

LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

- C0 Overall Site Plan
- I-1 Inventory Site Plan
- C2R1 Demolition and Tree Removal Plan
- C3 Grading, Drainage and Erosion Control Plan
- C4 Drainage Area Plan (to be added)
- C4.1R Utility Plan
- C5.1 Early Electrical Package Plan and Profile
- C5R1 Layout Plan
- C5.1 Layout Plan-Physician Parking Lot
- C6R1 Paving Plan
- C7R Notes and Details
- C8R1 Notes and Details
- C9R Notes and Details

NHRMC HOSPITAL SITE DATA TABLE

TOTAL LICENSED BED COUNT UPON PROJECT COMPLETION: 800 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: 2,150 SPACES

TOTAL PARKING PROVIDED: SEE CHART
 EXISTING ONSITE PARKING: SEE CHART
 EXISTING OFFSITE PARKING: SEE CHART

NHRMC PARKING SUPPLY (AUG. 2016)

Map ID	Visitor	Employee	Physician	Accessible	Unrestricted (1)	Total
On-Campus						
A	155					155
B ⁽²⁾	369					369
C1	21	168	19			208
C2	51	116	16			183
C3	6	11	8	3		28
E					46	46
F	18	243	190	9		442
G1	24					24
G2	35	57	7	12		111
J	150	111	2	28		291
L	371					493
M						
On-Campus Total	674	1,230	212	119	46	2,283
Off-Campus						
H ⁽⁴⁾	46		2	6		54
I		101		5		106
N	50	47		7		104
O	51			2		53
P		167		4		171
Q		49		2		51
R						
Off-Campus Total	147	457	2	24	0	630
Total	823	1,687	214	145	46	2,915

Notes:

- (1) Includes 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.

EXISTING PARKING (REFER TO DEMO PLAN)

AREA F: 442
 AREA C2: 67
 AREA C3: 116
 TOTAL: 625 SPACES

PROPOSED PARKING (REFER TO LAYOUT PLAN)

AREA F: 0
 AREA C2: 48
 AREA C3: 266
 TOTAL: 314 SPACES

HC PARKING REQUIRED: 8 SPACES
 HC PARKING PROVIDED: 43 SPACES
 PROPOSED BICYCLE PARKING: 20 SPACES

NEW ORTHOPEDIC INPATIENT HOSPITAL

USE: ORTHOPEDIC HOSPITAL (NHRMC)
 SITE ADDRESS: 2131 S. 17TH STREET
 PARCEL ID#: R06011-004-001-000
 MAP ID#: 31905757.9873.000
 PARCEL AREA: 50.38 AC
 PROJECT AREA: 4.23 AC (184,300 SF)
 ZONING: O&I-1 OFFICE AND INSTITUTIONAL
 CAMA LAND USE: URBAN
 BUILDING SETBACKS: FRONT SETBACK: 20'
 INTERIOR SIDE SETBACK: 10'
 CORNER BLDG SETBACK: 20'
 REAR SETBACKS: 20'

BUILDING SETBACKS: WITHIN REQUIRED LIMITS. SEE PLAN

EXISTING BUILDING AREA TOTAL: 106,806 SF
 SERVICE FLOOR: 84,730 SF
 FIRST FLOOR: 98,316 SF
 SECOND FLOOR: 3,759 SF

PROPOSED BUILDING AREA TOTAL: 137,375 SF
 FIRST FLOOR: 137,375 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: 49' (SERVICE LEVEL TO PENTHOUSE)
 32' (FIRST FLOOR TO PENTHOUSE)
 BUILDING EXPANSION HEIGHT: 104' (FROM SERVICE LEVEL)
 67' (FROM FIRST FLOOR)

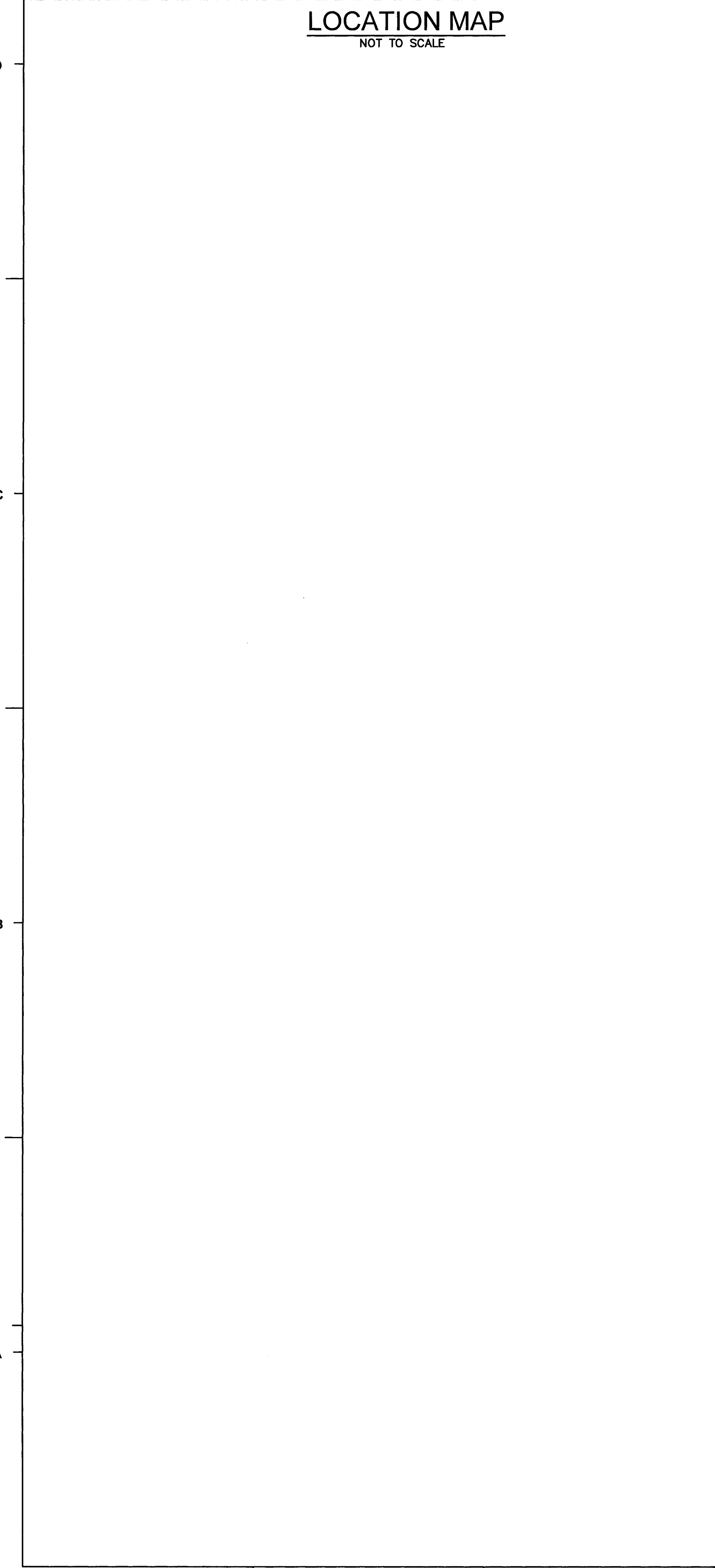
EXISTING BUILDING STORES: 2
 BUILDING EXPANSION STORES: 5
 BUILDING CONSTRUCTION TYPE: I-A

IMPERVIOUS AREA:

PROJECT AREA:	184,300 SF
EXISTING IMPERVIOUS AREA:	131,862 SF
EXISTING IMPERVIOUS AREA REMOVED:	122,128 SF
EXISTING IMPERVIOUS AREA TO REMAIN:	9,667 SF
NEW IMPERVIOUS AREA:	11,615 SF
BUILDING FOOTPRINT:	73,658 SF
ASPHALT, CURB & GUTTER:	31,568 SF
PERVIOUS CONCRETE/PARKING:	3,489 SF
PERVIOUS CONCRETE/SIDEWALK:	3,712 SF
TOTAL:	124,042 SF
NEW IMPERVIOUS AREA:	124,042 SF
EXISTING IMPERVIOUS AREA TO REMAIN:	9,667 SF
TOTAL PROJECT AREA IMPERVIOUS:	133,709 SF
PERCENT IMPERVIOUS:	72.54%
NEW IMPERVIOUS AREA WITH 100% CREDIT:	11,615 SF
BUILDING FOOTPRINT:	73,658 SF
ASPHALT, CURB & GUTTER:	0 SF
PERVIOUS CONCRETE/PARKING:	0 SF
PERVIOUS CONCRETE/SIDEWALK:	3,712 SF
TOTAL:	88,985 SF
NEW IMPERVIOUS AREA:	88,985 SF
EXISTING IMPERVIOUS AREA TO REMAIN:	9,667 SF
TOTAL PROJECT AREA IMPERVIOUS:	98,652 SF
PERCENT IMPERVIOUS:	53.5%

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.

NOTE: PERVIOUS CONCRETE DESIGNED TO STATE OF NC STANDARDS RECEIVES 100% BUA CREDIT.



17TH STREET
150' PUBLIC ROW

NHRMC SITE

GLEN MEADE RD.

SECTION 8 BILLS
 RECORDING
 MAP BOOK 17, PAGE 40

Approved Construction Plan

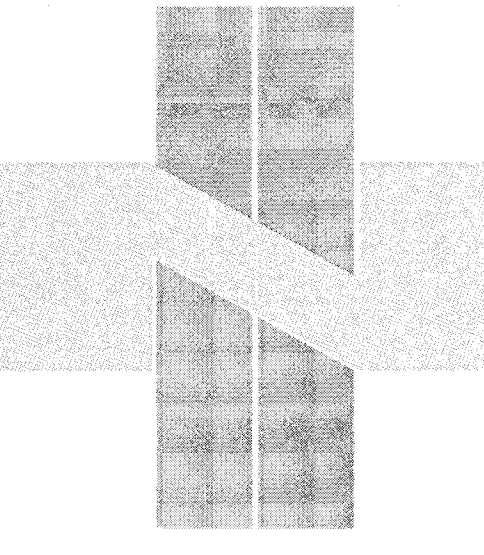
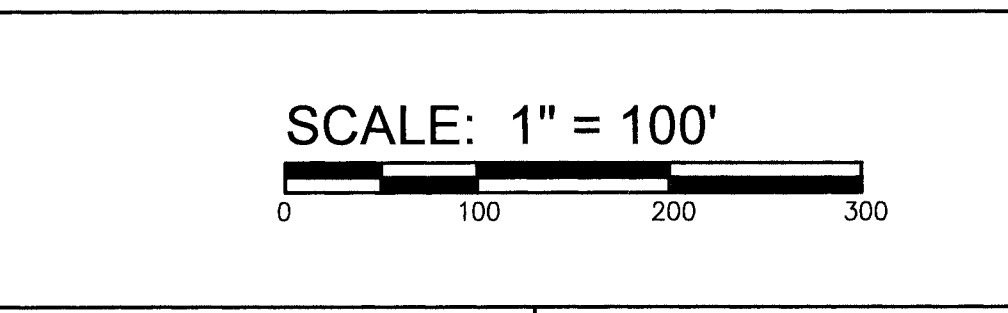
Name: _____ Date: _____

Planning: _____ GPD
 Traffic: _____ GPD
 Fire: _____ GPD

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

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

City of Wilmington
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____



ORTHOPEDIC
INPATIENT
HOSPITAL

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2528 INDEPENDENCE BLVD., SUITE 200
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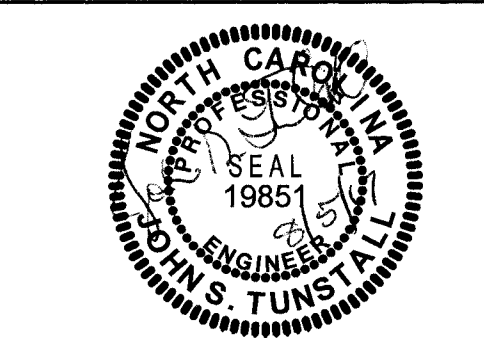
SURVEYOR:
ROBERT H. GOSLEE & ASSOCIATES, PA
 LAND SURVEYORS - LAND PLANNERS
 113 CHESTNUT STREET
 WILMINGTON, NORTH CAROLINA 28401
 910-763-1947
 rgh@rhgpa.com
 FILE No. 80110401U

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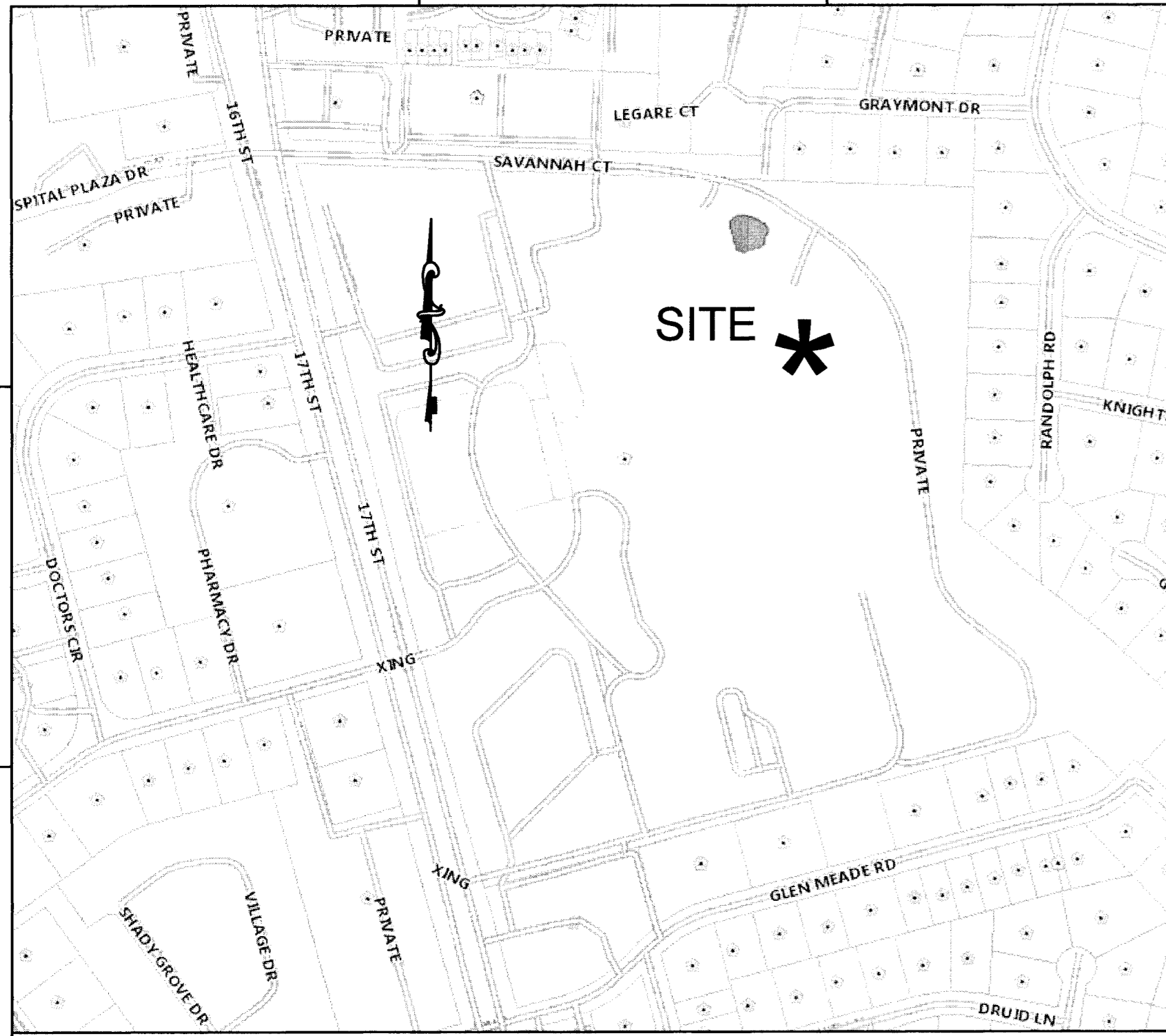
No.	Description	Date

SHEET NAME:
**OVERALL
SITE PLAN**

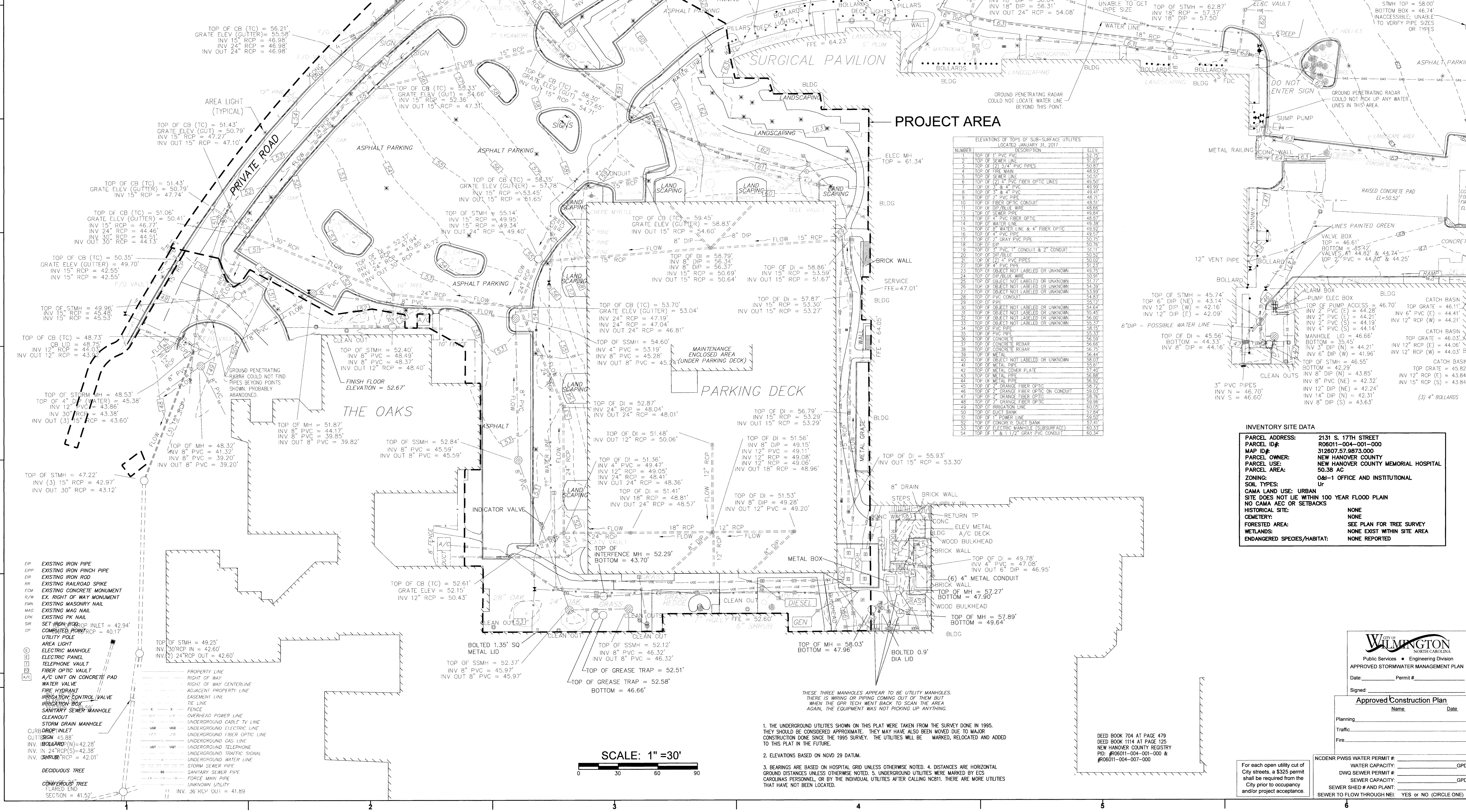
PROJ# 16036
 DES: JST
 ODR: JST
 DRWN: SLF
 DATE: 4/25/17



SHEET:
C0
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LOCATION MAP
NOT TO SCALE

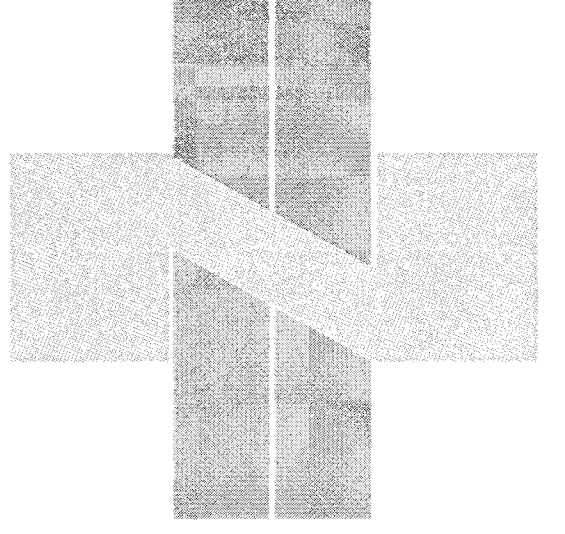


PROJECT AREA

NUMBER	DESCRIPTION	ELEV.
1	TOP OF 1" PVC PIPE	52.72
2	TOP OF 2" PVC PIPE	52.72
3	TOP OF 4" PVC PIPE	52.72
4	TOP OF 6" PVC PIPE	52.72
5	TOP OF 8" PVC PIPE	52.72
6	TOP OF 10" PVC PIPE	52.72
7	TOP OF 12" PVC PIPE	52.72
8	TOP OF 15" PVC PIPE	52.72
9	TOP OF 18" PVC PIPE	52.72
10	TOP OF 24" PVC PIPE	52.72
11	TOP OF 30" PVC PIPE	52.72
12	TOP OF 36" PVC PIPE	52.72
13	TOP OF 42" PVC PIPE	52.72
14	TOP OF 48" PVC PIPE	52.72
15	TOP OF 54" PVC PIPE	52.72
16	TOP OF 60" PVC PIPE	52.72
17	TOP OF 66" PVC PIPE	52.72
18	TOP OF 72" PVC PIPE	52.72
19	TOP OF 78" PVC PIPE	52.72
20	TOP OF 84" PVC PIPE	52.72
21	TOP OF 90" PVC PIPE	52.72
22	TOP OF 96" PVC PIPE	52.72
23	TOP OF 102" PVC PIPE	52.72
24	TOP OF 108" PVC PIPE	52.72
25	TOP OF 114" PVC PIPE	52.72
26	TOP OF 120" PVC PIPE	52.72
27	TOP OF 126" PVC PIPE	52.72
28	TOP OF 132" PVC PIPE	52.72
29	TOP OF 138" PVC PIPE	52.72
30	TOP OF 144" PVC PIPE	52.72
31	TOP OF 150" PVC PIPE	52.72
32	TOP OF 156" PVC PIPE	52.72
33	TOP OF 162" PVC PIPE	52.72
34	TOP OF 168" PVC PIPE	52.72
35	TOP OF 174" PVC PIPE	52.72
36	TOP OF 180" PVC PIPE	52.72
37	TOP OF 186" PVC PIPE	52.72
38	TOP OF 192" PVC PIPE	52.72
39	TOP OF 198" PVC PIPE	52.72
40	TOP OF 204" PVC PIPE	52.72
41	TOP OF 210" PVC PIPE	52.72
42	TOP OF 216" PVC PIPE	52.72
43	TOP OF 222" PVC PIPE	52.72
44	TOP OF 228" PVC PIPE	52.72
45	TOP OF 234" PVC PIPE	52.72
46	TOP OF 240" PVC PIPE	52.72
47	TOP OF 246" PVC PIPE	52.72
48	TOP OF 252" PVC PIPE	52.72
49	TOP OF 258" PVC PIPE	52.72
50	TOP OF 264" PVC PIPE	52.72
51	TOP OF 270" PVC PIPE	52.72
52	TOP OF 276" PVC PIPE	52.72
53	TOP OF 282" PVC PIPE	52.72
54	TOP OF 288" PVC PIPE	52.72

INVENTORY SITE DATA

PARCEL ADDRESS:	2131 S. 17TH STREET
PARCEL ID#:	R06011-004-001-000
MAP ID#:	31260757-9875-000
PARCEL OWNER:	NEW HANOVER COUNTY
PARCEL USE:	NEW HANOVER COUNTY MEMORIAL HOSPITAL
PARCEL AREA:	50.38 AC
ZONING:	OFFICE AND INSTITUTIONAL
SOIL TYPES:	U
CAMA LAND USE:	URBAN
NO CAMA AEC OR SETBACKS	
HISTORICAL SITE:	NONE
FORESTED AREA:	NONE EXIST WITHIN SITE AREA
WETLANDS:	NONE REPORTED
ENDANGERED SPECIES/HABITAT:	NONE REPORTED



ORTHOPEDIC
INPATIENT
HOSPITAL

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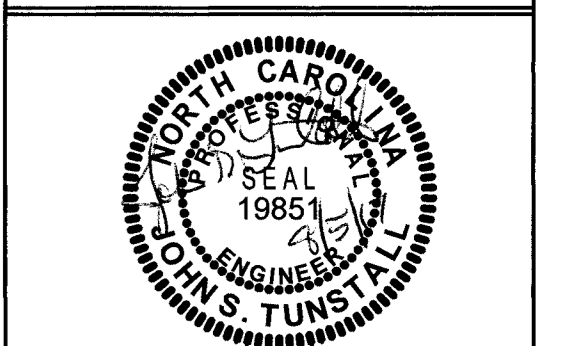
SURVEYOR:
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910-763-1941
rhg@rhgpa.com
FILE # 6011040U

REVISIONS:

No.	Description	Date

SHEET NAME:
**INVENTORY
SITE PLAN**

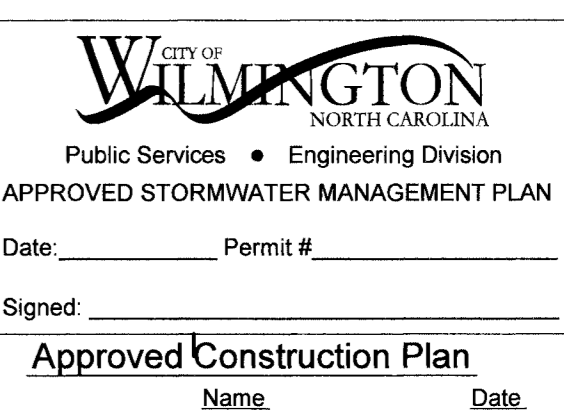
PROJ# **16036**
DES. JST
DWN. JST
DATE: 4/25/17



SHEET:
1-1
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PERMIT SET

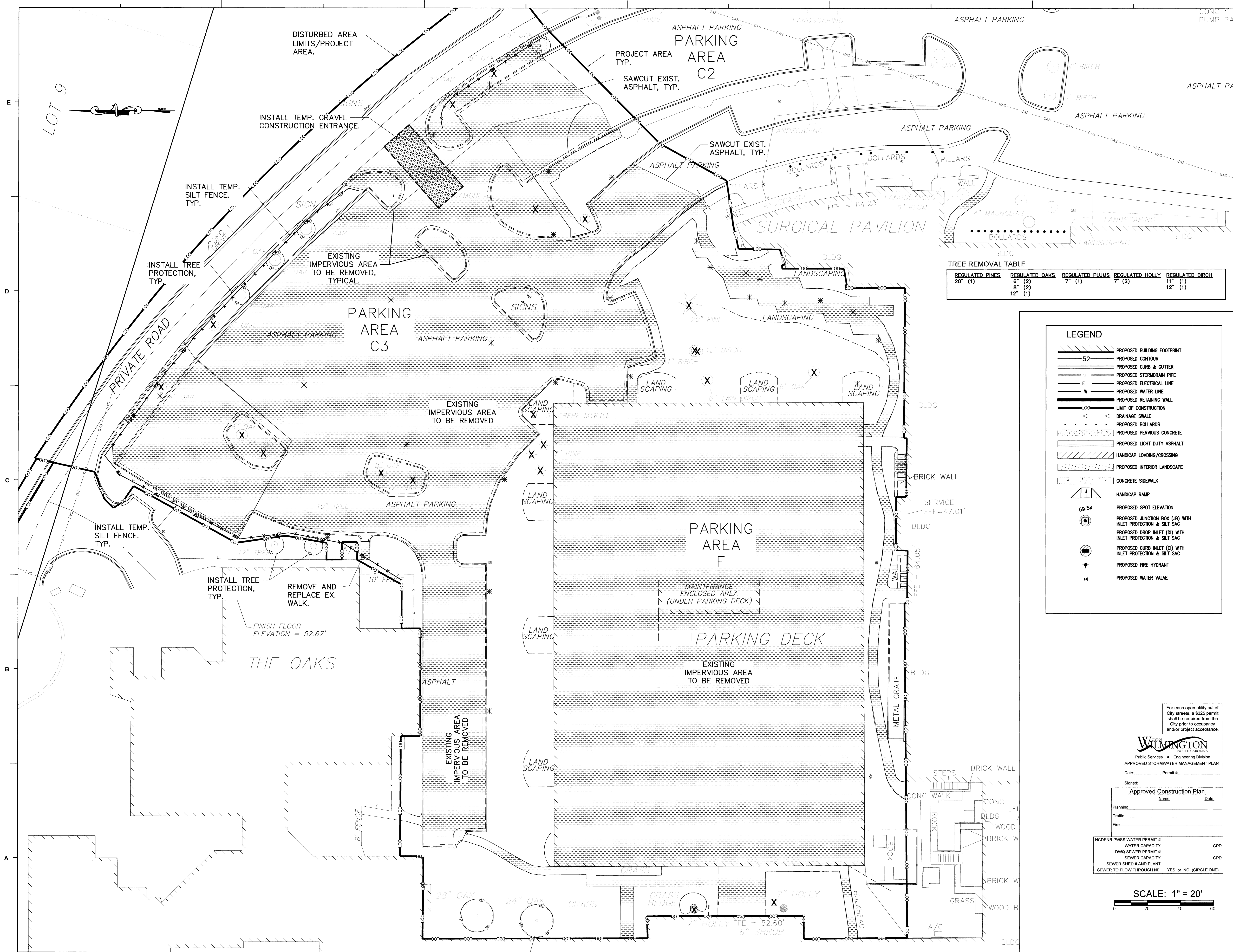
- THE UNDERGROUND UTILITIES SHOWN ON THIS PLAN WERE TAKEN FROM THE SURVEY DONE IN 1995. THEY SHOULD BE CONSIDERED APPROXIMATE. THEY MAY HAVE ALSO BEEN MOVED DUE TO MAJOR CONSTRUCTION DONE SINCE THE 1995 SURVEY. THE UTILITIES WILL BE MARKED, RELOCATED AND ADDED TO THIS PLAN IN THE FUTURE.
- ELEVATIONS BASED ON NAVD 29 DATUM.
- 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 CAROLINAS PERSONNEL, OR BY THE INDIVIDUAL UTILITIES AFTER CALLING NORTH. THERE ARE MORE UTILITIES THAT HAVE NOT BEEN LOCATED.

DEED BOOK 704 AT PAGE 479
DEED BOOK 114 AT PAGE 125
NEW HANOVER COUNTY REGISTRY
P.D. #06011-004-001-000 &
#06011-004-007-000



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

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



TREE REMOVAL TABLE

REGULATED PINES	REGULATED OAKS	REGULATED PLUMS	REGULATED HOLLY	REGULATED BIRCH
20" (1)	6" (2)	7" (1)	7" (2)	11" (1)
	8" (2)			12" (1)
	12" (1)			

LEGEND

	PROPOSED BUILDING FOOTPRINT
	52 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 PERMEOUS CONCRETE
	PROPOSED LIGHT DUTY ASPHALT
	HANDICAP LOADING/CROSSING
	PROPOSED INTERIOR LANDSCAPE
	CONCRETE SIDEWALK
	HANDICAP RAMP
	59.54 PROPOSED SPOT ELEVATION
	PROPOSED JUNCTION BOX (JB) WITH INLET PROTECTION & SILT SAC
	PROPOSED DROP INLET (DI) WITH INLET PROTECTION & SILT SAC
	PROPOSED CURB INLET (CI) WITH INLET PROTECTION & SILT SAC
	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.

WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

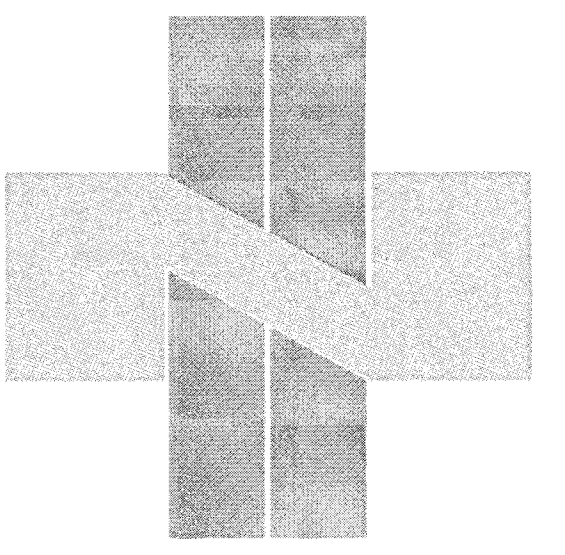
Date: _____ Permit # _____

Signed: _____
Approved Construction Plan

Planning: _____ Name: _____ Date: _____
Traffic: _____
Fire: _____

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

SCALE: 1" = 20'



**ORTHOPEDIC
INPATIENT
HOSPITAL**

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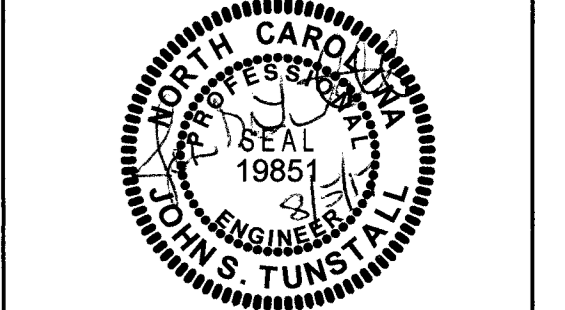
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FILE No.: 8010401U

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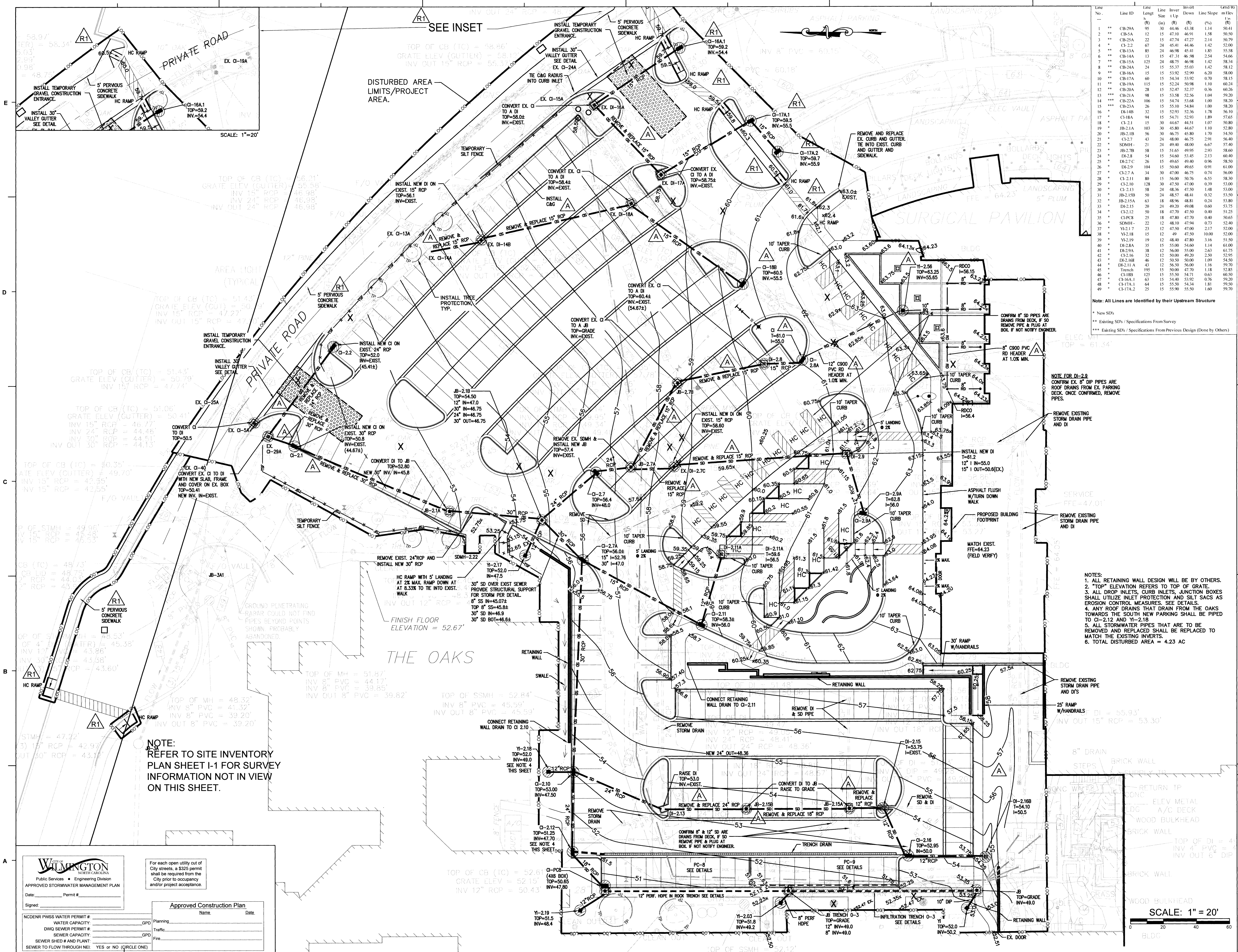
No.	Description	Date

**SHEET NAME:
DEMOLITION &
TREE REMOVAL
PLAN**

PROJ# 16036
DES. JST
DRW. SLF
DATE: 4/25/17



**SHEET:
C1**
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PERMIT SET



Line No.	Line ID	Line Length (ft)	Invert (ft)	Line Slope (%)	Grid/Run (ft)		
1	CB-29A	95	44.46	43.38	1.14	50.41	
2	CB-29A	12	42.10	46.91	1.58	50.50	
3	CB-25A	22	45.74	47.27	2.14	50.79	
4	CI-22	67	24	45.41	44.46	1.42	52.00
5	CB-13A	85	24	46.98	45.41	1.85	55.58
6	CB-14A	13	15	47.31	46.98	2.54	54.66
7	CB-15A	125	24	48.75	46.98	1.42	58.34
8	CB-20A	24	15	55.37	55.03	1.42	58.12
9	CB-16A	15	15	53.92	52.99	6.20	58.00
10	CB-17A	60	15	54.34	53.92	0.70	58.15
11	CB-19A	115	15	52.24	50.98	1.10	60.24
12	CB-20A	28	15	52.47	52.37	0.36	60.26
13	CB-21A	98	15	53.58	52.56	1.04	59.20
14	CB-22A	106	15	54.74	53.68	1.00	58.20
15	CB-23A	26	15	55.10	54.84	1.00	58.20
16	DI-14B	32	15	52.93	52.36	1.78	56.10
17	CI-18A	94	15	54.71	52.93	1.80	57.65
18	CI-21	15	30	44.67	44.81	1.07	59.80
19	JB-21A	103	30	45.80	44.67	1.10	52.80
20	JB-21B	56	30	46.75	45.80	1.70	54.50
21	CI-27	43	24	48.00	46.75	2.91	56.40
22	SDMH-1	21	24	49.40	48.00	6.67	57.40
23	JB-27B	38	15	51.65	49.95	2.93	58.60
24	DI-28	54	15	54.60	53.45	2.13	56.40
25	DI-27C	26	15	49.65	49.40	0.96	58.50
26	DI-29	104	15	50.60	49.65	0.91	61.00
27	CI-27A	24	30	47.00	46.75	0.74	56.00
28	CI-211	80	15	56.00	50.76	6.55	58.30
29	CI-210	128	30	47.50	47.00	0.39	53.00
30	CI-213	24	24	48.16	47.50	1.48	53.00
31	JB-215B	30	24	48.57	48.41	0.32	53.50
32	JB-215A	63	18	48.96	48.81	0.24	53.80
33	DI-215	30	24	49.20	49.08	0.60	53.75
34	CI-212	30	18	47.70	47.50	0.40	51.25
35	CI-PC8	25	18	47.80	47.70	0.40	50.65
36	SDMH-1	22	12	48.10	47.94	0.73	52.40
37	YI-217	23	12	47.50	47.00	2.17	53.90
38	YI-218	15	12	49.40	47.50	10.00	52.00
39	YI-219	19	12	48.40	47.80	3.16	51.50
40	DI-28A	35	15	55.00	54.60	1.14	61.00
41	DI-29A	38	12	56.00	55.00	2.63	61.75
42	CI-216	32	30	50.00	49.20	2.50	52.90
43	DI-216B	46	12	50.50	50.00	1.09	54.50
44	DI-211A	43	12	56.50	56.00	1.16	59.70
45	Trench	195	15	50.00	47.70	1.18	53.85
46	CI-18B	125	15	55.50	54.71	0.63	60.50
47	CI-16A	63	15	54.40	53.92	0.76	59.20
48	CI-17A.1	64	15	55.50	54.34	1.81	59.50
49	CI-17A.2	25	15	55.90	55.50	1.60	59.70

Note: All Lines are Identified by their Upstream Structure
 ** New SDPs
 *** Existing SDPs / Specifications From Survey
 **** Existing SDPs / Specifications From Previous Design (Done by Others)

NOTE:
 REFER TO SITE INVENTORY
 PLAN SHEET I-1 FOR SURVEY
 INFORMATION NOT IN VIEW
 ON THIS SHEET.

NOTES:
 1. ALL RETAINING WALL DESIGN WILL BE BY OTHERS.
 2. "TOP" ELEVATION REFERS TO TOP OF GRADE.
 3. ALL DROP INLETS, CURB INLETS, JUNCTION BOXES SHALL UTILIZE INLET PROTECTION AND SILT SACS AS EROSION CONTROL MEASURES. SEE DETAIL.
 4. ANY ROOF DRAINS THAT DRAIN FROM THE OAKS TOWARDS THE SOUTH NEAR PARKING SHALL BE PIPED TO CI-212 AND YI-218.
 5. ALL STORMWATER PIPES THAT ARE TO BE REMOVED AND REPLACED SHALL BE REPLACED TO MATCH THE EXISTING INVERTS.
 6. TOTAL DISTURBED AREA = 4.23 AC

WILMINGTON
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signature: _____

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

Approved Construction Plan

Name: _____ Date: _____

Planning: _____
 Traffic: _____
 Fire: _____

NC DENR PWSS WATER PERMIT # _____
 WATER CAPACITY: _____
 DWS SEWER PERMIT # _____
 SEWER CAPACITY: _____
 SEWER SHED # AND PLANT: _____
 SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

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ARCHITECT:
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 CONSULTING ENGINEERS P.C.
 902 MARKET STREET
 WILMINGTON, NC 28401
 PHONE (910) 343-9633
 License #C-3641

SURVEYOR:
 ROBERT H. COSLEE & ASSOCIATES, PA
 LAND SURVEYORS • LAND PLANNERS
 FIRM LICENSE NUMBER C-1147
 513 CHESTNUT STREET
 WILMINGTON, NORTH CAROLINA 28401
 910-783-1941
 HEIGHTS: 1953
 FILE NO.: 60110401U

REVISIONS:

No.	Description	Date
1	ADDENDUM 01	4/28/17
R1	ADDED 5' PERVIOUS SIDEWALK TO N. SIDE OF PRIVATE RD	5/11/17

SHEET NAME:
GRADING, DRAINAGE AND EROSION CONTROL PLAN

PROJ # 16036

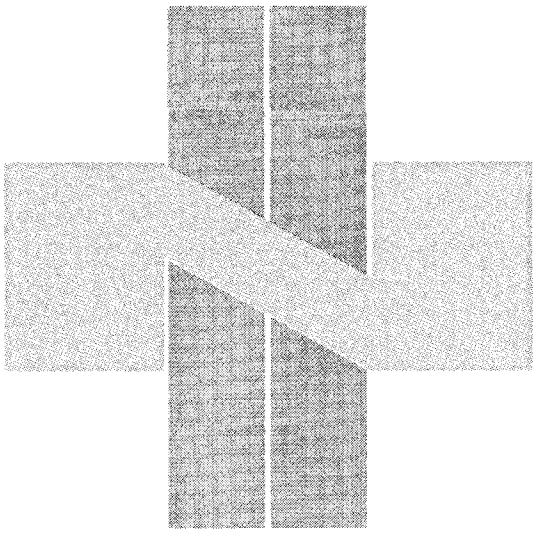
DES. JST
 CDR. JST
 DRWN. NKS

DATE: 4/25/17

SCALE: 1" = 20'

SHEET:
C2R1

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PHONE: (910) 343-9633
license #C-3641

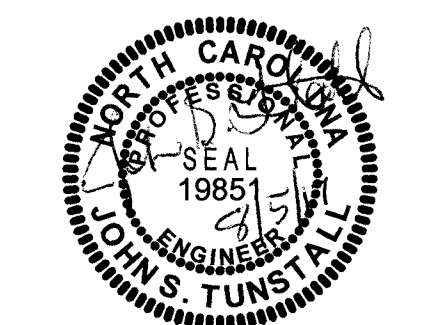
SURVEYOR:
ROBERT H. GOSLEE & ASSOCIATES, PA
LAND SURVEYORS - LAND PLANNERS
FOR LICENSE NUMBER C-1163
513 CHESTNUT STREET
WILMINGTON, NORTH CAROLINA 28401
910-763-1941
rhg@rhgusa.com
FILE No.: 60104010

REVISIONS:

No.	Description	Date

SHEET NAME:
DRAINAGE
AREA
PLAN

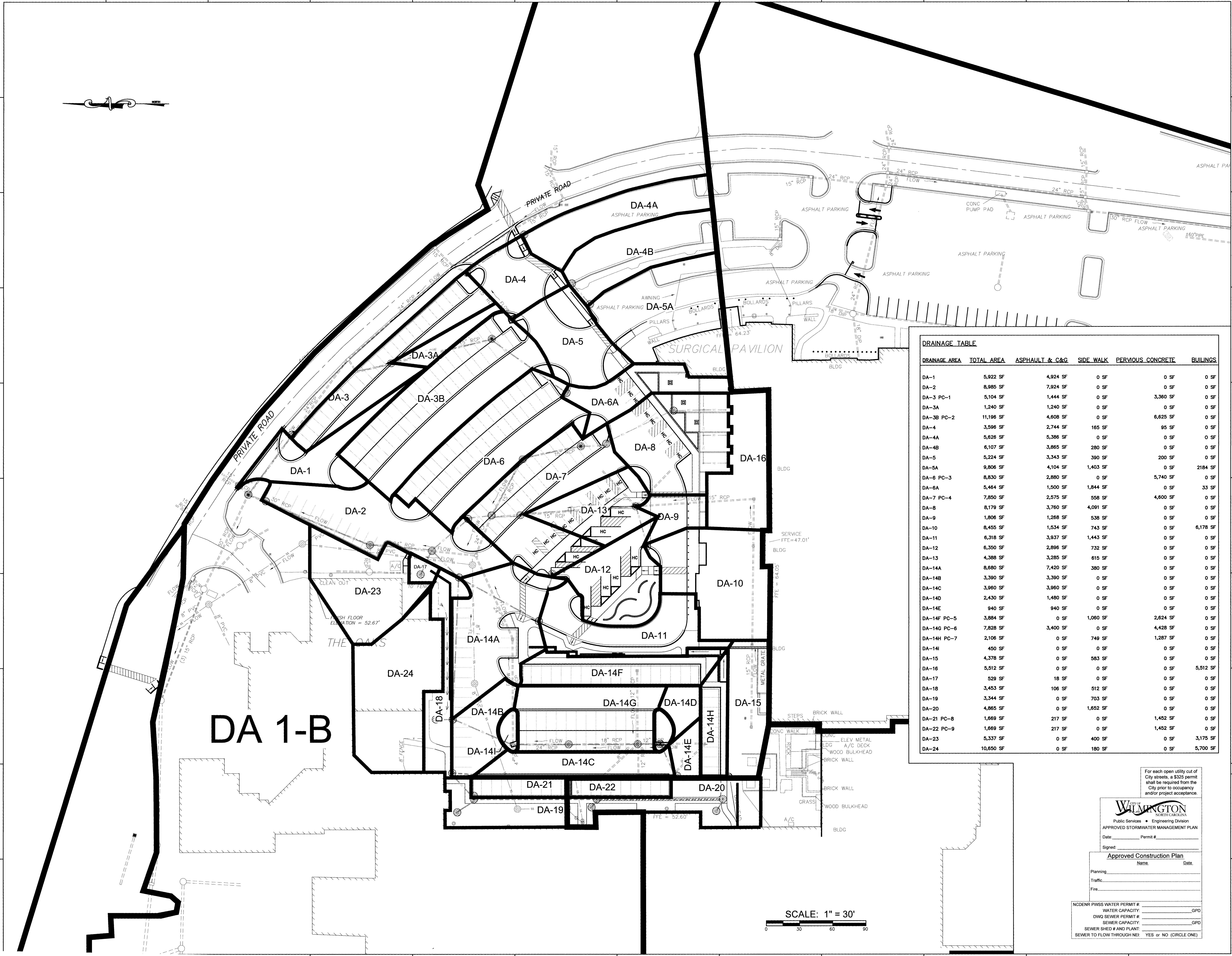
PROJ# 16036
DES. JST
DWN. SLF
DATE: 4/25/17



SHEET:

C3

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PERMIT SET



DRAINAGE AREA	TOTAL AREA	ASPHALT & C&G	SIDE WALK	PERVIOUS CONCRETE	BUILDINGS
DA-1	5,922 SF	4,924 SF	0 SF	0 SF	0 SF
DA-2	6,985 SF	7,924 SF	0 SF	0 SF	0 SF
DA-3	5,104 SF	1,444 SF	0 SF	3,360 SF	0 SF
DA-3A	1,240 SF	1,240 SF	0 SF	0 SF	0 SF
DA-3B	11,196 SF	4,608 SF	0 SF	6,625 SF	0 SF
DA-4	3,586 SF	2,744 SF	165 SF	95 SF	0 SF
DA-4A	5,626 SF	5,386 SF	0 SF	0 SF	0 SF
DA-4B	6,107 SF	3,865 SF	280 SF	0 SF	0 SF
DA-5	5,224 SF	3,343 SF	390 SF	200 SF	0 SF
DA-5A	9,806 SF	4,104 SF	1,403 SF	0 SF	2184 SF
DA-6	6,830 SF	2,880 SF	0 SF	5,740 SF	0 SF
DA-6A	5,464 SF	1,500 SF	1,844 SF	0 SF	33 SF
DA-7	7,850 SF	2,575 SF	558 SF	4,600 SF	0 SF
DA-8	8,179 SF	3,760 SF	4,091 SF	0 SF	0 SF
DA-9	1,806 SF	1,268 SF	538 SF	0 SF	0 SF
DA-10	6,455 SF	1,534 SF	743 SF	0 SF	6,178 SF
DA-11	6,318 SF	3,937 SF	1,443 SF	0 SF	0 SF
DA-12	6,350 SF	2,896 SF	732 SF	0 SF	0 SF
DA-13	4,388 SF	3,285 SF	615 SF	0 SF	0 SF
DA-14A	6,680 SF	7,420 SF	380 SF	0 SF	0 SF
DA-14B	3,390 SF	3,390 SF	0 SF	0 SF	0 SF
DA-14C	3,960 SF	3,960 SF	0 SF	0 SF	0 SF
DA-14D	2,430 SF	1,480 SF	0 SF	0 SF	0 SF
DA-14E	940 SF	940 SF	0 SF	0 SF	0 SF
DA-14F	3,884 SF	0 SF	1,080 SF	2,624 SF	0 SF
DA-14G	7,828 SF	3,400 SF	0 SF	4,428 SF	0 SF
DA-14H	2,106 SF	0 SF	749 SF	1,287 SF	0 SF
DA-14I	450 SF	0 SF	0 SF	0 SF	0 SF
DA-15	4,378 SF	0 SF	583 SF	0 SF	0 SF
DA-16	5,512 SF	0 SF	0 SF	0 SF	5,512 SF
DA-17	529 SF	18 SF	0 SF	0 SF	0 SF
DA-18	3,453 SF	106 SF	512 SF	0 SF	0 SF
DA-19	3,344 SF	0 SF	703 SF	0 SF	0 SF
DA-20	4,865 SF	0 SF	1,652 SF	0 SF	0 SF
DA-21	1,669 SF	217 SF	0 SF	1,452 SF	0 SF
DA-22	1,669 SF	217 SF	0 SF	1,452 SF	0 SF
DA-23	5,337 SF	0 SF	400 SF	0 SF	3,175 SF
DA-24	10,650 SF	0 SF	180 SF	0 SF	5,700 SF

SCALE: 1" = 30'

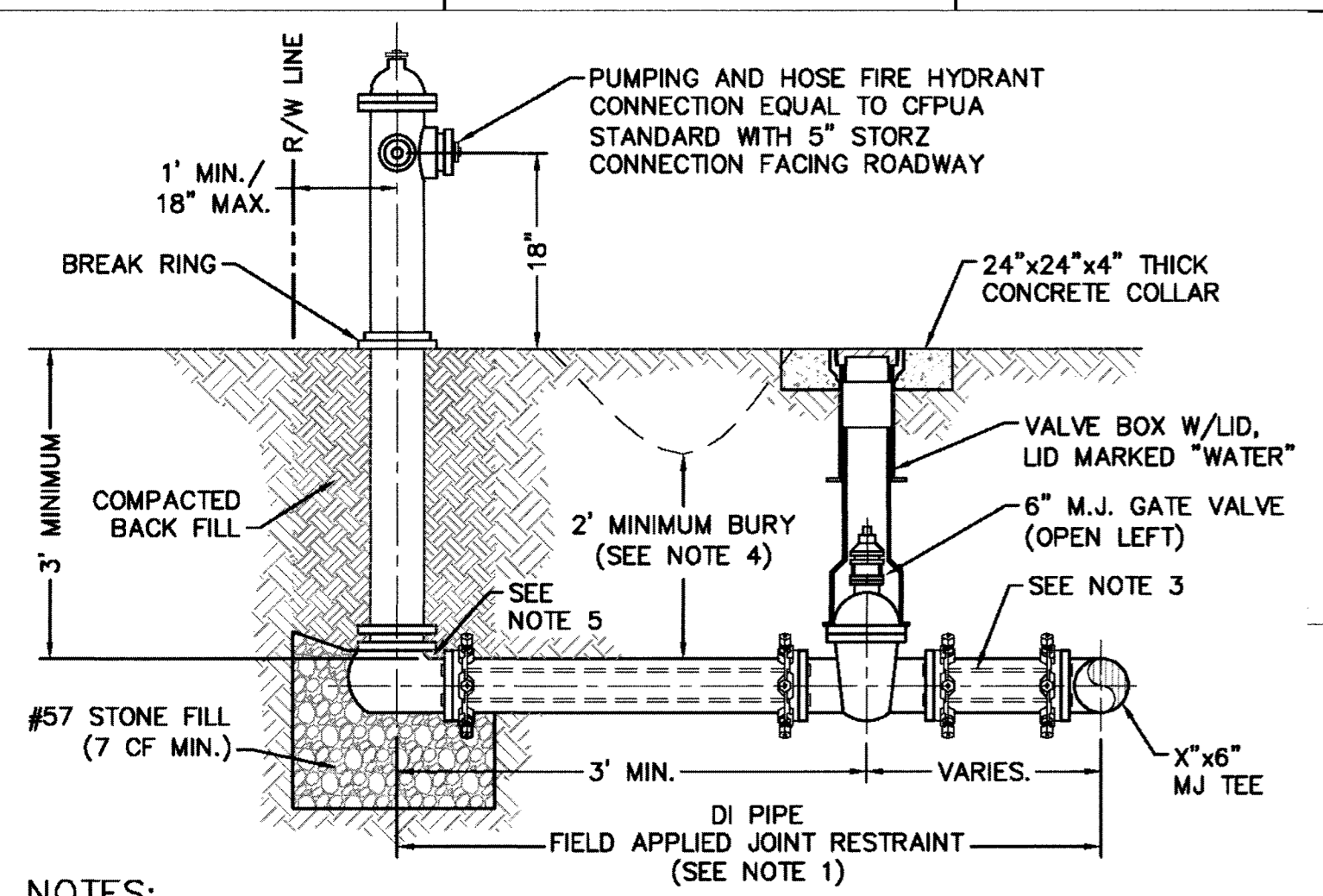
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

City of WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____
Name: _____ Date: _____

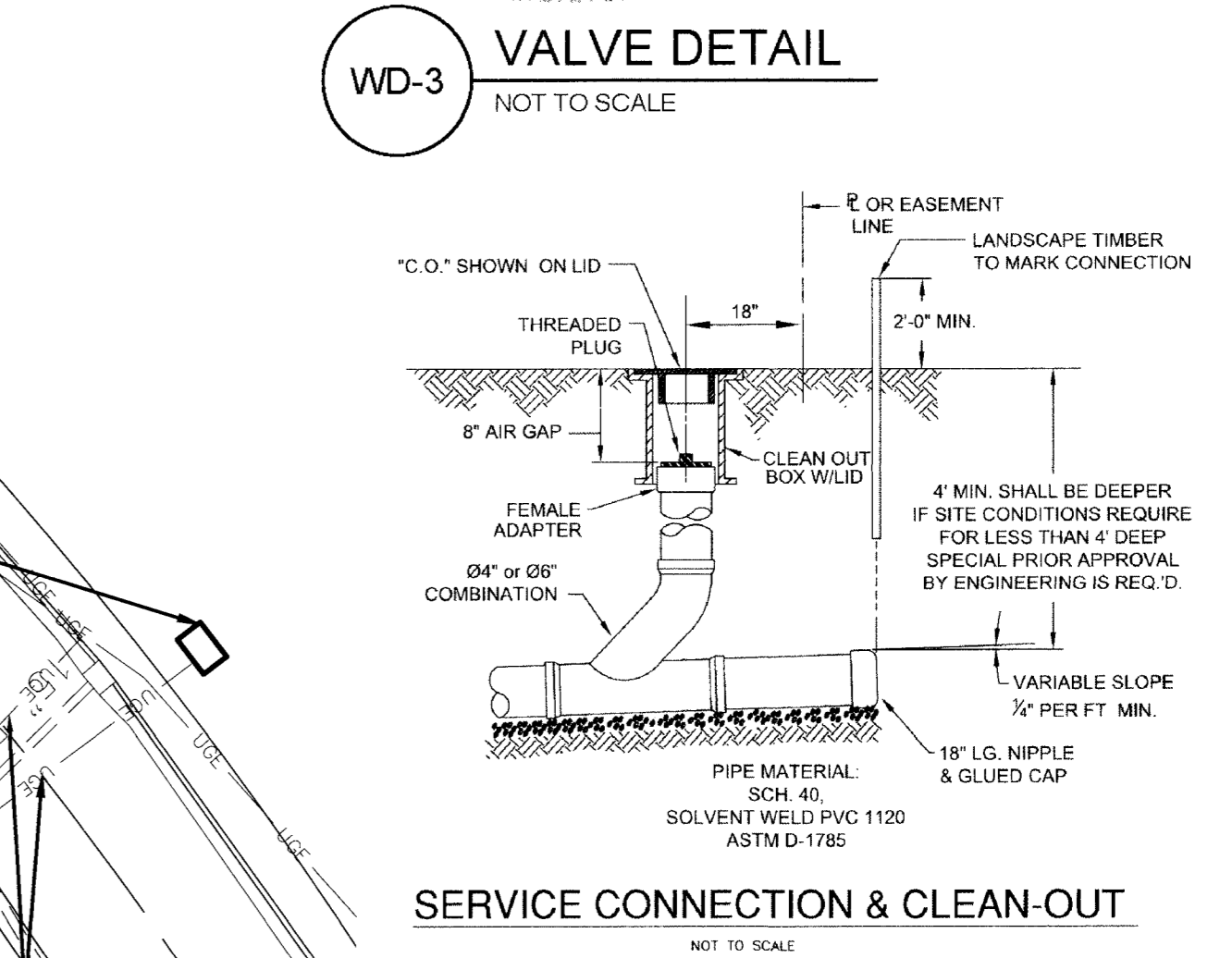
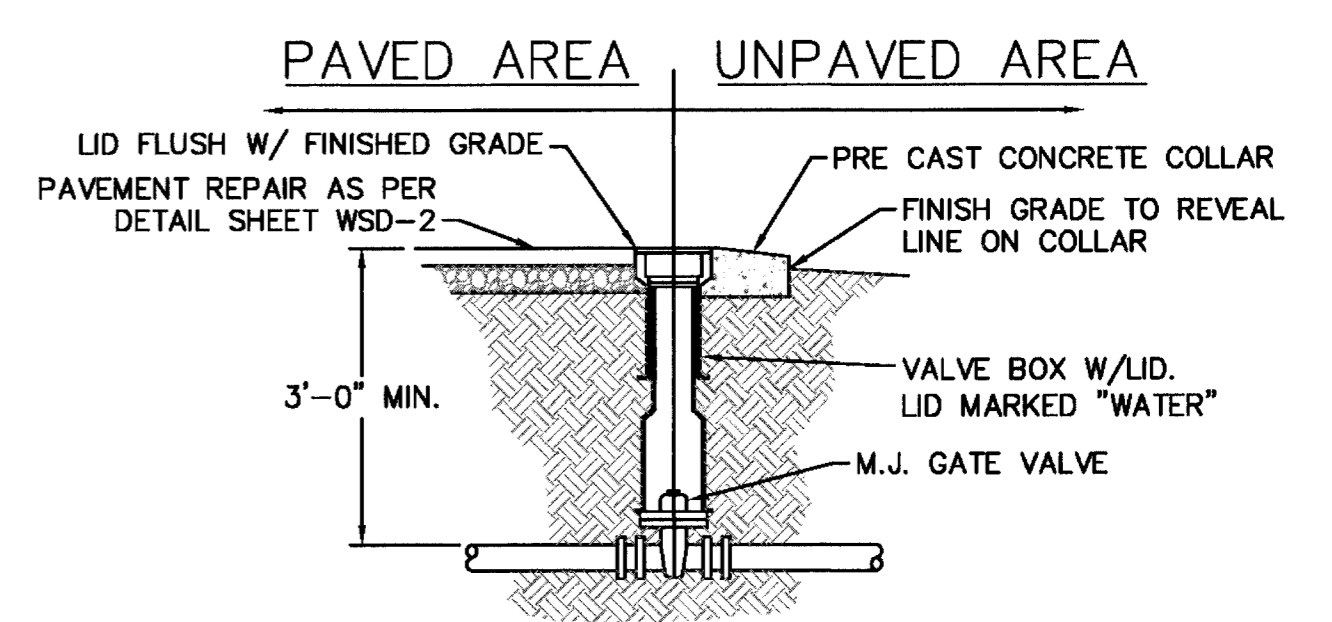
Approved Construction Plan
Name: _____ Date: _____

Planning: _____
Traffic: _____
Fire: _____

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



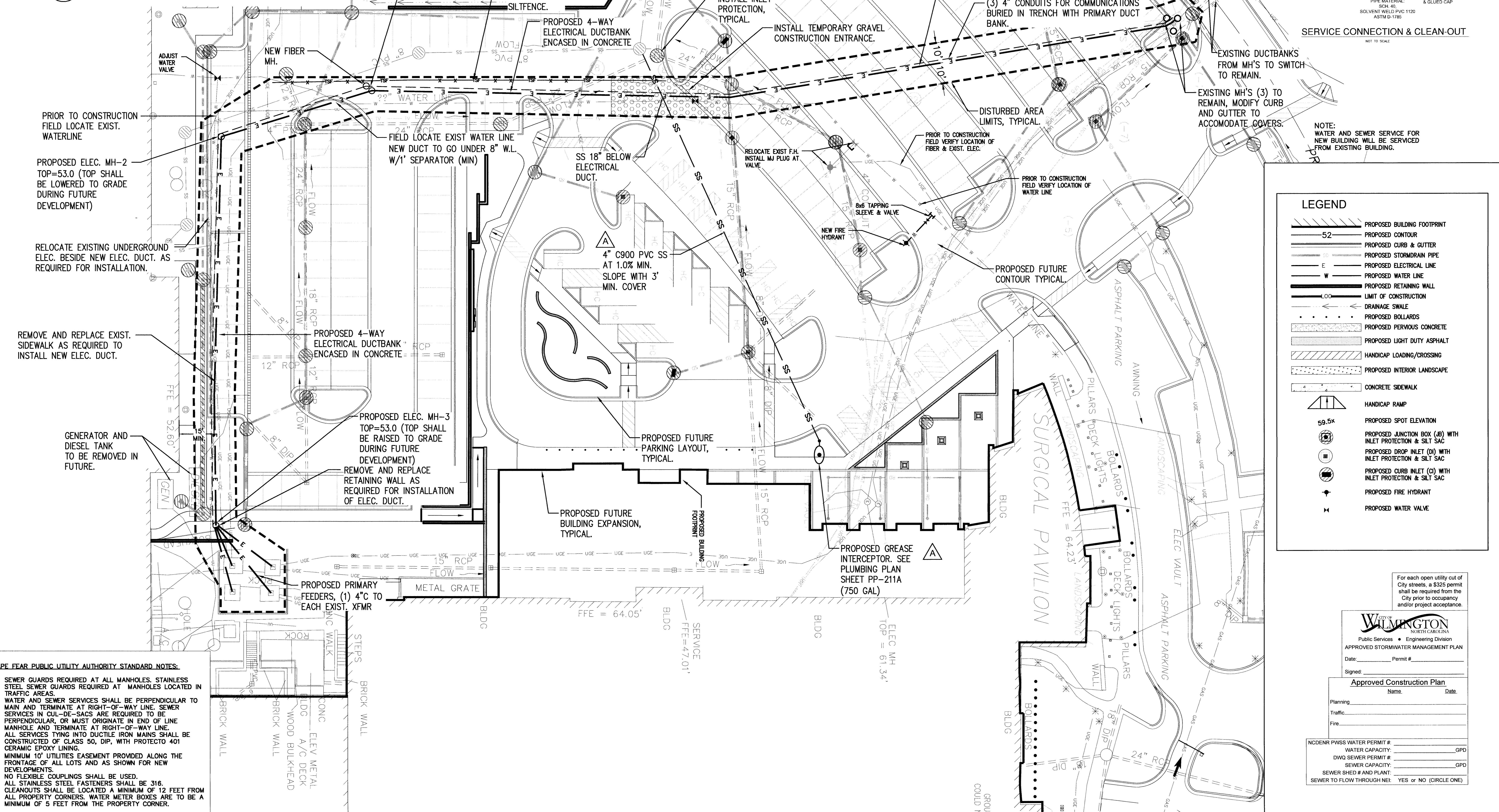
NOTES:
1. JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI PIPE AS MANUFACTURED BY EBAA IRON, SIGMA, STAR PIPE PRODUCTS OR APPROVED EQUAL.
2. WHEN HYDRANT LEGS REQUIRE FULL LENGTH PIPE SECTIONS, OVER BELL RESTRAINT SYSTEM SHALL HAVE 316 STAINLESS STEEL HARNESS AND FASTENERS.
3. CONTINUOUS 316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



WD-10 FIRE HYDRANT ASSEMBLY NOT TO SCALE

WD-3 VALVE DETAIL NOT TO SCALE

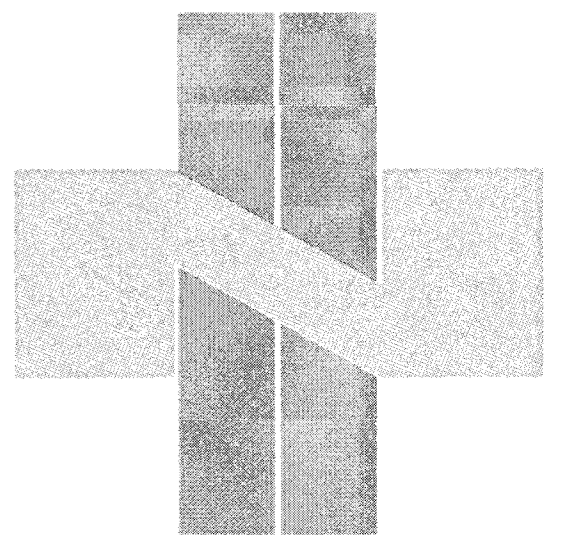
SERVICE CONNECTION & CLEAN-OUT NOT TO SCALE



LEGEND	
(Symbol)	PROPOSED BUILDING FOOTPRINT
(Symbol)	PROPOSED CONTOUR
(Symbol)	PROPOSED CURB & GUTTER
(Symbol)	PROPOSED STORMDRAIN PIPE
(Symbol)	PROPOSED ELECTRICAL LINE
(Symbol)	PROPOSED WATER LINE
(Symbol)	PROPOSED RETAINING WALL
(Symbol)	LIMIT OF CONSTRUCTION
(Symbol)	DRAINAGE SWALE
(Symbol)	PROPOSED BOLLARDS
(Symbol)	PROPOSED PERVIOUS CONCRETE
(Symbol)	PROPOSED LIGHT DUTY ASPHALT
(Symbol)	HANDICAP LOADING/CROSSING
(Symbol)	PROPOSED INTERIOR LANDSCAPE
(Symbol)	CONCRETE SIDEWALK
(Symbol)	HANDICAP RAMP
(Symbol)	PROPOSED SPOT ELEVATION
(Symbol)	PROPOSED JUNCTION BOX (JB) WITH INLET PROTECTION & SILT SAC
(Symbol)	PROPOSED DROP INLET (DI) WITH INLET PROTECTION & SILT SAC
(Symbol)	PROPOSED CURB INLET (CI) WITH INLET PROTECTION & SILT SAC
(Symbol)	PROPOSED FIRE HYDRANT
(Symbol)	PROPOSED WATER VALVE

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:
1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TRING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.
7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

WD-19 STANDARD NOTES (REQUIRED ON ALL PLAN AND PROFILE SHEETS)



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ARCHITECT: LS3P

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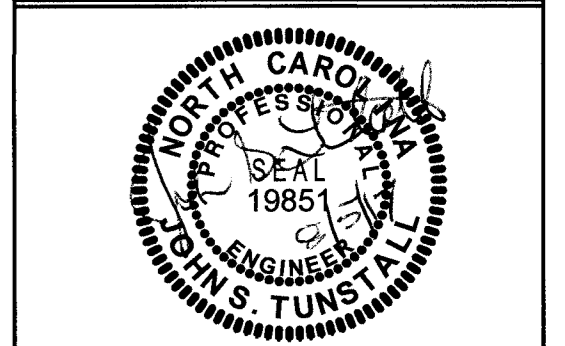
ENGINEER: NORRIS & TUNSTALL CONSULTING ENGINEERS P.C. 902 MARKET STREET WILMINGTON, NC 28401 PHONE (910) 345-9653 licence #C-3641

SURVEYOR: ROBERT H. COSLEE & ASSOCIATES, PA LAND SURVEYORS - LAND PLANNERS FIRM LICENSE NUMBER: C-1187 513 CHESTNUT STREET WILMINGTON, NORTH CAROLINA 28401 910-763-1041 rcoslee@rhcoslee.com FILE NO.: 60110401U

No.	Description	Date
A	ADDENDUM 01	4/28/17

SHEET NAME: UTILITY PLAN

PROJ# 16036
DES: JST
CND: JST
DRWN: SLF
DATE: 4/25/17



SHEET: C4R

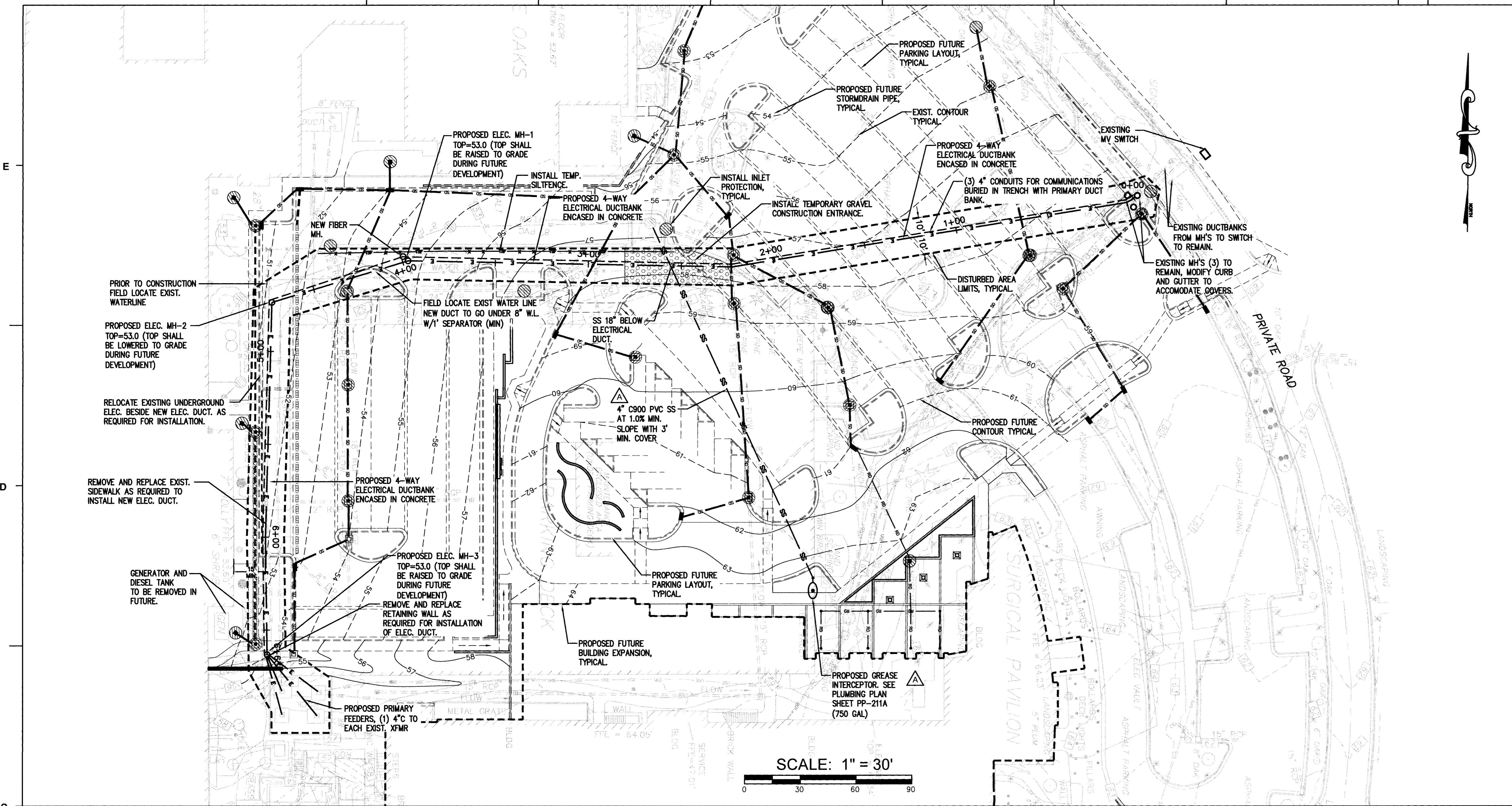
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For each open utility cut of City streets, a \$225 permit shall be required from the City prior to occupancy and/or project acceptance.

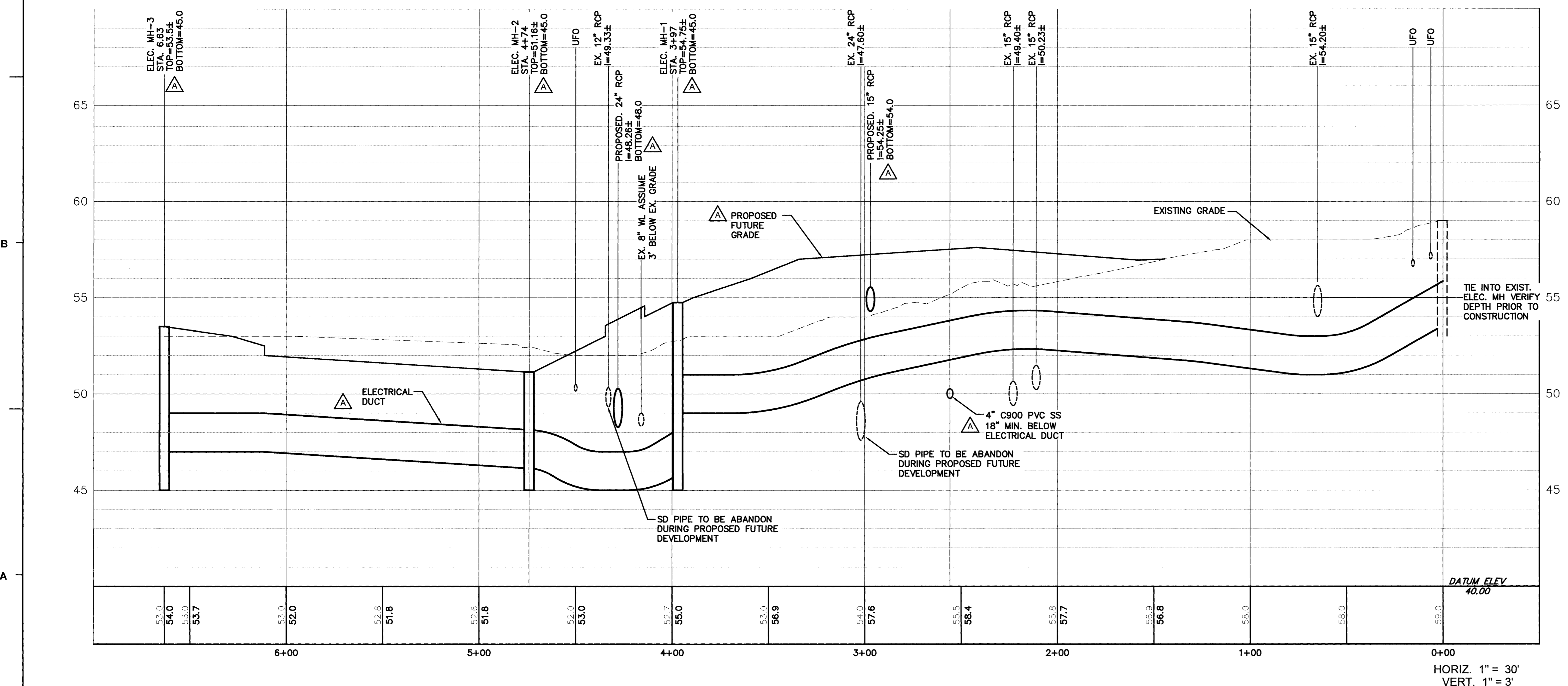
WILMINGTON NORTH CAROLINA
Public Services - Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: Permit #
Signed:
Approved Construction Plan
Name: Date:

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

SCALE: 1" = 20'



SCALE: 1" = 30'



PRELIM. CROSS SECTION
CONCRETE DUCT BANK
REFER TO ELEC. PLANS
NOT TO SCALE

- DUKE ENERGY PREFERRED CLEARANCES**
- COMMUNICATION LINES = 12" HORIZONTAL AND 12" VERTICAL
 - WATER LINES = 36" HORIZONTAL AND 12" VERTICAL
 - SEWER LINES = 36" HORIZONTAL AND 12" VERTICAL
 - FUEL LINES = 36" HORIZONTAL AND 12" VERTICAL
 - STEAM LINES = 60" HORIZONTAL AND 36" VERTICAL
 - CUSTOMER OWNED = 36" HORIZONTAL AND 12" VERTICAL

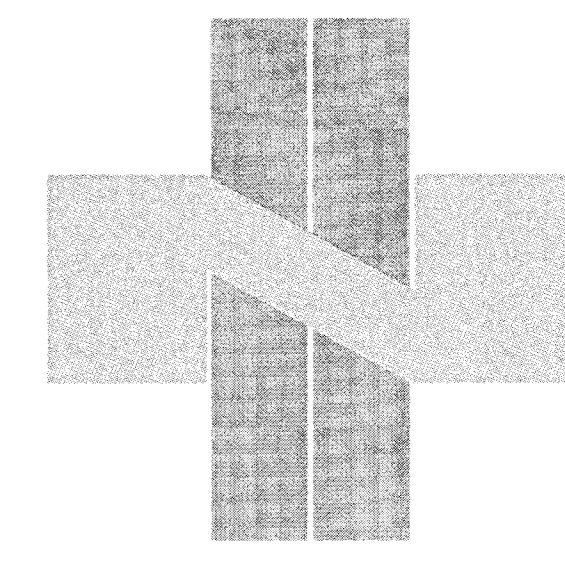
For each open utility cut of City streets, a 5325 permit shall be required from the City prior to occupancy and/or project acceptance.

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

Approved Construction Plan

Planning: _____
Traffic: _____
Fire: _____

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



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ARCHITECT:
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CONSULTING ENGINEERS P.C.
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license #C-3641

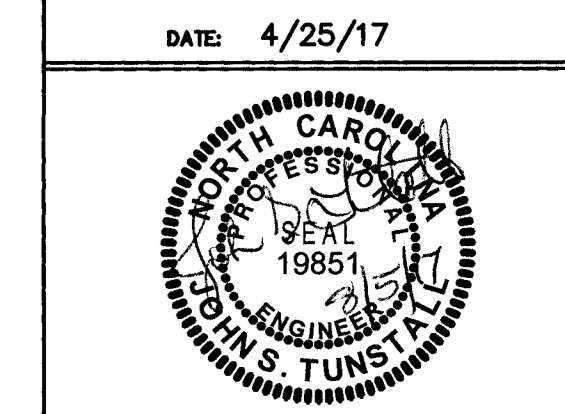
SURVEYOR:
ROBERT H. GOSLEE & ASSOCIATES, PA
LAND SURVEYORS • LAND PLANNERS
FIRM LICENSE NUMBER: C-1157
313 CHESTNUT STREET
WILMINGTON, NORTH CAROLINA 28401
910-763-1941
rhg@rhgconsulting.net
FILE No.: 60104010

REVISIONS:

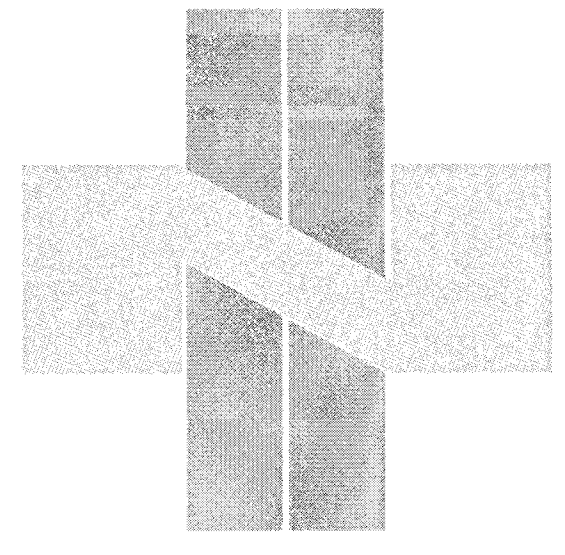
No.	Description	Date
A	ADDENDUM 01	4/28/17

SHEET NAME:
EARLY
ELECTRICAL
PLAN AND
PROFILE

PROJ# 16036
DES. JST
CDD. JFN
DRWN. NKS

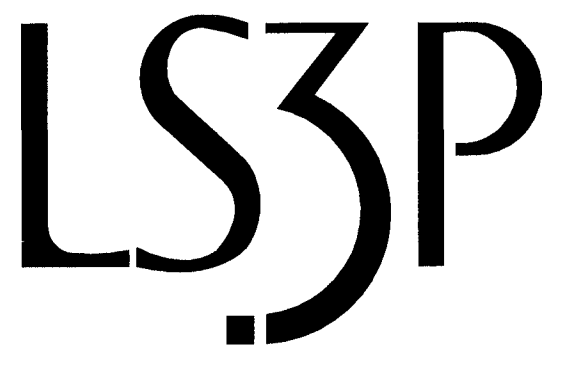


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WILMINGTON, NC 28401
PHONE (910) 343-9653
licence #C-3641

SURVEYOR:

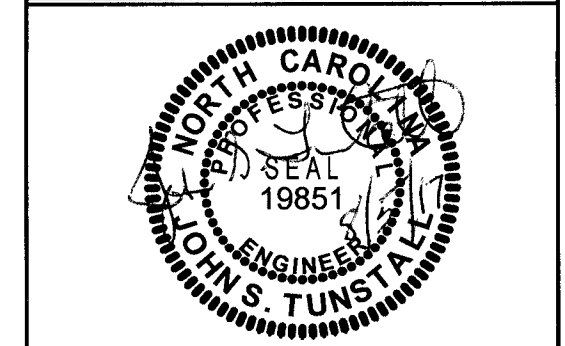
ROBERT H. GOSLEE & ASSOCIATES, PA
LAND SURVEYORS - LAND PLANNERS
P.L. LICENSE NUMBER: C-1187
513 CHESTNUT STREET
WILMINGTON, NORTH CAROLINA 28401
910-763-1941
rhg@rhgandco.net
FILE No: 80110401U

REVISIONS:

No.	Description	Date
A	ADDENDUM 01	4/28/17
R1	ADDED 5' PERVIOUS SIDEWALK 8'11/17 TO N. SIDE OF PRIVATE RD. ADDED HC RAMPS AND CROSS WALKS. ADDED CIS AND RCPS	

SHEET NAME:
LAYOUT
PLAN

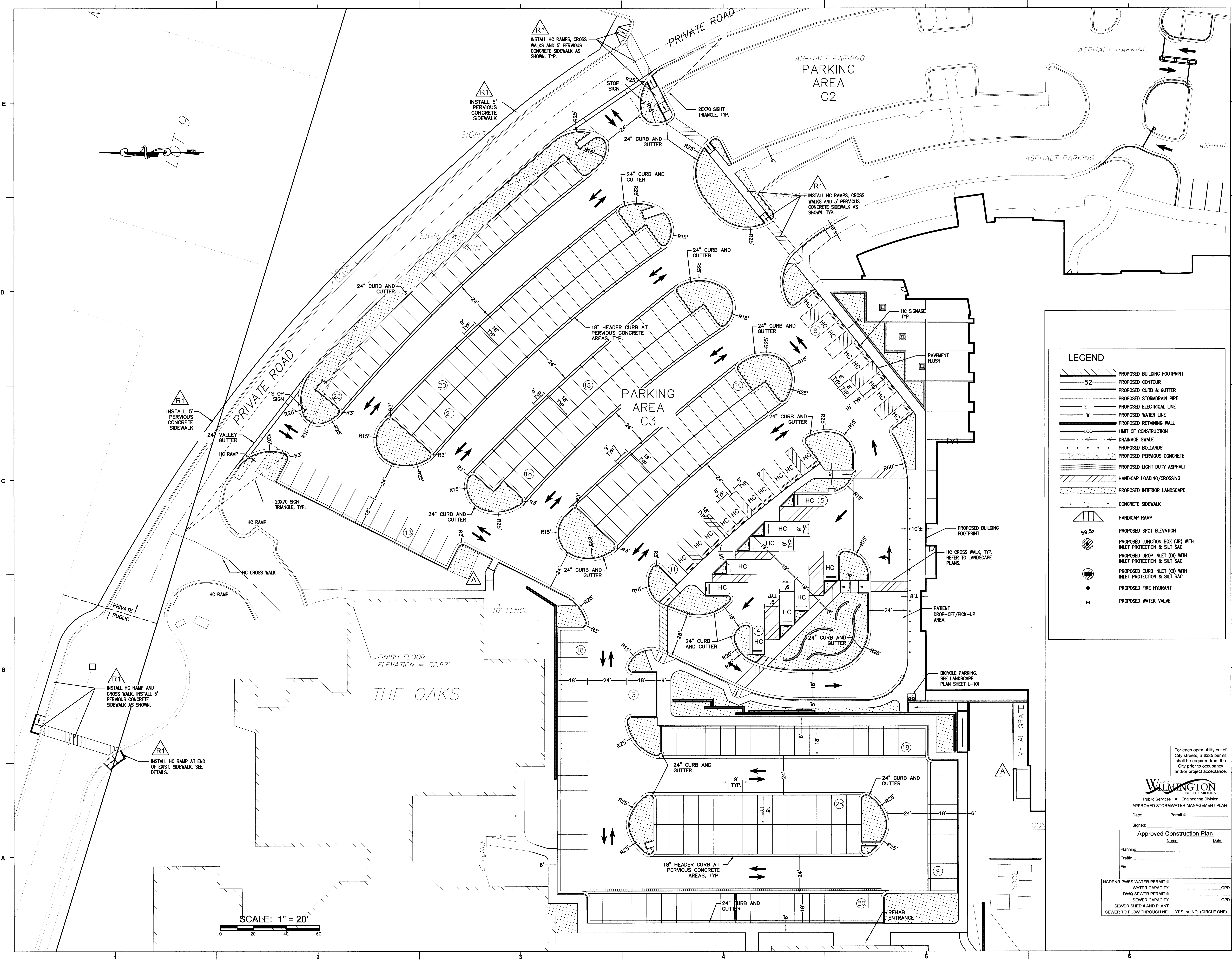
PROJ# 16036
DES. JST
ORD. JST
DRWN. SLF
DATE: 4/25/17



SHEET:

C5R1

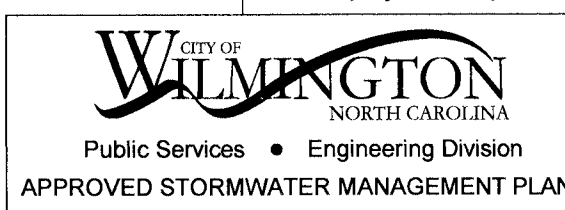
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LEGEND

	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
	PROPOSED SPOT ELEVATION
	PROPOSED JUNCTION BOX (JB) WITH INLET PROTECTION & SILT SAC
	PROPOSED DROP INLET (DI) WITH INLET PROTECTION & SILT SAC
	PROPOSED CURB INLET (CI) WITH INLET PROTECTION & SILT SAC
	PROPOSED FIRE HYDRANT
	PROPOSED WATER VALVE

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

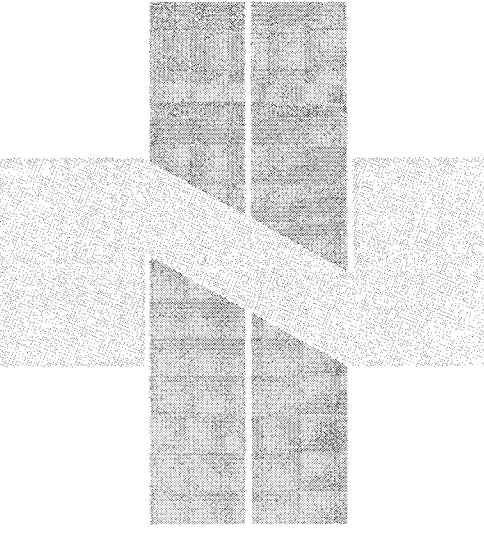


APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

Approved Construction Plan
Name: _____ Date: _____
Planning: _____
Traffic: _____
Fire: _____

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

SCALE: 1" = 20'



ORTHOPEDIC
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HOSPITAL

ARCHITECT:

LS3P

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CONSULTING ENGINEERS P.C.
902 MARKET STREET
WILMINGTON, NC 28401
PHONE (910) 343-6633
licence #C-3641

SURVEYOR:

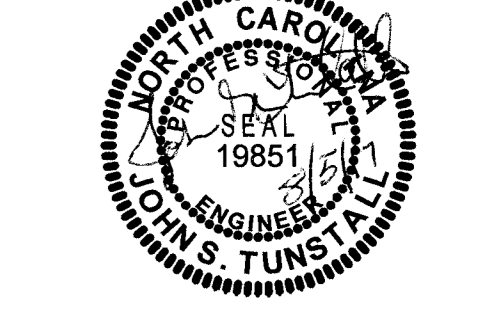
ROBERT H. GOSLEE & ASSOCIATES, PA
LAND SURVEYORS - LAND PLANNERS
FIRM LICENSE NUMBER: C-1187
613 DRENNETT STREET
WILMINGTON, NORTH CAROLINA 28401
910-343-1999
rhg@rhgllc.com
FILE No: 601104010

REVISIONS:

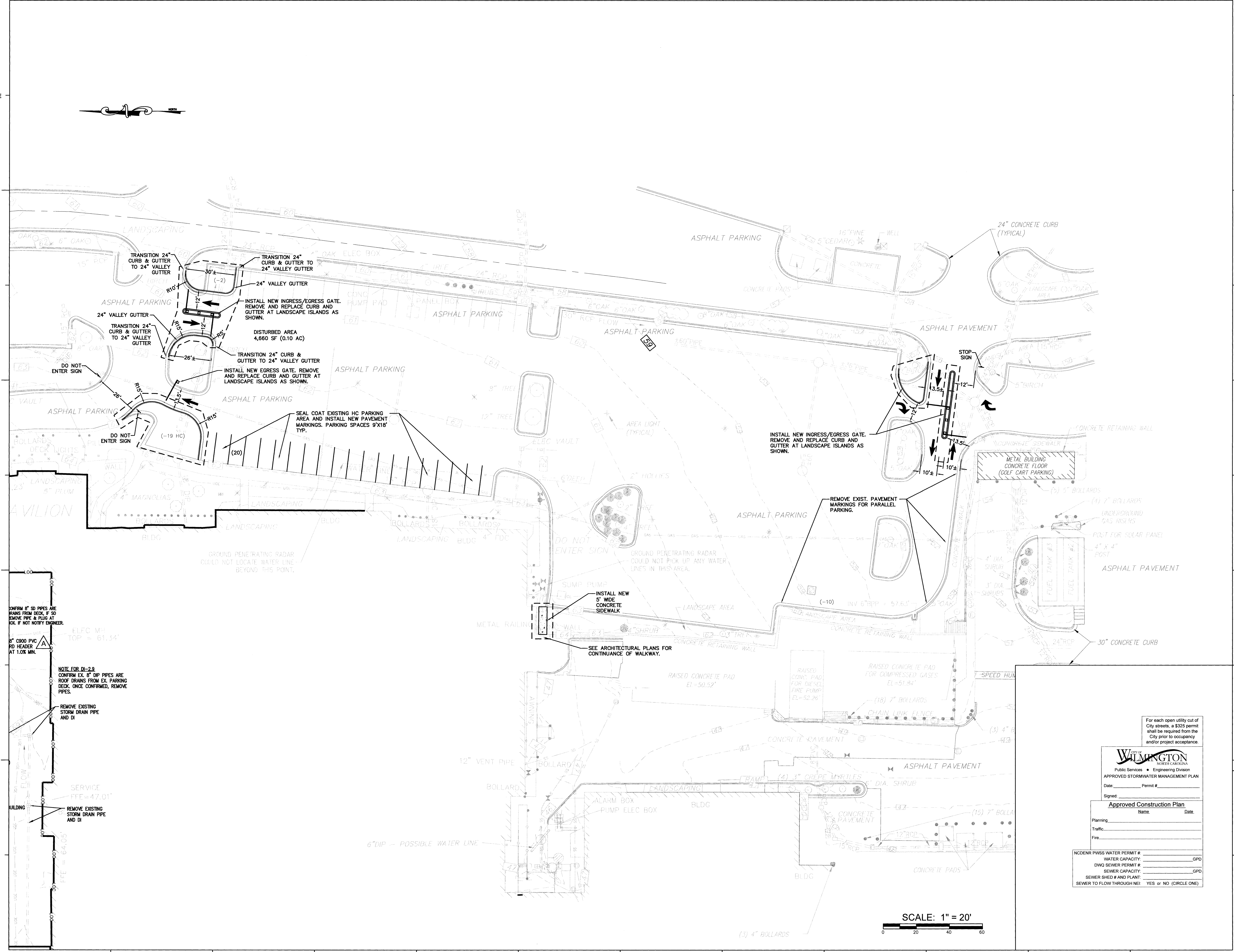
No.	Description	Date

SHEET NAME:
LAYOUT
PLAN
PHYSICIAN
PARKING
LOT

PROJ# 16036
DES. JST
CD. JST
DRWN. SLF
DATE: 4/25/17



SHEET:
C5.1
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PERMIT SET



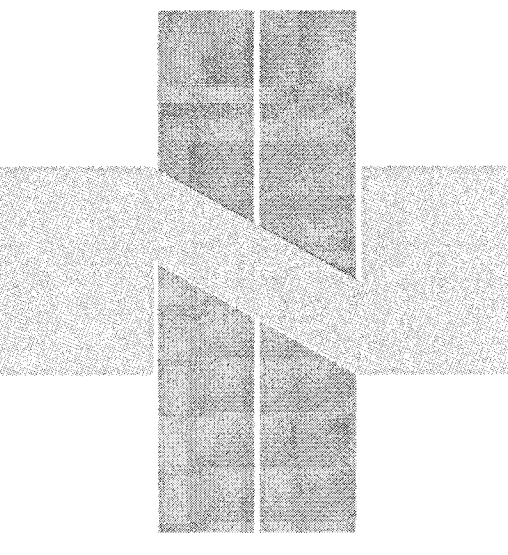
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WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____
Name: _____ Date: _____

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 NEI: YES OR NO (CIRCLE ONE)



**ORTHOPEDIC
INPATIENT
HOSPITAL**

**ARCHITECT:
LS3P**

2528 INDEPENDENCE BLVD. SUITE 200
WILMINGTON, NORTH CAROLINA 28412
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NORRIS & TUNSTALL**
CONSULTING ENGINEERS P.C.
902 MARKET STREET
WILMINGTON, NC 28401
PHONE: (910) 343-9633
Licence #C-3641

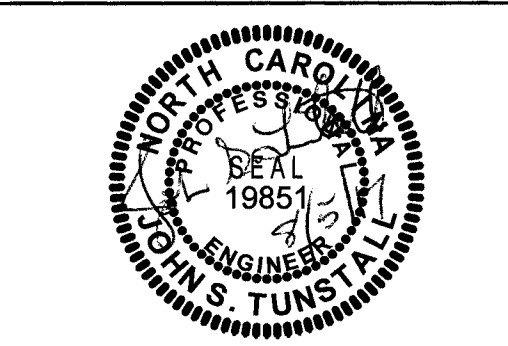
**SURVEYOR:
ROBERT H. GOSLEE & ASSOCIATES, PA**
LAND SURVEYORS - LAND PLANNERS
P.W. LICENSE NUMBER: C-1187
113 CHESTNUT STREET
WILMINGTON, NORTH CAROLINA 28401
910-763-1841
rgoslee@rwg.net
FILE No.: 80110401U

REVISIONS:

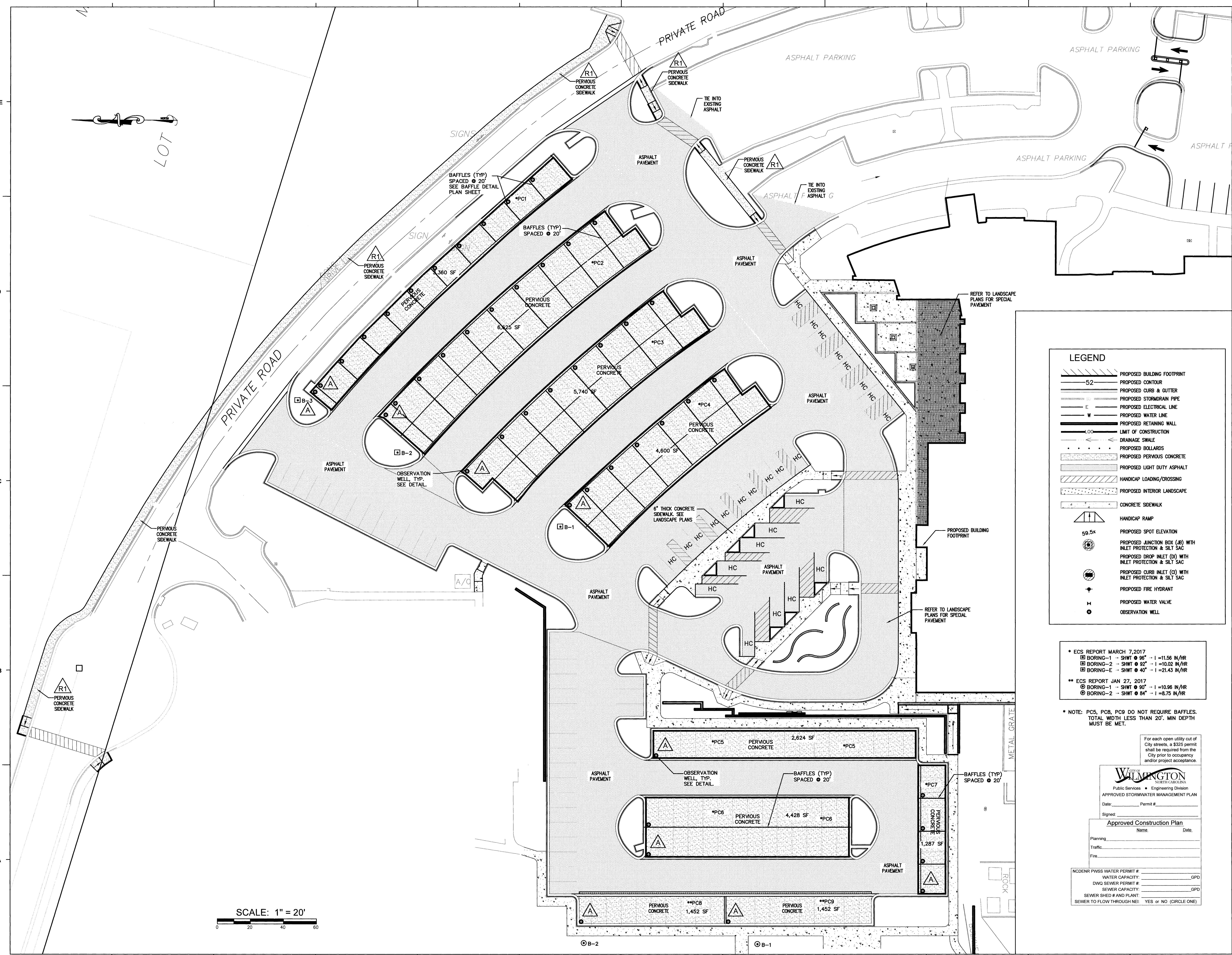
No.	Description	Date
A	ADDENDUM 01	4/28/17
R1	ADDED 5' PERVIOUS SIDEWALK TO N. SIDE OF PRIVATE RD. ADDED HC RAMPS AND CROSS WALKS. ADDED CTS AND RCPS.	5/1/17

**SHEET NAME:
PAVING
PLAN**

PROJ# 16036
DES. JST
CDD. JST
DRWN. SLF
DATE: 4/25/17



**SHEET:
C6R1**
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PERMIT SET



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
- PROPOSED SPOT ELEVATION
- PROPOSED JUNCTION BOX (JB) WITH INLET PROTECTION & SILT SAC
- PROPOSED DROP INLET (DI) WITH INLET PROTECTION & SILT SAC
- PROPOSED CURB INLET (CI) WITH INLET PROTECTION & SILT SAC
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- OBSERVATION WELL

- * ECS REPORT MARCH 7, 2017
- BORING-1 - SHWT @ 96" - I = 11.56 N/HR
- BORING-2 - SHWT @ 92" - I = 10.02 N/HR
- BORING-E - SHWT @ 40" - I = 21.43 N/HR
- ** ECS REPORT JAN 27, 2017
- BORING-1 - SHWT @ 90" - I = 10.96 N/HR
- BORING-2 - SHWT @ 84" - I = 8.75 N/HR

* NOTE: PCS, PCB, PC9 DO NOT REQUIRE BAFFLES. TOTAL WIDTH LESS THAN 20'. MIN DEPTH MUST BE MET.

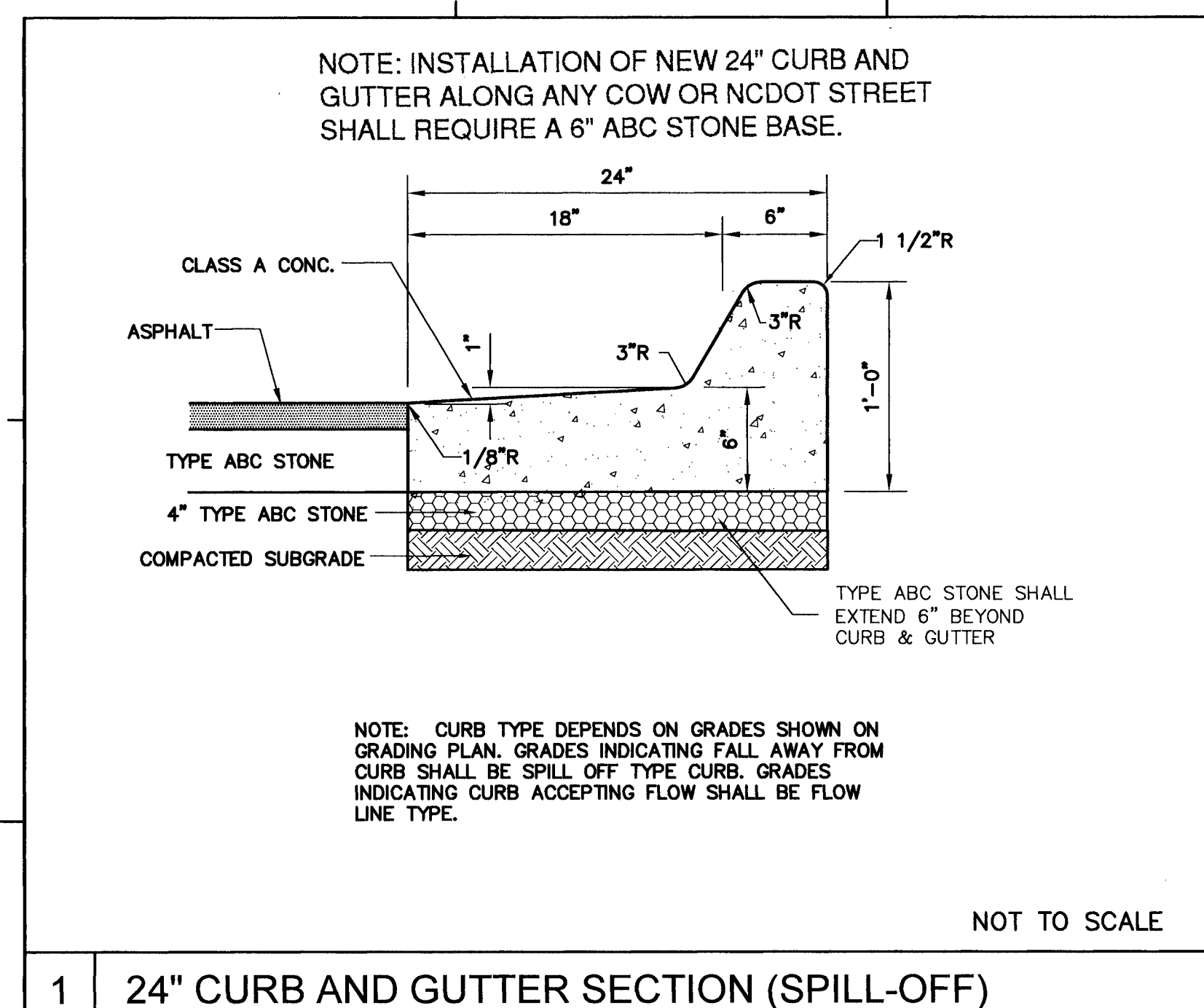
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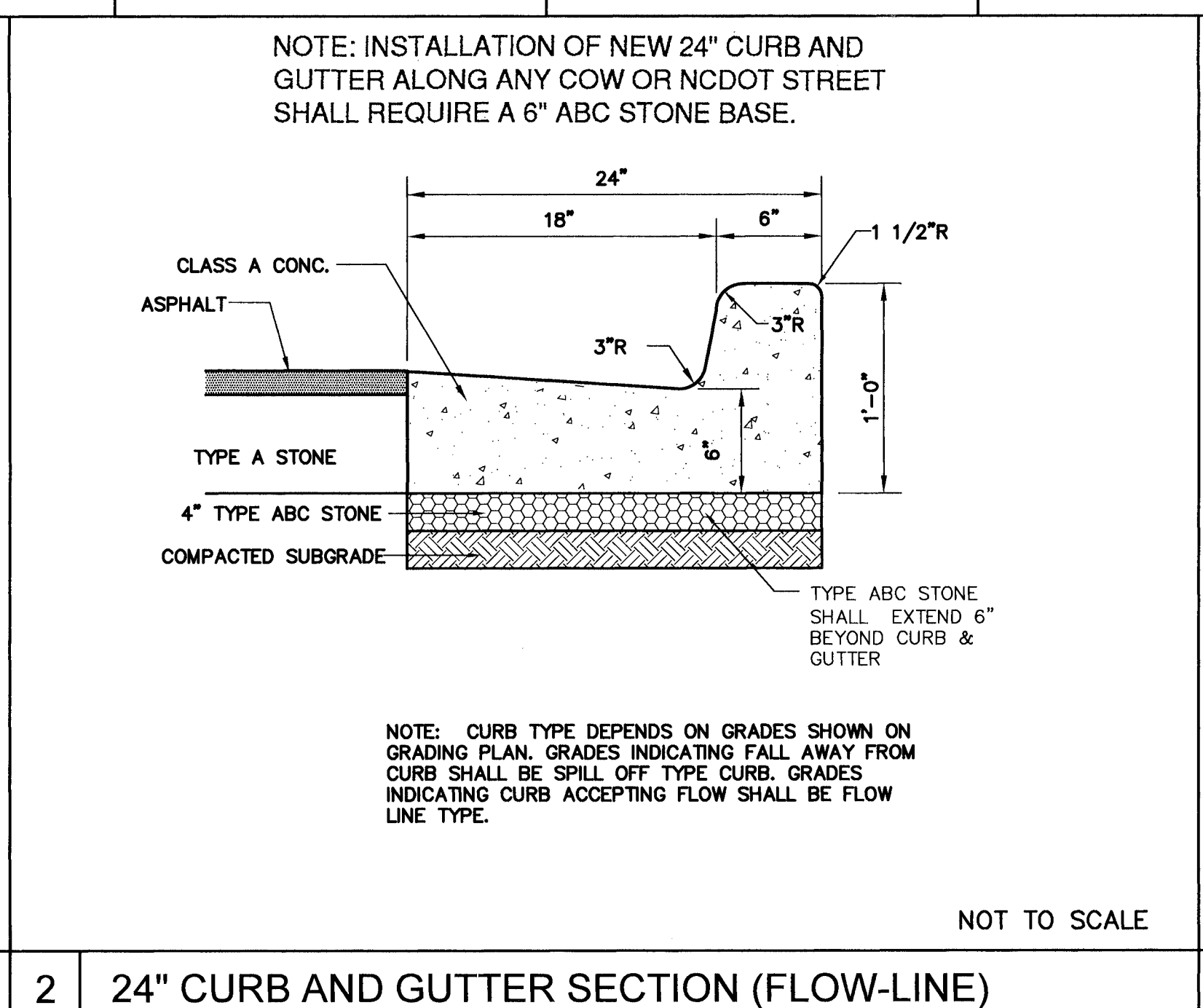
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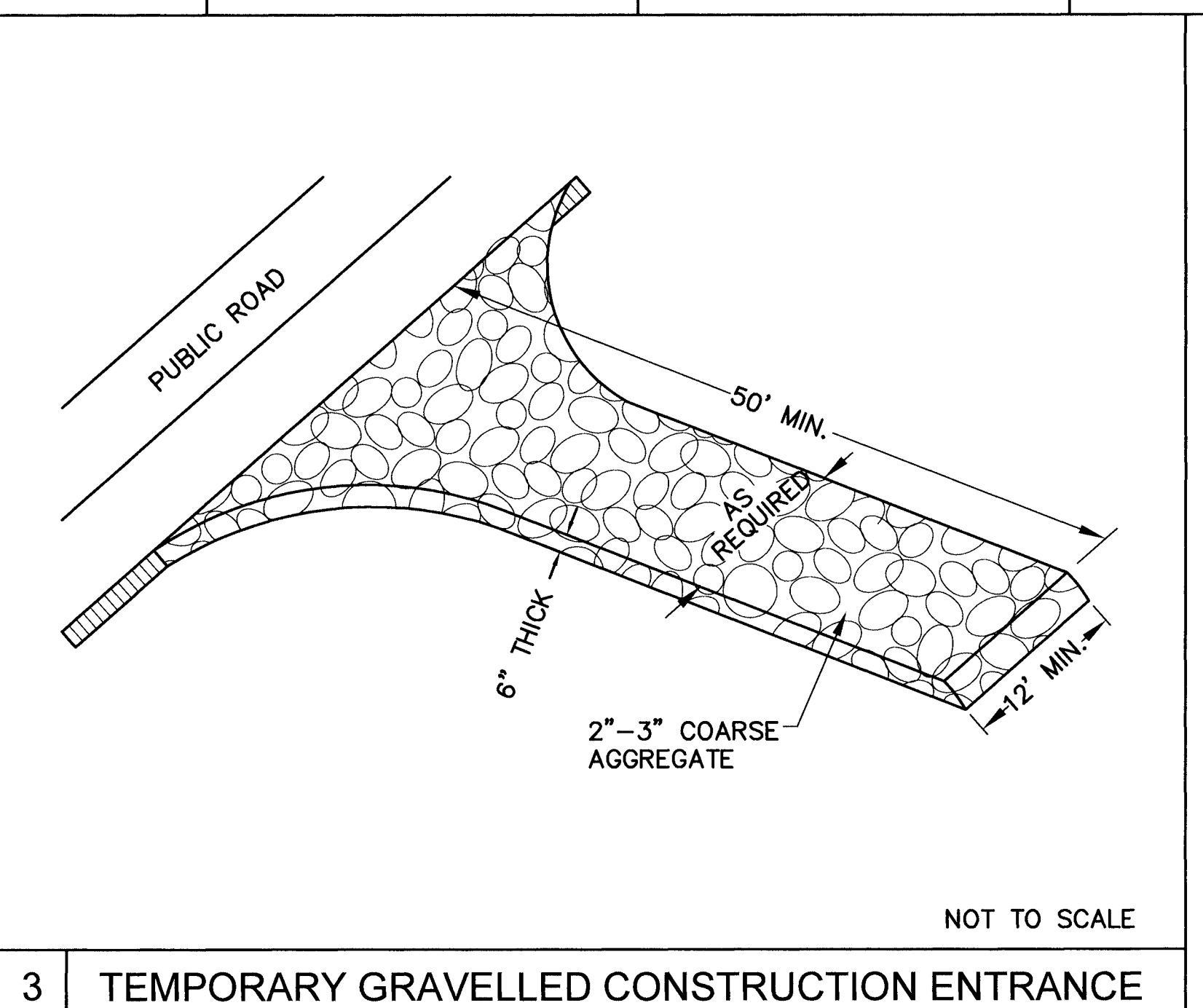
SCALE: 1" = 20'



1 24" CURB AND GUTTER SECTION (SPILL-OFF)



2 24" CURB AND GUTTER SECTION (FLOW-LINE)



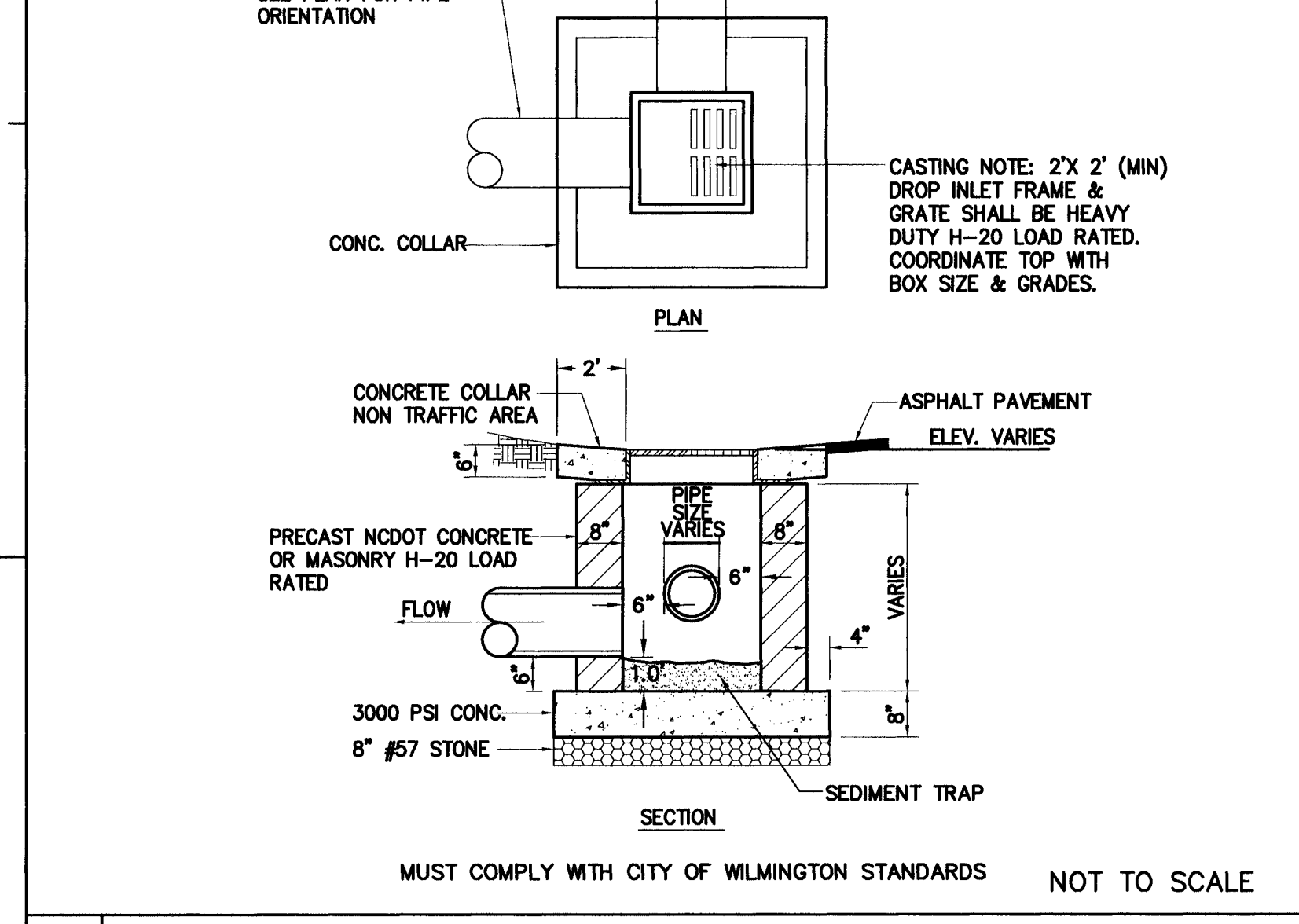
3 TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE

EROSION CONTROL NOTES AND MAINTENANCE PLAN:

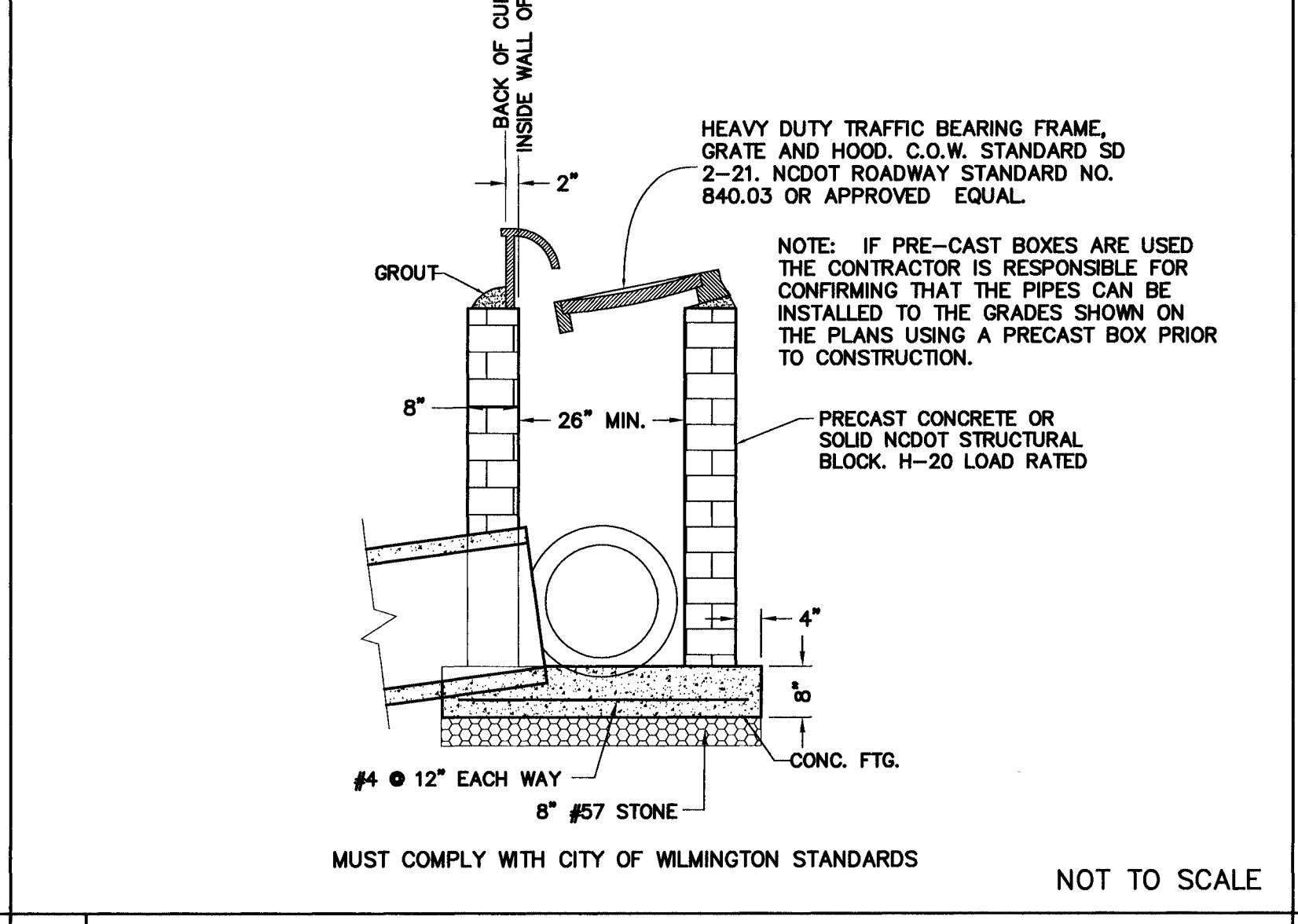
1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY 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 OBJECTIONABLE 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 DOWNSLOTT 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 FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPLOYED 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 ACTIVITY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

SITE WORK NOTES:

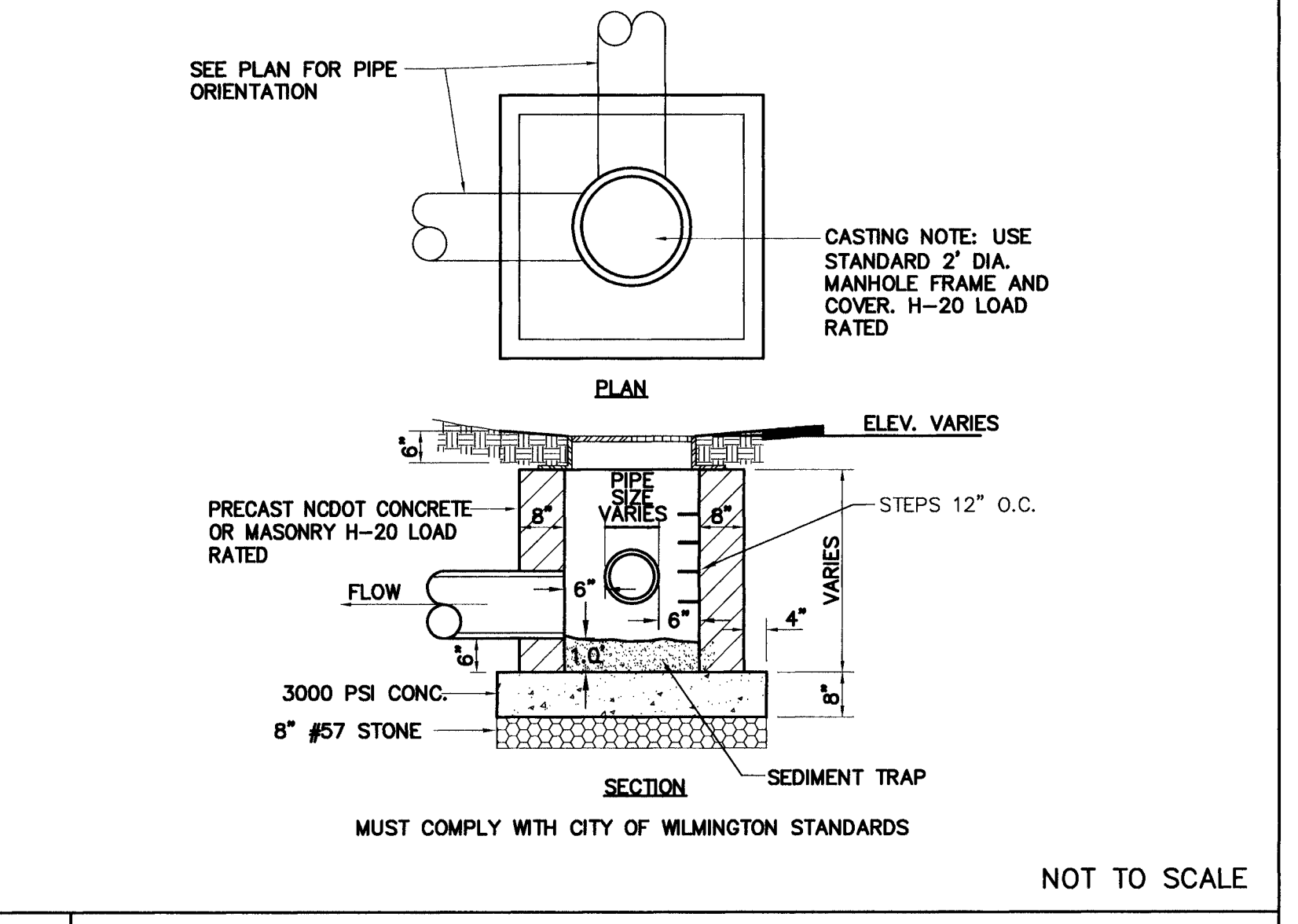
1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITH NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. LAYOUT: THE CONTRACTOR 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.



4 DROP INLET DETAIL



5 CATCH BASIN DETAIL



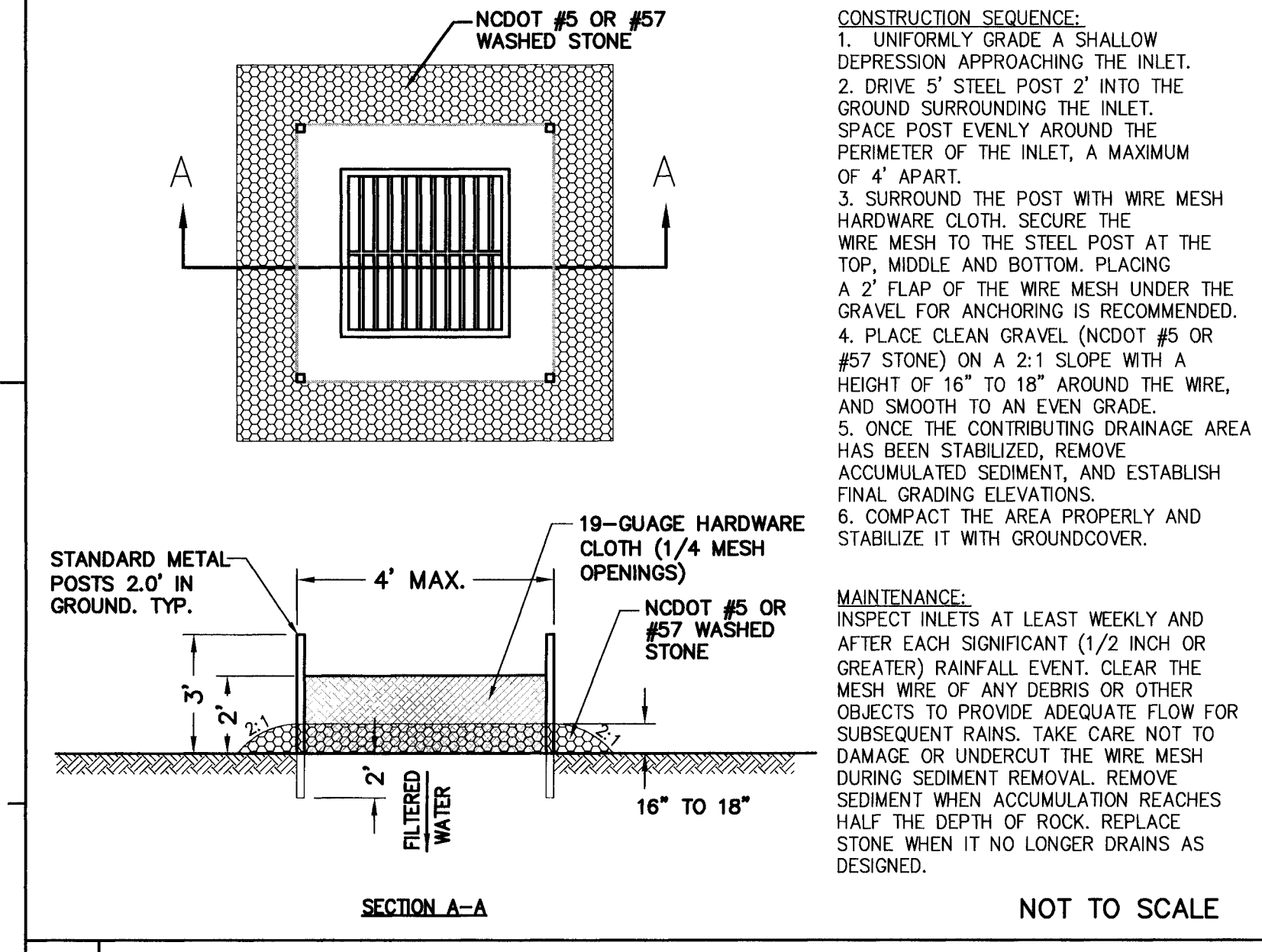
6 JUNCTION BOX DETAIL

TEMPORARY/PERMANENT GRASS SPECIFICATION:

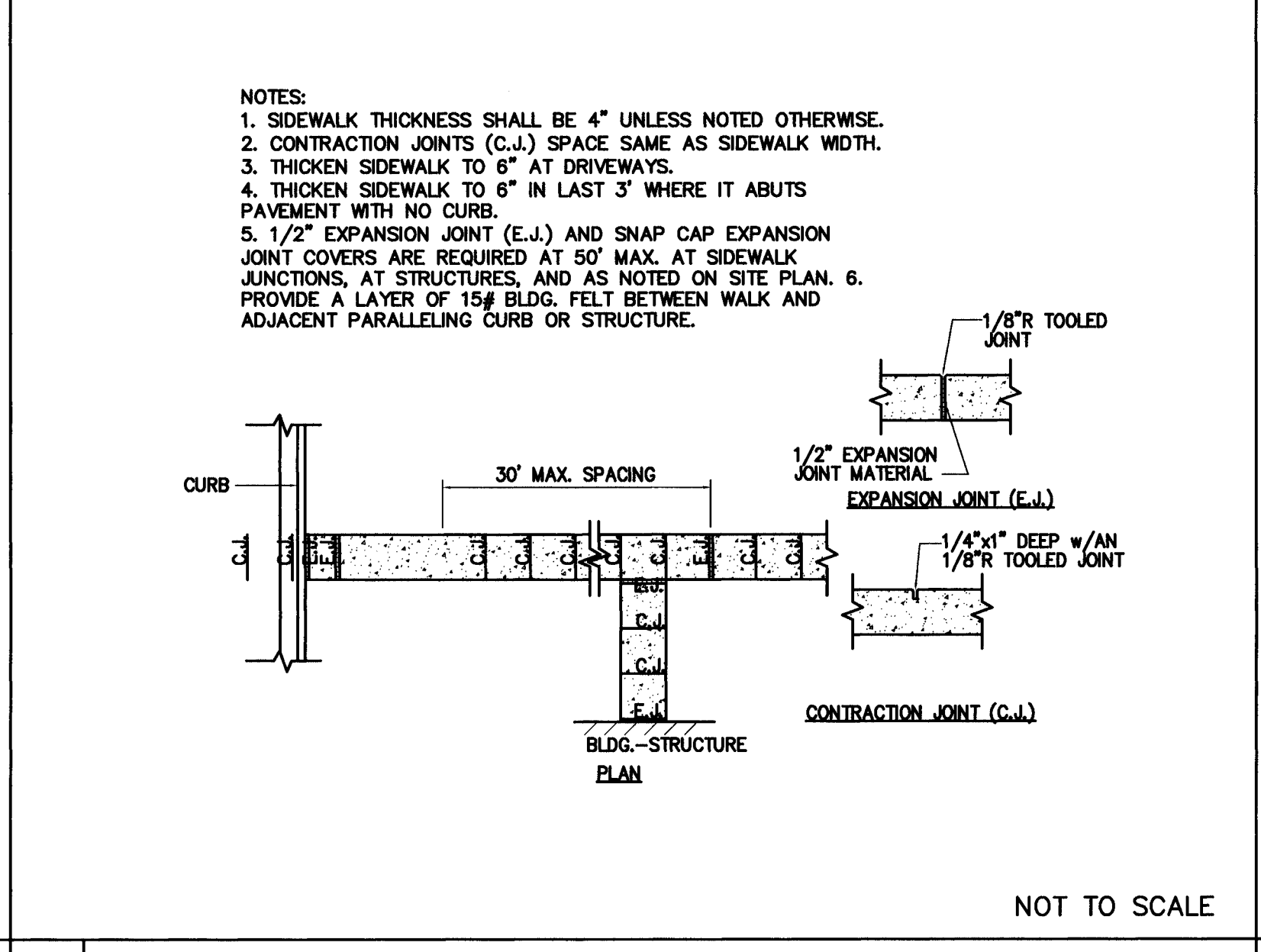
1. CHESEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS.
2. RIP THE ENTIRE AREA TO A 6 INCH DEPTH.
3. REMOVE ALL ROCKS, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACES SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL. LIME: 45 LBS. PER 1000 S.F. PHOSPHORUS: 20 LBS. PER 1000 S.F. FERTILIZER: 17 LBS. PER 1000 S.F.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, UNIFORM SEED BED IS PREPARED 4-6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY. 2 - 3 LBS PER 1000 S.F. (SEE MIXTURE BELOW)
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH WITH GRAIN STRAW & HAY AT 75 TO 100 LBS PER 1000 S.F. WOOD CHIPS AT 200 LBS PER 1000 S.F. JUTE & MESH AS PER MANUFACTURER
8. ASPHALT FOR ANCHORING MULCH SHALL BE TYPE SS-1 EMULSION AND APPLIED AT A RATE OF 1000 GAL. PER ACRE FOR SLOPE STABILIZATION, AND 150 GAL. PER TON OF STRAW FOR ANCHORING STRAW.
9. INSPECT ALL 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
 - 25% BERBERA GRASS
 - 20% TURF FESCUE
 - 10% CREEPING RED FESCUE
 - 25% ANNUAL RYE GRASS
12. *BERBERA SEED SHALL BE HULLED FOR WARM WEATHER PLANTING. PURITY OF SEED SHALL BE A MIN. OF 98% AND GERMINATION SHALL BE A MIN. OF 85%.

UTILITY NOTES FOR FIRE HYDRANTS

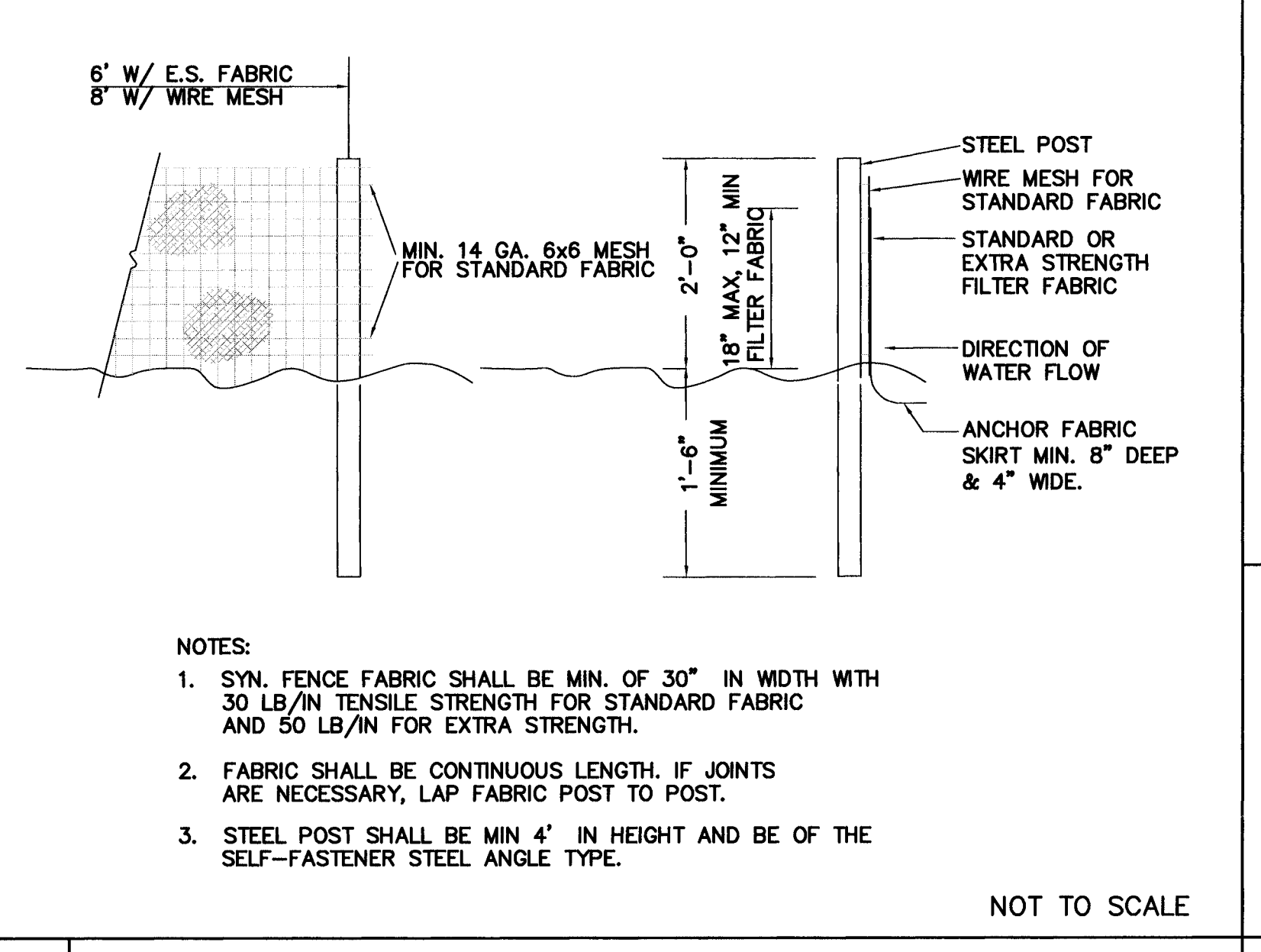
1. FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
2. THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE 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 BUILDINGS.
6. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
7. THE CONTRACTOR SHALL MAINTAIN 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 910-343-0696 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 FLOW REQUIREMENTS OF THE STRUCTURE.
12. BUILDING CONSTRUCTION TYPE: 1-A



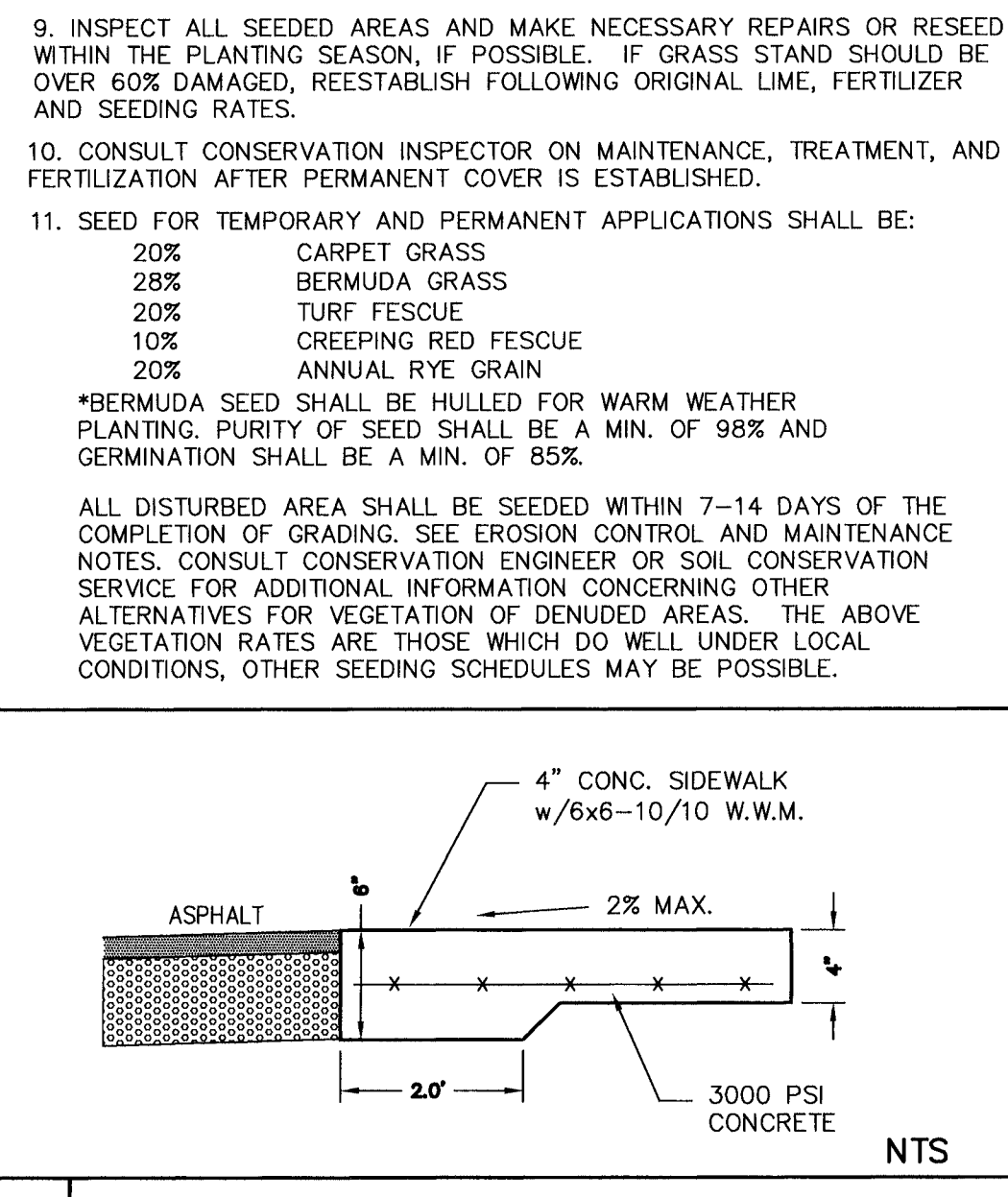
7 HARDWARE CLOTH AND GRAVEL INLET PROTECTION



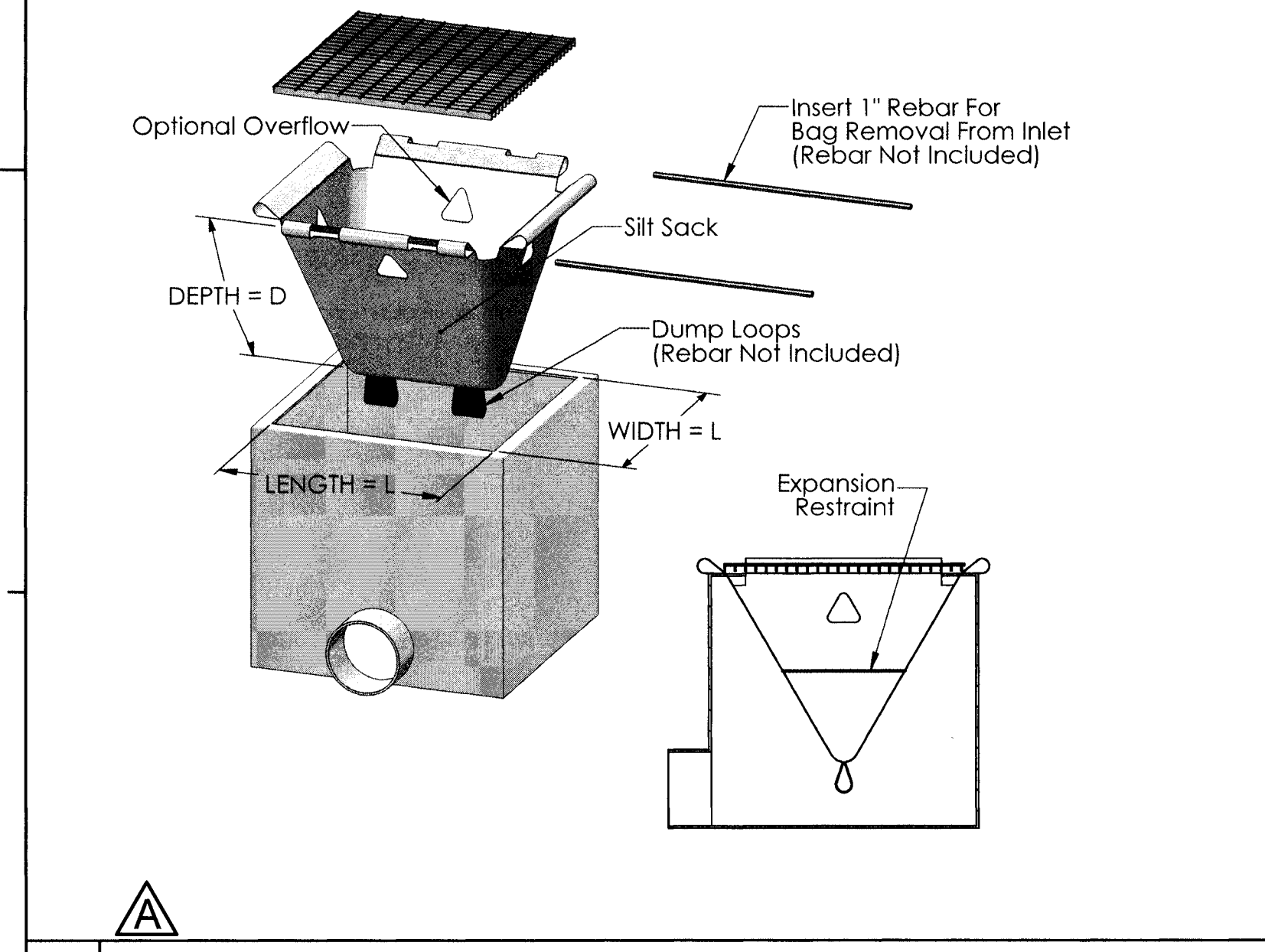
8 SIDEWALK JOINT DETAIL



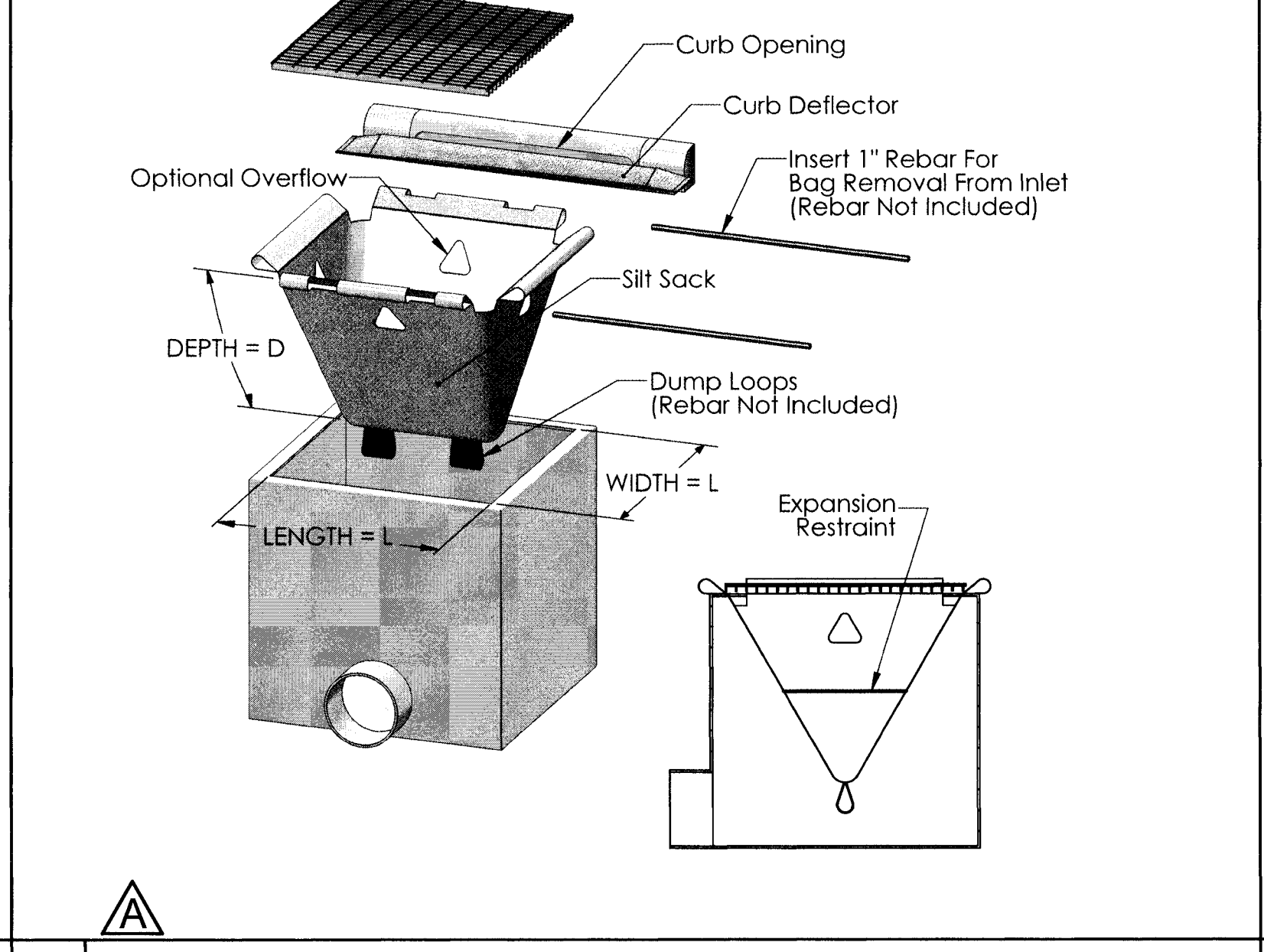
9 TEMPORARY SILT FENCE



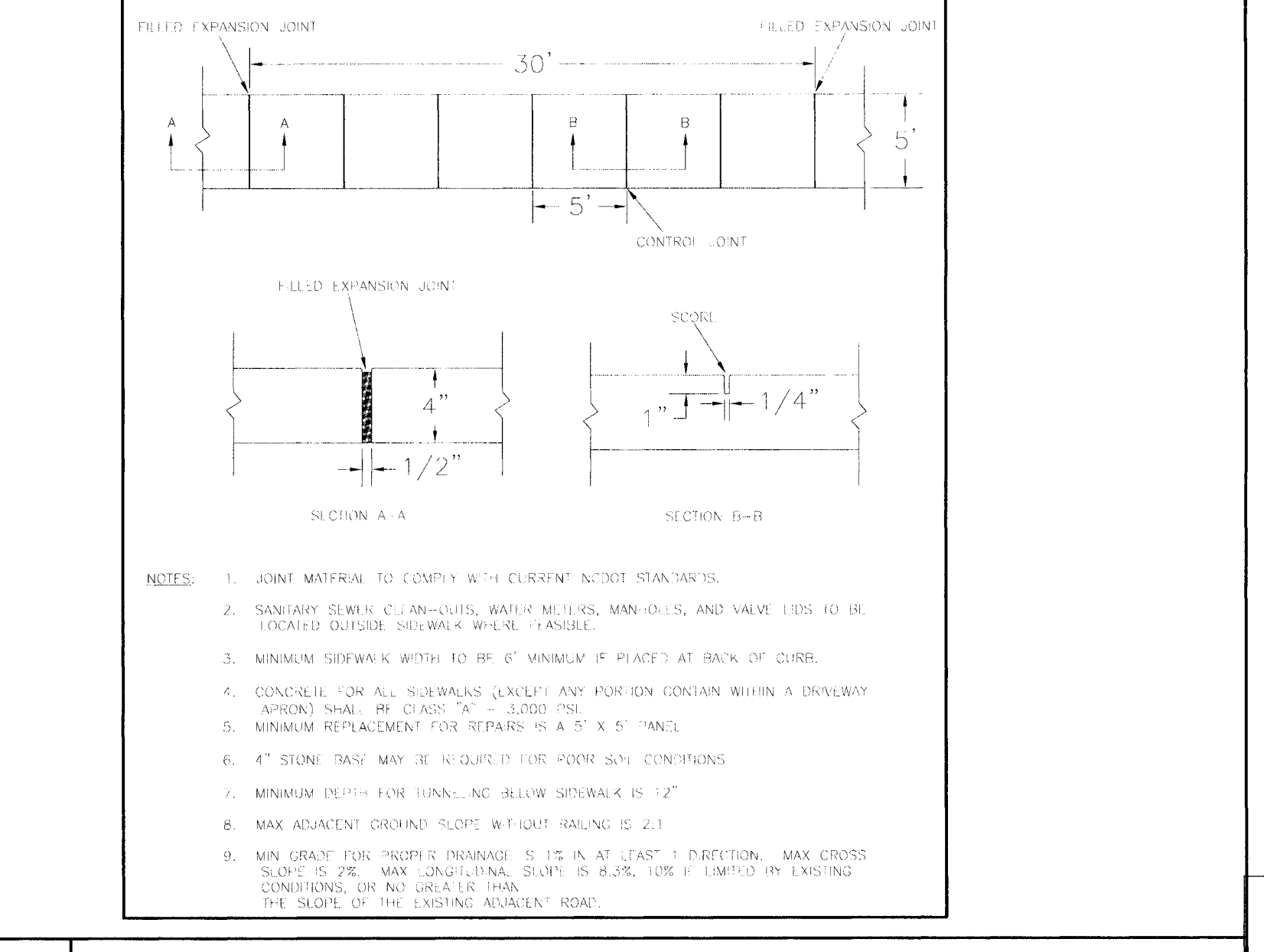
10 TURN DOWN WALK SECTION



11 SILT SACK DETAIL FOR DROP INLETS



12 SILT SACK DETAIL FOR CURB INLETS



13 SIDEWALK DETAIL

APPROVED CONSTRUCTION PLAN

City of WILMINGTON Public Services • Engineering Division

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2538 INDEPENDENCE BLVD., SUITE 300 WILMINGTON, NORTH CAROLINA 28412 TEL. 910.790.9901 FAX 910.790.3111 WWW.LS3P.COM

ENGINEER: NORRIS & TUNSTALL CONSULTING ENGINEERS P.C. 902 MARKET STREET WILMINGTON, NC 28401 PHONE (910) 343-9653 license #C-3641

SURVEYOR: ROBERT H. GOSLEE & ASSOCIATES, PA LAND SURVEYORS - LAND PLANNERS FROM LICENSE NUMBER C-1167 515 CHESTNUT STREET WILMINGTON, NORTH CAROLINA 28401 910-763-1941 rhg@rhgpa.com FILE NO.: 601104010

REVISIONS:

No.	Description	Date
A	ADDENDUM 01	4/28/17

SHEET NAME: NOTES AND DETAILS

PROJ# 16036

DES: JST

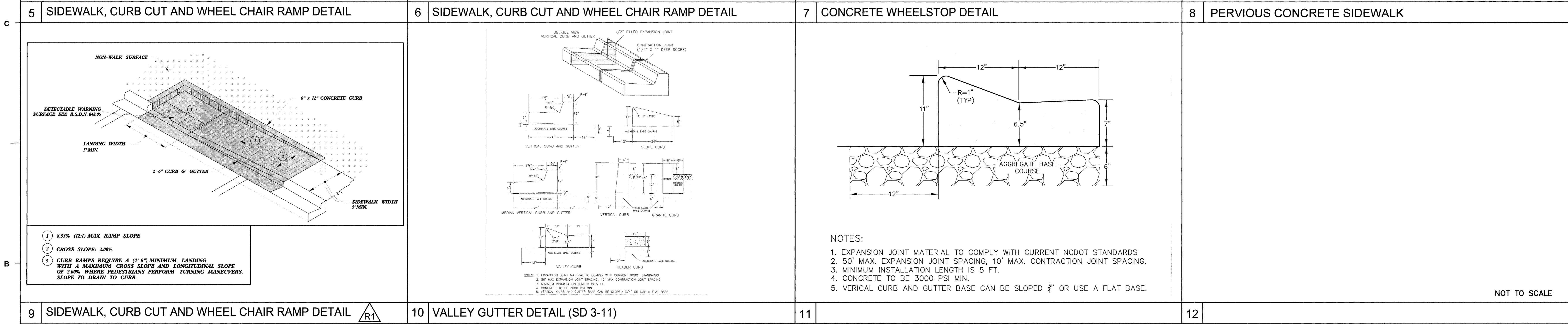
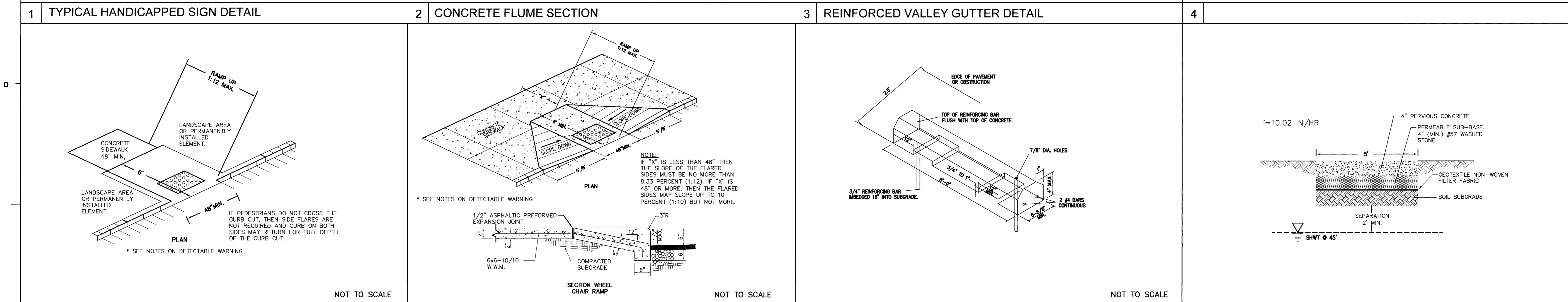
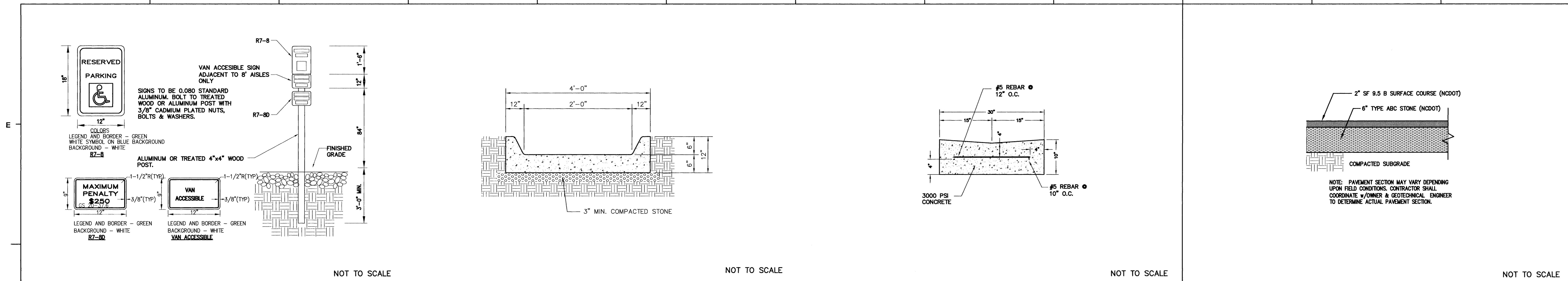
CHK: JST

DRWL: SLF

DATE: 4/25/17

SHEET: C7R

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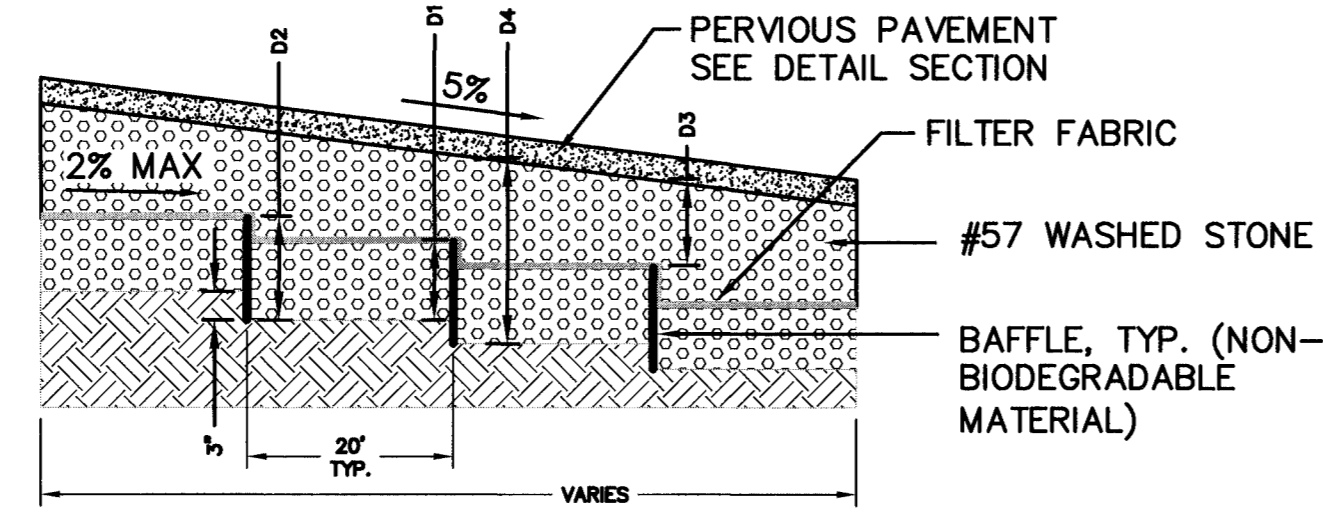
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R1	ADDED DETAIL	8/17/17

SHEET NAME:
**NOTES AND
DETAILS**

PERVIOUS CONCRETE	MIN. DEPTH D1 (IN.)	MIN. DEPTH D2 (IN.)	DEPTH D3 (IN.)	DEPTH D4 (IN.)
PC-1	6"	12.56"	4"	16.56"
PC-2	6.36"	13.56"	4"	17.56"
PC-3	6"	12.83"	4"	16.83"
PC-4	6.3"	13.5"	4"	17.5"
PC-5	6.9"	14.1"	4"	18.1"
PC-6	6.63"	13.83"	4"	17.83"
PC-7	6"	13.13"	4"	17.13"
PC-8	6"	11.21"	4"	15.51"
PC-9	6"	11.51"	4"	15.51"

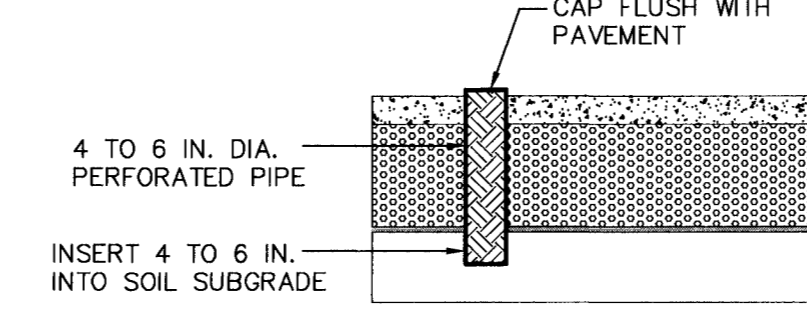


- DEPTH OF PERVIOUS PAVEMENT AS SPECIFIED FROM LOADING CONDITIONS. MINIMUMS FOR STORMWATER DESIGN ARE SHOWN IN TABLE 1.
- TOTAL WASHED STONE DEPTH PER MANUFACTURERS SPECS FOR LOAD BEARING CAPACITY. MINIMUM DEPTHS SHALL MEET OR EXCEED MANUFACTURERS SPECIFICATIONS.
- MINIMUM 6" BAFFLE HEIGHT FOR STORMWATER STORAGE.
- INSTALL TERRACE AND BAFFLES AS SHOWN ON PERVIOUS CONCRETE PLAN VIEW PARALLEL TO CONTOUR LINES.
- CONTRACTOR SHALL PROTECT PERVIOUS PAVEMENT FROM SEDIMENTATION UNTIL SURROUNDING PERMANENT VEGETATION IS ESTABLISHED.
- OBSERVATION WELLS SHALL BE LOCATED AT THE LOW POINT OF EACH PERVIOUS CONCRETE SECTION. (NOTE: PC1-PC8 ARE UPSTREAM SCM'S THAT DRAIN TO THE ENGINEERED INFILTRATION TRENCH "A").

PERMEABLE PAVEMENT

- ACTIVITIES PROHIBITED:**
- SANDING
 - RE-SEALING
 - RE-SURFACING
 - POWER WASHING
 - STORAGE OF MULCH OR SOIL
 - STORAGE OF SNOW PILES
 - STORAGE OF HEAVY LOADS
 - APPLICATION OF SALT OR DE-ICERS

NOTES:
 1. THE PERVIOUS PAVEMENT SIGN IS BASED ON AN 18" X 24" STANDARD SIZE FOR SIGN PRODUCTION.
 2. A HIGH-RESOLUTION IMAGE FILE CAN BE PROVIDED BY THE DWO FOR USE IN FABRICATING THE SIGN. THE GRAPHIC IS IN COLOR BUT COLOR SIGNS ARE NOT REQUIRED.



- PERVIOUS PAVEMENT OBSERVATION WELL NOTES:**
- THE OBSERVATION WELL SHALL BE PLACED AT THE LOW END OF THE SUBGRADE SLOPE.
 - OBSERVATION WELLS SHALL BE FITTED WITH A LOCKABLE CAP INSTALLED PLACED EVEN WITH THE PAVEMENT SURFACE TO FACILITATE QUARTERLY INSPECTION AND MAINTENANCE.
 - THE OBSERVATION WELL SHALL CONSIST OF A RIGID 4 TO 6 IN. DIAMETER PERFORATED PVC PIPE.

NOT TO SCALE

NOT TO SCALE

PERMEABLE PAVEMENT CONSTRUCTION SEQUENCE:

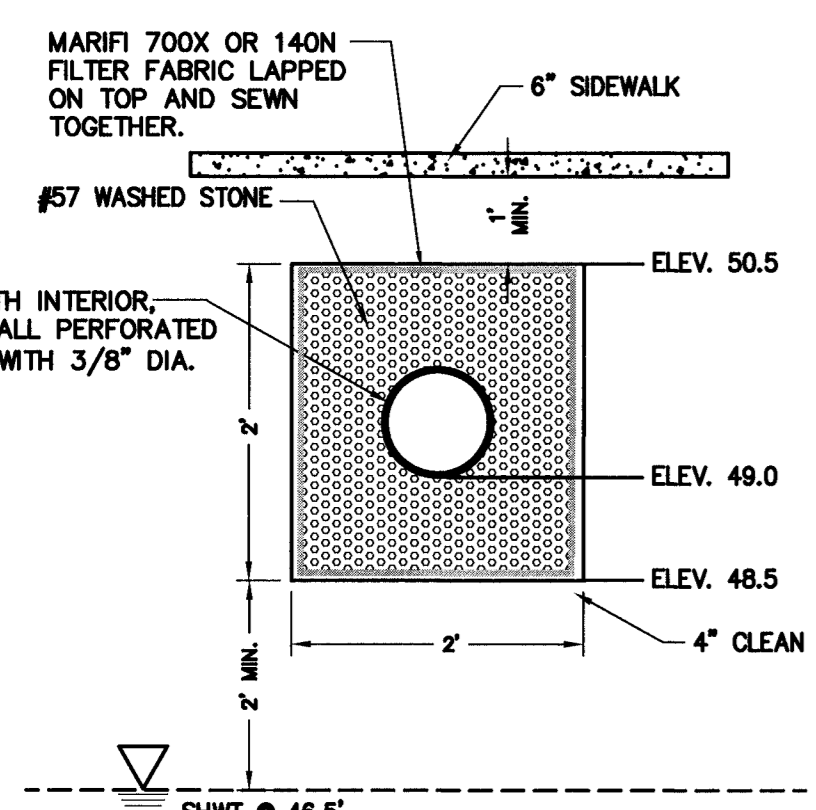
- The following is a typical construction sequence to properly install pervious concrete. The means and methods of installation shall be determined by the contractor and shall be installed per the manufacturer recommendations, product standards and industry guidelines.
- Construction of the permeable 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 (EAS) 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. Soil 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 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). Moisture 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 and installation shall be per the manufacturer recommendations, product standards and industry guidelines. Pervious concrete shall be constructed in accordance with the latest version of ACI 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.

1 PERVIOUS PAVEMENT SECTION WITH BAFFLE

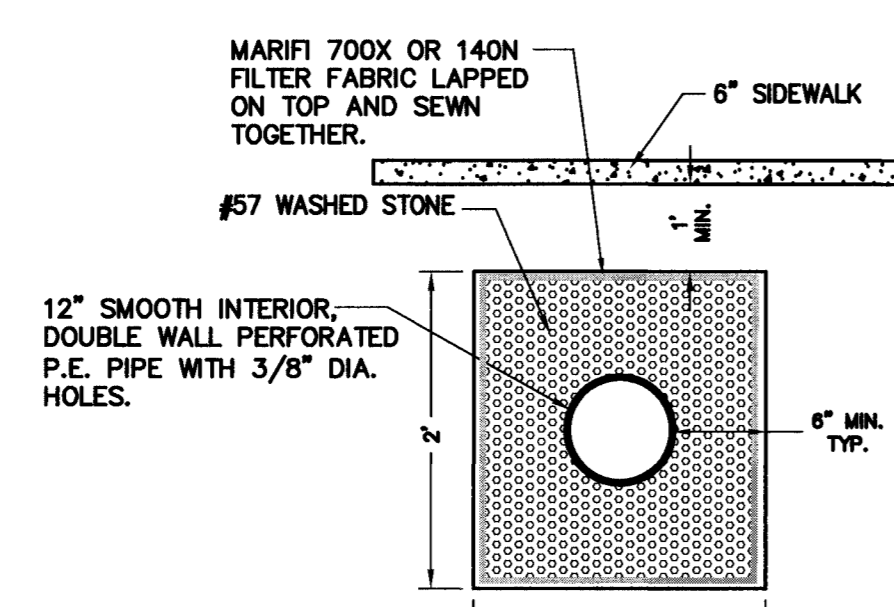
2 PERMEABLE PAVEMENT SIGNAGE DETAIL

3 PERVIOUS PAVEMENT OBSERVATION WELL DETAIL

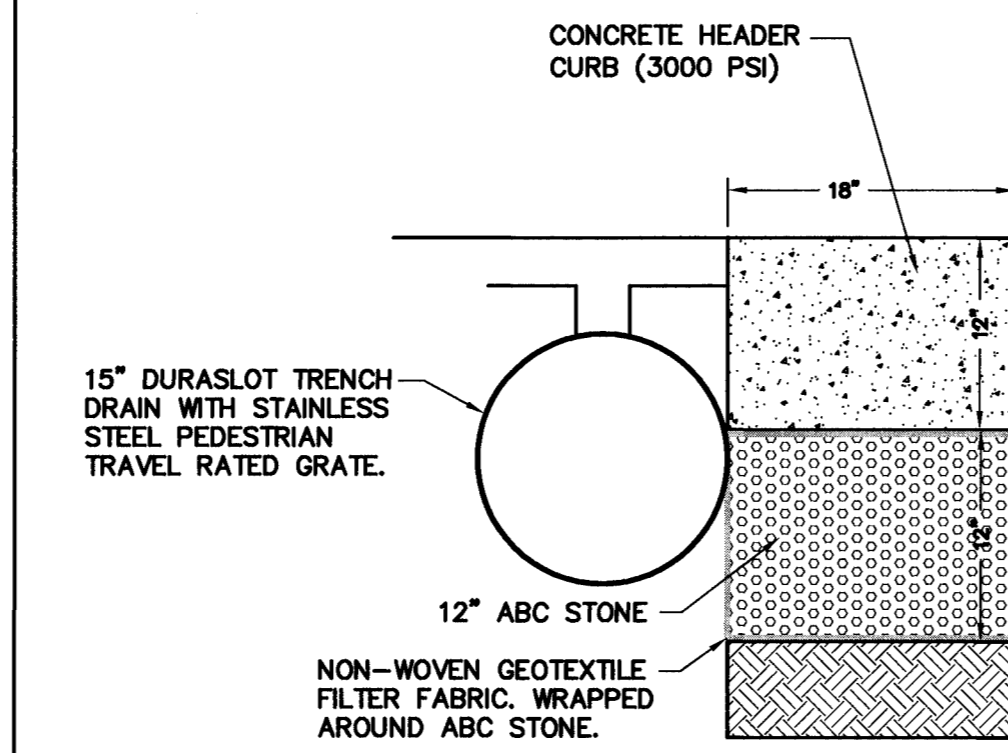
4 PERMEABLE PAVEMENT CONSTRUCTION SEQUENCE:



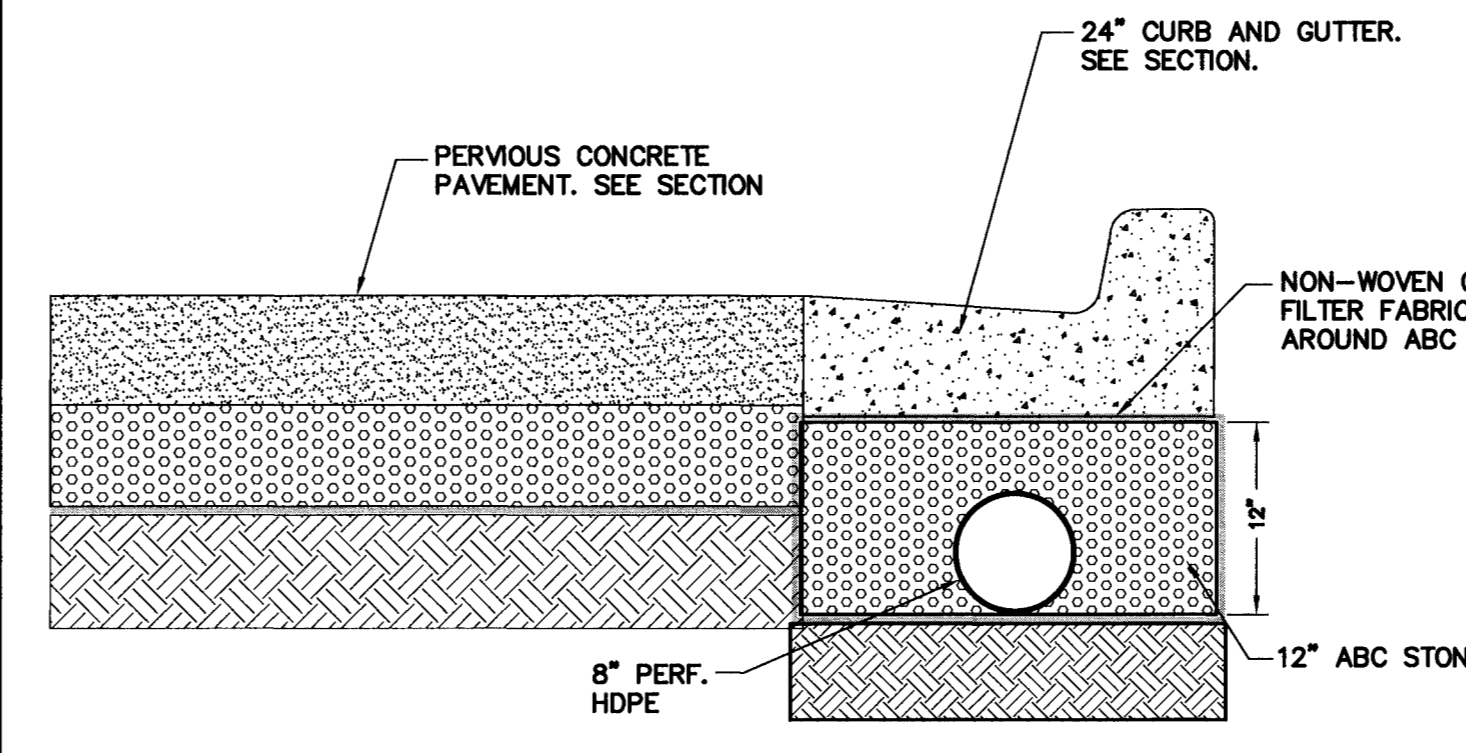
INFILTRATION TRENCH #0-3
 L=102'
 2'X2' TRENCH WITH 12" PERF. HDPE
 VOLUME PROVIDED=211 CF
 I=10.96 IN/HR



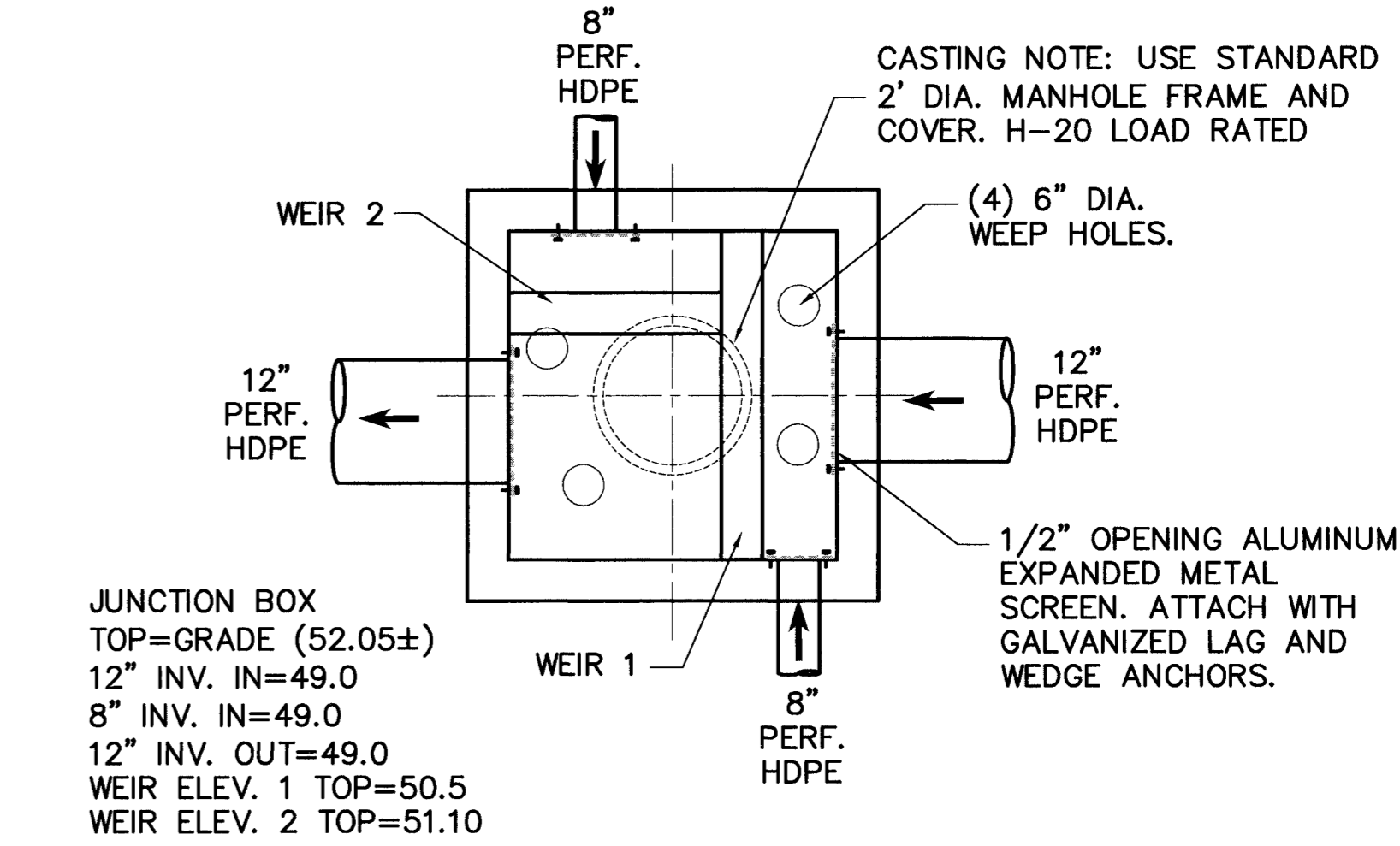
6 12" PERFORATED PIPE TRENCH DETAIL



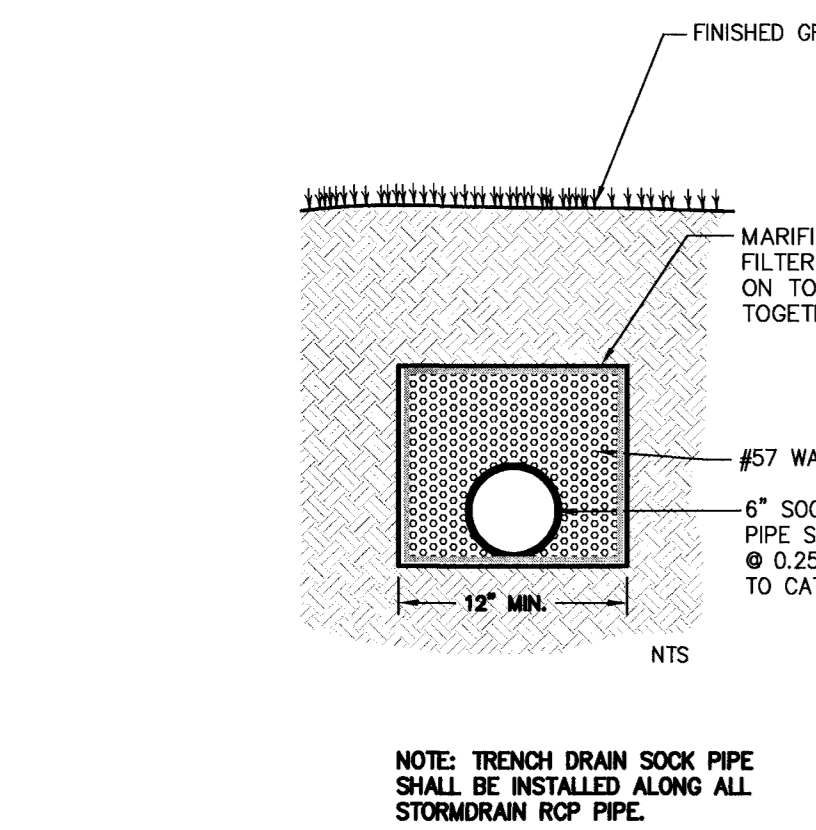
7 18" CONCRETE HEADER CURB WITH TRENCH DRAIN



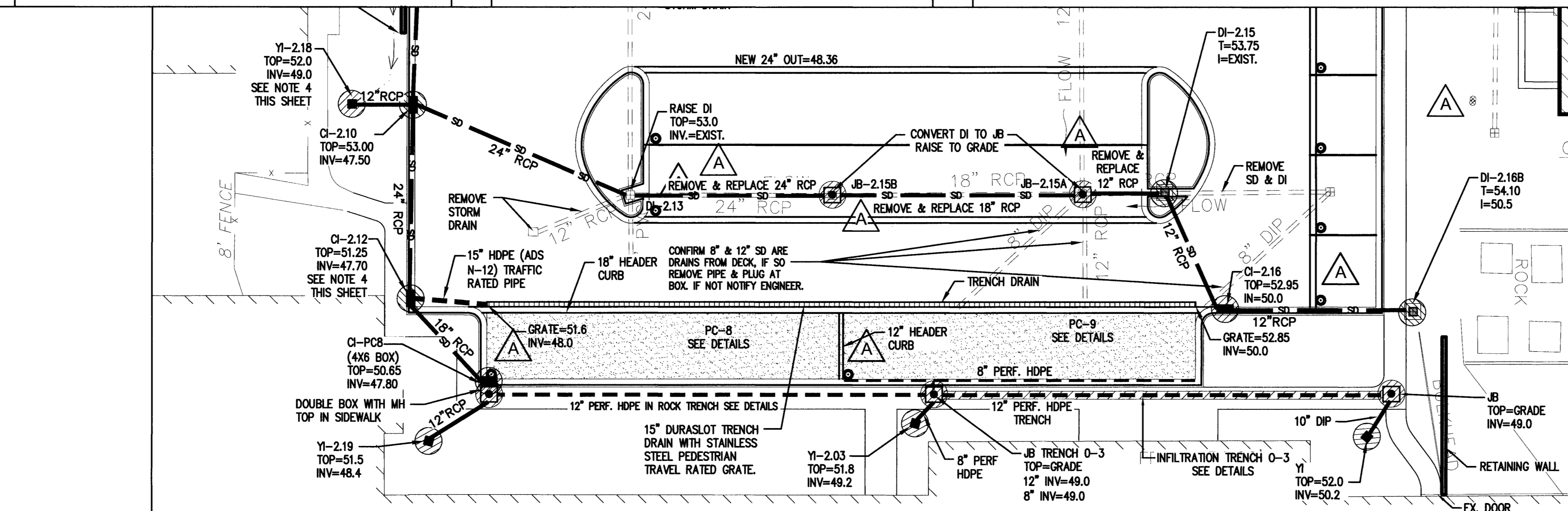
8 24" CURB AND GUTTER SECTION WITH 8" PERF. HDPE



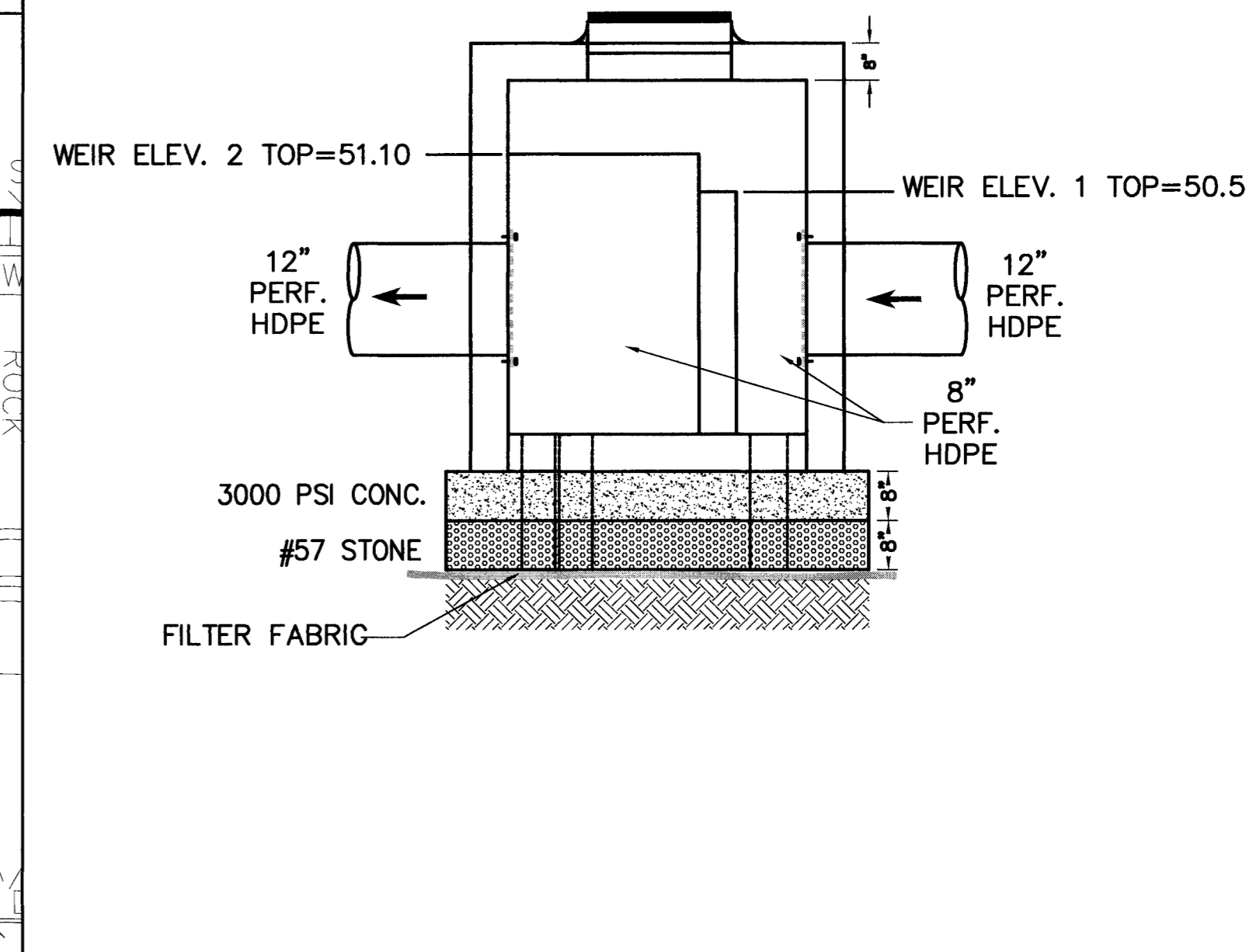
11 JUNCTION BOX DETAIL TRENCH #0-3



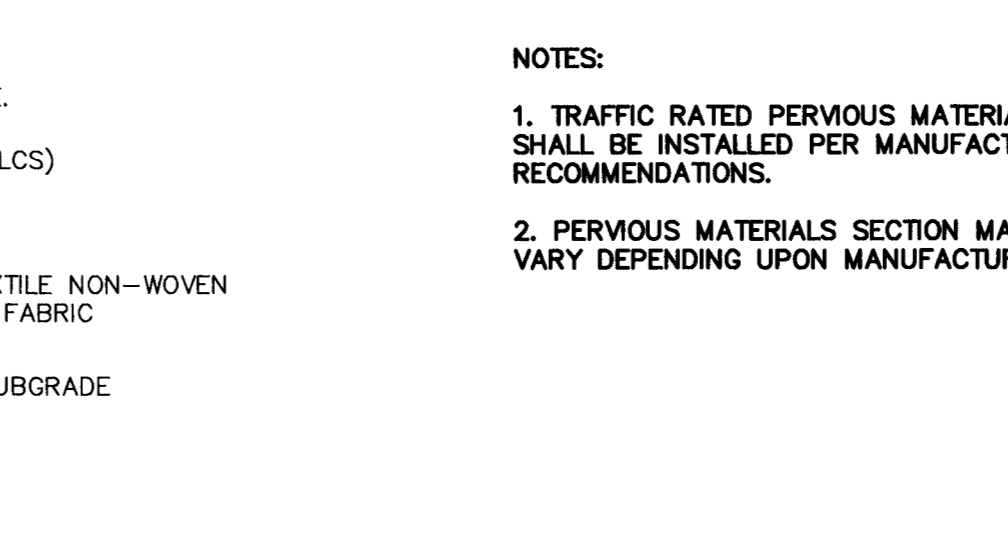
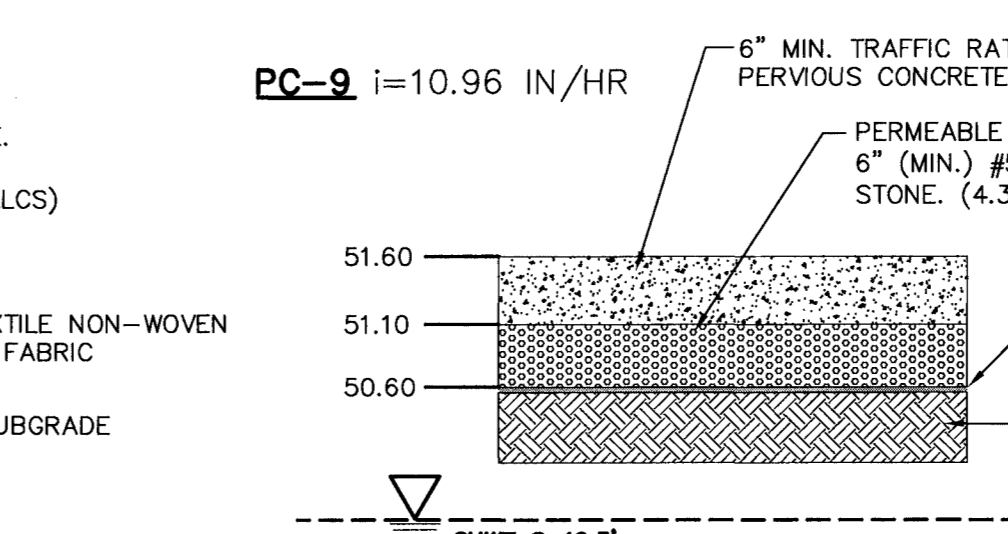
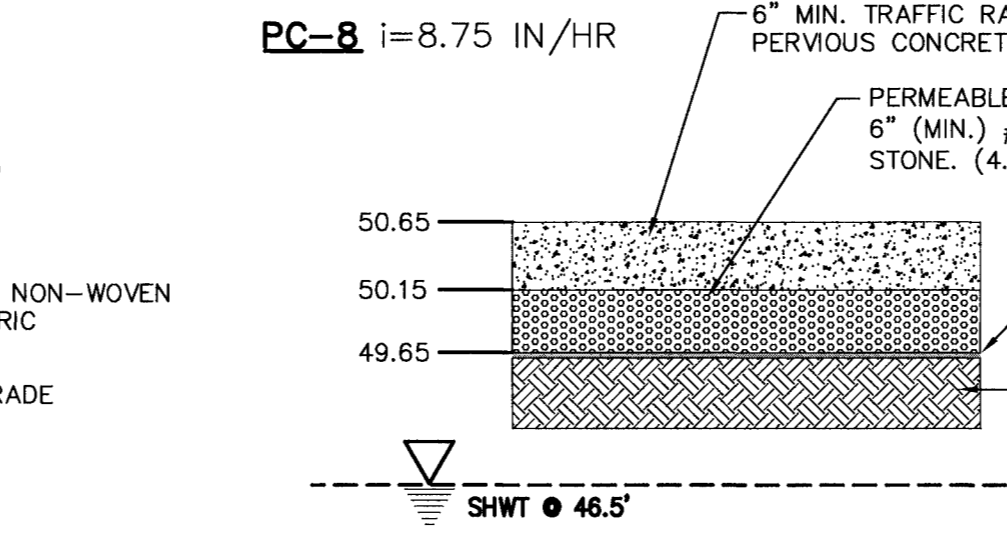
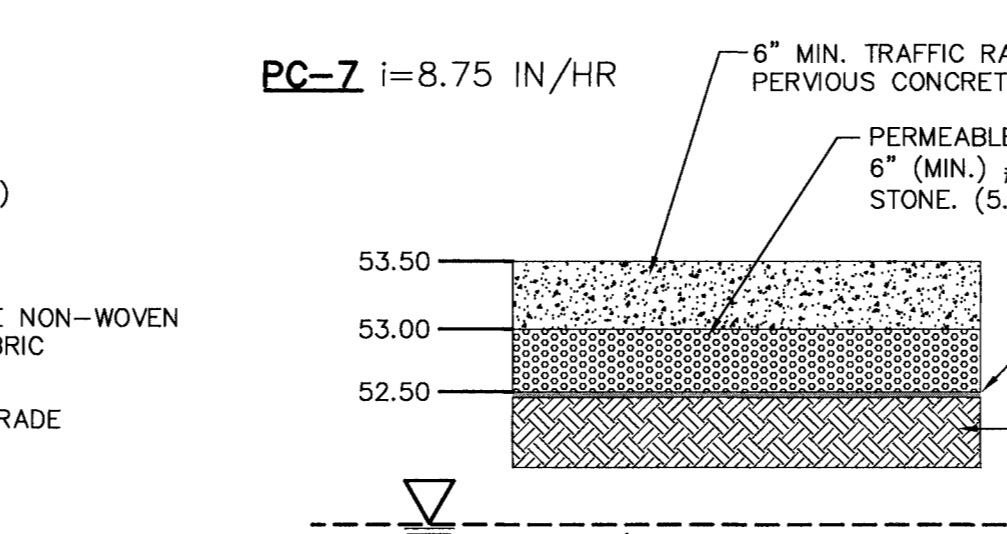
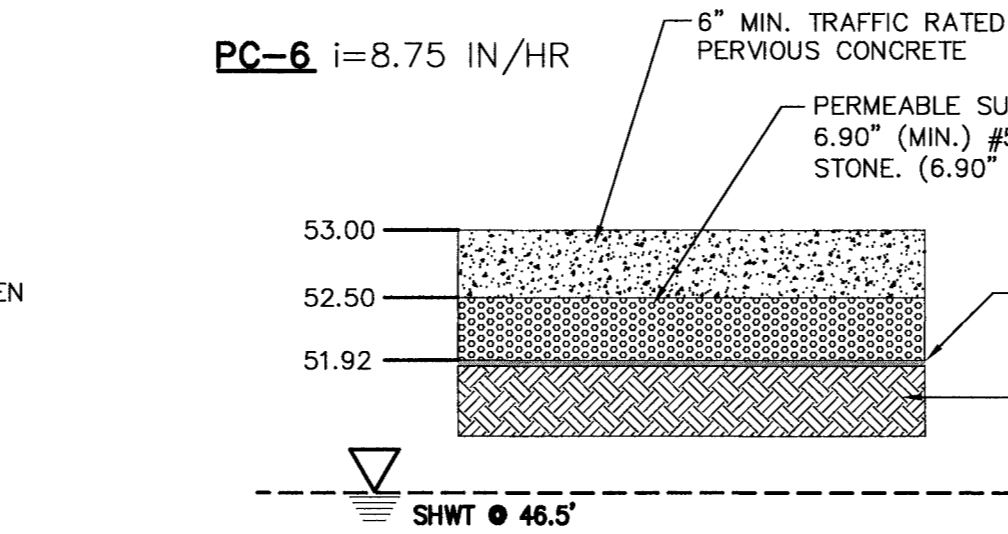
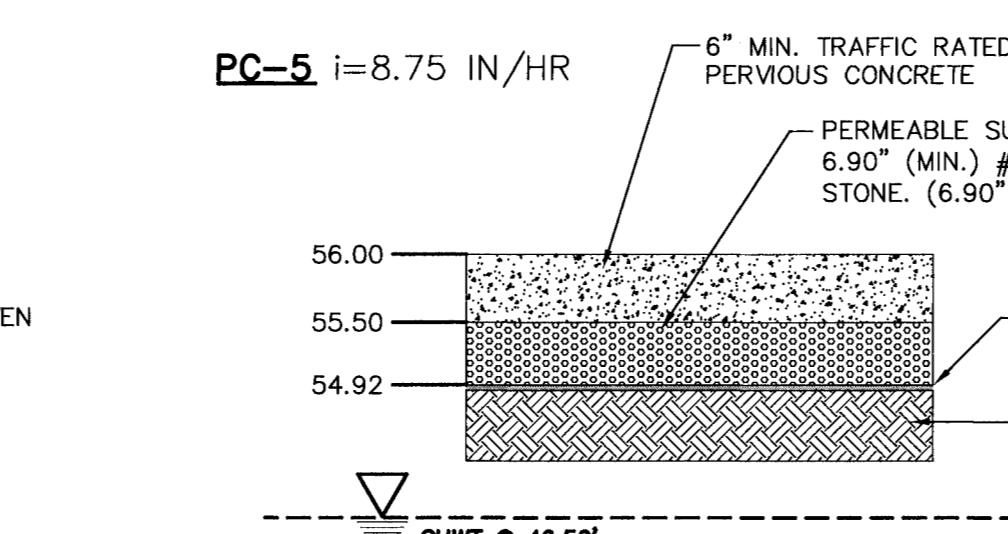
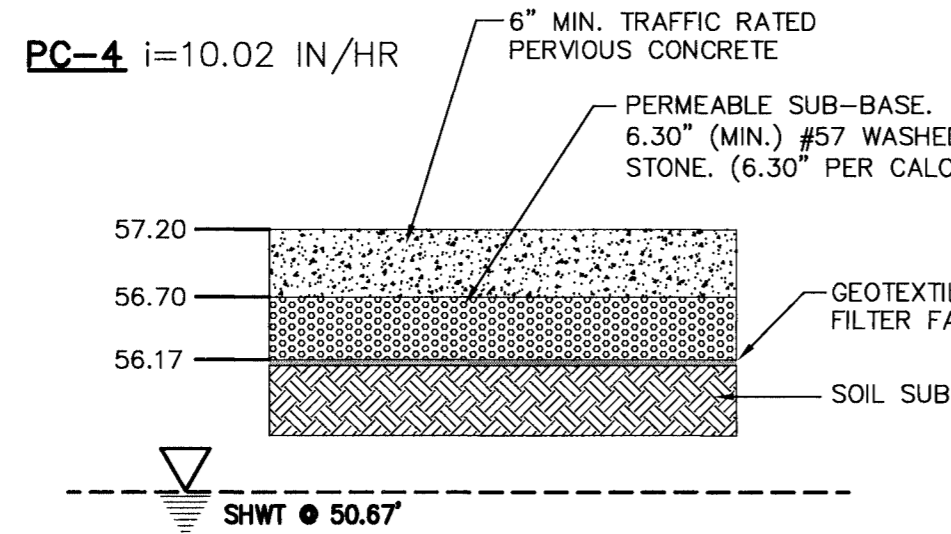
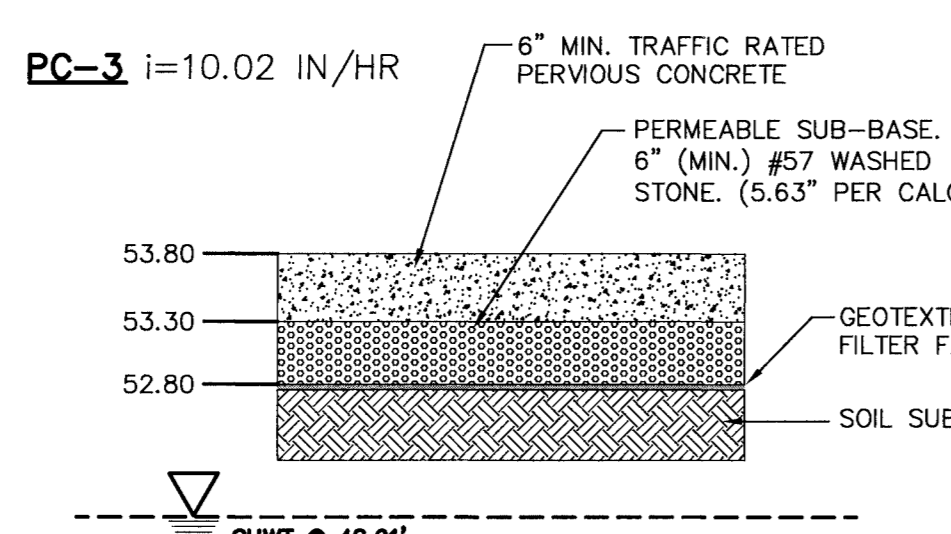
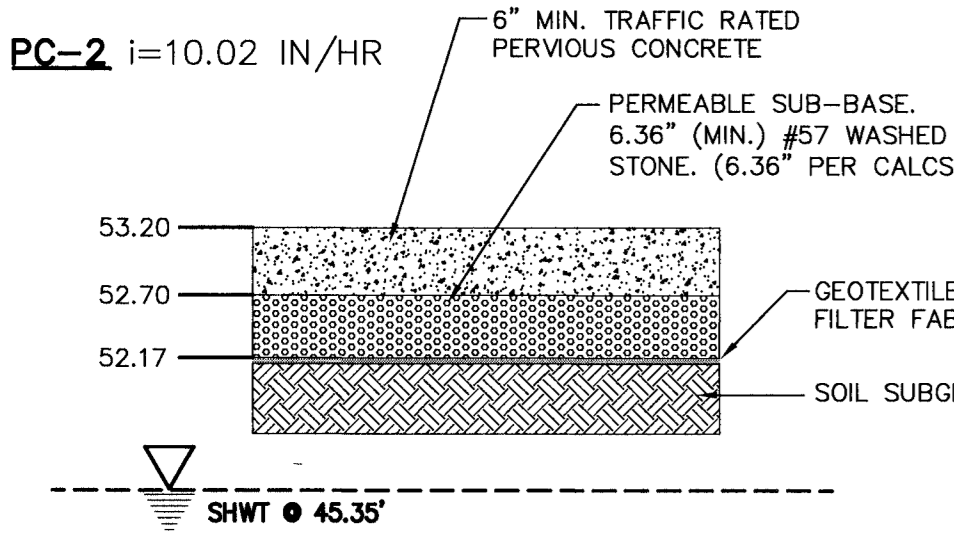
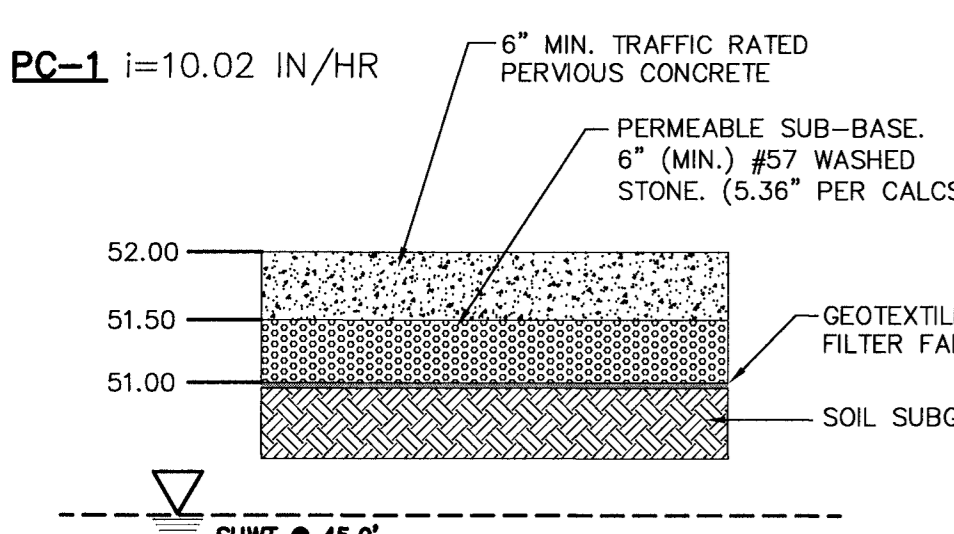
9 TRENCH DRAIN SOCK PIPE DETAIL



10 INFILTRATION TRENCH #0-3 DETAIL



11 JUNCTION BOX DETAIL TRENCH #0-3



- NOTES:**
- TRAFFIC RATED PERVIOUS MATERIALS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
 - PERVIOUS MATERIALS SECTION MAY VARY DEPENDING UPON MANUFACTURER.

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 # _____
 Signature: _____

Approved Construction Plan
 Name: _____ Date: _____

Planning _____
 Traffic _____
 Fire _____

NOCDER PWSS WATER PERMIT # _____ GPD
 DWG SEWER PERMIT # _____ GPD
 SEWER CAPACITY: _____ GPD
 SEWER SHED # AND PLANT: _____
 SEWER TO FLOW THROUGH: YES OR NO (CIRCLE ONE)

ORTHOPEDIC INPATIENT HOSPITAL

ARCHITECT:
LS3P

2528 INDEPENDENCE BLVD. SUITE 200
 WILMINGTON, NORTH CAROLINA 28412
 TEL. 910.790.9901 FAX 910.790.3111
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ENGINEER:
NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 902 MARKET STREET
 WILMINGTON, NC 28401
 PHONE (910) 343-8653
 licence #C-3641

SURVEYOR:
ROBERT H. GOSLEE & ASSOCIATES, PA
 LAND SURVEYORS - LAND PLANNERS
 PIV LICENSE NUMBER: C-117
 513 CHESTNUT STREET
 WILMINGTON, NORTH CAROLINA 28401
 910-793-1941
 rhg@rhgandassociates.net
 FILE No: 00110401U

REVISIONS:

No.	Description	Date
A	ADDENDUM 01	4/28/17

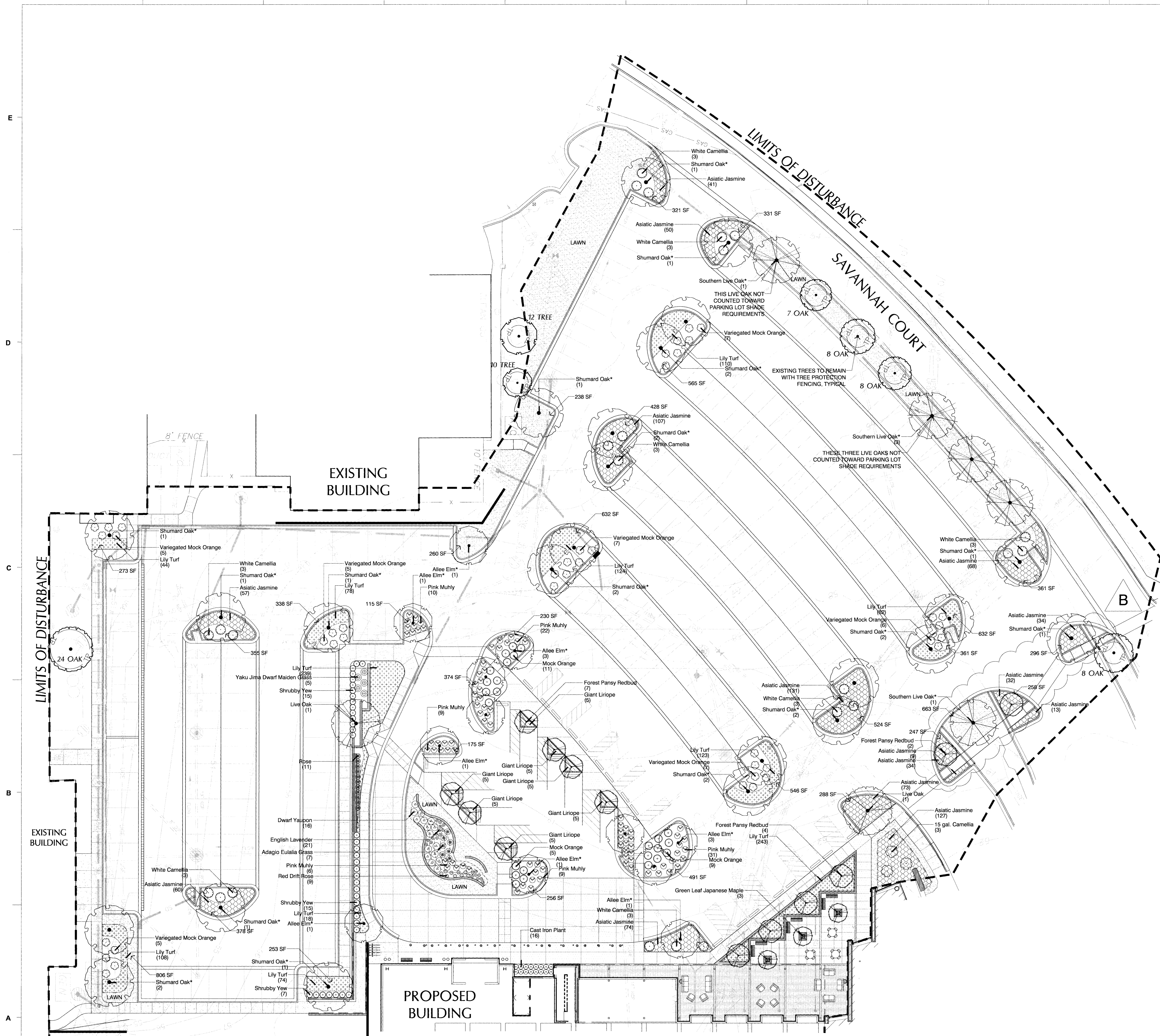
SHEET NAME:
NOTES AND DETAILS

PROJ# 16036
 DES. JUST
 ORD. JUST
 DRWN. SLF
 DATE: 4/25/17

WILMINGTON
 NORTH CAROLINA
 PUBLIC SERVICES • ENGINEERING DIVISION
 APPROVED STORMWATER MANAGEMENT PLAN

WILMINGTON
 NORTH CAROLINA
 PUBLIC SERVICES • ENGINEERING DIVISION
 APPROVED STORMWATER MANAGEMENT PLAN

SHEET:
C9R
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 PERMIT SET



LANDSCAPE REQUIREMENTS

ADDRESS: 2131 SOUTH 17TH STREET
 PARCEL ID: R06011-004-001-000
 PARCEL AREA: 90.58 ACRES
 PROJECT AREA: 4.32 ACRES (188,400 SF)
 ZONING: CM-1 OFFICE AND INSTITUTIONAL
 CAMA LAND USE: URBAN

LANDSCAPE REQUIREMENTS BASED ON PERCENT OF EXPANSION AREA, PER SEC. 18-510.

EXISTING BUILDING AREA:	186,805 ± SF	REQUIRED	PROVIDED
PROPOSED BUILDING EXPANSION AREA:	137,373 ± SF		
PERCENT EXPANSION AREA:	73.5%		

INTERIOR LANDSCAPE	8,301 SF, 12 TREES	37 TREES
FOUNDATION PLANTINGS	773 SF**	1,024 SF

** ONLY PORTIONS OF BUILDING FACADE NOT UTILIZED FOR DRIVE-UP SERVICES (DROP OFF AREAS) ARE UTILIZED FOR FOUNDATION PLANTING REQUIREMENTS (SEC. 18-499).

15 TREES PER DISTURBED ACRE	66 TREES	12 EXISTING TREE CREDITS***
15 TREES (4.32 ACRES)		69 PROPOSED TREES
		71 TOTAL TREES

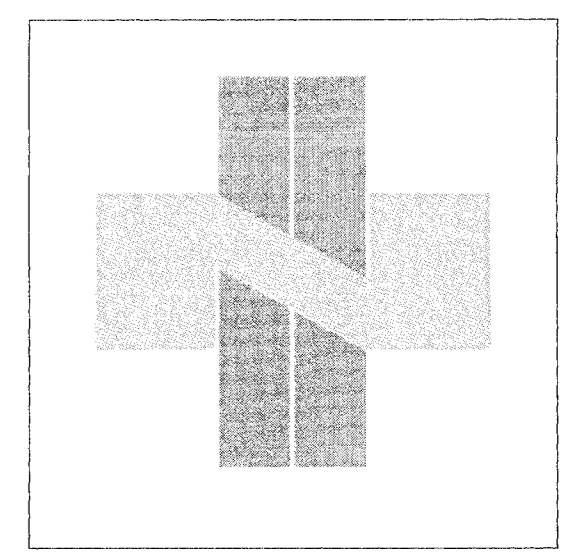
***EXISTING TREES TO REMAIN
 24' OAK = 4 CREDITS
 7' OAK = 2 CREDITS
 8' OAK = 2 CREDITS
 8' OAK = 2 CREDITS
 8' OAK = 2 CREDITS
 8' OAK = 2 CREDITS
 TOTAL = 12 CREDITS

PLANT SCHEDULE

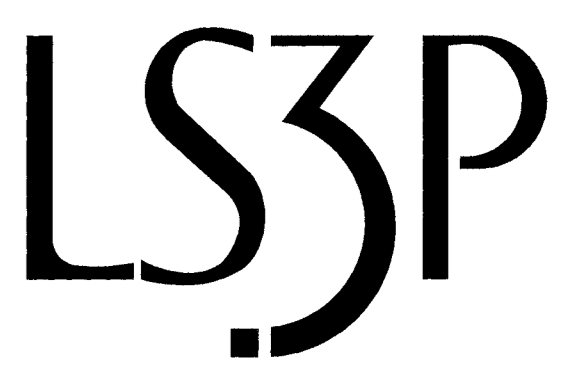
TREES	BOTANICAL NAME / COMMON NAME	CONT	CAL	RANGE	HT	QTY
○	Acer palmatum / Green Leaf Japanese Maple	8 & 8	2.5-3' CAL	8-10'	HT	3
○	Cercis s. Forest Pansy / TM / Forest Pansy Redbud	8 & 8	3' CAL	8-10'	HT	13
○	Quercus shumardii* / Shumard Oak*	8 & 8	3' CAL	12-14'	HT	24
○	Quercus virginiana / Live Oak	8 & 8	4.5' CAL	14-16'	HT	2
○	Quercus virginiana* / Southern Live Oak*	8 & 8	3' CAL	12-14'	HT	5
○	Ulmus p. 'Emer II' / Allee Elm*	8 & 8	3' CAL	12-14'	HT	12

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	RANGE	HT	QTY
○	Aspidistra elatior / Cast Iron Plant	1 gal	15-18"	HT	16
○	Camellia s. 'Hara Jiman' / 15 gal. Camellia	15 gal	5-6'	HT	3
○	Camellia sasanqua 'Mina No Yuki' / White Camellia	7 gal	24-30"	HT	24
○	Ilex vomitoria 'Nana' / Dwarf Yaupon	3 gal	18-24"	HT	16
○	Lavandula angustifolia / English Lavender	1 gal	12-15"	HT	21
○	Miscanthus s. 'Adagio' / Adagio Eulalia Grass	3 gal	18-24"	HT	7
○	Miscanthus s. 'Yaku Jima' / Yaku Jima Dwarf Maiden Grass	3 gal	24-30"	HT	5
○	Muhlenbergia capillaris / Pink Muhly	3 gal	18-24"	HT	87
○	Pitosporum s. 'Variegata' / Variegated Mock Orange	3 gal	18-24"	HT	42
○	Pitosporum tobira / Mock Orange	3 gal	18-24"	HT	25
○	Podocarpus macrophyllus makii / Shrubby Yew	7 gal	3-4'	HT	37
○	Rosa x 'Knockout' TM / Rose	3 gal	18-24"	HT	11
○	Rosa x 'Meiglotto' / Red Drift Rose	3 gal	18-24"	HT	9

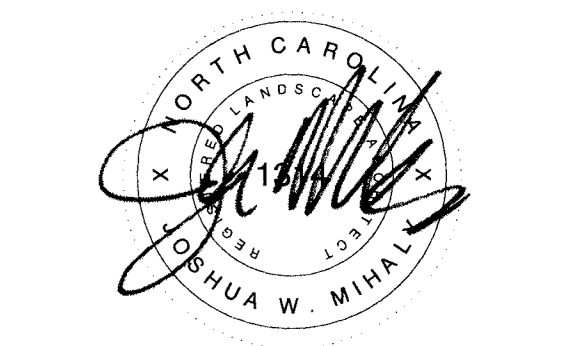
GROUND COVERS	BOTANICAL NAME / COMMON NAME	SIZE	RANGE	SPACING	QTY
■	Liriope gigantea / Giant Liriope	1 GAL	12-18"	HT	36" o.c. 35
■	Liriope m. 'Big Blue' / Lily Turf	1 GAL	6-12"	HT	18" o.c. 1,243
■	Trachypogon a. 'Asiatic' / Asiatic Jasmine	1 qt	6-12"	HT	24" o.c. 910
■	Zoysia japonica 'Crown' / Korean Grass	S00			



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REVISIONS:

No.	Description	Date
A	Addendum 01	04/28/17
B	Revised Landscape Islands	08/09/17

PROJECT: 7401-161060
 DATE: 31 MARCH 2017
 DRAWN BY: MLD
 CHECKED BY: MLD

**PLANTING
PLAN**

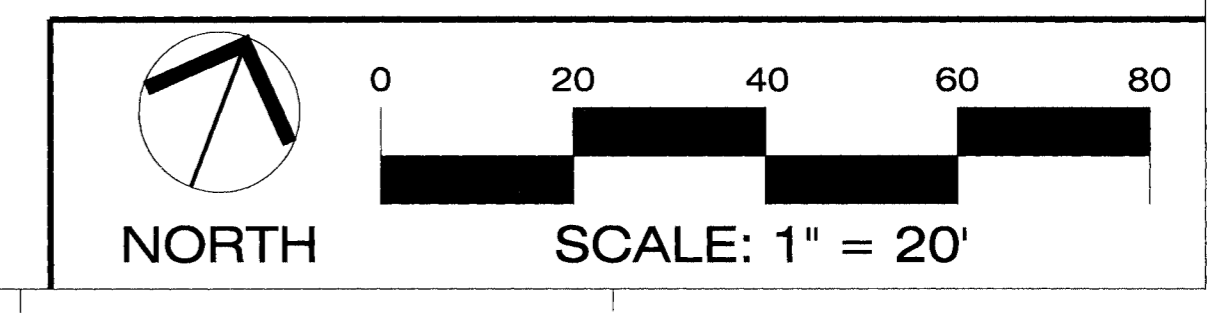
L-105R

FOR CONSTRUCTION

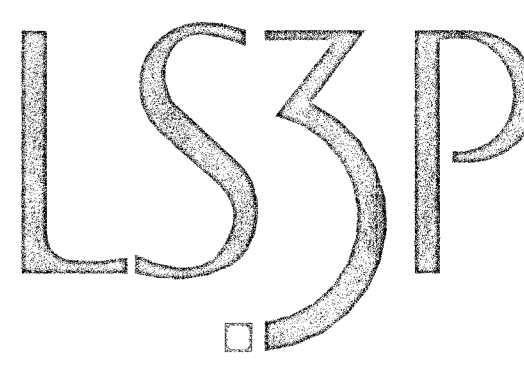
Approved Construction Plan

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	

City of WILMINGTON, NORTH CAROLINA
 Public Service Engineering Division
 APPROVED DRAINAGE PLAN
 Date: _____ Permit #: _____
 Signed: _____



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101 NORTH THIRD STREET SUITE 500
WILMINGTON, NORTH CAROLINA 28401
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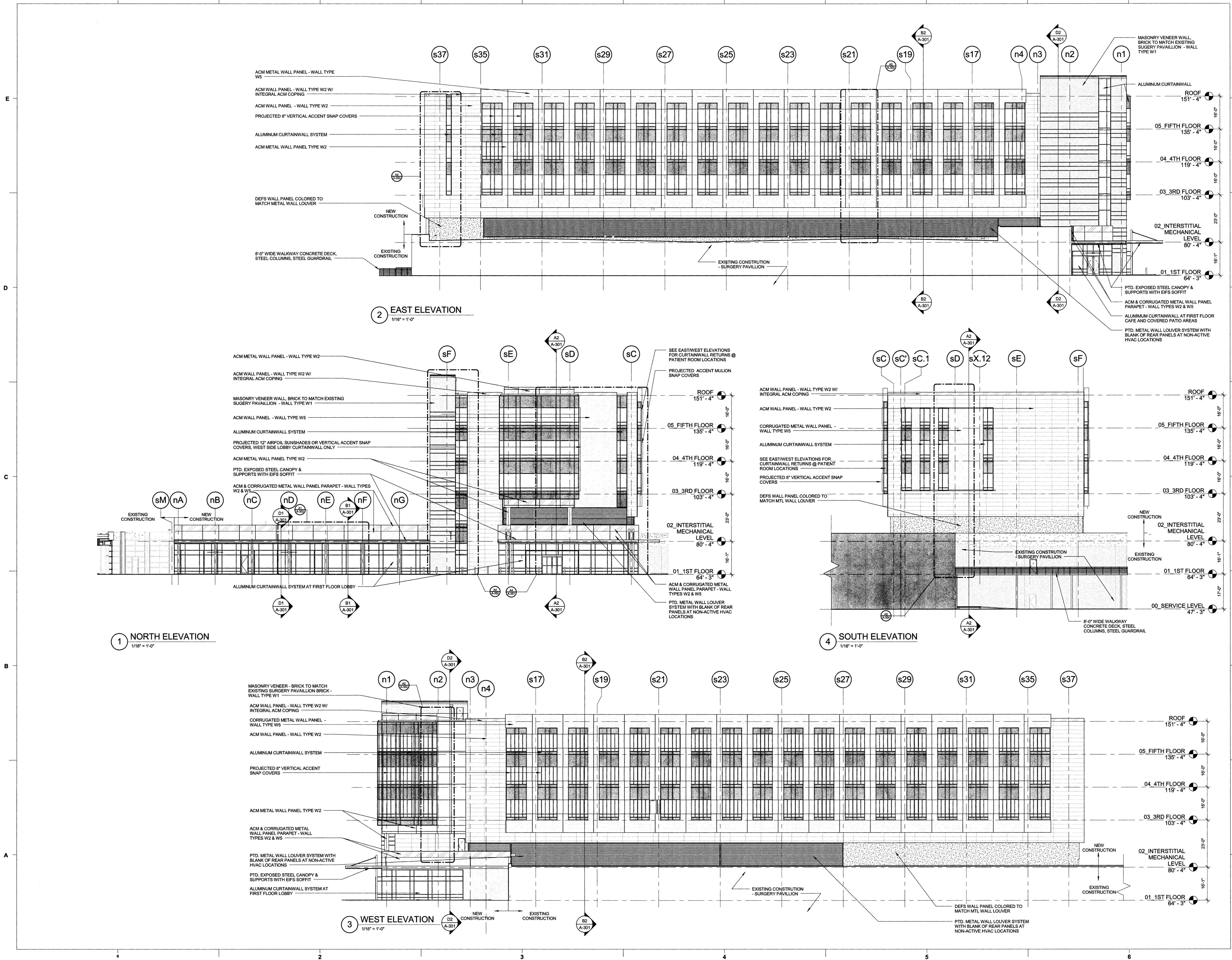
REVISIONS:

No.	Description	Date

PROJECT: 7401-161060
DATE: 16 DECEMBER 2016
DRAWN BY: CDA
CHECKED BY: CDA

**EXTERIOR
ELEVATIONS**

A-201



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