

CITY OF WILMINGTON NOTES:

1. Prior to any clearing, grading or construction activity, tree protection fencing shall be installed around protected trees or groves of trees. No construction workers, tools, materials, or vehicles are permitted within the tree protection fencing.
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 all 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 regarding the 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 910-341-7888 to ensure that all traffic signal facilities and equipment are shown on the plan.
8. Call Traffic Engineering at 910-341-7888 forty-eight (48) 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 property owner.
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.
15. Any broken or missing sidewalk panels, driveway panels and curbing will be replaced.
16. Contact Traffic Engineering at (910) 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 CFPUA Cross Connection Control requirements. Water meter(s) cannot be released until all requirements are met and the State has given their final approval. Call 910-332-6558 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 the CFPUA Cross Connection Control regulations. Call 919-332-6558 for information.
21. Any irrigation system shall be equipped with a rain and freeze sensor.
22. Any backflow prevention devices required by the CFPUA will need to be on the list of approved devices by USFCOCHR or ASSE.
23. Contractor to field verify existing water and sewer service locations, 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 line(s) must be permitted and inspected by the Wilmington Fire Department from the public right-of-way to the building. Contact the Wilmington Fire Department Division of Fire and Life Safety at 910-341-0896.
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 doing any digging, clearing, or grading.

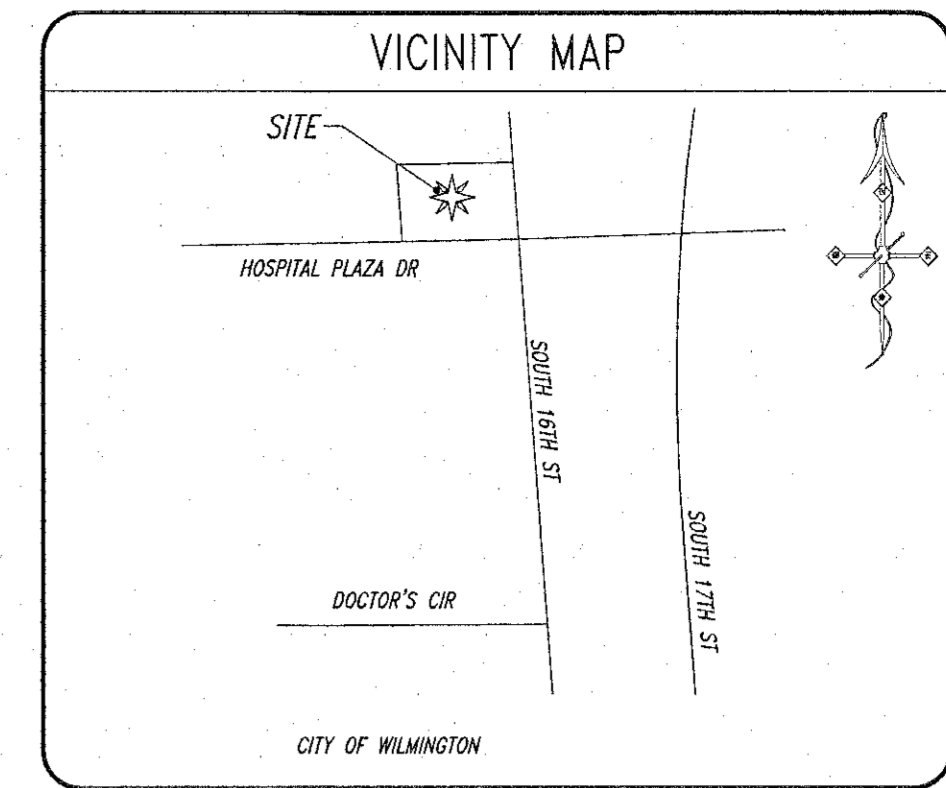
CONSTRUCTION DOCUMENTS

Proposed

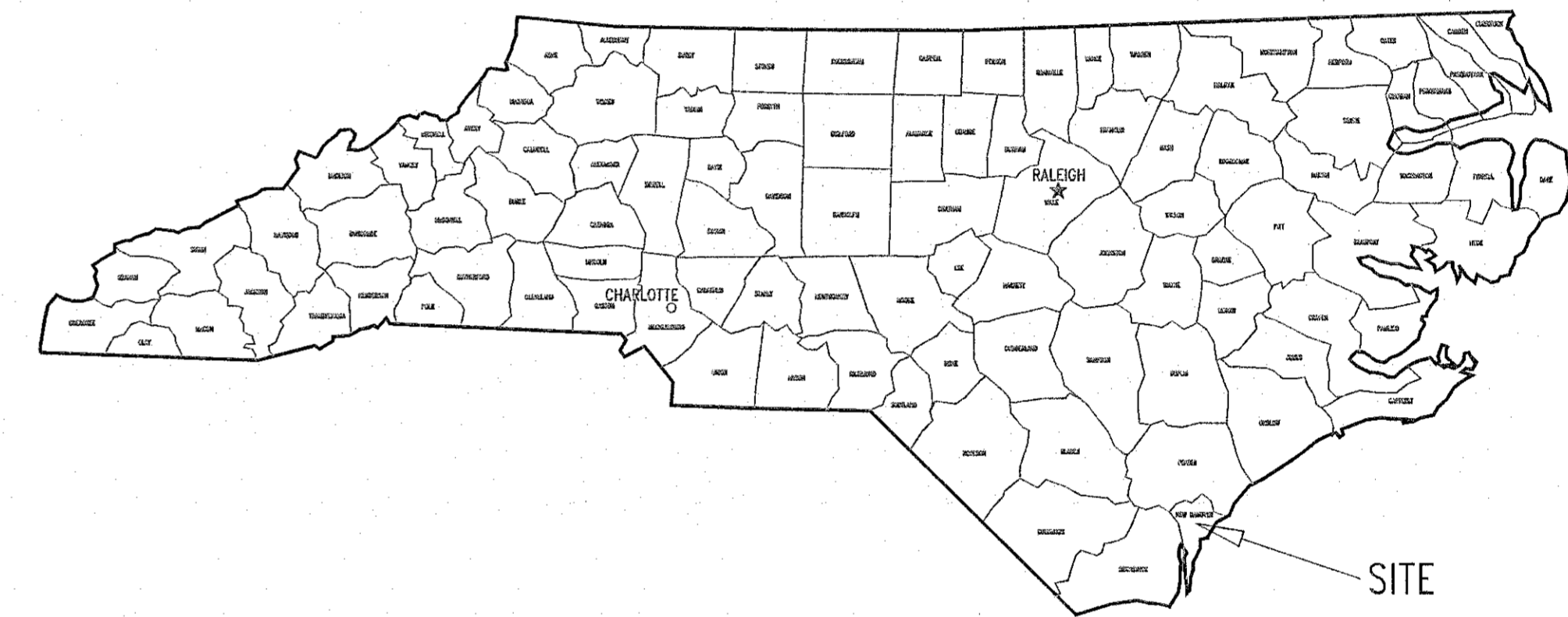


Starbucks

2018 South 16th Street
Wilmington, North Carolina
New Hanover County



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DEVELOPMENT DATA

DEVELOPMENT NAME: STARBUCKS
STREET ADDRESS: 2018 SOUTH 16TH STREET, WILMINGTON, NORTH CAROLINA, NEW HANOVER COUNTY

PROPERTY IDENTIFICATION # (PIN): R06007-002-010-003

ZONING DISTRICT(S): 0-1-1 (OFFICE AND INSTITUTIONAL DISTRICT 1)
OVERLAY DISTRICT: NONE
CAMA LAND USE CLASSIFICATION: DEVELOPED

TOTAL SITE AREA: 0.769 AC (33,498 SF)

INSIDE TOWN LIMITS: YES
EXISTING USE: BANK/LAW FIRM
PROPOSED BUILDING USE: RESTAURANT WITH DRIVE-THRU

PROPOSED TOTAL BUILDING AREA: 2,510 SF
MAX. BUILDING HEIGHT: 45 FT
MAXIMUM LOT COVERAGE (BUILDING): 40%
MIN LOT AREA: 15,000 SF
MIN LOT WIDTH: 80 FT
FRONT SETBACK: 20 FT
REAR SETBACK: 20 FT
SIDE SETBACK: 20 FT (HOSPITAL PLAZA BOULEVARD)
SIDE SETBACK: 10 FT (INTERIOR)

STREET YARD BUFFER: 18 FT AVERAGE (9 FT MIN, 27 FT MAX) (SOUTH 16TH STREET)
PERIMETER PARKING BUFFER: 10 FT
FOUNDATION PLANTINGS: 12% OF BUILDING FACE AREA

OFF-STREET PARKING:
PROPOSED BUILDING AREA: 2,510 SF (75 SEATS)
TOTAL REQUIRED:
MAXIMUM: 1 PER 2.5 SEATS OR 1 PER 65 SF GFA EXCLUSIVE OF KITCHEN AND RESTROOM
75 SEATS/2.5 = 30 SPACES
MINIMUM: 1 PER 4 SEATS OR 1 PER 80 SF GFA EXCLUSIVE OF KITCHEN AND RESTROOM
75 SEATS/4 = 19 SPACES
TOTAL PROVIDED: 24
ACCESSIBLE SPACES PROVIDED: 2
PARKING SPACE DIMENSIONS: 9'x18'
BICYCLE PARKING: 5 SPACES REQUIRED
LOADING AREA: N/A

DEVELOPER/PROPERTY OWNER
Wilmington NC 2018, LLC
Hartzog Holdings, LLC
Attn. Collins Hartzog
109 Still Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com

CIVIL ENGINEER
Triangle Site Design, PLLC
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IMPERVIOUS AREA SUMMARY			
SITE AREA = 33,498 SF (0.769 AC)			
BUILDINGS	2,510 SF	0.06 ACRE(S)	7.5 %
PAVEMENT	16,795 SF	0.39 ACRE(S)	50.1 %
SIDEWALK	1,675 SF	0.04 ACRE(S)	5.0 %
POROUS CONCRETE	-2,080 SF	-0.05 ACRE(S)	-6.2 % (TYPE A SOILS, 100% PERVIOUS)
TOTAL IMPERVIOUS AREA	18,900 SF	0.43 ACRE(S)	56.4 %
GREEN/OPEN SPACE	14,598 SF	0.34 ACRE(S)	43.6 %
EXISTING IMPERVIOUS AREA TO BE DEMOLISHED:	20,340 SF		
DECREASE IN IMPERVIOUS AREA:	1,440 SF		
EXEMPT FROM 25-YEAR PRE/POST ATTENUATION REQUIREMENT			

City of Wilmington, North Carolina
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

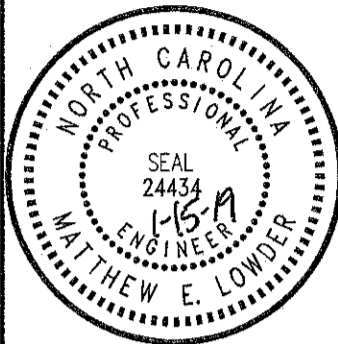
Date: _____ Permit # _____
Signed: _____

INDEX OF DRAWINGS

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REV.	DATE	DESC.

Drawn: _____
Checked: _____
Approved: _____
Project No. 009014
Date: January 15, 2019
Title

COVER SHEET

Sheet No. CO.0

EROSION CONTROL NOTES:
 AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY NEW HANOVER COUNTY PRIOR TO START OF CONSTRUCTION.

SURVEY NOTE:
 ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: ROBERT H. GOSLEE & ASSOCIATES, PA.

STREAM/WETLAND NOTE:
 THERE ARE NO JURISDICTIONAL STREAM AND/OR WETLAND FEATURES ON THE PROPOSED DEVELOPMENT PARCEL.

FLOOD ZONE NOTE:
 SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE (ZONE X) PER FEMA FLOOD INSURANCE RATE MAP (FIRM) #3720312600K, EFFECTIVE DATE AUGUST 28, 2018. FEMA FIRM MAPS SUBJECT TO CHANGE.

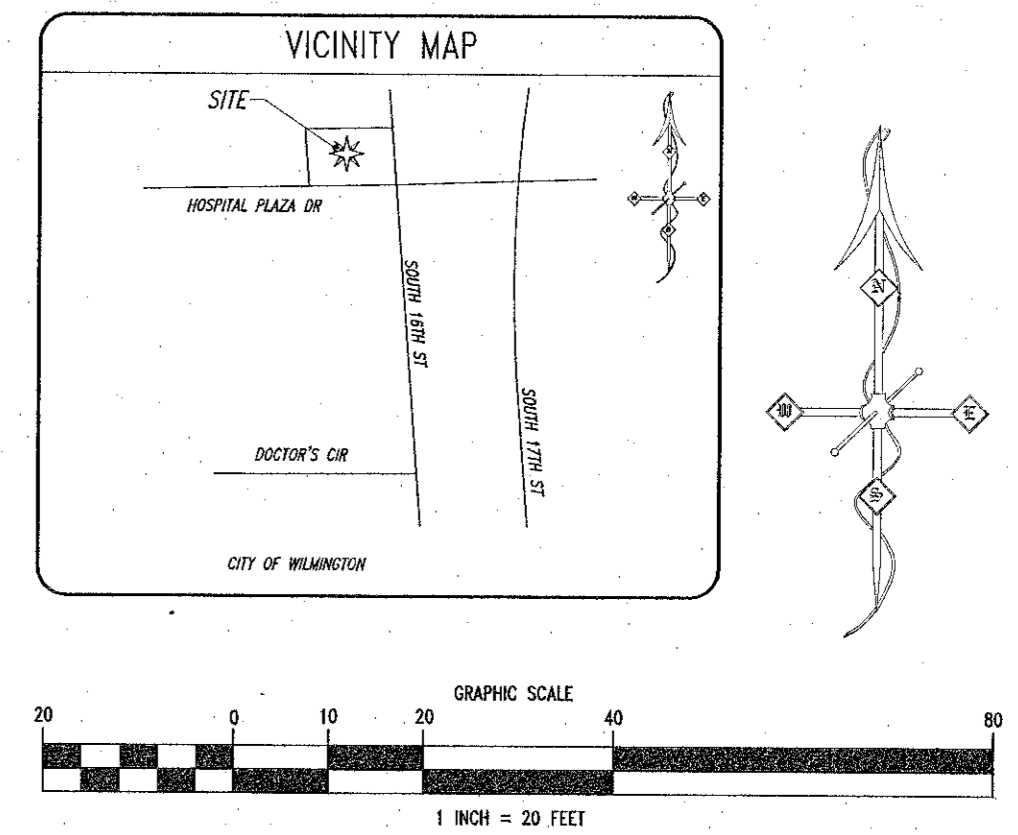
NOTE TO CONTRACTOR:
 PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

UTILITY STATEMENT
 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAUTIONARY NOTE
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED ON ABOVE GROUND EVIDENCE OR INFORMATION GATHERED DURING THE FIELD SURVEY PORTION OF THIS PROJECT. AS SUCH, THIS INFORMATION IS SPECULATIVE IN NATURE ONLY AND SHOULD NOT BE CONSTRUED AS FACT. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF THE UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF ANY AND ALL CONSTRUCTION.

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

Date: _____ Permit # _____
 Signed: _____



811
 Know what's below
 Call before you dig.

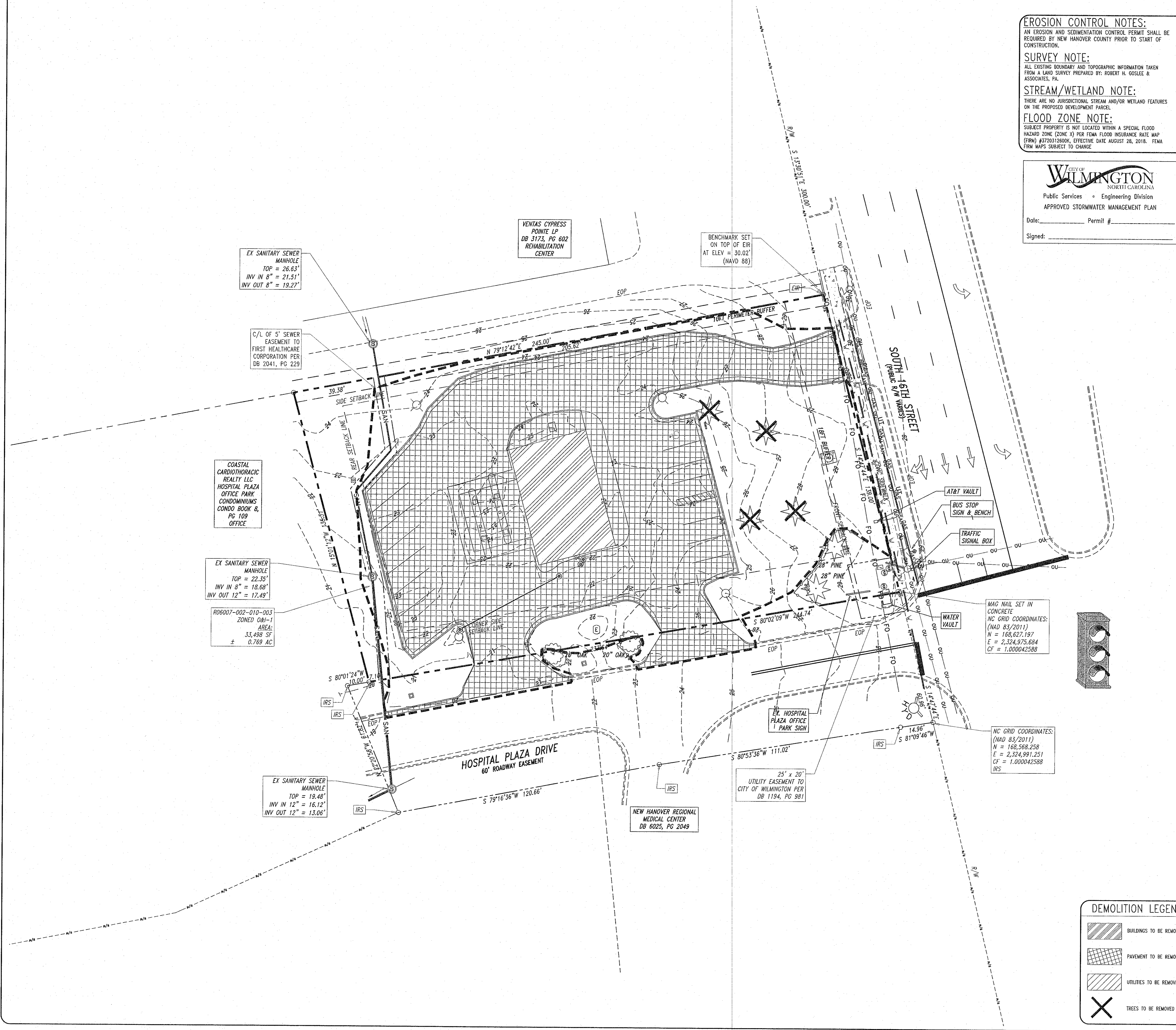
STOP
 BEFORE YOU DIG
 CALL 1-800-632-4848
 N.C. ONE-CALL CENTER
 IT'S THE LAW

- DEMOLITION KEYNOTES**
- 1 Remove trees and root system
 - 2 Remove existing building and foundation
 - 3 Remove fence, post, and foundation
 - 4 Remove all existing shrubs, and debris
 - 5 Remove existing sidewalks
 - 6 Remove existing concrete curb
 - 7 Remove existing driveway approaches
 - 8 Remove existing pavement
 - 9 Remove existing utilities - coordinate with appropriate service provider to remove existing service lines

- DEMOLITION NOTES**
1. ALL WORK TO BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL LOCAL ORDINANCES, CITY OR STATE.
 2. WITHIN THE SUBJECT PROPERTY, THE INTENT IS TO HAVE A CLEAN, CLEAR SITE, FREE OF ALL EXISTING ITEMS NOTED TO BE REMOVED IN ORDER TO PERMIT THE CONSTRUCTION OF THE NEW PROJECT.
 3. ALL ITEMS NOTED TO BE REMOVED BY THE SELLER SHALL BE ACCOMPLISHED PRIOR TO THE CLOSING OF THE REAL ESTATE TRANSACTION. ALL OTHER ITEMS NOTED TO BE REMOVED SHALL BE DONE SO AS PART OF THE CONTRACT FOR GENERAL CONSTRUCTION.
 4. REMOVE AND DISPOSE OF ANY SIDEWALKS, FENCES, WALLS, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL.
 5. THE CONTRACTOR SHALL SECURE ALL PERMITS FOR HIS DEMOLITION AND DISPOSAL OF HIS DEMOLITION MATERIAL TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL POST BONDS AND PAY PERMIT FEES AS REQUIRED. BUILDING DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND DISPOSAL OF BUILDING DEMOLITION DEBRIS.
 6. THE DETAILED PLANS MAY NOT REFLECT ALL UTILITIES ON THE SITE OR SURROUNDING STREETS AND PROPERTIES. THE CONTRACTOR SHALL VERIFY LOCATIONS AND EXISTENCE OF UTILITY SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL UTILITY LOCATE, 72 HOURS PRIOR TO CONSTRUCTION.
 7. THE CONTRACTOR TO REMOVE ALL UTILITIES TO EXISTING STRUCTURES WHETHER SHOWN OR NOT OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND CAP SERVICE PIPING AT THE PROPERTY LINE OR MAIN (AS REQUIRED). ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN.
 8. FOR ALL ITEMS NOTED TO BE REMOVED - REMOVE NOT ONLY THE ABOVE GROUND ELEMENTS, BUT ALL UNDERGROUND ELEMENTS AS WELL INCLUDING BUT NOT NECESSARILY LIMITED TO: FOUNDATIONS, GRAVEL FILLS, TREE ROOTS, OLD PIPES, ETC.
 9. BACK FILL ALL EXCAVATIONS RESULTING FROM THE DEMOLITION WORK TO MEET THE REQUIREMENTS FOR FILL OUTLINED IN THE GEOTECHNICAL REPORT.
 10. THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING CONSTRUCTION. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
 11. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPES, PAVEMENT, CURBS, SIDEWALKS OR LANDSCAPED AREAS DISTURBED DURING DEMOLITION TO THEIR ORIGINAL CONDITION TO THE SATISFACTION.
 12. ALL BUILDINGS, FOUNDATION WALLS AND FOOTINGS INDICATED ON THIS PLAN TO BE REMOVED FROM SITE. CONTRACTOR SHALL SECURE ANY PERMITS AND PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
 13. ASBESTOS AND ANY OTHER HAZARDOUS MATERIAL SHALL BE REMOVED BY THE GENERAL CONTRACTOR USING A LICENSED HAZARDOUS MATERIAL CONTRACTOR.

DEMOLITION LEGEND

- BUILDINGS TO BE REMOVED
- PAVEMENT TO BE REMOVED
- UTILITIES TO BE REMOVED
- TREES TO BE REMOVED



TRIANGLE SITE DESIGN

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 SEAL
 24434
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 MATTHEW E. LOWDER

Matthew E. Lowder

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Starbucks Coffee

Starbucks
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 Wilmington, North Carolina
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REVISIONS	No.	Date	Description

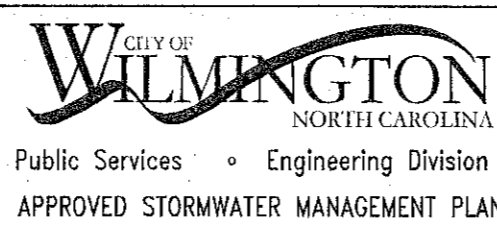
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Project No. 099014
 Date: January 15, 2019
 Title: EXISTING CONDITIONS PLAN

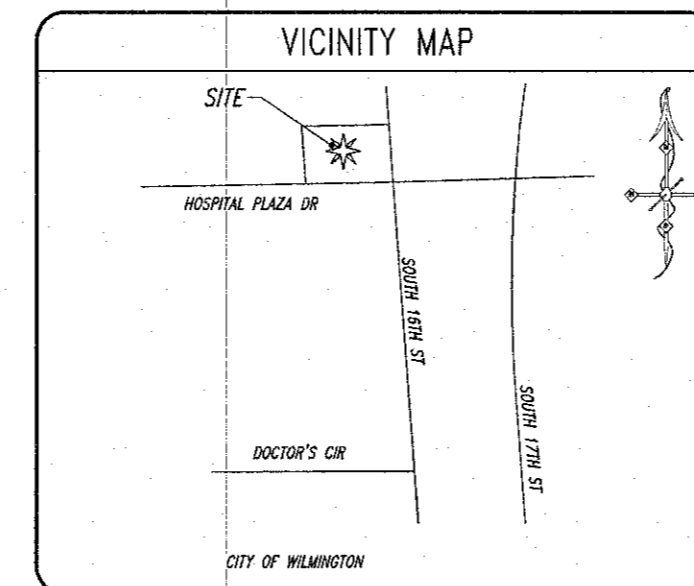
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NOTE TO CONTRACTOR:

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Date: _____ Permit # _____
Signed: _____



GENERAL NOTES

1. THE INFORMATION SHOWN HEREIN WAS TAKEN FROM A FIELD RUN TOPOGRAPHIC SURVEY OF THE PROPERTY.
2. THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF UTILITIES WITH THE UTILITY OWNERS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. ALL HANDICAP SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL FEDERAL, STATE AND LOCAL CODES.
4. 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.
5. PRIOR TO STARTING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED, NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLAN AND OTHER DOCUMENTATION FROM ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES. FAILURE OF THE CONTRACTOR TO FOLLOW THIS PROCEDURE SHALL CAUSE THE CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSEQUENT MODIFICATION OF THE WORK MANDATED BY ANY REGULATORY AUTHORITY. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
6. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT-OF-WAYS, PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
7. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
8. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH RESPECTIVE UTILITY.
9. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING ITEM AND/OR MATERIAL INSIDE OR OUTSIDE CONTRACT LIMITS DUE TO CONSTRUCTION OPERATIONS.
10. ALL DIMENSIONS ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED.
11. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
12. THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
13. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
14. GENERAL CONTRACTOR WILL ERECT AND ILLUMINATE A SITE IDENTIFICATION SIGN, PER OWNER'S SPECIFICATIONS. COORDINATE THE LOCATION WITH OWNER'S REPRESENTATIVE.
15. FINISH CURB AND WALK ELEVATIONS SHALL BE 6" ABOVE FINISH PAVEMENT GRADE UNLESS NOTED DIFFERENT ON PLAN.
16. CONTRACTOR SHALL ENSURE THAT ADEQUATE SITE LIGHTING IS PROVIDED PER OWNER'S SPECIFICATIONS.
17. ALL PAVEMENT DIMENSIONS ARE TO THE BACK OF CURB.
18. ALL UTILITIES TO SERVICE BUILDING SHALL BE UNDERGROUND ON SITE, UNLESS OTHERWISE INDICATED.
19. 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 SPECIFICATIONS.
20. ALL DISTURBED AREAS SHALL HAVE TEMPORARY SEEDING AND MULCHING. ALL AREAS THAT ARE PLANNED TO BE BARE FOR MORE THAN 45 DAYS SHALL BE SEEDED AND MULCHED WITHIN SEVEN (7) DAYS.
21. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON THE PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COSTS 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 ANY DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING NORTH CAROLINA "811" FOR ASSISTANCE IN LOCATING EXISTING UTILITIES. CALL AT LEAST 48 HOURS PRIOR TO DIGGING.
22. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE WHITE REFLECTIVE MARKINGS AND SHALL CONFORM TO LOCAL REGULATIONS.
23. COMPACTION AND MAINTENANCE OF PROPER MOISTURE CONTENT OF THE SOIL UNDER BUILDINGS AND PAVED AREAS SHALL BE ACCOMPLISHED TO ACHIEVE 95 STANDARD PROCTOR MAXIMUM DRY DENSITY OR AS RECOMMENDED IN SOIL REPORT.
24. THE 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.
25. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL REVIEW ALL PLANS AND SPECIFICATIONS AND THE JOB SITE. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER WHO PREPARED THE PLANS OF ANY DISCREPANCIES THAT MAY REQUIRE MODIFICATIONS TO THESE PLANS OR OF ANY FIELD CONFLICTS.
26. ALL PERMITS RELATIVE TO THE PROJECT MUST BE OBTAINED, PRIOR TO CONSTRUCTION. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
27. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS.
28. ALL PARKING LOT DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
29. CONTRACTOR SHALL COORDINATE EXACT SIZE OF HVAC CONCRETE PADS WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS FOR DETAILS.
30. ALL SEEDING, TEMPORARY OR PERMANENT, TO BE INSTALLED TO LOCAL REGULATIONS AND STANDARD PRACTICES.
31. ALL ROAD WORK SHALL BE PERFORMED IN ACCORDANCE WITH "THE CURRENT EDITION OF THE STATE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS".
32. ANY AND ALL QUANTITIES SHOWN OR IMPLIED ON THESE PLANS ARE FOR ESTIMATION PURPOSES ONLY.
33. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE IRRIGATION CONTRACTOR, FOR IRRIGATION SLEEVE SIZE FOR IRRIGATION SYSTEM.
34. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERAL ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY, AND HOLD THE OWNER AND DESIGN PROFESSIONAL HARMLESS OF ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR DESIGN PROFESSIONAL.

KEYNOTES

1. CONSTRUCT 1"-6" CONCRETE CURB AND GUTTER PER DETAIL SHEET
2. BIKE RACK
3. CONSTRUCT CONCRETE SIDEWALK PER DETAIL SHEET
4. CONSTRUCT CONCRETE SIDEWALK FLUSH WITH ASPHALT PAVEMENT
5. CONSTRUCT CONCRETE HANDICAP RAMP PER DETAIL SHEET
6. HANDICAP PARKING STALL
7. INSTALL HANDICAP PARKING SIGN PER DETAIL SHEET
8. CONCRETE PAVEMENT PER DETAIL SHEET, DRIVE THRU LANE SHALL BE 6" STAINED BLACK CONCRETE
9. ASPHALT PAVEMENT PER DETAIL SHEET
POROUS CONCRETE PAVEMENT
STANDARD DUTY PAVEMENT
HEAVY DUTY PAVEMENT
10. TRANSFORMER PAD BY GENERAL CONTRACTOR, PER ELECTRIC COMPANY SPECS., (COORDINATE SIZE & LOCATION WITH UTILITY COMPANY)
11. CONSTRUCT DUMPSTER PAD, MINIMUM 6" CONCRETE WITH 4" ABC BASE, AND TRASH ENCLOSURE WITH GATES, SEE ARCHITECTURAL SHEETS FOR DETAIL, MATERIALS TO MATCH BUILDING
12. CONCRETE WHEEL STOP PER DETAIL SHEET
13. POLE MOUNTED AREA LIGHT, SEE LIGHTING PLAN
14. PAINT 4" WIDE STRIPE, WHITE
15. PAINT 4" WIDE STRIPE @ 45°, 2 FEET APART
16. PAINT TRAFFIC ARROWS PER DETAIL SHEET
17. SITE IDENTIFICATION SIGN, INSTALL AND PERMIT PER CITY STANDARDS, COORDINATE WITH OWNER.
18. PERVIOUS CONCRETE PER DETAIL SHEET
19. CONCRETE FLUME PER DETAIL SHEET
20. ASPHALT/CONCRETE TRANSITION PER DETAIL
21. INSTALL PIPE BOLLARD PER DETAIL SHEET
22. INSTALL ILLUMINATED BOLLARD
23. MATCH EXISTING ASPHALT PAVEMENT
24. MATCH EXISTING CURB & GUTTER
25. PREVIEW BOARD, SEE ARCHITECTURAL PLANS FOR DETAILS
26. MENU BOARD AND SPEAKER POST, SEE ARCHITECTURAL PLANS FOR DETAILS
27. CLEARANCE BAR, SEE ARCHITECTURAL PLANS FOR DETAILS
28. PAINT 24" STOP BAR PER DOT AND MUTCO STANDARDS
29. PAINT "DO NOT ENTER" PER DOT MUTCO STANDARDS
30. INSTALL TRUNCATED DOMES FOR HANDICAP RAMP DETAILS
31. INSTALL "STOP" SIGN PER DOT AND MUTCO STANDARDS
32. INSTALL "MEDIAN" SIGN (R4-7-24) PER DOT AND MUTCO STANDARDS
33. INSTALL "NO LEFT TURN" (R3-2-24) SIGN PER DOT AND MUTCO STANDARDS
34. STAMPED CONCRETE - COLOR & PATTERN TO BE DETERMINED BY TENANT
35. NOSE DOWN CURB
36. RELOCATE EXISTING UTILITY POLE, CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY.
37. DO NOT ENTER SIGN
38. NON-ILLUMINATED BOLLARD

IMPERVIOUS AREA SUMMARY

SITE AREA	33,498 SF (0.769 AC)		
BUILDINGS	2,510 SF 0.06 AC(%)	7.5 %	
PAVEMENT	15,795 SF 0.39 AC(%)	50.1 %	
SIDEWALK	1,675 SF 0.04 AC(%)	5.0 %	
POROUS CONCRETE	2,080 SF 0.05 AC(%)	6.2 % (TYPE A SOILS, 100% PERVIOUS)	
TOTAL IMPERVIOUS AREA	18,900 SF 0.43 AC(%)	56.4 %	
EXISTING IMPERVIOUS AREA TO BE DEMOLISHED:	20,340 SF		
DECREASE IN IMPERVIOUS AREA:	1,440 SF		
EXEMPT FROM 25-YEAR PRE-/POST ATTENUATION REQUIREMENT			

TRAFFIC CONTROL NOTES

THE DISTRICT OFFICE OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.

TRAFFIC MUST BE MAINTAINED AT ALL TIMES AND TRAFFIC CONTROL MUST COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND WITH THE CURRENT EDITION OF THE NCDOT STANDARDS AND SPECIFICATIONS.

ALL LANES OF TRAFFIC ARE TO BE OPEN DURING THE HOURS OF 6:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM. A MINIMUM OF ONE 12-FOOT LANE SHALL BE MAINTAINED AT ALL TIMES.

ALL ROADWAY SIGNS WHICH ARE TO BE REMOVED DURING CONSTRUCTION ARE TO BE REINSTALLED AS SOON AS POSSIBLE.

DURING NON-WORKING HOURS, EQUIPMENT IS TO BE PARKED AS CLOSE TO THE RIGHT OF WAY LINE AS POSSIBLE AND BE PROPERLY BARRICADED IN ORDER TO PREVENT ANY EQUIPMENT OBSTRUCTION WITHIN THE TRAVEL LANE.

ALL CONTRACTORS DOING WORK WITHIN STATE RIGHT OF WAY ARE TO HAVE A COPY OF THESE PLANS ON THE JOB SITE.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WITHIN 5' OF AN OPEN TRAVEL LANE, THE CONTRACTOR SHALL CLOSE THE OPEN TRAVEL LANE ADJACENT TO THE WORK AREA USING APPROPRIATE TRAFFIC CONTROL MEANS AND METHODS UNLESS WORK IN THAT AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

THE CONTRACTOR SHALL NOT WORK SIMULTANEOUSLY ON BOTH SIDES OF AN OPEN TRAVEL WAY WITHIN THE SAME LOCATION ON A TWO-LANE, TWO-WAY ROAD.

THE MAXIMUM LENGTH OF A LANE CLOSURE ON THE PROJECT SHALL BE ONE MILE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

THE CONTRACTOR SHALL BACKFILL AT 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF OF MORE THAN 3".

WHEN BACKFILL IS REQUIRED, IT SHALL BE AT NO EXPENSE TO THE OWNER.

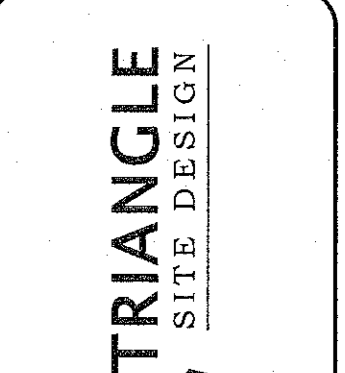
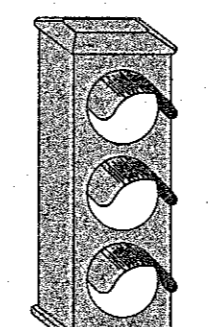
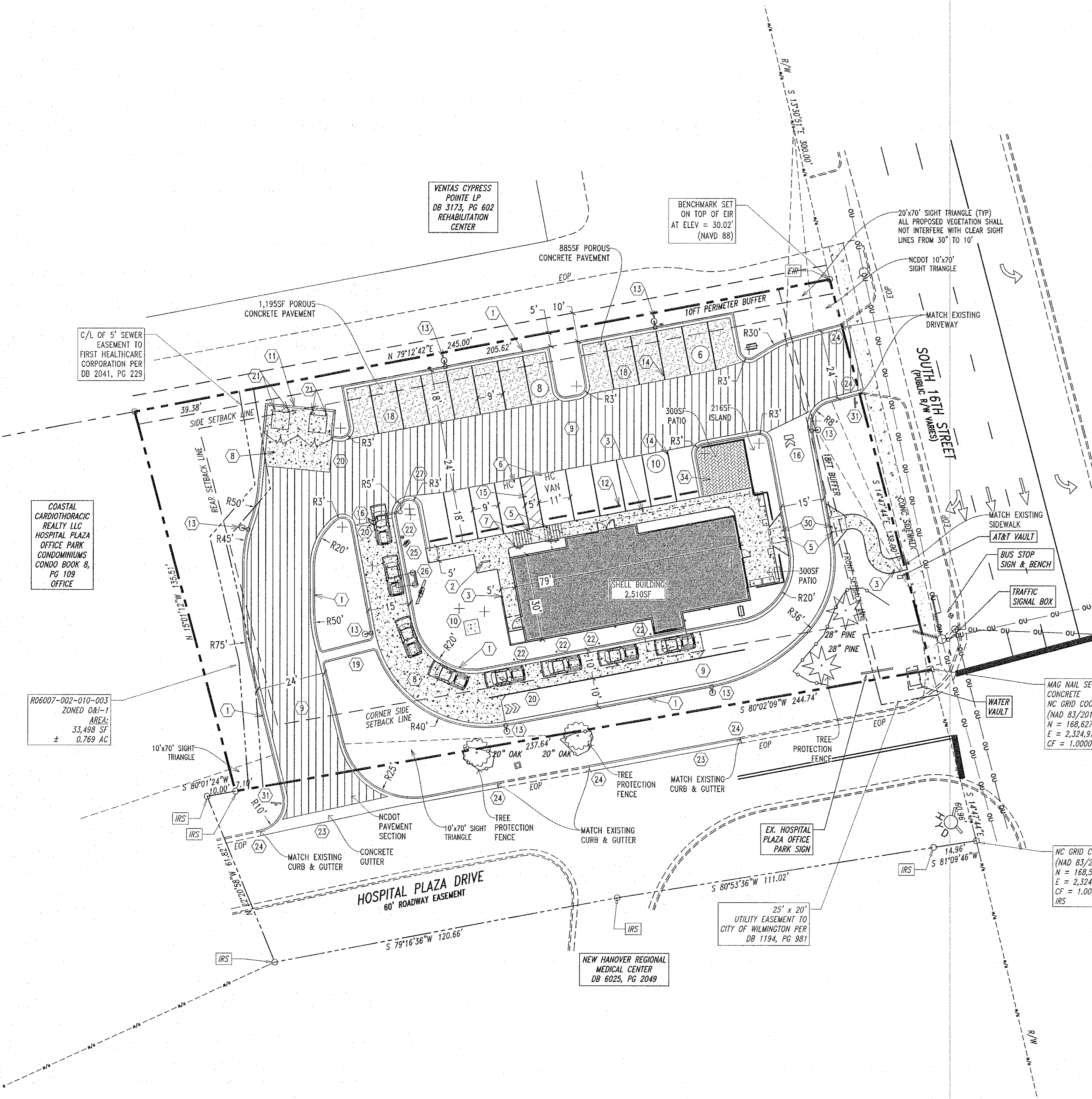
THE MAXIMUM DIFFERENCE IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC SHALL BE 2".

WHEN LANE CLOSURES ARE NOT IN EFFECT, CHANNELIZING DEVICES IN WORK AREAS SHALL BE SPACED NO GREATER THAN TWICE THE POSTED SPEED LIMIT, EXCEPT 10' ON-CENTER IN RAMP, AND SHALL BE SET 3' OFF THE EDGE OF AN OPEN TRAVELWAY.

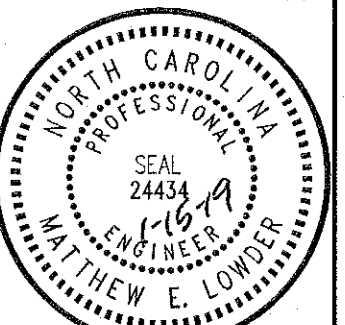
DURING INSTALLATION, PROPER TRAFFIC CONTROL DEVICES, SIGNS, ETC. BE INSTALLED TO ENSURE PUBLIC SAFETY IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS.

ALL DISTURBED AREAS ARE TO BE FULLY RESTORED TO NCDOT MINIMUM ROADWAY STANDARDS.

MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NCDOT ROADWAY STANDARDS AND SPECIFICATIONS (LATEST EDITION).



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(919) 553-6570
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Owner/Developer
Hartzog Holdings, LLC
Attn: Collins Hartzog
109 Shill Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com



Starbucks
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

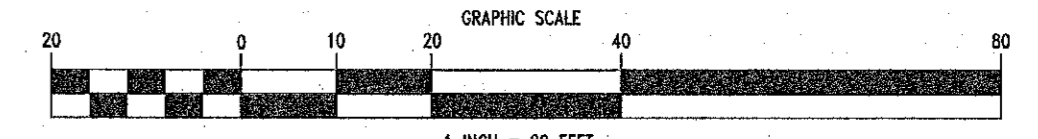
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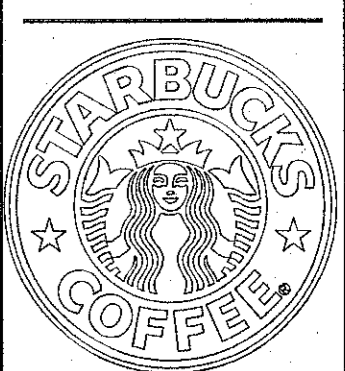
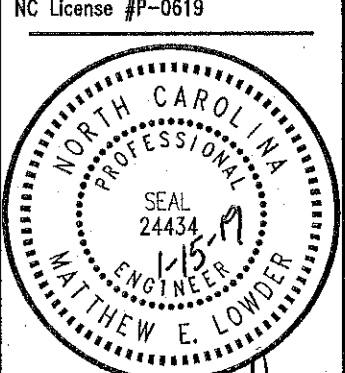
REVISIONS	No.	Date	Description

Drawn
Checked
Approved

Project No. 009014
Date: January 15, 2019
Title

SITE PLAN
Sheet No. C1.0





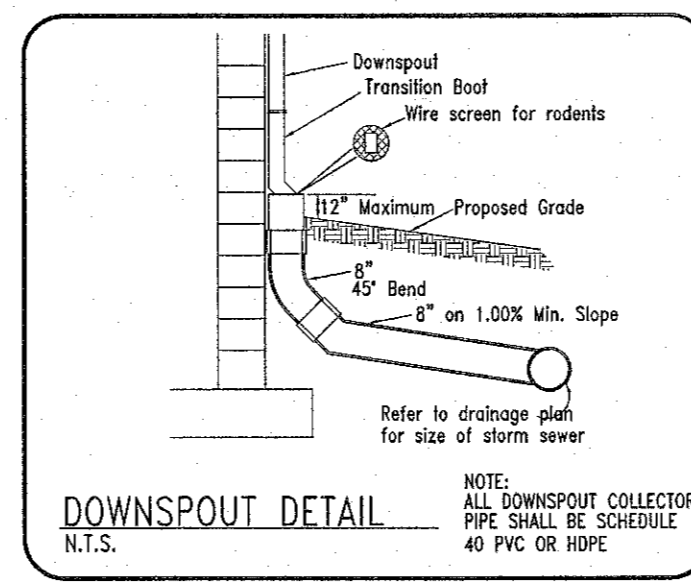
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REVISIONS	No.	Date	Description

DRAINAGE NOTES

- A MINIMUM GRADE OF 0.50 % SHALL BE MAINTAINED ON ALL PIPES, UNLESS OTHERWISE NOTED.
- PIPE LENGTHS AND SLOPES INDICATED ON THE PLANS ARE APPROXIMATE ONLY.
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.
 - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - C. EFFLUENT FROM Dewatering OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - D. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.
 - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- CATCH BASINS, MANHOLES, FRAMES, GRATES, ETC. SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS. REFERENCE THE FOLLOWING STANDARD DETAILS:

840.02 - CONCRETE CATCH BASIN	840.03 - FRAME, GRATES, AND HOOD FOR CATCH BASINS
840.14 - CONCRETE DROP INLET	840.04 - CONCRETE OPEN THROAT CATCH BASIN
840.14 - CONCRETE DROP INLET	840.10 - DROP INLET FRAME AND GRATES
840.31 - CONCRETE JUNCTION BOX	840.35 - TRAFFIC BEARING GRATED DROP INLET
840.52 - PRECAST MANHOLE	840.45 - PRECAST DRAINAGE STRUCTURE
838.80 - PRECAST CONCRETE ENDWALL	
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
 - TYPE 1: RCP, CLASS III PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.
 - TYPE 2: HIGH DENSITY POLYETHYLENE PIPE (HDPE) - AASHTO DESIGNATION M252 TYPE S, M294 TYPE S AND M7-97 TYPE S, SMOOTH INTERIOR/ANNULAR EXTERIOR. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON THE CONSTRUCTION DRAWINGS. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTALLATION GUIDELINES. PIPE JOINTS AND FITTINGS SHALL BE WATER-TIGHT.
- ALL STORM DRAINAGE WITHIN THE PUBLIC ROADS SHALL BE CLASS III REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
- EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE SILT AND DEBRIS.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATER-TIGHT.
- PRECAST STRUCTURES MAYBE USED AT CONTRACTOR'S OPTION.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.
- RIM ELEVATIONS AS NOTED ARE TO THE GUTTER FLOW LINE.



GRADING NOTES

- REFER TO THE SITE PLAN FOR RELATED NOTES.
- ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.
- ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
- THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
- LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
- THE PROPOSED CONTOURS SHOWN IN DRIVES AND PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING ASPHALT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET OVERLAND.
- ANY GRADING, BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING PLAN, IS SUBJECT TO A FINE.
- GRADING WITHOUT AN APPROVED EROSION CONTROL PLAN IS SUBJECT TO A FINE.
- STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON DENuded AREAS AND ESPECIALLY WHEN THE CONSTRUCTION SEQUENCE REQUIRES IT.
- ALL GRADED SLOPES ARE TO BE SEEDED OR LANDSCAPED WITHIN 15 DAYS OF COMPLETION OF GRADING. ALL REMAINING AREAS ARE TO BE SEEDED WITHIN 30 DAYS.
- EXISTING GRADES, CONTOURS, UTILITIES AND OTHER EXISTING FEATURES FROM FIELD RUN SURVEY.
- THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY Dewatering NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION, ELEVATION, AND DIMENSIONS OF EXIT DOORS, RAMPS, BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- ALL FILL MATERIALS, EXISTING BUILDING FOUNDATIONS, PAVEMENT AND UTILITY STRUCTURES, TOPSOIL, AND ANY OTHER DEleterious MATERIALS SHALL BE COMPLETELY REMOVED FROM WITHIN THE BEARING ZONE BELOW THE STRUCTURE.
- ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE TO DETERMINE WHETHER UNSUITABLE MATERIAL MUST BE REMOVED. ALL UNSUITABLE MATERIAL SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.
- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED OR DEPICTED.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ADJUST AND/OR EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTIGUOUS GRADE.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3:1V OR STEEPER.
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

EROSION CONTROL NOTES:

AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY NEW HANOVER COUNTY PRIOR TO START OF CONSTRUCTION.
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY ROBERT H. GOSLEE & ASSOCIATES, PA.
STREAM/WETLAND NOTE:
THERE ARE NO JURISDICTIONAL STREAM AND/OR WETLAND FEATURES ON THE PROPOSED DEVELOPMENT PARCEL.
FLOOD ZONE NOTE:
SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE (ZONE X) PER FEMA FLOOD INSURANCE RATE MAP (FIRM) #172031200K, EFFECTIVE DATE AUGUST 28, 2018. FEMA FIRM MAPS SUBJECT TO CHANGE.

LEGEND

TS.....	TOP OF SIDEWALK
TC.....	TOP OF CURB
GT.....	GUTTER FLOW LINE
TP.....	TOP OF PAVEMENT
TW.....	TOP OF WALL
BW.....	BOTTOM OF WALL
CB.....	CATCH BASIN
GI.....	GRATE INLET
FES.....	FLARED END SECTION
YI.....	YARD INLET
GR.....	GROUND
.....	FLOW DIRECTION ARROW

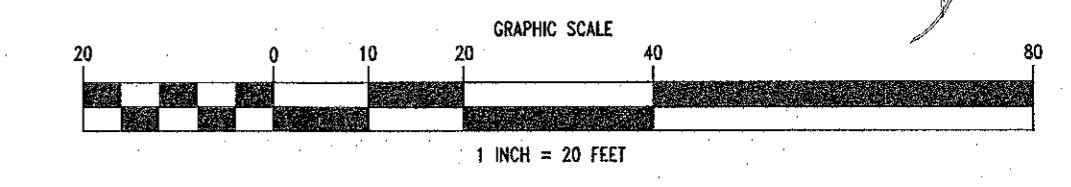
NOTE TO CONTRACTOR:
PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

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

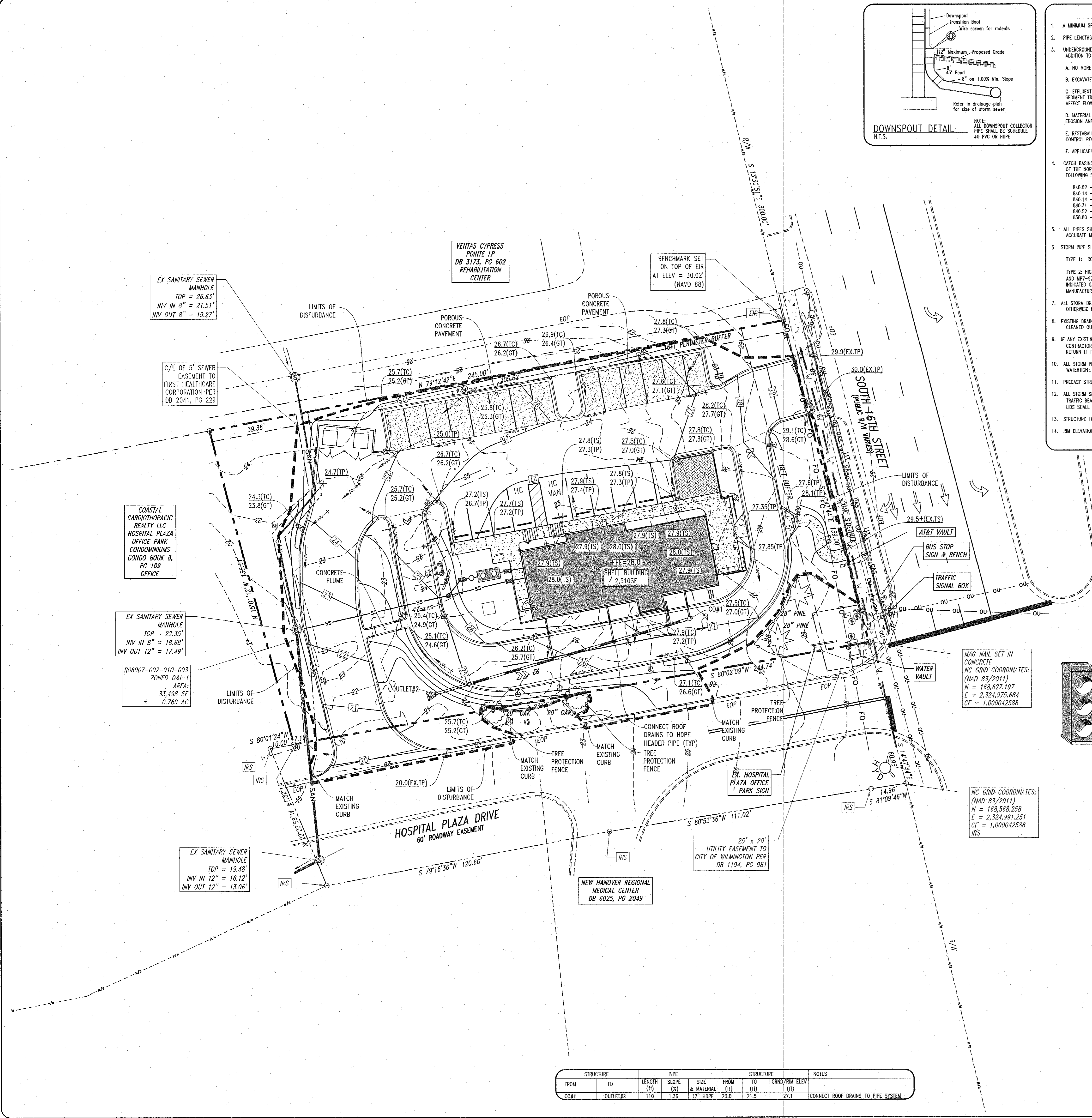
Date: _____ Permit # _____
Signed: _____



Know what's below
Call before you dig.



STRUCTURE		PIPE		STRUCTURE		NOTES		
FROM	TO	LENGTH (ft)	SLOPE (%)	SIZE & MATERIAL	FROM (ft)	TO (ft)	GRD./RIM ELEV (ft)	
CO#1	OUTLET#2	110	1.36	12" HDPE	23.0	21.5	27.1	CONNECT ROOF DRAINS TO PIPE SYSTEM



NOTE TO CONTRACTOR:
 PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

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

Date: _____ Permit # _____
 Signed: _____

CAPE FEAR PUBLIC UTILITY AUTHORITY NOTES:

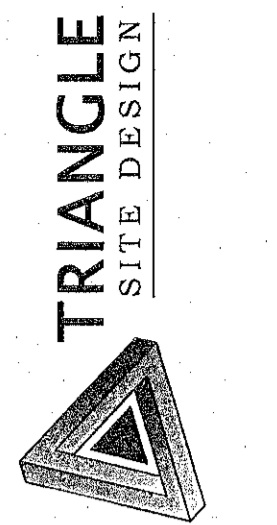
1. CFWA CUSTOMER SERVICE IS CURRENTLY BILLING A 2" DOMESTIC METER AND SEWER SERVICE.
2. 48-HOUR NOTICE TO CFWA UTILITY INSPECTOR PRIOR TO ANY WORK ON CFWA OWNED INFRASTRUCTURE.
3. DAVID SELKE-CFWA UTILITY CONSTRUCTION INSPECTOR:
 OFFICE 910-332-6623
 MOBILE 910-367-8163
4. ANY CHANGES TO EXISTING SERVICE MUST BE ARRANGED THROUGH CFWA CUSTOMER SERVICE DEPARTMENT.

FIRE PROTECTION NOTE:
 THE PROPOSED BUILDING WILL NOT HAVE A FIRE SPRINKLER SYSTEM

NOTES:
 CONTRACTOR TO COORDINATE WITH THE CAPE FEAR PUBLIC UTILITIES AUTHORITY FOR WATER METER & BACKFLOW PREVENTION REQUIREMENTS

UTILITY NOTES

1. UTILITY INFORMATION SHOWN HEREON WAS OBTAINED FROM THE BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXACT LOCATIONS OF EXISTING UTILITIES AND IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITIES, EITHER PUBLIC OR PRIVATE, SHOWN HEREON OR NOT SHOWN HEREON. ANY REPAIRS SHALL BE DONE TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY.
2. THE GENERAL CONTRACTOR SHALL CONFIRM ALL NEW UTILITY TAP LOCATIONS WITH THE UTILITY OWNERS. ALL FEES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
3. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES.
4. NEW LOT LIGHT FOUNDATION BASES, CONDUIT AND WIRING ARE BY THE GENERAL CONTRACTOR. POLES, FIXTURES, ANCHOR BOLTS & HARDWARE SHALL BE COORDINATED WITH THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
5. ALL NEW LOT LIGHTS AND THE MAIN IDENTIFICATION SIGN SHALL HAVE A MINIMUM 10 FEET CLEARANCE FROM ALL OVERHEAD UTILITIES.
6. GENERAL CONTRACTOR IS RESPONSIBLE FOR PERMITS AND/OR APPROVALS NECESSARY FOR ANY WORK IN ROADWAY OR RIGHT-OF-WAY.
7. ALL TRENCH EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH TRENCH BACKFILL DETAIL SHOWN ON THESE PLANS.
8. MINIMUM COVER FOR CONDUITS SHALL BE 36" UNLESS OTHERWISE SHOWN OR NOTED ON THESE PLANS.
9. ALL MANHOLES, VALVES, AND MONUMENT FRAMES SHALL BE SET TO FINISH GRADE AFTER PAVING.
10. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS. TRENCHES SHALL BE SHORED IN ACCORDANCE WITH OSHA.
11. THE MINIMUM SLOPE FOR SANITARY SEWER LINES SHALL BE AS FOLLOWS: 1) 1"/FT FOR 4" LINES AND 2) 1/2"/FT FOR 6" LINES. CLEANOUTS SHALL BE PLACED AT 75' INTERVALS.
12. ALL WATER LINES SHALL HAVE A FINAL COVER DEPTH 3'-0" IN NON-TRAFFIC AREAS AND 4'-0" MINIMUM IN TRAFFIC AREAS UNLESS SPECIFICALLY NOTED OTHERWISE.
13. ALL SEWER LINES SHALL HAVE A FINAL COVER DEPTH 4'-0" ON NON-TRAFFIC AREAS AND 5'-0" MINIMUM IN TRAFFIC AREAS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.
14. SANITARY SEWER SERVICES SHALL BE PVC SDR 35 TO R/W, THEN PVC SCH. 40 TO BUILDING. WATER SERVICE SHALL BE TYPE "K" COPPER.
15. CABLE TV SERVICE ROUTING IS NOT PART OF THIS PLAN. CONTRACTOR TO COORDINATE WITH CABLE COMPANY.
16. EXISTING MANHOLES SHOULD BE VERIFIED FOR RISMS AND INVERTS.
17. ALL WORK SHALL BE COVERED BY THE LATEST EDITIONS OF THE STATE MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, BUILDING CODE, ENERGY CONSERVATION, HANDICAP ACCESSIBILITY, NATIONAL ELECTRICAL CODES AND NATIONAL FIRE PROTECTION ASSOCIATION CODES AND AS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION.
18. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC. THAT MAY BE REQUIRED.
19. CONTRACTOR SHALL GUARANTEE, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF SYSTEMS BY OWNER, EACH AND EVERY PIECE OF APPARATUS WHICH HAS BEEN INSTALLED UNDER THIS CONTRACT.
20. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS/METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
21. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29CFR PART 1926, SUBPART "F" APPLIES TO ALL EXCAVATIONS EXCEEDING 5 FEET IN DEPTH.
22. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
23. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED PRIOR APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATE EQUIPMENT.
24. 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.
25. ONLY SEWAGE NOT CONTAINING GREASE IS ALLOWED TO BYPASS THE GREASE TRAP.
26. ALL SANITARY SEWER SERVICES AND STORM DRAIN PIPING 8" IN DIAMETER OR SMALLER SHALL BE SCH. 40 PVC WITH ADHESIVE WELDED JOINTS, UNLESS SPECIFIED OTHERWISE OR REQUIRED BY LOCAL GOVERNING MUNICIPALITY. MINIMUM SLOPES ON SANITARY SEWER SERVICES: 4'-1/4" FT, 6'-1/8" FT.
27. BLOW GRADE WATER SERVICE PIPING SHALL BE TYPE "K" HARD DRAWN COPPER TUBING WITH SILVER SOLDER JOINTS. SOLDER CONTAINING LEAD SHALL NOT BE USED FOR ANY PURPOSE ON THIS PROJECT. WHERE PIPING IS REQUIRED TO RUN BELOW THE BUILDING SLAB, IT SHALL BE INSTALLED WITHOUT JOINTS BELOW SLAB.
28. WATER PIPING SHALL BE CONNECTED TO BUILDING STUDS, VERIFY LOCATIONS PRIOR TO BEGINNING WATER PIPE INSTALLATION.
29. WASTE PIPING BE CONNECTED TO BUILDING STUDS, VERIFY LOCATIONS AND INVERTS PRIOR TO BEGINNING ANY WASTE PIPE INSTALLATION.
30. CONTRACTOR SHALL NOTIFY NORTH CAROLINA "ONE CALL" AT 800-632-4949 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES IMMEDIATELY.
31. ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CAPE FEAR PUBLIC UTILITIES AUTHORITY CROSS CONNECTION CONTROL REGULATIONS AND STANDARDS.
32. SITE UTILITY CONTRACTOR TO PROVIDE WATER, SANITARY SEWER, AND ROOF DRAIN LEADERS TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR SHALL COORDINATE SITE PLAN CONNECTIONS WITH THE ARCHITECTURAL BUILDING PLANS.
33. SANITARY CLEANOUTS SHALL BE PLACED NO MORE THAN 75 FEET APART. CLEAN OUTS LOCATED IN PAVEMENT AREAS SHALL HAVE HEAVY DUTY TRAFFIC RATED CONSTRUCTION.
34. CONNECTION OF SANITARY SEWER SERVICE TO AN EXISTING MANHOLE SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITIES AUTHORITY INCLUDING CODE DRILL FOR OPENING INTO MANHOLE AND INSTALL WITH FLEXIBLE BOOT. IF PAVEMENT CUT IS REQUIRED, CONTRACTOR SHALL PATCH PAVEMENT WITH A SECTION TO MATCH EXISTING PAVEMENT: 3", 6" ABC OR BETTER.
35. RELATION OF WATER MAINS TO SEWERS: WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL ORDINANCES OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION. IN WHICH CASE, THE WATER MAIN IS LAID IN A SEPARATE TRENCH WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR
36. CROSSING WATER UNDER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR THE WATER MAIN TO CROSS UNDER A SEWER MAIN BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS METALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
37. CROSSING WATER LINE OVER OR UNDER A STORM DRAIN: WHENEVER IT IS NECESSARY FOR A SEWER LINE TO CROSS A STORM DRAIN PIPE, THE SEWER LINE SHALL BE LAID AT AN ELEVATION THAT THE OUTSIDE OF THE SEWER LINE IS AT LEAST 18 INCHES ABOVE THE TOP OF THE STORM DRAIN PIPE. THE STORM DRAIN PIPE SHALL MAINTAIN A 12 INCH CLEAR SEPARATION DISTANCES, OR ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.
38. UNDERGROUND CONDUITS TO SIGNS, LOT LIGHTS, ETC. SHALL BE PLACED IN GRASS OR LANDSCAPE AREAS WHENEVER POSSIBLE. THE LOCATION OF THE CONDUIT AS SHOWN ON THESE PLANS SHALL BE CONSIDERED TO BE SCHEMATIC WITH ACTUAL LOCATION TO BE VERIFIED BY THE GENERAL CONTRACTOR. PVC SCH. 40 SLEEVES SHALL BE INSTALLED FOR ALL CONDUIT CROSSING UNDER PAVED AREAS.
39. SEE ELECTRICAL SHEETS FOR SIZE OF CONDUIT AND WIRE ON ALL ELECTRICAL SERVICE.
40. TRANSFORMER BY ELECTRICAL COMPANY, GENERAL CONTRACTOR TO PROVIDE PAD. REFER TO ELECTRICAL COMPANY SPECIFICATIONS FOR PAD CONSTRUCTION.



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 collins@hartzogholdings.com



Starbucks
 2018 South 16th Street
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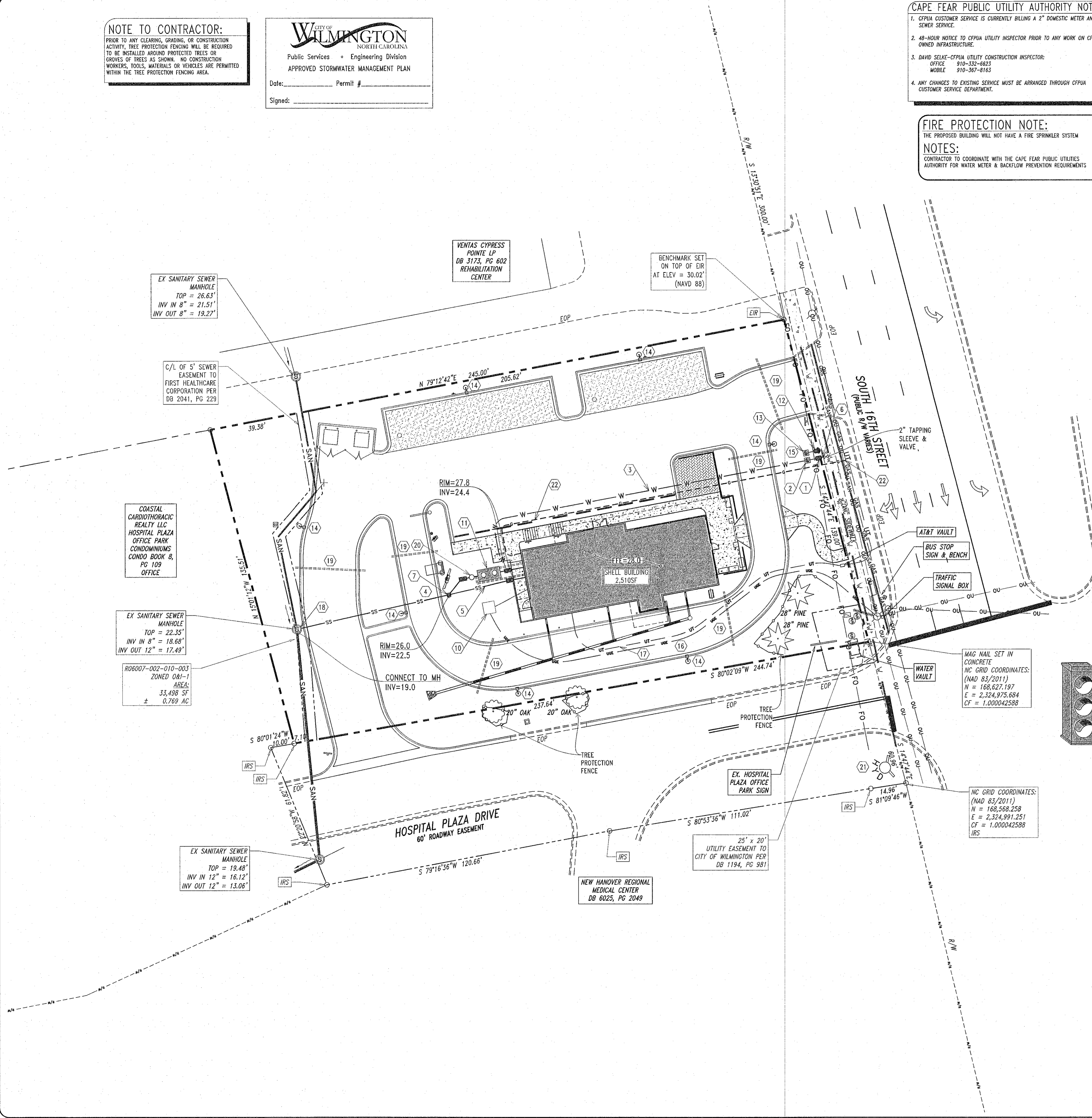
REVISIONS	DATE	DESCRIPTION

Drawn: _____
 Checked: _____
 Approved: _____

Project No. 009014
 Date: January 15, 2019
 Title

UTILITY PLAN

Sheet No. C1.2



UTILITY SERVICE NOTES

WATER SERVICE
 GENERAL CONTRACTOR TO PROVIDE AND INSTALL A WATER SERVICE LINE FROM EXISTING WATER MAIN TO BUILDING PER MUNICIPAL REQUIREMENTS.
 CONTACT: CAPE FEAR PUBLIC UTILITIES AUTHORITY
 TELEPHONE: 910-332-6550

ELECTRIC SERVICE
 "POWER CO." TO PROVIDE UNDERGROUND 120/208/3 PHASE SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL TWO 4" DIA. CONDUIT W/ PULL WIRE TO UTILITY COMPANY POINT OF CONNECTION.
 CONTACT: PROGRESS ENERGY
 TELEPHONE: 866-582-6345

TELEPHONE SERVICE
 "TELEPHONE CO." TO PROVIDE NEW UNDERGROUND SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" DIA. PVC CONDUIT W/ PULL WIRE FROM PHONE PANEL BOARD TO UTILITY COMPANY POINT OF CONNECTION.
 CONTACT: TELEPHONE
 TELEPHONE: 910-332-6550

SANITARY SEWER
 GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" PVC FROM EXISTING SEWER TO LAST CLEAN OUT OUTSIDE OF BUILDING. (MIN. 1" SLOPE). PROVIDE CLEAN OUTS EVERY 75' (TYPICAL).
 CONTACT: CAPE FEAR PUBLIC UTILITIES AUTHORITY
 TELEPHONE: 910-332-6550

NATURAL GAS
 GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING.
 CONTACT: PEHMONET NATURAL GAS
 TELEPHONE: 800-752-7504

UTILITY LEGEND

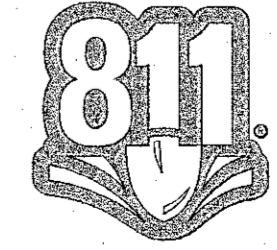
- PP NEW POWER POLE
- W NEW WATER METER
- G NEW GAS METER
- E NEW ELECTRIC METER
- W — NEW WATER SERVICE (REFER TO CIVIL DRAWINGS)
- G — NEW GAS SERVICE
- S — NEW SANITARY SEWER (REFER TO CIVIL DRAWINGS)
- C — NEW SANITARY SEWER CLEANOUT (AT EVERY 60 FEET)
- U — NEW UNDERGROUND POWER (120/208/3-) SERVICE.
- T — NEW UNDERGROUND TELEPHONE SERVICE.

NOTE:

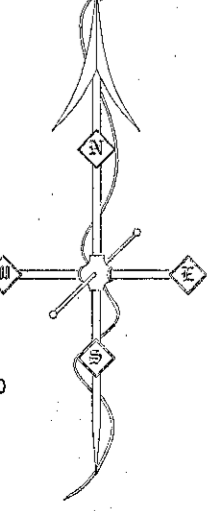
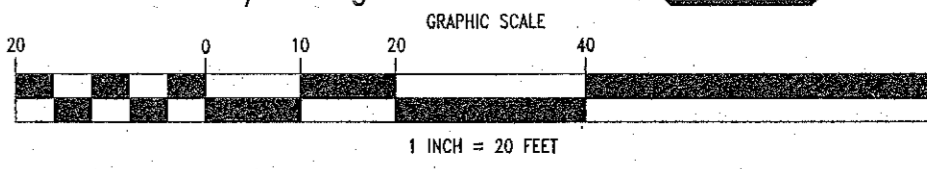
1. CONTRACTOR TO BE RESPONSIBLE FOR VERIFYING & APPLYING FOR UTILITY SERVICE WITH EACH UTILITY COMPANY PRIOR TO STARTING CONSTRUCTION.
2. CONTRACTOR TO BE RESPONSIBLE FOR STREET BORE, IF REQUIRED BY CAPE FEAR PUBLIC UTILITIES AUTHORITY

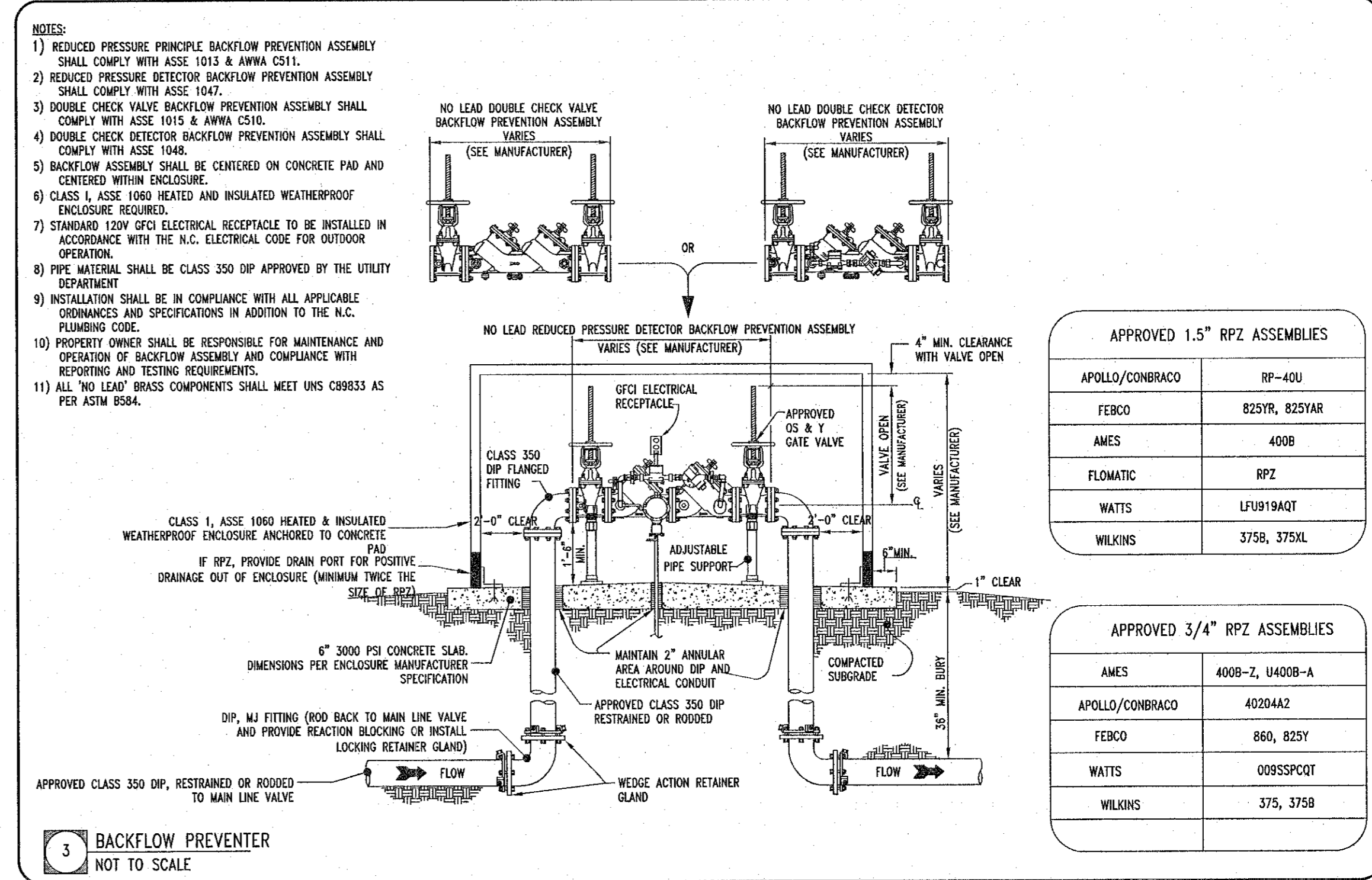
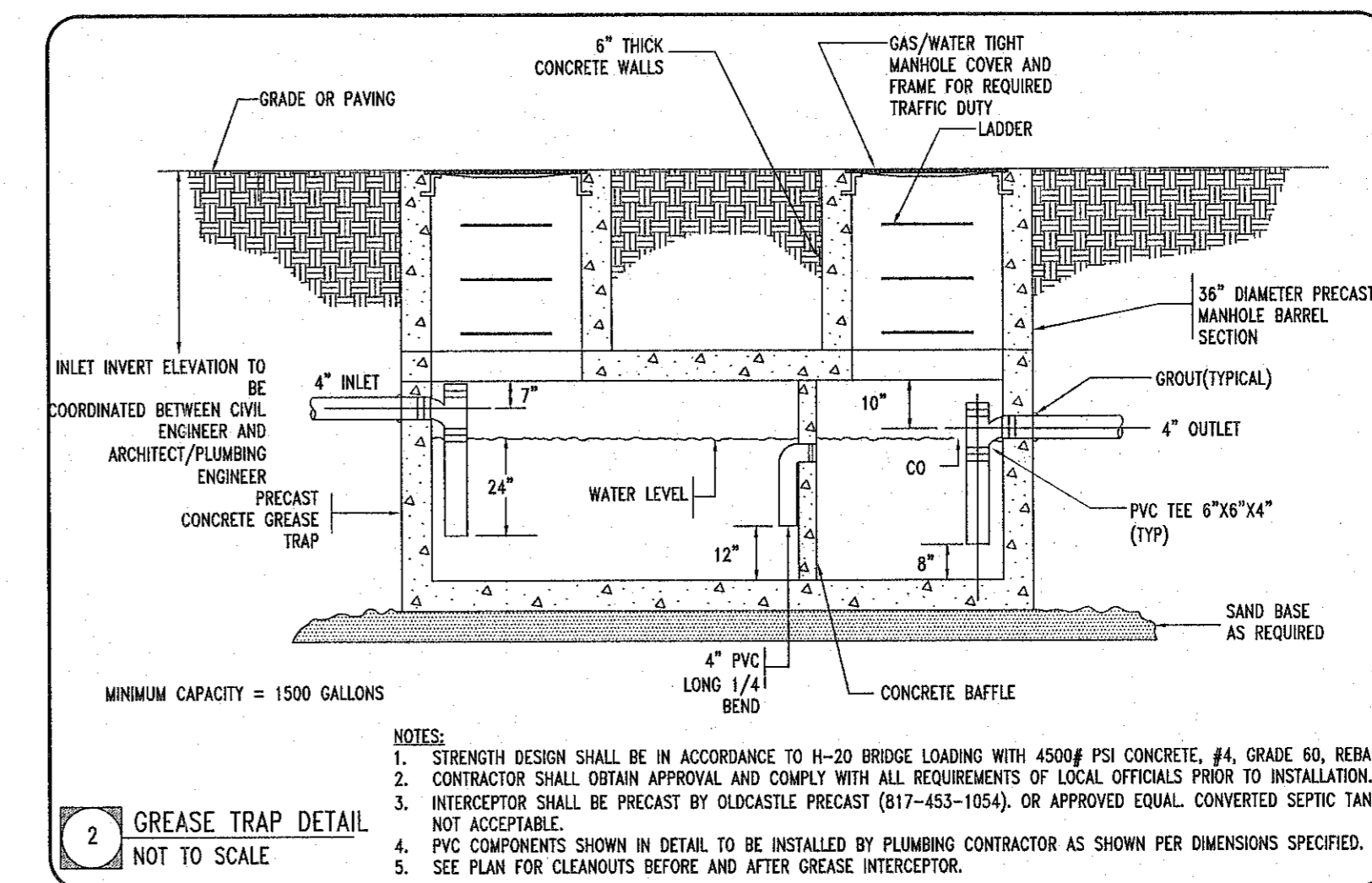
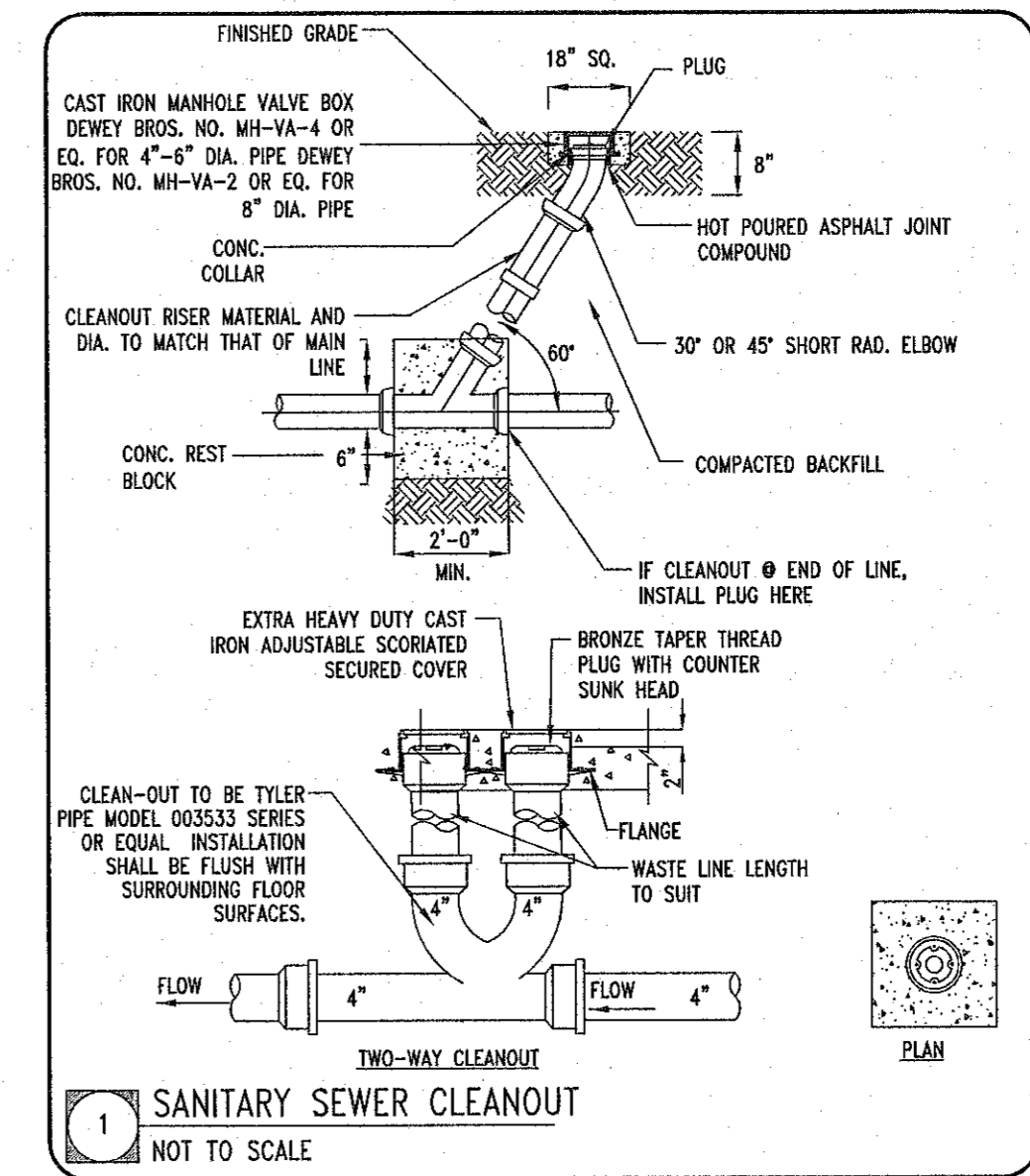
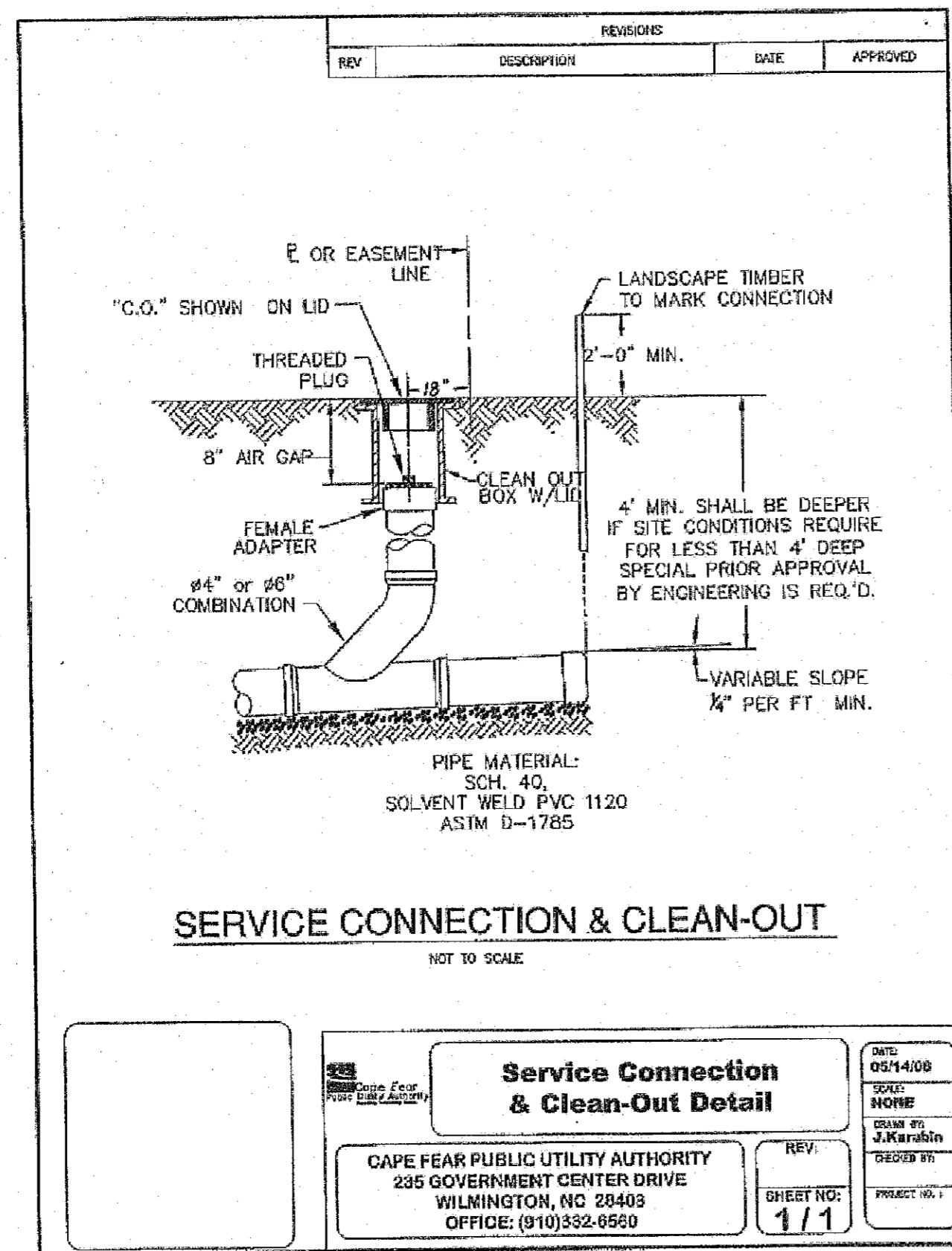
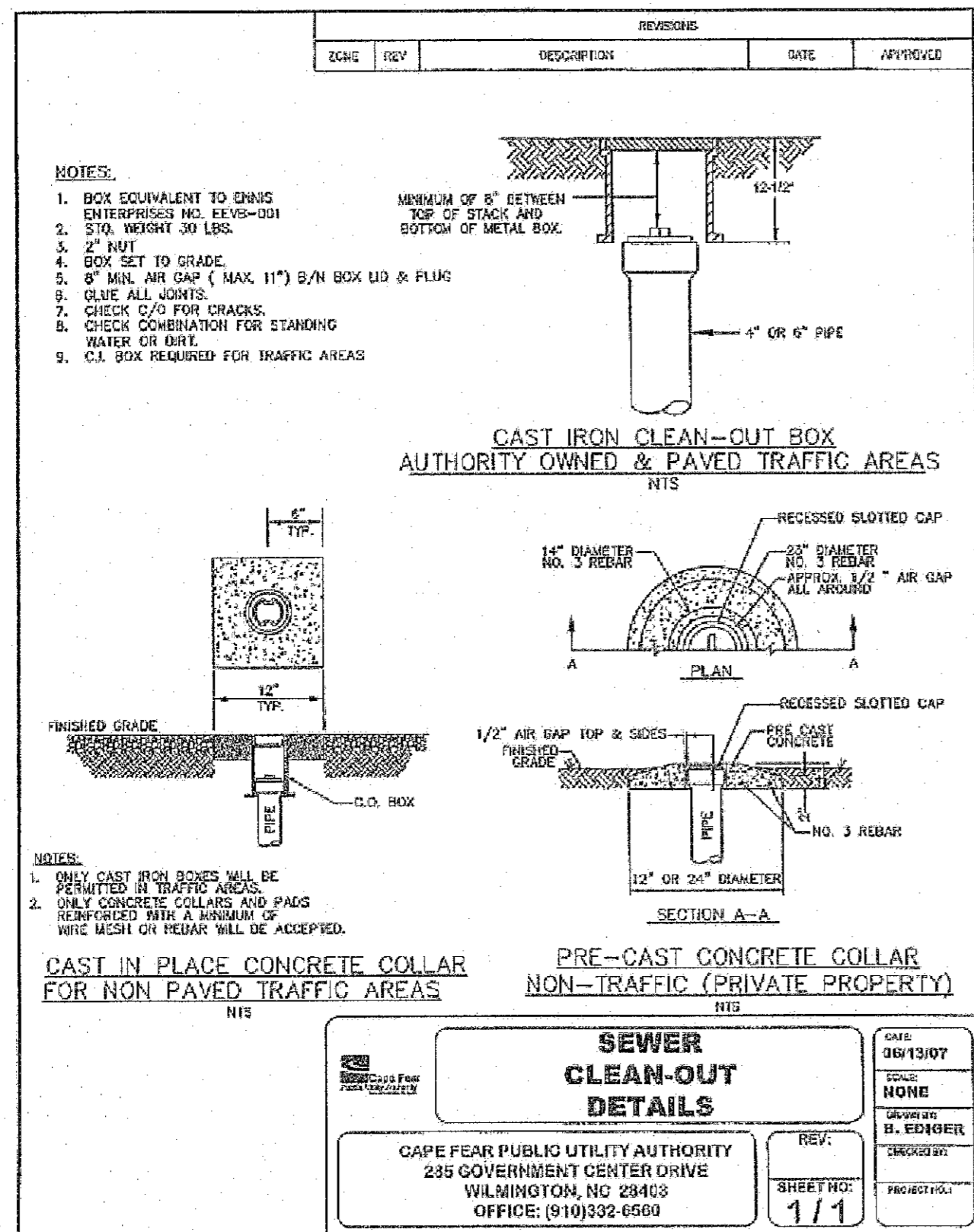
KEYNOTES

- 1) 2" DOMESTIC WATER METER PER UTILITY DEPARTMENT REQUIREMENTS
- 2) 1.5" DOMESTIC REDUCED PRESSURE BACKFLOW PREVENTER. CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 3) 1.5" DOMESTIC WATER SERVICE. CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 4) 6" PVC SANITARY SEWER LINE AT 1" PER LF SLOPE (MINIMUM). CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 5) 4" PVC SANITARY SEWER LINE AT 1" PER LF SLOPE (MINIMUM). CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 6) 8" IRRIGATION TAP - CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 7) SANITARY SEWER CLEANOUT, SEE DETAIL SHEET.
- 8) TRAFFIC RATED SANITARY SEWER CLEANOUT, SEE DETAIL SHEET.
- 9) RELOCATE EXISTING UTILITY POLE. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY COMPANY
- 10) TRANSFORMER PAD, CONTRACTOR SHALL COORDINATE LOCATION AND SIZE WITH ELECTRICAL UTILITY.
- 11) 1,500 GALLON GREASE TRAP, COORDINATE WITH OWNER AND MANUFACTURER.
- 12) 8" IRRIGATION WATER METER. CONTRACTOR SHALL COORDINATE WITH IRRIGATION CONTRACTOR AND UTILITY DEPARTMENT
- 13) 8" IRRIGATION BACKFLOW PREVENTER (WATTS 909MIQT OR APPROVED EQUIVALENT) IN ABOVE-GROUND HEATED ENCLOSURE. CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 14) POLE MOUNTED AREA LIGHT, SEE LIGHTING PLAN.
- 15) COORDINATE IRRIGATION CONNECTION WITH IRRIGATION CONTRACTOR.
- 16) UNDERGROUND ELECTRIC SERVICE. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL UTILITY.
- 17) UNDERGROUND TELEPHONE SERVICE. CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY.
- 18) PROFESSIONALLY CORE DRILL AND RUBBER BOOT EXISTING SANITARY SEWER MANHOLE TO MAKE 6" SANITARY SEWER SERVICE CONNECTION. CONTRACTOR SHALL FIELD VERIFY SIZE, LOCATION AND ELEVATION OF EXISTING SANITARY SEWER PRIOR TO ANY CONSTRUCTION TO ENSURE REQUIRED PIPE SLOPE, COVER AND CLEARANCES CAN BE ACHIEVED AND COORDINATE ALL WORK WITH UTILITY.
- 19) 4" PVC IRRIGATION CONDUIT
- 20) 15" SAMPLING PORT
- 21) EXISTING FIRE HYDRANT
- 22) NATURAL GAS SERVICE



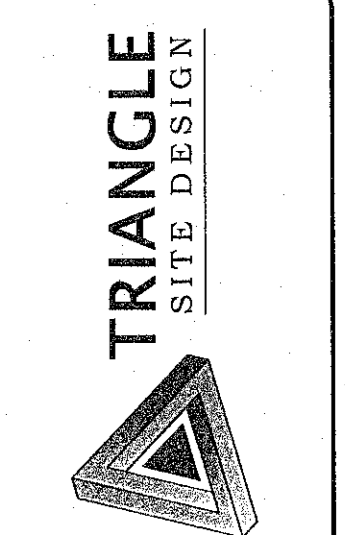
Know what's below
 Call before you dig.



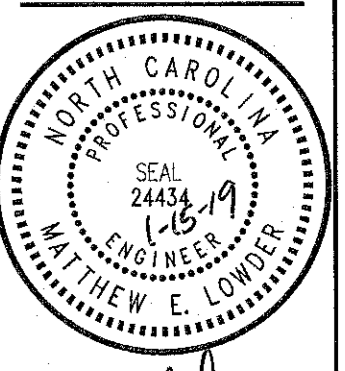


CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____

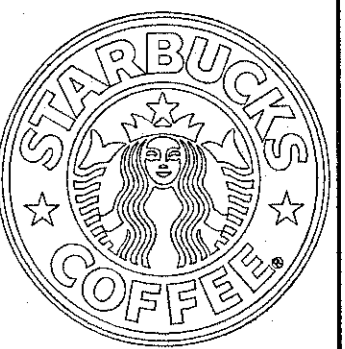


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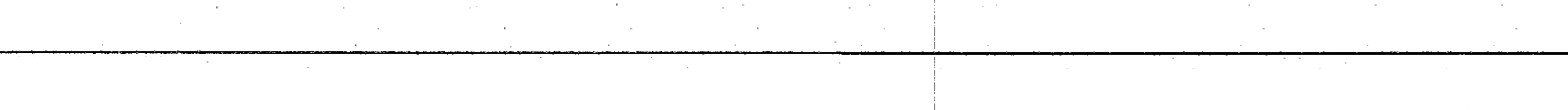
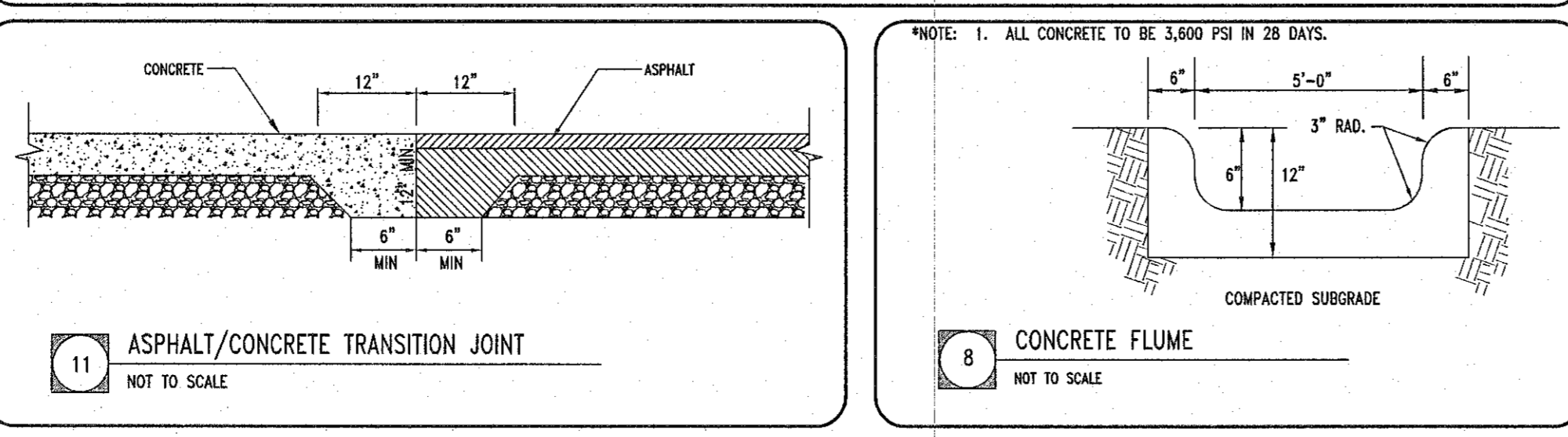
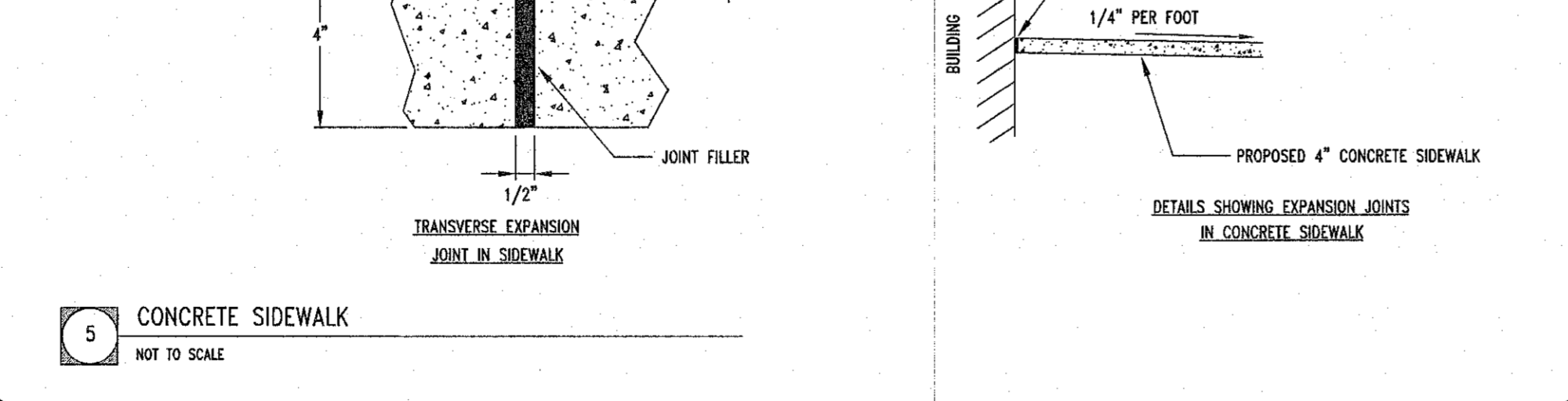
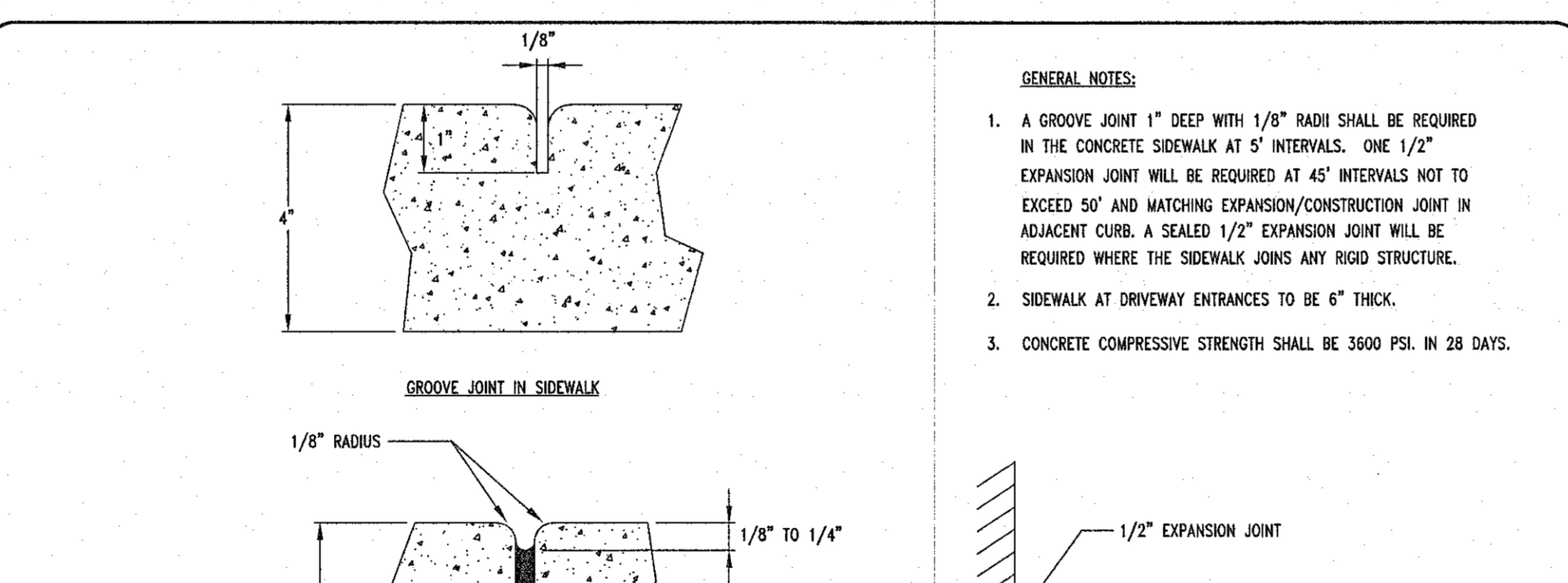
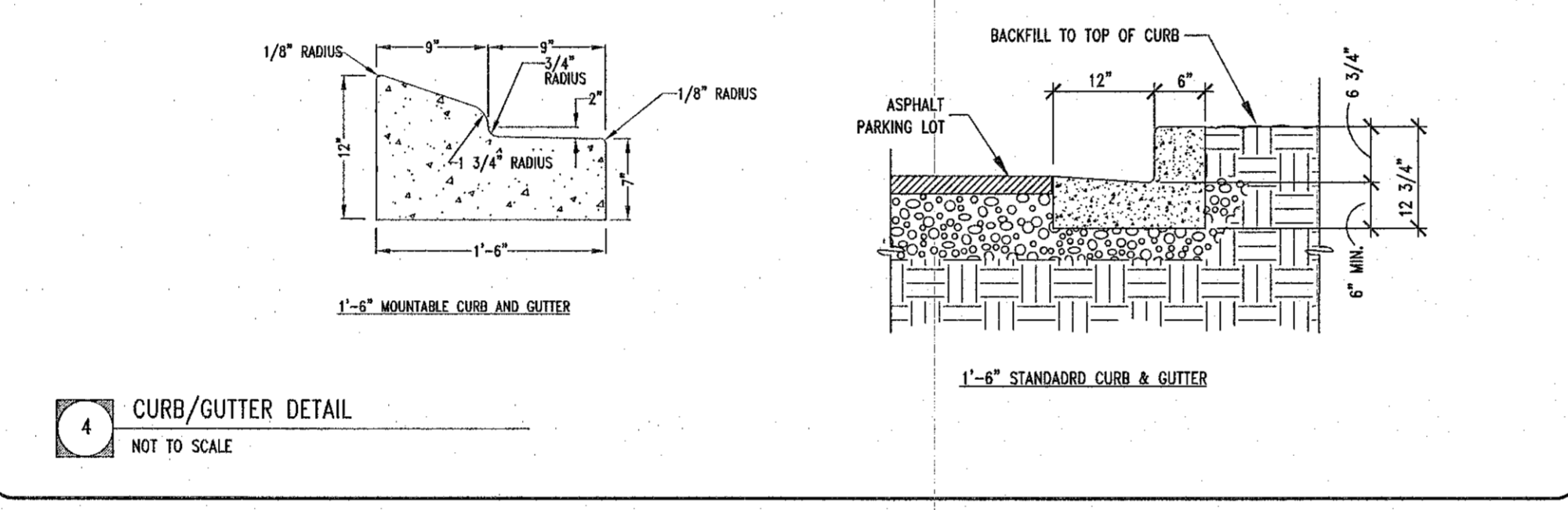
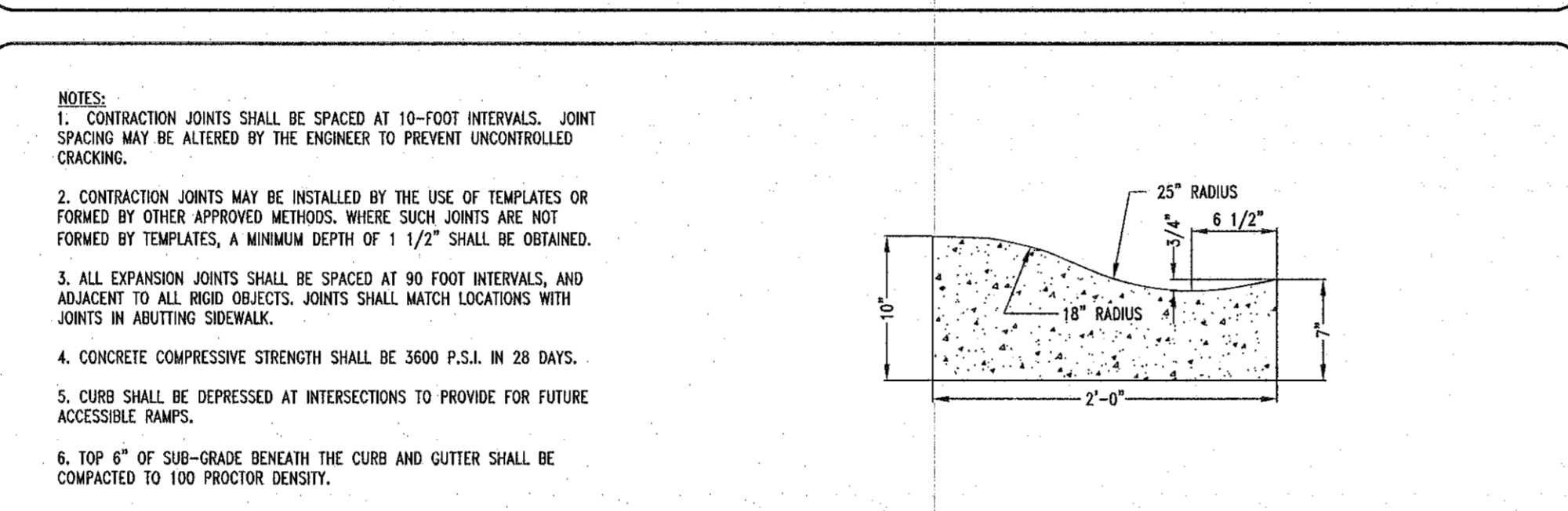
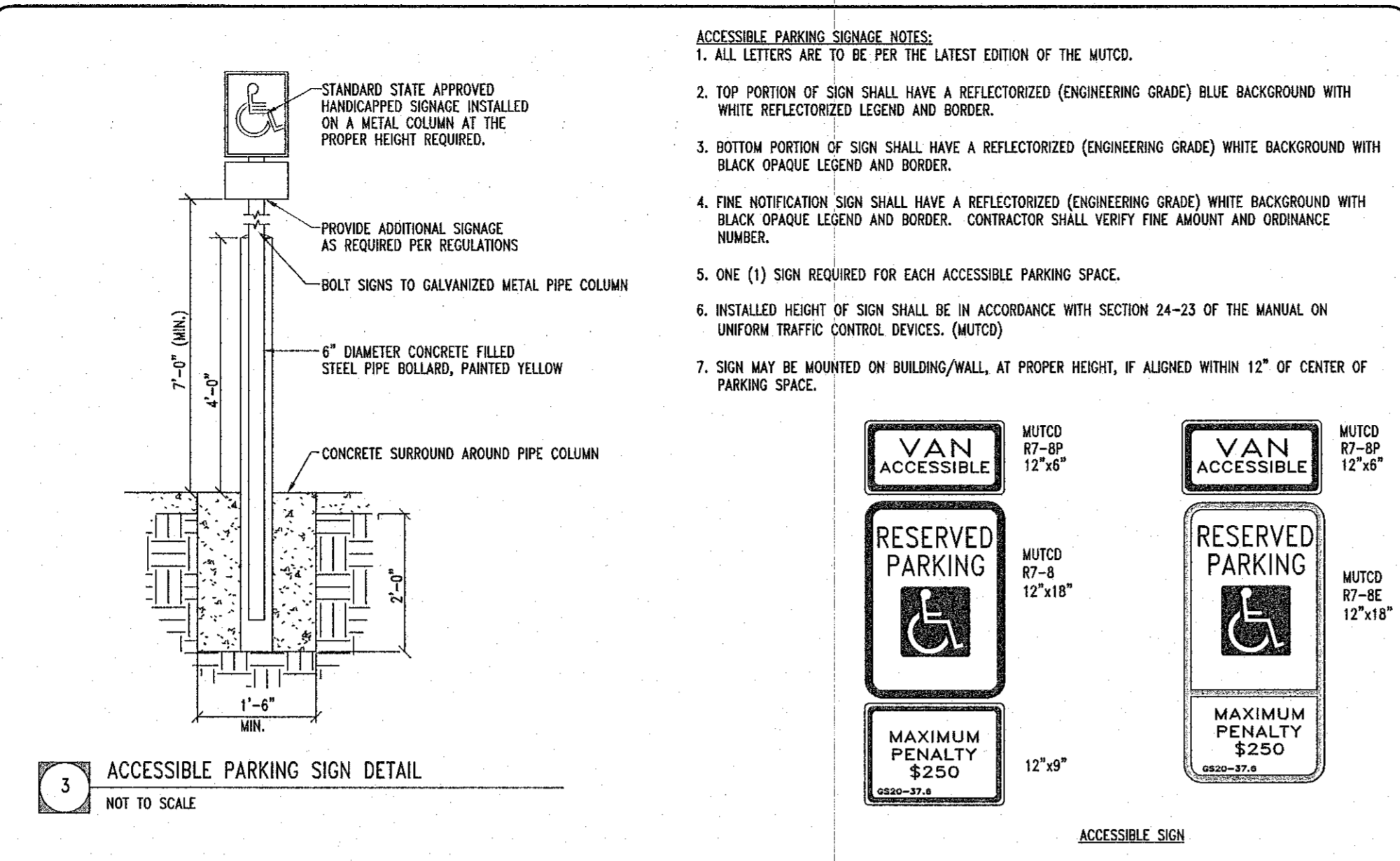
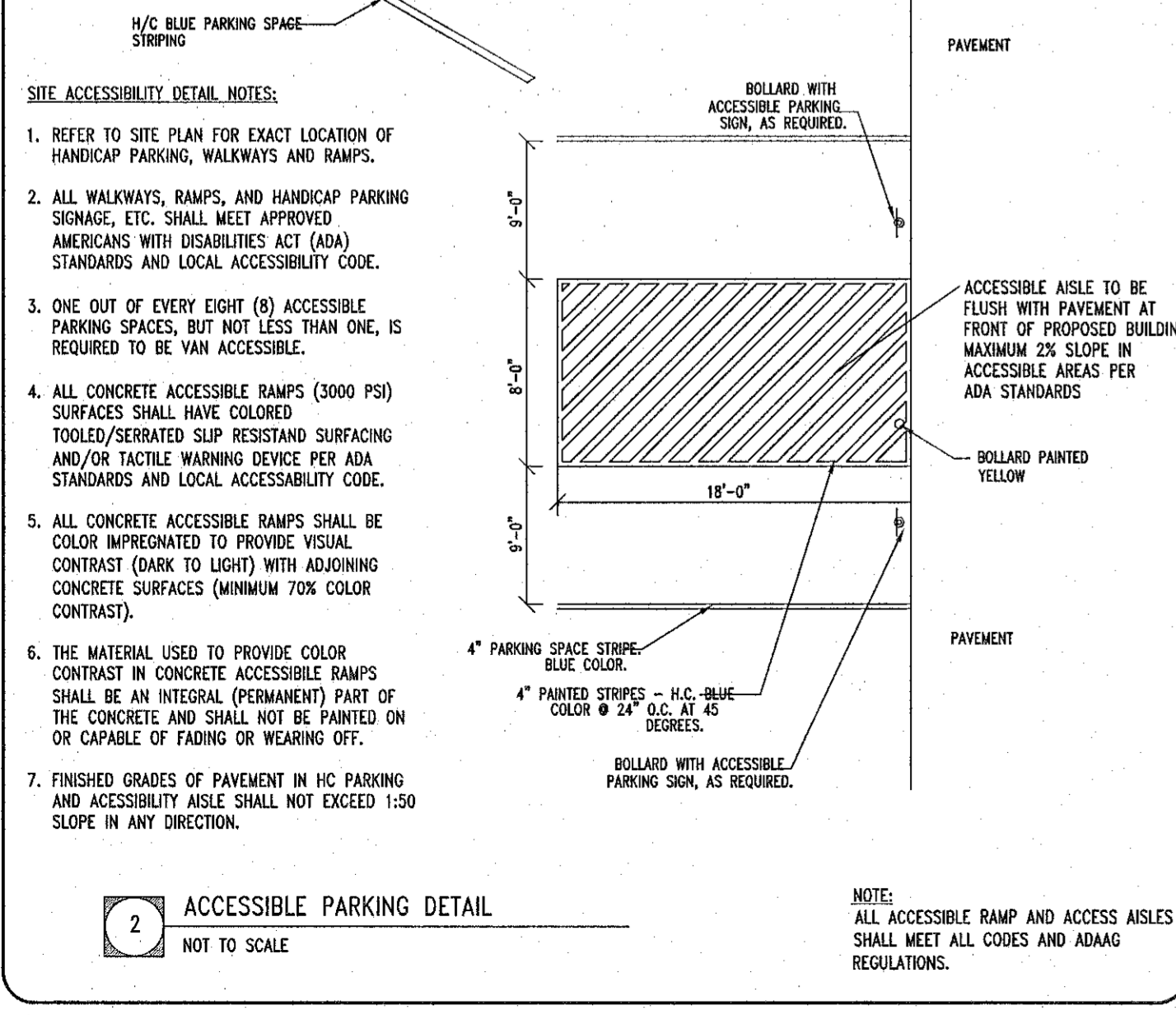
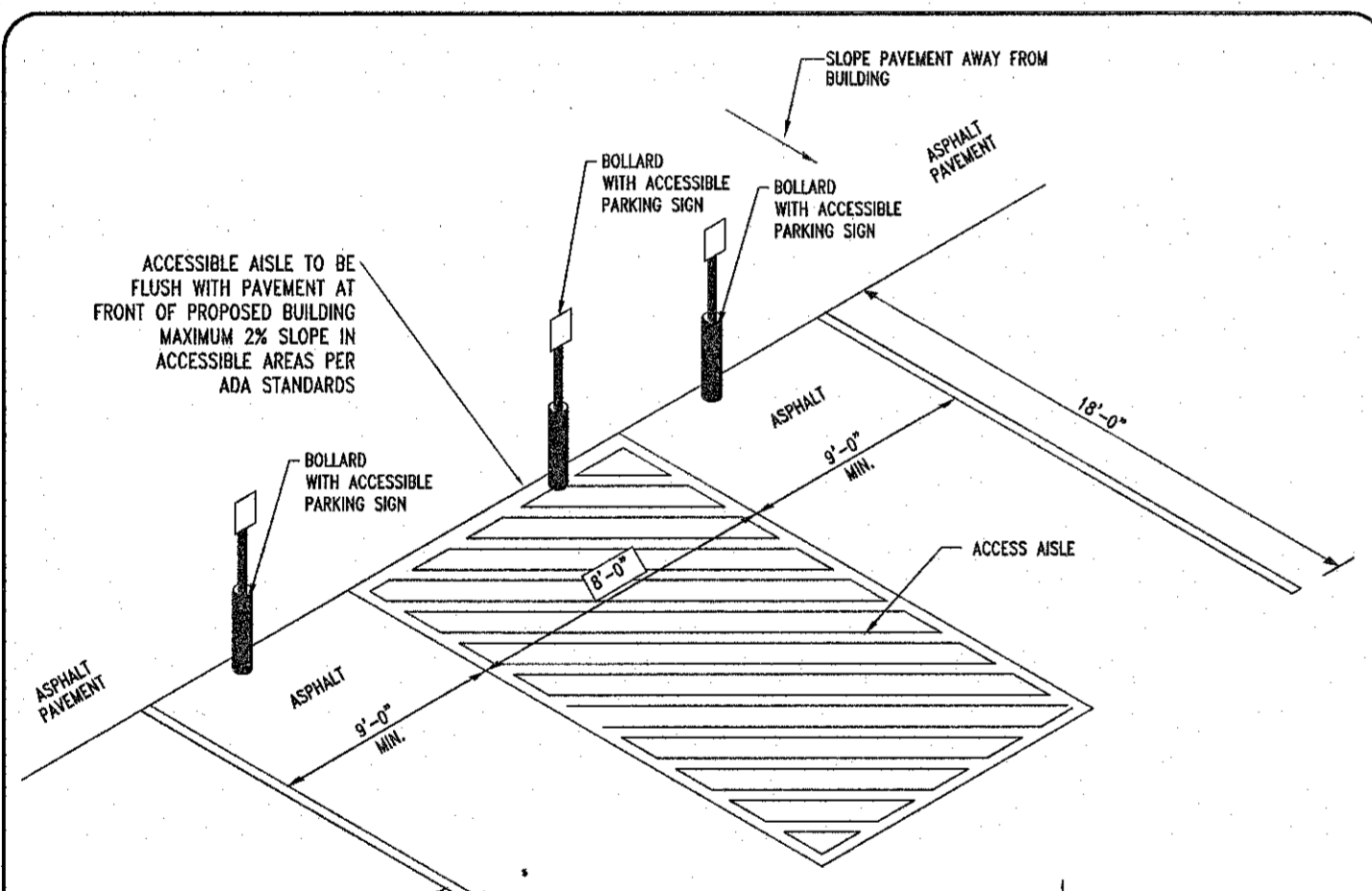
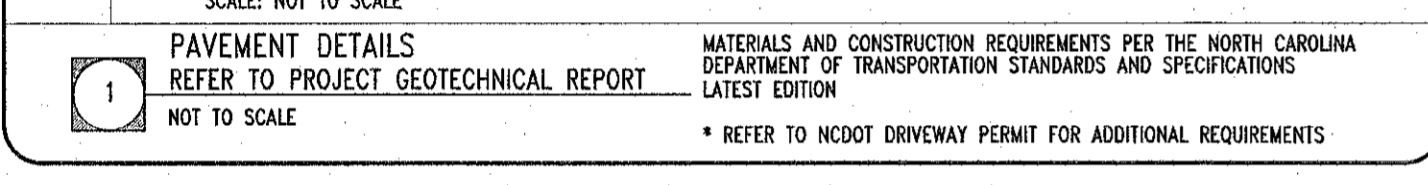
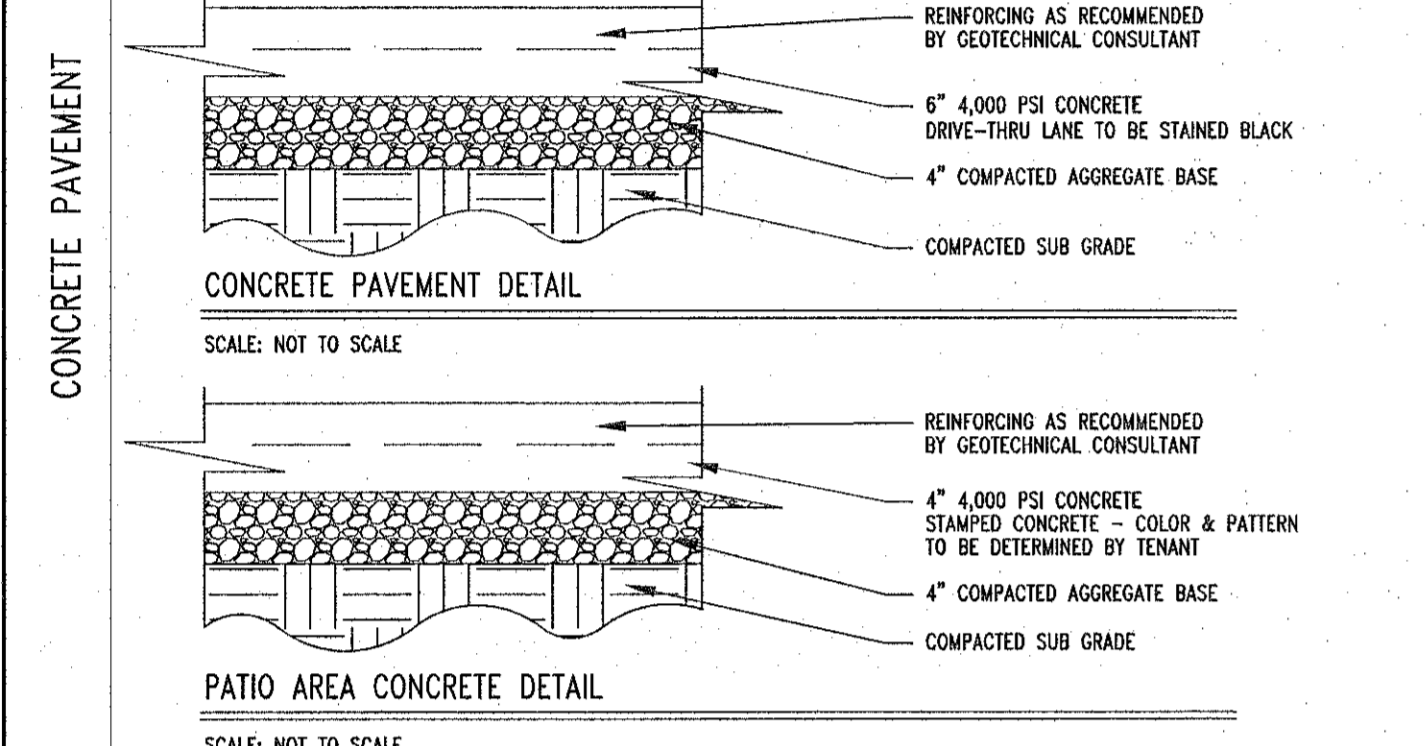
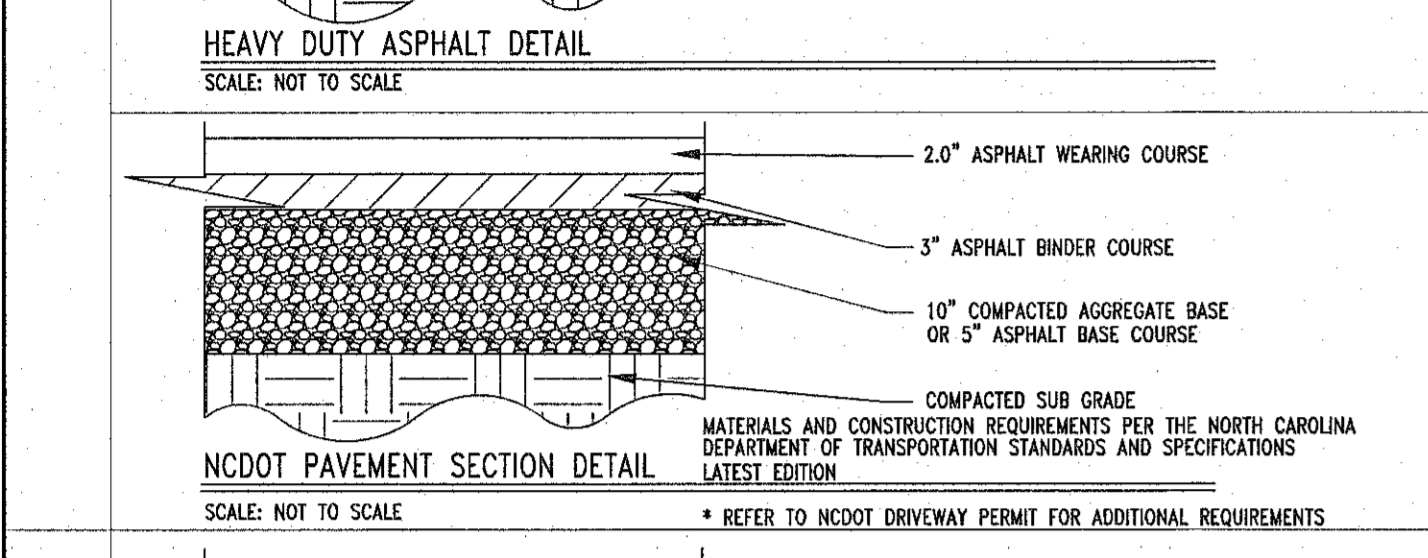
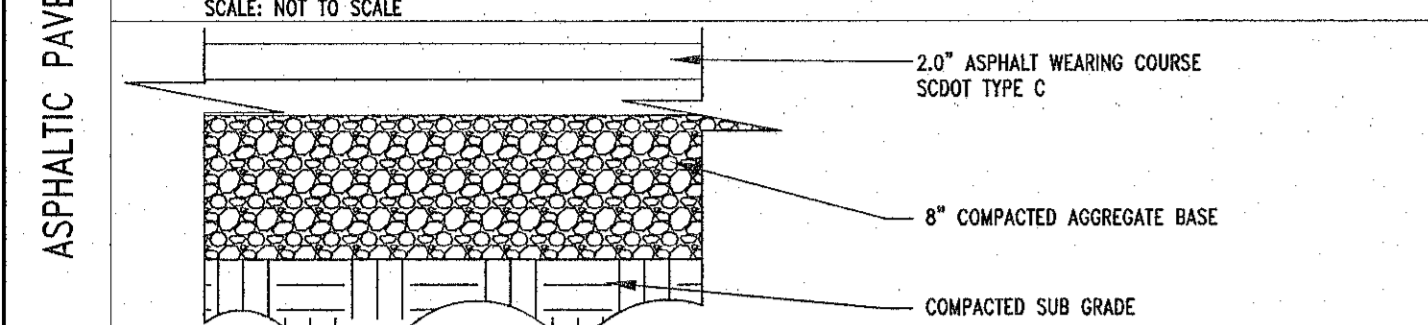
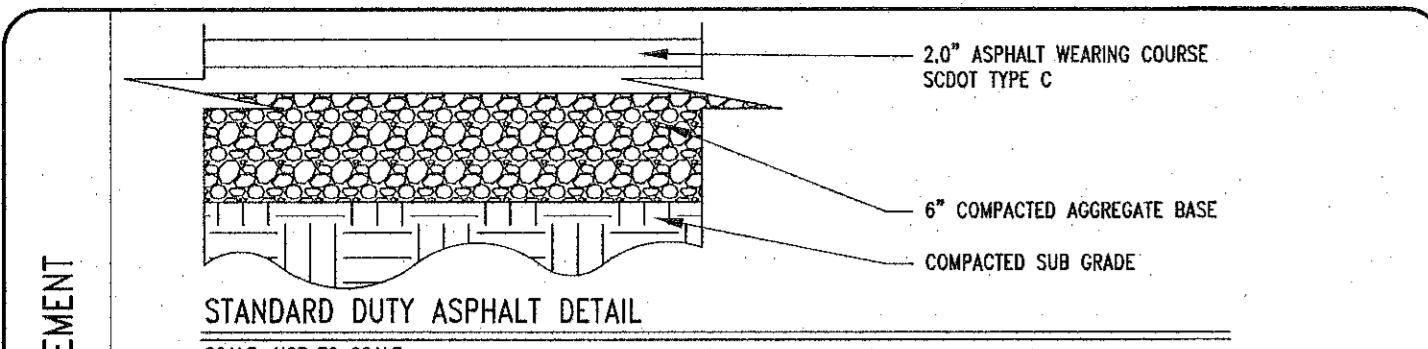
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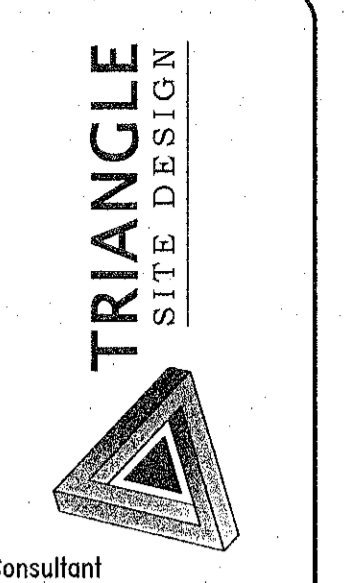
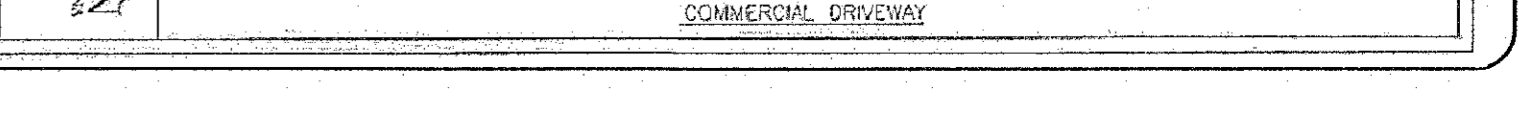
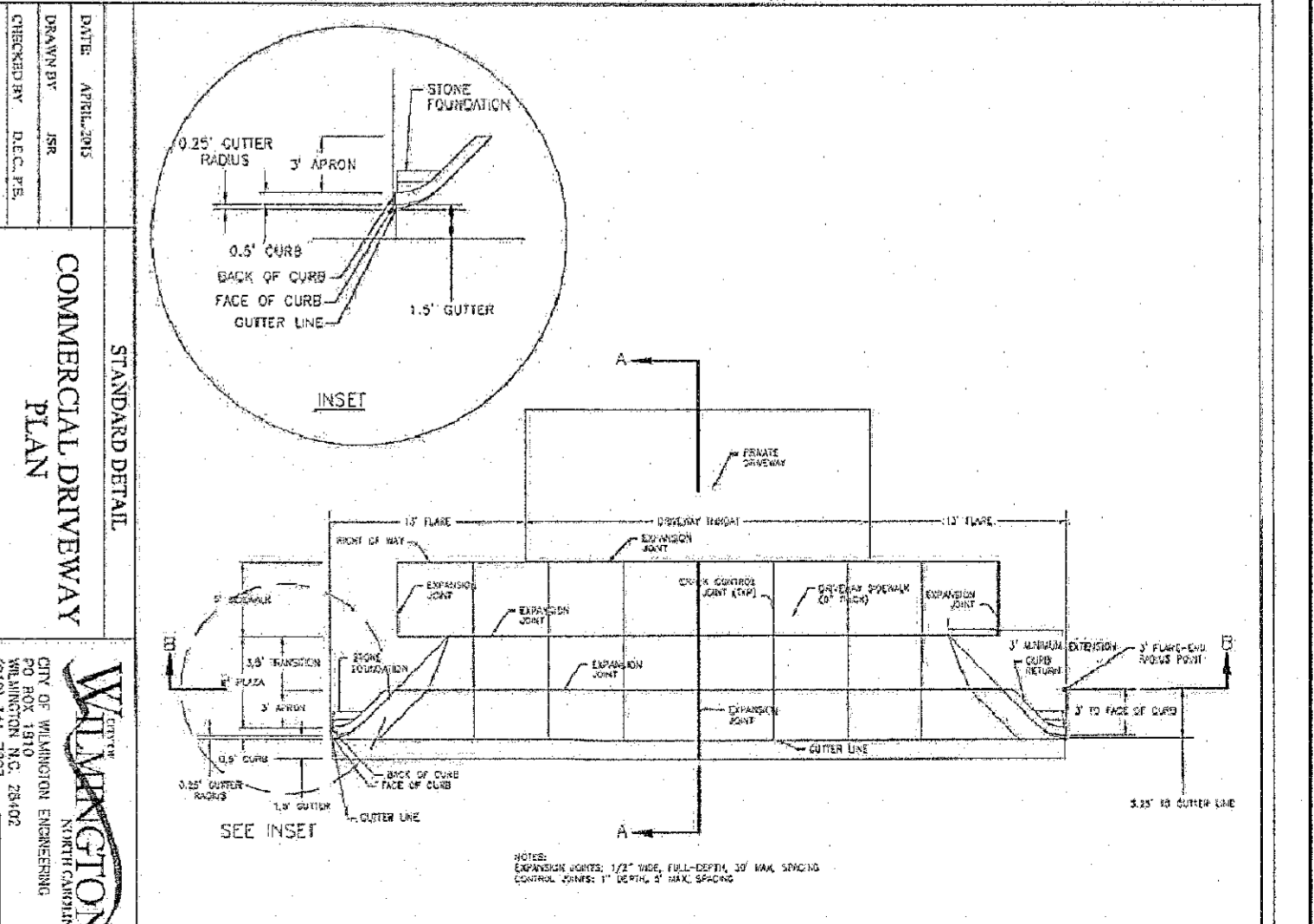
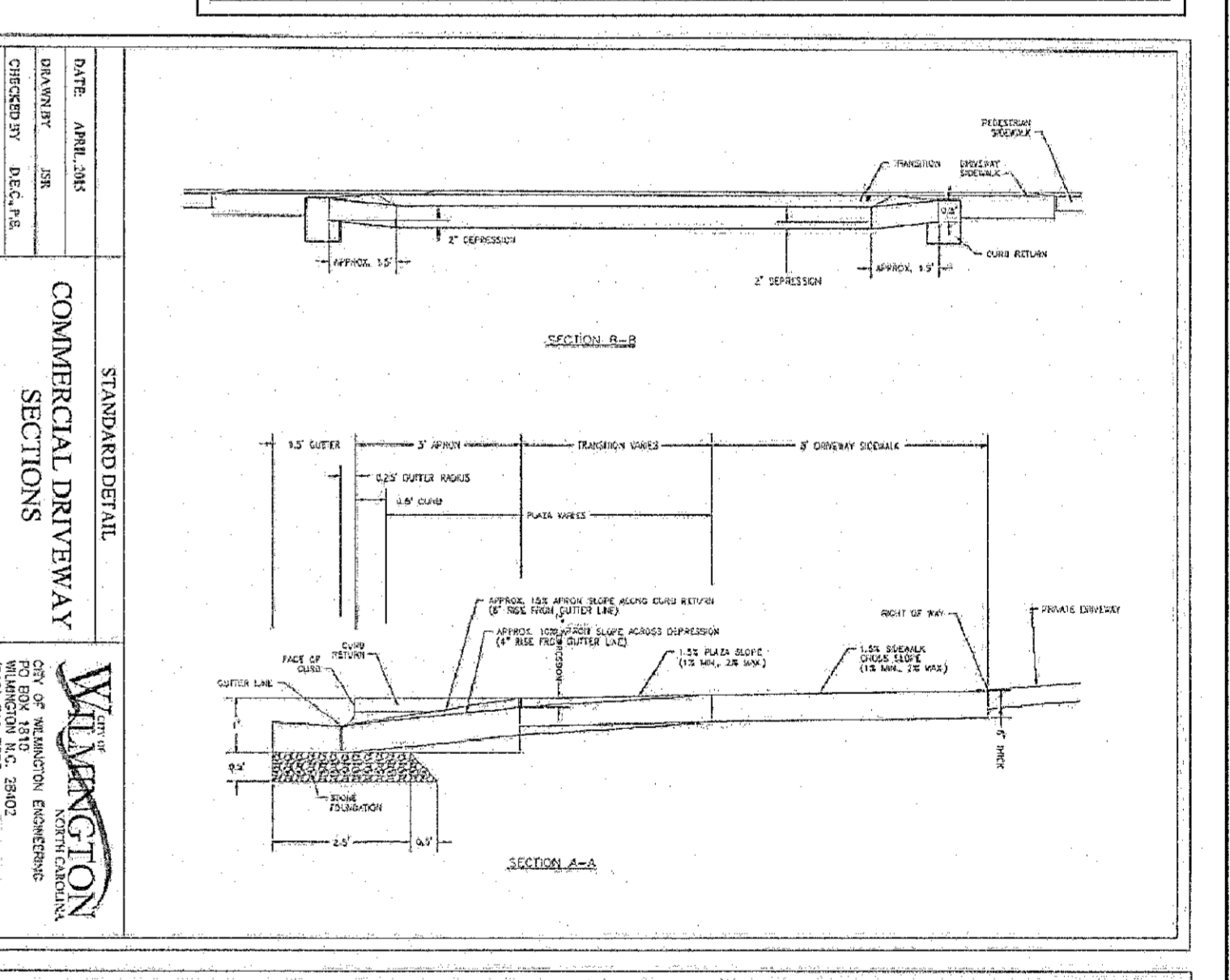
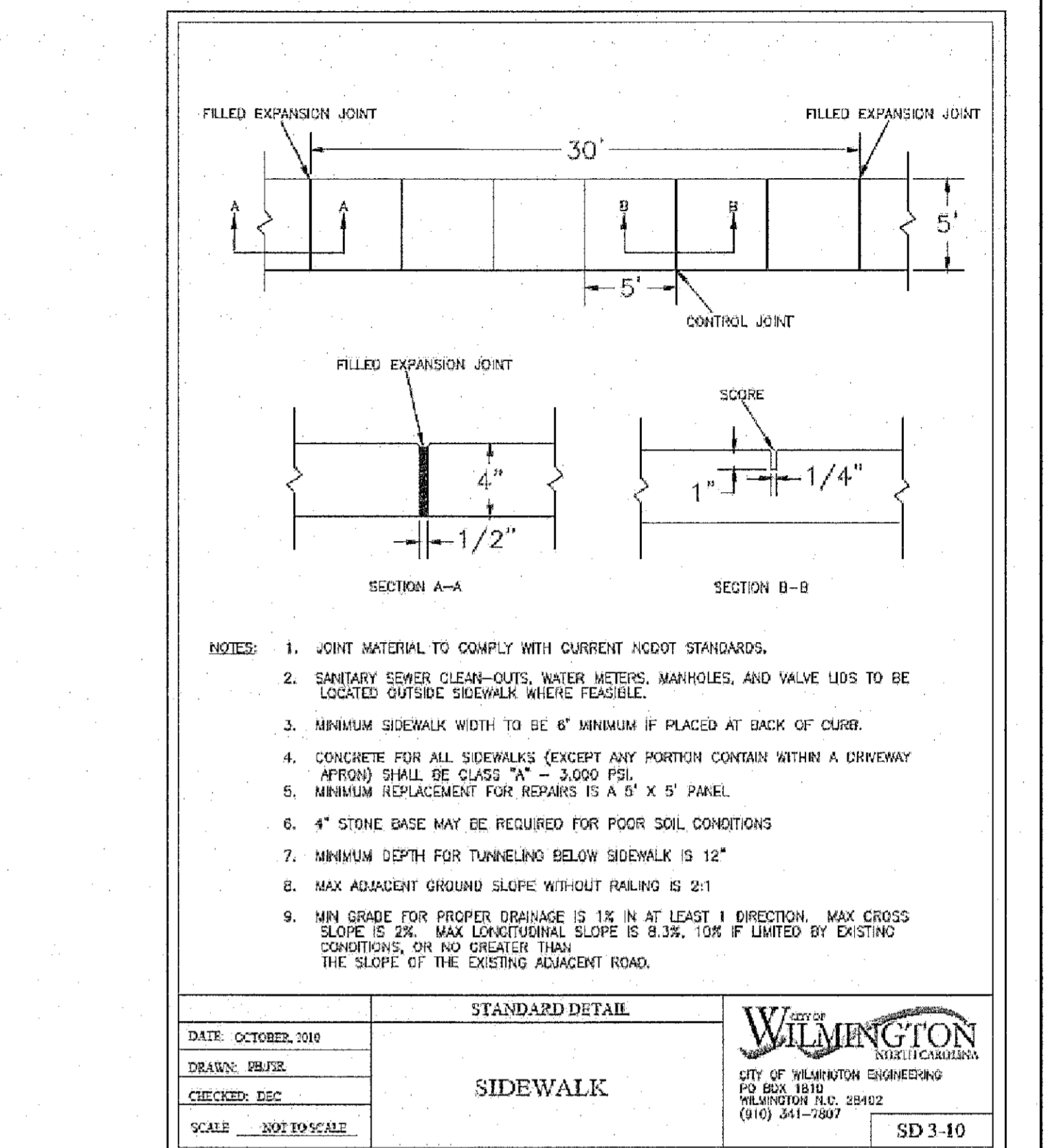
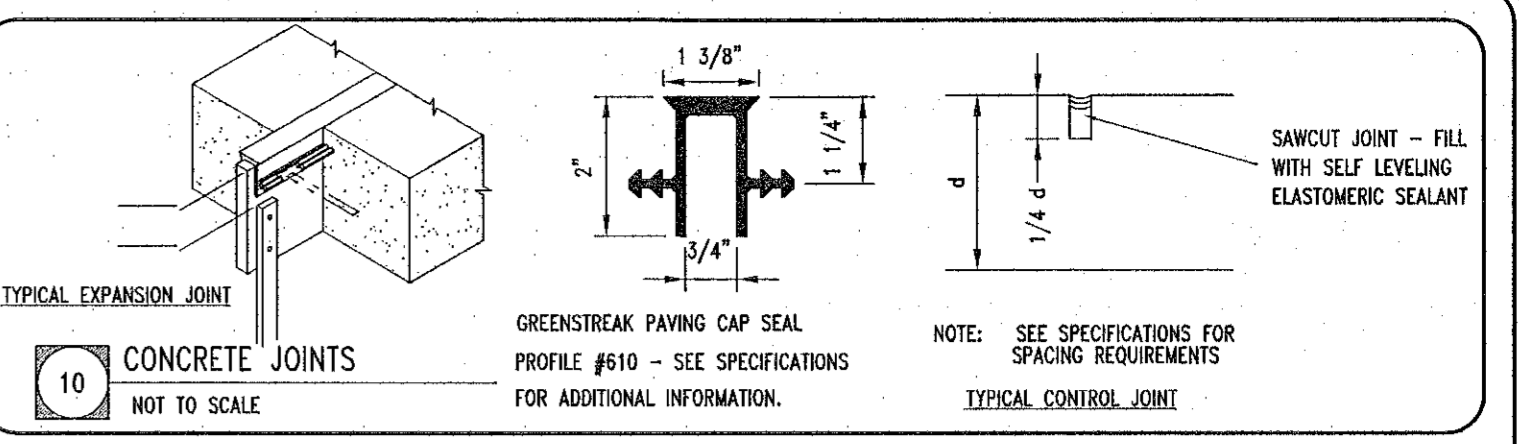
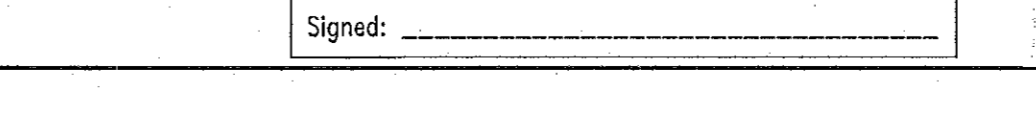
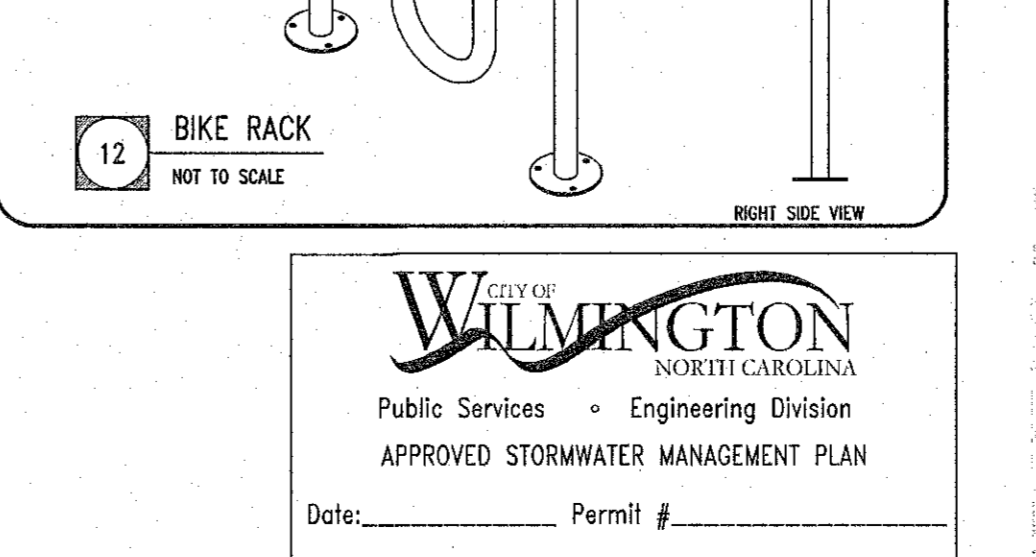
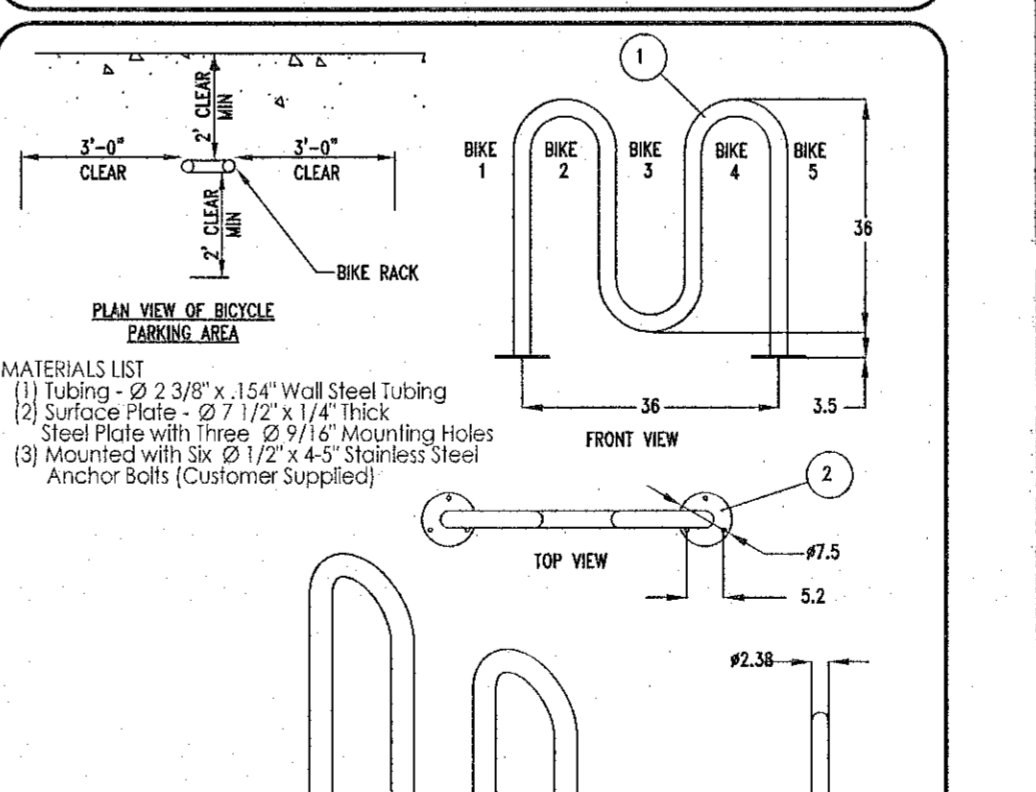
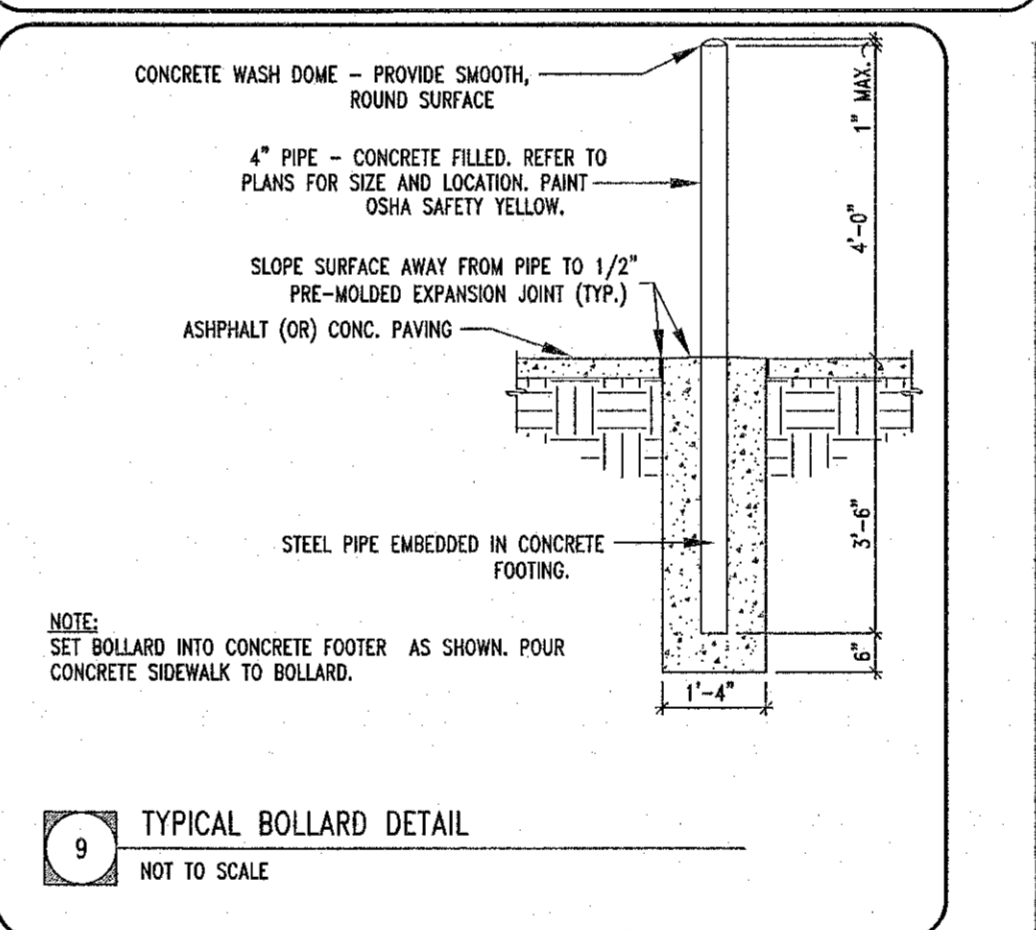
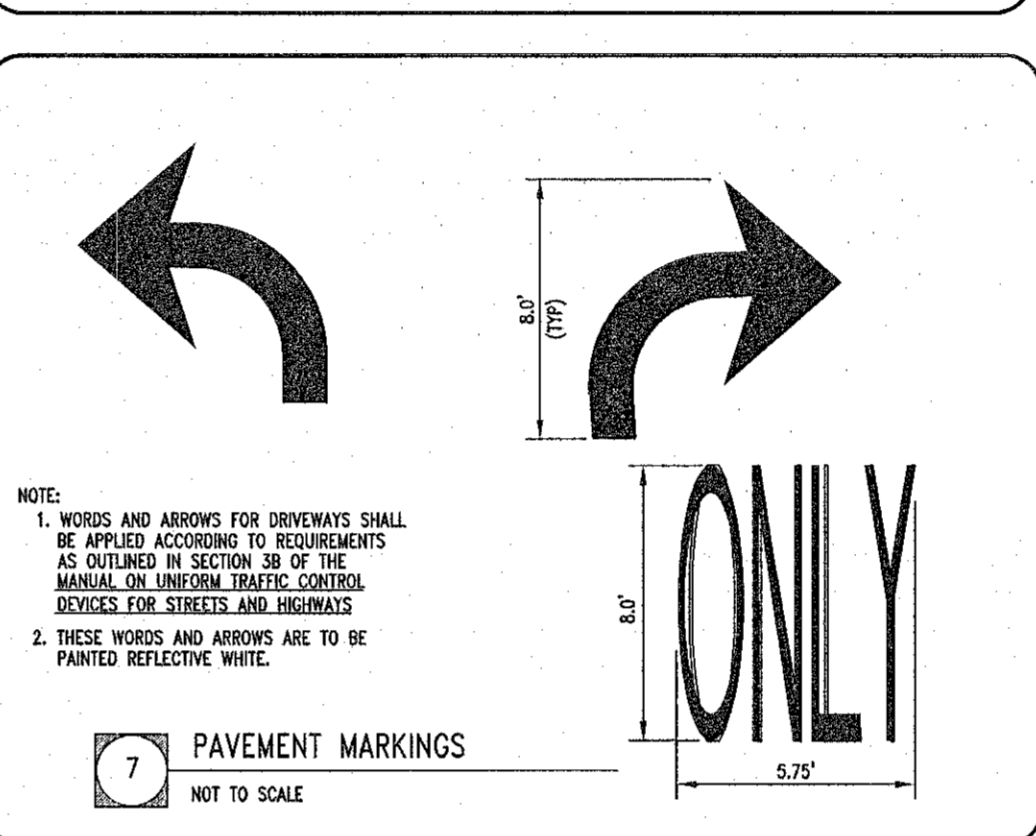
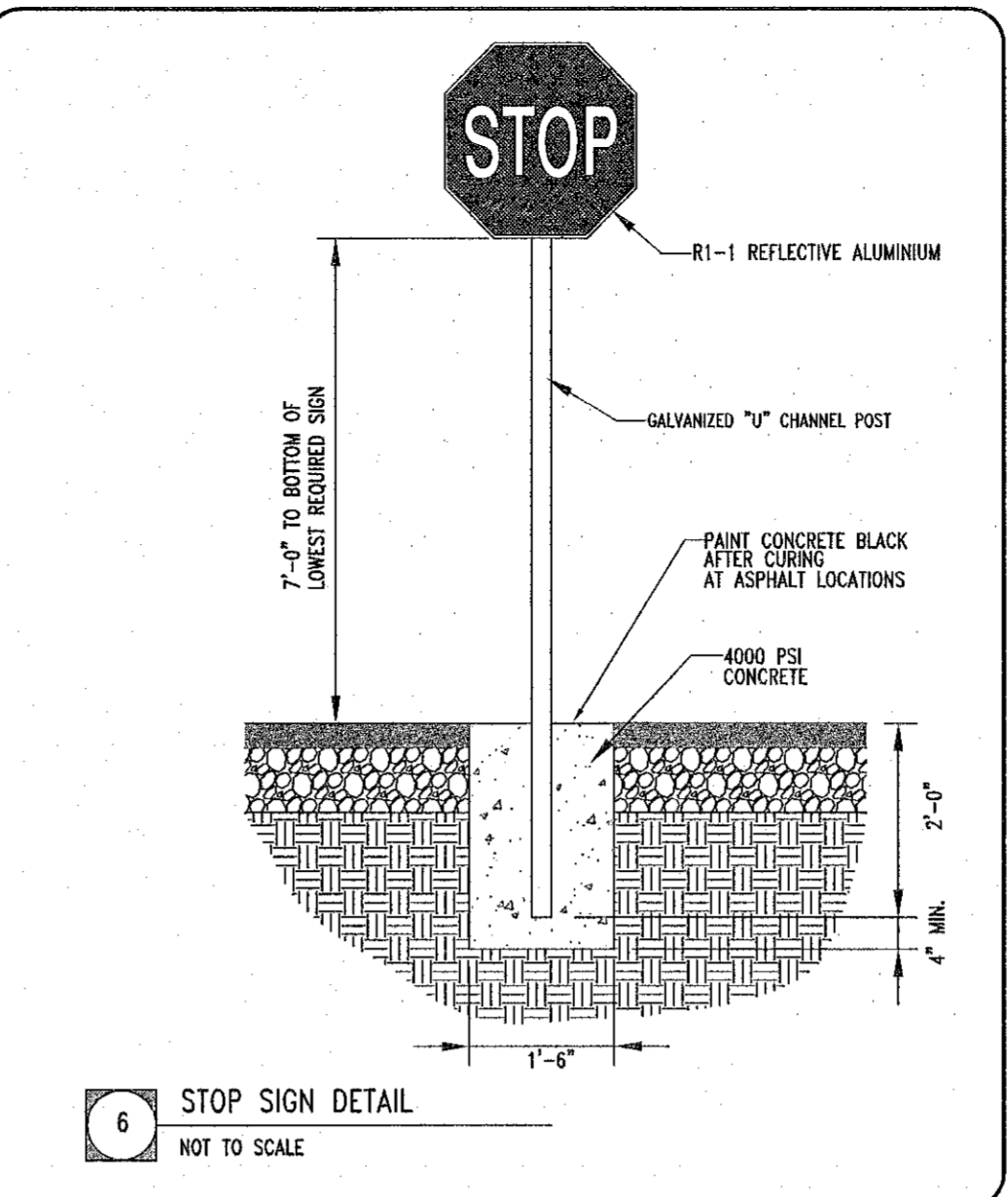
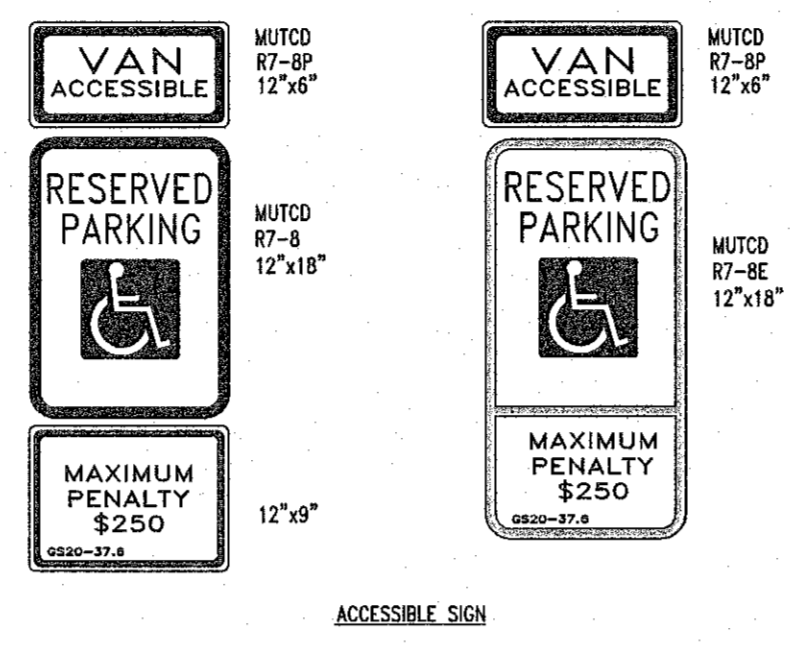
Project No. 009014
Date: January 15, 2019
Title

UTILITY DETAILS

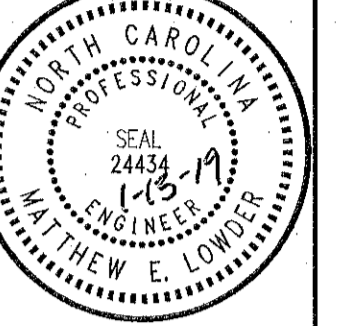
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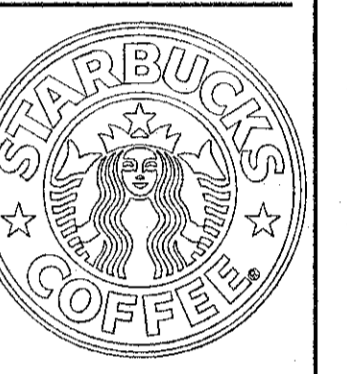
- ACCESSIBLE PARKING SIGNAGE NOTES:**
1. ALL LETTERS ARE TO BE PER THE LATEST EDITION OF THE MUTCD.
 2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
 3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
 4. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER. CONTRACTOR SHALL VERIFY FINE AMOUNT AND ORDINANCE NUMBER.
 5. ONE (1) SIGN REQUIRED FOR EACH ACCESSIBLE PARKING SPACE.
 6. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
 7. SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, IF ALIGNED WITHIN 12" OF CENTER OF PARKING SPACE.



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Attn: Collins Hartzog
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collins@hartzogholdings.com



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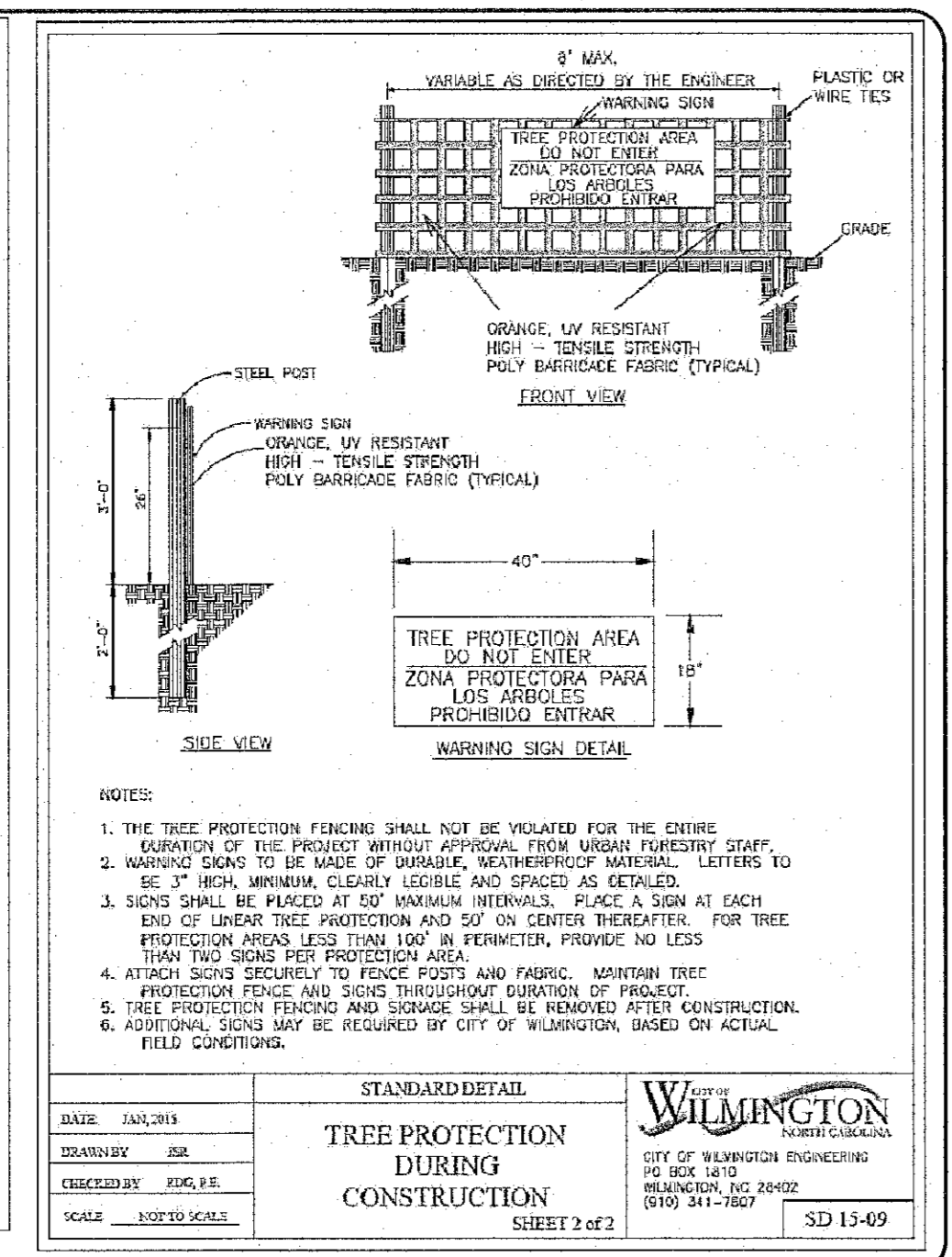
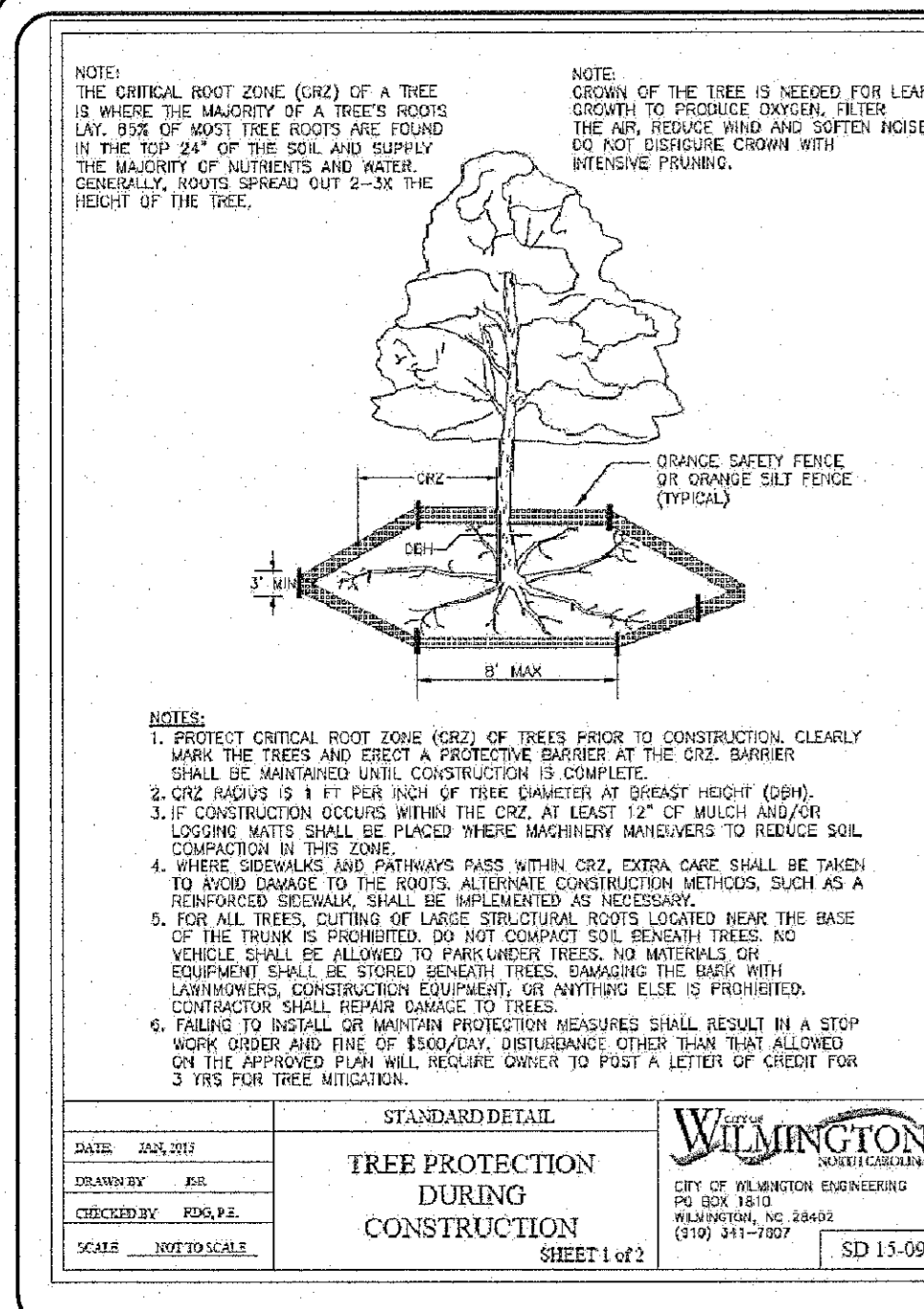
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Approved
Project No. 00914
Date: January 15, 2019
Title

CONSTRUCTION DETAILS

Sheet No.
C1.4

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



EROSION CONTROL NARRATIVE

STARBUCKS, NEW HANOVER COUNTY, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, INLET PROTECTION, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS (CLEANING ONLY AS NECESSARY TO INSTALL THESE ITEMS). BEGON DEMOLITION, CLEANING AND SITE GRADING OPERATIONS, STABILIZATION OF EXISTING STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE. THE ON-SITE SANITARY SEWER AND WATER SYSTEM MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT UP TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE. INSTALLATION OF CURB AND GUTTER WILL THEN BE PERFORMED. BASE STONE WILL THEN BE PLACED AND PAVE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDED. REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STREETING WILL THEN BE COMPLETED. FINISH STORMWATER POND STRUCTURE ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING WILL BE COMPLETED. THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LAWFUL MANNER. ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LAWFUL MANNER. ACCORDING TO THE GROUND STABILIZATION REQUIREMENTS ON THIS SHEET, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE. VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLUTANT-LOADED STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES.

TREE PROTECTION NOTES

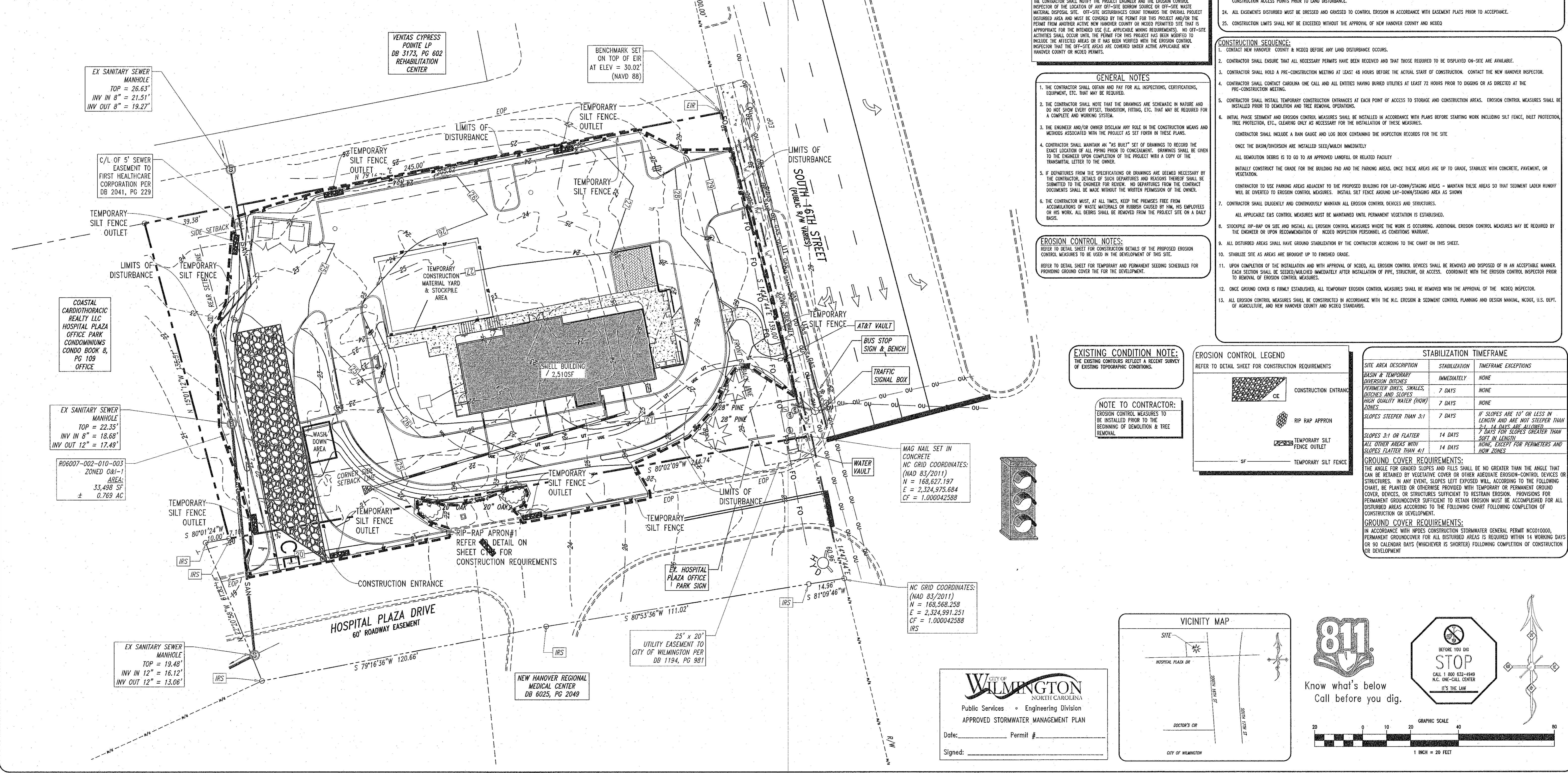
1. THE CONTRACTOR SHALL PROTECT ALL TREES AND SHRUBS OUTSIDE OF CUT/FILL LINES, IN ADDITION TO THOSE THAT RECEIVE TREE/SHRUB PROTECTION BARRIERS. THE CONTRACTOR IS ALSO REQUESTED TO SAVE ALL OTHER EXISTING TREES AND SHRUBS WHERE POSSIBLE.
2. WHEN ROOT PRUNING IS NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER AND IMMEDIATELY COVER ALL ROOT CUT SURFACES LARGER THAN TWO INCHES IN DIAMETER WITH TREE WOUND DRESSING. USE PLYWOOD FORMS WHEN TREE ROOTS ARE ADJACENT TO PROPOSED CURB & GUTTER OR SIDEWALK.
3. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURNING PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.
4. NO GRUBBING WITH TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.
5. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, CLEANING, GRADING OR CONSTRUCTION BEGINS AND IS NOT TO BE REMOVED UNTIL AFTER CONSTRUCTION.
6. TREE PROTECTION FENCE IS TO BE LOCATED 1 FOOT PER TREE DIAMETER INCH AWAY FROM THE TREE.

EROSION CONTROL NOTES:

1. TOTAL AREA DISTURBED = 0.73 ACRES
TOTAL SITE AREA = 0.78 ACRES
SOIL TYPE = LEON SAND
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 NCEQ EROSION AND SEDIMENT CONTROL HANDBOOK.
3. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS.
4. CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.
5. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEANING AND/OR LAND DISTURBANCE.
6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
7. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCEQ EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
8. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. A REVISED PLAN SHOWING OFF-SITE IMPACTS SHOULD BE SUBMITTED AND APPROVED PRIOR TO ANY OFF-SITE GRADING. CONTACT PROJECT ENGINEER AND NCEQ EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.
9. 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 NCEQ FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT HIS SEPARATE EXPENSE. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDING AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RE-SEED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
11. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NCEQ EROSION CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
12. WHEN A CONSIDERED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS UNTO NON-PAVED AREA. SIX INCHES OF STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.
14. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.
15. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
16. ALL DISTURBED AREAS ARE TO BE DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS COMPLETED.
17. DURING DE-WATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
18. 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.

SEDIMENT & EROSION CONTROL NOTES:

1. THE EROSION AND SEDIMENTATION CONTROL MEASURES (EMPS) WERE DESIGNED USING THE NEW HANOVER COUNTY REQUIREMENTS AND SHALL BE INSTALLED ACCORDINGLY. CONTRACTOR SHALL PERFORM ALL ACTIVITIES IN STRICT COMPLIANCE WITH THE NORTH CAROLINA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM URBAN AND SMALL CONSTRUCTION ACTIVITIES (GENERAL PERMIT).
2. REFER TO THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS FOR EROSION CONTROL DETAILS AND DESIGN TABLES FOR SEDIMENT BASINS, DIVERSION DITCHES, AND CULVERTS, SLOPE DRAINS, RIP-RAP APRONS AND OTHER EROSION CONTROL MEASURES.
3. EXISTING BOUNDARIES, TOPOGRAPHY, 100-YR FLOODPLAIN, UTILITY AND ROAD INFORMATION TAKEN FROM AN EXISTING CONDITIONS SURVEY. ALL EXISTING INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR.
4. SEE THE LANDSCAPE PLAN FOR LOCATIONS OF PROPOSED PLANTINGS AND FINAL STABILIZATION.
5. TEMPORARY DIVERSION DITCHES AND BEMS SHALL BE MAINTAINED AS THE SITE IS BROUGHT TO GRADE.
6. DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
7. SEE THE GENERAL NOTES SHEET AND THE GRADING AND DRAINAGE PLAN FOR OTHER NOTES REGARDING GRADING ACTIVITIES.
8. SEE SITE PLAN, GRADING AND DRAINAGE PLAN, UTILITY PLAN, PLANTING PLAN AND OTHER PLAN SHEETS FOR DETAILED DESIGN INFORMATION OF PERMANENT SITE IMPROVEMENTS SHOWN ON THIS SHEET.
9. WHERE THE LIMITS OF DISTURBANCE AND TEMPORARY FENCE (SF, SF-FF, OR PF) LIMITS ARE ADJACENT, THE LIMITS OF DISTURBANCE LINE IS THE LIMITS OF DISTURBANCE. THE LIMIT TYPES ARE SHOWN SEPARATED FOR ILLUSTRATIVE PURPOSES ONLY.
10. CONTRACTOR SHALL NOT DISTURB ANY EXISTING VEGETATION GROUND COVER OR TREES OUTSIDE OF THE LIMITS OF DISTURBANCE OR WITHIN ANY REQUIRED BUFFER LIMITS UNLESS OTHERWISE NOTED OR ILLUSTRATED.
11. PROVIDE CONTROLS OF POLLUTANTS, INCLUDING, BUT NOT LIMITED TO DUST CONTROL, DE-WATERING, SOLID WASTE DISPOSAL, AND HAZARDOUS MATERIALS.
12. CLEAR ONLY AS REQUIRED TO INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES. MASS CLEARING AND GRUBBING CAN BE ONLY AFTER ALL DOWNSTREAM MEASURES HAVE BEEN INSTALLED.
13. USE ROCK OR WASHED STONE TO BRING CONSTRUCTION CUT TO GRADE. IMPLEMENT WHEEL WASHES AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION.
14. DIVERT STORM WATER AWAY FROM THE FACE OF THE SEDIMENT BASIN SLOPES USING DIVERSION DITCHES AND SLOPE DRAINS. CONTRACTOR SHALL MAINTAIN AND RELOCATE DIVERSION DITCHES AND SLOPE DRAINS TO ENSURE STORM WATER RUNOFF DOES NOT ERODE THE FACE OF FINAL SLOPES.
15. MAINTAIN POSITIVE SLOPE TO THE SEDIMENT BASINS THROUGHOUT ALL PHASES OF CONSTRUCTION. PLACE EXCAVATED SOILS ALONG DOWNSTREAM EDOG OF THE DIVERSION DITCHES TO PROVIDE ADDITIONAL CAPACITY.
16. REFER TO THE GRADING AND DRAINAGE PLAN FOR FINAL SITE AND PHASES AND ELEVATIONS OF THE PROPOSED STORM SEWER SYSTEMS.
17. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS DURING CONSTRUCTION OPERATIONS.
18. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
19. ALL WORK SHALL BE CONFINED TO PERMIT LIMITS SHOWN ON PLANS. UNLESS OTHERWISE NOTED, THE SITE PLAN PROPERTY LIMITS SHALL BE CONSIDERED THE PERMIT LIMITS.
20. SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE.
21. ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS SHOWN AND/OR DIRECTED BY THE PROJECT ENGINEER AND/OR LOCAL JURISDICTIONAL EROSION CONTROL LARNS.
22. FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LARNS.
23. ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND GROUND COVER IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE.
24. ALL EASEMENTS DISTURBED MUST BE DRESSED AND GRADED TO CONTROL EROSION IN ACCORDANCE WITH EASEMENT PLATS PRIOR TO ACCEPTANCE.
25. CONSTRUCTION LIMITS SHALL NOT BE EXCEEDED WITHOUT THE APPROVAL OF NEW HANOVER COUNTY AND NCEQ.



TRIANGLE SITE DESIGN

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Drawn: []
Checked: []
Approved: []

Project No. 009014
Date: January 15, 2019
Title

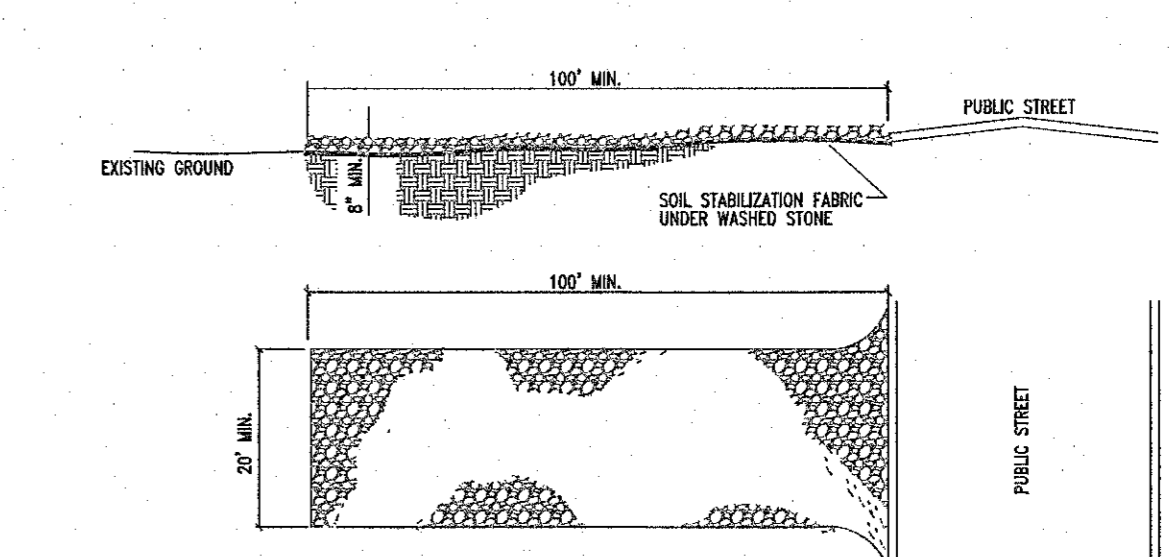
EROSION CONTROL PLAN

Sheet No. C1.6

REVISIONS	DATE	DESCRIPTION

MAINTENANCE:
INSPECT CONSTRUCTION ENTRANCE PERIODICALLY FOR CONDITION OF SURFACE. TOP-DRESS WITH NEW GRAVEL AS NEEDED.

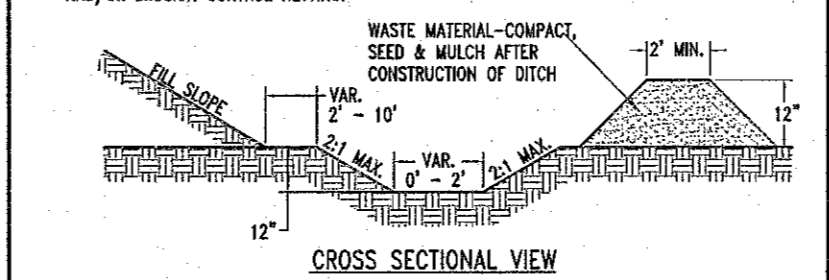
- GENERAL NOTES:**
1. A STABILIZED PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC STREET.
 2. STONE TO BE 2"-3" WASHED STONE.
 3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 4. ALL STONE SPILLED, BROKEN, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY. WHEN NECESSARY WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.
 5. FILTER FABRIC SHALL BE MINIMUM 20" IN WIDTH OR THE WIDTH OF THE EXIT, WHICHEVER IS GREATER.



4 CONSTRUCTION ENTRANCE
NOT TO SCALE

MAINTENANCE:
INSPECT TEMPORARY DIVERSION DITCH ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION. REPAIR THE CHANNEL LINING AS NECESSARY PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS. CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED TO AVOID GULLY FORMATION. WHEN THE AREA ABOVE THE TEMPORARY DIVERSION DITCH IS PERMANENTLY STABILIZED, REMOVE THE DIVERSION AND FILL AND STABILIZE THE CHANNEL TO BLEND WITH THE NATURAL SURFACE.

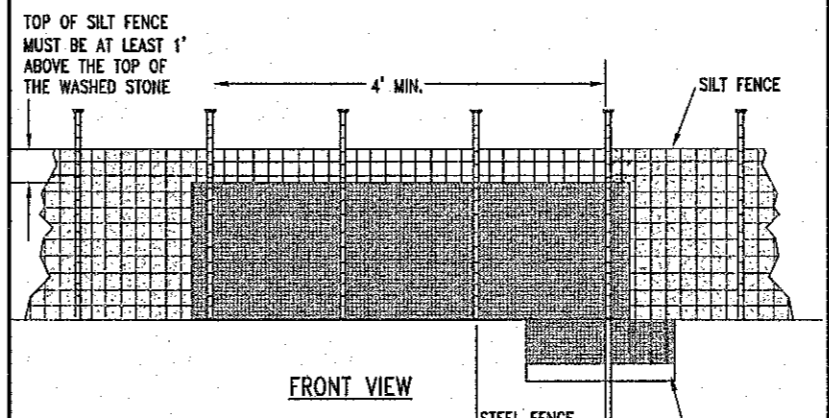
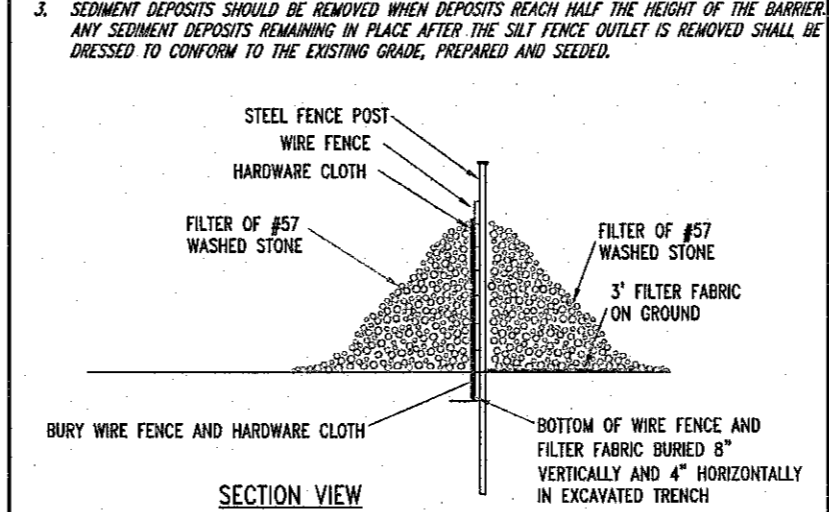
- NOTES:**
1. TEMPORARY DIVERSION DITCH TO BE USED TO INTERCEPT FLOW AND/OR DIVERT TO A SEDIMENT CONTROL MEASURE OR POND.
 2. SILT SHALL BE REMOVED WHEN DITCH IS ONE-HALF FULL.
 3. DITCH SHALL BE RECONSTRUCTED WHEN DAMAGED BY EQUIPMENT OR COVERED BY FILL.
 4. STABILIZE DIVERSION DITCH WITH TEMPORARY SEEDING, MULCH WITH TAC, AND/OR EROSION CONTROL NETTING.



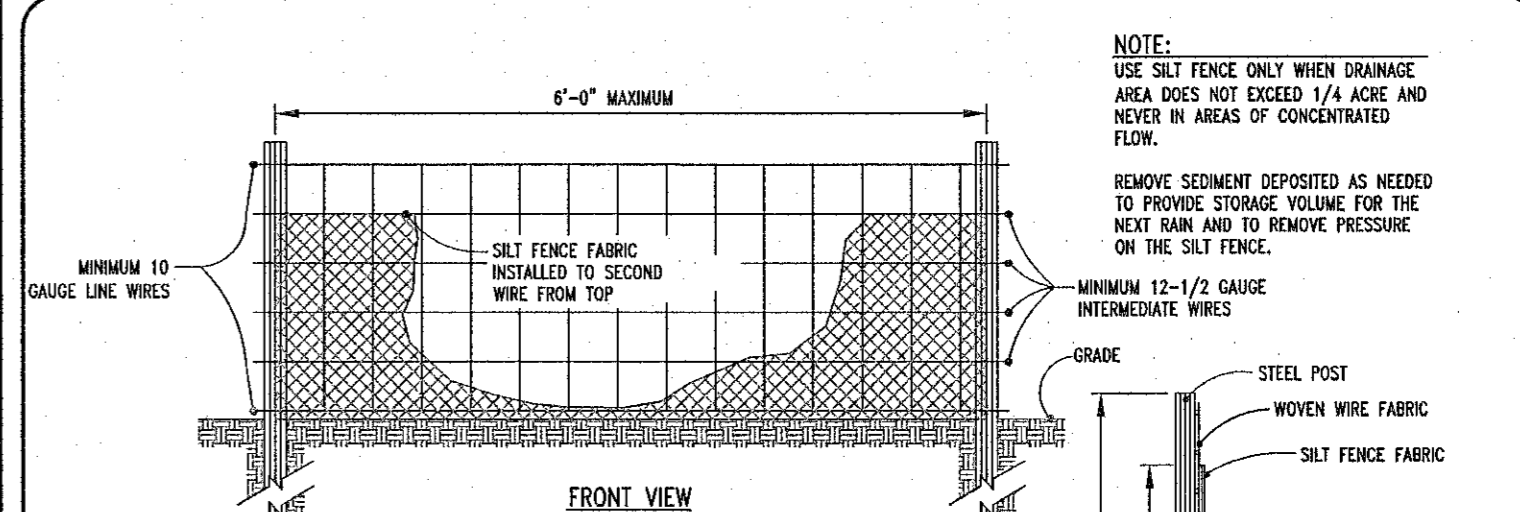
2 TEMPORARY DIVERSION DITCH
NOT TO SCALE

MAINTENANCE NOTES:

1. FILTER OUTLETS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. THE STONE SHALL BE REPLACED PROMPTLY AFTER ANY EVENT THAT HAS CLOGGED OR REMOVED IT.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OUTLET IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



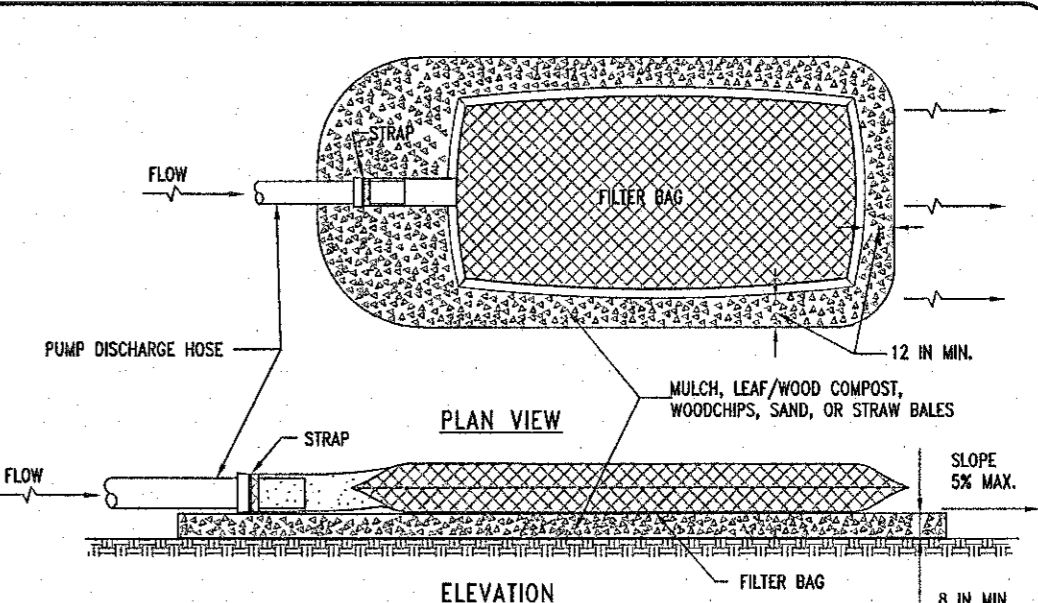
3 SILT FENCE OUTLET
NOT TO SCALE



5 SILT FENCE
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

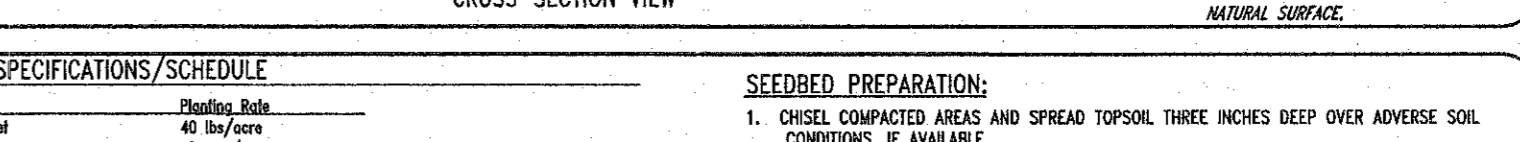
1. HEAVY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SHAWB DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., WOOD, LEAF-LITTER COMPOST, WOODPILES, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR SIX MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY. WHICHEVER OCCURS FIRST. SPREAD THE SEDIMENTED SEDIMENT FROM THE BAG IN AN APPROVED UPWARD AREA AND STABILIZE WITH SEED AND MULCH. BY THE END OF THE WORK DAY, RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE BAG.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MINIMUM 4 INCH TAPER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE.
6. REPLACE FILTER BAG IF BAG CLOSURE OR HOSE TEARS, PUNCTURES, OR PUNCTURES DURING OPERATION. KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEARING IF IT BECOMES DISPLACED.



11 FILTER BAG
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. FILTER CLOTH SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. THE STONE SHALL BE REPLACED PROMPTLY AFTER ANY EVENT THAT HAS CLOGGED OR REMOVED IT.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH SIX INCHES. ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OUTLET IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



12 CHECK DAM
NOT TO SCALE

TEMPORARY SEEDING SPECIFICATIONS/SCHEDULE

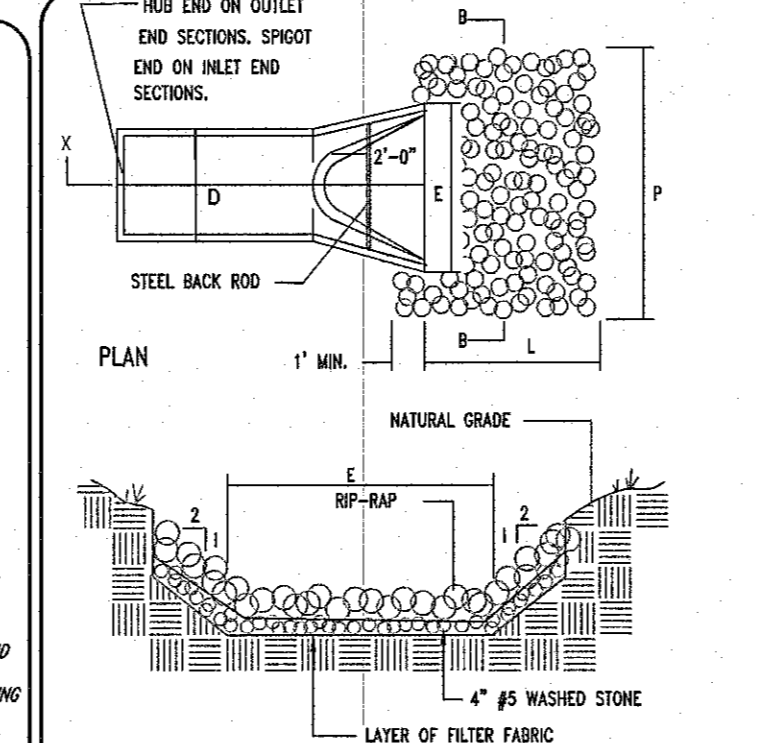
Date	Type	Planting Rate
March - Oct	Bromegrass/White	40 lbs/acre
Nov - Feb	Winter Rye	120 lbs/acre

PERMANENT SEEDING SPECIFICATIONS/SCHEDULE

Date	Type	Planting Rate
Aug 15 - Nov 1	Tall Fescue	300 lbs/acre
Nov - Mar 1	Tall Fescue & Annual Ryegrass	300 lbs/acre
Mar - Apr 15	Tall Fescue	25 lbs/acre
Apr 15 - Jun 30	Hybrid Common Bermuda Grass	25 lbs/acre
Jul 1 - Aug 15	Tall Fescue & Brome/Centennial Ryegrass	240 lbs/acre-Tall Fescue; 35 lbs/acre Brome/Centennial Ryegrass
Aug 15 - Sep 30	Hybrid Common Bermuda Grass	30 lbs/acre Sorghum-Sudan Hybrids

TEMPORARY SEEDING

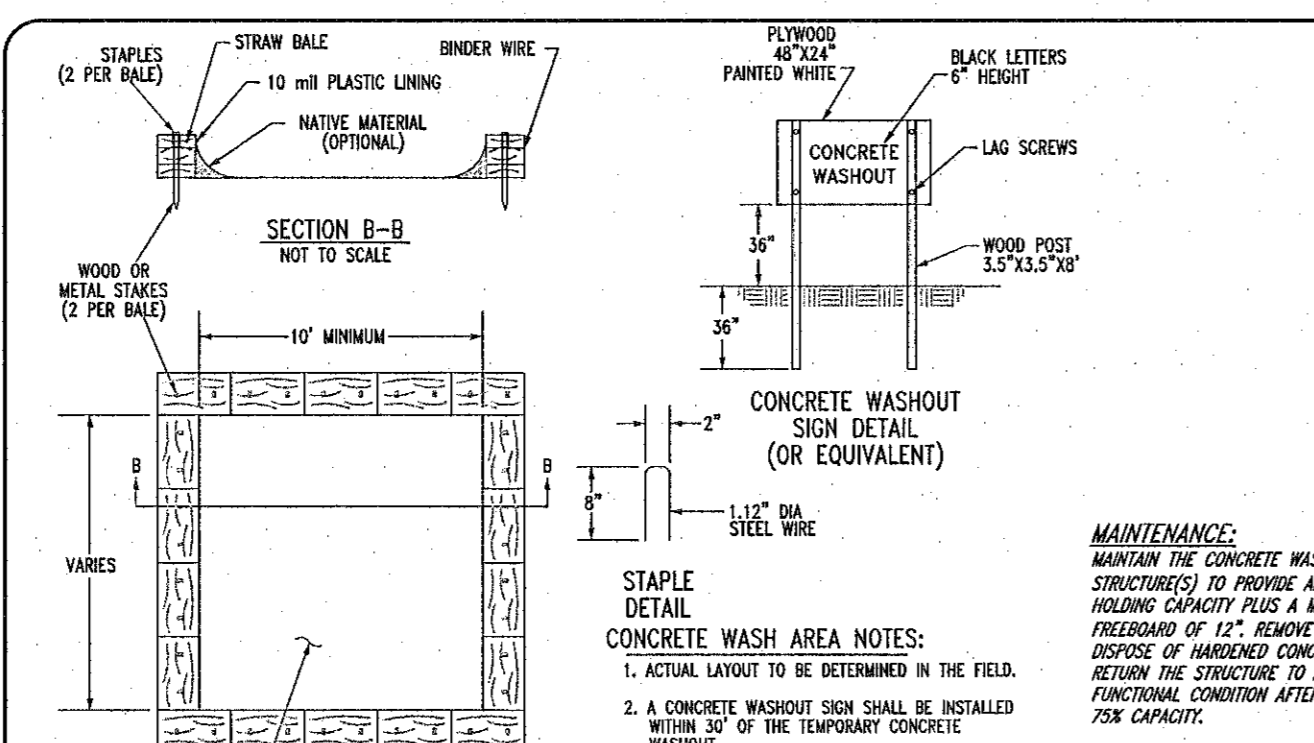
1. CONSULT SAEC ENGINEER FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENuded AREAS. THE ABOVE VEGETATION NOTES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.
- *** TEMPORARY: RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING; OTHERWISE, FESCUE MAY BE SHADDED OUT.



10 RIP-RAP APRON
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIP-RAP FOLLOWING THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE OR UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIP-RAP THICKNESS.
2. THE RIP-RAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LINES SHOWN ON THE PLAN.
3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCTURING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REPAIRING THE RIP-RAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTIONS SHOULD OVERLAP SO THE TOP LAYER IS ABOVE THE DOWNSTREAM LAYER A MINIMUM OF 12 INCHES. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIP-RAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIP-RAP SHOULD BE 1.5 TIMES THE STONE DIAMETER.
6. RIP-RAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HEAVY WEATHER RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERSILL AT THE END. MAKE THE TOP OF THE RIP-RAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREA WITH VEGETATION PRACTICES 6.11, TEMPORARY SEEDING, AND 6.11, PERMANENT SEEDING.



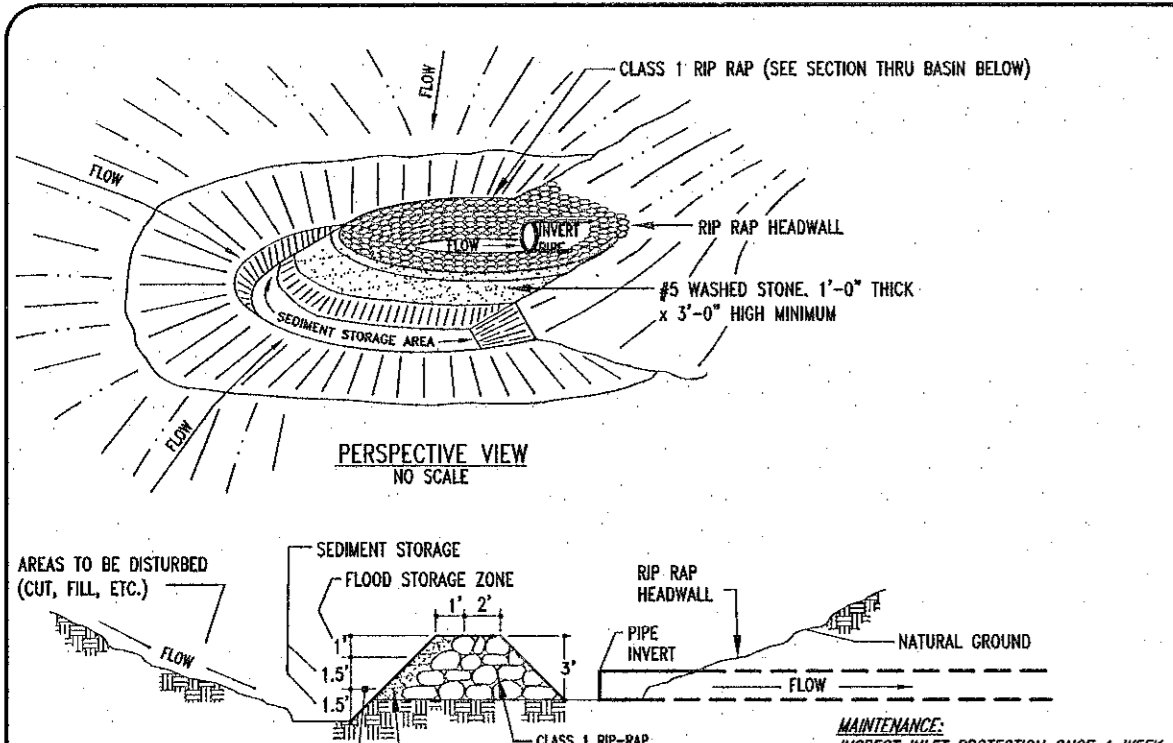
8 CONCRETE WASH AREA
NOT TO SCALE

MAINTENANCE:
INSPECT THE CONCRETE WASHOUT STRUCTURE(S) TO PROVIDE ADEQUATE HOLDING CAPACITY PLUS A MINIMUM OF 10% EXCESS CAPACITY. DISPOSE OF HARDENED CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL CONDITION AFTER REACHING 75% CAPACITY. REMOVE THE CONCRETE WASHOUT STRUCTURE(S) UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY. WHICHEVER OCCURS FIRST. SPREAD THE SEDIMENTED SEDIMENT FROM THE BAG IN AN APPROVED UPWARD AREA AND STABILIZE WITH SEED AND MULCH. BY THE END OF THE WORK DAY, RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE BAG.

CONSTRUCTION SPECIFICATIONS

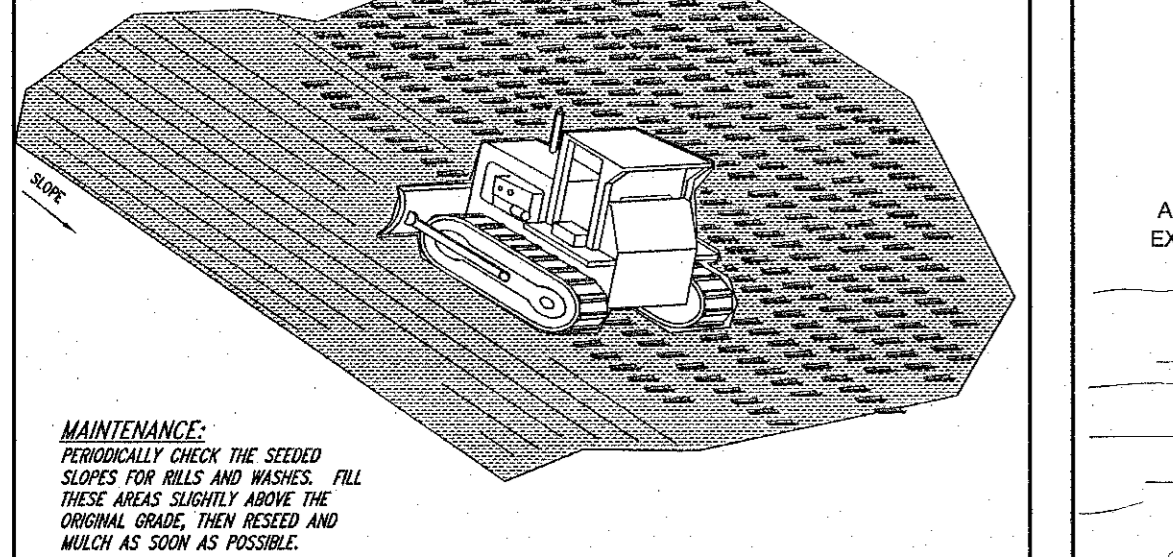
1. UNIFORMITY GRADE SHALL SHOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET. A MAX. OF 4 FEET APART.
3. SURROUND THE POSTS WITH MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POLES AT THE TOP, INSIDE AND BOTTOM. PLACE A 2'-0" STRIP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NO DIRT OR #57 STONE) ON A 2:1 SLOPE WITH HEIGHT OF 14 INCHES 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 CONDITIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

9 TEMPORARY INLET PROTECTION
NOT TO SCALE



6 HORSESHOE INLET PROTECTION
NOT TO SCALE

MAINTENANCE:
INSPECT INLET PROTECTION ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION. REPAIR THE CHANNEL LINING AS NECESSARY PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS. CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED TO AVOID GULLY FORMATION. WHEN THE AREA ABOVE THE INLET PROTECTION IS PERMANENTLY STABILIZED, REMOVE THE PROTECTION AND FILL AND STABILIZE THE CHANNEL TO BLEND WITH THE NATURAL SURFACE.



7 SLOPE TRACKING DETAIL
NOT TO SCALE

MAINTENANCE:
PERIODICALLY CHECK THE SEEDED SLOPES FOR RILLS AND WASHES. FILL THESE AREAS SLIGHTLY ABOVE THE ORIGINAL GRADE, THEN RESEED AND MULCH AS SOON AS POSSIBLE.

- NOTE:**
USE ORDER TRACKS TO CREATE GROOVES PERPENDICULAR TO THE SLOPE. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE SEDIMENT IN RUNOFF.

