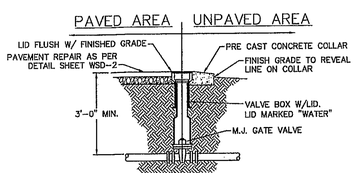
NOTES:
1. CASING WILL BE INSTALLED AT LINE AND GRADE SHOWN ON INDIVIDUAL PROFILE FOR EACH CROSSING. BORING/JACKING TO LINE AND GRADE IS REQUIRED.
2. TRACER WIRE SHALL BE CONTINUED THROUGH CASING.

WD-16 TYPICAL BORING/ JACKING DETAIL
NOT TO SCALE

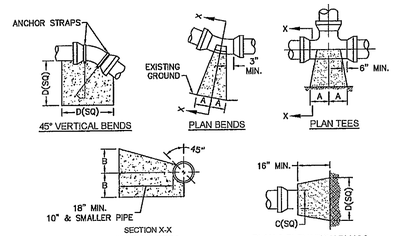


NOTES:
1. USE PRESSURE CLASS 350 DIP, UNLESS SPECIFIED OTHERWISE.
2. MINIMUM DEPTH REQUIRED, UNLESS SPECIFIED OTHERWISE BY CFPUA:
   a. IN DOT R/W, 36" MIN. TYPICAL, OR 24" MIN. WHEN CROSSING A DITCH LINE.
   b. ALL OTHER LOCATIONS, 30" MIN.
   c. WHEN STORM DRAIN INVERT IS BURIED AT OR BELOW ABOVE DEPTHS, 18" MIN. CLEARANCE IS REQUIRED.

WD-2 WATER MAIN DITCH AND STORM DRAIN CROSSING
NOT TO SCALE



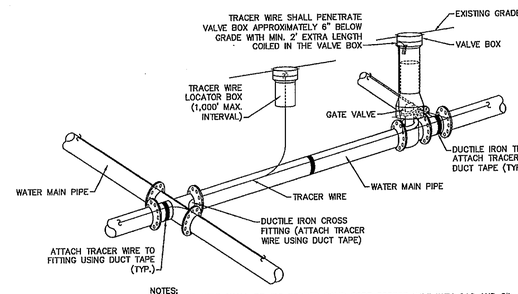
WD-3 VALVE DETAIL
NOT TO SCALE



SIZE	90 BENDS A	90 BENDS B	45 BENDS A	45 BENDS B	22-1/2 BENDS A	22-1/2 BENDS B	TEES/PLUGS A	TEES/PLUGS B	45 VERT. BENDS
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"	16"	16"	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.

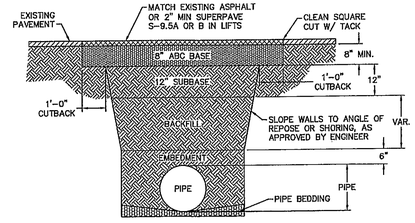
WD-4 THRUST BLOCK DETAIL
NOT TO SCALE



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 FOOT INTERVALS ALONG THE PIPE.
3. SECURE WIRE TO ALL TEE AND CROSS FITTINGS WITH DUCT TAPE.
4. ALL SPLICES IN THE WIRE SHALL BE MADE WITH 3M DBR DIRECT BURY SPLICE KIT AN UNDERGROUND RATED, WATERTIGHT, AND APPROVED SPLICE CONNECTOR OR APPROVED EQUAL.

WD-17 TRACER WIRE DETAIL
NOT TO SCALE

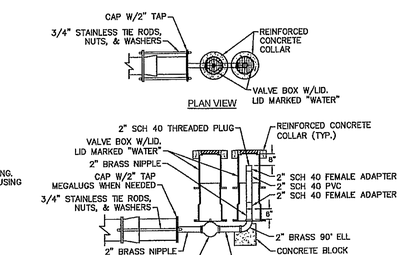
WD-6 SAMPLING STATION
NOT TO SCALE



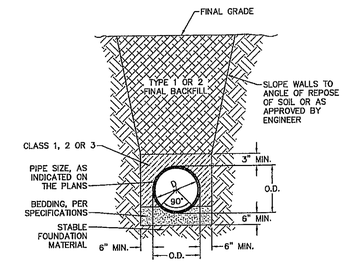
NOTES:
1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
3. 8-INCH OF ABC 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%

(FOR PRIVATE ROADS AND PAVED AREAS; CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)

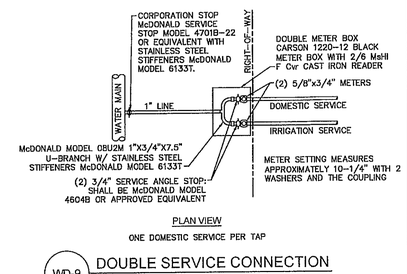
WD-14 PAVEMENT REPAIR WHERE PIPE INSTALLED
NOT TO SCALE



WD-5 2" BLOW-OFF
NOT TO SCALE



WD-13 TYPICAL TRENCH DETAIL
NOT TO SCALE



PLAN VIEW
ONE DOMESTIC SERVICE PER TAP

WD-9 DOUBLE SERVICE CONNECTION
NOT TO SCALE

GENERAL NOTES:
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
3. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
4. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
5. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE 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	Revised Water Main Ditch and Storm Crossing Detail	11/12/13
2	Revised Water Main Ditch and Storm Crossing Detail	05/05/14
3	Revised Tracer Wire Detail	10/20/15

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560
Stewardship. Sustainability. Service.

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

SHEET NO: WSD-2

NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		1-13-15
Traffic		1-14-16
Fire	SF	1-14-16

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 01/14/16 Permit # 2016004
Signed:

FINAL DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:
1) PER CITY OF WILMINGTON ENGINEERING COMMENTS 11.23.15

CLIENT INFORMATION:
Collett - Cameron Properties
2508 Independence Blvd. Suite 202
Wilmington, NC

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

DETAILS
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.12.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TCC

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040507 DANIEL J. FISH
11-23-15

C-7.7

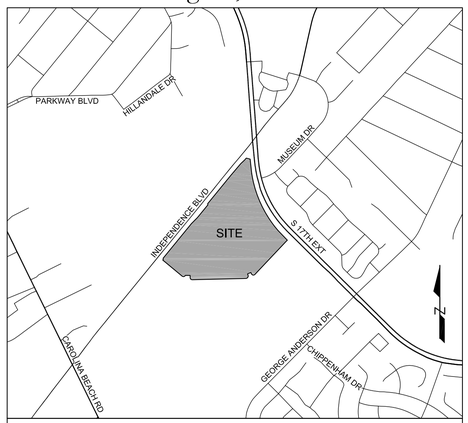
PEI JOB#: 14222.PE

GALLERY PARK
PHASE 1

WILMINGTON, NORTH CAROLINA

MAJOR SITE PLAN TRC/SRB SUBMITTAL SET
JUNE 2015
REVISION JAN. 2016

PROJECT ADDRESS:
3401 INDEPENDENCE BLVD
Wilmington, NC 28412



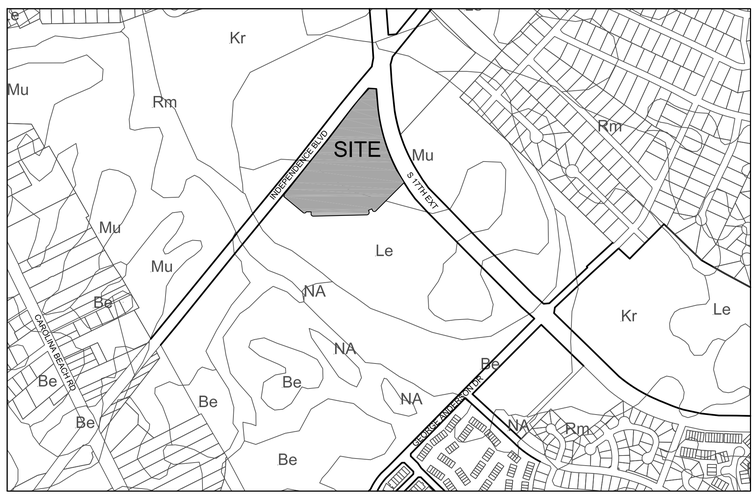
VICINITY MAP
SCALE: 1" = 1000'

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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		



SOILS MAP
SCALE: 1"=500'

NOTICE REQUIRED

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

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

CONTACT "CAROLINA ONE CALL" AT
1-800-632-4949

CONTACT THESE UTILITIES

CITY OF WILMINGTON, DEVELOPMENT SERVICES
ATTN: JIM DIEPENBROCK
PH: 910-341-3257

PIEDMONT NATURAL GAS
ATTN: CARL PAQUET
PH: 910-350-2242

EMERGENCY DIAL 911
POLICE - FIRE - RESCUE

CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)
ATTN: FRANK STYERS
PH: 910-332-6670

DUKE ENERGY PROGRESS
ATTN: KEVIN LEATHERWOOD
PH: 910-602-4304

BELL SOUTH
ATTN: STEVE DAYVAULT
PH: 910-392-8712

TIME WARNER CABLE
PH: 910-763-4638

OWNER:
BARCLAY COMMONS RETAIL, LLC
111 METROPOLITAN AVE SUITE 700
CHARLOTTE NC 28204
ATTN: ADAIR GRAHAM JR. , HILL ROGERS, & RYAN MOSSER

CIVIL ENGINEERS, LAND PLANNERS & LANDSCAPE ARCHITECTS:
PARAMOUNTE ENGINEERING, INC.
5911 OLEANDER DRIVE, SUITE 201
WILMINGTON, NORTH CAROLINA 28403
ATTN: DAN WEEKS, RLA (910) 791-6707

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
C-1.0	GENERAL NOTES
INDEX	SITE PLAN
C-2.0	OVERALL SITE PLAN
C-2.1 - C-2.5	SITE PLAN

PREPARED BY:
PARAMOUNTE ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846
PROJECT # 14222.PE

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
Rev 2 per TRC comments	08/28/15
Rev 3 per TRC comments & SRB approval conditions	12/28/15
Rev 4 per TRC comments & SRB approval conditions	1/5/16

CLIENT INFORMATION:
Barclay Commons Retail, LLC
111 Metropolitan Ave, Suite 700
Charlotte, NC 28204

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

COVER SHEET
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

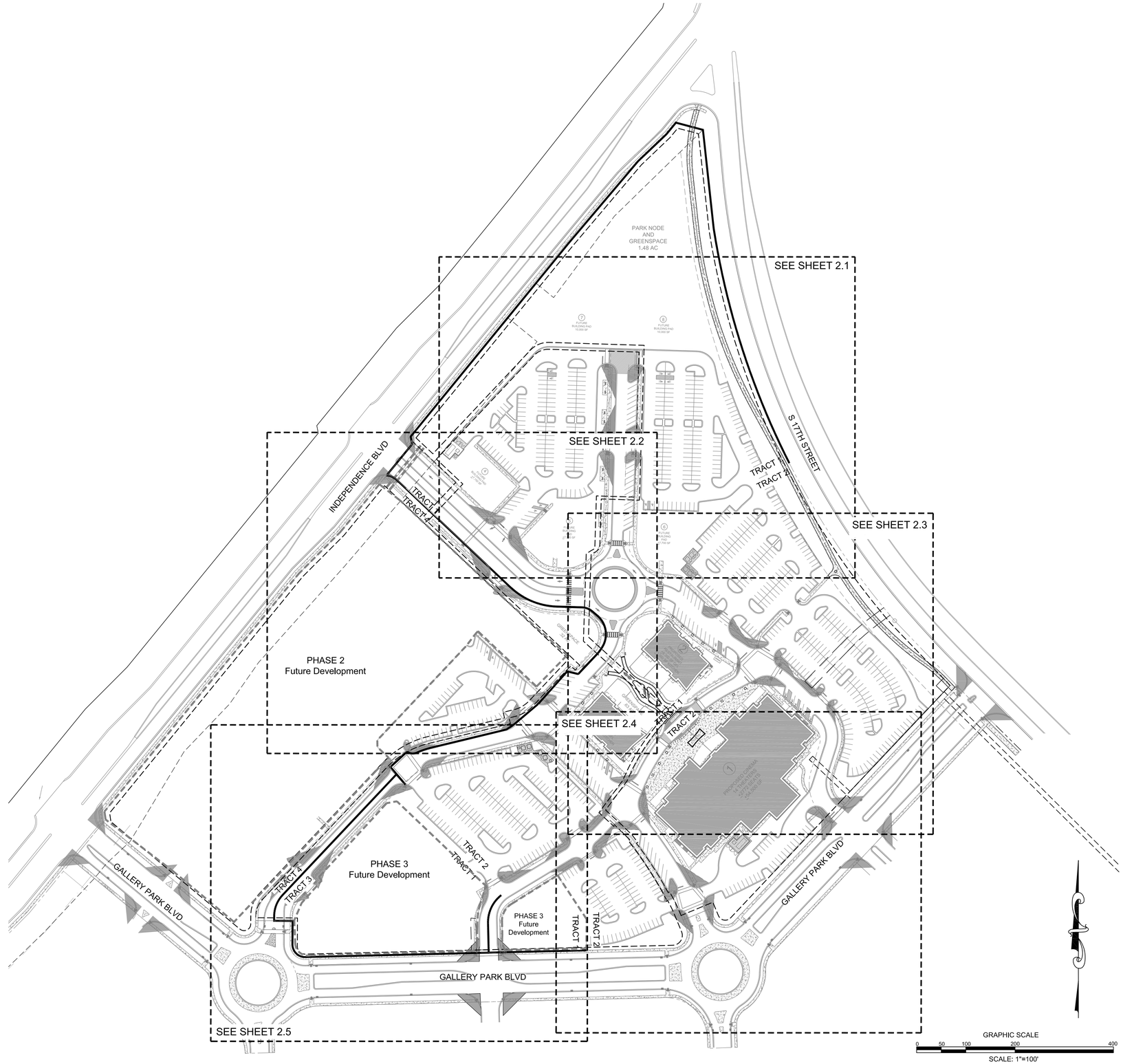
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL LAYOUT:
RELEASED FOR CONST:

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

SEAL

C-0.0

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
Rev 2 per TRC comments	08/28/15
Rev 3 per TRC comments & SRB approval conditions	12/28/15
Rev 4 per TRC comments & SRB approval conditions	1/5/16

CLIENT INFORMATION:
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111 Metropolitan Ave, Suite 700
Charlotte, NC 28204

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

SITE PLAN
INDEX SHEET
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 100'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL

INDEX

PEI JOB#: 14222.PE

COORDINATION NOTES:

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

GENERAL NOTES:

1. TREE INVENTORY AND TOPOGRAPHIC SURVEY COMPLETED BY HANOVER DESIGN SERVICES, P.A. THE SURVEY SHALL BE FIELD VERIFIED BY CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE OWNER, OWNERS REPRESENTATIVE AND/OR PARAMOUNTE ENGINEERING, INC. IMMEDIATELY.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE DOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 1 (800) 632-4949 AN ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.

DEMOLITION NOTES:

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

TRAFFIC NOTES:

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

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

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

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

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUNDCOVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. GROUND COVER SHALL BE PROVIDED ON ALL OTHER DISTURBED AREAS WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK. (NO SEPARATE PAYMENT).
3. THE CONTRACTOR SHALL NOTIFY PLAN APPROVING AUTHORITY ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NEW HANOVER COUNTY FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY EITHER THE REVIEWING AGENCY OR THE ENGINEER. (NO SEPARATE PAYMENT).
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE IMPROVED SHALL BE SODDED OR SEEDED AS INDICATED AND STABILIZED.
10. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.

GENERAL EROSION AND SEDIMENT CONTROL NOTES (CONT.):

11. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
12. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. (NO SEPARATE PAYMENT). NCDENR'S FINAL APPROVAL IS REQUIRED.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. (NO SEPARATE PAYMENT).
14. WHEN CROSSING CREEK OR DRAINAGE-WAY, THE DIVISION OF WATER QUALITY SHALL BE CONTACTED PRIOR TO DISTURBING A CREEK. THE CONTRACTOR SHALL INSTALL RIP-RAP WITH FABRIC ALONG DISTURBED BANKS AND CHANNEL AND RESTORE SLOPES TO ORIGINAL CONTOURS, BUT NOT STEEPER THAN 2:1 MAXIMUM. DISTURBED CREEK AREA SHALL BE STABILIZED IMMEDIATELY.

MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. INLET PROTECTION - INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH 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.
6. SEDIMENT BASIN/SEDIMENT TRAPS - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO WITHIN ONE HALF OF THE DESIGN DEPTH. PLACE SEDIMENT IN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, PIPING, AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
7. SKIMMER - INSPECT SKIMMER AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL TO MAKE SURE THAT THE INTAKE MECHANISM, ORIFICE, OR DISCHARGE PIPE IS NOT CLOGGED WITH TRASH OR SEDIMENT. IF THE BASIN IS DRY, MAKE SURE THAT ANY VEGETATION GROWING ON THE BOTTOM IS NOT HOLDING THE SKIMMER DOWN. TAKE SPECIAL PRECAUTION IN WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.
8. OUTLET PROTECTION - INSPECT RIP RAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
9. EMERGENCY SPILLWAY / FOREBAY PROTECTION - AFTER EVERY HIGH-WATER EVENT INSPECT THE INTEGRITY OF THE LINED SPILLWAY AND THE ADJACENT EARTHEN BANKS. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE. REPAIR ANY VOIDS IN THE RIP RAP LINED APRONS. RE-ESTABLISH ANY LOOSE STONES, AND FIX GAPS IN THE ADJACENT VEGETATIVE COVER.
10. GRASS SWALES - INSPECT SWALES WEEKLY AND AFTER EVERY RAINFALL EVENT. AFTER GRASS HAS BEEN ESTABLISHED INSPECT THE SWALES PERIODICALLY AND AFTER EVERY HEAVY (½ INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. INSPECT THE CHANNEL OUTLET AND ALL ROAD CROSSINGS FOR BANK STABILITY AND EVIDENCE OF PIPING OR SCOUR HOLES. REMOVE ALL SIGNIFICANT SEDIMENT ACCUMULATIONS TO MAINTAIN THE DESIGNED CARRYING CAPACITY. KEEP THE GRASS IN A HEALTHY, VIGOROUS CONDITION AT ALL TIMES, SINCE IT IS THE PRIMARY EROSION PROTECTION FOR THE CHANNEL.

PERMANENT SEEDING SCHEDULE - MIXTURE 5CP

Seeding Mixture

SPECIES	RATE (LB/ACRE)
CENTIPEDE GRASS	10-20

Seeding Dates
MARCH - JUNE

Soil Amendments
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 300 LB/ACRE 10-10-10 FERTILIZER.

Mulch
DO NOT MULCH.

Maintenance
FERTILIZE VERY SPARINGLY--20 LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTIPEDE GRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

TEMPORARY SEEDING-LATE WINTER/EARLY SPRING

Seeding Mixture

WINTER AND EARLY SPRING

SPECIES	RATE (LB/ACRE)
RYE (GRAIN)	120
ANNUAL LESPEDEZA (KOBE IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)	50

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

SUMMER

SPECIES	RATE (LB/ACRE)
GERMAN MILLET	40

FALL

SPECIES	RATE (LB/ACRE)
RYE (GRAIN)	120

Seeding dates
COASTAL PLAIN - DEC.1-APR. 15 - LATE WINTER AND EARLY SPRING
APRIL 15 - AUG. 15 - SUMMER
AUG. 15 - DEC. 30 - FALL

Soil amendments
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

Mulch
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

Maintenance
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

SITE NOTES :

1. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
3. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
4. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
5. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
6. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
7. ALL UTILITIES TO SERVICE PROPOSED STRUCTURE SHALL BE UNDERGROUND ON SITE.
8. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
9. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
10. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER, THE CITY OF WILMINGTON, NEW HANOVER COUNTY, OR CFPUA, RESPECTIVELY.
11. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL" TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
12. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
13. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
14. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE REFLECTIVE MARKINGS AND SHALL CONFORM TO NCDOT. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
15. ALL PARKING LOT DIMENSIONS ARE FROM FACE OF CURB UNLESS NOTED OTHERWISE.
16. LANDSCAPE PLANTINGS AT ENTRANCE/ EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS IN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS PER LOCAL STANDARDS.
17. SEEDING TO BE INSTALLED TO LOCAL REQUIREMENTS & STANDARD PRACTICES.
18. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.
19. PROPERTY OWNER'S ASSOCIATION (POA) WILL BE RESPONSIBLE FOR ALL PRIVATE RIGHT OF WAY AND LANDSCAPE MAINTENANCE WITHIN THE PROJECT.

NC ACCESSIBILITY NOTES:

GENERAL NOTES:

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

ACCESSIBLE ROUTE NOTES:

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

RAMP NOTES:

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

CURB RAMP NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE 36 INCHES (36) MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED. *NOTE NC BUILDING CODE REQUIRES EXTERIOR ACCESSIBLE ROUTES TO BE 48 INCHES MINIMUM WIDE (1104.1 & 1104.2).*
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10%.
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESS AISLES. CURBS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. IT IS RECOMMENDED TO PROVIDE CURB RAMPS WITH A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH 406.12 A117.1, EXTENDING THE FULL WIDTH OF THE RAMP. REFERTO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES. THE NC BUILDING CODE DOES NOT CURRENTLY REQUIRE DETECTABLE WARNINGS AT CURB RAMPS, NOR DO THE 2010 ADA STANDARDS - HOWEVER US DOT ADA REGULATIONS DO REQUIRE THESE.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, ½ INCH WIDE BY ¼ INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

PARKING SPACE NOTES:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESS AISLES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE AISLE. THE AISLE SHOULD BE 96 INCHES WIDE (OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS AISLE IS FIVE FEET). WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
3. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FORACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
5. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPTFOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL BE INSTALLED AT A MINIMUM CLEAR HEIGHT OF SIXTY (60) INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.
13. SIGNAGE AT ACCESSIBLE PARKING SPACES REQUIRED BY THE NC BUILDING CODE SECTION 1106.1SHALL COMPLY WITH THE REQUIREMENTS OF NORTH CAROLINA GENERAL STATUTE 20-37.6 AND 136-30 AND THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES. A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY MUST BE PROVIDED AT EACH ACCESSIBLE SPACE.
14. ACCESSIBLE PARKING SPACE, ACCESS AISLE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE (OR ANOTHER COLOR THAT CAN BE DISTINGUISHED FROM PAVEMENT).

PASSENGER LOADING ZONE NOTES:

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

ACCESSIBLE ENTRANCE NOTES:

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

GENERAL UTILITY NOTES

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

STORM WATER NOTES

1. TOTAL SITE AREA = 1,523,729 SF (34.98 AC)
2. DISTURBED AREA = 1,523,729 SF (34.98 AC)
3. IMPERVIOUS AREA DRAINING TO STORMWATER SYSTEM = 1,070,270 SF (24.57 AC)

WETLAND NOTES:

1) NO WETLANDS EXISTS ON THIS SITE.

ROOF DRAIN NOTE:

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

EXISTING UTILITY NOTES:

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

LEGEND

Symbol	Description
WET	= EXISTING WETLANDS
	= EXISTING PROPERTY LINE
24	= EXISTING CONTOURS
IPF	= IRON PIPE FOUND
IRF	= IRON ROD FOUND
CMF	= CONCRETE MONUMENT
	= TELEPHONE PEDESTAL
UT	= UNDERGROUND TELEPHONE
TR	= TRANSFORMER PEDESTAL (PAD)
	= PROPOSED DROP INLET
	= PROPOSED CURB INLET
	= PROPOSED STORM SEWER
D	= PROPOSED STORM DRAIN MANHOLE
CI-8	= PROPOSED CURB INLET
DI-8	= PROPOSED DROP INLET
MH-8	= PROPOSED STORM DRAIN MANHOLE
PG=49.90	= PROPOSED SPOT ELEVATIONS
35	= PROPOSED CONTOUR
	= PROPOSED DRAINAGE AREAS
	= PROPOSED SILT FENCE
LOD	= PROPOSED LIMITS OF DISTURBANCE
	= PROPOSED TREE PROTECTION FENCING
	= PROPOSED INLET PROTECTION
	= PROPOSED TRAFFIC ARROW
	= PROPOSED WOOD SHADOWBOX FENCE
	= PROPOSED SIGN
SS	= PROPOSED SANITARY SEWER SERVICE
C.O.	= PROPOSED SANITARY SEWER CLEANOUT
	= EX. ASPHALT AREA TO BE MILLED 1-INCH AND OVERLAYED
	= PROPOSED ASPHALT PAVEMENT SECTION
	= PROPOSED CONCRETE CURB & GUTTER

STABILIZATION TIME FRAMES:
*IN THE EVENT THAT THE GOVERNING AGENCIES TIMEFRAME FOR STABILIZATION VARY, CONTRACTOR SHALL MEET THE MORE STRINGENT REQUIREMENT.

NEW HANOVER COUNTY LAND QUALITY STABILIZATION TIME FRAME NOTE:
DENUDED AREAS MUST BE STABILIZED WITH FIFTEEN (15) WORKING DAYS OF CEASE OF ANY PHASE OF ACTIVITY. ALL SLOPES MUST BE STABILIZED WITHIN TWENTY-ONE (21) CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY. THIS INCLUDES SLOPES, SWALES, CHANNELS AND STOCKPILES.

NPDES WATER QUALITY STABILIZATION TIME FRAMES

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' 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' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:____________ Permit #____________
Signed: ____________________

Know what's below. Call before you dig.

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

NCDENR PWSS WATER PERMIT #: ____________
WATER CAPACITY: ____________ GPD
DWQ SEWER PERMIT #: ____________
SEWER CAPACITY: ____________ GPD
SEWER SHED # AND PLANT: ____________
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

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

REVISIONS:

Revision	Date
Rev 1 per TRC comments	08/14/15
Rev 2 per TRC comments	08/28/15
Rev 3 per TRC comments & SRB approval conditions	12/28/15
Rev 4 per TRC comments & SRB approval conditions	1/5/16

CLIENT INFORMATION:
Barclay Commons Retail, LLC
111 Metropolitan Ave, Suite 700
Charlotte, NC 28204

PARAMOUNTE ENGINEERING, INC.
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GENERAL NOTES

THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.14.15
SCALE: AS NOTED
DESIGNED: DJF
DRAWN: DJF
CHECKED: TGC

SEAL

C-1.0

PEI JOB#: 14222.PE

SITE INFORMATION

PARCEL ID:	R06500-003-004-000
CURRENT ZONING:	RB-CD & O&I -1-CD
PROPOSED USE:	MIXED USE
TOTAL SITE AREA:	34.98 ACRES
OWNER INFORMATION:	BARCLAY COMMONS RETAIL, LLC 111 METROPOLITAN AVE, SUITE 700 CHARLOTTE, NC 28204
FLOOD INFORMATION:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720312500J,DATED APRIL 3, 2006
CAMA LAND USE CLASSIFICATION:	URBAN
DRAINAGE EASEMENTS:	MB 51 PG 9-13
TOTAL IMPERVIOUS AREA:	
EXISTING (GALLERY PARK BLVD PLANS):	2,177 SF
BUILDINGS & OUTDOOR COURTYARDS:	74,395 SF
PAVEMENT:	524,716 SF
SIDEWALKS:	61,738 SF
FUTURE:	421,465 SF
	TOTAL 1,084,491 SF (24.9 AC, 71.2%)
ZONING ACREAGE:	RB-CD: 34.21 AC O&I 1-CD: 0.77 AC

PHASE 1 TABULATIONS

- TOTAL PH 1 AREA:	27.75 AC
- TOTAL BUILDING SF:	± 74,101 SF
THEATER SF:	± 55,501 SF
BUILDING 1:	± 9,300 SF
BUILDING 2:	± 9,300 SF
- BUILDING COVERAGE:	±28 AC/ 74,101 SF = 17% COVERAGE

DIMENSIONAL REQUIREMENTS

RB - REGIONAL BUSINESS

- MINIMUM LOT AREA:	1 ACRE
- MINIMUM LOT WIDTH:	100'
- MAXIMUM LOT COVERAGE:	40%
- MINIMUM FRONT SETBACK:	0' (RB-CD)
- MINIMUM REAR SETBACK:	15'
- MINIMUM INTERIOR SIDE SETBACK:	0'
- MINIMUM CORNER LOT SIDE SETBACK:	25'
- MAXIMUM BUILDING HEIGHT:	35'

O&I-1 - OFFICE & INSTITUTIONAL 1

- MINIMUM LOT AREA:	15,000 SF
- MAXIMUM LOT COVERAGE:	40%
- MINIMUM LOT WIDTH:	80'
- MINIMUM FRONT SETBACK:	20'
- MINIMUM REAR SETBACK:	20'
- MINIMUM INTERIOR SIDE SETBACK:	10'
- MINIMUM CORNER LOT SIDE SETBACK:	20'
- MAXIMUM BUILDING HEIGHT:	45'

PHASE 1 PARKING DATA

TOTAL PH 1 PARKING REQUIRED:		**863 SPACES**
THEATER PARKING REQUIRED:	1 SPACE/ 4 SEATS; 2,822 SEATS/4 =	705 SPACES
BLDG 2 & 3 RESTAURANT PARKING REQUIRED:	1 SPACE/ 80 SF - KITCHEN AREA; 18,600 SF - 6,000 SF = 12,600 SF/ 80 SF =	158 SPACES
TOTAL PH 1 PARKING PROVIDED SPACES:		**940 SPACES**
TOTAL ADA COMPLIANT SPACES REQUIRED:	19 SPACES INCLUDING 3 VAN SPACES (940 x 2%=19 SPACES; 1/6 SPACES= 3 VAN SPACES)	
TOTAL ADA COMPLIANT SPACES PROVIDED:	20 SPACES INCLUDING 6 VAN SPACES (DISTRIBUTED TO SHARE PARKING ACROSS PH 1)	

PHASE 1 TRACT BREAK OUT PARKING SUMMARY:

TRACT 1

TOTAL BUILDING SF:	61,150 SF (ESTIMATED)
BLDG 2 & 3:	18,600 SF
FUTURE BLDG 4-8:	42,550 SF (FUTURE BLDG SF ESTIMATED)
TRACT 1 PARKING SPACES PROVIDED:	404 SPACES (PLANNED IN PHASE 1 CONSTRUCTION TO BLDG 2,3 AND SHARE PARKING WITH CINEMA)

TRACT 2 (CINEMA)

BUILDING 1 SF:	55,501 SF
PARKING SPACES:	536 SPACES

TOTAL ESTIMATED PH 1 BUILDING SF:	116,651 SF TOTAL
TOTAL PARKING SPACES:	940 SPACES TOTAL
TOTAL HANDICAP SPACES REQUIRED:	19 SPACES INCLUDING 3 VAN SPACES
TOTAL PROVIDED:	20 SPACES INCLUDING 6 VAN SPACES (DISTRIBUTED TO SHARE PARKING ACROSS PH 1)
TOTAL BIKE PARKING REQUIRED:	20 SPACES PER CITY ORDINANCE SECTION 18-528F
TOTAL BIKE PARKING PROVIDED:	20 SPACES PROVIDED

GENERAL ZONING AND PERMITTING NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NEW HANOVER COUNTY APPROVED PLANS, STANDARDS, AND SPECIFICATIONS.
2. LIMITS OF DISTURBANCE:
   PREVIOUSLY PERMITTED = 46.45 AC (19.67 AC + 26.78 AC)
   ADDITIONAL = 24.71 AC (21.70 AC + 3.01 AC)
   TOTAL = 71.16 AC PERMITTED WITH APPROVED EROSION CONTROL PLANS
3. CONTRACTOR SHALL GAIN ACCESS TO SITE THROUGH THE EXISTING CONSTRUCTION ENTRANCE ALONG GEORGE ANDERSON DRIVE AND LIMITS OF DISTURBANCE DEPICTED ON THE BARCLAY WEST GALLERY PARK BOULEVARD PLANS PREPARED BY HANOVER DESIGN SERVICES DATED 04.21.15 LAST REVISED 06.09.15 UNTIL INGRESS / EGRESS IS ALLOWED AND APPROVED ALONG FUTURE GALLERY PARK BOULEVARD.
4. IT IS POSSIBLE THAT CONSTRUCTION OF GALLERY PARK BOULEVARD MAY BE ONGOING AT THE TIME OF CLEARING AND MASS GRADING CONSTRUCTION AS DEPICTED ON THESE PLANS, CONTRACTOR SHALL COORDINATE WITH OWNER / OWNER'S REPRESENTATIVE SCHEDULE AND CONSTRUCTION ACTIVITIES TO MINIMIZE DELAYS OR INTERFERENCE WITH ANY OTHER CONTRACTORS OR SUBCONTRACTORS.
5. PER HANOVER DESIGN SERVICES, P.A. SURVEY AND PLANS DATED 04.21.15 LAST REVISED 06.09.15, "404 WETLANDS DO NOT EXIST ON SITE PER U.S. CORPS OF ENGINEERS DETERMINATION. SEE ACTION SAW-2012-01938. DETERMINATION EXPIRATION DATE 01-18-2018."
6. PERMITTED EROSION CONTROL LIMITS OF DISTURBANCE TAKEN FROM BARCLAY WEST GALLERY PARK BOULEVARD PLANS PREPARED BY HANOVER DESIGN SERVICES, P.A. DATED 04.21.15 LAST REVISED 06.09.15.
7. THE PROPOSED GALLERY PARK BOULEVARD AND WET DETENTION POND AS SHOWN HAVE BEEN TAKEN FROM A CAD FILE PROVIDED BY HANOVER DESIGN SERVICES, P.A. ON 06.04.15. ALL GRADE TIE-INS, ROAD CONNECTIONS, AND UTILITY CONNECTIONS SHALL BE FIELD VERIFIED TO CONFIRM THAT THE AS-BUILT CONDITIONS MATCH THE DESIGN CONDITIONS AS DEPICTED. CONTRACTOR SHALL CONTACT THE OWNER AND ENGINEER WITH ANY DISCREPANCIES.
8. FOR ADDITIONAL INFORMATION PERTAINING TO THE COMMERCIAL TRACTS, REFERENCE PARAMOUNTE ENGINEERING PLANS PREVIOUSLY SUBMITTED TO THE CITY OF WILMINGTON INCLUDING: TRC PLANS, STORMWATER PLANS, CFPUA UTILITY PLANS, AND EROSION CONTROL PLANS.

CITY STANDARD NOTES

1. 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.
2. 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.
3. 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.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND /OR NCDOT STANDARDS.
5. ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING TO REQUEST INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
6. 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.
7. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS
14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. IN CERTAIN CASES ENTIRE RESURFACING OF THE OPEN CUT AREA MAY BE REQUIRED.
15. ANY BROKEN OR MISSING SIDEWALK OR DRIVEWAY PANELS OR CURBING WILL BE REPLACED.
16. CONTACT THE CITY AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
18. PROJECT SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITY AUTHORITY CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
19. IF THE 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.
20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 343-3910 FOR INFORMATION.
21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.
23. CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATION, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
24. CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
25. UNDERGROUND FIRE LINES 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 910.341.0698.
26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
27. CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO ANY DIGGING, CLEARING OR GRADING.
28. ANY PVC MAINS ARE TO BE MARKED WITH NO.10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPE WITH DUCT TAPE, AND STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS, ACCESSIBLE IN ALL VALVE AND METER BOXES. ALL WATER MAINS ARE TO HAVE A MINIMUM OF 3' COVER.

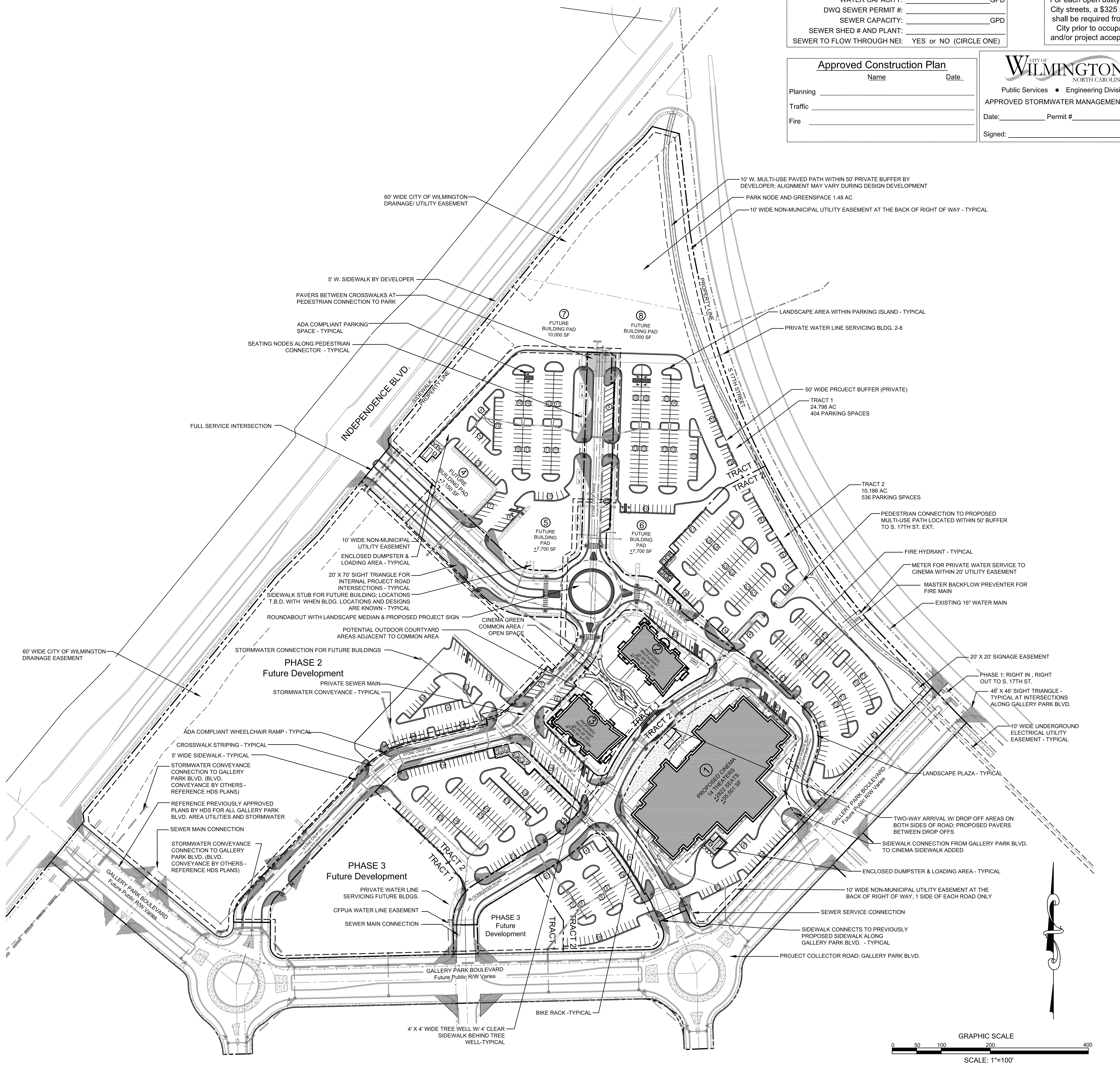
NCDENR PWSS WATER PERMIT #:	________________
WATER CAPACITY:	________________GPD
DWQ SEWER PERMIT #:	________________
SEWER CAPACITY:	________________GPD
SEWER SHED # AND PLANT:	________________
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:__________ Permit #__________
Signed: __________________



PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
Rev 2 per TRC comments	08/28/15
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NC License #: C-2846

OVERALL SITE PLAN

THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

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

DRAWING INFORMATION

DATE:	06.10.15
SCALE:	1" = 100'
DESIGNED:	DHW
DRAWN:	JCM
CHECKED:	AHE

SEAL

C-2.0

PEI JOB#: 14222.PE

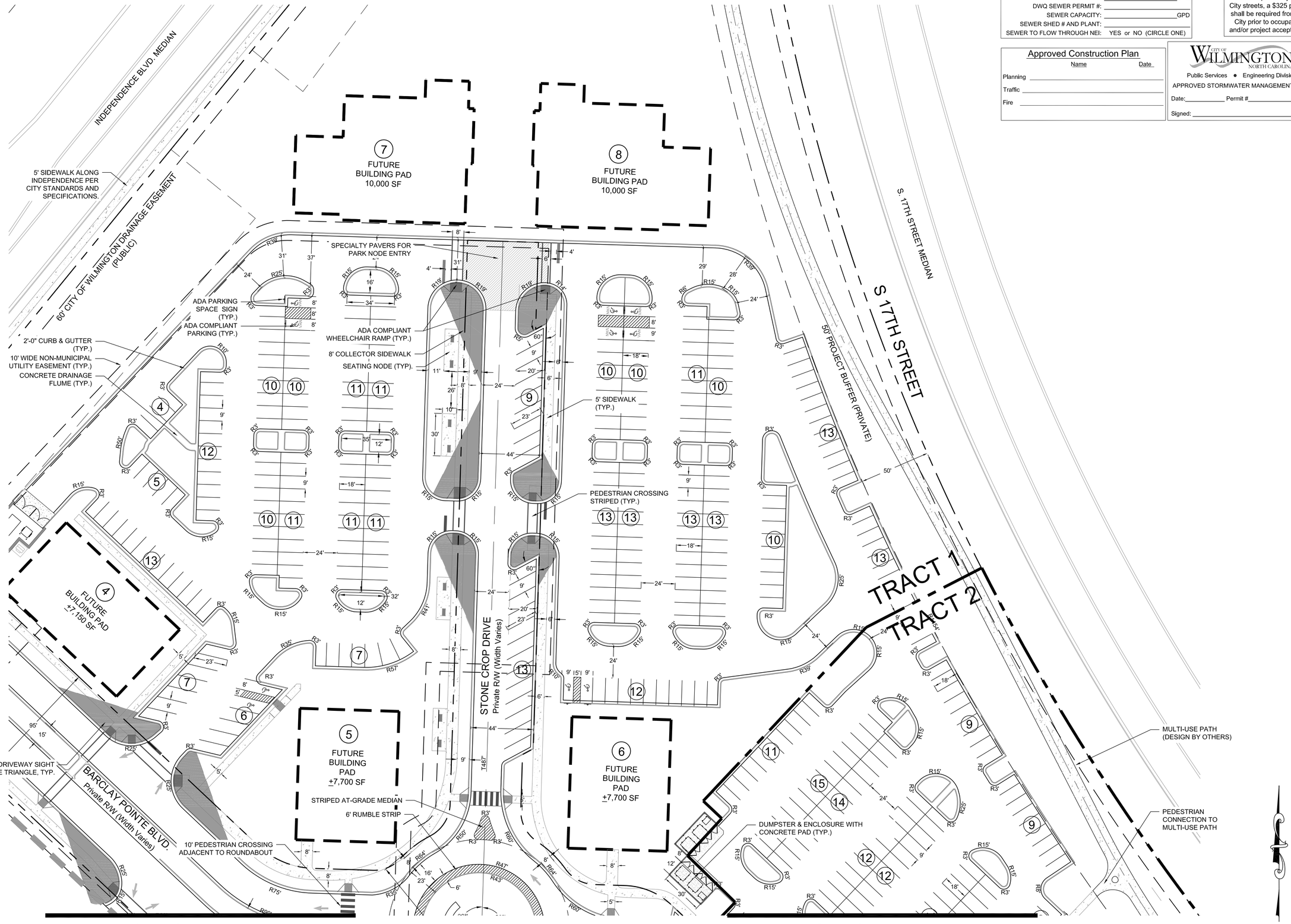
NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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



SEE SHEET 2.2

SEE SHEET 2.3

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
Rev 2 per TRC comments	08/28/15
Rev 3 per TRC comments & SRB approval conditions	12/28/15
Rev 4 per TRC comments & SRB approval conditions	1/5/16

CLIENT INFORMATION:
Barclay Commons Retail, LLC
111 Metropolitan Ave, Suite 700
Charlotte, NC 28204

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

SITE PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

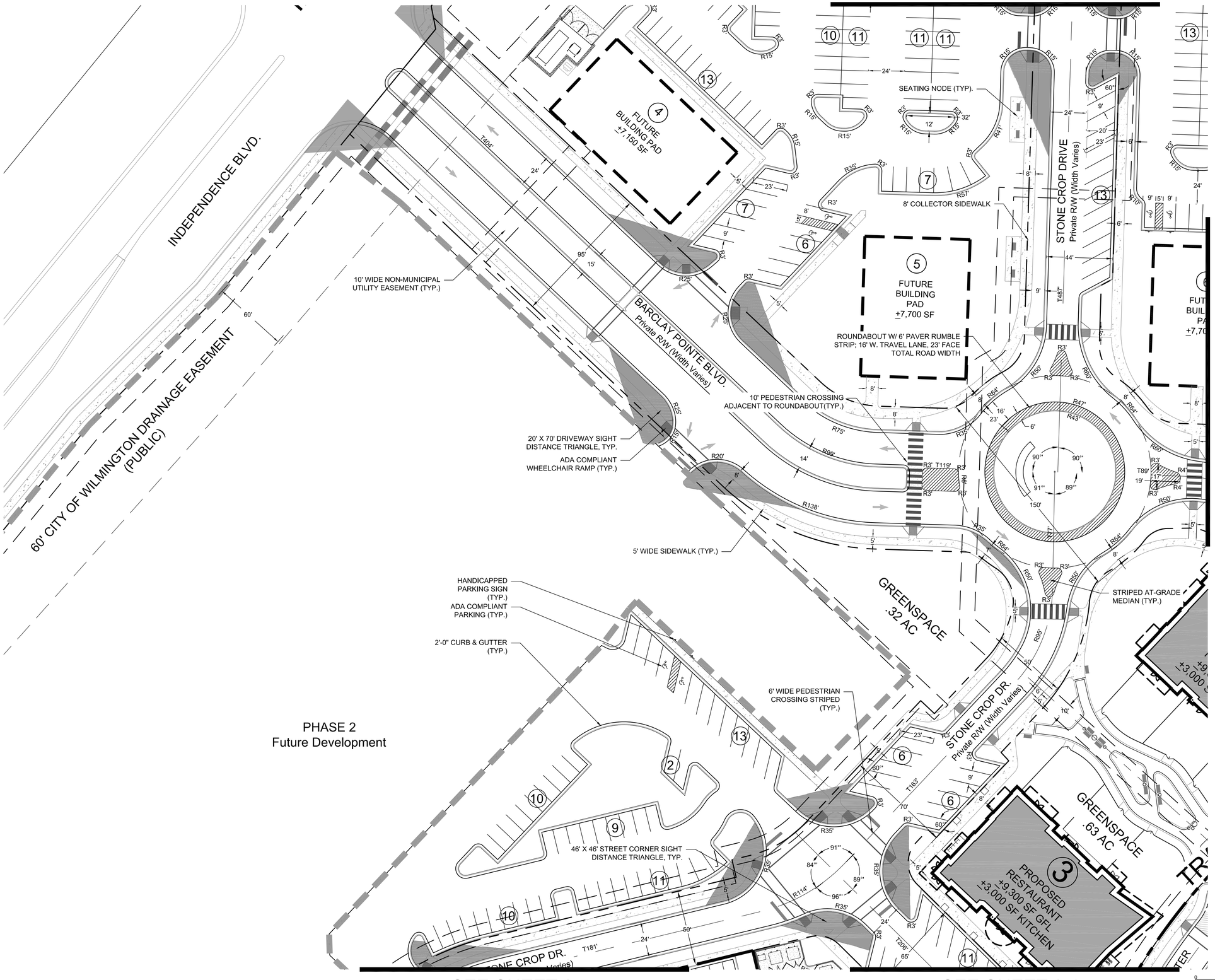
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
REVISED FOR REVIEW:
RELEASED FOR CONST:

DRAWING INFORMATION
SCALE: 1"=30'
DATE: 08.14.15
DESIGNED: RJK
DRAWN: DMW
PROJ. MGR: JCM
CHECKED: AWE

SEAL

C-2.1

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
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SITE PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

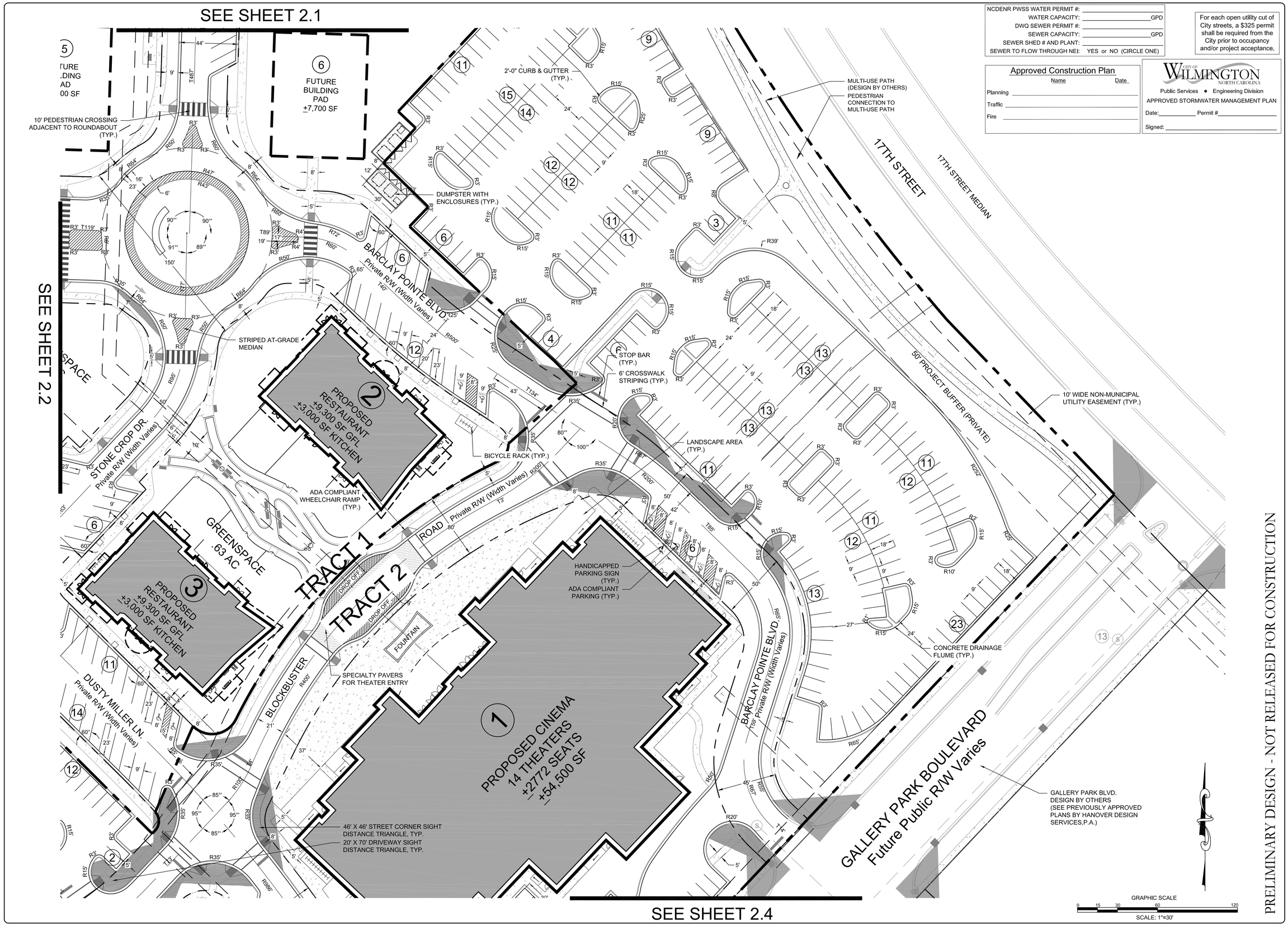
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL

C-2.2

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
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SITE PLAN
THE POINTE AT BARCLAY
'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

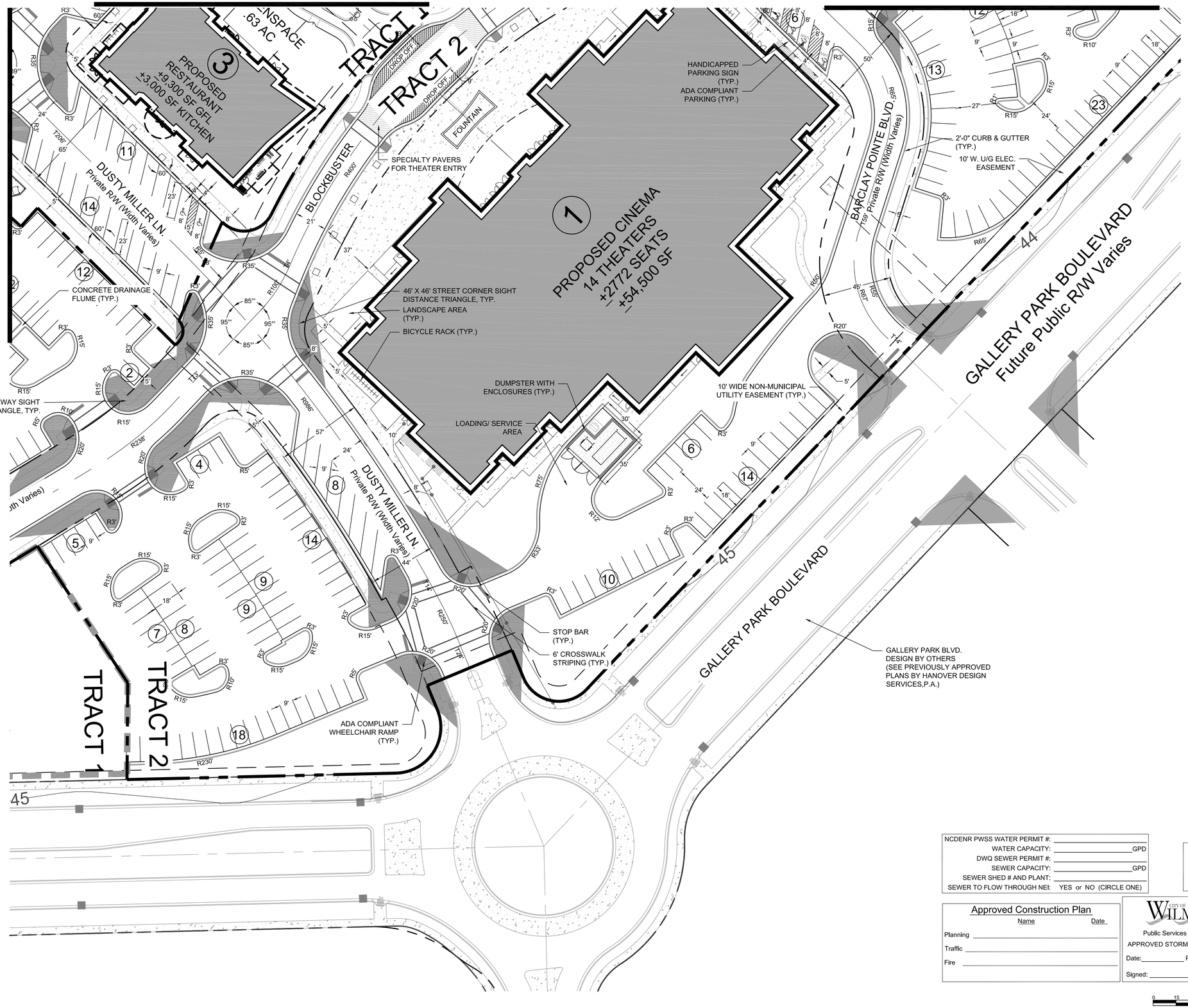
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL

C-2.3

PEI JOB#: 14222.PE



NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

Rev 1 per TRC comments	08/14/15
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'BARCLAY WEST TRACT B'
CITY OF WILMINGTON
NORTH CAROLINA

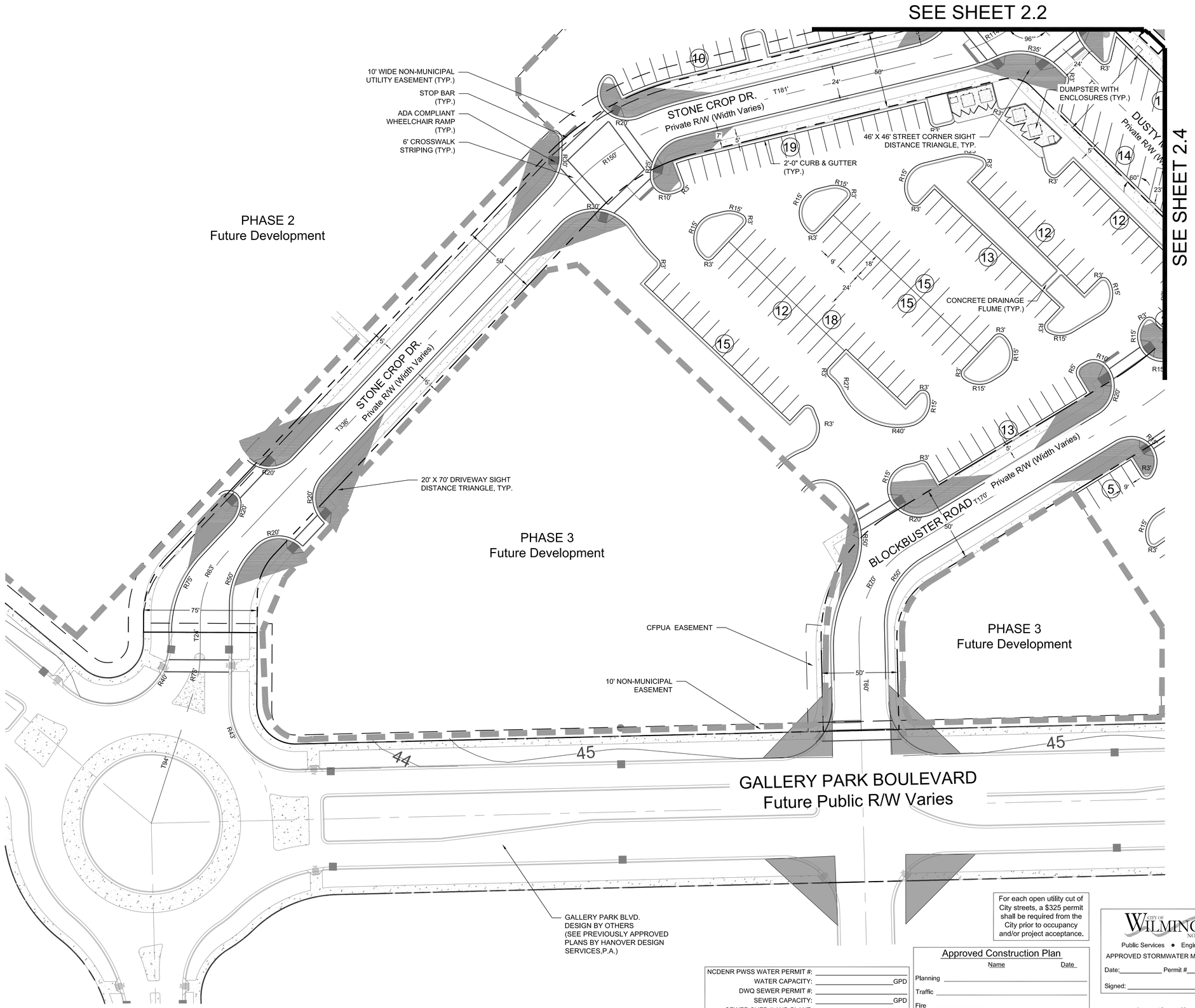
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL

C-2.4

PEI JOB#: 14222.PE



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NCDENR PWSS WATER PERMIT #: _____
WATER CAPACITY: _____ GPD
DWQ SEWER PERMIT #: _____
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

GRAPHIC SCALE
0 15 30 60 120
SCALE: 1"=30'

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NORTH CAROLINA

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

DRAWING INFORMATION
DATE: 09.14.15
SCALE: 1" = 30'
DESIGNED: DHW
DRAWN: JCM
CHECKED: AHE

SEAL

C-2.5

PEI JOB#: 14222.PE