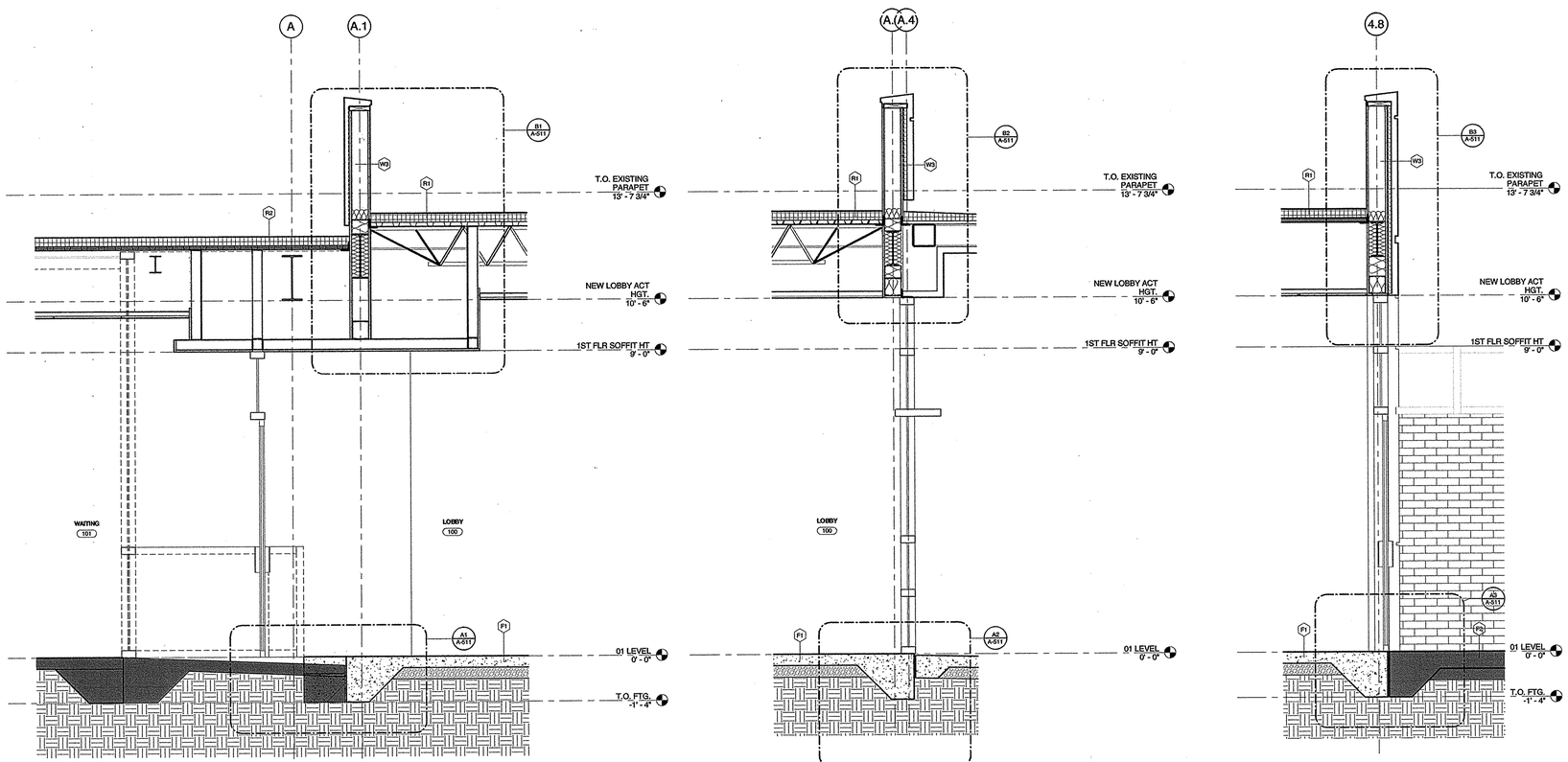

A1 NORTH/SOUTH SECTION THRU LOBBY
3/4" = 1'-0"

A2 EAST/WEST SECTION THRU LOBBY
3/4" = 1'-0"

A3 EAST WALL OF LOBBY
3/4" = 1'-0"

NHC HEALTH DEPARTMENT

Your Health Our Priority
NEW HANOVER COUNTY HEALTH DEPARTMENT

PUBLIC HEALTH CLINIC RENOVATIONS

LS3P

227 WEST TRADE STREET SUITE 700
CHARLOTTE, NORTH CAROLINA 28202
TEL. 704.333.6686 FAX 704.333.2926
WWW.LS3P.COM

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REVISIONS:

No.	Description	Date

PROJECT: 7401-130680
DATE: 09/04/13
DRAWN BY: Author
CHECKED BY: Checker

WALL SECTIONS

A-351

PERMIT/BID SET

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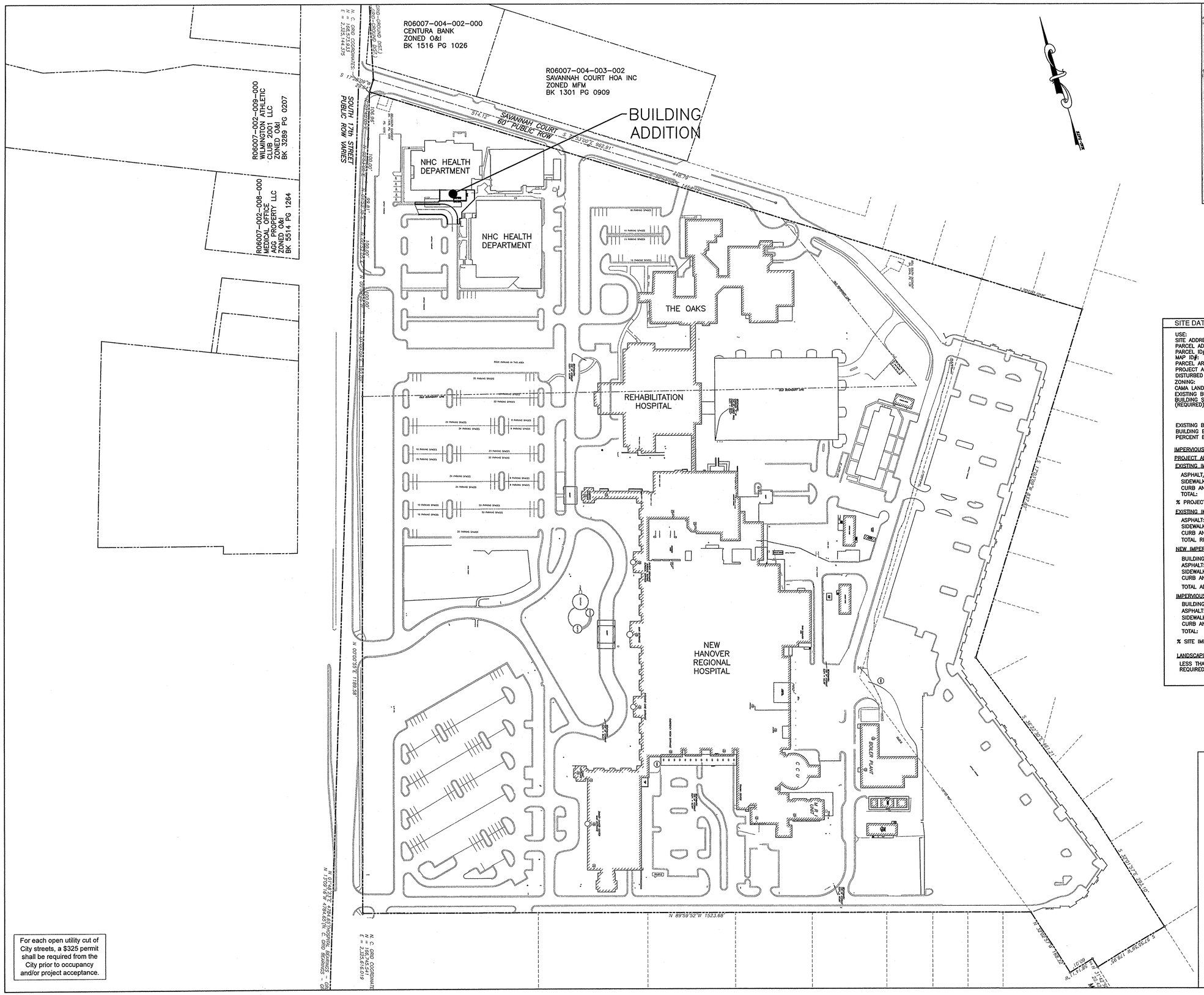

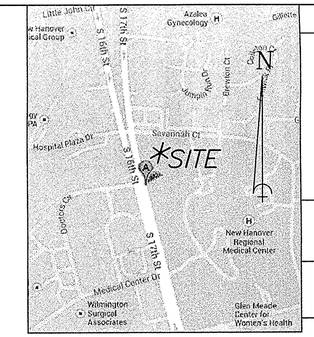

VICINITY MAP (N.T.S)

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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OVERALL SITE PLAN

PUBLIC HEALTH CLINIC RENOVATIONS
NHC HEALTH DEPARTMENT
2023 S. 17TH STREET
WILMINGTON, N. C.

SITE DATA TABLE

USE:	NEW HANOVER COUNTY PUBLIC HEALTH CLINIC
SITE ADDRESS:	2023 S. 17TH STREET
PARCEL ADDRESS:	2135 S. 17TH STREET
PARCEL ID#:	R06011-004-001-000
MAP ID#:	312607.57.9873.000
PARCEL AREA:	59.69 AC
PROJECT AREA:	0.22 AC (9,620 SF)
DISTURBED AREA:	0.17 AC (7409.10 SF)
ZONING:	O&I-1 OFFICE AND INSTITUTIONAL
CAMA LAND USE:	URBAN
EXISTING BUILDING AREA:	16,100 SF
BUILDING SETBACKS: (REQUIRED)	FRONT SETBACK: 20' INTERIOR SIDE SETBACK: 10' CORNER SIDE SETBACK: 20' REAR SETBACKS: 20'
EXISTING BUILDING AREA:	16,100 SF
BUILDING EXPANSION AREA:	1,560 SF
PERCENT EXPANSION AREA:	9.69%

IMPERVIOUS AREA:

PROJECT AREA: 9,620 SF (0.22 AC)

EXISTING IMPERVIOUS AREA:

ASPHALT/MODULAR OFFICE:	3,209 SF
SIDEWALK:	2,660 SF
CURB AND GUTTER:	445 SF
TOTAL:	6,314 SF
% PROJECT IMPERVIOUS AREA:	65.63%

EXISTING IMPERVIOUS AREA REMOVED:

ASPHALT:	2,233 SF
SIDEWALK:	2,426 SF
CURB AND GUTTER:	445 SF
TOTAL REMOVED:	5,104 SF

NEW IMPERVIOUS AREA ADDED:

BUILDING:	1,560 SF
ASPHALT:	2,302 SF
SIDEWALK:	2,006 SF
CURB AND GUTTER:	323 SF
TOTAL ADDED:	6,191 SF

IMPERVIOUS AREA AFTER DEVELOPMENT:

BUILDING:	1,560 SF
ASPHALT:	3,278 SF
SIDEWALK:	2,240 SF
CURB AND GUTTER:	323 SF
TOTAL:	7,401 SF
% SITE IMPERVIOUS AREA:	76.93%

LANDSCAPING REQUIRED:

LESS THAN 10% EXPANSION AREA – NO ADDITIONAL LANDSCAPING REQUIRED

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 DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

SCALE: 1" = 100'
0 100 200 300

OWNER/DEVELOPER
NEW HANOVER COUNTY
WILMINGTON, NC

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nteng.com
licence #C-3641

13025

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	10/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C0

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SOUTH 17th STREET
PUBLIC ROW VARIES

SAVANNAH COURT
60' PUBLIC ROW

PROJECT AREA

REMOVE EXISTING MODULAR OFFICE, WOOD STEPS AND RAMP.

OLD SOUTHEASTERN CENTER BUILDING
FFE=43.00'
16,100 SF±

REMOVE EXISTING WALK WAY AND COVER.

EXISTING TREE TO BE SAVED AND PROTECTED.

RELOCATE EXISTING BIKE RACK.

EXISTING TREES TO BE SAVED AND PROTECTED.

REMOVE EXISTING CURB AND GUTTER AND INSTALL NEW 24" CURB AND GUTTER TO MATCH GRADES SHOWN ON SHEET C2.

EXISTING TREE TO BE SAVED AND PROTECTED.

REMOVE EXISTING JUNCTION BOX, CATCH BASIN AND STORM DRAIN PIPE.

REMOVE SECTION OF EXISTING 3" WATER SERVICE LINE. SEE NOTE ON SHEET C3.

RHA BEHAVIORAL HEALTH SERVICES
FFE=44.67'

EXISTING TREE TO BE SAVED AND PROTECTED.

REMOVE EXISTING CONCRETE SIDEWALK AND REPLACE AS SHOWN ON SHEET C3.

REMOVE EXISTING ASPHALT PAVEMENT

NEW HANOVER COUNTY HEALTH DEPARTMENT
FFE=46.25'

PROJECT AREA/DISTURBED AREA.

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

SYMBOL	DATE	DESCRIPTION	BY

REVISIONS

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EXISTING CONDITIONS AND DEMOLITION PLAN

PUBLIC HEALTH CLINIC RENOVATIONS
NHC HEALTH DEPARTMENT
2023 S. 17TH STREET
WILMINGTON, N. C.

OWNER/DEVELOPER
NEW HANOVER COUNTY
WILMINGTON, NC

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
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WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nteng.com
licence #C-3641

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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

SCALE: 1" = 20'
0 20 40 60

13025

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	10/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN P. TUNSTALL

C1

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SOUTH 17th STREET
PUBLIC ROW VARIES

SAVANNAH COURT
60' PUBLIC ROW

OLD SOUTHEASTERN CENTER BUILDING
FFE=43.00'
16,100 SF±

RHA BEHAVIORAL HEALTH SERVICES
FFE=44.67'

NEW HANOVER COUNTY HEALTH DEPARTMENT
FFE=46.25'

BUILDING ADDITION
1,560 SF±
FFE=43.00'

TAPER NEW CURB AND GUTTER TO BE FLUSH WITH TURNDOWN WALK IN 10'.

INSTALL NEW JUNCTION BOX.
T=42.5±
I=EXIST.

NEW 24" CURB AND GUTTER TO MATCH EXISTING

DISTURBED AREA

TIE NEW CONCRETE WALK INTO EXISTING WALK. SLOPE CANNOT EXCEED 2% FROM BUILDING 5 FT. OUT, THEN SLOPE MUST BE LESS THAN 5%.

INSTALL INLET PROTECTION AT EXISTING CATCH BASIN.

NEW CONCRETE SIDEWALK.

ASPHALT FLUSH WITH TURN DOWN WALK FROM POINT "A" TO "B". SEE DETAIL.

TIE NEW SIDEWALK INTO EXISTING.

TIE NEW ASPHALT INTO EXISTING.

CANOPY

REMOVE AND REPLACE EXISTING ABC STONE AND ASPHALT. SEE SECTION.

INSTALL INLET PROTECTION AT EXISTING CATCH BASIN.

TAPER NEW CURB AND GUTTER TO BE FLUSH WITH TURNDOWN WALK IN 10'.

TIE NEW SIDEWALK INTO EXISTING.

TIE NEW ASPHALT INTO EXISTING.

SANITARY SEWER LINE APPROXIMATED FROM A PLAN FURNISHED BY NORRIS & TUNSTALL ENGINEERS

ASPHALT PARKING

BELLSOUTH EASEMENT 1075

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 DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan
Name Date
Planning_____
Traffic_____
Fire_____

SCALE: 1" = 20'
0 20 40 60

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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GRADING, DRAINAGE AND EROSION CONTROL PLAN

PUBLIC HEALTH CLINIC RENOVATIONS
NHC HEALTH DEPARTMENT
2023 S. 17TH STREET
WILMINGTON, N. C.

OWNER/DEVELOPER
NEW HANOVER COUNTY
WILMINGTON, NC

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
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WILMINGTON, NC 28403
PHONE (910) 343-9653
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office@nteng.com
licence #C-3641

13025

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	10/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C2

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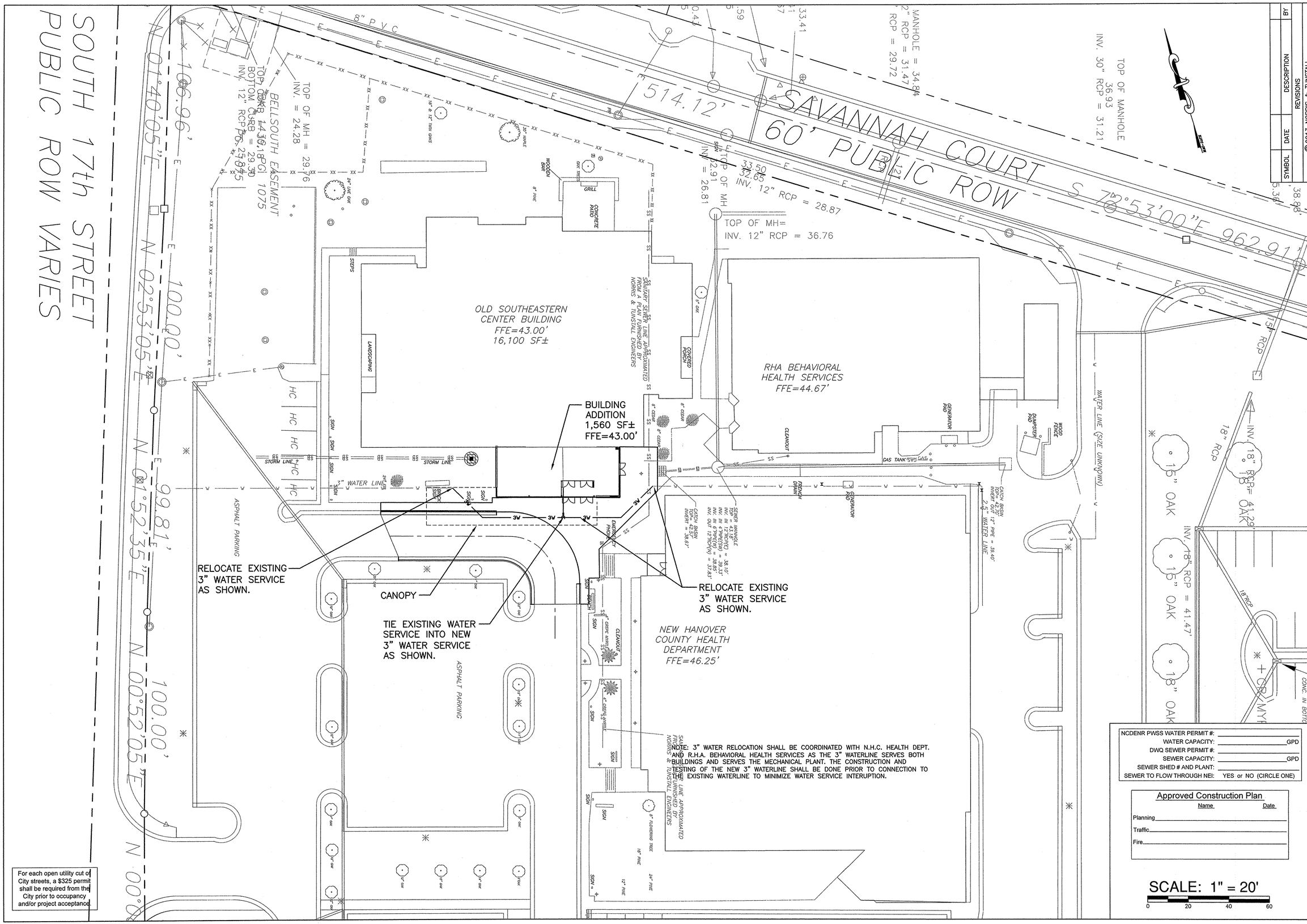

For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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UTILITY PLAN

PUBLIC HEALTH CLINIC RENOVATIONS
NHC HEALTH DEPARTMENT
2023 S. 17TH STREET
WILMINGTON, N. C.

OWNER/DEVELOPER
NEW HANOVER COUNTY
WILMINGTON, NC

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@ntengr.com
licence #C-3641

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		

SCALE: 1" = 20'
0 20 40 60

13025

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	10/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN P. TUNSTALL

C3

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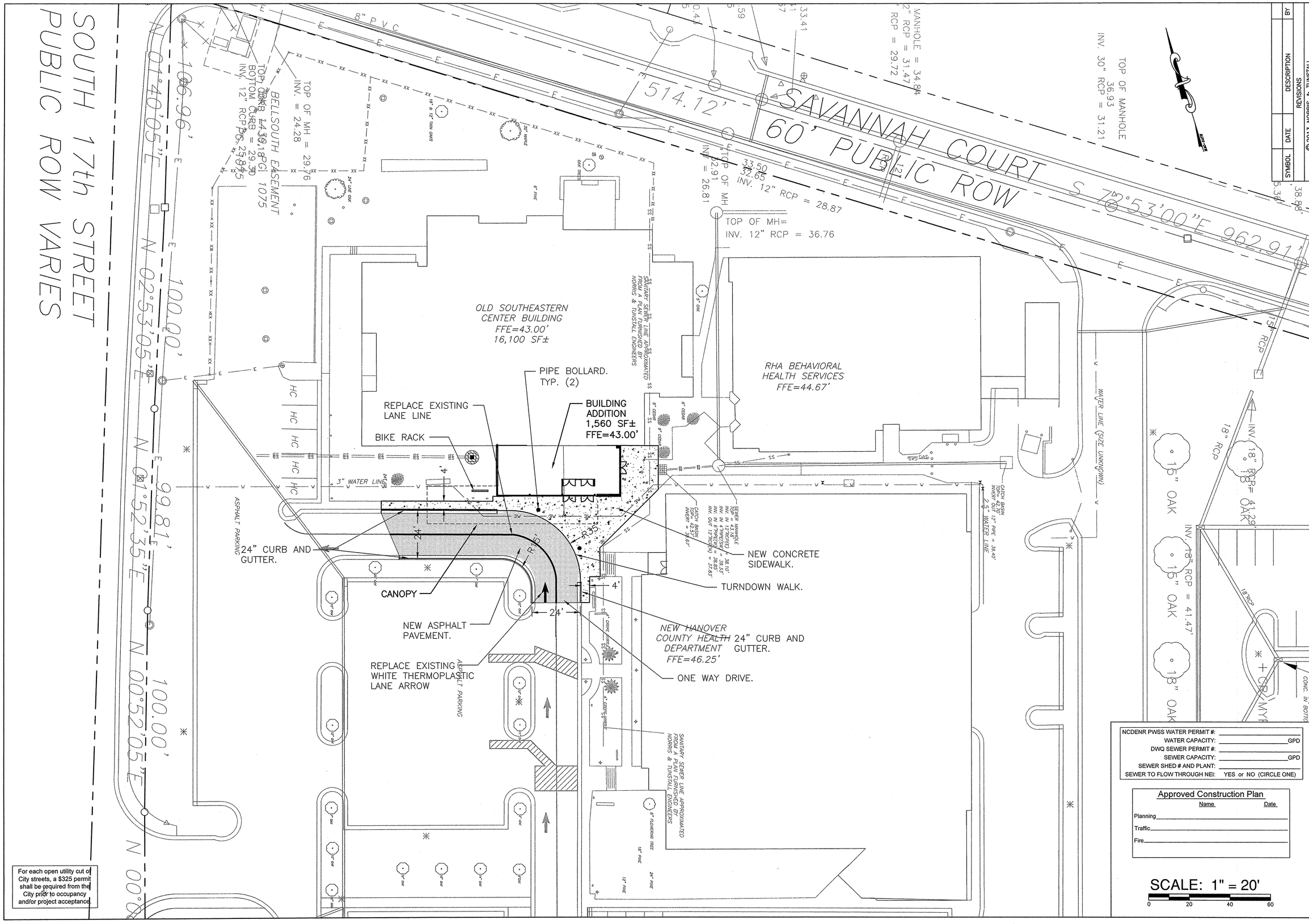

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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LAYOUT PLAN

PUBLIC HEALTH CLINIC RENOVATIONS
NHC HEALTH DEPARTMENT
2023 S. 17TH STREET
WILMINGTON, N. C.

OWNER/DEVELOPER
NEW HANOVER COUNTY
WILMINGTON, NC

NORRIS & TUNSTALL
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WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-3641

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		

SCALE: 1" = 20'

0 20 40 60

13025

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	10/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN P. TUNSTALL

C4

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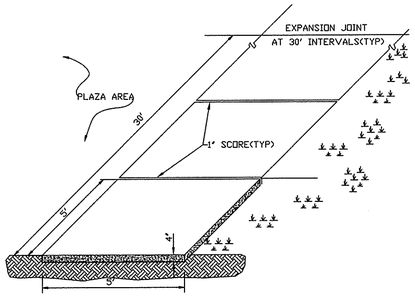
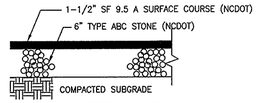
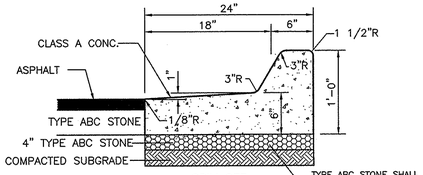


STANDARD SIDEWALK DETAIL
SD 8-15
NOT TO SCALE



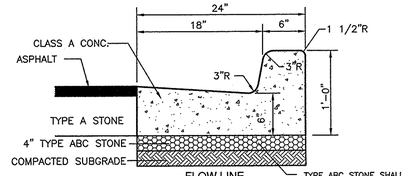
NOTE: PAVEMENT SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE W/OWNER & GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.

ASPHALT PAVEMENT SECTION
N.T.S.



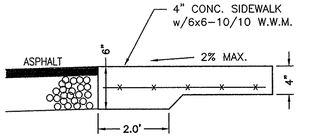
SPILL OFF
CURB SECTION ON SITE
NTS

NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

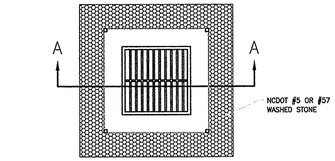


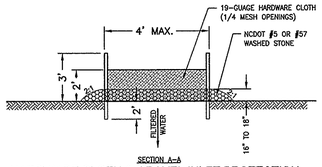
FLOW LINE
CURB SECTION ON SITE
NTS

NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.



TURN DOWN WALK SECTION
NTS

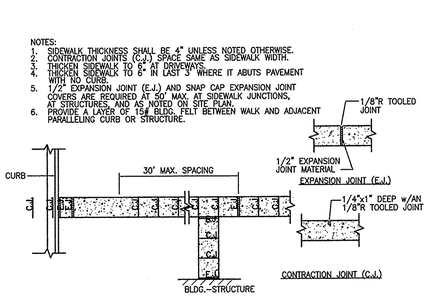




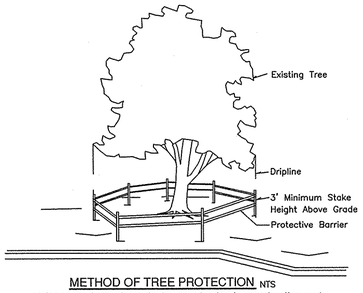
HARDWARE CLOTH & GRAVEL INLET PROTECTION
NTS

CONSTRUCTION SEQUENCE:
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5' STEEL POST 2' INTO THE GROUND SURROUNDING THE INLET. SPACE POST EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4' APART.
3. SURROUND THE POST WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POST AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2' FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 18" AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUNDCOVER.

MAINTENANCE:
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 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.

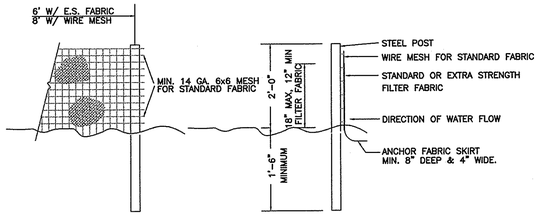


SIDEWALK JOINT DETAILS
NTS



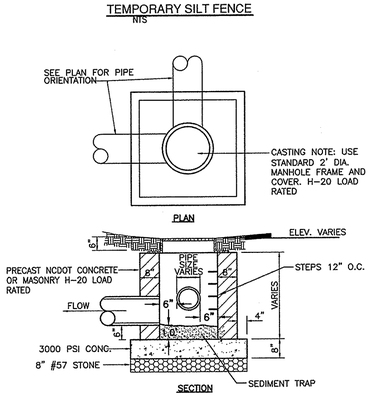
METHOD OF TREE PROTECTION NTS
CLEARLY mark the trees to be saved prior to construction and erect a protective barrier at the dripline.

Dripline—The area of soil directly beneath the tree extending out to the tips of the outermost branches.



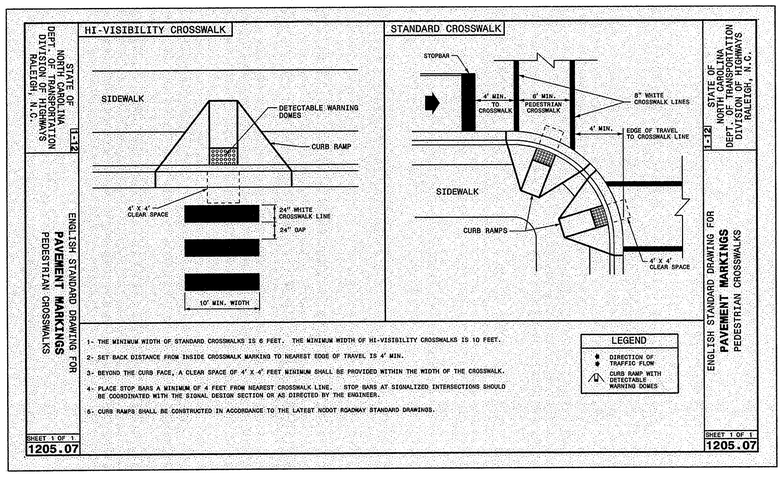
NOTES:
1. SYN. FENCE FABRIC SHALL BE MIN. OF 30" IN WIDTH WITH 30 LB/IN TENSILE STRENGTH FOR STANDARD FABRIC AND 50 LB/IN FOR EXTRA STRENGTH.
2. FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
3. STEEL POST SHALL BE MIN 4' IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE
NTS



MUST COMPLY WITH CITY OF WILMINGTON STANDARDS

JUNCTION BOX DETAIL
NTS



CITY OF WILMINGTON STANDARD NOTES

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING;
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
6. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
7. 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.
8. CONTACT TRAFFIC ENGINEERING AT 341-7888 FOURTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
10. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
11. PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
12. 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.
13. ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.
14. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.
15. WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE STRAND COPPER WIRE INSTALLED THE ENTIRE LENGTH AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
16. UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.

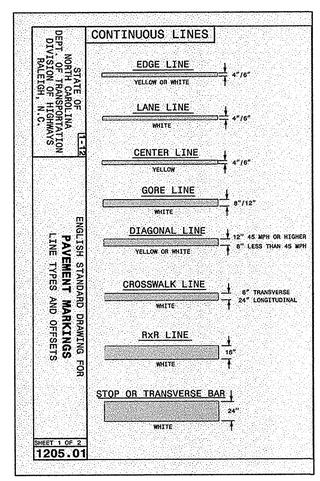
TEMPORARY/PERMANENT
GRASS SPECIFICATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS.
2. RIP THE ENTIRE AREA TO A 6 INCH DEPTH.
3. REMOVE ALL ROCKS, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACES SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL.
   LIME: 45 LBS. PER 1000 S.F.
   PHOSPHOROUS: 20 LBS PER 1000 S.F.
   FERTILIZER: 17 LBS. PER 1000 S.F.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, UNIFORM SEED BED IS PREPARED 4-6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY. 2 - 3 LBS PER 1000 S.F. (SEE MIXTURE BELOW)
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
   GRAIN STRAW & HAY AT 75 TO 100 LBS PER 1000 S.F.
   WOOD CHIPS AT 500 LBS. PER 1000 S.F.
   JUTE & MESH AS PER MANUFACTURER
8. ASPHALT FOR ANCHORING MULCH SHALL BE TYPE SS-1 EMULSION AND APPLIED AT A RATE OF 1000 GAL. PER ACRE FOR SLOPE STABILIZATION, AND 150 GAL. PER TON OF STRAW FOR ANCHORING STRAW.
9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEED WITHIN THE PLANTING SEASON, IF POSSIBLE. IF GRASS STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
10. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE, TREATMENT, AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
11. SEED FOR TEMPORARY AND PERMANENT APPLICATIONS SHALL BE:

20%	CARPET GRASS
28%	BERMUDA GRASS
20%	TURF FESCUE
10%	CREEPING RED FESCUE
20%	ANNUAL RYE GRAIN

*BERMUDA SEED SHALL BE HULLED FOR WARM WEATHER PLANTING. PURITY OF SEED SHALL BE A MIN. OF 98% AND GERMINATION SHALL BE A MIN. OF 85%.

ALL DISTURBED AREA SHALL BE SEEDED WITHIN 7-14 DAYS OF THE COMPLETION OF GRADING. SEE EROSION CONTROL AND MAINTENANCE NOTES. CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS, OTHER SEEDING SCHEDULES MAY BE POSSIBLE.



SITE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.

2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.

3. CLEARING AND GRUBBING: REMOVE ALL TREES AS REQUIRED UNLESS OTHERWISE NOTED TO REMAIN, STUMPS, ROOTS, SHRUBBERY, ASPHALT, CONCRETE, STRUCTURES, BURIED UTILITIES, STORAGE TANKS, ETC. WITHIN LIMITS OF CONSTRUCTION.

4. STRIPPING: BEFORE EXCAVATING OR FILLING, REMOVE ALL TOPSOIL, WOOD, LEAVES, AND ANY OTHER UNSUITABLE MATERIAL.

5. MUCKING: REMOVE ANY SOFT, ORGANIC SILT MATERIALS AND EXISTING BURIED CONSTRUCTION DEBRIS AS REQUIRED AND FILL TO SUBGRADE ELEVATIONS WITH A CLEAN SELECT-FILL COMPACTED AS SPECIFIED.

6. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR EXCAVATED SPOIL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES.

7. BORROW MATERIAL: THE CONTRACTOR SHALL FURNISH BORROW MATERIAL REQUIRED FROM OFF SITE AND OBTAIN ALL REQUIRED PERMITS ASSOCIATED WITH BORROW OPERATIONS.

8. FILL AND COMPACTION: AFTER STRIPPING THOSE AREAS DESIGNATED TO RECEIVE FILL SHOULD BE PROOFROLLED. THE TOP 8" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. ANY AREA WHICH PUMPS OR RUTS EXCESSIVELY SHOULD BE UNDERCUT AND REPLACED WITH A CLEAN, SILTY OR CLAYEY SAND HAVING A UNIFIED SOIL CLASSIFICATION OF SP, SM, OR SC. FILL MATERIAL 5" OUTSIDE OF BUILDING AREAS SHALL THEN BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL MATERIALS WITHIN BUILDING AREAS TO A LINE OUTSIDE THE BUILDING AREAS SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED IN 6 INCH LAYERS TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IN AREAS WHERE NO STRUCTURAL FILL IS TO BE PLACED THE UPPER 12 INCHES OF IN-PLACE SUBGRADE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IF THE MATERIAL IS TOO DRY TO COMPACT TO THE REQUIRED DENSITY EACH LAYER SHALL BE WETTED IN ACCORDANCE WITH COMPACTION REQUIREMENTS. IF THE MATERIAL IS TOO WET TO SECURE PROPER COMPACTION, IT SHALL BE HARROWED REPEATEDLY OR OTHERWISE AERATED WITH SUITABLE EQUIPMENT UNTIL OPTIMUM MOISTURE CONTENT IS OBTAINED. FILL SHALL BE PLACED IN SUCH A MANNER THAT THE SURFACE WILL DRAIN READILY AT ALL TIMES. SEE STRUCTURAL NOTES AND SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

9. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.

10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.

11. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY ROBERT H. GOSLEE AND ASSOCIATES, P.A. AND PROVIDED BY OWNER.

12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.

13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.

14. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.

15. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.

16. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.

17. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.

18. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.

19. USE WHITE LANE MARKING PAINT FOR ALL PAVEMENT MARKINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE III, FACTORY MIXED, QUICK DRYING, NON-BLEEDING.

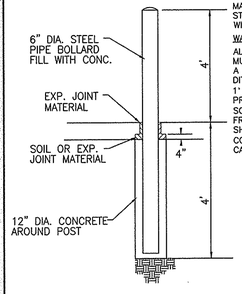
EROSION CONTROL NOTES AND MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.

2. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.

3. LAND QUALITY REQUIRES:
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. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.

WATER QUALITY REQUIRES:
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. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3' HORIZONTAL TO 1' VERTICAL (3:1) AND ALL HIGH QUALITY WATER (HQW) ZONES SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN SEVEN (7) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.



PIPE BOLLARD DETAIL
NTS

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 DRAINAGE PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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NOTES AND DETAILS

PUBLIC HEALTH CLINIC RENOVATIONS
NHC HEALTH DEPARTMENT
2023 S. 17TH STREET
WILMINGTON, N. C.

OWNER/DEVELOPER
NEW HANOVER COUNTY
WILMINGTON, NC

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nrtseng.com
licence #C-3641

13025

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	10/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN P. TUNSTALL

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