

**ORTHOPEDIC  
INPATIENT  
HOSPITAL**

**ARCHITECT:  
LS3P**

2528 INDEPENDENCE BLVD., SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL: 910.790.9901 FAX: 910.790.3111  
WWW.LS3P.COM

MEMBERS OF THE AMERICAN  
INSTITUTE OF ARCHITECTS  
COPYRIGHT 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND  
DOCUMENTATION MAY NOT BE REPRODUCED  
IN ANY FORM WITHOUT WRITTEN PERMISSION  
FROM LS3P ASSOCIATES LTD.

**SURVEYOR:**  
ROBERT H. GOSLEE & ASSOCIATES, PA  
LAND SURVEYORS - LAND PLANNERS  
FROM LICENSE NUMBER: 0001167  
813 CHESTNUT STREET  
WILMINGTON, NORTH CAROLINA 28401  
910-763-1941  
R.H.GOSLEE@GOSLEEPA.COM  
FILE NO. 80116401

**ENGINEER:**  
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS, P.C.  
902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-3653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900  
licence #C-3641

**SHEET NAME:  
ZONING  
PLAN**

SCALE: 1" = 200'



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

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

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

NC DENR PWSS WATER PERMIT # \_\_\_\_\_ GPD  
WATER CAPACITY: \_\_\_\_\_  
DWQ SEWER PERMIT # \_\_\_\_\_  
SEWER CAPACITY: \_\_\_\_\_ GPD  
SEWER SHED # AND PLANT: \_\_\_\_\_  
SEWER TO FLOW THROUGH: YES or NO (CIRCLE ONE)

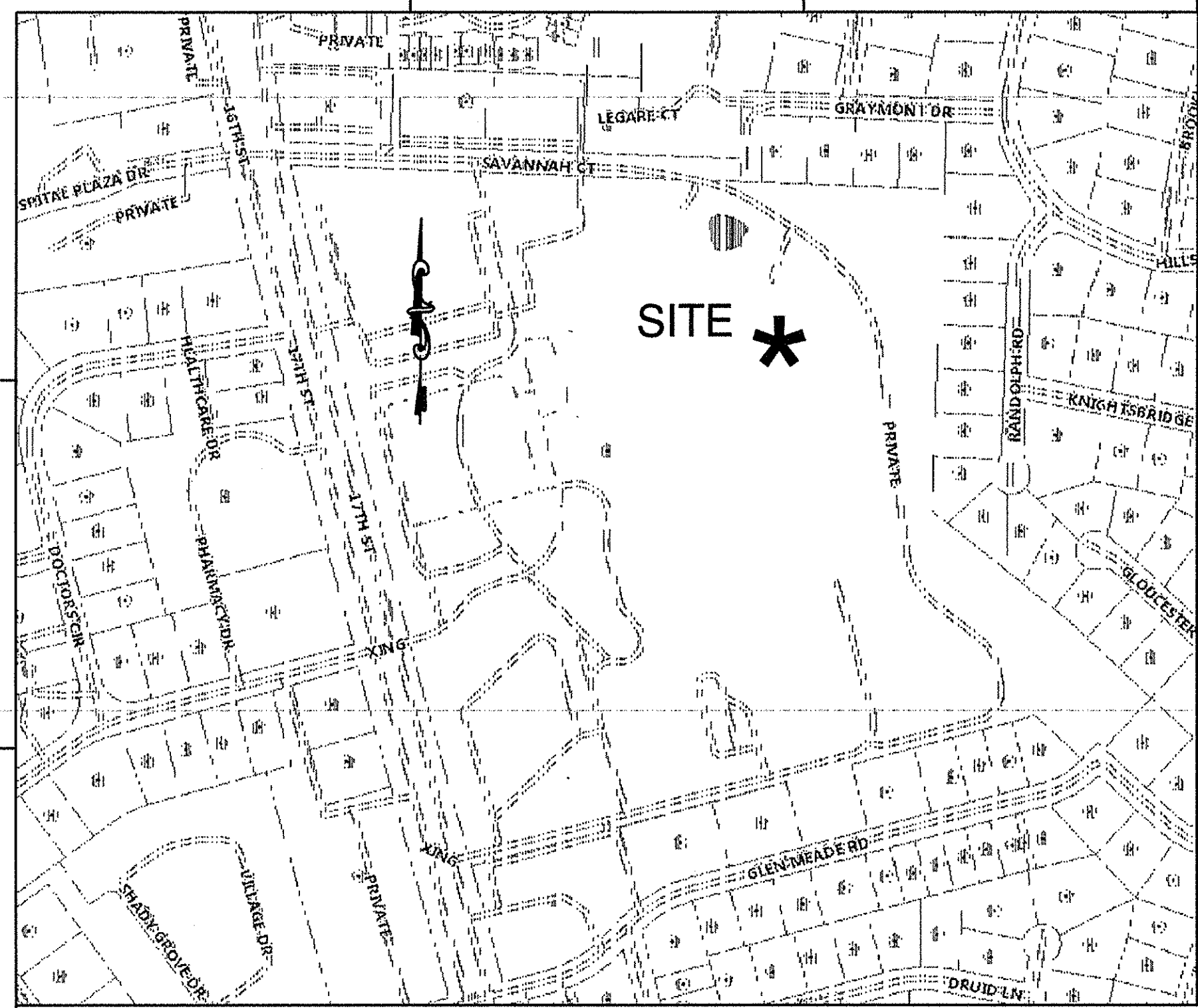
SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
© 2016 NORRIS & TUNSTALL			

PROJ# 16036  
DES. JST  
CDD. JST  
DRWN. SLF  
DATE: 12/14/16



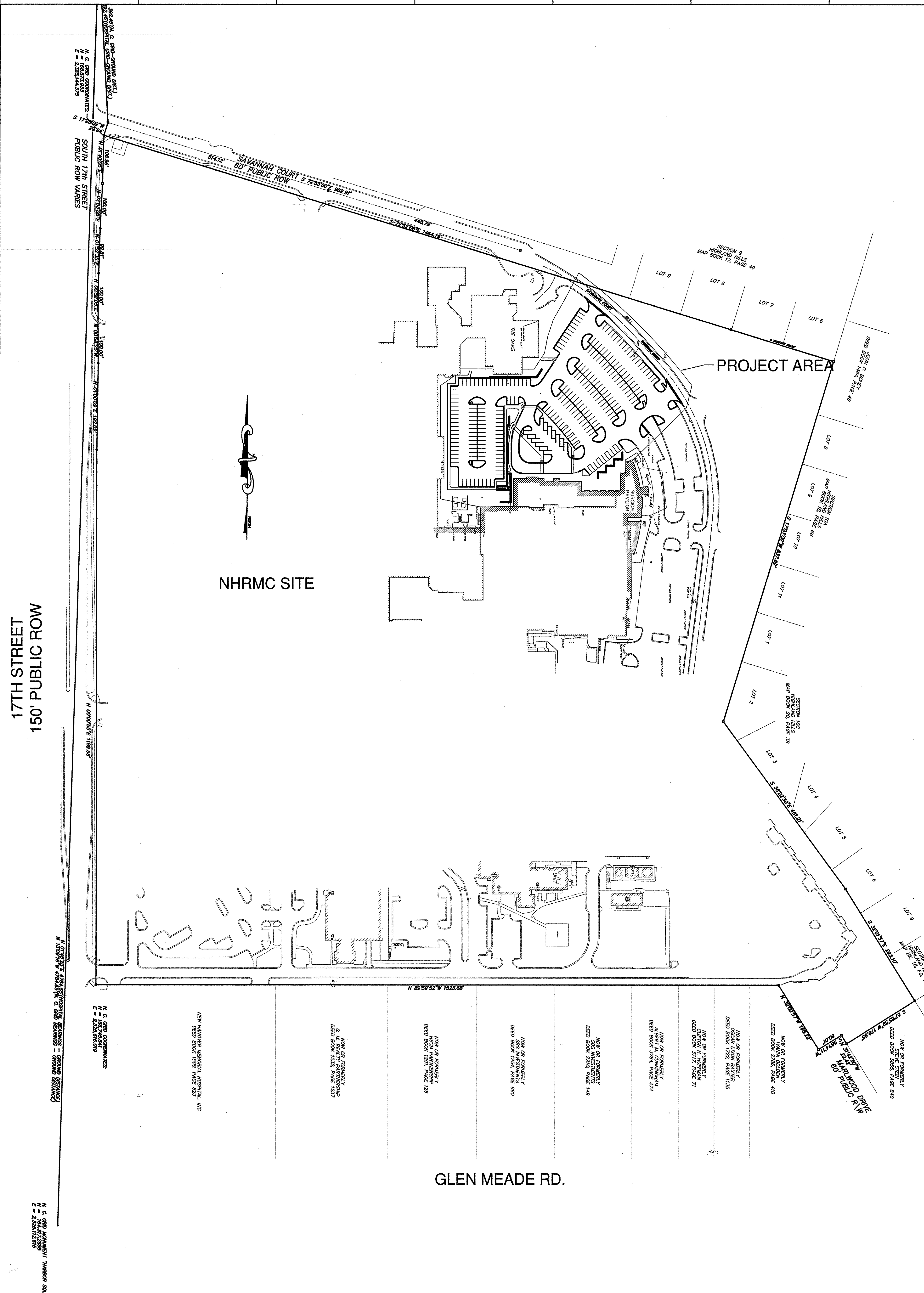
**SHEET:  
C0.1**





LOCATION MAP  
NOT TO SCALE

E  
D  
C  
B  
A



NHRMC HOSPITAL SITE DATA TABLE

EXISTING BEDS NHRMC 17TH ST: 800 BEDS  
 PROPOSED BEDS NEW ORTHOPEDIC HOSPITAL: 108 BEDS  
**TOTAL: 908 BEDS**  
 EMPLOYEES AT LARGEST SHIFT: 1,750  
 PARKING REQUIREMENT HOSPITAL:  
 1 PER EACH 2 LICENSED BEDS INTENDED FOR PATIENT USE, 1 PER EACH STAFF PERSON, INCLUDING MEDICAL AND SUPPORT STAFF BASED ON THE LARGEST EMPLOYEE SHIFT.  
 TOTAL PARKING REQUIRED: 2,204 SPACES  
 ADA PARKING REQUIRED: 32 SPACES  
 TOTAL PARKING PROVIDED: SEE CHART  
 EXISTING ON-SITE PARKING: SEE CHART  
 EXISTING OFF-SITE PARKING: SEE CHART

NHRMC PARKING SUPPLY (AUG. 2016)

Map ID	Patient/Visitor	Employee	Physician	ADA Accessible	Unrestricted (1)	Total
On-Campus						
A		155				155
B		369				369
C1	21	168		19		208
C2	51	116		16		173
C3						
D	6	11	8	3		28
E					46	46
F		243	190	9		442
G1	18				2	20
G2	24				3	27
J	35	57	7	12		111
L	150	111	2	28		291
M	271					423
On-Campus Total	674	1,230	212	119	46	2,283
Off-Campus						
H	46		2	6		54
I	50	101		7		158
N		47			7	104
O	51				2	53
P	167				4	171
Q	48					48
R	24					24
Off-Campus Total	147	457	2	24	0	432
Total	823	1,687	214	143	46	2,915

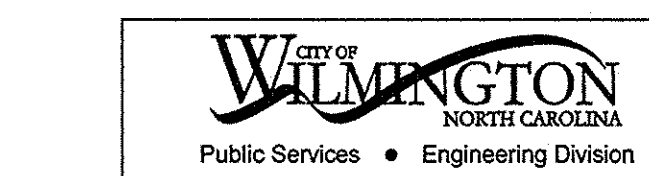
Notes:  
 (1) Spaces to unrestricted outside parking on Savannah Court which is part of the public right-of-way.  
 (2) Employee number includes volunteer drivers.  
 (3) Employee number includes spots designated for plant facilities employees.  
 (4) Employee number includes EMS/emergency vehicle parking.

PARKING LOST WITHIN SITE AREA: 568 REGULAR SPACES, 9 ADA, TOTAL=577  
 PROPOSED PARKING WITHIN SITE AREA: 232 REGULAR SPACES, 22 ADA, TOTAL=254  
 PROPOSED PARKING NHRMC ON SITE TOTAL: 1,960 SPACES  
 PROPOSED BICYCLE PARKING: 20 SPACES

NEW ORTHOPEDIC INPATIENT HOSPITAL

USE: ORTHOPEDIC HOSPITAL (NHRMC)  
 SITE ADDRESS: 2131 S. 17TH STREET  
 PARCEL ID#: R0001-004-001-000  
 MAP ID#: 312607.57.0872.000  
 PARCEL AREA: 50.38 AC  
 PROJECT AREA: 4.18 AC (182,081 SF)  
 ZONING: O4I-1 OFFICE AND INSTITUTIONAL URBAN  
 CAMA LAND USE: URBAN  
 BUILDING SETBACKS (REQUIRED): FRONT SETBACK: 20', INTERIOR SIDE SETBACK: 10', CORNER SIDE SETBACK: 20', REAR SETBACKS: 20'  
 BUILDING SETBACKS (PROPOSED): WITHIN REQUIRED LIMITS. SEE PLAN  
 EXISTING BUILDING AREA TOTAL: 186,805± SF  
 SERVICE FLOOR: 84,730± SF  
 FIRST FLOOR: 88,376± SF  
 SECOND FLOOR: 3,759± SF  
 PROPOSED BUILDING AREA TOTAL: 137,375± SF  
 FIRST FLOOR: 13,775± SF  
 SECOND FLOOR: 25,200± SF  
 THIRD FLOOR: 32,800± SF  
 FOURTH FLOOR: 32,800± SF  
 FIFTH FLOOR: 32,800± SF  
 BUILDING EXPANSION AREA: 137,375± SF  
 PERCENT EXPANSION AREA: 73.5%  
 EXISTING BUILDING HEIGHT: 48' (SERVICE LEVEL TO PENTHOUSE)  
 BUILDING EXPANSION HEIGHT: 32' (FIRST FLOOR TO PENTHOUSE)  
 EXISTING BUILDING STORES: 104 (FROM SERVICE LEVEL)  
 BUILDING EXPANSION STORES: 87 (FROM FIRST FLOOR)  
 BUILDING CONSTRUCTION TYPE: 2  
 IMPERVIOUS AREA:  
 PROJECT AREA: 4.18 AC / 182,081 SF  
 EXISTING IMPERVIOUS AREA:  
 TOTAL: 136,068 SF  
 % PROJECT IMPERVIOUS AREA: 75%  
 PROPOSED IMPERVIOUS AREA:  
 TOTAL IMPERVIOUS AREA: 110,029 SF  
 PERVIOUS CONCRETE: 27,750 SF (75% CREDIT)  
 TOTAL WITH PERVIOUS CREDIT: 116,885.5 SF  
 % PROJECT IMPERVIOUS AREA: 67.13 %  
 LANDSCAPING REQUIRED, SHALL BE PROVIDED BASED ON PERCENT OF EXPANSION AREA AS PER ORDINANCE.  
 SOLID WASTE DISPOSAL, DUMPSTER AREA PROVIDED ON NHRMC SITE  
 WATER AND SEWER CAPACITY:  
 HOSPITAL 108 BEDS: 300 G.P.D PER BED = 32,400 G.P.D.

SCALE: 1" = 100'



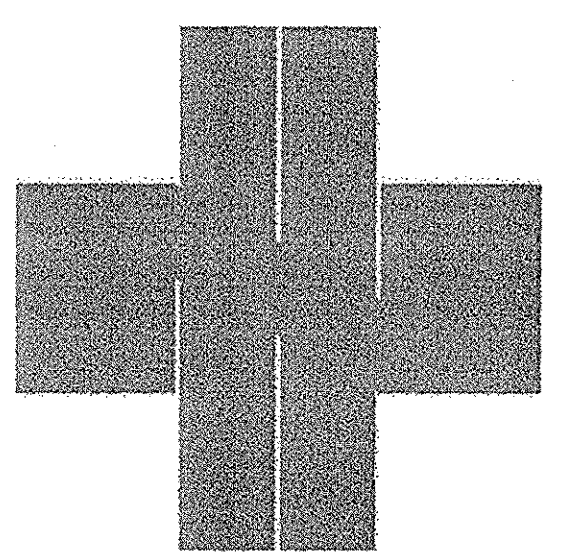
Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

Approved Construction Plan  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_  
 Traffic: \_\_\_\_\_  
 File: \_\_\_\_\_

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

NCDENR PWSS WATER PERMIT # \_\_\_\_\_ GPD  
 DWD SEWER PERMIT # \_\_\_\_\_ GPD  
 SEWER CAPACITY: \_\_\_\_\_ GPD  
 SEWER SHED # AND PLANT: \_\_\_\_\_  
 SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
©2016 NORRIS & TUNSTALL			



ORTHOPEDIC  
INPATIENT  
HOSPITAL

ARCHITECT:  
**LS3P**

2528 INDEPENDENCE BLVD., SUITE 200  
 WILMINGTON, NORTH CAROLINA 28412  
 TEL. 910.790.9901 FAX 910.790.3111  
 WWW.LS3P.COM

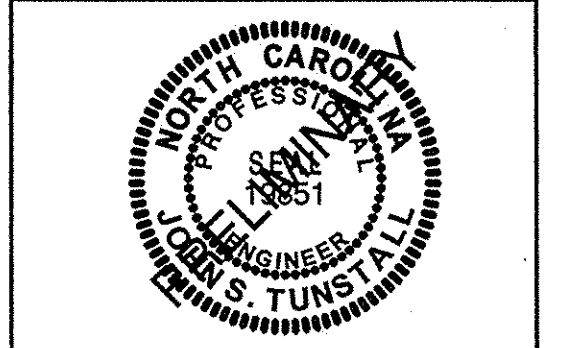
MEMBERS OF THE AMERICAN  
 INSTITUTE OF ARCHITECTS  
 COPYRIGHT 2016 ALL RIGHTS RESERVED  
 PRINTED OR ELECTRONIC DRAWINGS AND  
 DOCUMENTATION MAY NOT BE REPRODUCED  
 IN ANY FORM WITHOUT WRITTEN PERMISSION  
 FROM LS3P ASSOCIATES LTD.

SURVEYOR:  
 ROBERT H. GOSLEE & ASSOCIATES, PA  
 LAND SURVEYOR - LAND PLANNERS  
 FROM LICENSE NUMBER 001167  
 301 DUNSTON STREET  
 WILMINGTON, NORTH CAROLINA 28401  
 PH: 910-343-1844  
 RFG@rhginc.com

ENGINEER:  
**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS, P.C.  
 902 MARKET STREET  
 WILMINGTON, NC 28401  
 PHONE (910) 343-3653  
 1429 ASH-LITTLE RIVER RD. NW  
 ASH, NC 28420  
 PHONE (910) 287-5900  
 licence #C-3641

SHEET NAME:  
**OVERALL  
 SITE PLAN**

PROJ.# 16036  
 DES. JST  
 CDR. JST  
 DRWN. SLF  
 DATE: 12/14/16

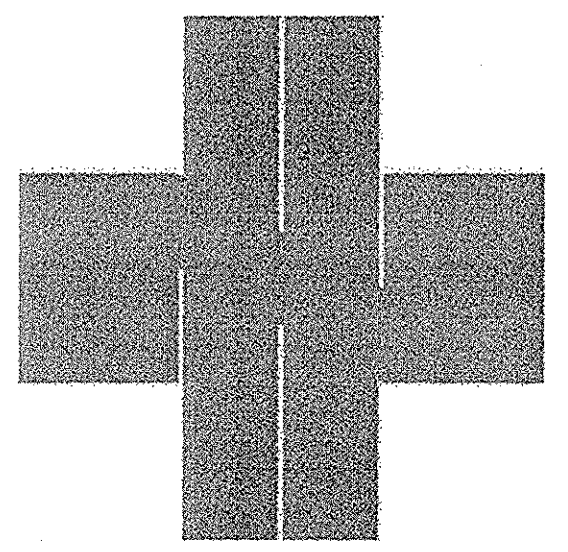
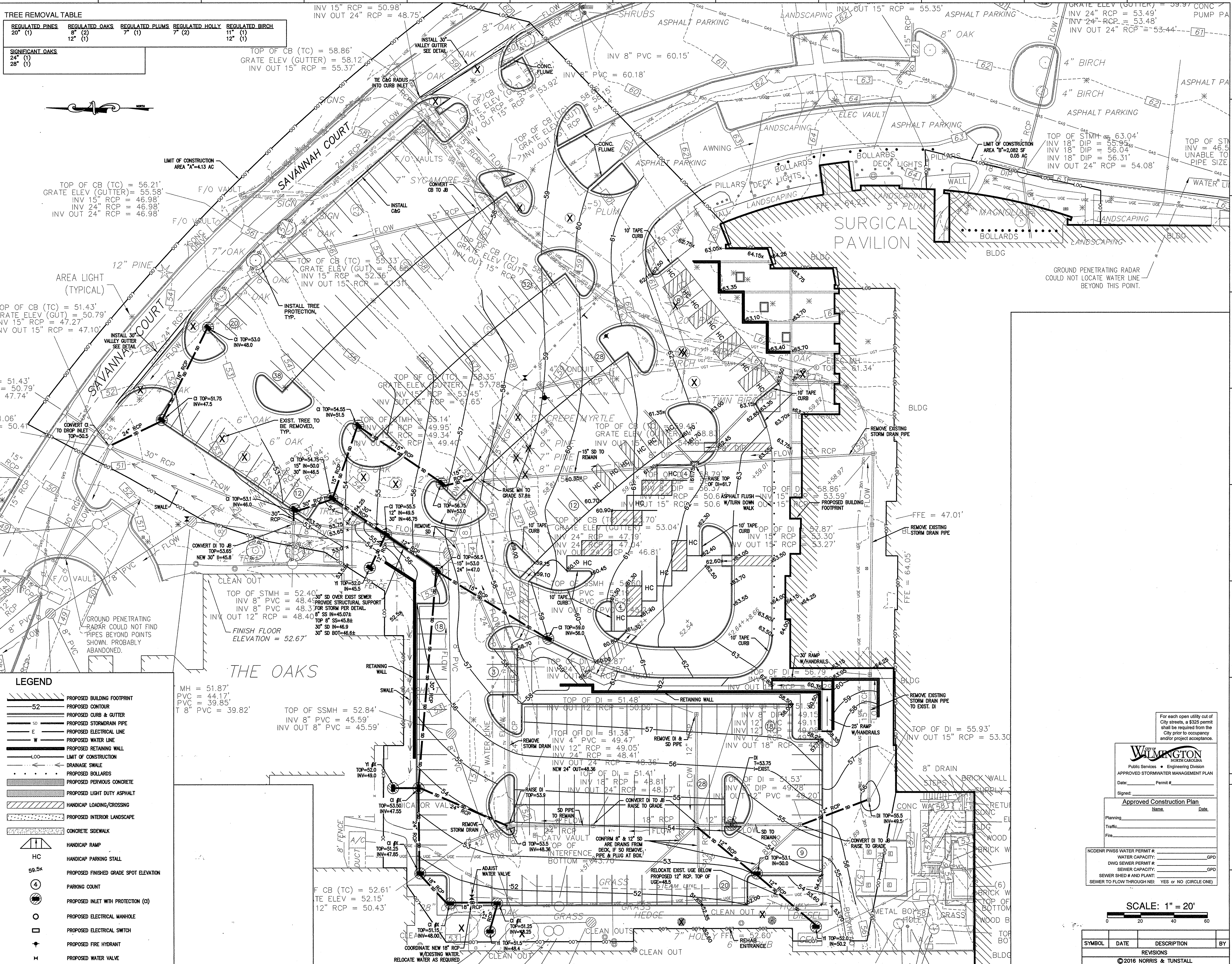


SHEET:  
**C0**



**TREE REMOVAL TABLE**

REGULATED PINES	REGULATED OAKS	REGULATED PLUMS	REGULATED HOLLY	REGULATED BIRCH
20" (1)	8" (2) 12" (1)	7" (1)	7" (2)	11" (1) 12" (1)
<b>SIGNIFICANT OAKS</b>				
24" (1) 28" (1)				



**ORTHOPEDIC  
INPATIENT  
HOSPITAL**

**ARCHITECT:**  
**LS3P**

2528 INDEPENDENCE BLVD., SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL. 910.790.3901 FAX 910.790.3111  
WWW.LS3P.COM

MEMBERS OF THE AMERICAN  
INSTITUTE OF ARCHITECTS  
COPYRIGHT 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND  
DOCUMENTATION MAY NOT BE REPRODUCED  
IN ANY FORM WITHOUT WRITTEN PERMISSION  
FROM LS3P ASSOCIATES LTD.

**SURVEYOR:**  
ROBERT H. OSLEE & ASSOCIATES, PA  
LAND SURVEYORS - LAND PLANNERS  
FIRM LICENSE NUMBER:  
513 CHESTNUT STREET  
WILMINGTON, NORTH CAROLINA 28401  
910-763-1841  
r.oslee@robertoslee.com  
FILE NO: 601104010

**ENGINEER:**  
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS, P.C.  
302 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-9653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900  
license #C-3641

**SHEET NAME:**  
**GRADING,  
DRAINAGE &  
EROSION  
CONTROL &  
TREE REMOVAL**

**PROJ# 16036**

DES. JST  
O.D. JST  
DRWN. SLF

DATE: 12/14/16

**SHEET:**  
**C1**

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

**City of WILMINGTON**  
Public Services - Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: Permit #  
Signed: \_\_\_\_\_

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

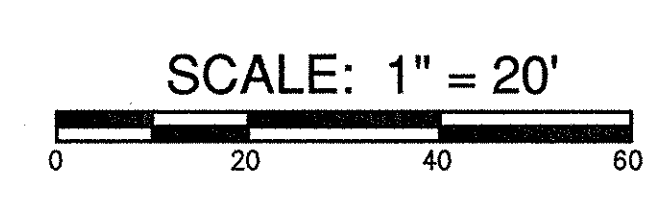
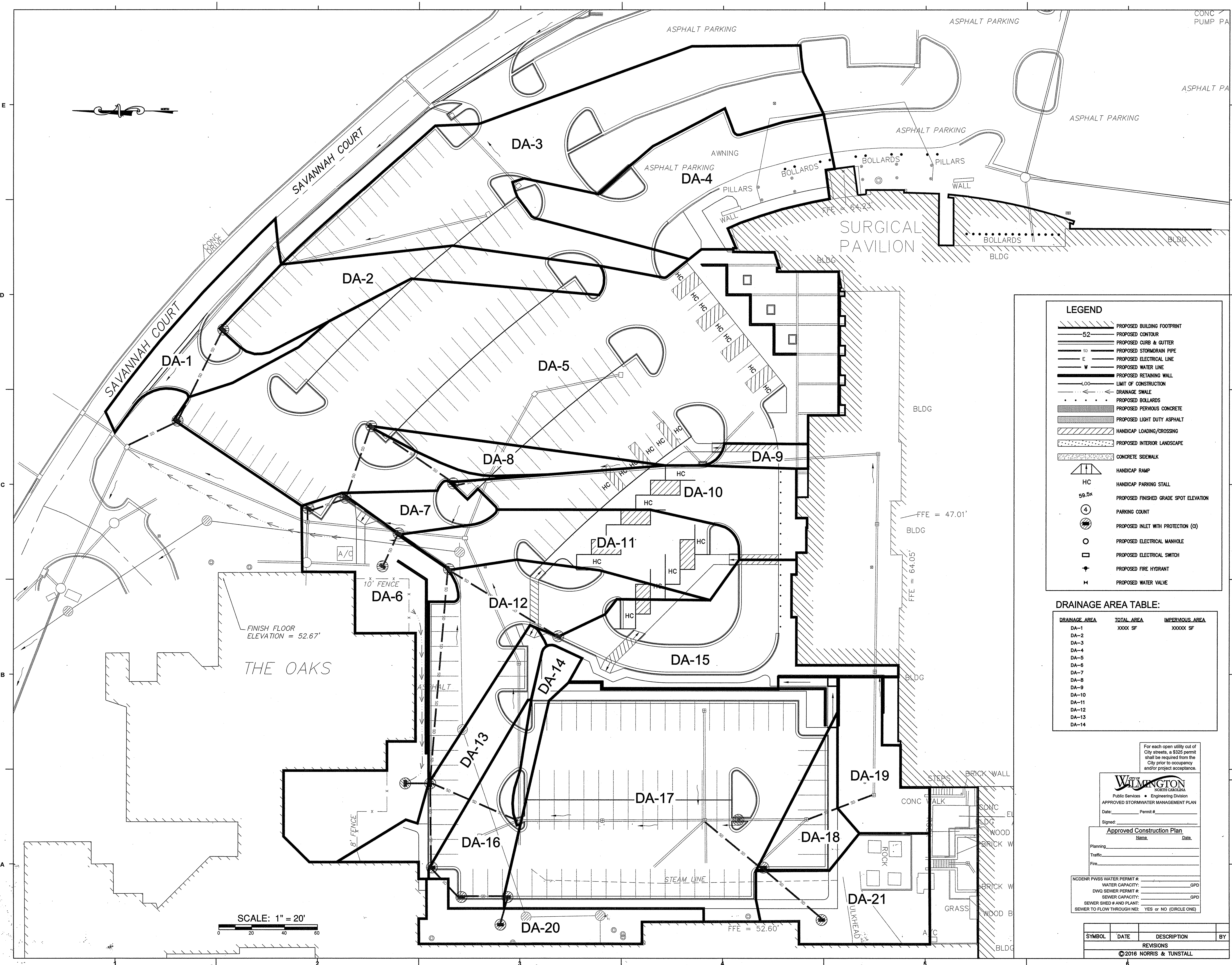
INCIDENT PWSS WATER PERMIT # \_\_\_\_\_  
WATER CAPACITY: \_\_\_\_\_ GPD  
DVG SEWER PERMIT # \_\_\_\_\_  
SEWER CAPACITY: \_\_\_\_\_ GPD  
SEWER SHED # AND PLANT: \_\_\_\_\_  
SEWER FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

**SCALE: 1" = 20'**

SYMBOL	DATE	REVISIONS	BY

©2016 NORRIS & TUNSTALL





- LEGEND**
- PROPOSED BUILDING FOOTPRINT
  - 52- PROPOSED CONTOUR
  - PROPOSED CURB & GUTTER
  - 50- PROPOSED STORMDRAIN PIPE
  - E- PROPOSED ELECTRICAL LINE
  - W- PROPOSED WATER LINE
  - LOC- PROPOSED RETAINING WALL
  - LIMIT OF CONSTRUCTION
  - DRAINAGE SWALE
  - PROPOSED BOLLARDS
  - ▨ PROPOSED PERVIOUS CONCRETE
  - ▤ PROPOSED LIGHT DUTY ASPHALT
  - ▥ HANDICAP LOADING/CROSSING
  - ▦ PROPOSED INTERIOR LANDSCAPE
  - ▧ CONCRETE SIDEWALK
  - ▨ HANDICAP RAMP
  - HC HANDICAP PARKING STALL
  - 59.5x PROPOSED FINISHED GRADE SPOT ELEVATION
  - ④ PARKING COUNT
  - ⊗ PROPOSED INLET WITH PROTECTION (C)
  - PROPOSED ELECTRICAL MANHOLE
  - PROPOSED ELECTRICAL SWITCH
  - ⚡ PROPOSED FIRE HYDRANT
  - M PROPOSED WATER VALVE

**DRAINAGE AREA TABLE:**

DRAINAGE AREA	TOTAL AREA	IMPERVIOUS AREA
DA-1	XXXX SF	XXXXX SF
DA-2		
DA-3		
DA-4		
DA-5		
DA-6		
DA-7		
DA-8		
DA-9		
DA-10		
DA-11		
DA-12		
DA-13		
DA-14		
DA-15		
DA-16		
DA-17		
DA-18		
DA-19		
DA-20		
DA-21		

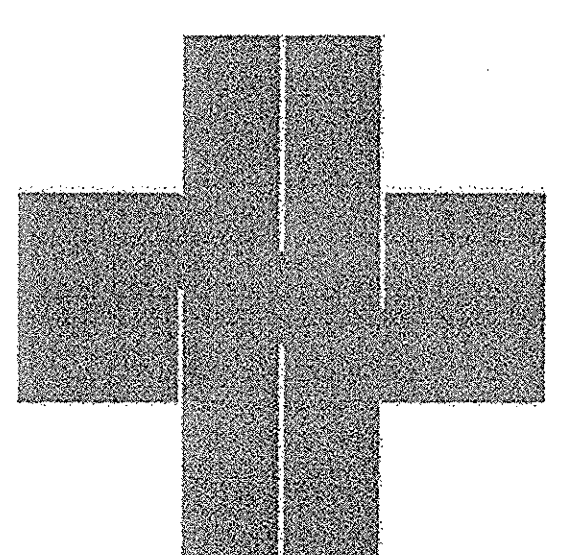
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**WILMINGTON**  
NORTH CAROLINA  
Public Services - Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_  
Approved Construction Plan  
Name: Date: \_\_\_\_\_

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

NC DENR PWSS WATER PERMIT #: \_\_\_\_\_ GPD  
WATER CAPACITY: \_\_\_\_\_ GPD  
DIVISION PERMIT #: \_\_\_\_\_ GPD  
SEWER CAPACITY: \_\_\_\_\_ GPD  
SEWER SHED # AND PLANT: \_\_\_\_\_  
SEWER TO FLOW THROUGH ME: YES OR NO (CIRCLE ONE)

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
©2016 NORRIS & TUNSTALL			



**ORTHOPEDIC  
INPATIENT  
HOSPITAL**

**ARCHITECT:**  
**LS3P**

2528 INDEPENDENCE BLVD., SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL. 910.790.9901 FAX 910.790.3111  
WWW.LS3P.COM

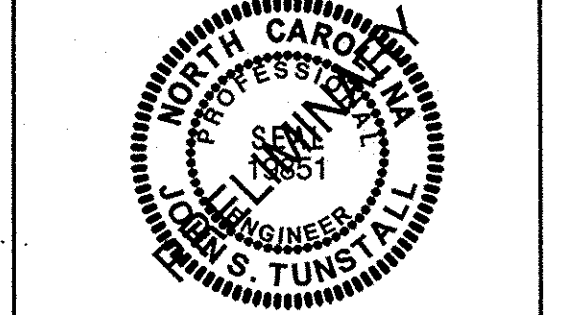
MEMBERS OF THE AMERICAN  
INSTITUTE OF ARCHITECTS  
COPYRIGHT 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND  
DOCUMENTATION MAY NOT BE REPRODUCED  
IN ANY FORM WITHOUT WRITTEN PERMISSION  
FROM LS3P ASSOCIATES LTD.

**SURVEYOR:**  
ROBERT H. GOSLEE & ASSOCIATES, PA  
LAND SURVEYOR - LAND MEASUREMENTS  
PRO LICENSE NUMBER: L-1187  
WILMINGTON, NORTH CAROLINA 28401  
rhg@rhgconsult.net  
FILE NO: 601104010

**ENGINEER:**  
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS, P.C.  
902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-9653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 237-5900  
license #C-3641

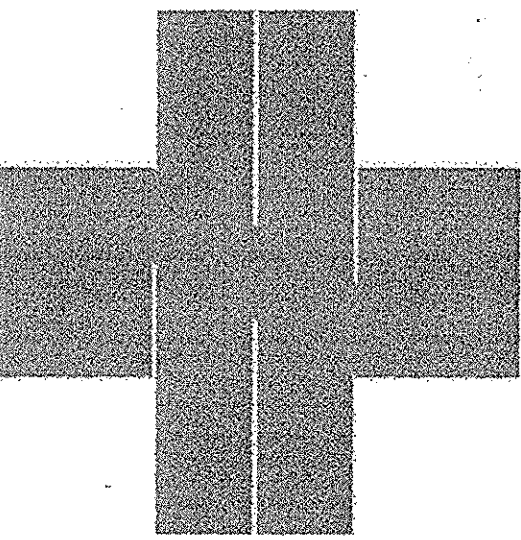
**SHEET NAME:**  
**DRAINAGE  
AREA  
PLAN**

PROJ # 16036  
DES. JST  
COO. JST  
DRWN. SLF  
DATE: 12/14/16



**SHEET:**  
**C2**





ORTHOPEDIC  
INPATIENT  
HOSPITAL

ARCHITECT:

LS3P

2528 INDEPENDENCE BLVD., SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL. 910.790.9001 FAX 910.790.3111  
WWW.LS3P.COM

MEMBERS OF THE AMERICAN  
INSTITUTE OF ARCHITECTS  
COPYRIGHT 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND  
DOCUMENTATION MAY NOT BE REPRODUCED  
IN ANY FORM WITHOUT WRITTEN PERMISSION  
FROM LS3P ASSOCIATES LTD.

SURVEYOR:

ROBERT H. GOSLEE & ASSOCIATES, PA  
LAND SURVEYORS - LAND PLANNERS  
FOR LICENSE NUMBER C-172  
513 CHESTNUT STREET  
WILMINGTON, NORTH CAROLINA 28401  
910-783-1941  
rhg@rhgpa.com  
FILE No. 80104010

ENGINEER:

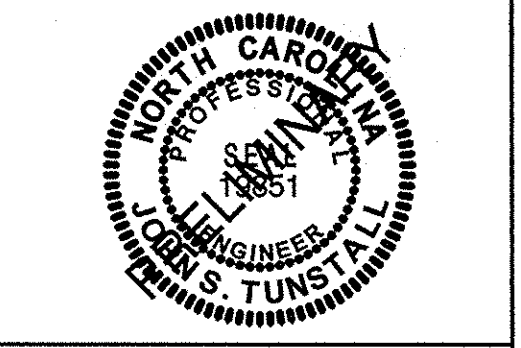
NORRIS & TUNSTALL

CONSULTING ENGINEERS, P.C.

902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-9653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900  
license #C-3641

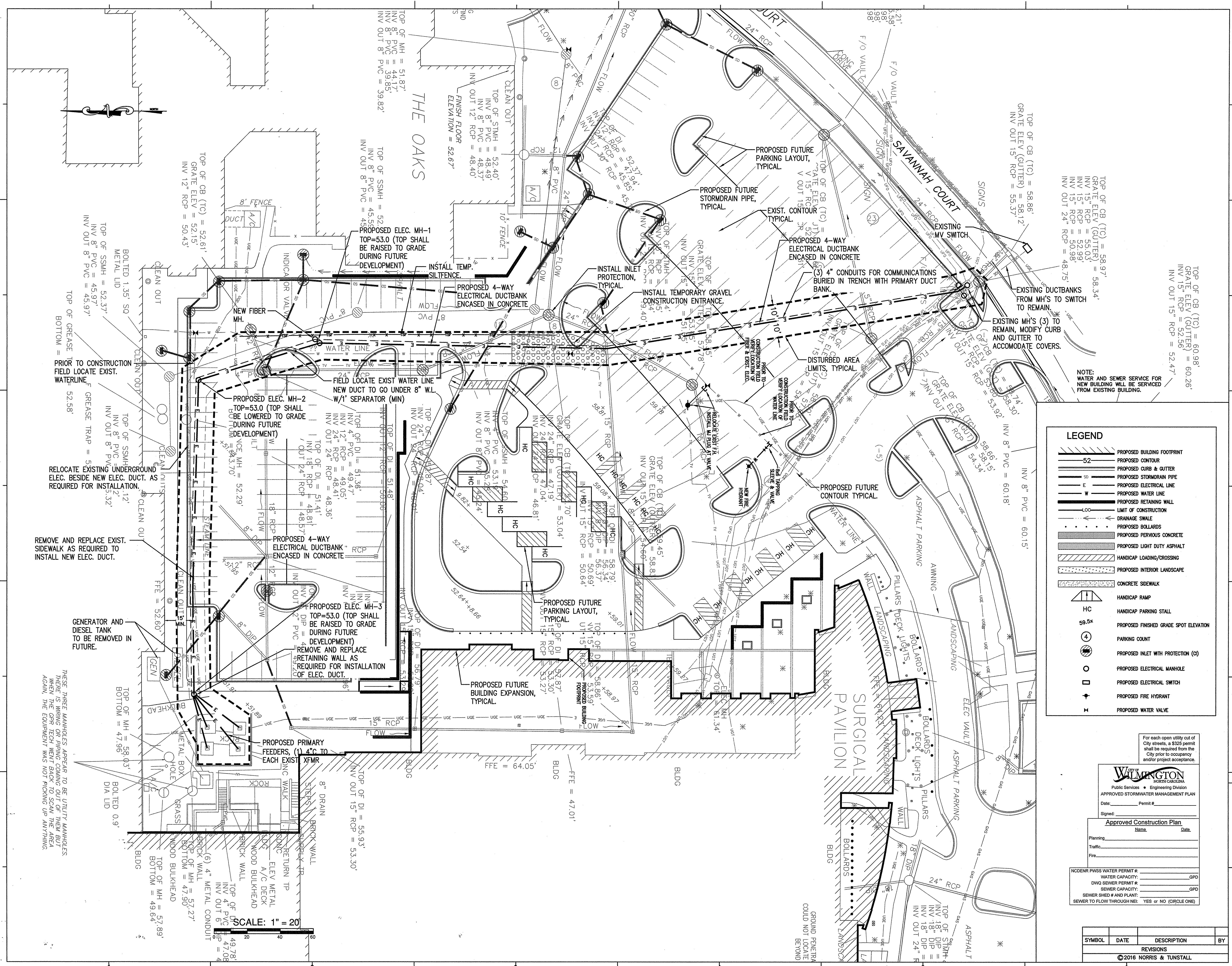
SHEET NAME:  
UTILITY  
PLAN

PROJ# 16036  
DES. JST  
CDD. JST  
DRWN. SLF  
DATE: 12/14/16



SHEET:

C3



**LEGEND**

- PROPOSED BUILDING FOOTPRINT
- PROPOSED CONTOUR
- PROPOSED CURB & GUTTER
- PROPOSED STORMWATER PIPE
- PROPOSED ELECTRICAL LINE
- PROPOSED WATER LINE
- PROPOSED RETAINING WALL
- LIMIT OF CONSTRUCTION
- DRAINAGE SWALE
- PROPOSED BOLLARDS
- PROPOSED PERFORATED CONCRETE
- PROPOSED LIGHT DUTY ASPHALT
- HANDICAP LOADING/CROSSING
- PROPOSED INTERIOR LANDSCAPE
- CONCRETE SIDEWALK
- HANDICAP RAMP
- HANDICAP PARKING STALL
- PROPOSED FINISHED GRADE SPOT ELEVATION
- PARKING COUNT
- PROPOSED INLET WITH PROTECTION (CI)
- PROPOSED ELECTRICAL MANHOLE
- PROPOSED ELECTRICAL SWITCH
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE

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**  
Public Services - Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

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

**Approved Construction Plan**

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

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

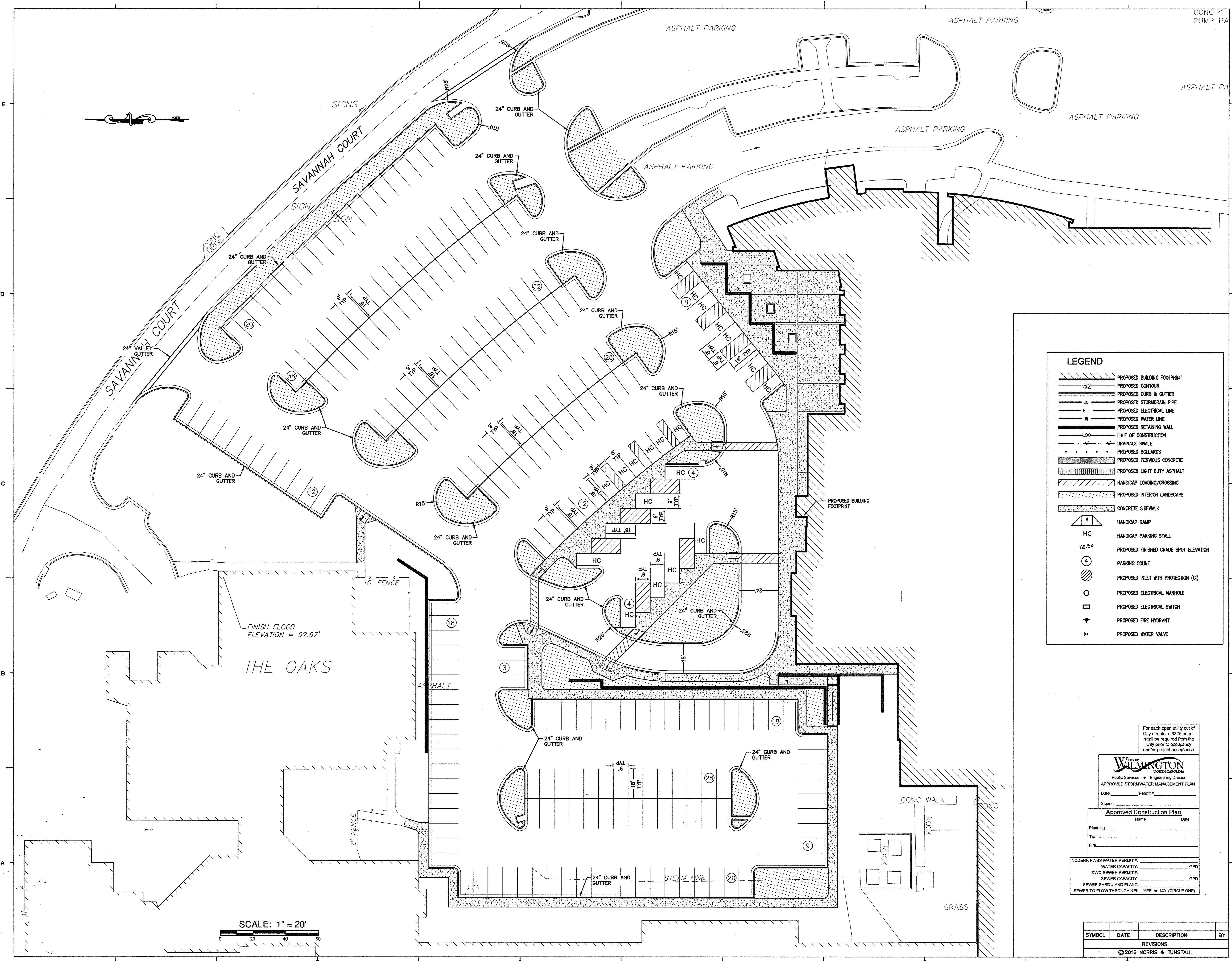
NC DENR PWSS WATER PERMIT #:  
WATER CAPACITY: \_\_\_\_\_ GPD  
DWO SEWER PERMIT #:  
SEWER CAPACITY: \_\_\_\_\_ GPD  
SEWER SHED # AND PLANT:  
SEWER TO FLOW THROUGH: YES OR NO (CIRCLE ONE)

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
©2016 NORRIS & TUNSTALL			

THESE THREE MANAGERS APPEAR TO BE UTILITY MANAGERS. THESE THREE MANAGERS ARE PICKING UP THE EQUIPMENT WHEN THE GPR TECH WENT BACK TO SCAN THE AREA AGAIN. THE EQUIPMENT WAS NOT PICKING UP ANYTHING.

SCALE: 1" = 20'





SCALE: 1" = 20'

**LEGEND**

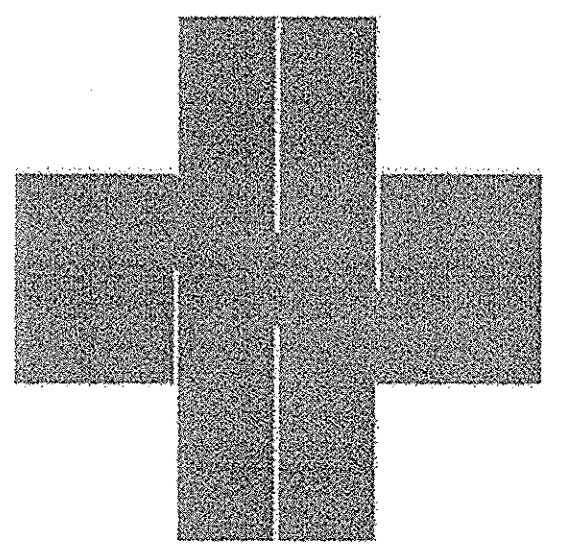
	PROPOSED BUILDING FOOTPRINT
	PROPOSED CONTOUR
	PROPOSED CURB & GUTTER
	PROPOSED STORMDRAIN PIPE
	PROPOSED ELECTRICAL LINE
	PROPOSED WATER LINE
	PROPOSED RETAINING WALL
	LIMIT OF CONSTRUCTION
	DRAINAGE SWALE
	PROPOSED BOLLARDS
	PROPOSED PERFORATED CONCRETE
	PROPOSED LIGHT DUTY ASPHALT
	HANDICAP LOADING/CROSSING
	PROPOSED INTERIOR LANDSCAPE
	CONCRETE SIDEWALK
	HANDICAP RAMP
	HANDICAP PARKING STALL
	PROPOSED FINISHED GRADE SPOT ELEVATION
	PARKING COUNT
	PROPOSED INLET WITH PROTECTION (C)
	PROPOSED ELECTRICAL MANHOLE
	PROPOSED ELECTRICAL SWITCH
	PROPOSED FIRE HYDRANT
	PROPOSED WATER VALVE

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

**City of WILMINGTON**  
 NORTH CAROLINA  
 Public Services & Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit #: \_\_\_\_\_  
 Signed: \_\_\_\_\_  
**Approved Construction Plan**  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Planning: \_\_\_\_\_  
 Traffic: \_\_\_\_\_  
 Fire: \_\_\_\_\_

NC DENR PWSS WATER PERMIT #: \_\_\_\_\_ GPD  
 DWG SEWER PERMIT #: \_\_\_\_\_ GPD  
 SEWER CAPACITY: \_\_\_\_\_ GPD  
 SEWER SHED # AND PLANT: \_\_\_\_\_  
 SEWER TO FLOW THROUGH NEE: YES or NO (CIRCLE ONE)

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
©2016 NORRIS & TUNSTALL			



**ORTHOPEDIC  
INPATIENT  
HOSPITAL**

ARCHITECT:  
**LS3P**

2528 INDEPENDENCE BLVD., SUITE 200  
 WILMINGTON, NORTH CAROLINA 28412  
 TEL. 910.790.9991 FAX 910.790.5111  
 WWW.LS3P.COM

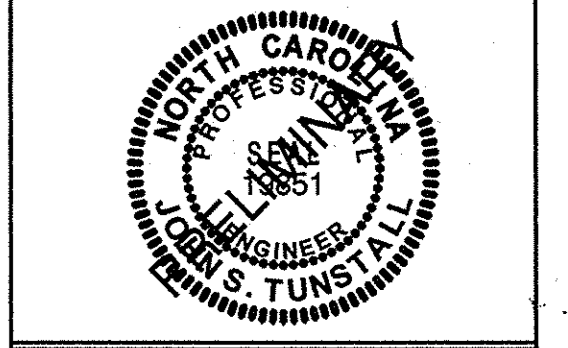
MEMBERS OF THE AMERICAN  
 INSTITUTE OF ARCHITECTS  
 COPYRIGHT 2016 ALL RIGHTS RESERVED  
 PRINTED OR ELECTRONIC DRAWINGS AND  
 DOCUMENTATION MAY NOT BE REPRODUCED  
 IN ANY FORM WITHOUT WRITTEN PERMISSION  
 FROM LS3P ASSOCIATES LTD.

SURVEYOR:  
**ROBERT H. GOSLEE & ASSOCIATES, PA**  
 LAND SURVEYORS - LAND PLANNERS  
 FROM LICENSE NUMBER: 001127  
 513 CHESTNUT STREET  
 WILMINGTON, NORTH CAROLINA 28401  
 910-783-1041  
 rhg@rhgllc.com  
 FILE NO.: 80104010

ENGINEER:  
**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS, P.C.  
 902 MARKET STREET  
 WILMINGTON, NC 28401  
 PHONE (910) 343-9653  
 1429 ASH-LITTLE RIVER RD. NW  
 ASH, NC 28420  
 PHONE (910) 287-5900  
 licence #C-3641

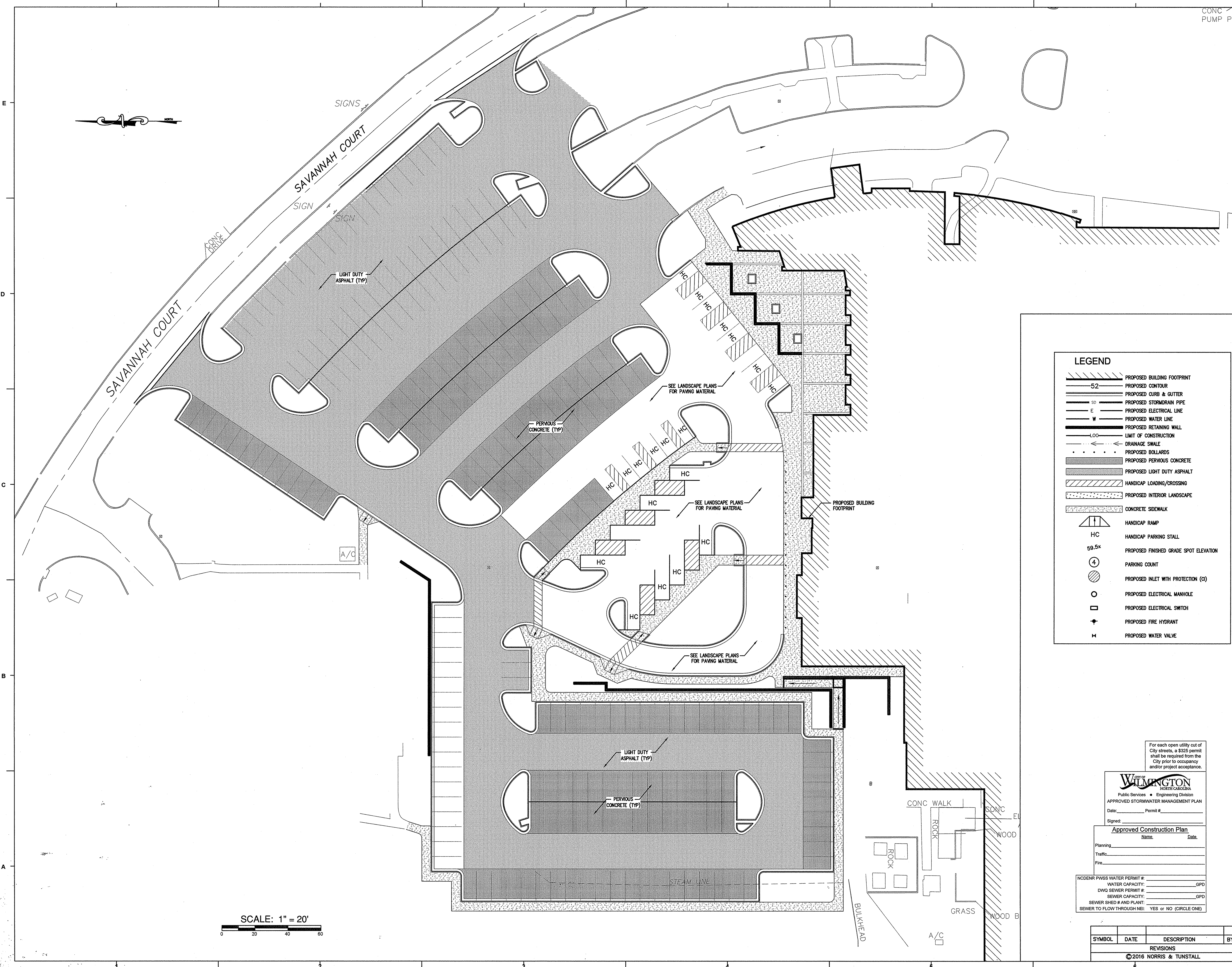
SHEET NAME:  
**LAYOUT  
 PLAN**

PROJ.# 16036  
 DES. JST  
 O.D. JST  
 DRW. SLF  
 DATE: 12/14/16



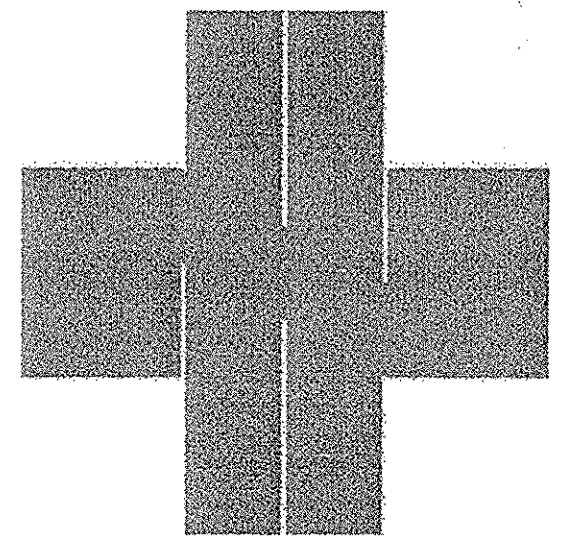
SHEET:  
**C4**





**LEGEND**

	PROPOSED BUILDING FOOTPRINT
	PROPOSED CONTOUR
	PROPOSED CURB & GUTTER
	PROPOSED STORMDRAIN PIPE
	PROPOSED ELECTRICAL LINE
	PROPOSED WATER LINE
	PROPOSED RETAINING WALL
	LIMIT OF CONSTRUCTION
	DRAINAGE SWALE
	PROPOSED BOLLARDS
	PROPOSED PERVIOUS CONCRETE
	PROPOSED LIGHT DUTY ASPHALT
	HANDICAP LOADING/CROSSING
	PROPOSED INTERIOR LANDSCAPE
	CONCRETE SIDEWALK
	HANDICAP RAMP
	HANDICAP PARKING STALL
	PROPOSED FINISHED GRADE SPOT ELEVATION
	PARKING COUNT
	PROPOSED INLET WITH PROTECTION (O)
	PROPOSED ELECTRICAL MANHOLE
	PROPOSED ELECTRICAL SWITCH
	PROPOSED FIRE HYDRANT
	PROPOSED WATER VALVE



**ORTHOPEDIC  
INPATIENT  
HOSPITAL**

**ARCHITECT:  
LS3P**

2528 INDEPENDENCE BLVD. SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL: 910.730.9901 FAX: 910.730.3111  
WWW.LS3P.COM

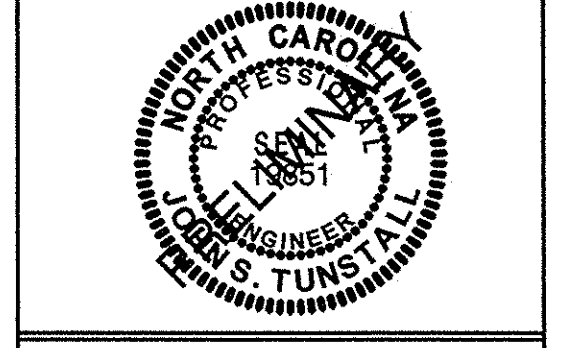
MEMBERS OF THE AMERICAN  
INSTITUTE OF ARCHITECTS  
COPYRIGHT © 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND  
DOCUMENTATION MAY NOT BE REPRODUCED  
IN ANY FORM WITHOUT WRITTEN PERMISSION  
FROM LS3P ASSOCIATES LTD.

**SURVEYOR:**  
ROBERT H. GOSLEE & ASSOCIATES, PA  
LAND SURVEYORS - LAND PLANNERS  
P.L.L.C.  
WILMINGTON, NORTH CAROLINA 28401  
910-763-1941  
rgoslee@rhgpa.com  
FILE NO: 801104010

**ENGINEER:**  
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS, P.C.  
902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-9653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900  
license #C-3841

**SHEET NAME:  
PAVEMENT  
PLAN**

PROJ# 16036  
DES. JST  
CD. JST  
DRAW. SLF  
DATE: 12/14/16



**SHEET:  
C5**

For each open utility out of  
City streets, a \$225 permit  
shall be required from the  
City prior to occupancy  
and/or project acceptance.

**City of WILMINGTON**  
Public Services & Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_  
Name: \_\_\_\_\_ Date: \_\_\_\_\_

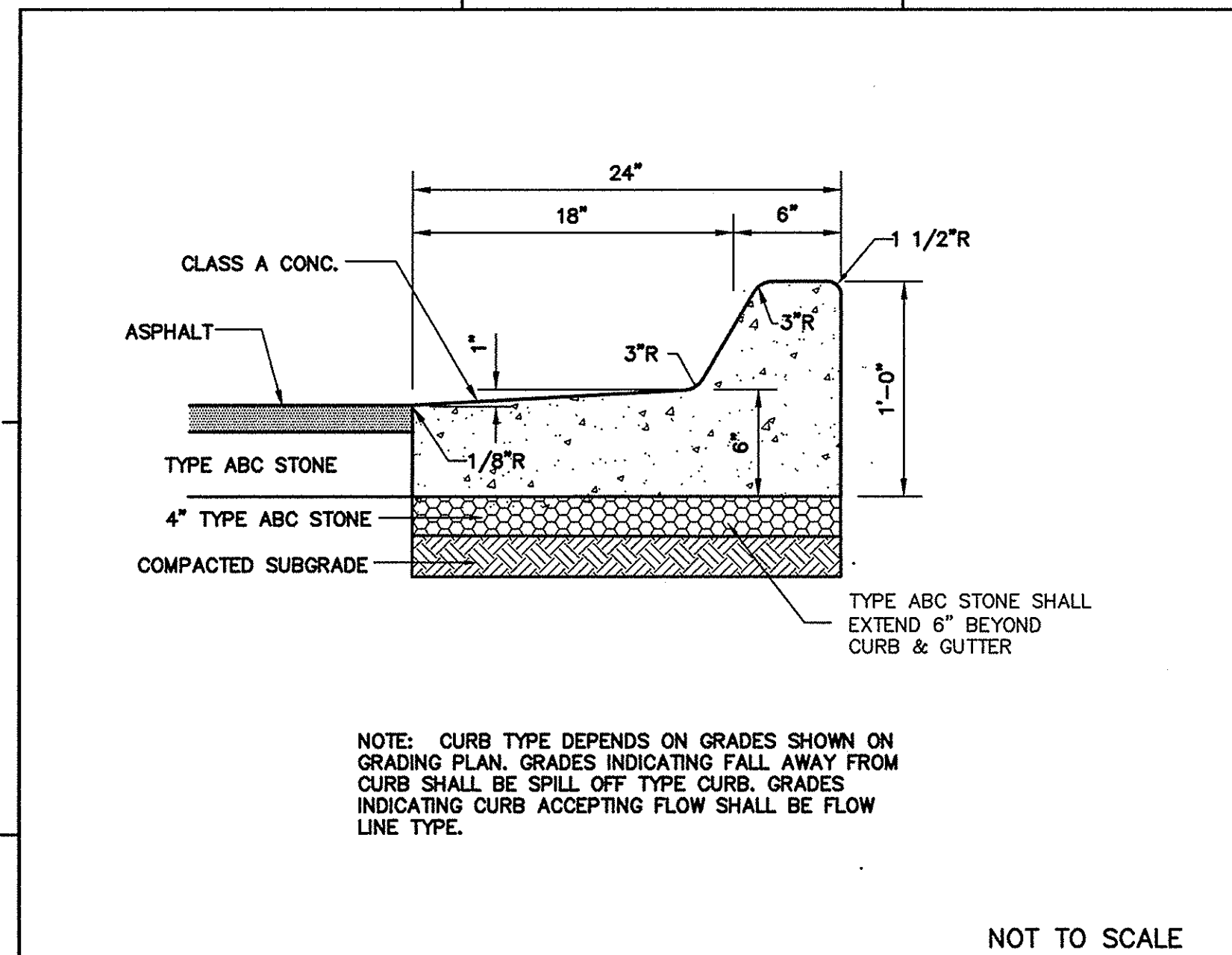
**Approved Construction Plan**  
Planning: \_\_\_\_\_  
Traffic: \_\_\_\_\_  
Fire: \_\_\_\_\_

INCENR PWSS WATER PERMIT # \_\_\_\_\_ GPD  
WATER CAPACITY: \_\_\_\_\_  
DWQ SEWER PERMIT # \_\_\_\_\_ GPD  
SEWER CAPACITY: \_\_\_\_\_  
SEWER SHED # AND PLANT: \_\_\_\_\_  
SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

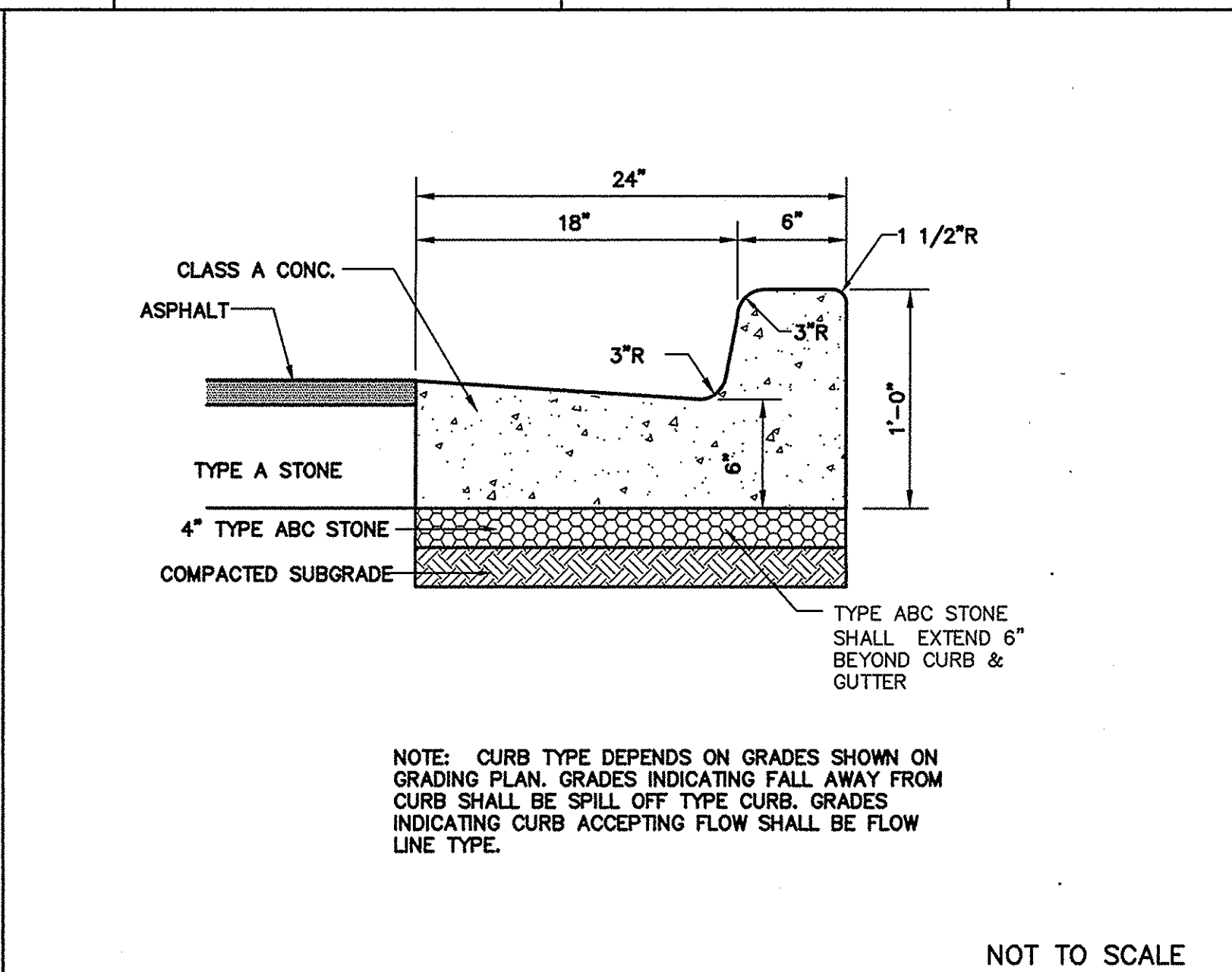
SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
© 2016 NORRIS & TUNSTALL			

SCALE: 1" = 20'  
0 20 40 60

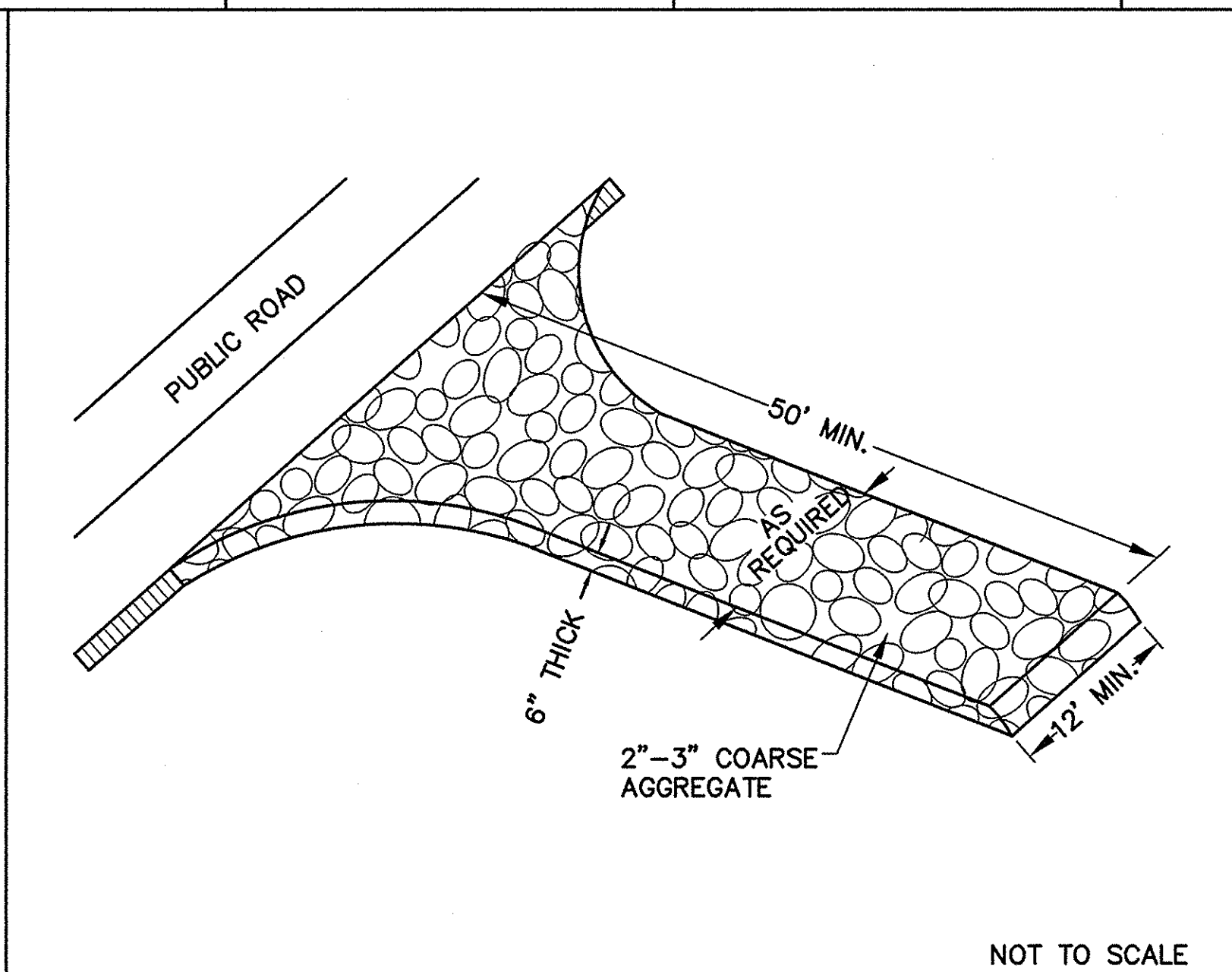




1 24" CURB AND GUTTER SECTION (SPILL-OFF) NOT TO SCALE



2 24" CURB AND GUTTER SECTION (FLOW-LINE) NOT TO SCALE



3 TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE NOT TO SCALE

**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. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBSCURABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOWNSLOPE 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 WATLES, BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVELY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
6. LAND QUALITY REQUIREMENTS: ALL SEEDING AREAS WILL BE FERTILIZED, RESEED 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.
7. WATER QUALITY REQUIREMENTS: ALL SEEDING AREAS WILL BE FERTILIZED, RESEED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL PERIMETER DICES, SWALES, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3:1 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.

**SITE WORK NOTES:**

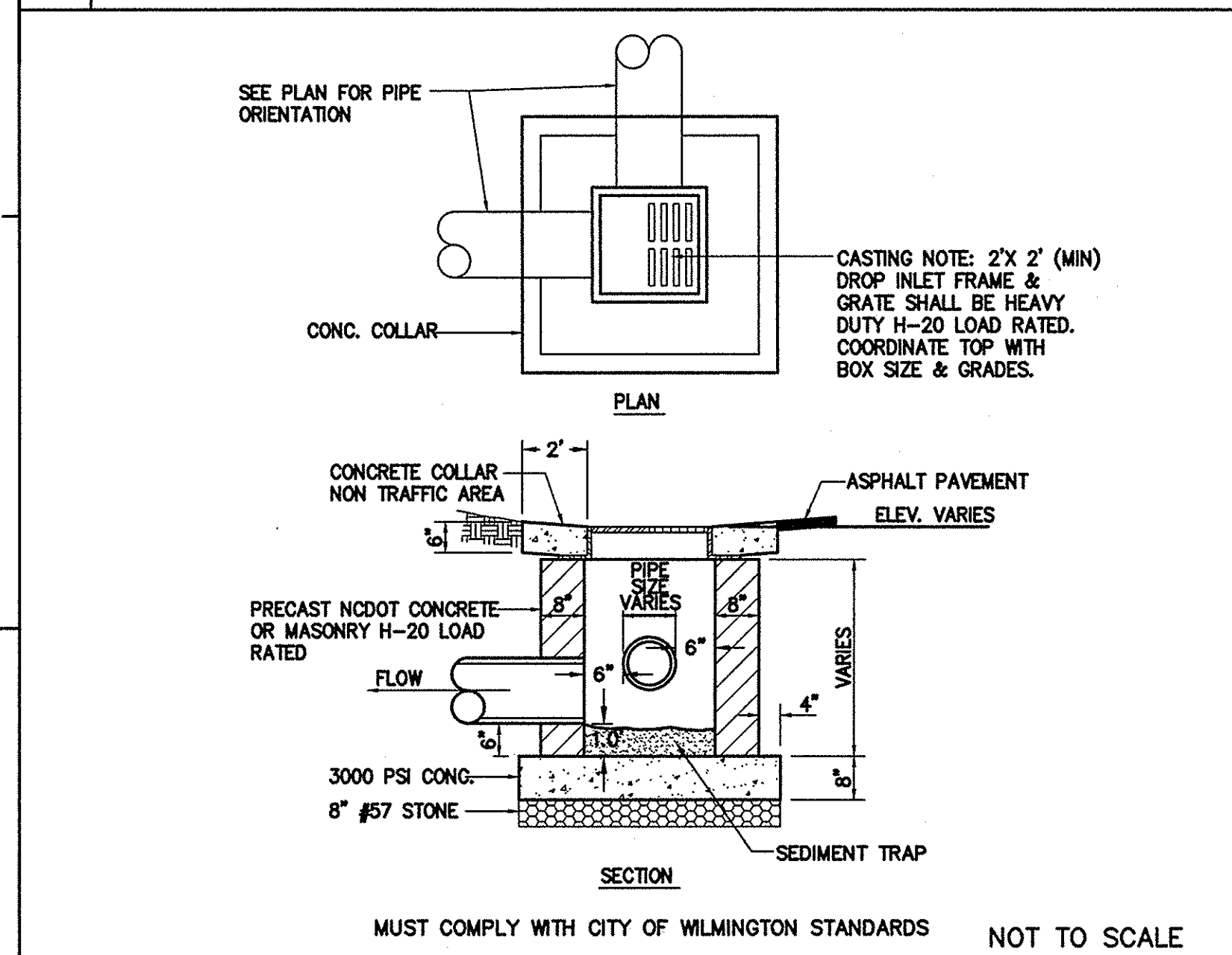
1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.
5. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY ROBERT H. GOSLEE AND ASSOCIATES, PA AND PROVIDED BY OWNER.
6. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
8. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.
9. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.
10. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
11. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
12. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
13. REFER TO THE PLUMBING DRAWINGS FOR LOCATION AND INVERTS OF NEW WASTE, WATER AND ROOF DRAIN LINES.

**UTILITY NOTES FOR FIRE HYDRANTS**

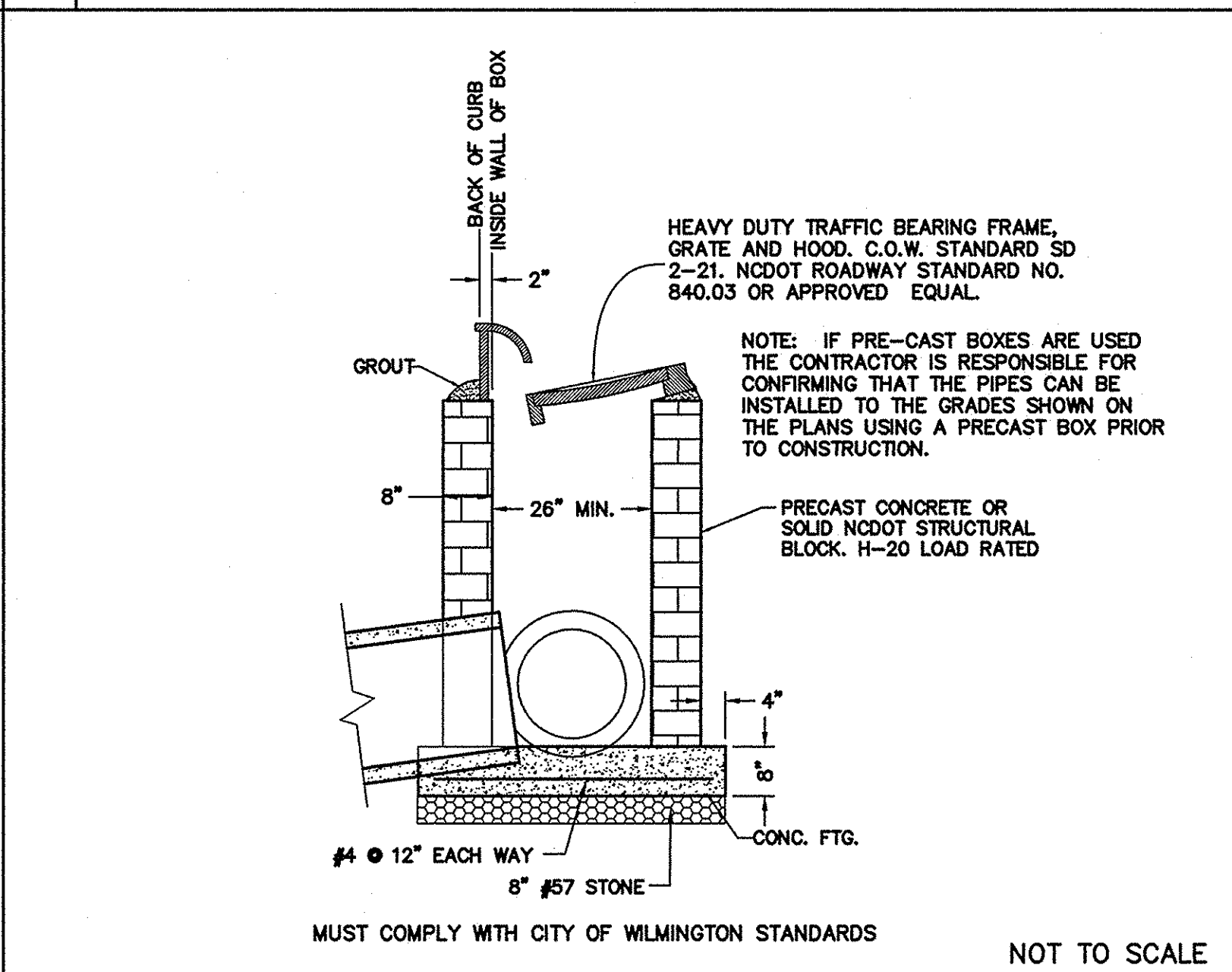
1. FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
2. THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE GROUND SURFACE OF THE FIRE HYDRANT CONNECTION AND FIRE HYDRANT.
4. FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
5. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING.
6. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
7. THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
8. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
9. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-8888 FOR ADDITIONAL INFORMATION.
10. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
11. HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF THE STRUCTURE.
12. BUILDING CONSTRUCTION TYPE: 1-A

**CITY OF WILMINGTON STANDARD NOTES:**

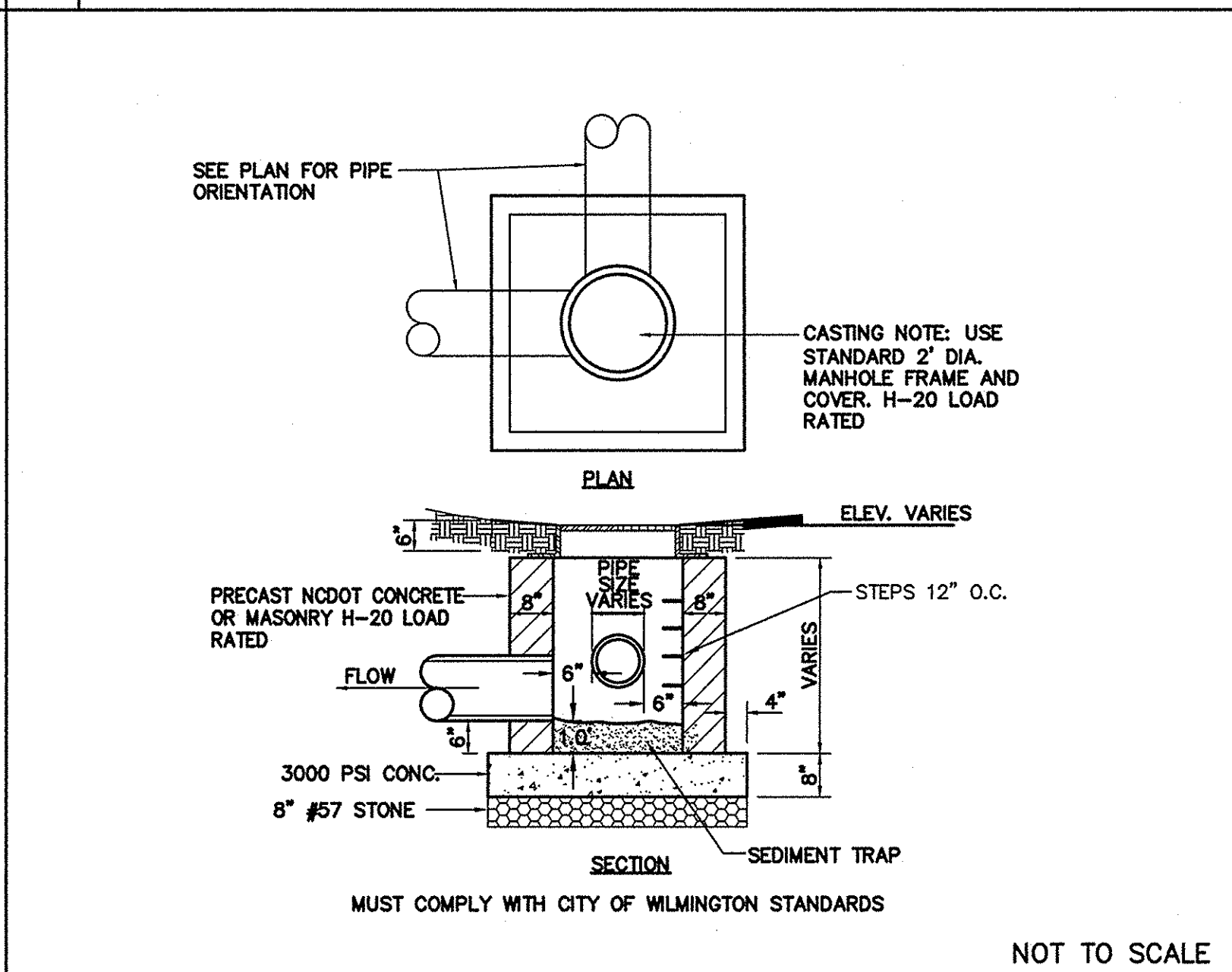
1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-532-4349.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED 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. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND MANUALS OF THE SUBDIVIDER. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL BE RESPONSIBLE FOR THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC SIGNS. THE CITY POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
9. CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
10. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-8888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
11. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
12. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
13. PROJECT SHALL COMPLY WITH CFPWA 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.
14. IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
15. ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA WATER SHALL COMPLY WITH CFPWA PREVENTION CONTROL REGULATIONS. CALL 332-8558 FOR INFORMATION.
16. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCOORR OR ASSE.
17. 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.
18. THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
19. 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 910-343-8888 FOR ADDITIONAL INFORMATION.
20. A LANDSCAPE PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARK AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.
21. IF AND IRRIGATION SYSTEM IS PLANNED FOR THE SITE, UTILIZE MOISTURE SENSORS.
22. ALL PROPOSED VEGETATION WITHIN THE SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISION RIGHT LINES FROM 30'-10'.
23. PLEASE CONSIDER INCORPORATING XERIC LANDSCAPING FOR ALL NEW LANDSCAPING.



4 DROP INLET DETAIL NOT TO SCALE



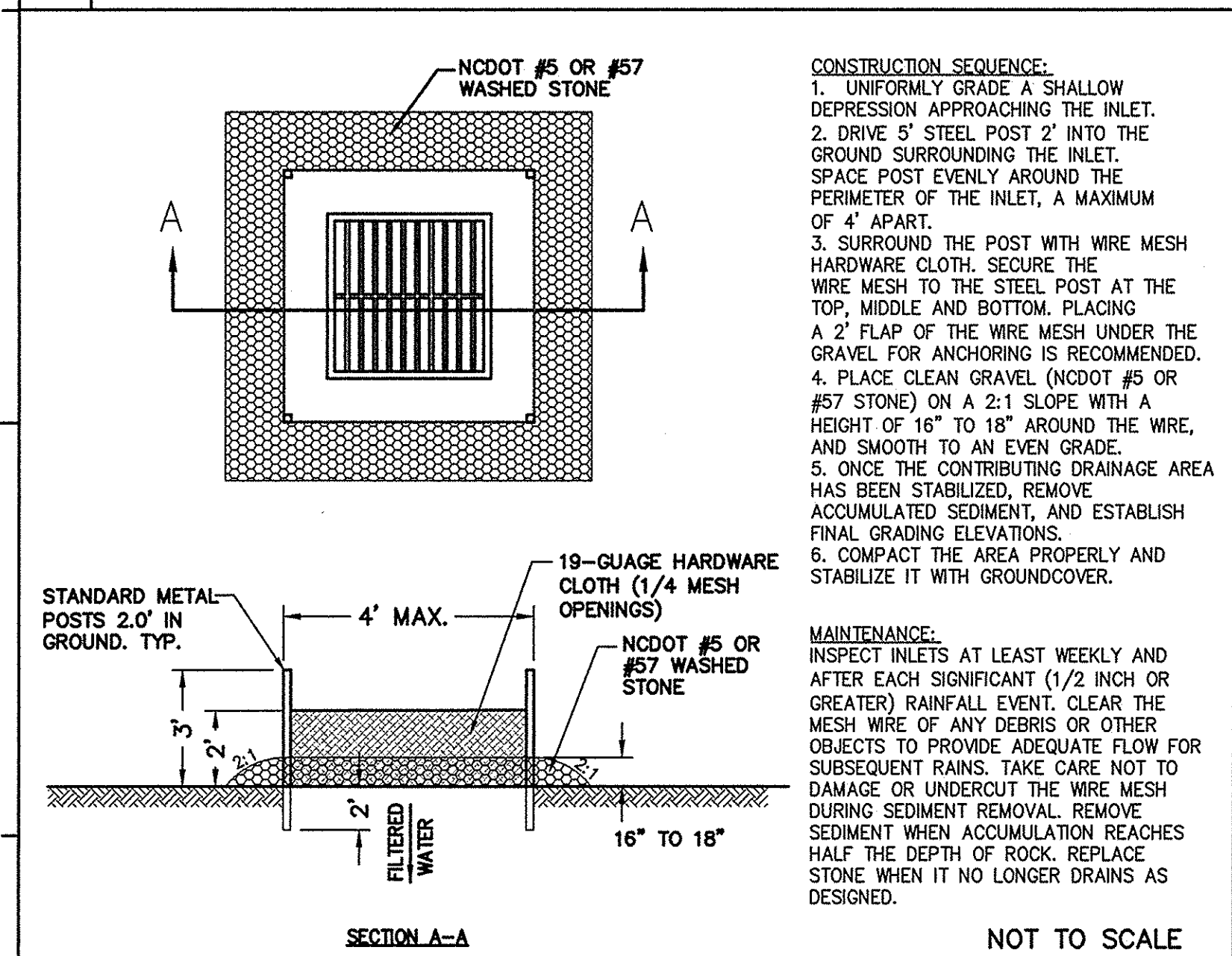
5 CATCH BASIN DETAIL NOT TO SCALE



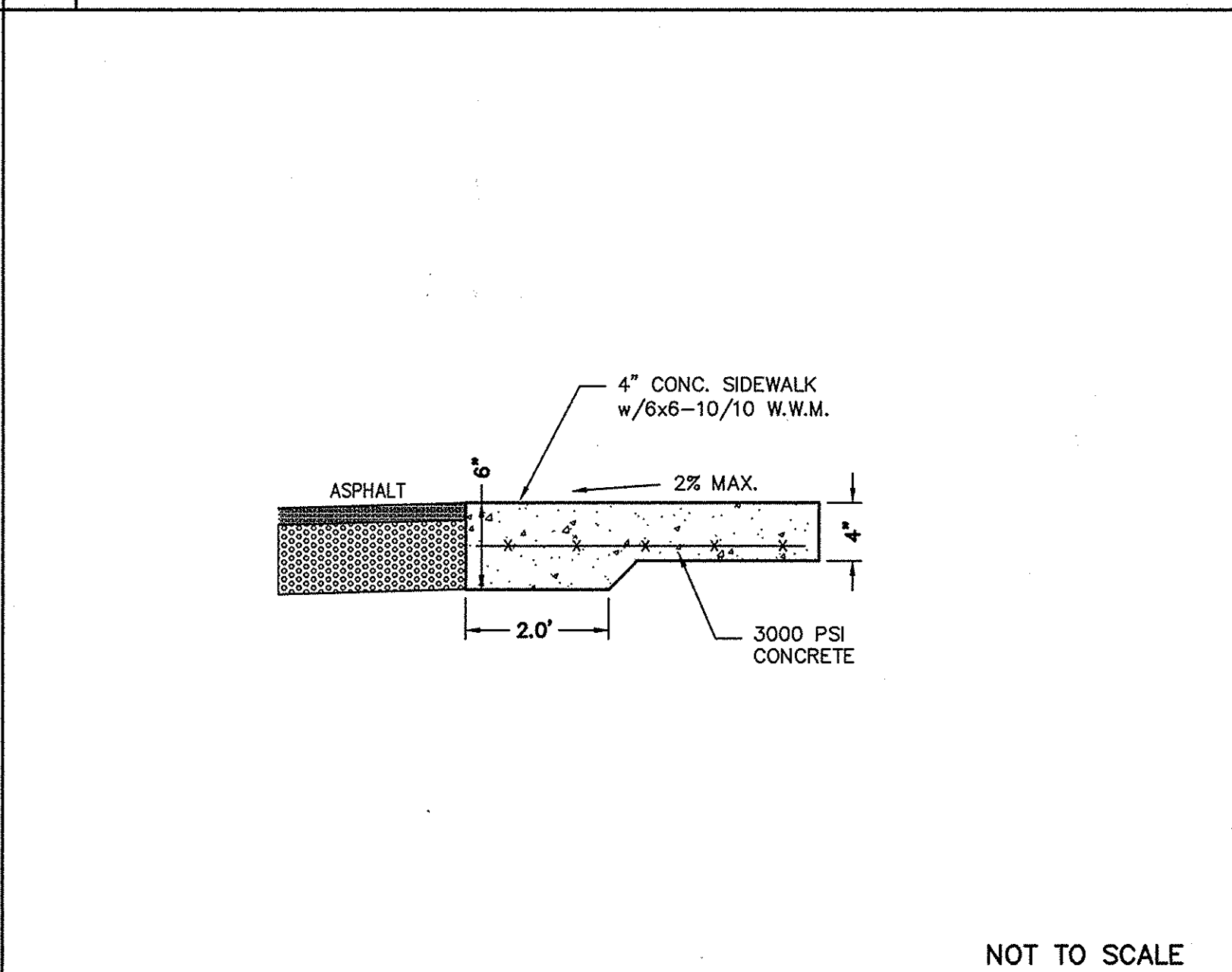
6 JUNCTION BOX DETAIL NOT TO SCALE

**TEMPORARY/PERMANENT GRASS SPECIFICATION:**

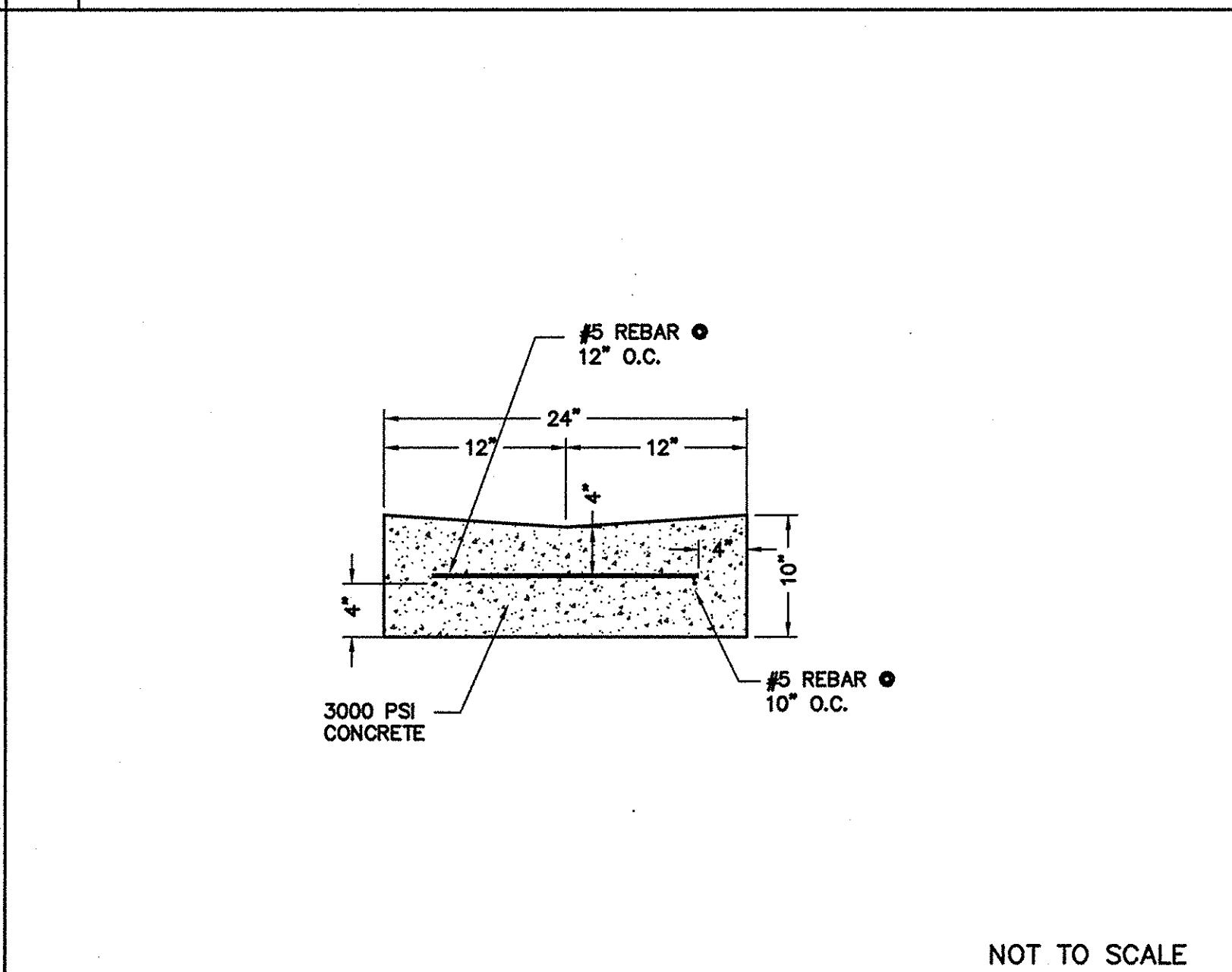
1. CHESEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADOSE SOIL CONDITION.
2. RIP THE ENTIRE AREA TO A 6 INCH DEPTH.
3. REMOVE ALL ROCKS, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACES SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL.
  - LIME: 45 LBS. PER 1000 S.F.
  - PHOSPHOROUS: 15 LBS. PER 1000 S.F.
  - FERTILIZERS: 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. MULCH SHALL BE PER MANUFACTURER 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 SEEDING 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
  - 20% BERMUDA GRASS
  - 20% TURF FESCUE
  - 10% CREEPING RED FESCUE
  - 20% ANNUAL RYE GRASS
12. 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 80%.
13. ALL DISTURBED AREA SHALL BE SEED 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 SEEDING OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS, OTHER SEEDING SCHEDULES MAY BE POSSIBLE.



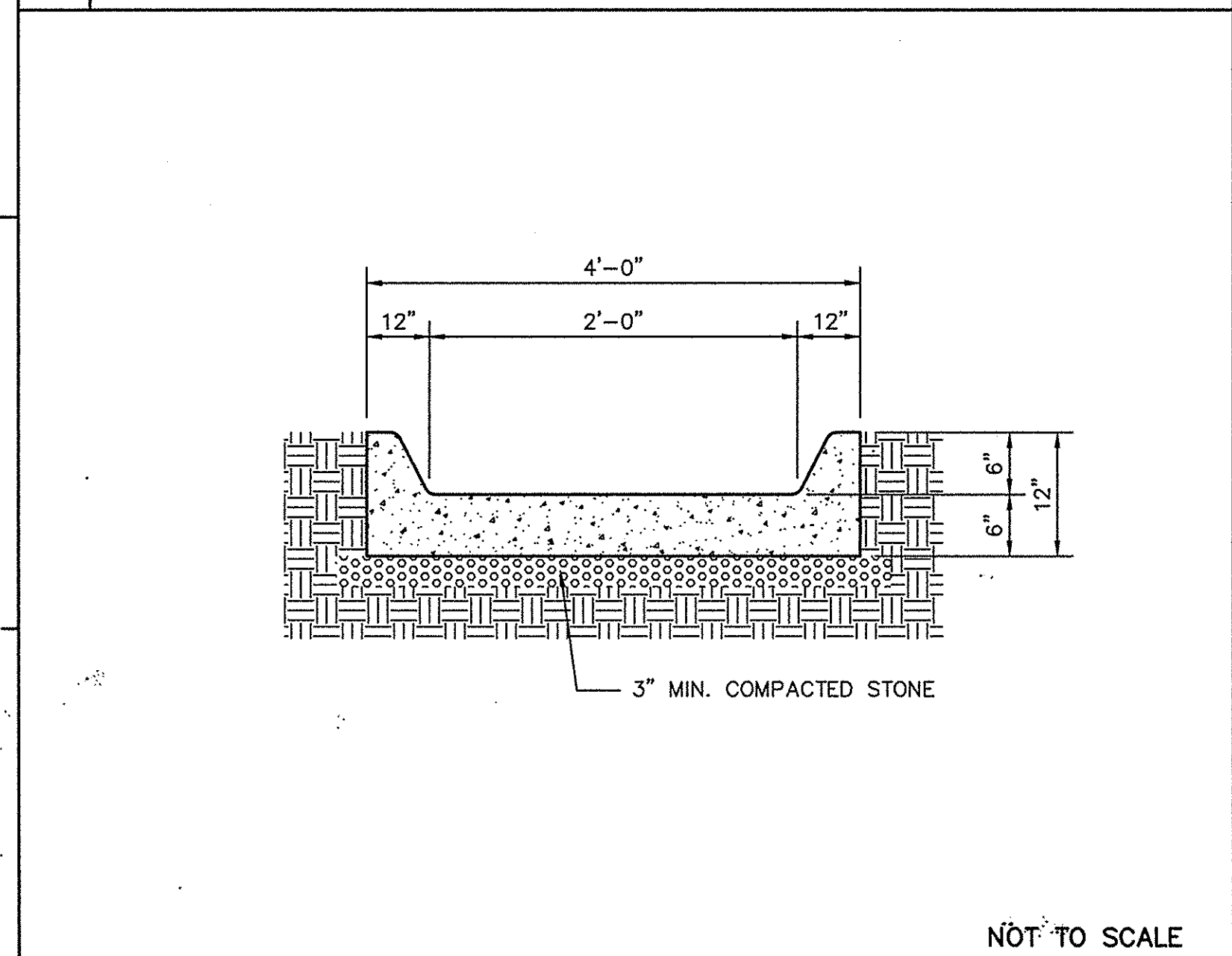
7 HARDWARE CLOTH AND GRAVEL INLET PROTECTION NOT TO SCALE



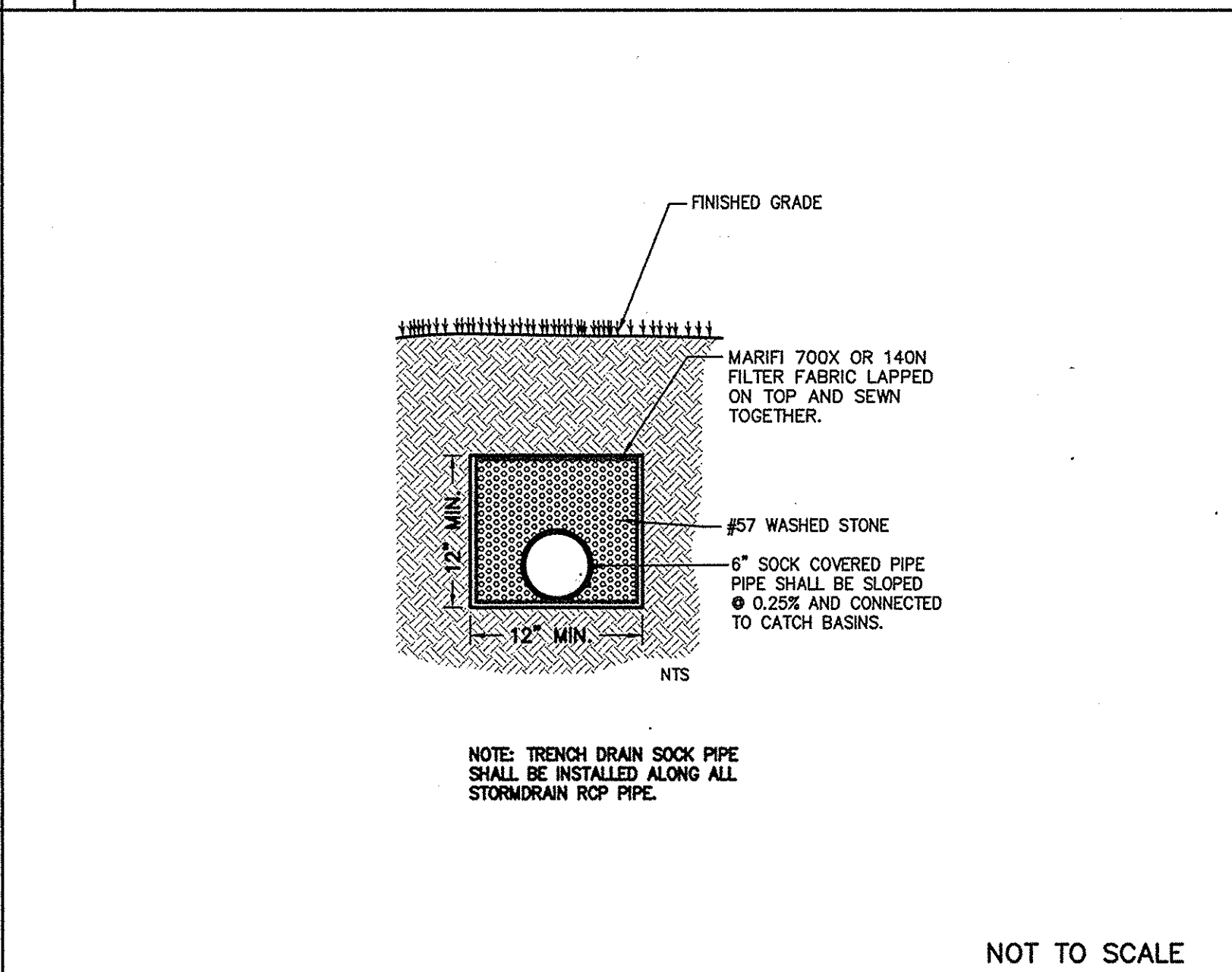
8 TURN DOWN WALK SECTION NOT TO SCALE



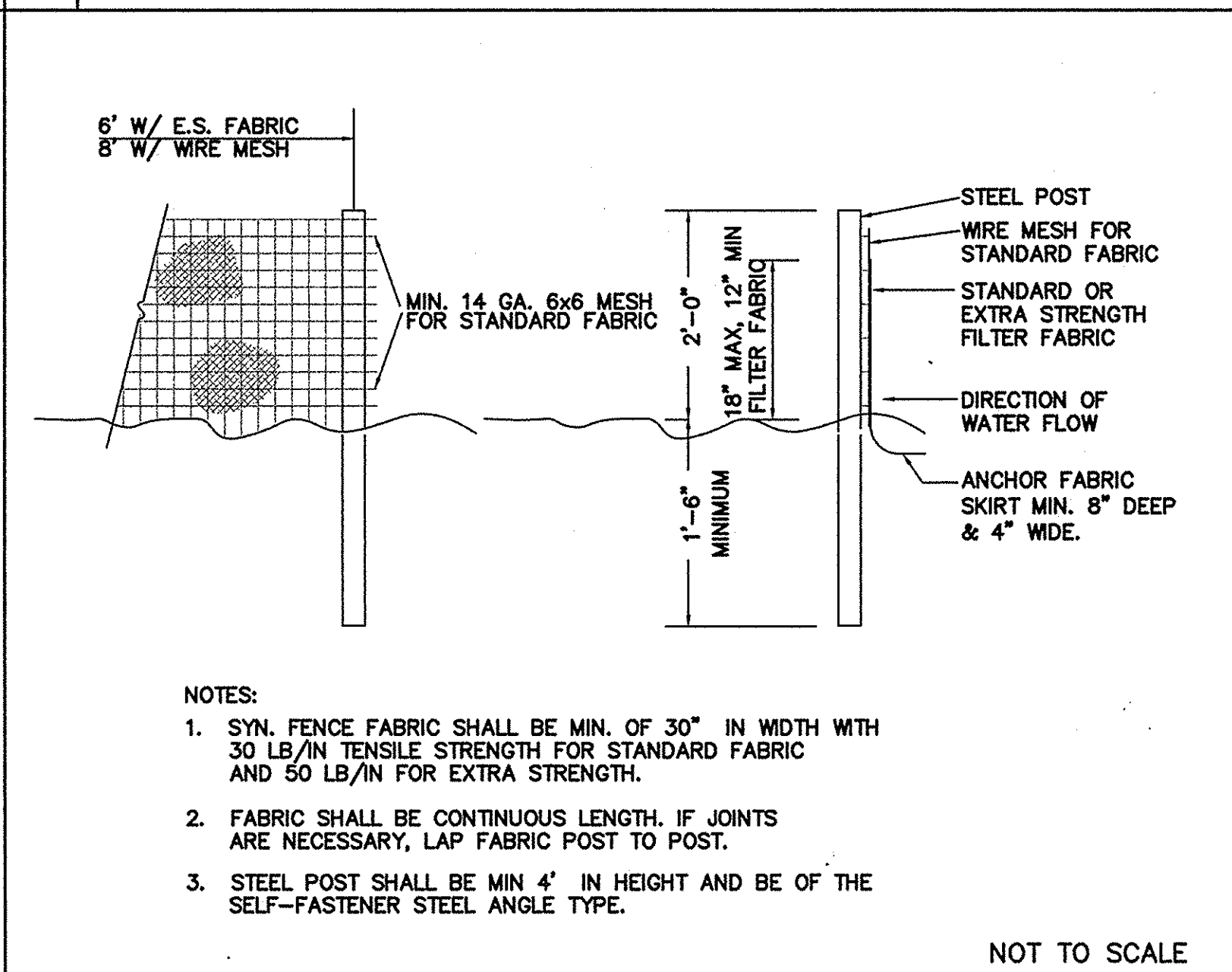
9 REINFORCED VALLEY GUTTER DETAIL NOT TO SCALE



10 CONCRETE FLUME SECTION NOT TO SCALE



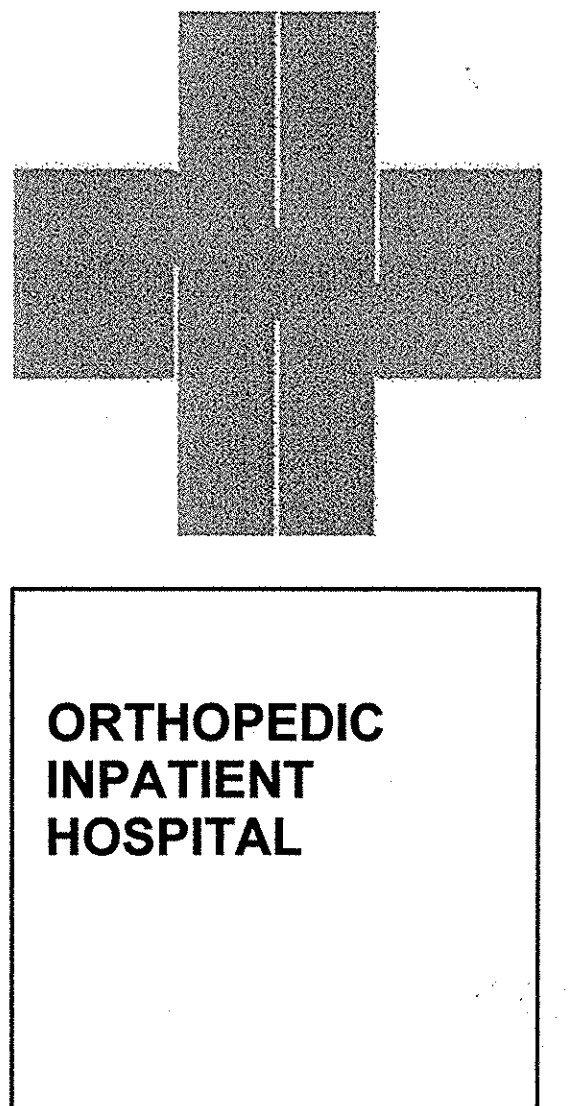
11 TRENCH DRAIN SOCK PIPE DETAIL NOT TO SCALE



12 TEMPORARY SILT FENCE NOT TO SCALE

**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.



**ARCHITECT:**  
**LS3P**

2528 INDEPENDENCE BLVD. SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL. 910.790.9991 FAX 910.790.3111  
WWW.LS3P.COM

MEMBERS OF THE AMERICAN INSTITUTE OF ARCHITECTS  
COPYRIGHT 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND DOCUMENTATION MAY NOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION FROM LS3P ASSOCIATES LTD.

**SURVEYOR:**  
ROBERT H. GOSLEE & ASSOCIATES, PA  
LAND SURVEYORS & LAND PLANNERS  
FIRM LICENSE NUMBER: C-117  
513 CHESTNUT STREET  
WILMINGTON, NORTH CAROLINA 28401  
910-783-1941  
rgh@rhgpa.com  
FILE NO.: 80104010

**ENGINEER:**  
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS, P.C.  
902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-9653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900  
license #0-3641

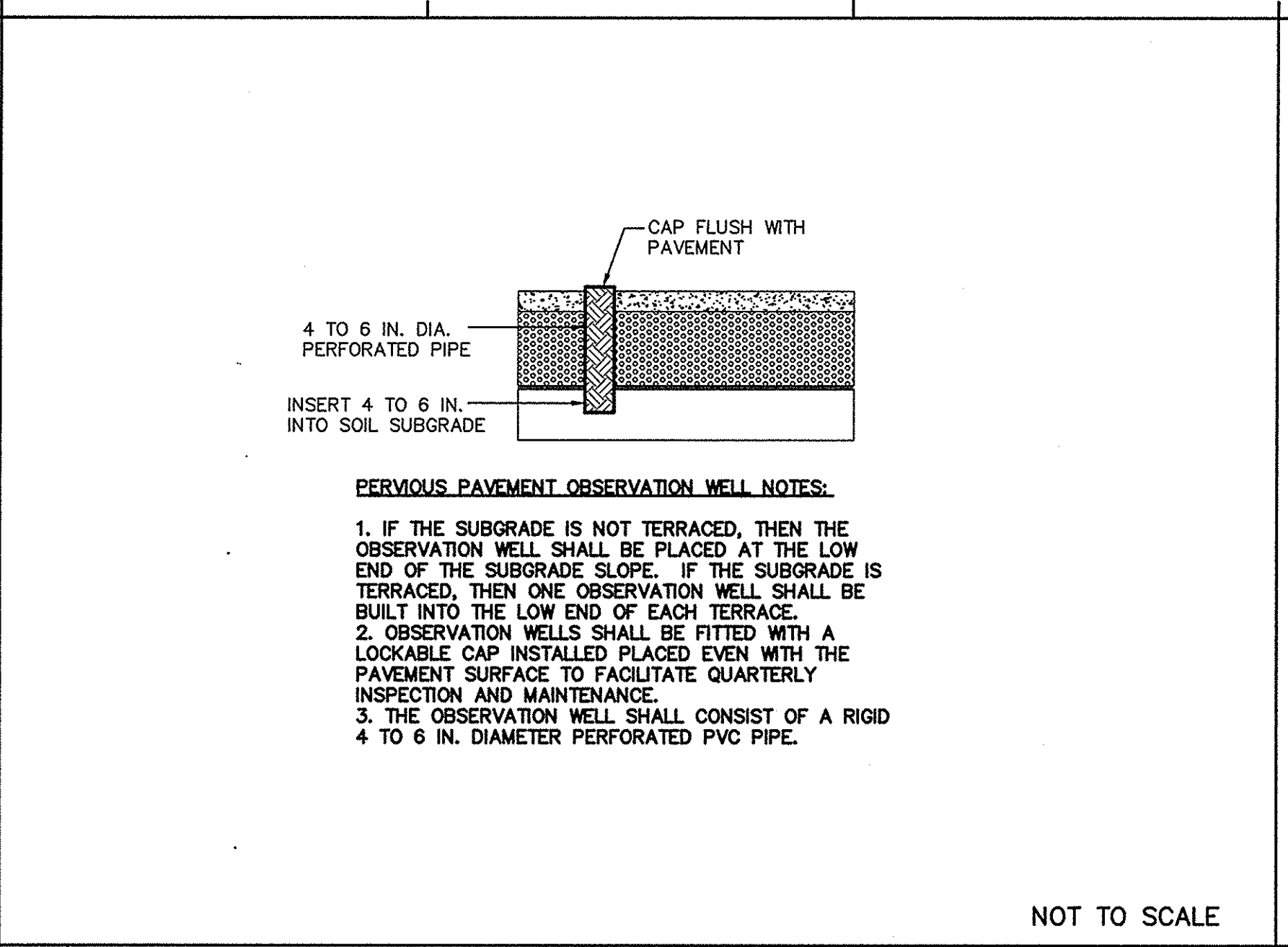
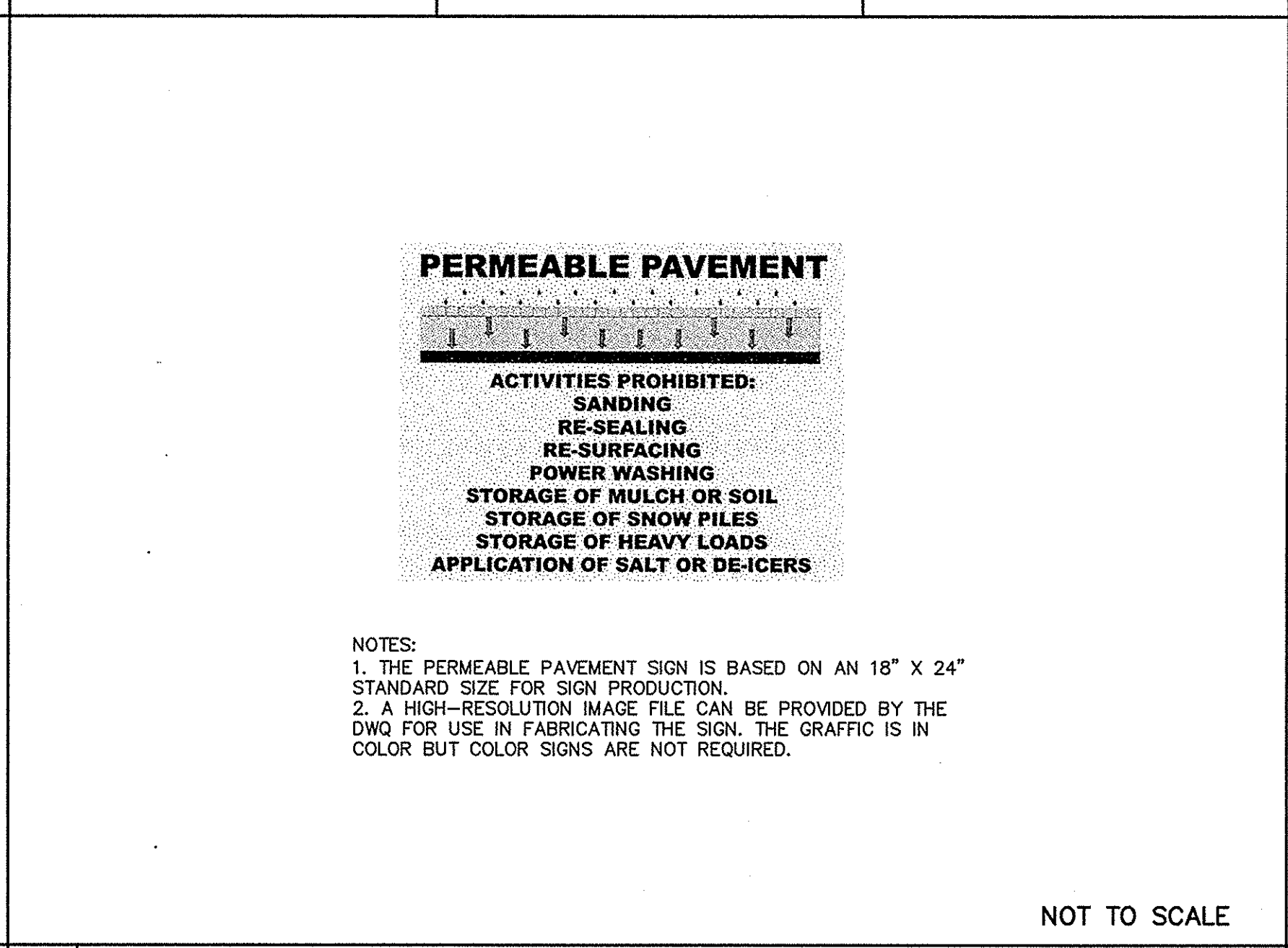
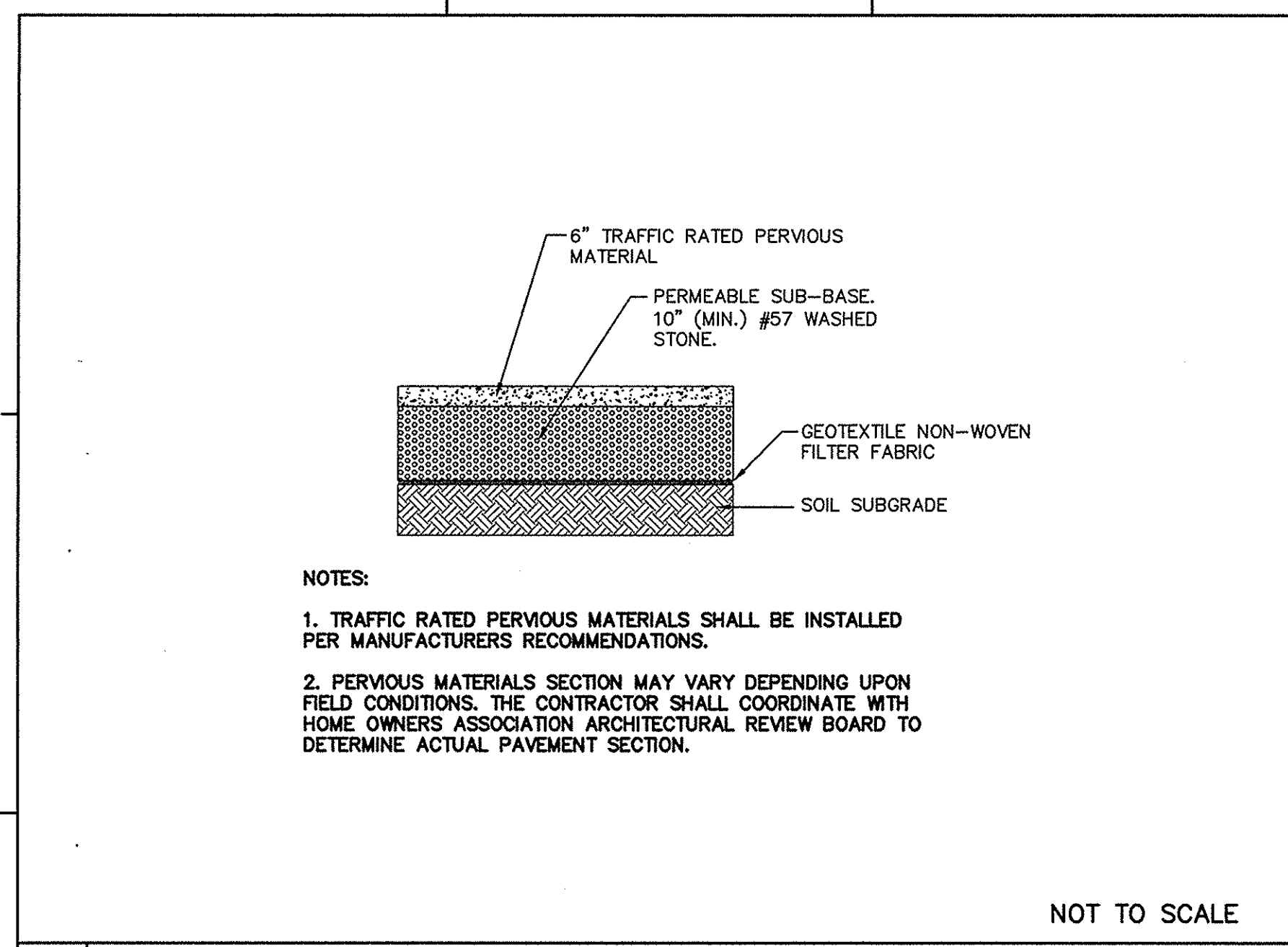
**SHEET NAME:**  
**NOTES AND DETAILS**

PROJ# 16036  
DES. JST  
ORD. JST  
DRAW. SLF  
DATE: 12/14/16

**SHEET:**  
**C6**

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
©2016 NORRIS & TUNSTALL			

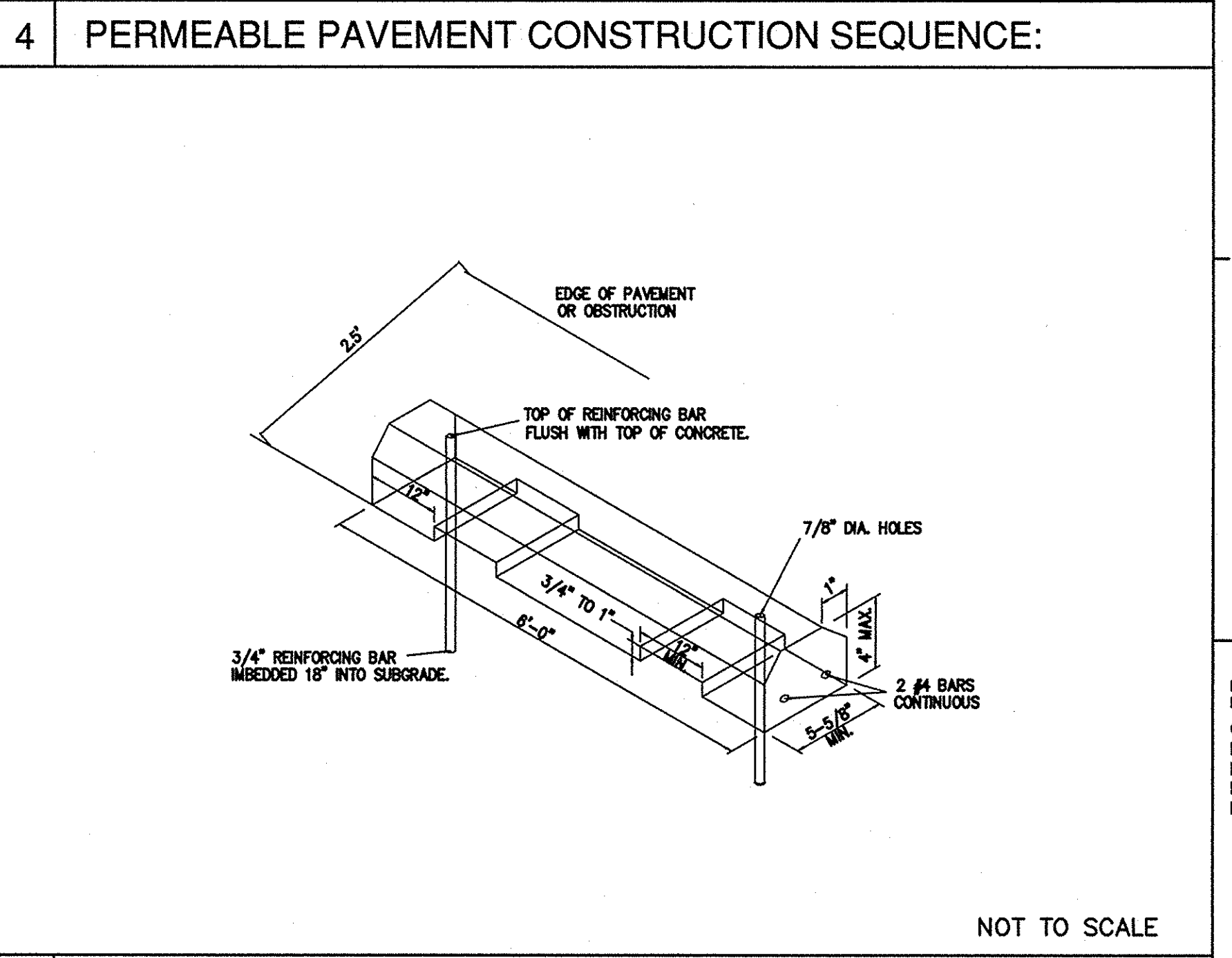
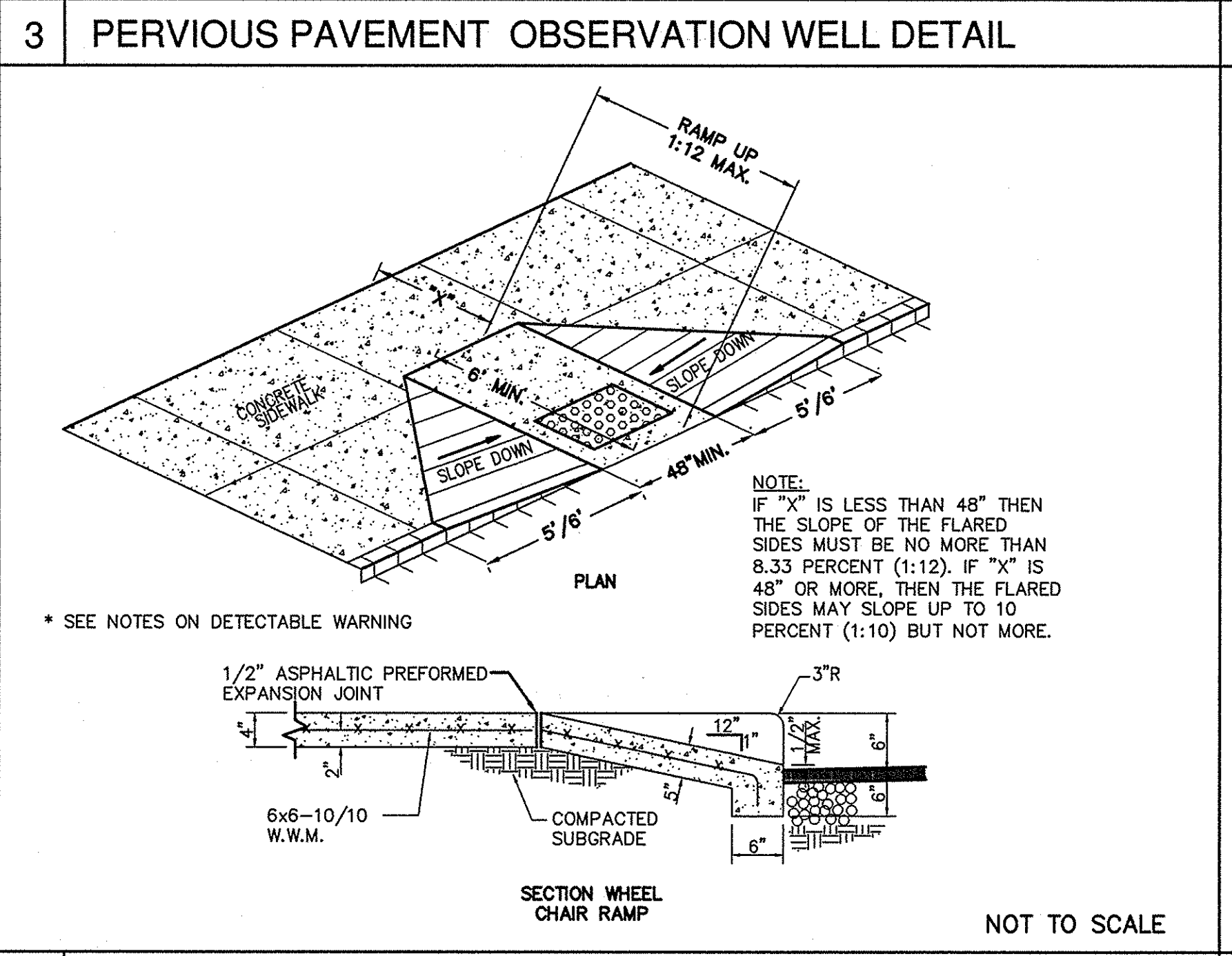
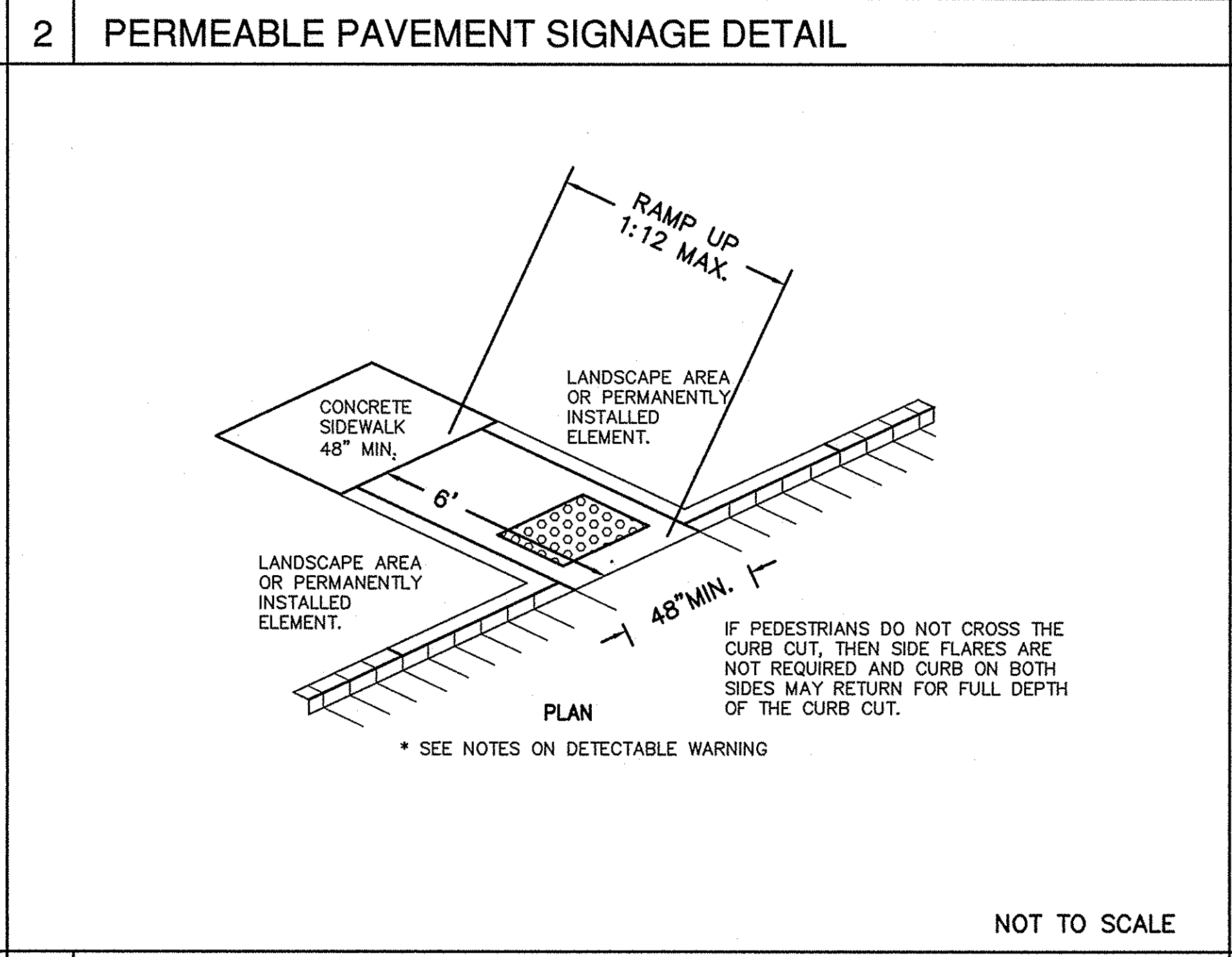
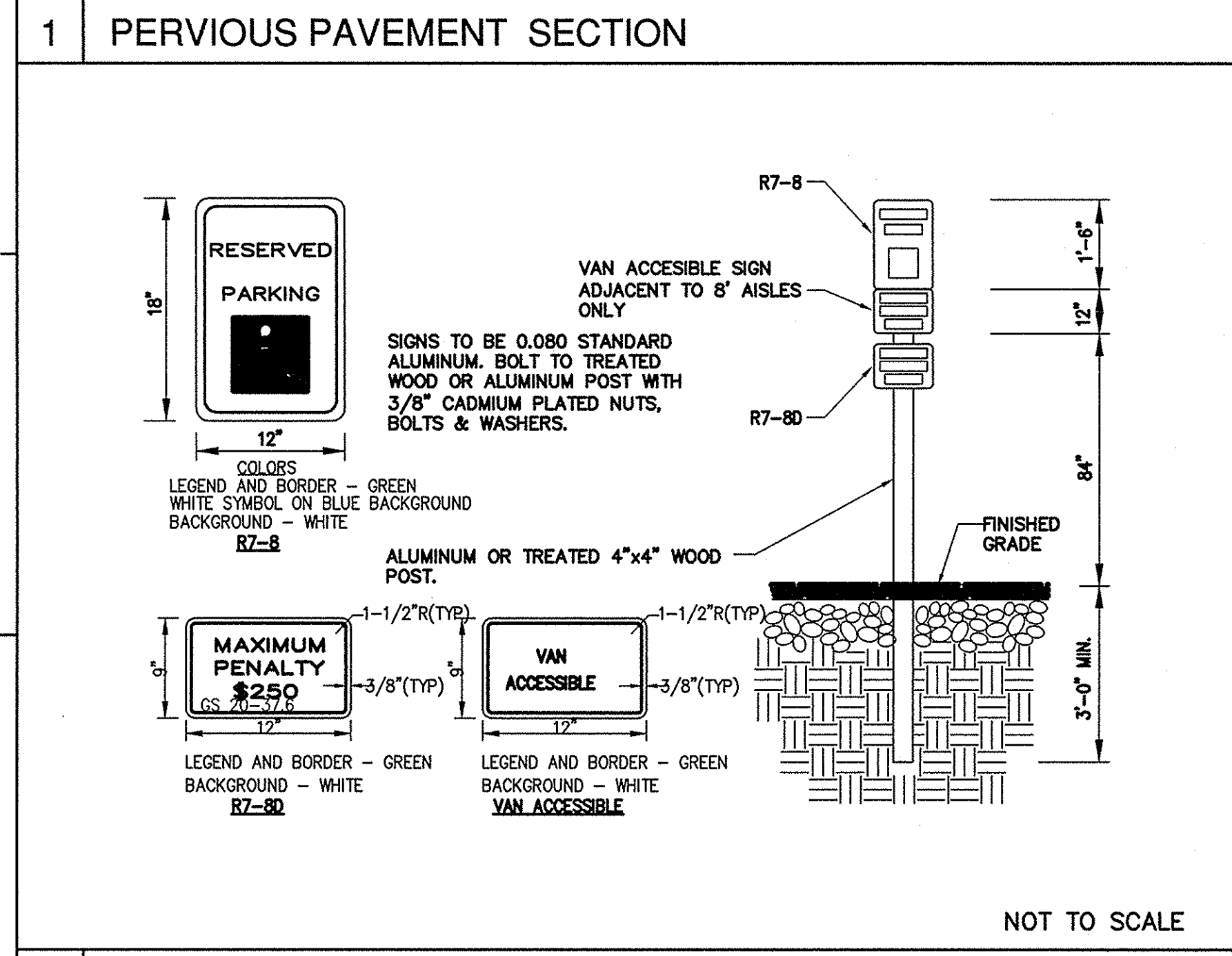
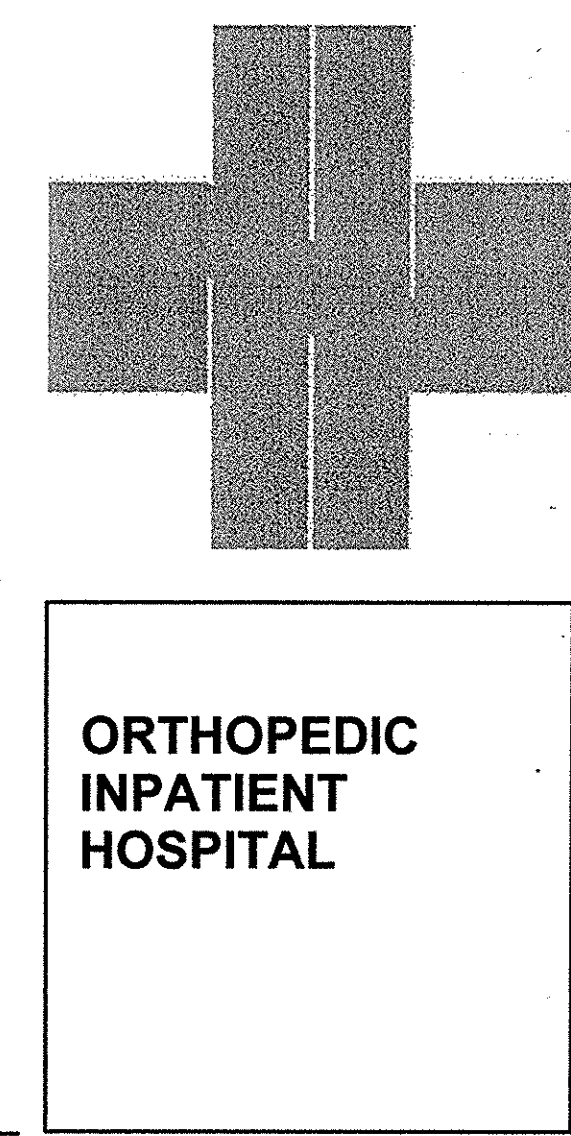




**PERMEABLE PAVEMENT CONSTRUCTION SEQUENCE:**

The following is a typical construction sequence to properly install pervious concrete. The means and methods of installation shall be determined by the contractor and shall be installed per the manufacturer recommendations, product standards and industry guidelines. Construction of the permeable pavement shall only begin after the entire:

- contributing drainage area has been stabilized. The proposed site should be checked for existing utilities prior to any excavation. Do not install the system in rain or snow. Temporary erosion and sediment (E&S) controls (silt fence) are needed during.
- installation to divert stormwater away from the permeable pavement area until it is completed. The proposed permeable pavement area must be kept free from sediment during the entire construction process. Construction materials that are contaminated by sediments must be removed and replaced with clean materials. Where possible, excavators or backhoes should work from the sides to excavate.
- the aggregate layer to its appropriate design depth and dimensions. In-situ soil testing shall be done after excavation to verify existing infiltration rate.
- Soils testing shall be conducted by an appropriately qualified professional, the testing can be done by the contractor, the designer, or a third party hired by owner. The results of the testing shall be given to the designer of record for review. If results show a lower infiltration rate than the rate of design the depth of aggregate must be revised. The native soils along the bottom and sides of the permeable pavement system.
- Soils should be scarified or tilled to a depth of 3 to 4 inches prior to the placement of the filter layer or filter fabric. Filter fabric should be installed on the bottom and the sides of the aggregate layer.
- Place observation wells as shown on plans.
- Inspect all aggregate prior to placement. Ensure aggregate is clean, free of fines.
- and conform to the plans and specifications. All aggregate shall be spread (not dumped). Moistened and spread the washed stone without driving on the soil subgrade, being careful not to damage the observation wells. Follow compaction recommendations by the permeable pavement manufacturer or that from industry guidelines. Ensure edge restraints and barriers between permeable pavement are installed.
- per design. Contractor is to follow standard installation procedures for the specific type of
- pervious pavement that is being installed. For this project pervious concrete will be installed. Only certified and experienced contractors shall install the pervious concrete installation shall be per the manufacturer recommendations, product standards and industry guidelines. Pervious concrete shall be constructed in accordance with the latest version of AC 522.1, Specifications for Pervious Concrete. After installation, protect the installed pervious concrete until project completion.
- including routing construction traffic away from the installed pervious concrete. Contractor shall provide protection techniques including mats, plastic sheeting and barriers to ensure the pervious concrete remains protected until project completion.

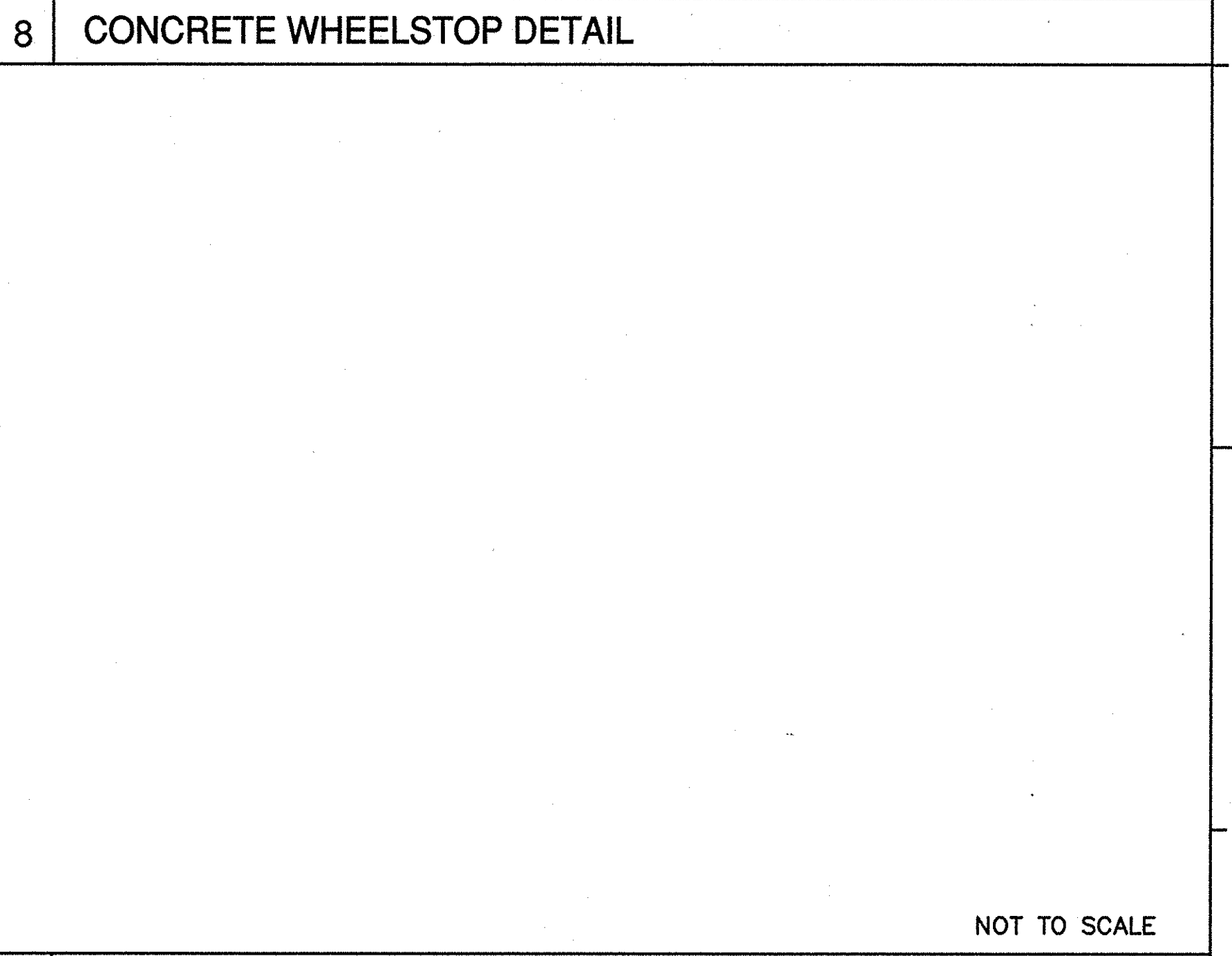
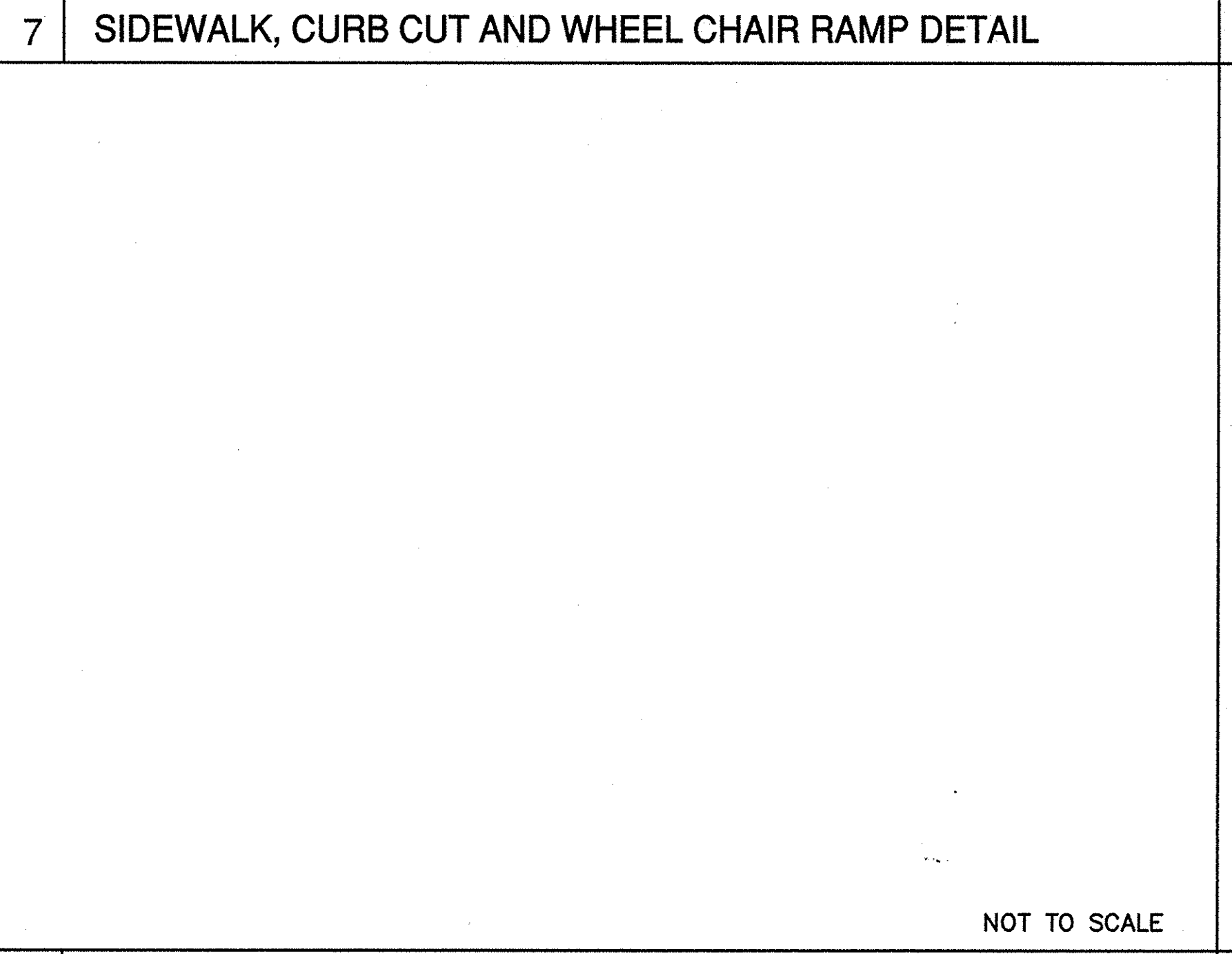
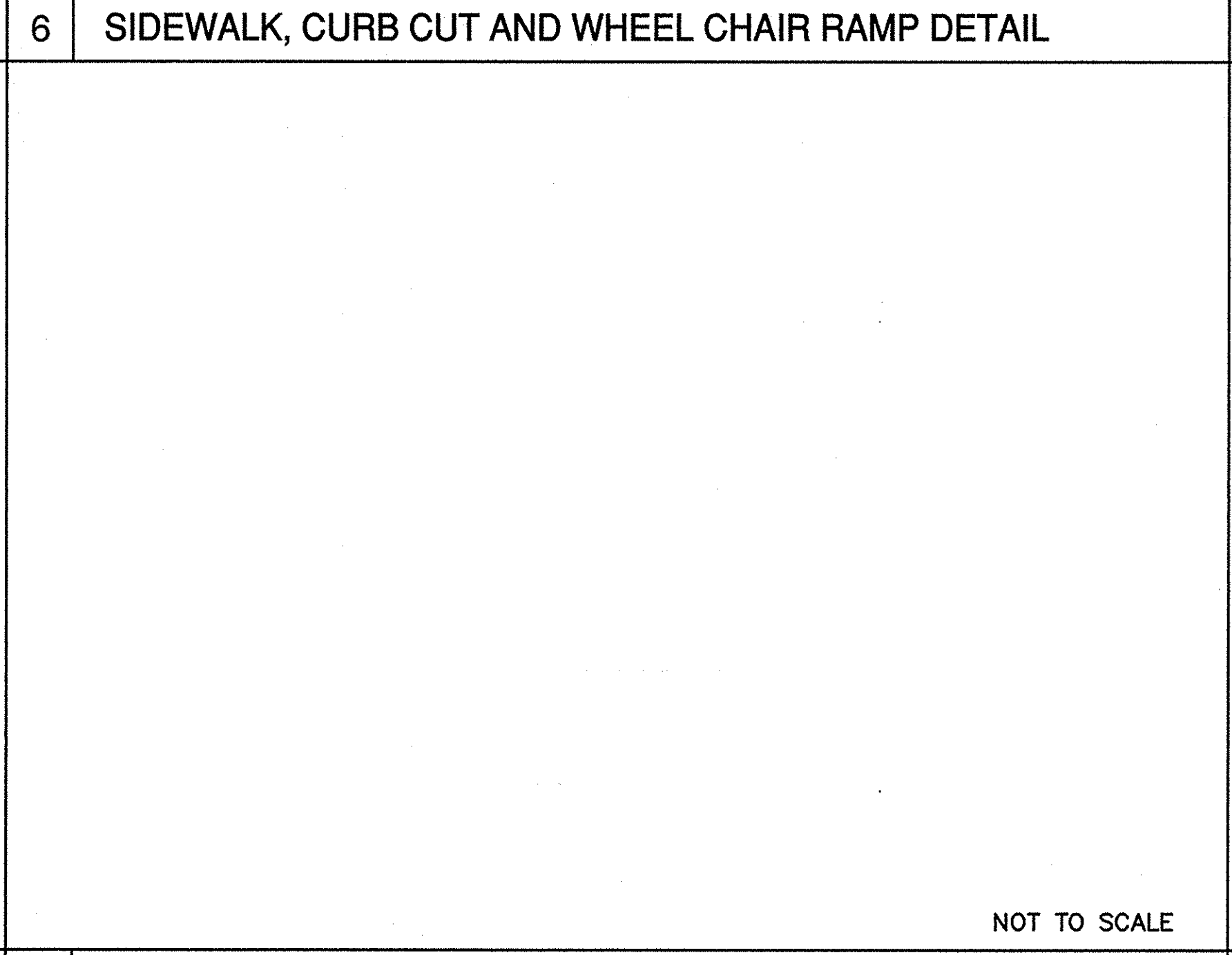
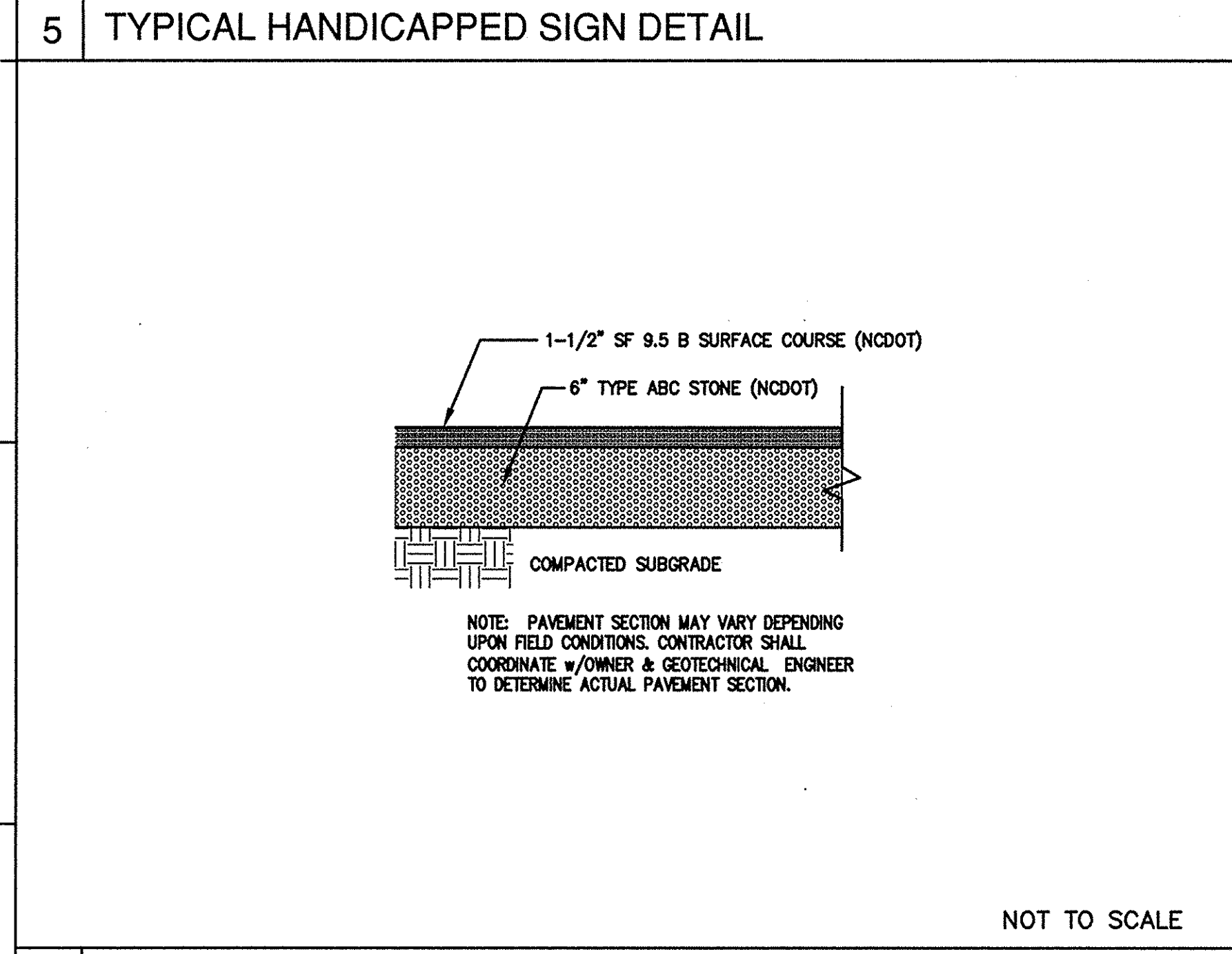


**ARCHITECT:**

**LS3P**

2528 INDEPENDENCE BLVD. SUITE 200  
 WILMINGTON, NORTH CAROLINA 28412  
 TEL. 910.790.9901 FAX 910.790.3111  
 WWW.LS3P.COM

MEMBERS OF THE AMERICAN INSTITUTE OF ARCHITECTS  
 COPYRIGHT © 2016 ALL RIGHTS RESERVED  
 PRINTED OR ELECTRONIC DRAWINGS AND DOCUMENTATION MAY NOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION FROM LS3P ASSOCIATES LTD.



**SURVEYOR:**

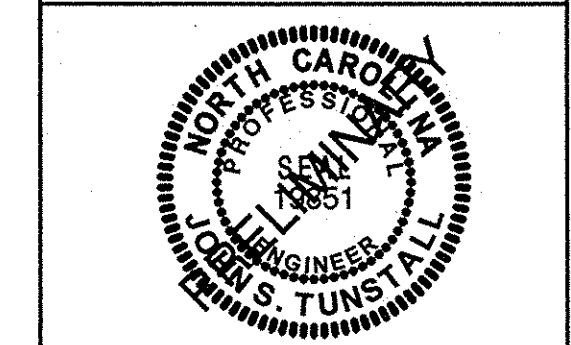
**ROBERT H. OSLEE & ASSOCIATES, PA**  
 LAND SURVEYORS - LAND PLANNERS  
 FIRM LICENSE NUMBER: C-172  
 513 CHESTNUT STREET  
 WILMINGTON, NORTH CAROLINA 28401  
 910-763-1841  
 r.h.oslee@rhoslee.com  
 FILE No: 801104010

**ENGINEER:**

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS, P.C.  
 902 MARKET STREET  
 WILMINGTON, NC 28401  
 PHONE (910) 343-9653  
 1429 ASH-LITTLE RIVER RD. NW  
 ASH, NC 28420  
 PHONE (910) 287-5900  
 License #C-3841

**SHEET NAME:**  
 NOTES AND  
 DETAILS

PROJ# 16036  
 DES. JST  
 CDR. JST  
 DRWN. SLF  
 DATE: 12/14/16

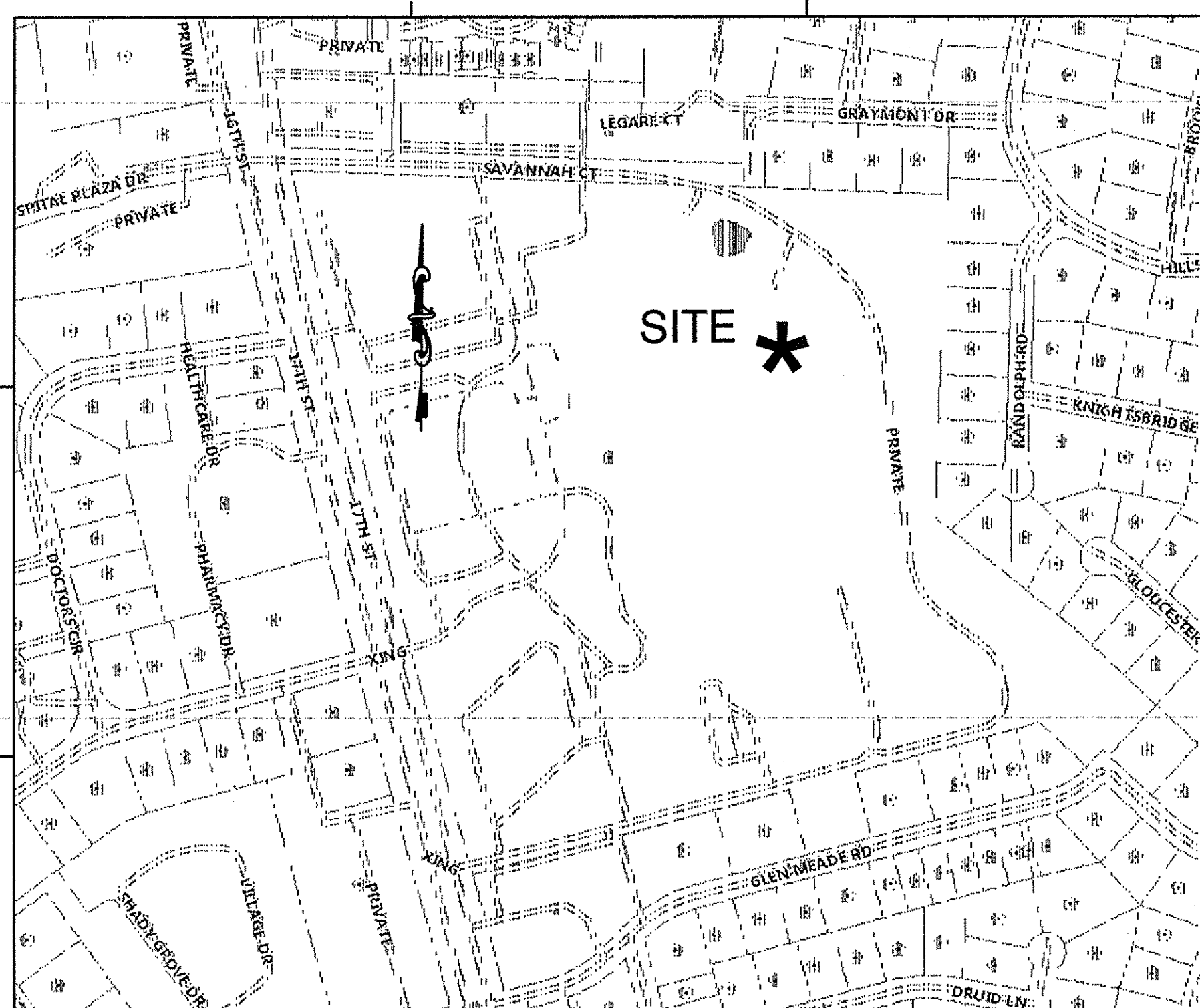


**SHEET:**

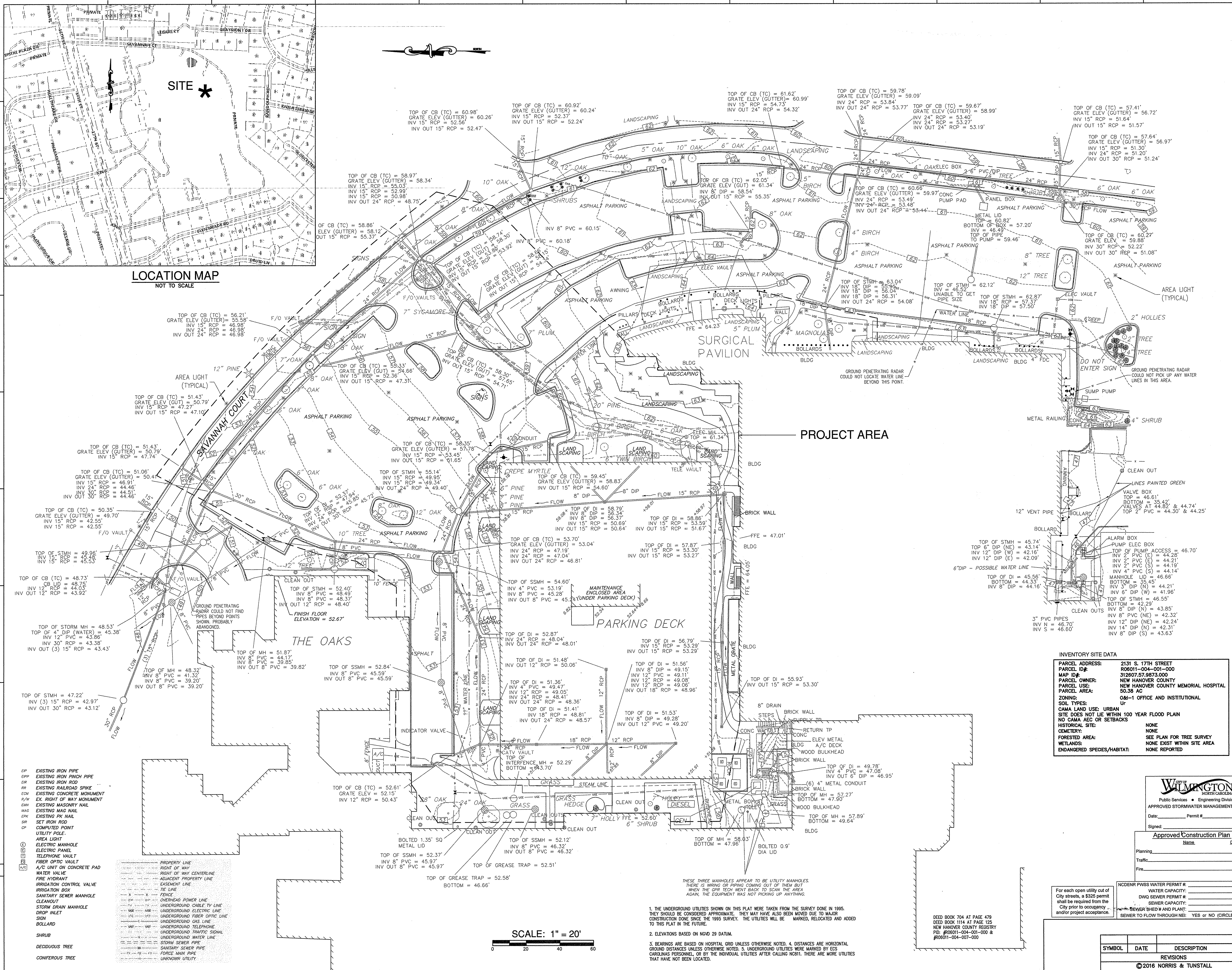
**C7**

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
©2016 NORRIS & TUNSTALL			





LOCATION MAP  
NOT TO SCALE



PROJECT AREA

- OP EXISTING IRON PIPE
- OPW EXISTING IRON PUNCH PIPE
- OR EXISTING IRON ROD
- ORR EXISTING RAILROAD SPIKE
- ECM EXISTING CONCRETE MONUMENT
- EX RIGHT OF WAY MONUMENT
- EM EXISTING MASONRY NAIL
- EMW EXISTING MASONRY NAIL
- EPK EXISTING PK NAIL
- SIR SET IRON ROD
- CP COMPUTED POINT
- UTILITY POLE
- AREA LIGHT
- ELECTRIC MANHOLE
- TELEPHONE VAULT
- FIBER OPTIC VAULT
- A/C UNIT ON CONCRETE PAD
- WATER VALVE
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- IRRIGATION BOX
- SAHITARY SEWER MANHOLE
- CLEANOUT
- STORM DRAIN MANHOLE
- DNOP INLET
- SIOW
- BOLLARD
- SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE

- PROPERTY LINE
- RIGHT OF WAY
- RIGHT OF WAY CENTERLINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- TIE LINE
- FENCE
- OVERHEAD POWER LINE
- UNDERGROUND CABLE TV LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND FIBER OPTIC LINE
- UNDERGROUND GAS LINE
- UNDERGROUND TELEPHONE
- UNDERGROUND TRAFFIC SIGNAL
- UNDERGROUND WATER LINE
- STORM SEWER PIPE
- SAHITARY SEWER PIPE
- FORCE MAIN PIPE
- UNKNOWN UTILITY

SCALE: 1" = 20'

1. THE UNDERGROUND UTILITIES SHOWN ON THIS PLAN WERE TAKEN FROM THE SURVEY DONE IN 1995. THEY SHOULD BE CONSIDERED APPROXIMATE. THEY MAY HAVE ALSO BEEN MOVED DUE TO MAJOR CONSTRUCTION DONE SINCE THE 1995 SURVEY. THE UTILITIES WILL BE MARKED, RELOCATED AND ADDED TO THIS PLAN IN THE FUTURE.

2. ELEVATIONS BASED ON NGVD 29 DATUM.

3. BEARINGS ARE BASED ON HOSPITAL GRID UNLESS OTHERWISE NOTED. 4. DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED. 5. UNDERGROUND UTILITIES WERE MARKED BY EGS CAROLINA PERSONNEL, OR BY THE INDIVIDUAL UTILITIES AFTER CALLING NCSH. THERE ARE MORE UTILITIES THAT HAVE NOT BEEN LOCATED.

INVENTORY SITE DATA

PARCEL ADDRESS:	2131 S. 17TH STREET
PARCEL ID#:	R08011-004-001-000
MAP ID#:	312607-87-873-000
PARCEL OWNER:	NEW HANOVER COUNTY
PARCEL USE:	NEW HANOVER COUNTY MEMORIAL HOSPITAL
PARCEL AREA:	50.38 AC
ZONING:	O&I-1 OFFICE AND INSTITUTIONAL
SOIL TYPES:	UR
CAMA LAND USE:	URBAN
SITE DOES NOT LIE WITHIN 100 YEAR FLOOD PLAIN	NO
NO CAMA AEG OR SETBACKS	NONE
HISTORICAL SITE:	NONE
CEMETERY:	NONE
FORESTED AREA:	SEE PLAN FOR TREE SURVEY
METLANDS:	NONE EXIST WITHIN SITE AREA
ENDANGERED SPECIES/HABITAT:	NONE REPORTED

WILMINGTON  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

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

Approved Construction Plan

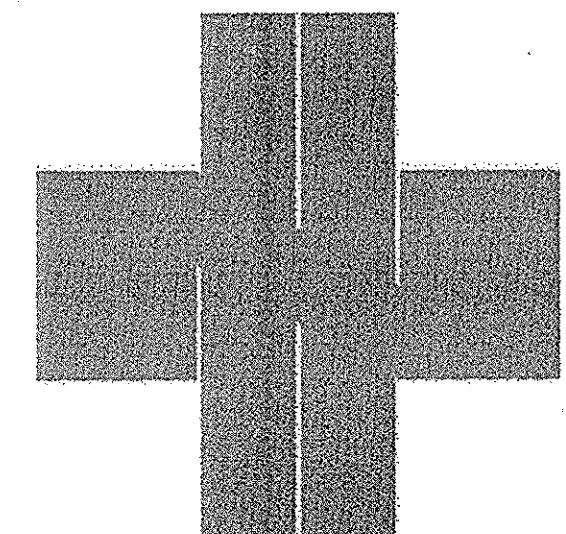
Planning: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Traffic: \_\_\_\_\_  
Fire: \_\_\_\_\_

NCDEM PWS WATER PERMIT #: \_\_\_\_\_ GPD  
WATER CAPACITY: \_\_\_\_\_  
DWO SEWER PERMIT #: \_\_\_\_\_  
SEWER CAPACITY: \_\_\_\_\_ GPD

SEWER SHED # AND PLAN: \_\_\_\_\_  
SEWER TO FLOW THROUGH NE: YES or NO (CIRCLE ONE)

SYMBOL	DATE	DESCRIPTION	BY

© 2016 NORRIS & TUNSTALL



ORTHOPEDIC  
INPATIENT  
HOSPITAL

ARCHITECT:  
**LS3P**

2528 INDEPENDENCE BLVD., SUITE 200  
WILMINGTON, NORTH CAROLINA 28412  
TEL. 910.790.9991 FAX 910.790.3111  
WWW.LS3P.COM

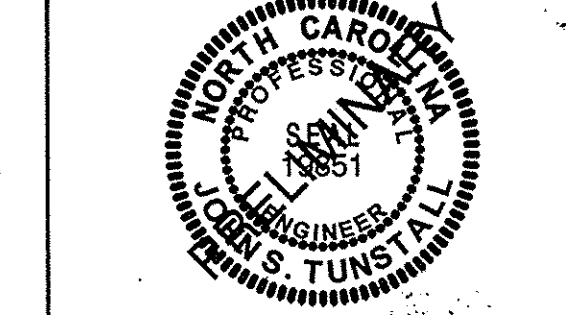
MEMBERS OF THE AMERICAN  
INSTITUTE OF ARCHITECTS  
COPYRIGHT 2016 ALL RIGHTS RESERVED  
PRINTED OR ELECTRONIC DRAWINGS AND  
DOCUMENTATION MAY NOT BE REPRODUCED  
IN ANY FORM WITHOUT WRITTEN PERMISSION  
FROM LS3P ASSOCIATES LTD.

SURVEYOR:  
ROBERT H. GOSLEE & ASSOCIATES, PA  
LAND SURVEYORS • LAND PLANNERS  
PWS LICENSE NUMBER: C-1167  
CREATING SURVEY  
WILMINGTON, NORTH CAROLINA 28401  
rhg@rhgwa.com  
FILE NO: 601104010

ENGINEER:  
**NORRIS & TUNSTALL**  
CONSULTING ENGINEERS, P.C.  
902 MARKET STREET  
WILMINGTON, NC 28401  
PHONE (910) 343-9653  
1429 ASH-LITTLE RIVER RD. NW  
ASH, NC 28420  
PHONE (910) 287-5900  
licence #0-3641

SHEET NAME:  
INVENTORY  
SITE PLAN

PROJ# 16036  
DES. JUST  
DRWN. SLF  
DATE 12/14/16



SHEET:  
1-1