

LOCATION MAP

TIBURON PARC APARTMENTS

WILMINGTON, NC
NEW HANOVER COUNTY

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
		© 2012 NORRIS & TUNSTALL	

COVER SHEET
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

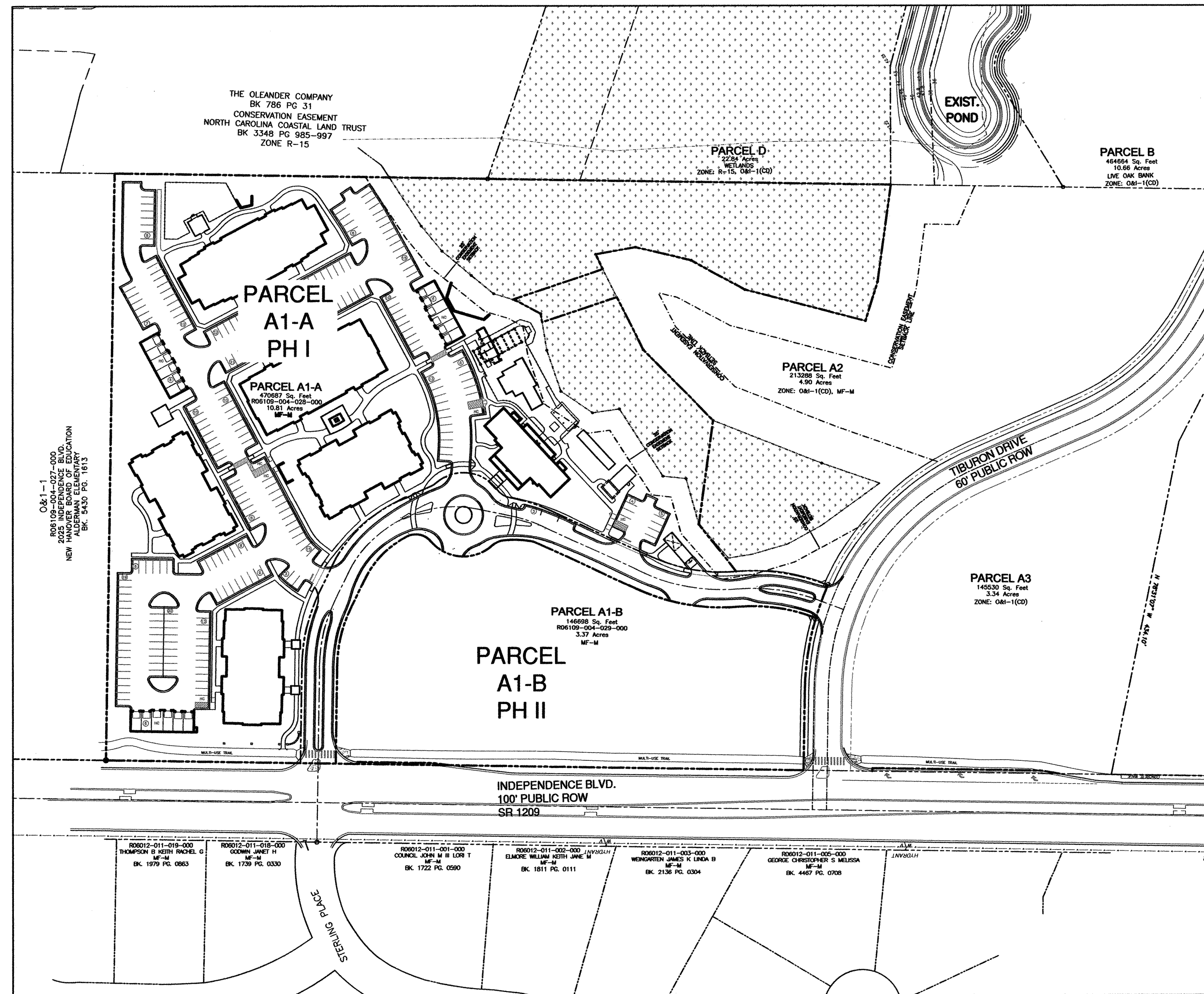
OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

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

HUD/PERMIT SET
12073
DES. JST
ORD. JPN
DRWN. NKS
DATE 6/18/13

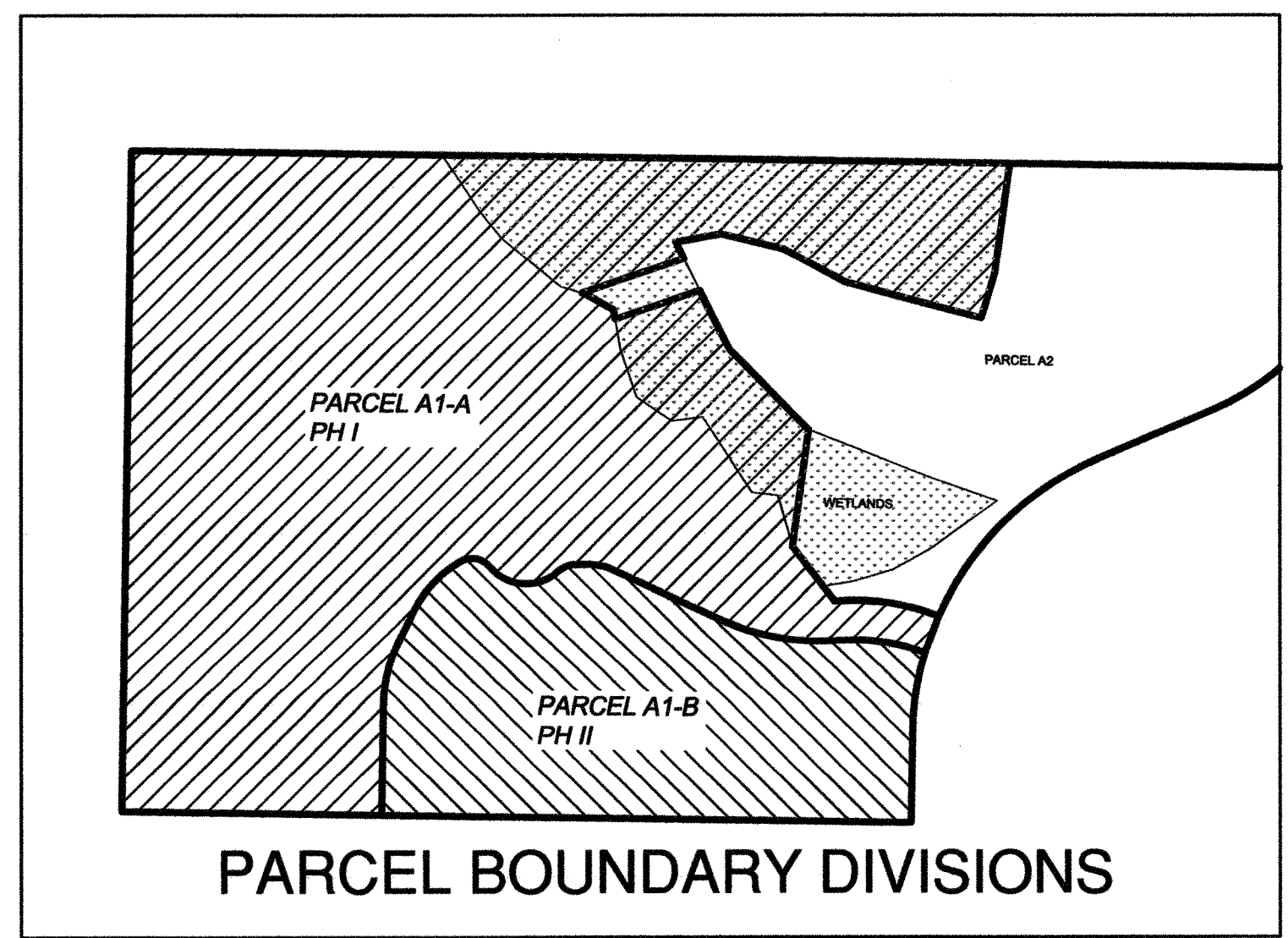


C0



LEGEND

	PROPERTY LINE
	CONSERVATION EASEMENT SETBACK LINE
	EXISTING WETLANDS



NOT TO SCALE

OWNER/DEVELOPER
NELSON MACRAE MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

SURVEYOR
HANOVER DESIGN SERVICES, P.A.
1123 FLORAL PARKWAY
WILMINGTON NC 28403
910-343-8002

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.

1127 FLORAL PARKWAY SUITES 300 & 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-0520

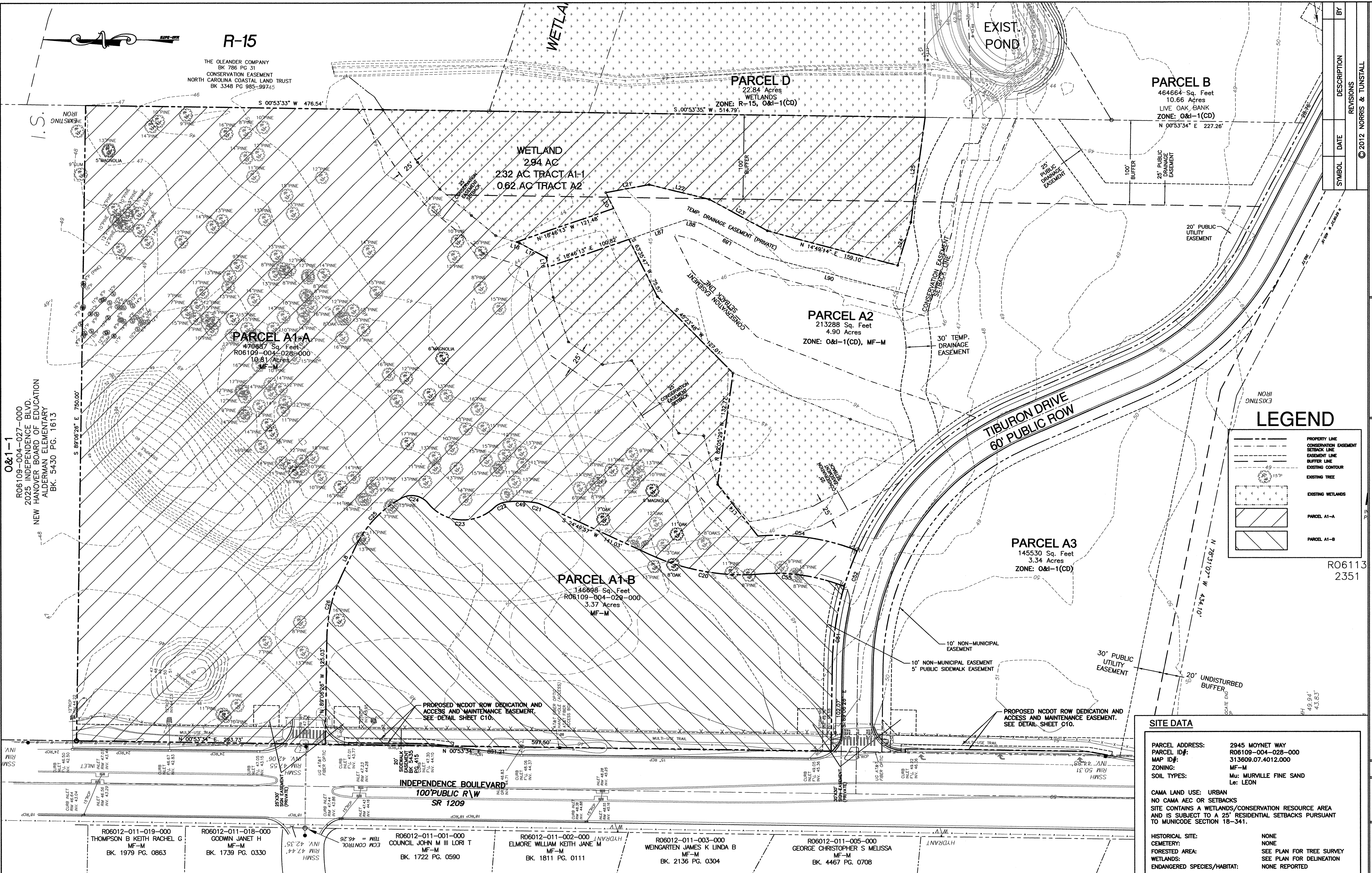
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

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

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

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

SCALE: 1" = 100'



NC DENR PWSS WATER PERMIT #:	
WATER CAPACITY:	_____ GPD
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NORTH CAROLINA

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Name	Date
Planning _____	
Traffic _____	
Fire _____	

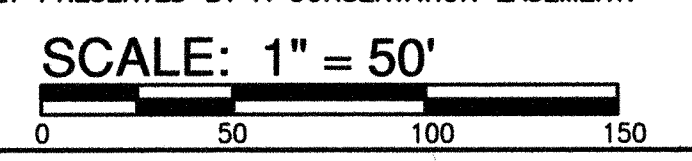
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

SURVEYOR:
TOPOGRAPHIC SURVEY & COMPOSIT MAP BY:
HANOVER DESIGN SERVICES, P.A.
LAND SURVEYORS ENGINEERS LAND PLANNERS

319 WILMOUTH STREET
WILMINGTON, N.C. 28401
PHONE: 910 343-8002
FAX: 910 343-8041

APPLICANT/PREPARER OF PLAN:
NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY SUITE 300/400
WILMINGTON, N.C. 28403
PHONE (910) 343-9653
(910) 343-9604 FAX
LICENCE #C-3641

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300



INVENTORY SITE PLAN

TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
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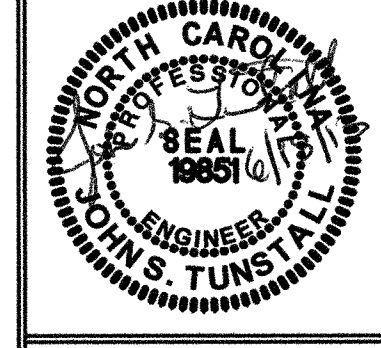
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY SUITE 400
WILMINGTON, N.C. 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nteng.com
lic #C-3641

HUD/PERMIT SET

12073

DES. JST
 OKD. JPN
 DRWN. NKS

DATE 6/18/13



BUILDING DATA PHASE I

BUILDING TYPE	# ON SITE	STORIES	HEIGHT	UNITS/BUILDING	UNITS/TOTAL	BLDG. AREA TOTAL	FOOTPRINT TOTAL
TYPE I	1	3	39'±	24	24	25,563 SF	10,955 SF
TYPE II	1	3	38.5'±	24	24	31,875 SF	13,350 SF
TYPE III	2	3	38'±	30	60	51,126 SF	21,460 SF
TYPE IV	1	4	49.5'±	32	32	40,126 SF	13,020 SF
TYPE V	1	2	33'±	5	5	9,330 SF	6,000 SF
GARAGE	3	1	14.5'±			6,321 SF	6,321 SF
MAIL KIOSK	1	1	14.5'±			544 SF	830 SF
POOL HOUSE	1	1	14.5'±			683 SF	1,380 SF
TOTAL	11				145	165,568 SF	73,316 SF

BUILDING TYPE	CONSTRUCTION TYPE	1 BR	2 BR	3 BR	TOTAL UNITS	BLDG AREA	FOOT PRINT	APPROX. BLDG. DIMS AT WIDEST POINT
TYPE I	V-B	12	12		24	25,563 SF	10,955 SF	150' X 79'
TYPE II	V-B		12	12	24	31,875 SF	13,350 SF	197' X 75'
TYPE III	V-B	24	6		30	25,563 SF	10,730 SF	142' X 83'
TYPE IV	V-A		32		32	40,126 SF	13,020 SF	177' X 79'
TYPE V		5			5	9,330 SF	6,000 SF	123' X 65'
GARAGE						2,107 SF	2,107 SF	81' X 26'
MAIL KIOSK						544 SF	830 SF	43' X 21'
POOL HOUSE						683 SF BLDG. 697 SF CANOPY	1,380 SF	47.5' X 20' 20' X 34'

WATER/SEWER USAGE PHASE I

BLDG. TYPE	DOMESTIC GPM*	DOMESTIC GPD*	NCDENR SEWER (15A, 2T RULES GPD)
TYPE I	55 GPM	2160 GPD	24X240 GPD=5760 GPD
TYPE II	60.5 GPM	3600 GPD	12X240 GPD+12X360 GPD=7200 GPD
TYPE III	56.4 GPM	2160 GPD	30X240 GPD=7200 GPD
TYPE IV	74 GPM	3840 GPD	32X240 GPD=7680 GPD
TYPE V	30.8 GPM	1300 GPD	5X240 GPD+2X25 GPD=1250 GPD

*INFORMATION PROVIDED BY PLUMBING ENGINEER

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 NORTH CAROLINA
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 Planning _____
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SITE DATA TABLE PHASE I

USE: MULTI-FAMILY APARTMENTS
TOTAL SITE AREA: 10.81 ACRES (470,887 SF)
UPLAND AREA: 7.41 ACRES (322,868 SF)
WETLAND AREA: 2.32 ACRES (101,190 SF)
RIGHT-OF-WAY AREA: 1.07 ACRES (46,629 SF)

PARCEL ID#: R06109-004-028-000
MAP ID#: 313509.07.4012.000
ZONING: MF-M
CAMA LAND USE: URBAN

BUILDING SETBACKS: (REQUIRED) FRONT SETBACK: 35' TYPICAL, (BLDG. #1 39' MIN.)
 INTERIOR SIDE SETBACK: 20' TYPICAL, (BLDG. #2 24' MIN.)
 CORNER SIDE SETBACK: 30'
 REAR SETBACKS: 25' TYPICAL, (BLDG. #3 29' MIN.)

BUILDING SETBACKS: (PROPOSED) FRONT SETBACK: 47.84'
 INTERIOR SIDE SETBACK: 24'
 CORNER SIDE SETBACK: N/A
 REAR SETBACKS: 29'

MAX. LOT COVERAGE: 30%
PROPOSED LOT COVERAGE: 15.57%
MAX. BUILDING HEIGHT: 96' (HEIGHTS OVER 35' REQUIRE ADDITIONAL SETBACK)
PROPOSED MAX. BUILDING HEIGHT: 49.5'±

PARKING REQUIREMENT
PARKING REQ'D: MULTI-FAMILY MAX.: 2.5 SPACES PER UNIT
 MIN.: 1 BR-1.5 PER UNIT
 2 BR-2 PER UNIT
 3 BR-2.25 PER UNIT

REQUIRED MAX:
 (65+68+12)=145X2.5=363

REQUIRED MIN:
 1 BR (65X1.5)=98
 2 BR (68X2)=136
 3 BR (12X2.25)=27
 TOTAL=261
 HC ACCESSIBLE=6

PROVIDED:
 OFF STREET: 245
 HC ACCESSIBLE: 7
 GARAGE: 18 (INCLUDES 1 HC PER GARAGE)
 ON STREET: 3
 TOTAL: 273

BICYCLE PARKING: 15 REQ'D. BICYCLE PARKING: 15 PROVIDED

IMPERVIOUS AREA:
BUILDINGS: 73,316 SF
ASPHALT, CURB AND GUTTER (SITE): 90,850 SF
ASPHALT, CURB AND GUTTER (ROW): 32,634 SF
SIDEWALK/CONCRETE: 29,000 SF
EXISTING MUP: 2,500 SF
TOTAL: 228,300 SF
PROPOSED % IMPERVIOUS: 48.50%

LANDSCAPING REQUIREMENTS (REFER TO LANDSCAPE PLAN)
 15 TREES PER DISTURBED ACRE REQUIRED
 DISTURBED AREA=8.75 AC X 15=131 TREES
 INTERIOR LANDSCAPING: 20% CANOPY COVER OF INTERIOR AREA OF PARKING FACILITY
 STREET/YARD LANDSCAPING: 18 MULTIPLIER
 FOUNDATION PLANTINGS: 12% FACE OF BUILDING X LENGTH
OPEN SPACE: REFER TO SRB PLAN SHEET C4.1
 OPEN SPACE REQUIRED: 35% OF TRACT MINUS WETLANDS, 17.5% EITHER ACTIVE OR PASSIVE, 17.5% ACTIVE, PASSIVE, RECREATION, OR OPEN SPACE.

BY	DESCRIPTION
SYMBOL	DATE

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SITE DATA

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 2945 MOYNET WAY
 WILMINGTON, NORTH CAROLINA

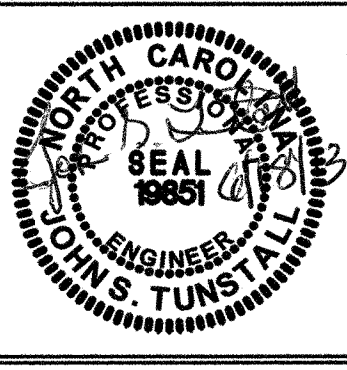
OWNER:
 NELSON MACRIE
 MIDTOWN ONE, LLC
 P.O. BOX 3146
 WILMINGTON, N.C. 28406
 910-392-3900

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
 1127 FLORAL PARKWAY
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 WILMINGTON, NC, 28403
 PHONE (910) 343-9853
 FAX (910) 343-9804
 office@nteng.com
 licence #JC-3641

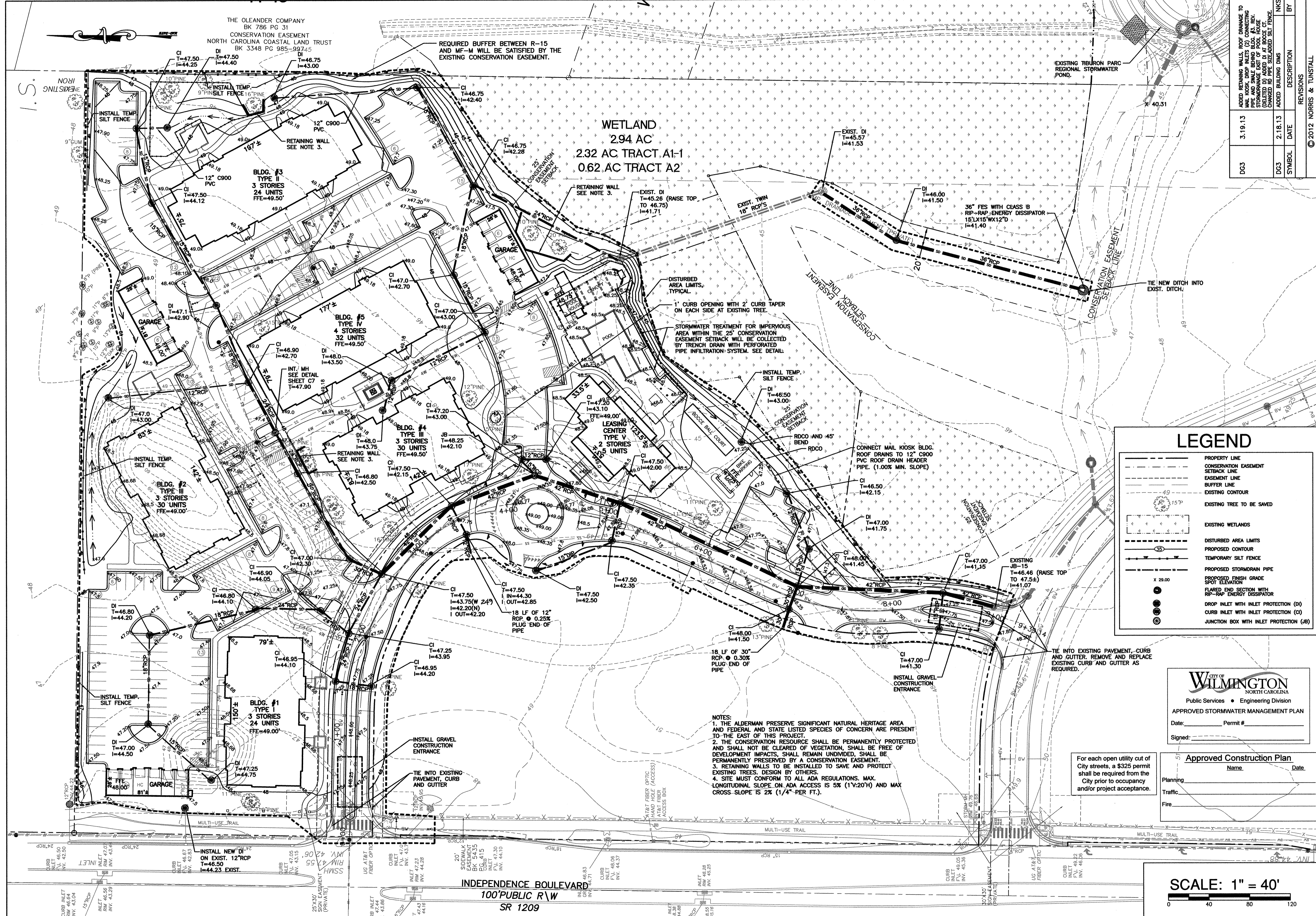
HUD/PERMIT SET

12073

DES. JST
 OKD. JPN
 DRWN. NKS
 DATE 6/18/13



C1



THE OLEANDER COMPANY
BK 786 PG 31
CONSERVATION EASEMENT
NORTH CAROLINA COASTAL LAND TRUST
BK 3348 PG 985-997.45

REQUIRED BUFFER BETWEEN R-15
AND MF-M WILL BE SATISFIED BY THE
EXISTING CONSERVATION EASEMENT.

WETLAND
2.94 AC
2.32 AC TRACT A1-1
0.62 AC TRACT A2

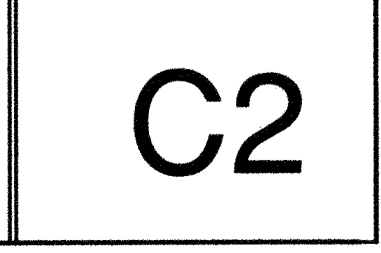
DC3	DATE	DESCRIPTION	BY
3.19.13		ADDED RETAINING WALLS, ROOF DRAINAGE TO MAIL KIOSK, DROP INLETS (2) CONNECTING TO RIP-RAP ENERGY DISSIPATOR. STORMWATER EAST OF POOL HOUSE CHANGED TO PIPE SIZE ADDED SILT FENCE.	NKS
2.18.13		ADDED BUILDING DIMS	BY

GRADING, DRAINAGE AND EROSION CONTROL PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
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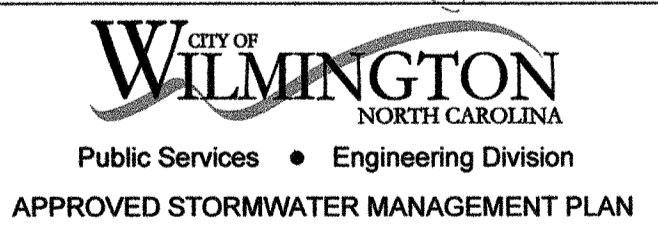
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
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SUITE 400
WILMINGTON, NC 28403
PHONE (910) 343-9853
FAX (910) 343-9804
office@nteng.com
license #C-3641

HUD/PERMIT SET
12073
DES. JST
CHK. JPN
DRWN. NKS
DATE 5/2/13



LEGEND

	PROPERTY LINE
	CONSERVATION EASEMENT SETBACK LINE
	EASEMENT LINE
	BUFFER LINE
	EXISTING CONTOUR
	EXISTING TREE TO BE SAVED
	EXISTING WETLANDS
	DISTURBED AREA LIMITS
	PROPOSED CONTOUR
	TEMPORARY SILT FENCE
	PROPOSED STORMDRAIN PIPE
	PROPOSED FINISH GRADE SPOT ELEVATION
	FLARED END SECTION WITH RIP-RAP ENERGY DISSIPATOR
	DROP INLET WITH INLET PROTECTION (DI)
	CURB INLET WITH INLET PROTECTION (CI)
	JUNCTION BOX WITH INLET PROTECTION (JB)



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.

NOTES:
1. THE ALDERMAN PRESERVE SIGNIFICANT NATURAL HERITAGE AREA AND FEDERAL AND STATE LISTED SPECIES OF CONCERN ARE PRESENT TO THE EAST OF THIS PROJECT.
2. THE CONSERVATION RESOURCE SHALL BE PERMANENTLY PROTECTED AND SHALL NOT BE CLEARED OF VEGETATION. SHALL BE FREE OF DEVELOPMENT IMPACTS. SHALL REMAIN UNDIVIDED. SHALL BE PERMANENTLY PRESERVED BY A CONSERVATION EASEMENT.
3. RETAINING WALLS TO BE INSTALLED TO SAVE AND PROTECT EXISTING TREES. DESIGN BY OTHERS.
4. SITE MUST CONFORM TO ALL ADA REGULATIONS. MAX. LONGITUDINAL SLOPE ON ADA ACCESS IS 5% (1V:20H) AND MAX. CROSS-SLOPE IS 2% (1/4" PER FT.).

SCALE: 1" = 40'
0 40 80 120

C2

THE OLEANDER COMPANY
BK 786 PG 31
CONSERVATION EASEMENT
NORTH CAROLINA COASTAL LAND TRUST
BK 3348 PG 985-997

PARCEL D
22.84 Acres
WETLANDS
ZONE: R-15, O&I-1(CD)

WETLAND
2.94 AC
2.32 AC TRACT A1-1
0.62 AC TRACT A2

PARCEL A2
213288 Sq. Feet
4.90 Acres
ZONE: O&I-1(CD), MF-M

PARCEL A1-A
470667 Sq. Feet
R06109-004-028-0008
10.81 Acres
MF-M

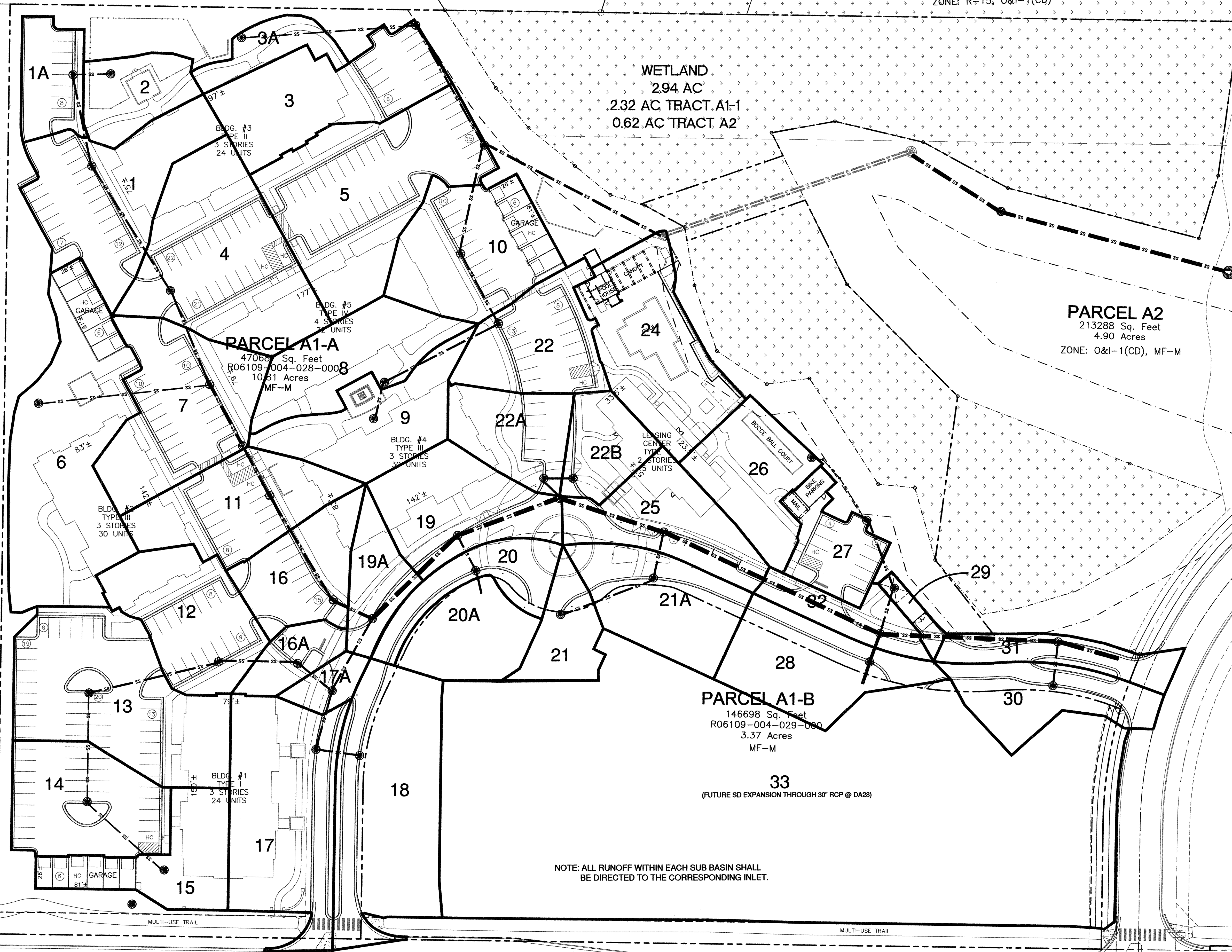
PARCEL A1-B
146698 Sq. Feet
R06109-004-029-000
3.37 Acres
MF-M

PARCEL A
145530 Sq. Feet
3.34 Acres
ZONE: O&I-1(CD)

INLET BASIN #	DA TOTAL (Ac)	TOTAL IMP. (Ac)
1	0.30	0.28
1A	0.11	0.10
2	0.12	0.02
3	0.27	0.25
3A	0.05	0.04
4	0.39	0.33
5	0.42	0.33
6	0.46	0.19
7	0.31	0.28
8	0.20	0.14
9	0.21	0.14
10	0.27	0.19
11	0.23	0.16
12	0.23	0.19
13	0.40	0.35
14	0.24	0.23
15	0.18	0.11
16	0.17	0.11
16A	0.07	0.04
17	0.36	0.23
17A	0.04	0.03
18	0.40	0.24
19	0.23	0.20
19A	0.10	0.05
20	0.12	0.11
20A	0.15	0.08
21	0.10	0.08
21A	0.22	0.17
22	0.19	0.15
22A	0.15	0.09
22B	0.11	0.07
23	0.00	0.00
24	0.29	0.25
25	0.20	0.15
26	0.17	0.04
27	0.12	0.11
28	0.22	0.15
29	0.03	0.03
30	0.17	0.12
31	0.11	0.09
32	0.10	0.07
33	2.33	1.70

**DA23 REMOVED BASED ON REV. TO SD SYSTEM 5-19-13

O&I-1
R06109-004-027-000
2025 INDEPENDENCE BLVD.
NEW HANOVER BOARD OF EDUCATION
ALDERMAN ELEMENTARY
BK. 5430 PG. 1613



NOTE: ALL RUNOFF WITHIN EACH SUB BASIN SHALL BE DIRECTED TO THE CORRESPONDING INLET.

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

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

SCALE: 1" = 40'
0 40 80 120

DATE	DESCRIPTION	BY
3.19.13	REVISED DRAINAGE AREAS	
	REVISIONS	

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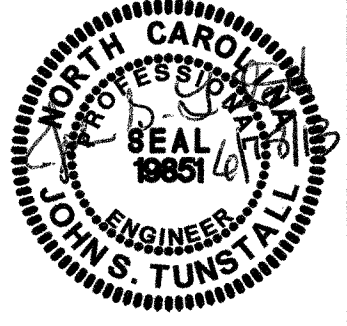
DRAINAGE AREA PLAN

TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
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C2.1

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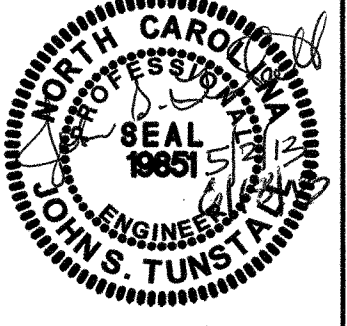
DC3	SYMBOL	DATE	DESCRIPTION	BY
2.18.13	APRD	BUILDING	AMS	
			REVISIONS	

UTILITY PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

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C3

LEGEND

	PROPERTY LINE
	CONSERVATION EASEMENT SETBACK LINE
	EASEMENT LINE
	BUFFER LINE
	EXISTING TREE TO BE SAVED
	EXISTING WETLANDS
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE SIZE VARIES SEE PLAN
	PROPOSED SANITARY SEWER
	PROPOSED FIRE HYDRANT

- #### UTILITY NOTES FOR FIRE HYDRANTS
- FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
 - THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
 - 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.
 - FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
 - NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
 - THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 - 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 SPECIFICATIONS MANUAL. 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 PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
 - 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.
 - A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
- NOTE:
SEE WATER AND STORMDRAIN CROSSING DETAILS (A) THRU (F)
SHEET P14.

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WATER CAPACITY: _____ GPD

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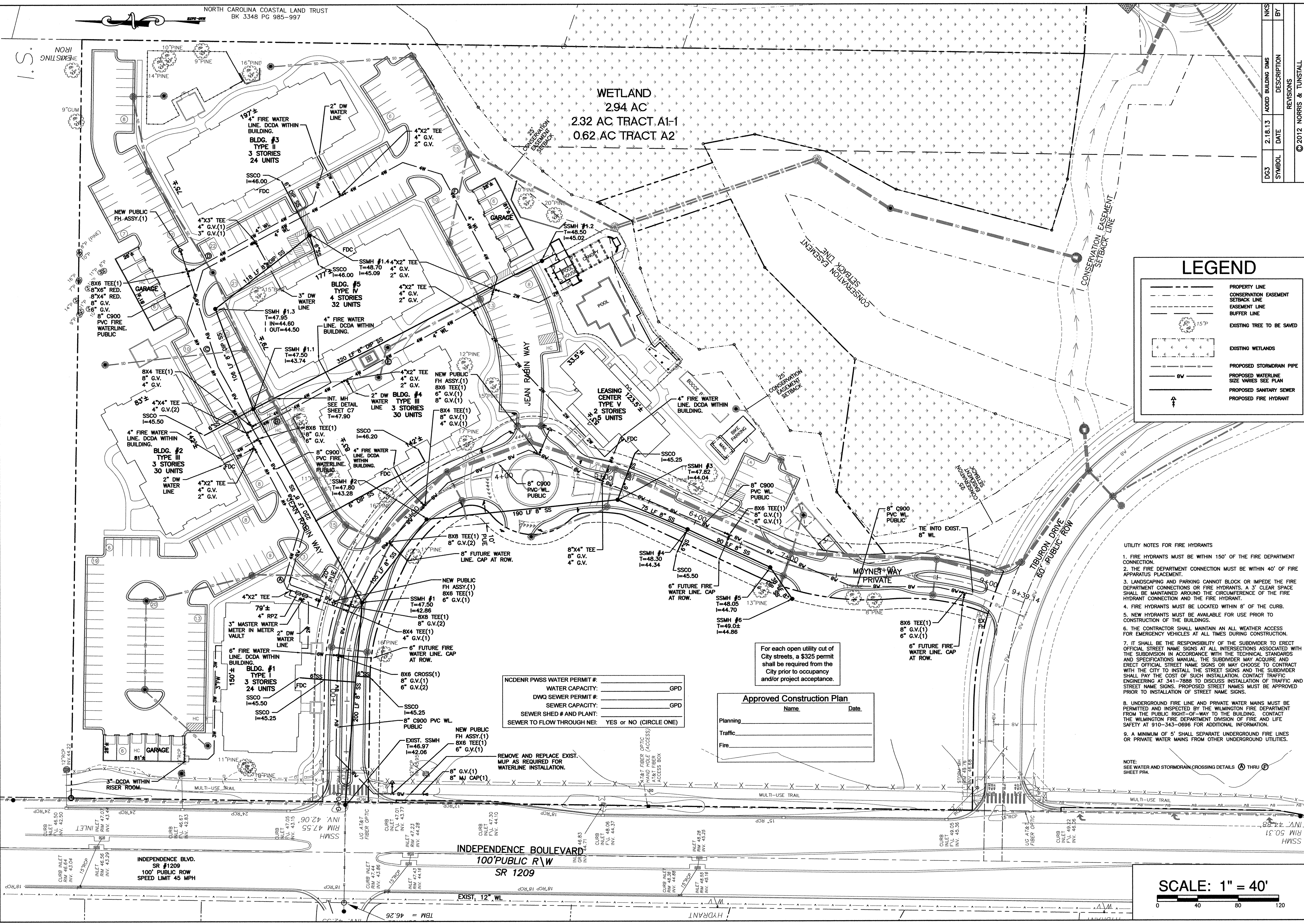
SEWER CAPACITY: _____ GPD

SEWER SHED # AND PLANT:

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

Approved Construction Plan

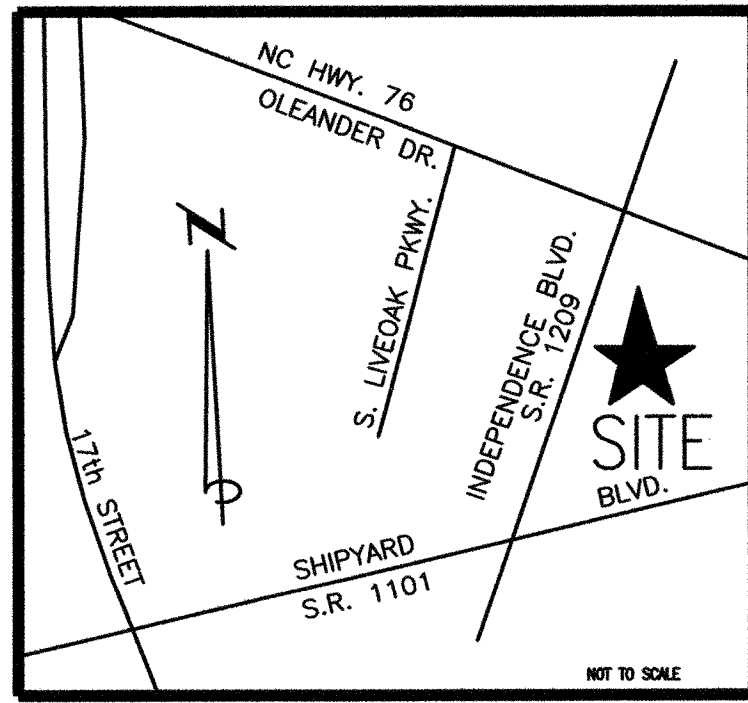
Name	Date
Planning	
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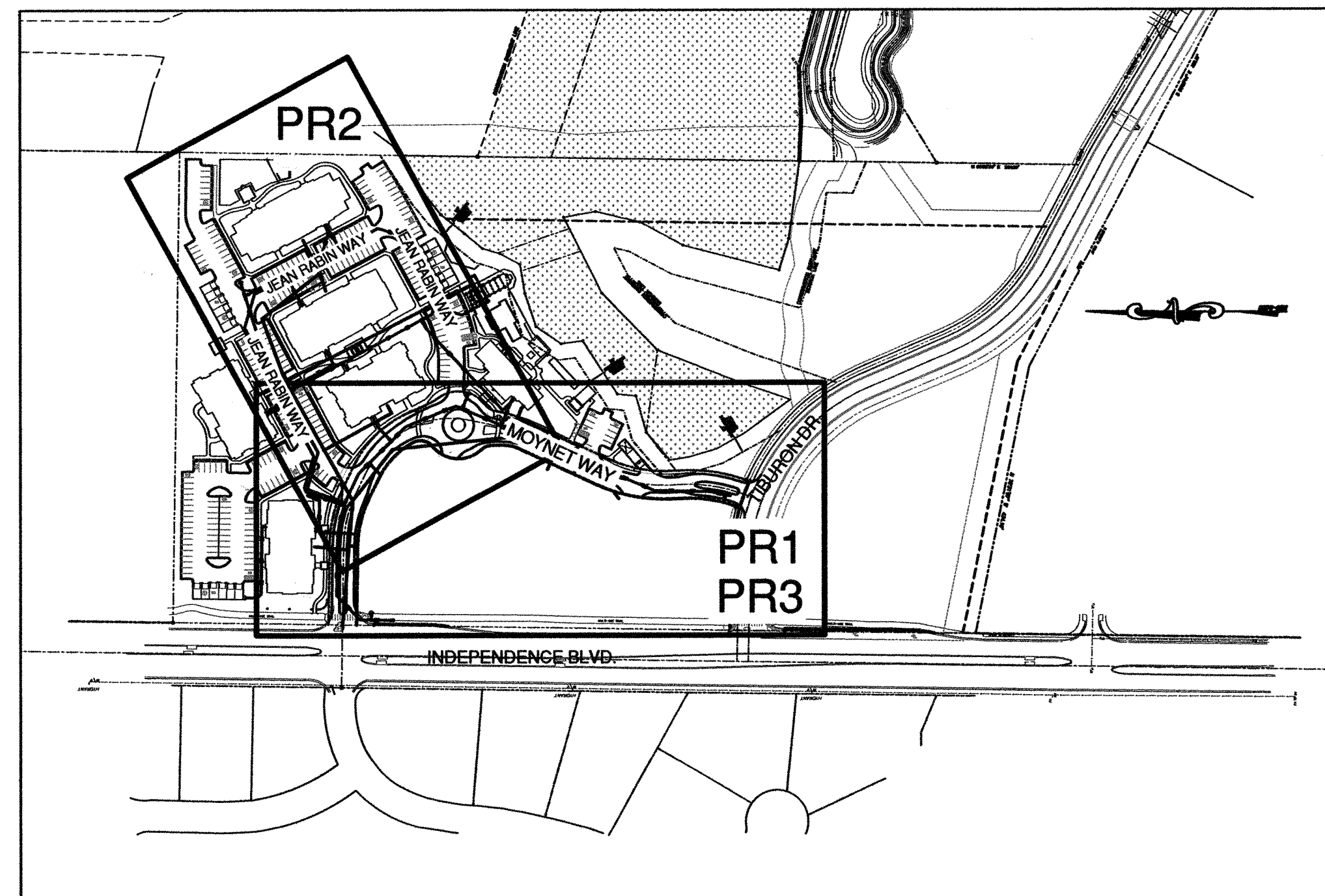
SCALE: 1" = 40'

TIBURON PARC APARTMENTS

WILMINGTON, NC
NEW HANOVER COUNTY



LOCATION MAP



SCALE: 1" = 200'



LEGEND

	PROPERTY LINE
	CONSERVATION EASEMENT
	SETBACK LINE
	EASEMENT LINE
	BUFFER LINE
	EXISTING TREE TO BE SAVED
	EXISTING WETLANDS
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE SIZE VARIES SEE PLAN
	PROPOSED SANITARY SEWER
	PROPOSED FIRE HYDRANT

INDEX OF SHEETS

COVER SHEET	
PR1:	SS PLAN AND PROFILE LINE 1 MOYNET WAY
PR2:	SS PLAN AND PROFILE LINE 2 AND 3 JEAN RABIN WAY
PR3:	WATER LINE PLAN AND PROFILE MOYNET WAY
PR4:	WATER/STORM CROSSINGS PROFILES
SD-1:	CFPUA WATER MAIN CONSTRUCTION DETAILS (1 OF 2)
SD-1:	CFPUA WATER MAIN CONSTRUCTION DETAILS (2 OF 2)
SD-3:	CFPUA SANITARY SEWER STANDARD DETAILS (1 OF 3)
SD-3:	CFPUA SANITARY SEWER STANDARD DETAILS (2 OF 3)

OWNER/DEVELOPER

NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

SURVEYOR

HANOVER DESIGN SERVICES, P.A.
1123 FLORAL PARKWAY
WILMINGTON NC 28403
910-343-8002

NORRIS & TUNSTALL

CONSULTING ENGINEERS, INC.

1127 FLORAL PARKWAY SUITES 300 & 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-0520

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

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

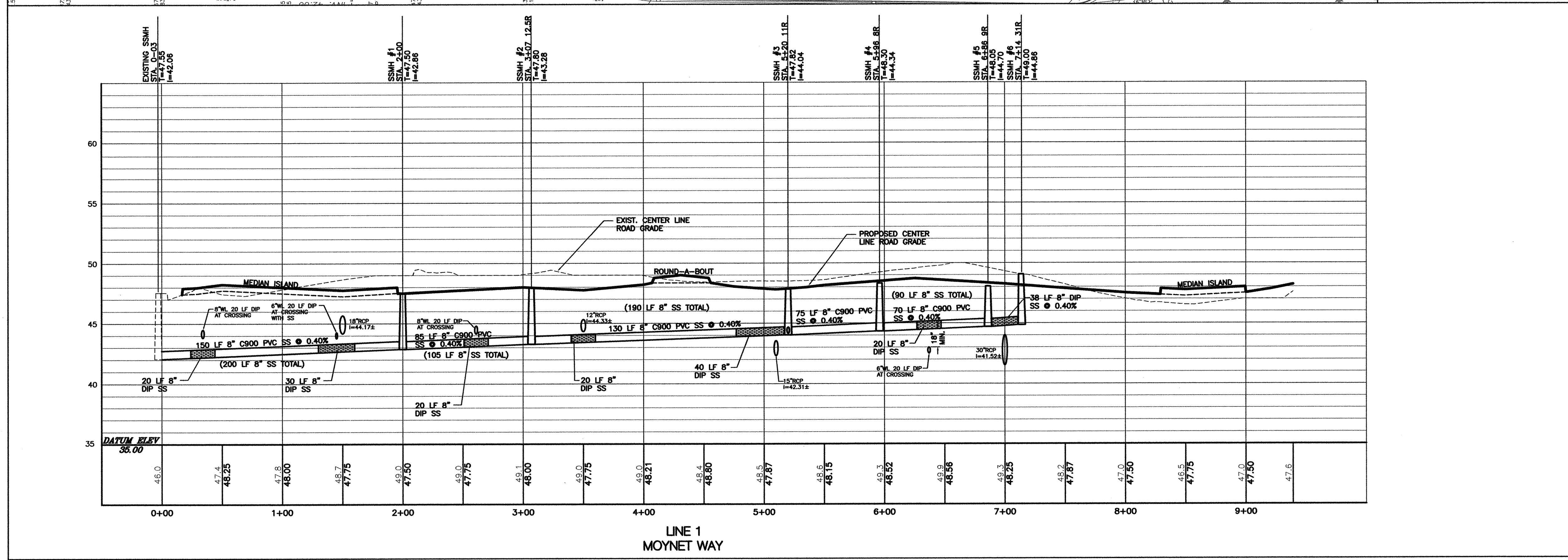
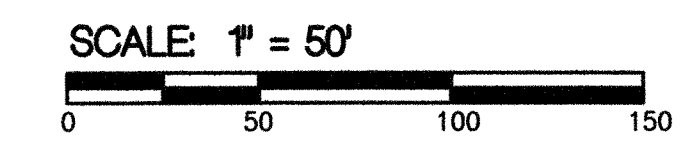
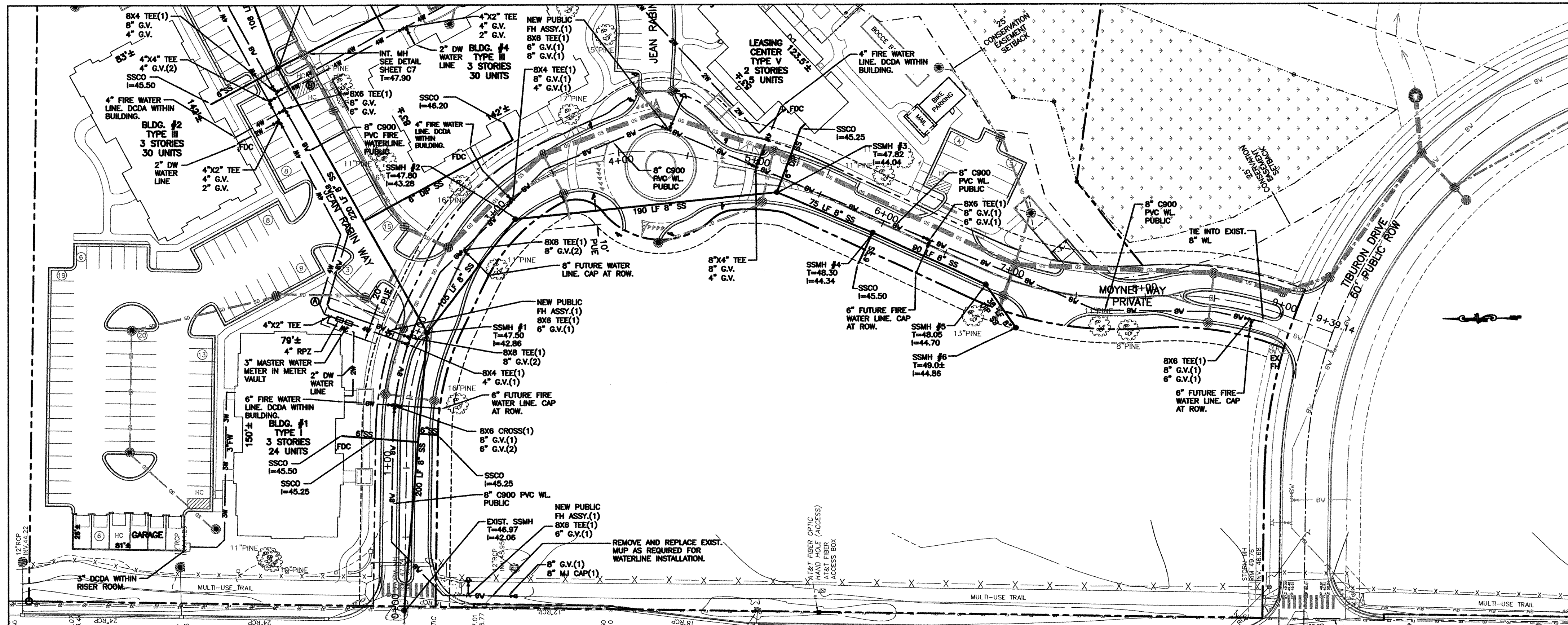
Approved Construction Plan	
Name	Date
Planning	_____
Traffic	_____
Fire	_____

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Approved Construction Plan

Name _____ Date _____
 Planning _____
 Traffic _____
 Fire _____

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



UTILITY NOTES:

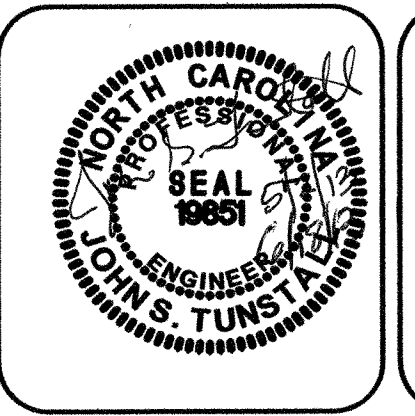
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CPWA STANDARD NOTES:

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- 10' UTILITIES EASEMENT IS PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND IS AS SHOWN.
- NO FLEXIBLE COUPLINGS SHALL BE USED.

HORIZ. 1" = 50'
 VERT. 1" = 5'

REV. NO.	DESCRIPTION	DATE



NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
 1127 FLORENCE PARKWAY PHONE (910) 343-0853
 SUITES 300 & 400 FAX (910) 343-0804
 WILMINGTON, NC 28403 License EC-5520

DATE: 5/2/13
 SCALE: 1" = 50'
 DRAWN: NKS
 CHECKED: JST
 PROJECT NO: 12073

SHEET NO:
PR1

SANITARY SEWER PLAN AND PROFILE
TIBURON PARC APARTMENTS
 2945 MOYNET WAY
 WILMINGTON, N. C.

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 _____

NCDENR PWSS WATER PERMIT #: _____

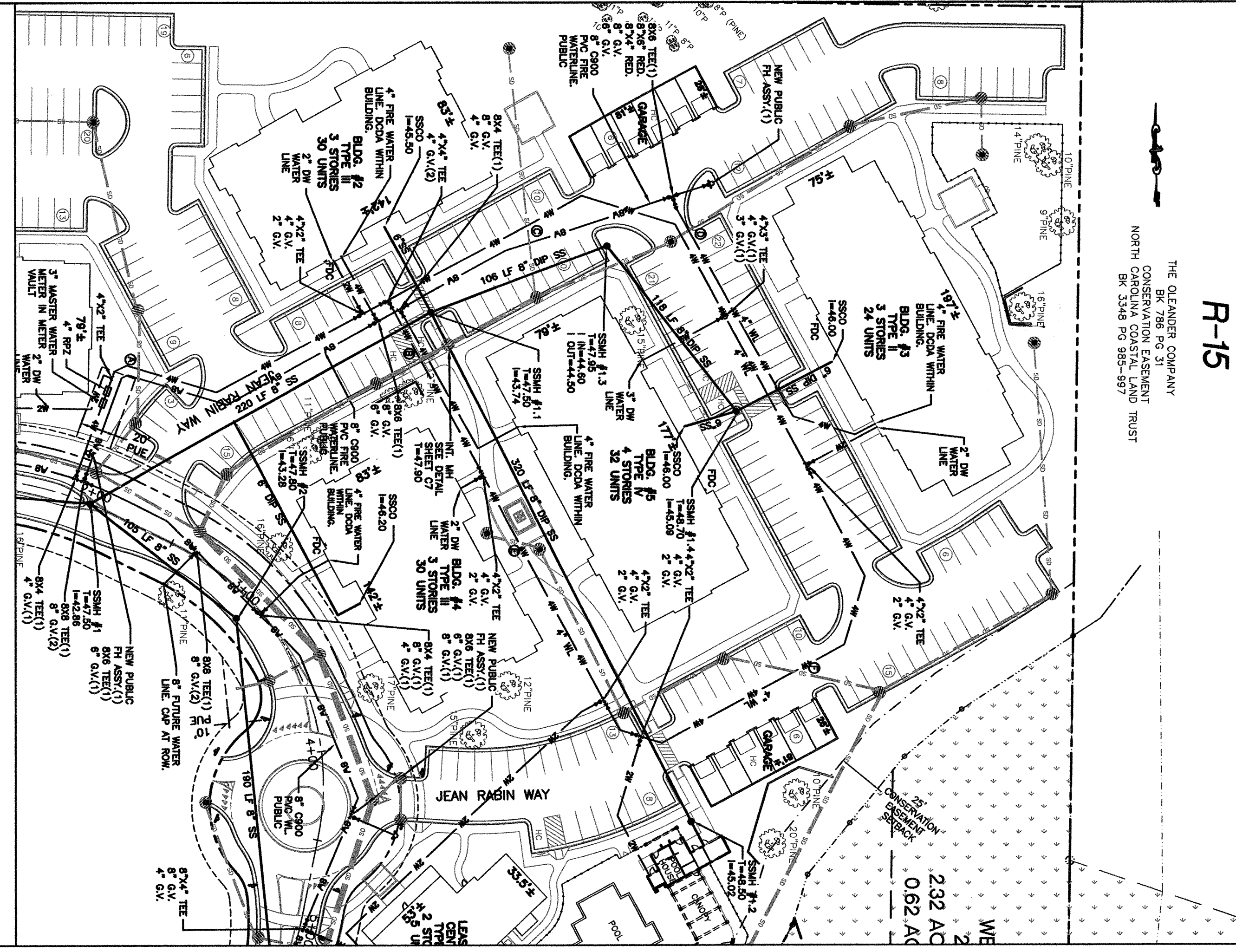
WATER CAPACITY: _____ GPD

DWQ SEWER PERMIT #: _____

SEWER CAPACITY: _____ GPD

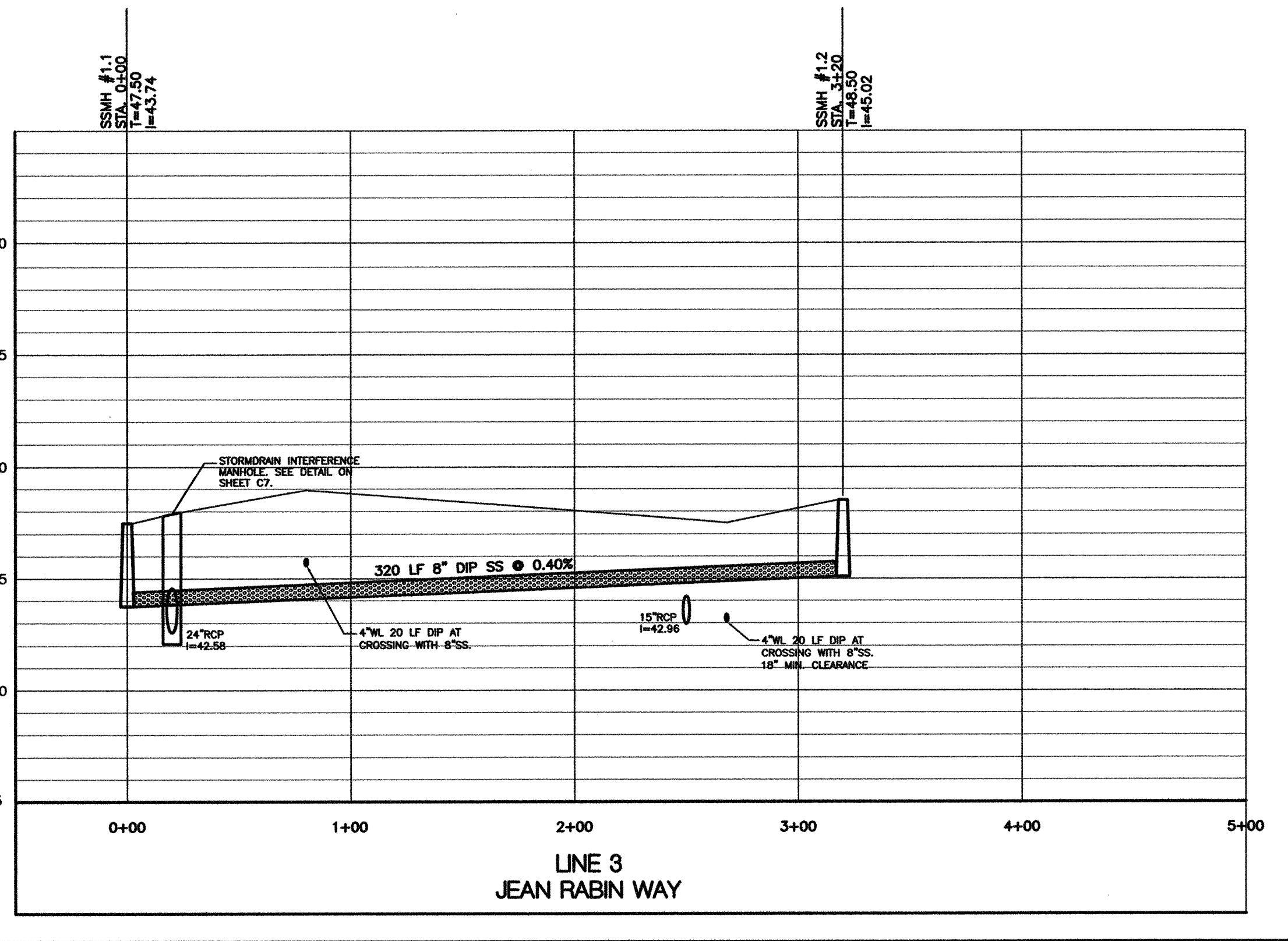
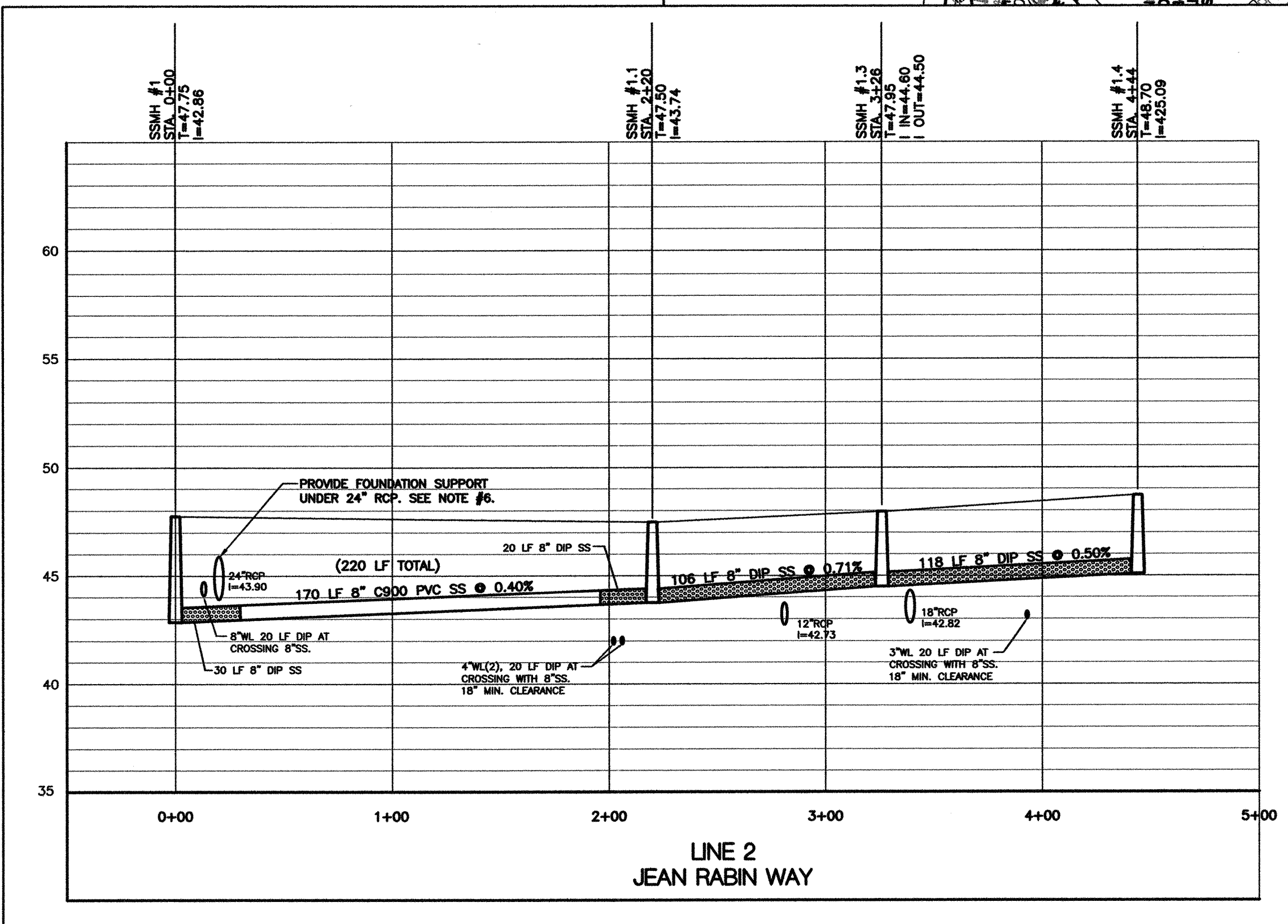
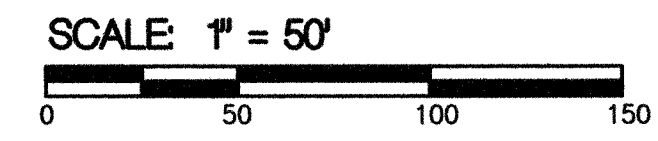
SEWER SHED # AND PLANT: _____

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



THE CLEANERS COMPANY
 BR. 786 PG. 31
 CONSERVATION EASEMENT
 NORTH BR. 334 PG. 20
 TRUST
 BR. 334 PG. 95-99

R-15

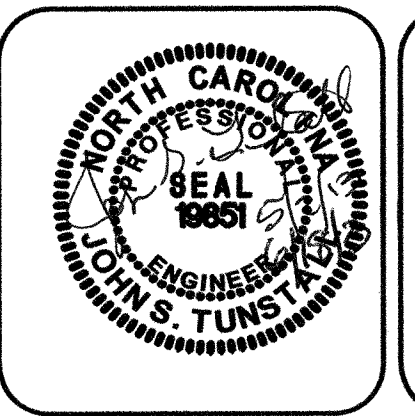


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REV. NO.	DESCRIPTION	DATE



NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
 1127 FLORAL PARKWAY PHONE (910) 343-0653
 SUITES 300 & 400 FAX (910) 343-0804
 WILMINGTON, NC 28403 License EC-5520

SANITARY SEWER PLAN AND PROFILE
TIBURON PARC APARTMENTS
 2945 MOYNET WAY
 WILMINGTON, N. C.

DATE: 5/2/13
 SCALE: 1" = 50'
 1" = 5'

DRAWN: NKS
 CHECKED: JST
 PROJECT NO: 12073

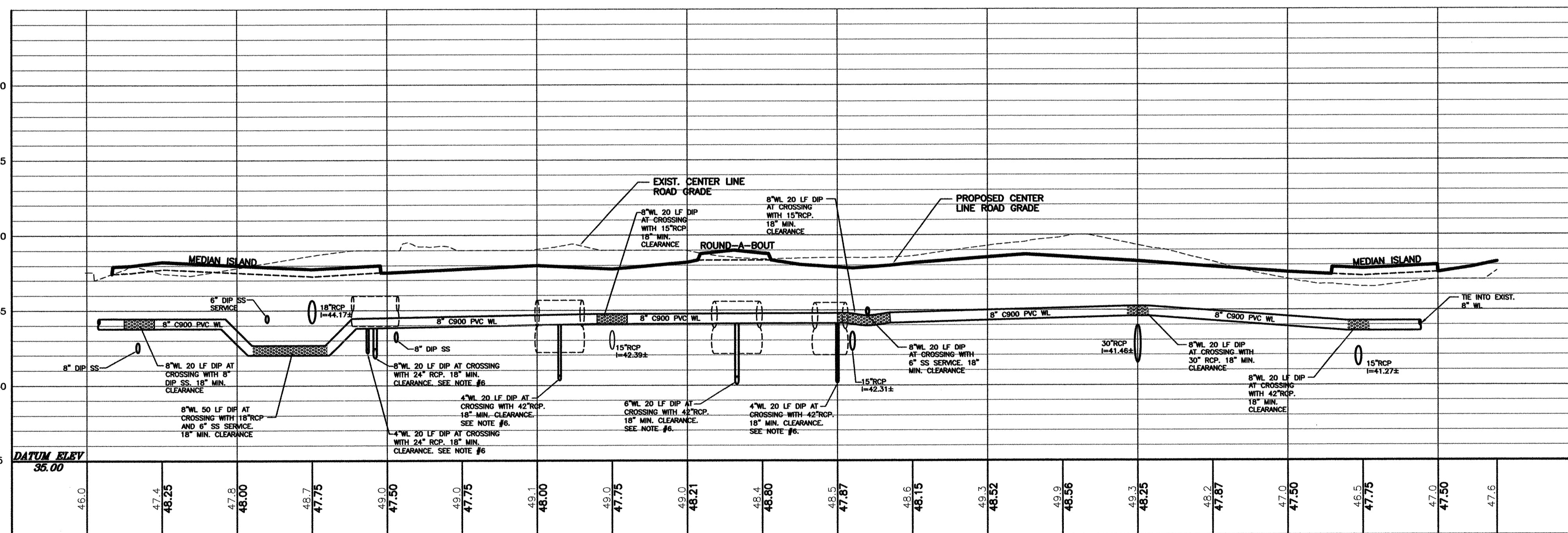
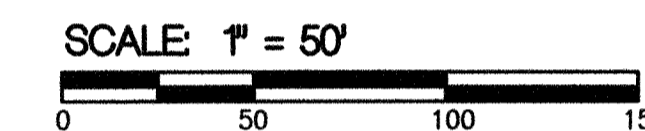
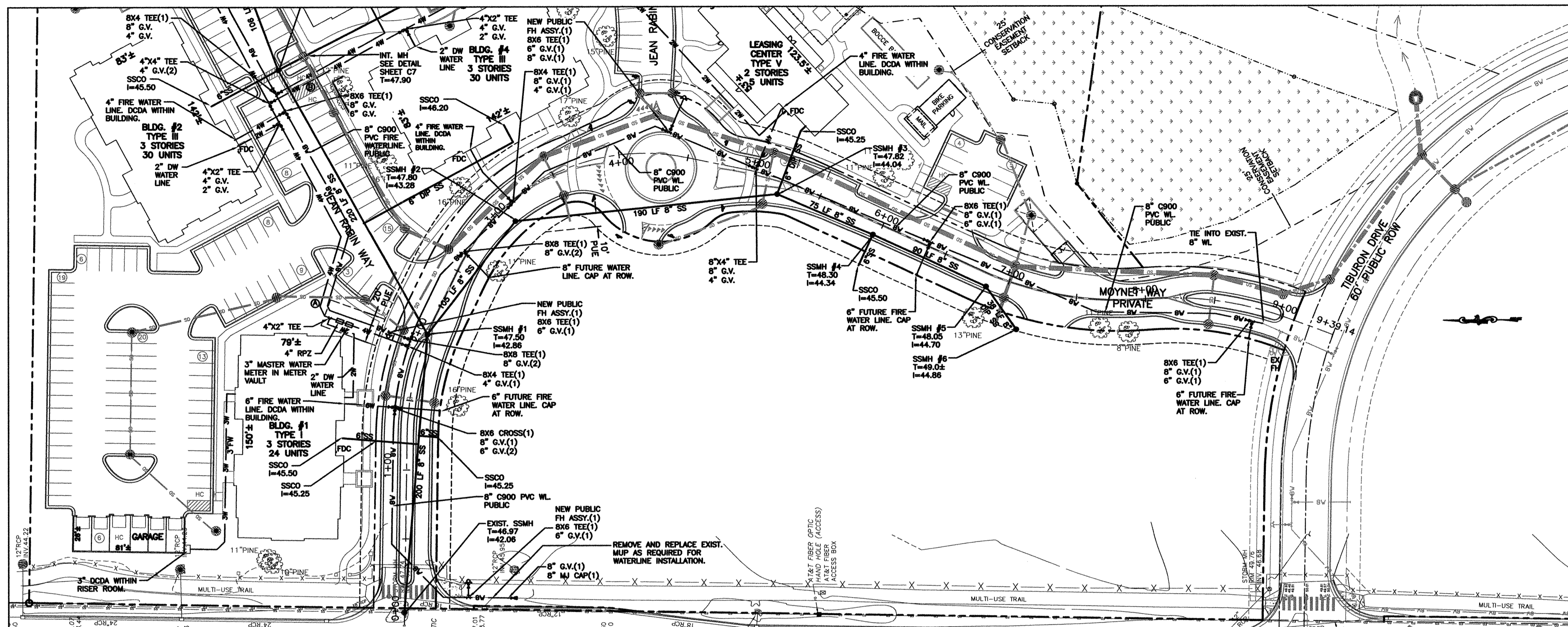
SHEET NO:
PR2

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 _____

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



UTILITY NOTES:

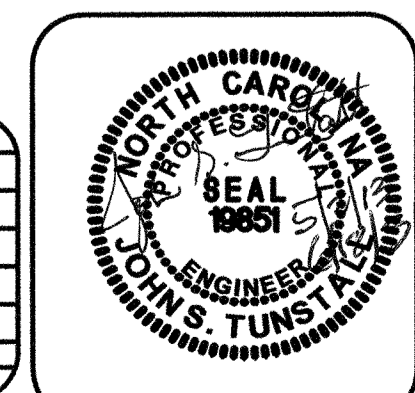
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REV. NO.	DESCRIPTION	DATE

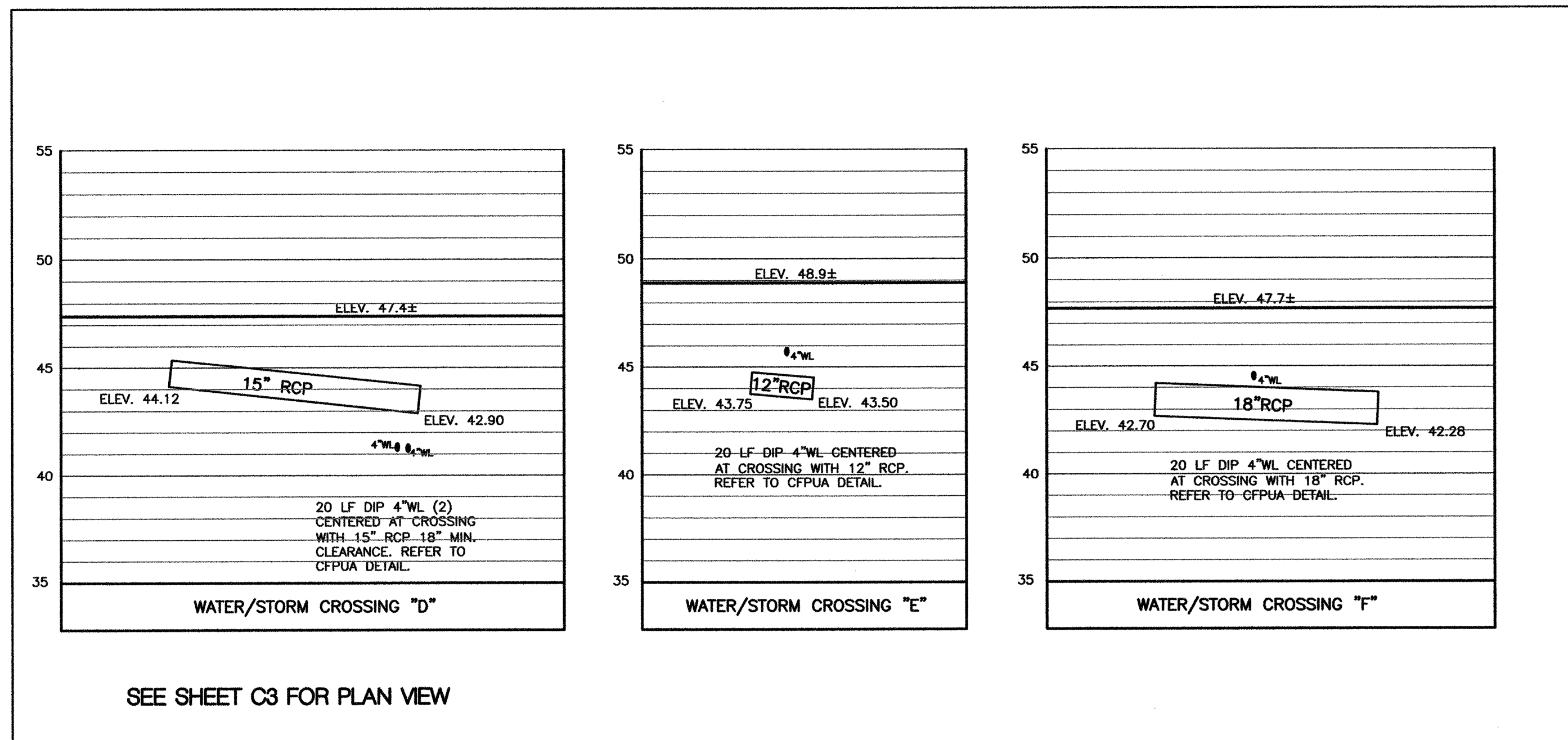
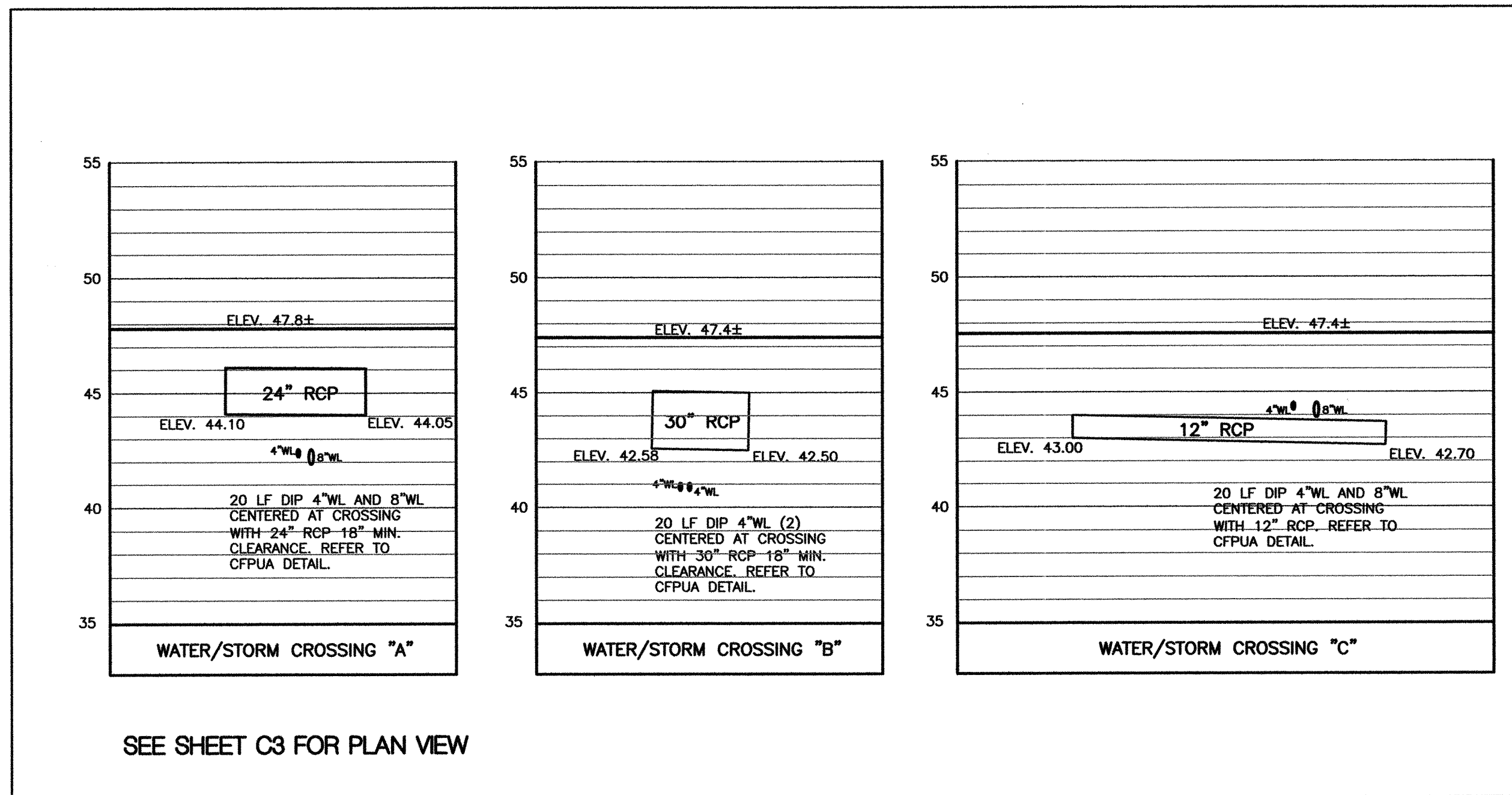


NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
 1127 FLORENCE PARKWAY PHONE (910) 343-9553
 SUITES 300 & 400 FAX (910) 343-9804
 WILMINGTON, NC, 28403 License #C-0520

DATE: 5/2/13
 SCALE: 1" = 50'
 DRAWN: NKS
 CHECKED: JUST
 PROJECT NO: 12073

WATERLINE PLAN AND PROFILE
TIBURON PARC APARTMENTS
 2945 MOYNET WAY
 WILMINGTON, N. C.

SHEET NO:
PR3



- UTILITY NOTES:**
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HORIZ. $\frac{1}{8}'' = 50'$
VERT. $\frac{1}{8}'' = 5'$

REV. NO.	DESCRIPTION	DATE

Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

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NCDENR PWSS WATER PERMIT #: _____

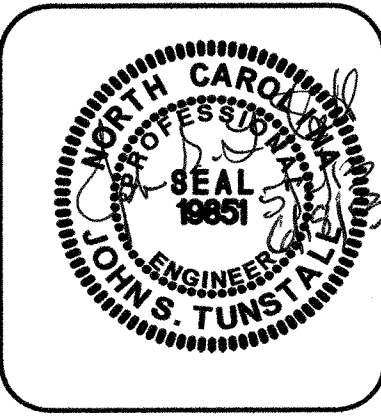
WATER CAPACITY: _____ GPD

DWQ SEWER PERMIT #: _____

SEWER CAPACITY: _____ GPD

SEWER SHED # AND PLANT: _____

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



NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.

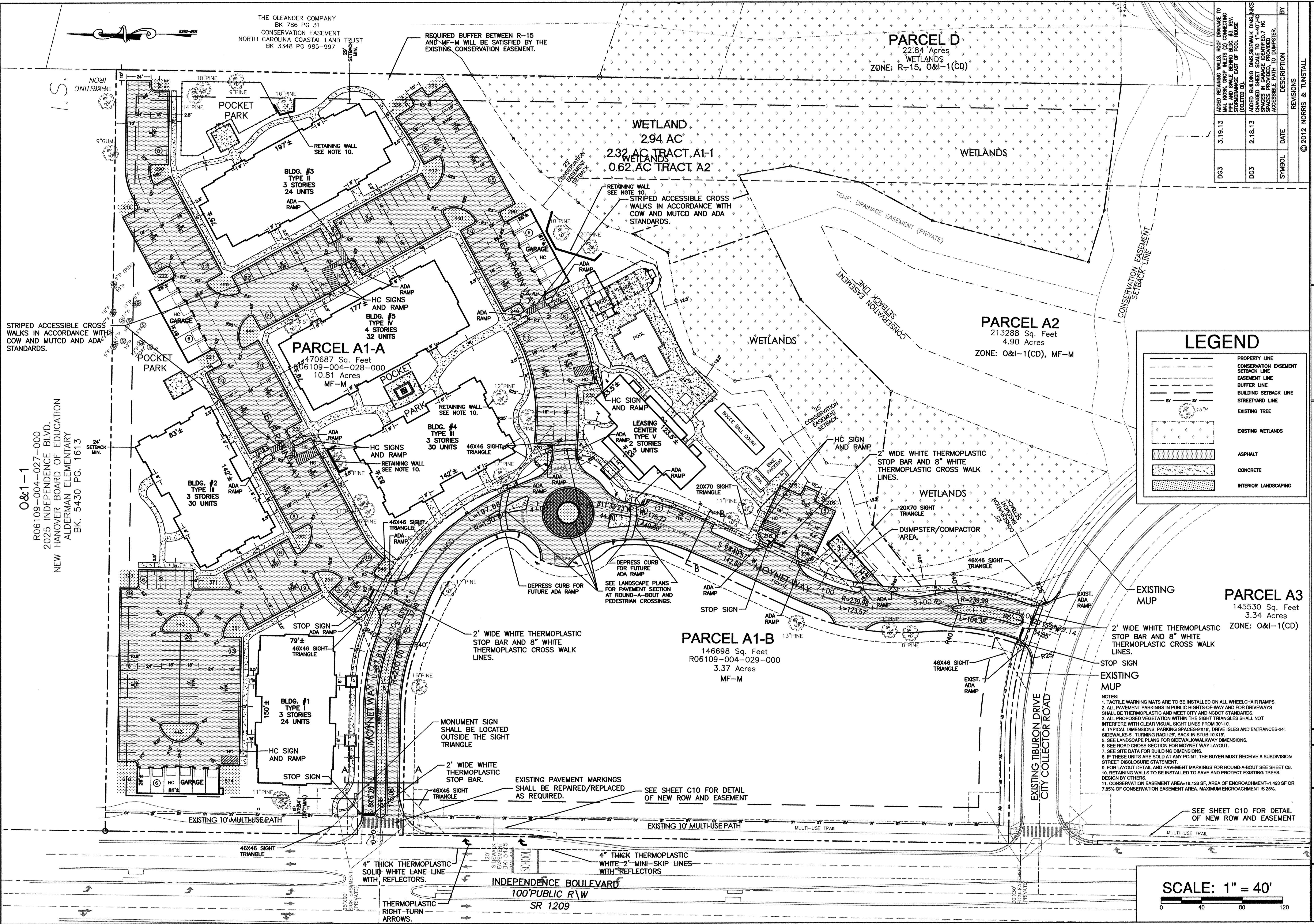
1127 FLORAL PARKWAY PHONE (910) 343-9853
SUITE 300 & 400 FAX (910) 343-9804
WILMINGTON, NC 28403 License #C-5520

WATERLINE PLAN AND PROFILE
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, N. C.

DATE: 5/2/13
SCALE: 1" = 50'
1" = 5'

DRAWN: NKS
CHECKED: JST
PROJECT NO: 12073

SHEET NO:
PR4



THE OLEANDER COMPANY
BK 786 PG 31
CONSERVATION EASEMENT
NORTH CAROLINA COASTAL LAND TRUST
BK 3348 PG 985-997

REQUIRED BUFFER BETWEEN R-15
AND MF-M WILL BE SATISFIED BY THE
EXISTING CONSERVATION EASEMENT.

PARCEL D
22.84 Acres
WETLANDS
ZONE: R-15, O&I-1(CD)

WETLAND
2.94 AC
2.32 AC TRACT A1-1
0.62 AC TRACT A2

PARCEL A2
213288 Sq. Feet
4.90 Acres
ZONE: O&I-1(CD), MF-M

PARCEL A1-A
470687 Sq. Feet
R06109-004-028-000
10.81 Acres
MF-M

PARCEL A1-B
146698 Sq. Feet
R06109-004-029-000
3.37 Acres
MF-M

PARCEL A3
145530 Sq. Feet
3.34 Acres
ZONE: O&I-1(CD)

LEGEND

	PROPERTY LINE
	CONSERVATION EASEMENT SETBACK LINE
	EASEMENT LINE
	BUFFER LINE
	BUILDING SETBACK LINE
	STREET YARD LINE
	EXISTING TREE
	EXISTING WETLANDS
	ASPHALT
	CONCRETE
	INTERIOR LANDSCAPING

NO.	DATE	DESCRIPTION	BY
D63	3.19.13	ADDED RETAINING WALLS, ROOF DRAINAGE TO PIPE AND SWALE BEHIND BLDG. #3 REV. STORORAGE EAST OF POOL HOUSE (DELETED D)	
D63	2.18.13	ADDED BUILDING DIMS, SIDEWALK DIMS, SINKS CHANGED SHEET SCALE TO 1"=40' HC SPACES PROVIDED, PROVIDED ADA ACCESSIBLE PATH TO DUMPSTER.	

LAYOUT PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER: NELSON MACRAE MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-382-3300

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

HUD/PERMIT SET
12073

DES. JST
CHK. JPN
DRWN. NKS

DATE 6/3/13

SCALE: 1" = 40'

C4

THE OLEANDER COMPANY
BK 786 PG 31
CONSERVATION EASEMENT
NORTH CAROLINA COASTAL LAND TRUST
BK 3348 PG 985-997

PARCEL D
22.84 Acres
WETLANDS
ZONE: R-15, O&I-1(CD)

WETLAND
2.94 AC
2.32 AC TRACT A1-1
0.62 AC TRACT A2

PARCEL A2
213288 Sq. Feet
4.90 Acres
ZONE: O&I-1(CD), MF-M

PARCEL A1-A
470687 Sq. Feet
R06109-004-028-000
10.81 Acres
MF-M

PARCEL A1-B
146698 Sq. Feet
R06109-004-029-000
3.37 Acres
MF-M

PARCEL A3
145530 Sq. Feet
3.34 Acres
ZONE: O&I-1(CD)

OPEN SPACE REQUIRED: 35% OF TRACT MINUS WETLANDS, 17.5% EITHER ACTIVE OR PASSIVE, 17.5% ACTIVE, PASSIVE, RECREATION, OR OPEN SPACE.

TOTAL TRACT: 14.17 AC MINUS 2.32 WETLANDS=11.85 AC
11.85 AC X .35 = 4.15 AC TOTAL
2.075 (90,387 SF) EITHER ACTIVE OR PASSIVE
2.075 (90,387 SF) ACTIVE, PASSIVE, RECREATION, OR OPEN SPACE

OPEN SPACE PROVIDED:
2.67 (116,552 SF) OPEN SPACE
2.57 (112,013 SF) ACTIVE/RECREATION

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	

LEGEND

[Pattern]	OPEN SPACE
[Pattern]	ACTIVE/RECREATION OPEN SPACE
[Line]	PROPERTY LINE
[Line]	CONSERVATION EASEMENT SETBACK LINE
[Line]	EASEMENT LINE
[Line]	BUFFER LINE
[Line]	BUILDING SETBACK LINE
[Line]	STREETYARD LINE
[Pattern]	EXISTING WETLANDS

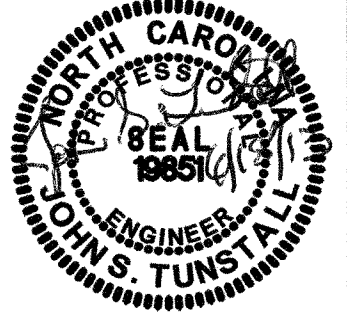
SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

OPEN SPACE PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRIE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28406
910-392-3300

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
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WILMINGTON, NC, 28403
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license #C-3641

12073
DES. JST
CHK. JFN
DRWN. HKS
DATE 6/18/13



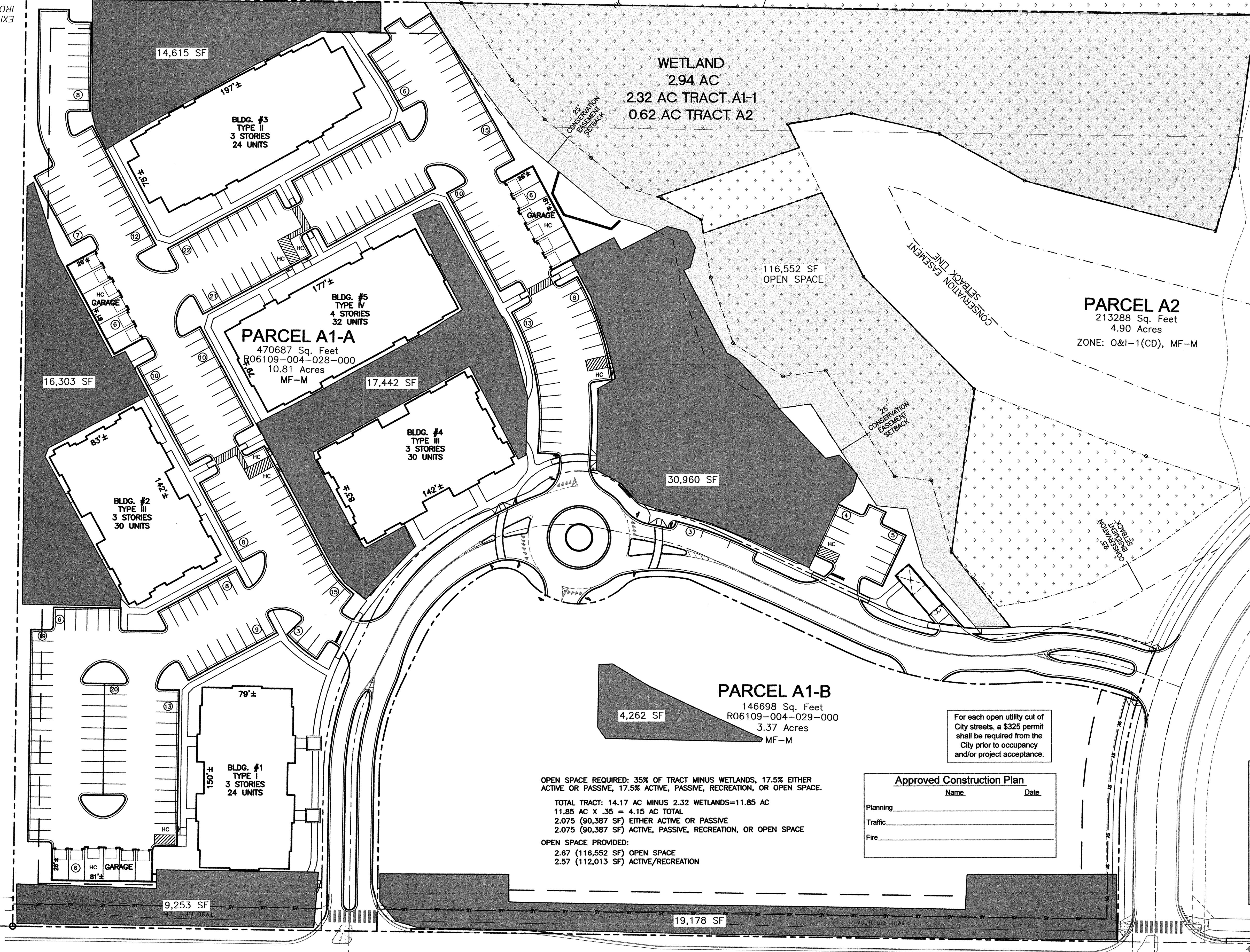
C4.1

SCALE: 1" = 40'
0 40 80 120

INDEPENDENCE BOULEVARD
100' PUBLIC R/W
SR 1209

O&I-1
R06109-004-027-000
2025 INDEPENDENCE BLVD.
NEW HANOVER BOARD OF EDUCATION
ALDERMAN ELEMENTARY
BK. 5430 PG. 1613

EXISTING IRON



THE OLEANDER COMPANY
BK 786 PG 31
CONSERVATION EASEMENT
NORTH CAROLINA COASTAL LAND TRUST
BK 3348 PG 985-997

SPADE 5" MAGNOLIA
TO NEW LOCATION.
SEE LANDSCAPE PLAN.

WETLAND
2.94 AC
2.32 AC TRACT A1-1
0.62 AC TRACT A2

SPADE 6" MAGNOLIA
TO NEW LOCATION.
SEE LANDSCAPE PLAN.

SPADE 9" MAGNOLIA TO
NEW LOCATION. SEE
LANDSCAPE PLAN.

SPADE 8" AND 11" OAKS
TO NEW LOCATION. SEE
LANDSCAPE PLAN.

SPADE 7" OAK TO
NEW LOCATION. SEE
LANDSCAPE PLAN.

TREE REMOVAL TABLE

REGULATED PINES	REGULATED OAKS	REGULATED GUMS
12" (23)	8" (3)	8" (2)
13" (20)	9" (1)	10" (1)
14" (22)	12" (1)	
15" (16)		
16" (6)		
17" (4)		
18" (1)		

TREES TO BE SPADED

- 7" OAK
- 8" OAK
- 11" OAK
- 5" MAGNOLIA
- 6" MAGNOLIA
- 9" MAGNOLIA

15 TREES PER DISTURBED ACRE REQUIRED
DISTURBED AREA=8.75 AC X 15=131 TREES

LEGEND

- 15P 13P EXISTING TREE TO BE SAVED
- 15P 13P EXISTING TREE TO BE REMOVED
- 15P EXISTING TREE TO BE SPADED
- TREE PROTECTION FENCING

SYMBOL	DATE	DESCRIPTION	BY
D63	3.19.13	ADDED RETAINING WALLS, ROOF DRAINAGE TO PIPE AND SWALE BEHIND BLOCK WALL. STORMWATER EAST OF POOL HOUSE. (DELETED D)	

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

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

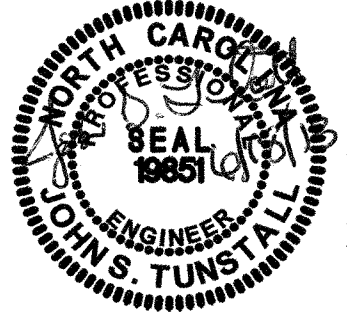
Fire _____

TREE PLAN
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRIE
MIDTOWN ONE, LLC
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12073
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CHK. JPN
DRWN. NKS
DATE 9/18/13

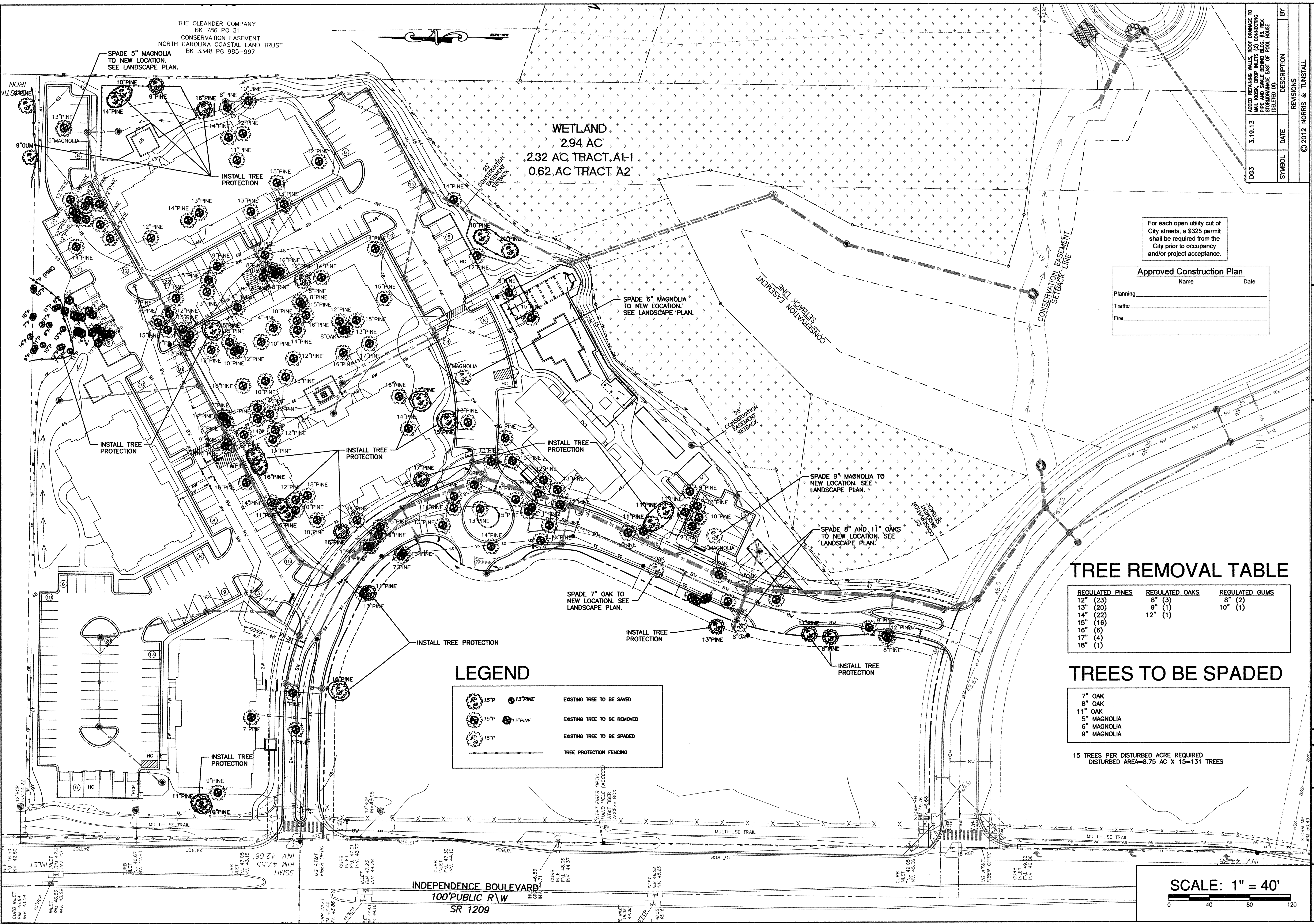


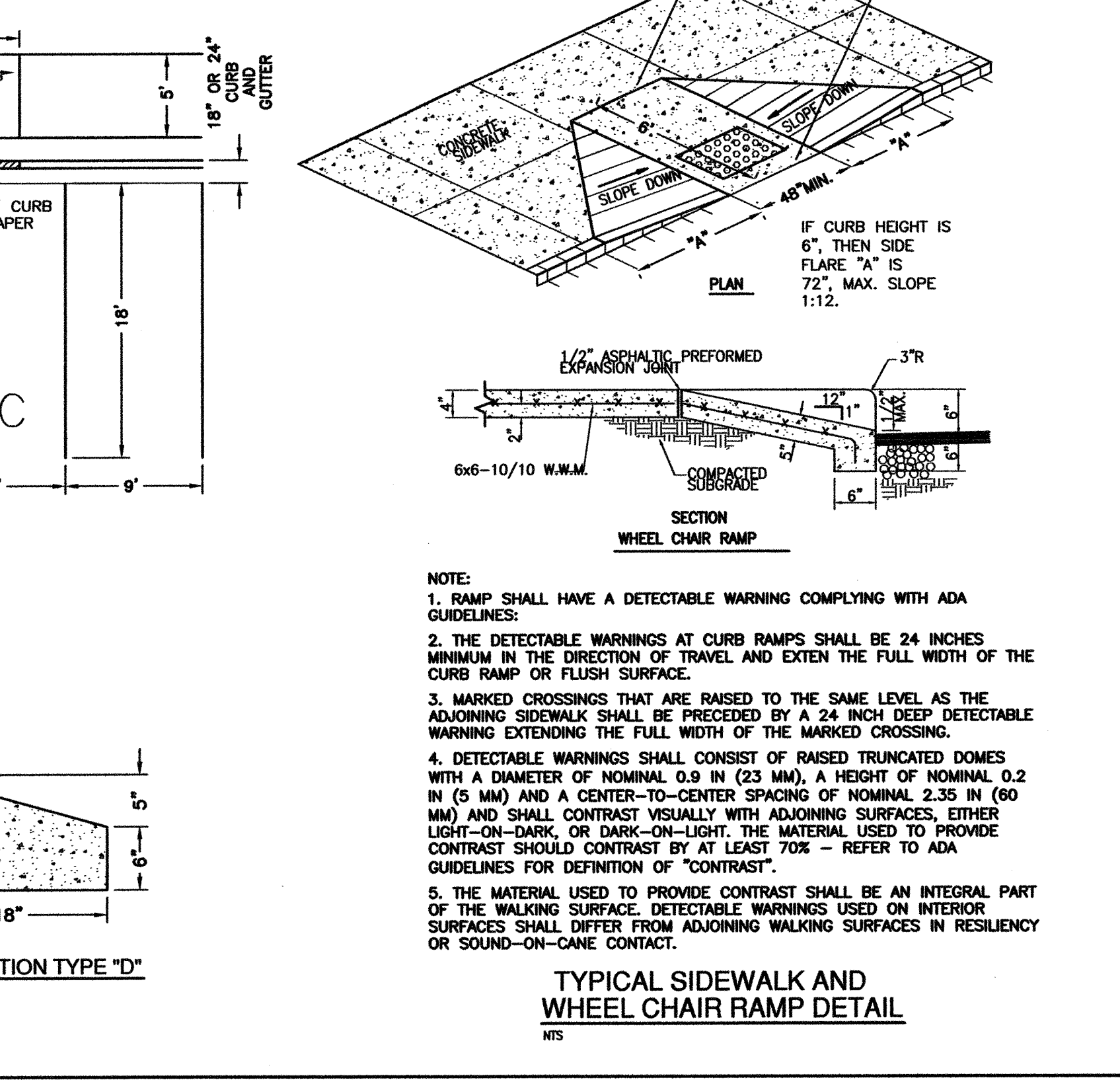
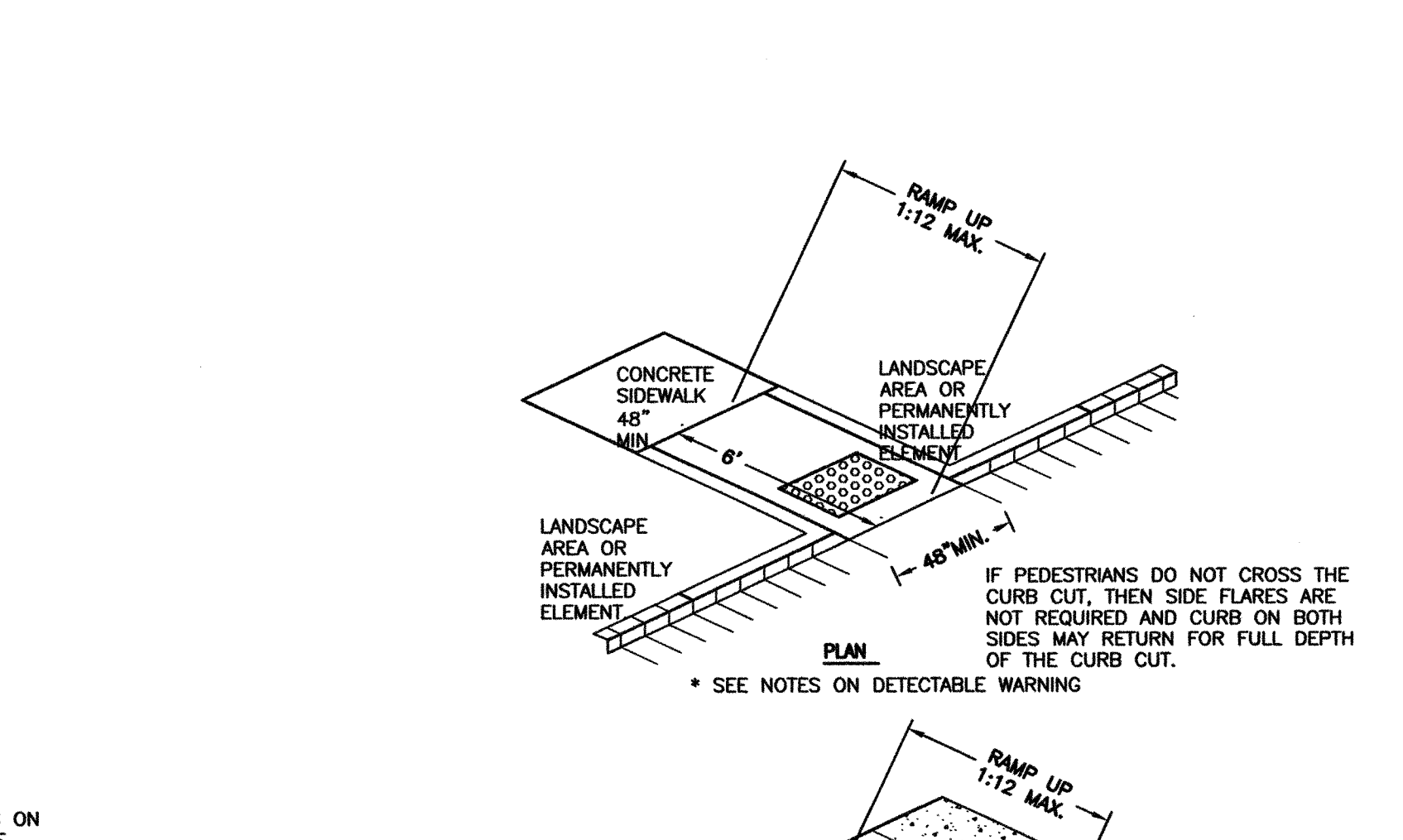
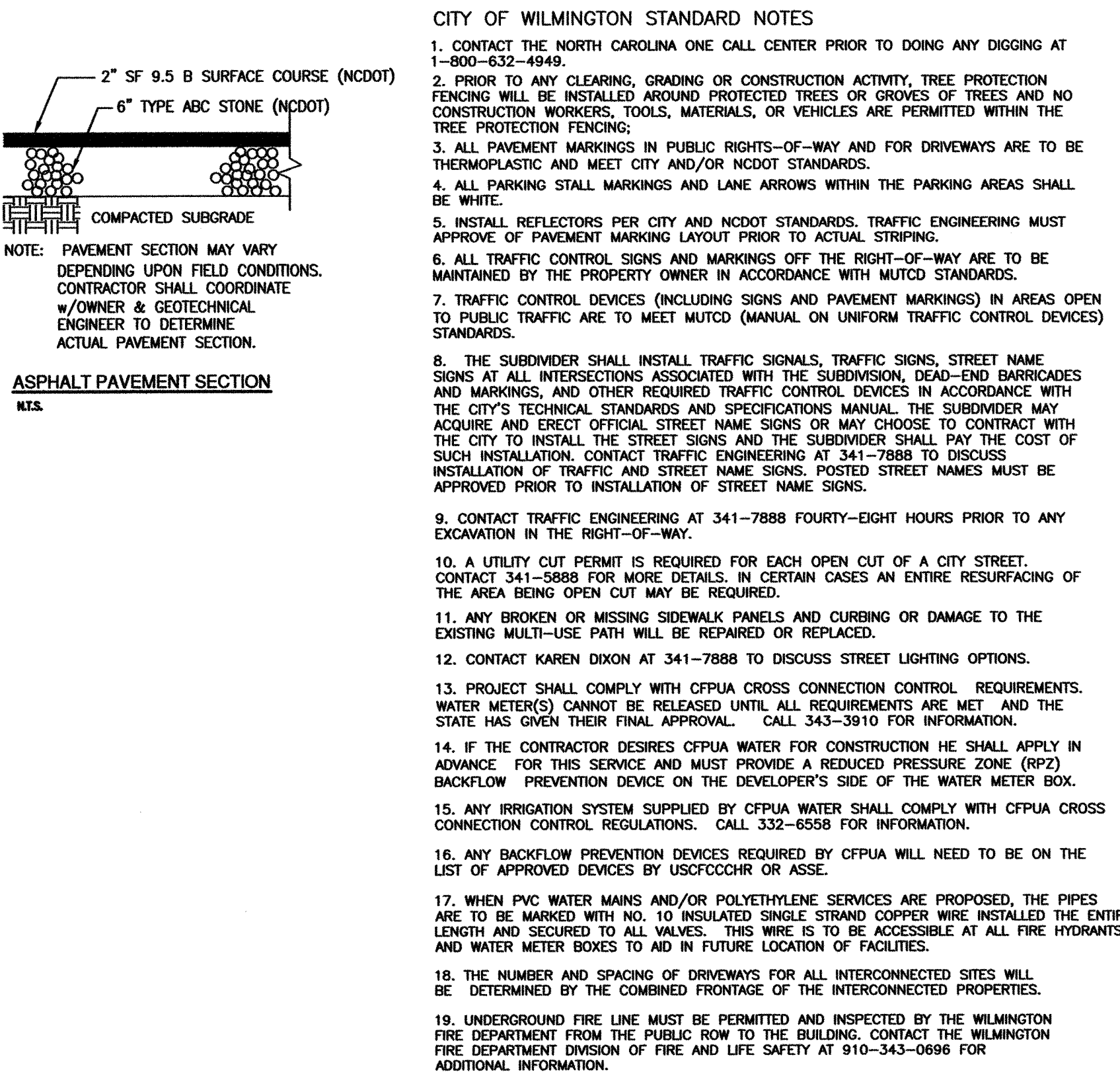
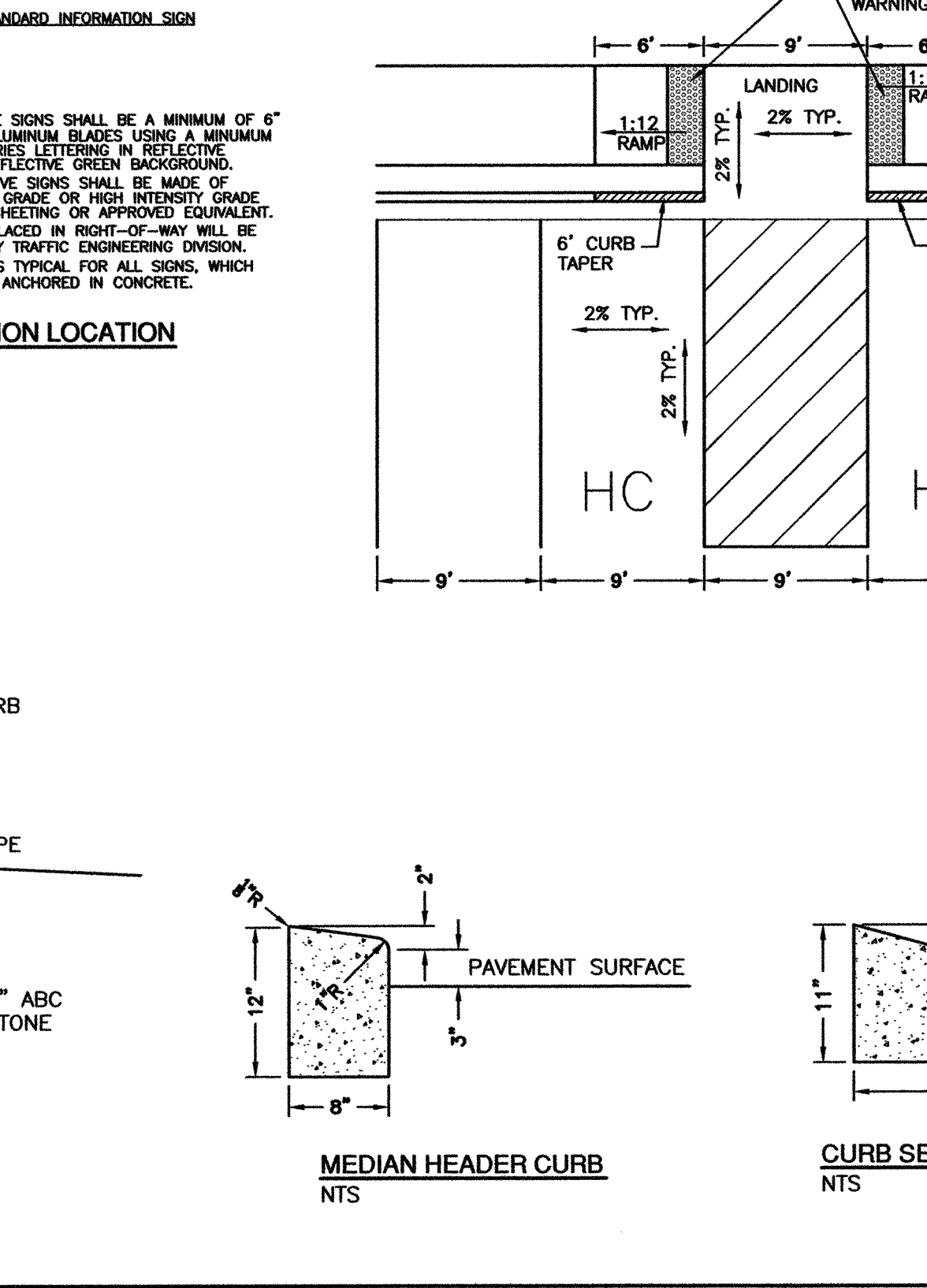
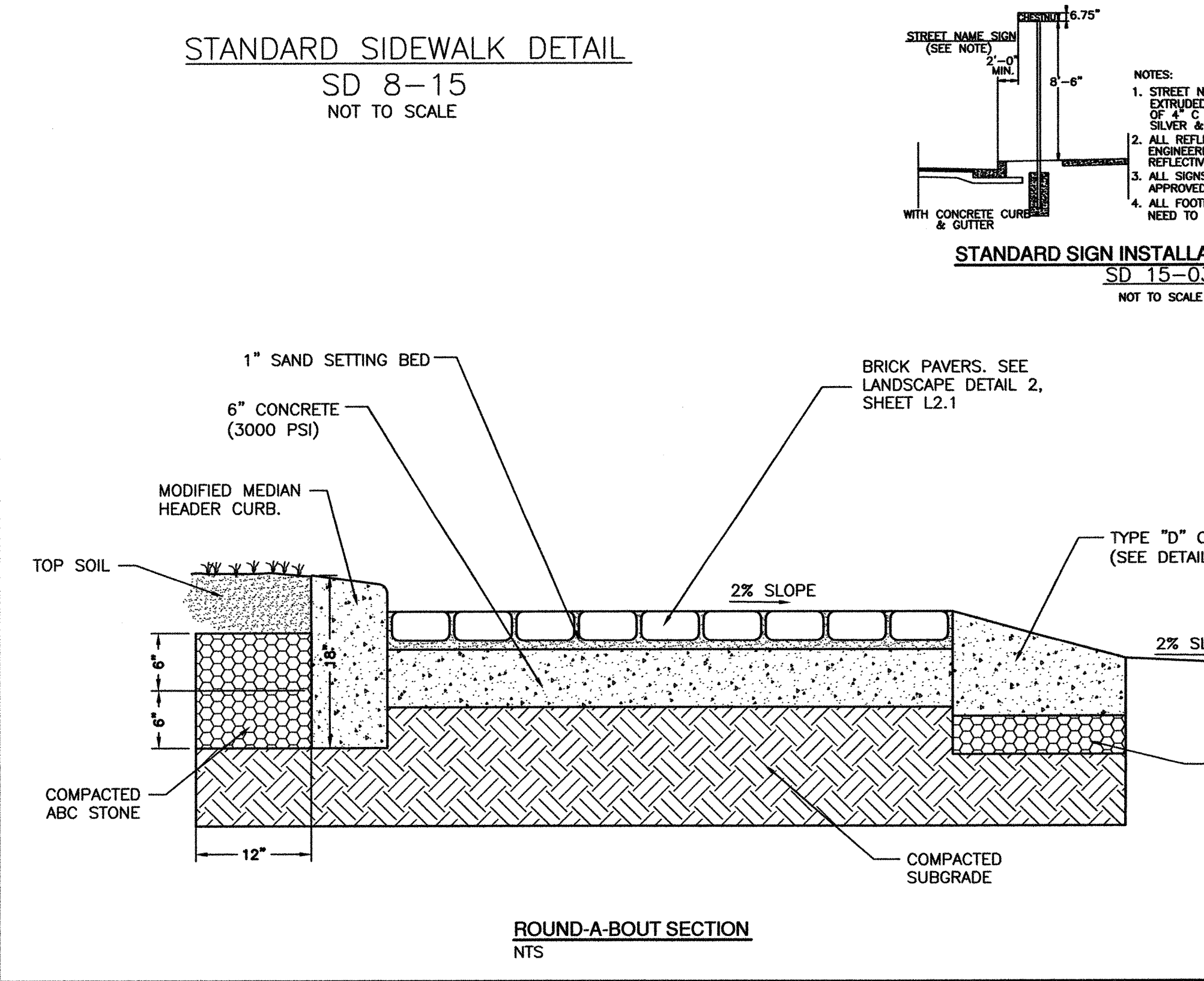
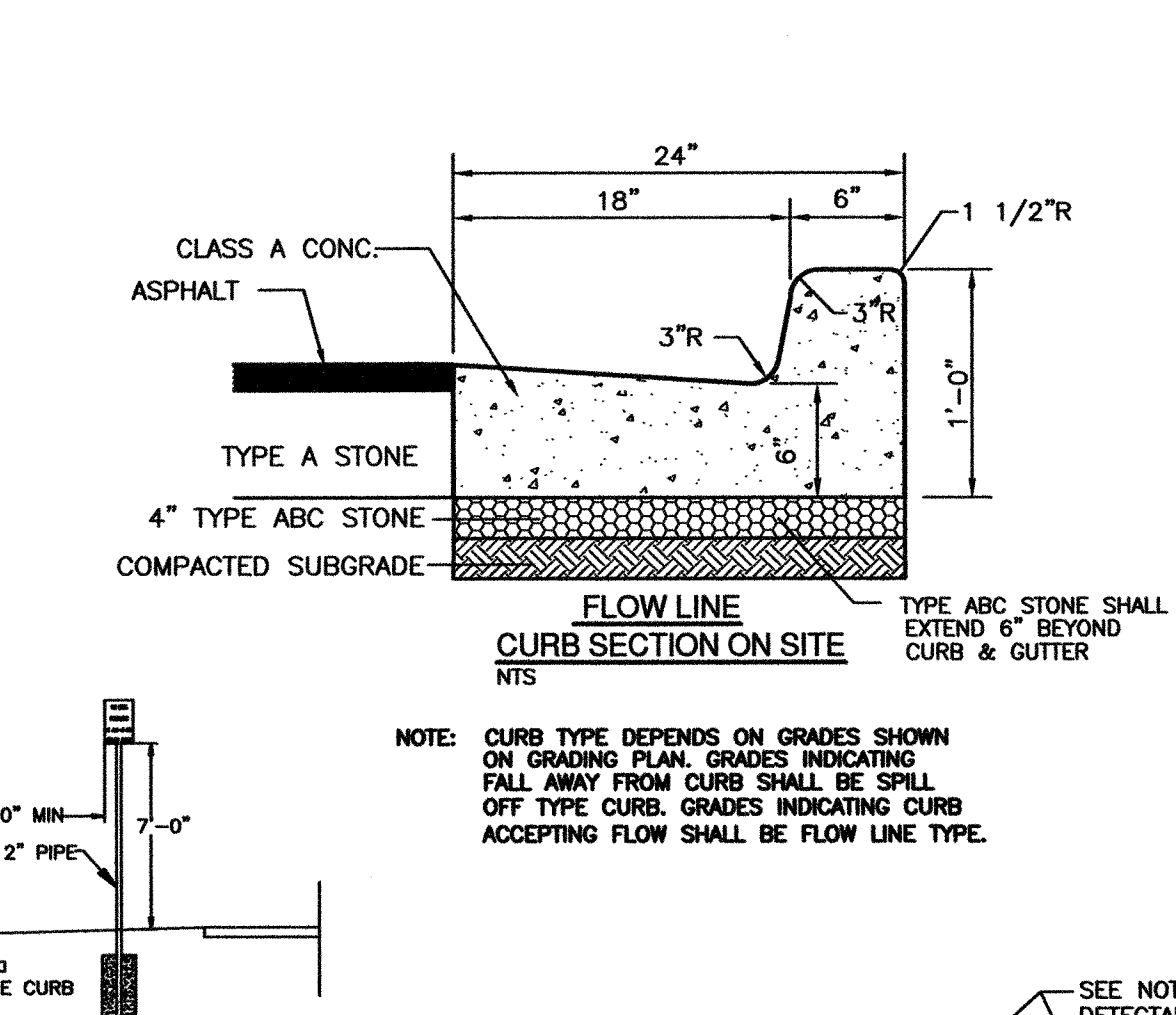
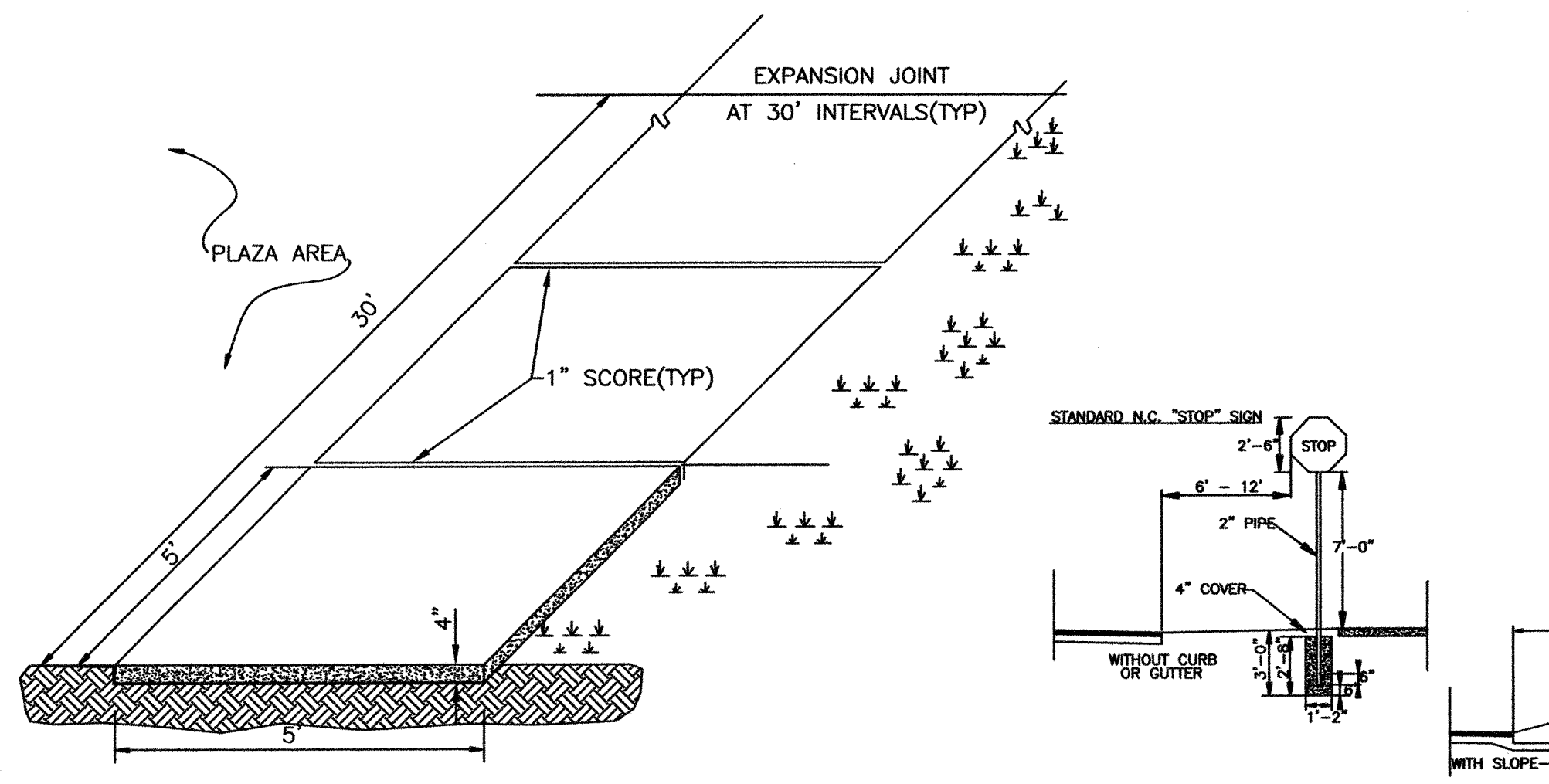
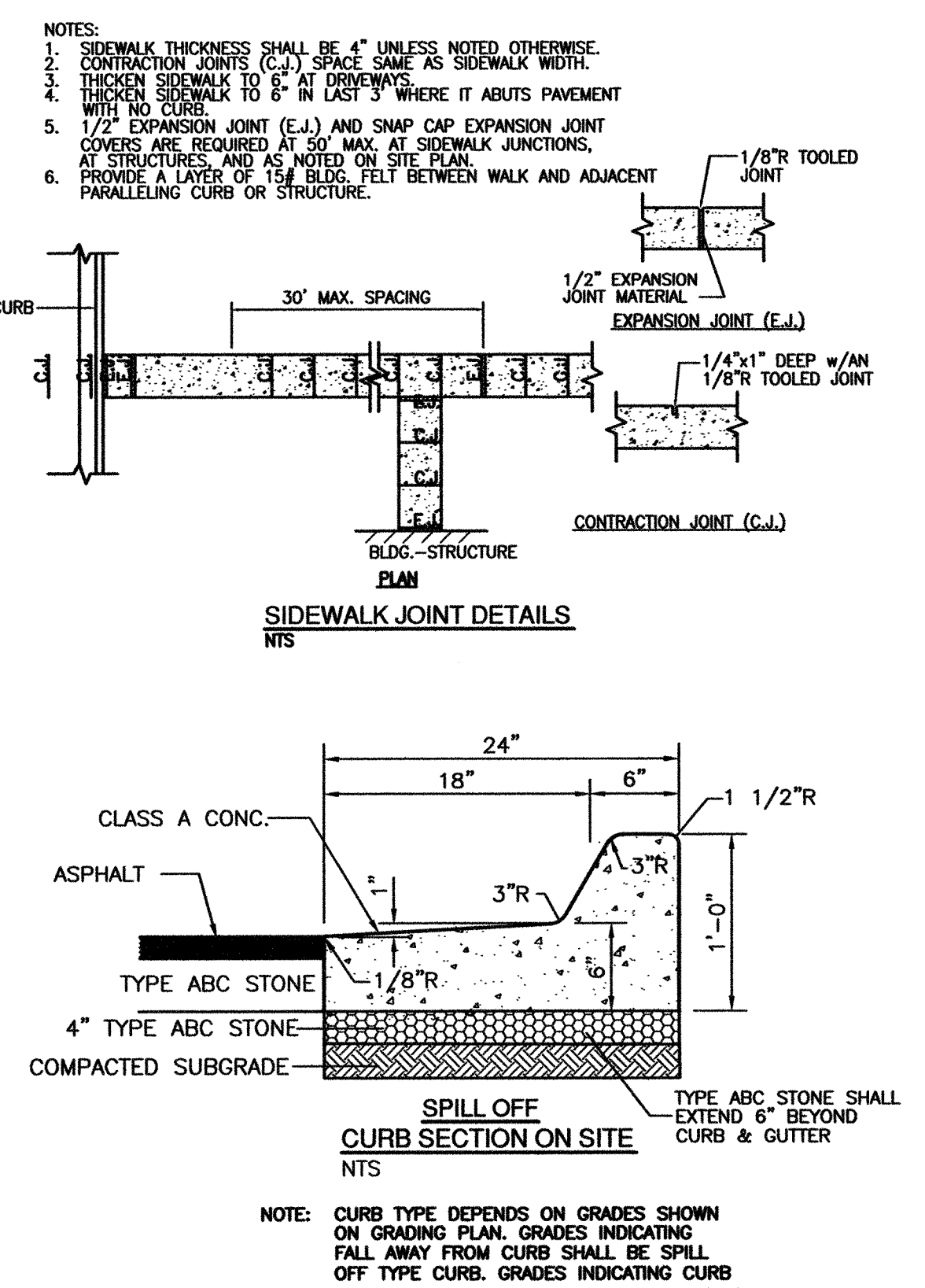
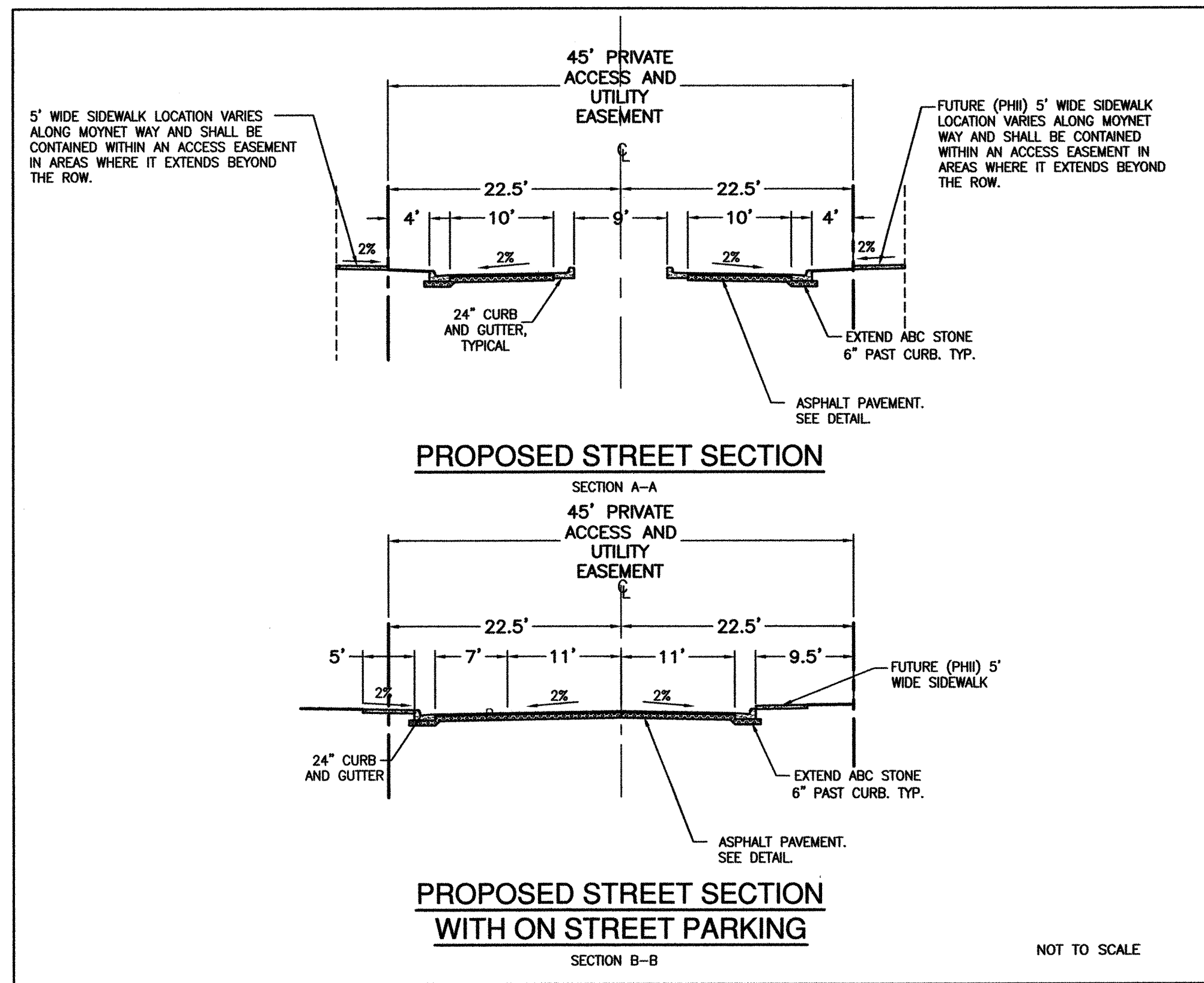
C5

SCALE: 1" = 40'



INDEPENDENCE BOULEVARD
100' PUBLIC R/W
SR 1209





CITY OF WILMINGTON STANDARD NOTES

- CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-432-4944.
- BEFORE 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.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH THE CITY'S TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. 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 PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- THE SUBDIVIDER SHALL INSTALL TRAFFIC SIGNALS, TRAFFIC SIGNS, STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION, DEAD-END BARRICADES AND MARKINGS, AND OTHER REQUIRED TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CITY'S TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. 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 PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 FOURTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING OR DAMAGE TO THE EXISTING MULTI-USE PATH WILL BE REPAIRED OR REPLACED.
- CONTACT KAREN DIXON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- PROJECT SHALL COMPLY WITH CPPIA 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.
- IF THE CONTRACTOR DESIRES CPPIA 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.
- ANY IRRIGATION SYSTEM SUPPLIED BY CPPIA WATER SHALL COMPLY WITH CPPIA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CPPIA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USFCO/CHOR OR ASSE.
- 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.
- UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
- EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY HANOVER DESIGN SERVICES, P.A. AND PROVIDED BY OWNER.
- THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
- ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.
- WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.
- ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
- SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
- REFER TO THE PLUMBING DRAWINGS FOR LOCATION AND INVERTS OF NEW WASTE AND WATER LINES.

NOTES AND DETAILS

OWNER: NELSON MACRAE MIDTOWN ONE, LLC
P.O. BOX 3146
WILMINGTON, N.C. 28406
910-982-3900

NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9804
office@nteng.com
lic#C-3641

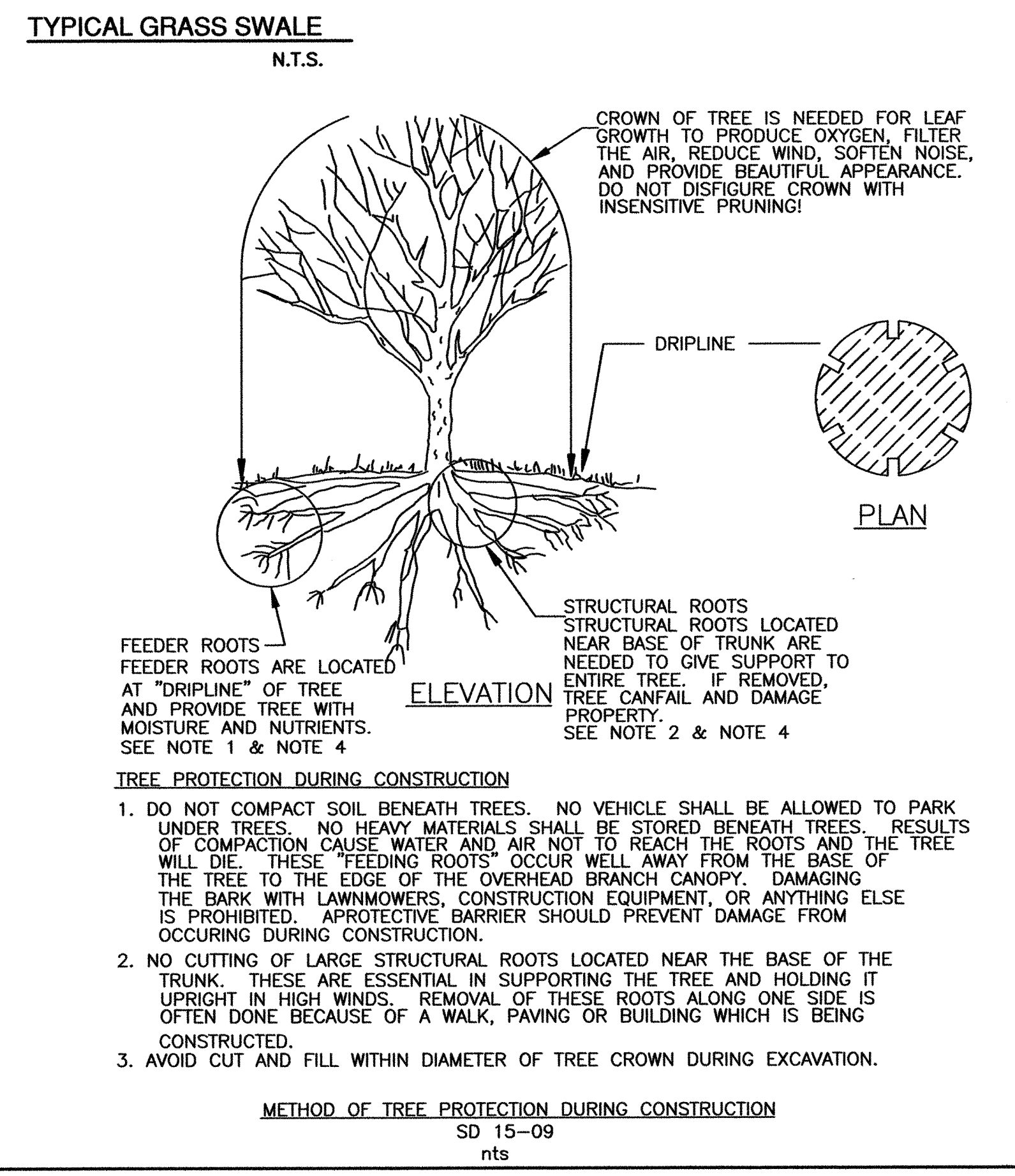
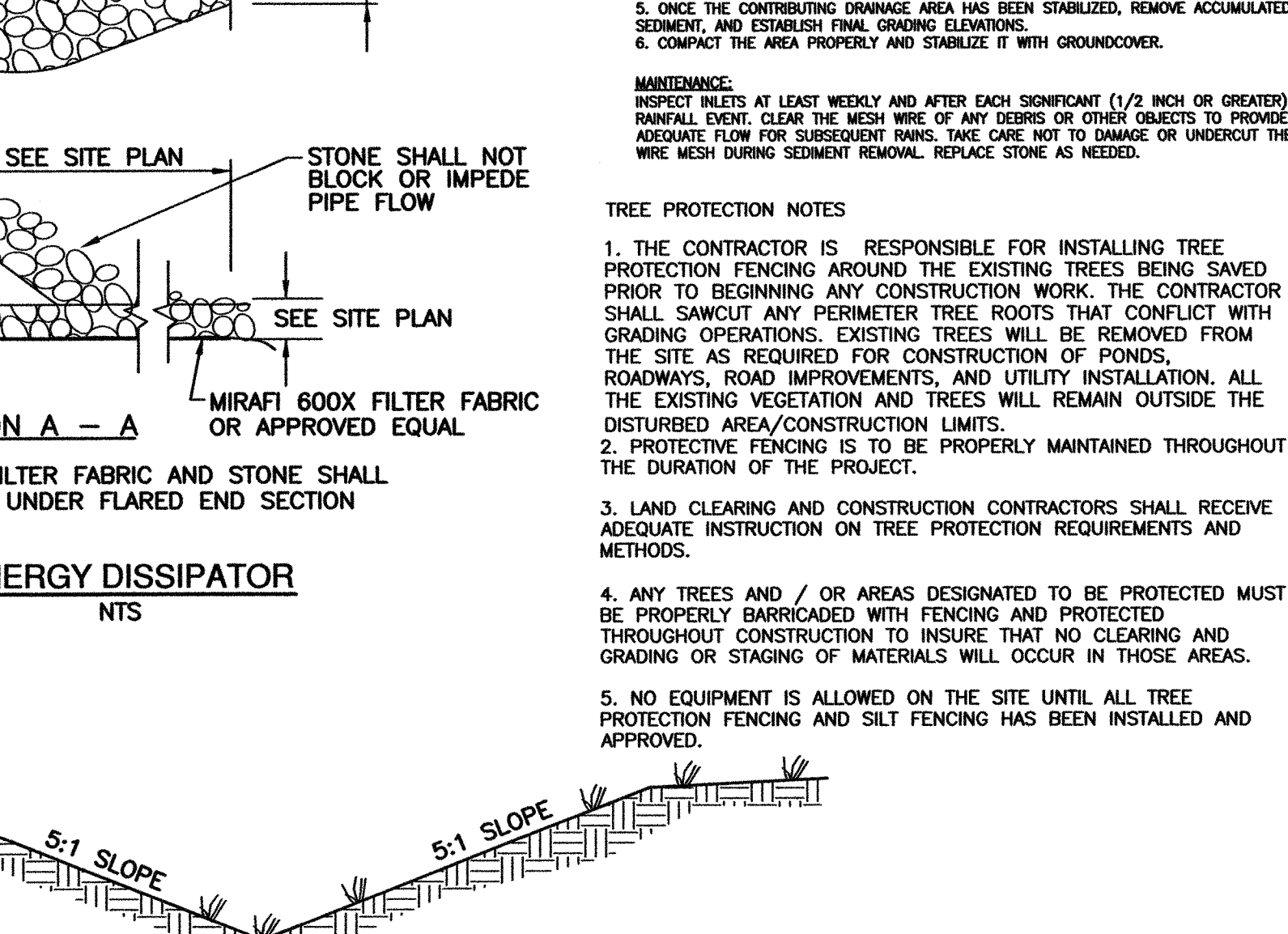
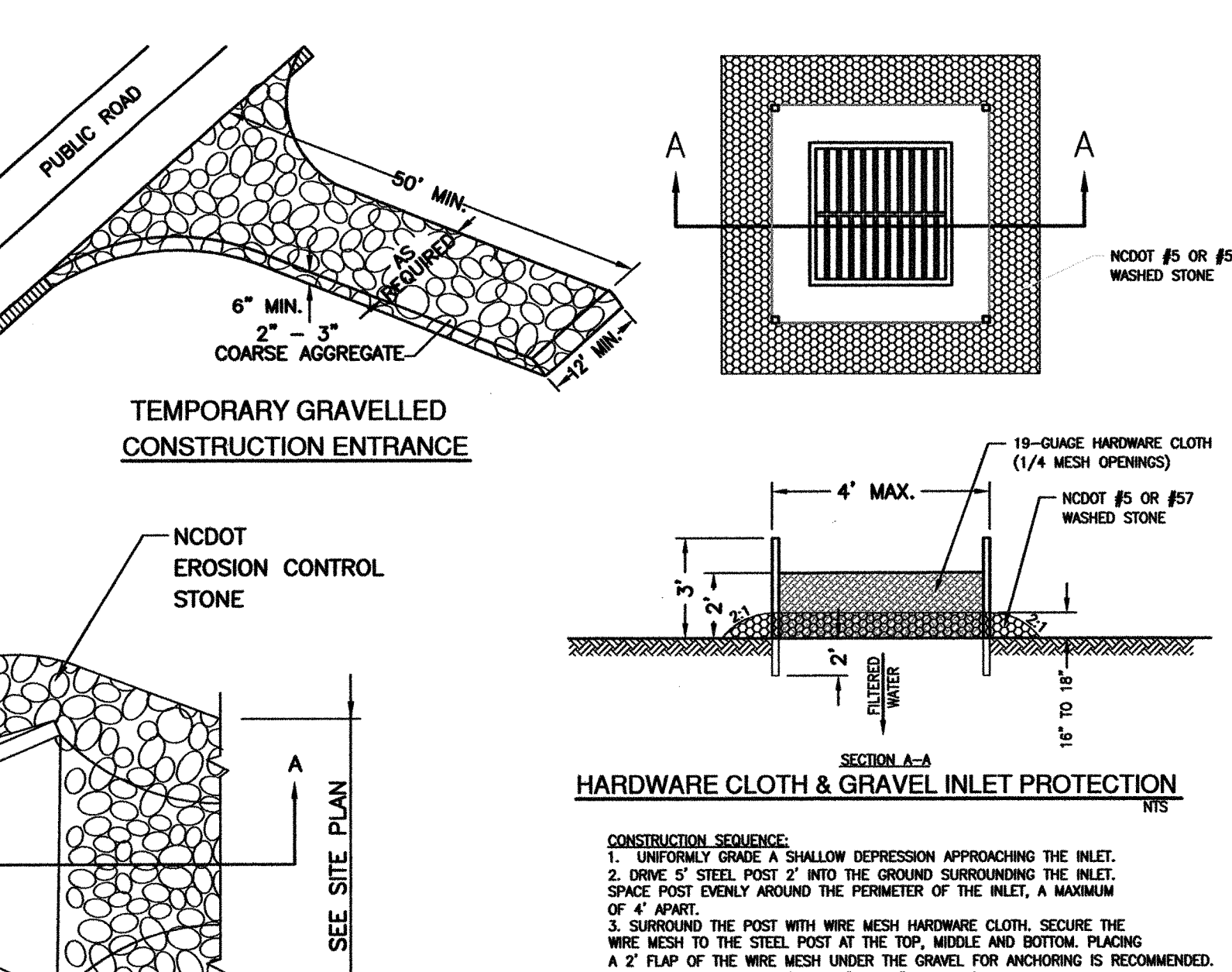
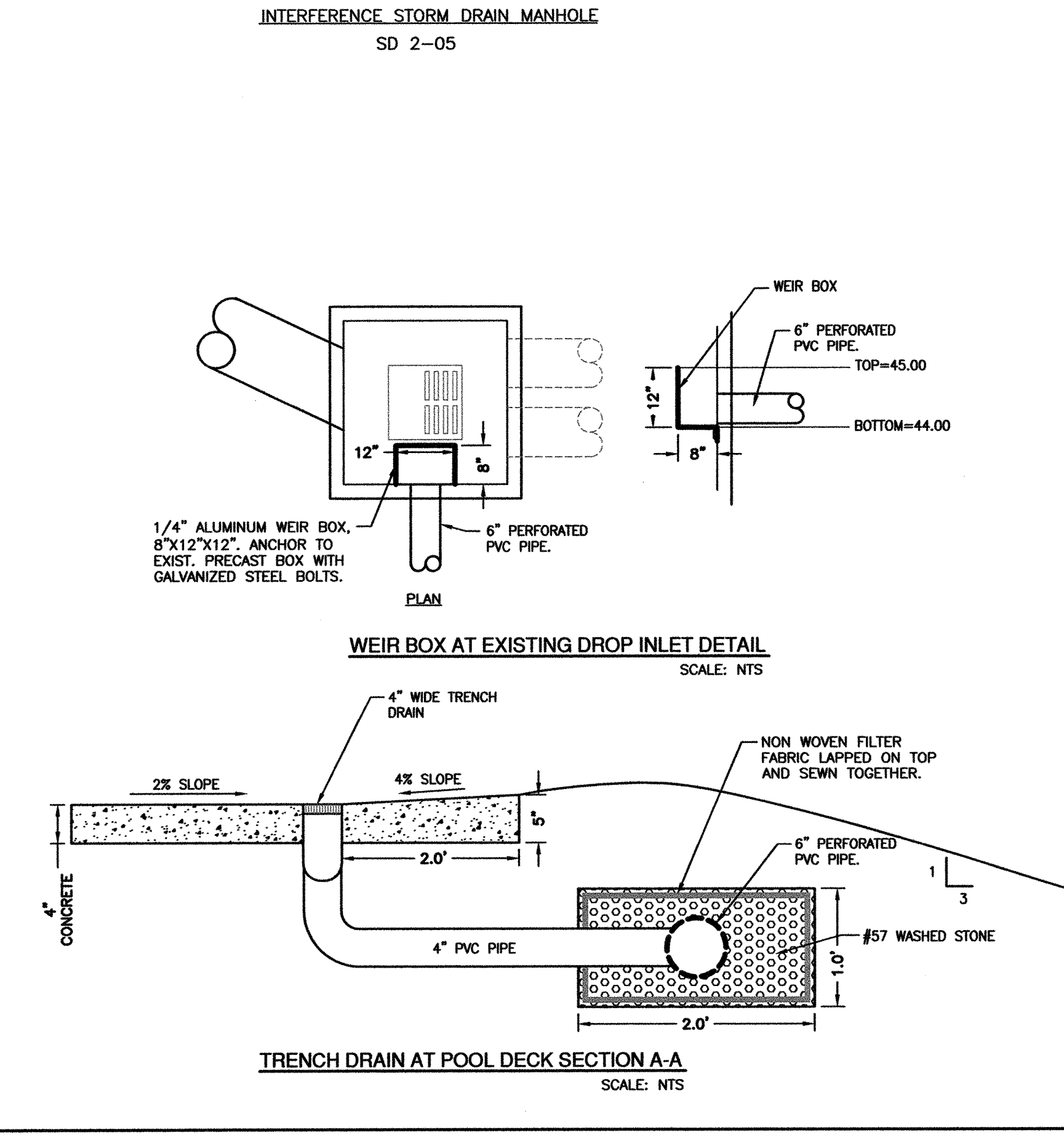
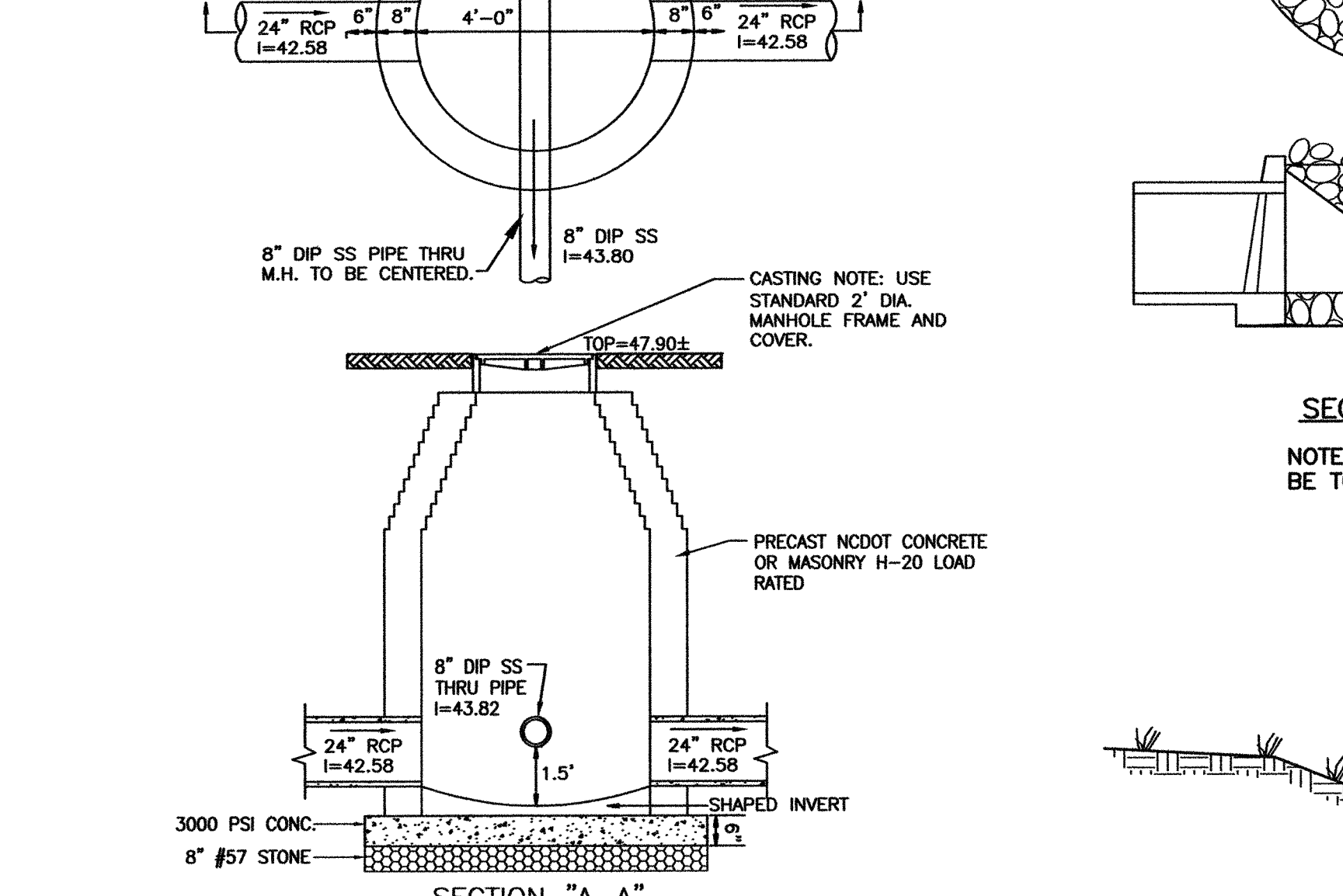
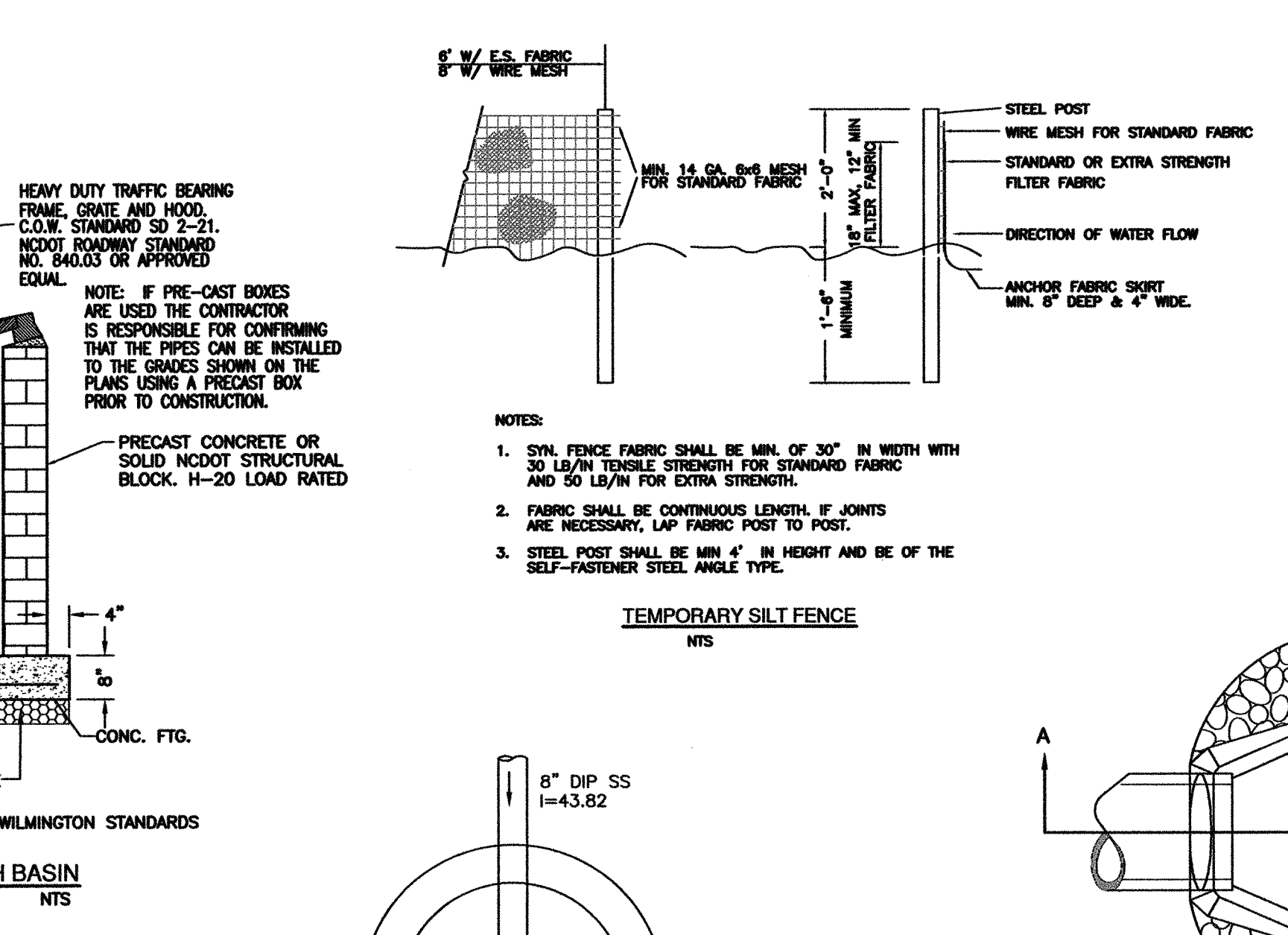
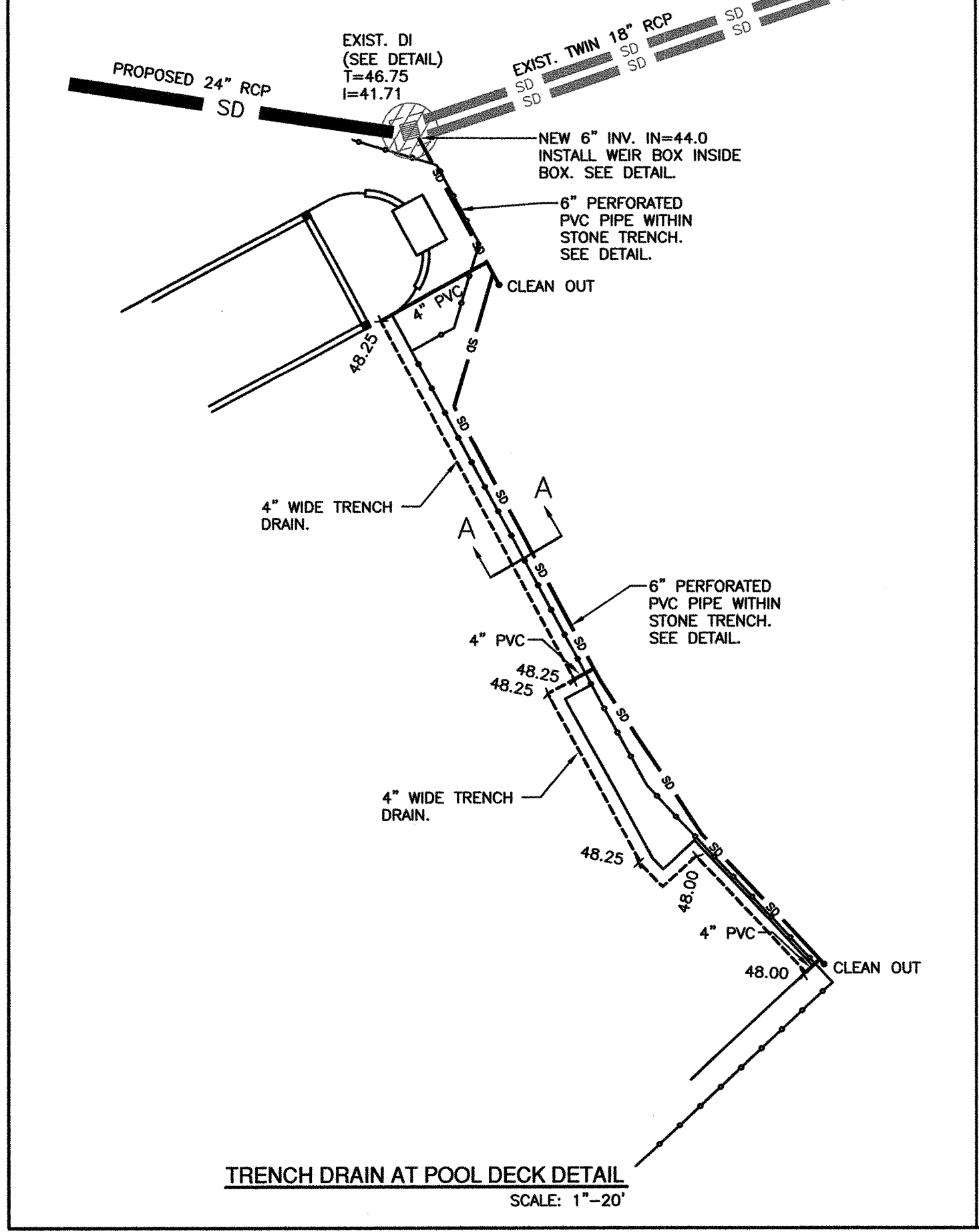
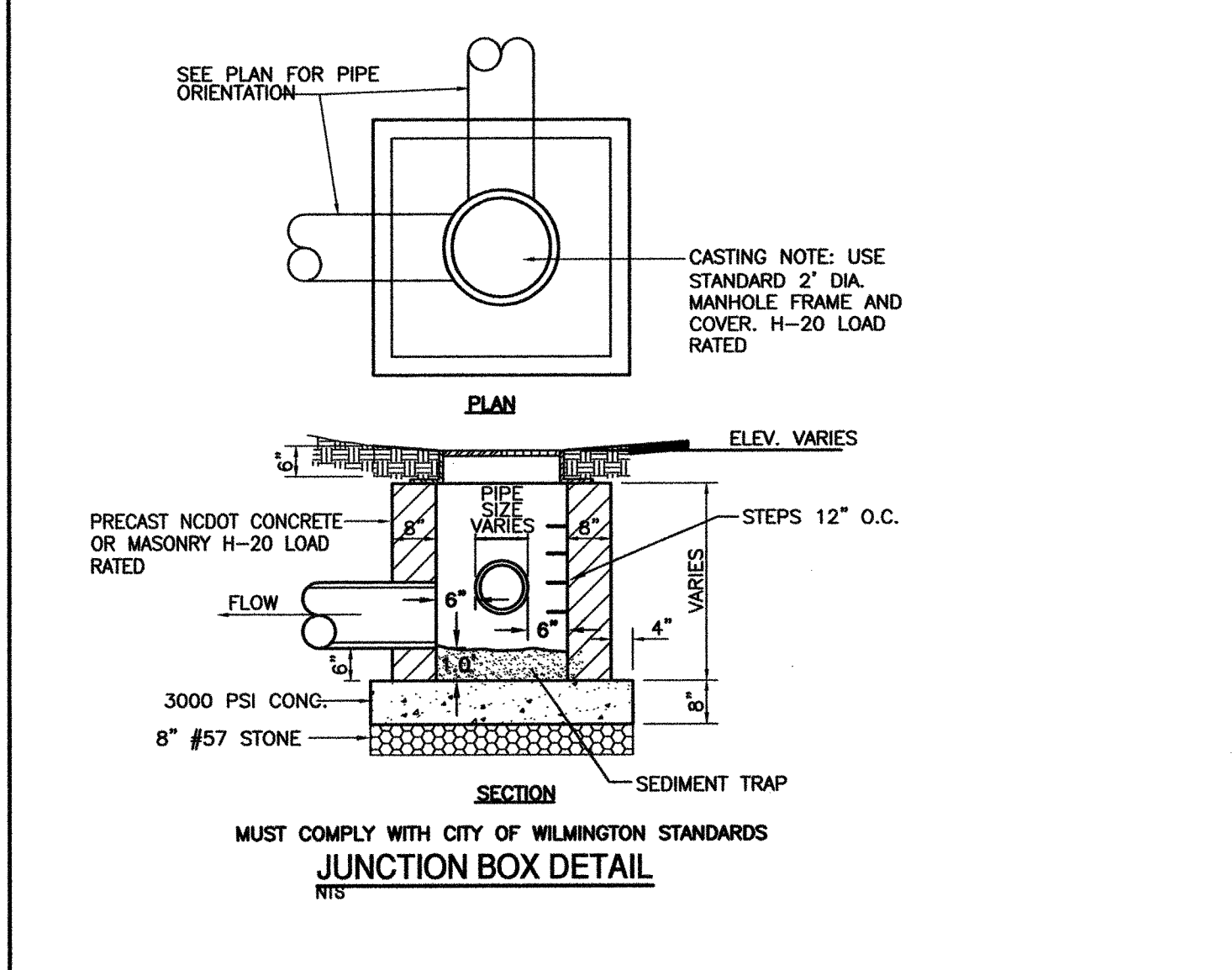
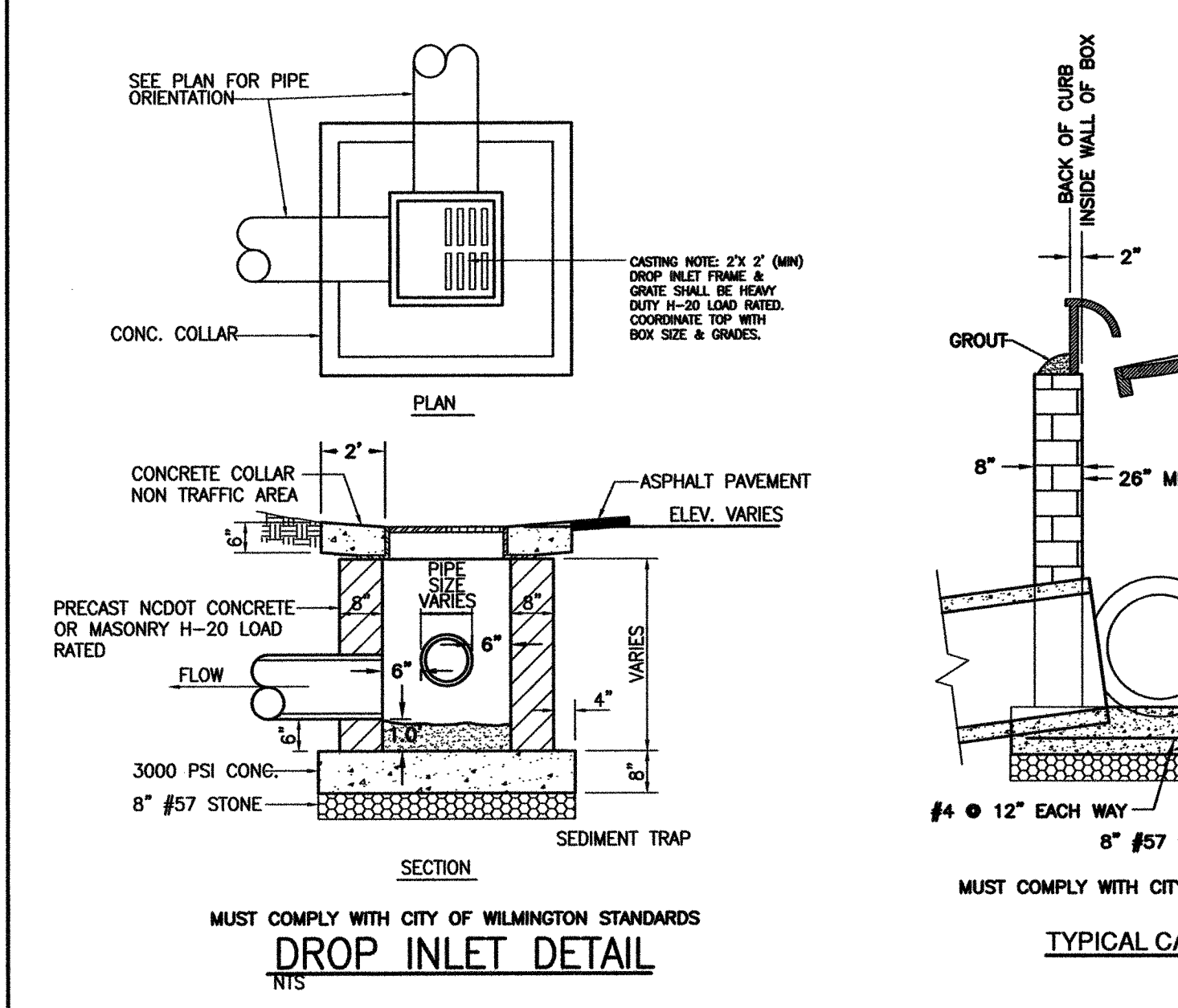
HUD/PERMIT SET
12073
DES. JST
CHKD. JPN
DRWN. NKS
DATE 5/2/13

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

C6

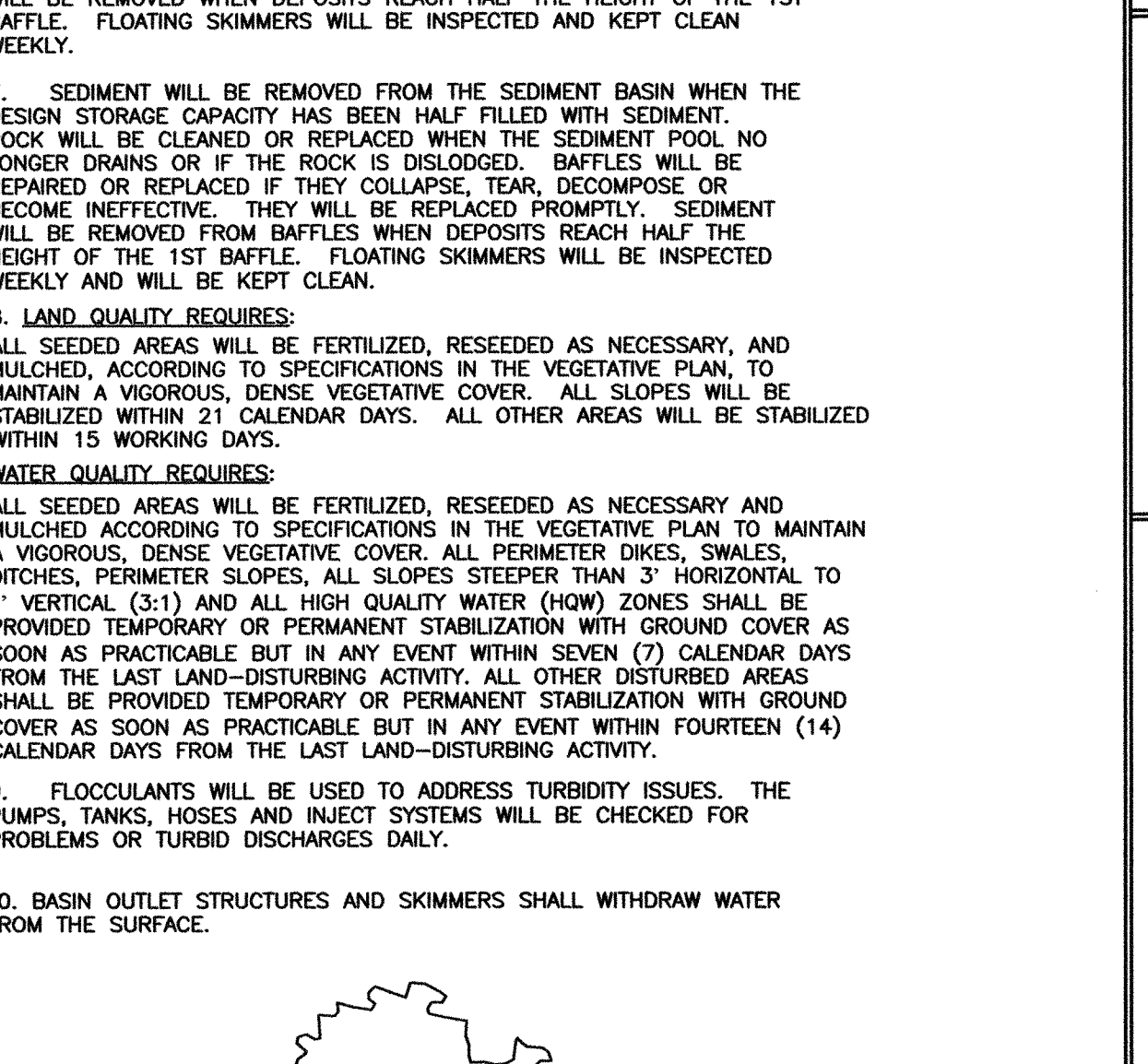
BY	DESCRIPTION	DATE	REVISIONS
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NOTES AND DETAILS
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA



EROSION CONTROL NOTES AND MAINTENANCE PLAN

- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATED FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.
- 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. MAINTENANCE WILL BE PERFORMED IMMEDIATELY AFTER RAIN OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
- DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIGS WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
- 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, THE ROCK WILL BE REPAIRED IMMEDIATELY IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
- SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.
- SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
- LAND QUALITY REQUIRES:
ALL SEEDED 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 15 WORKING DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
WATER QUALITY REQUIRES:
ALL SEEDED 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 DIKES, SWALES, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3:1 HORIZONTAL TO 1:1 VERTICAL (3:1) AND ALL HIGH QUALITY WATER (HOW) ZONES 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.
- FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.
- BASIN OUTLET STRUCTURES AND SKIMMERS SHALL WITHDRAW WATER FROM THE SURFACE.



City of WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____

Approved Construction Plan

Name: _____ Date: _____

Planning _____
Traffic _____
Fire _____

HUD/PERMIT SET
12073

DES. JST
CHK. JPN
DRWN. NKS

DATE 5/2/13

WILMINGTON PROFESSIONAL ENGINEERS ASSOCIATION
BEAL 19651
NORRIS & TUNSTALL ENGINEERS, INC.

C7

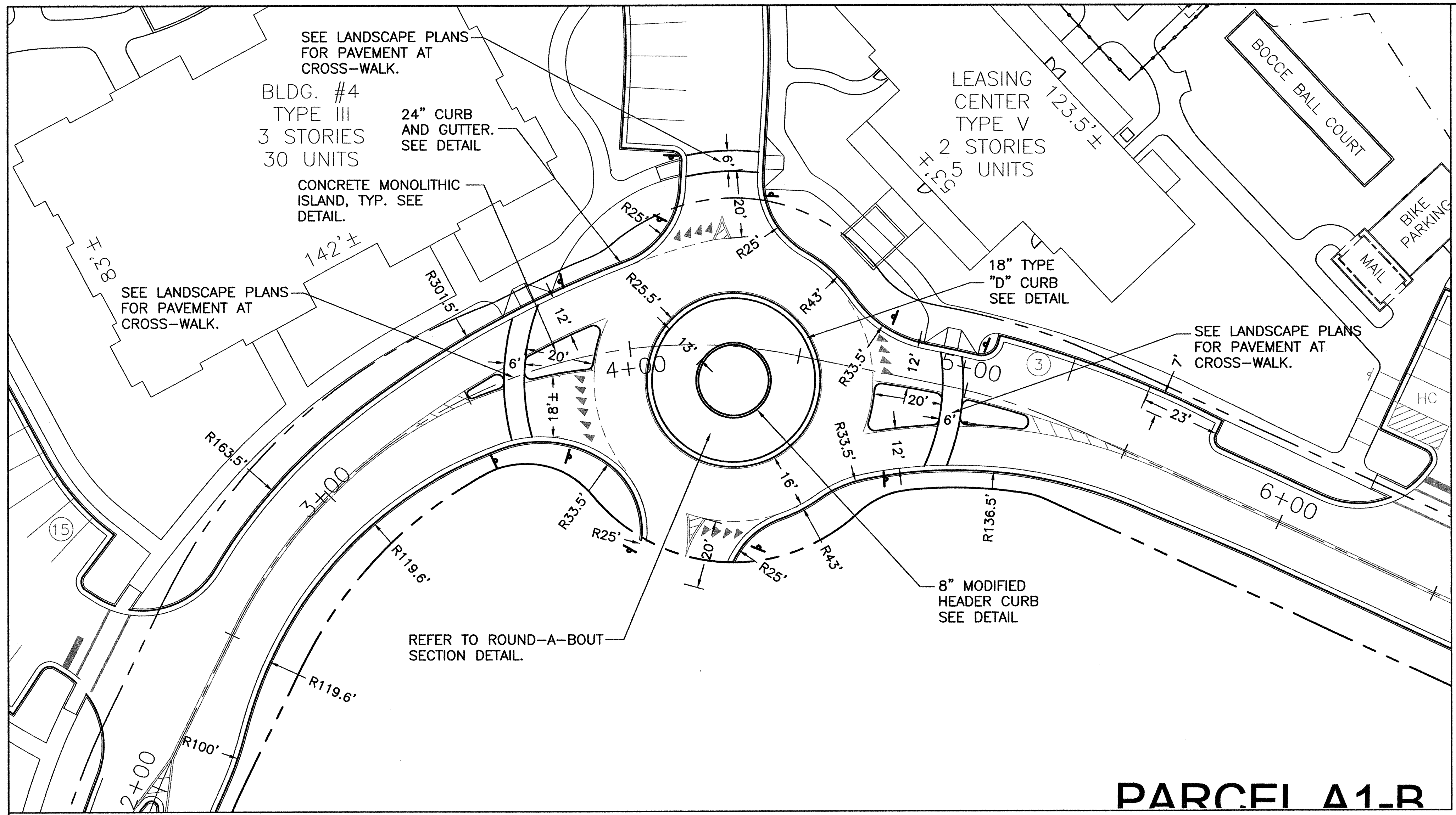
NOTES AND DETAILS
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACPRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
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910-392-3300

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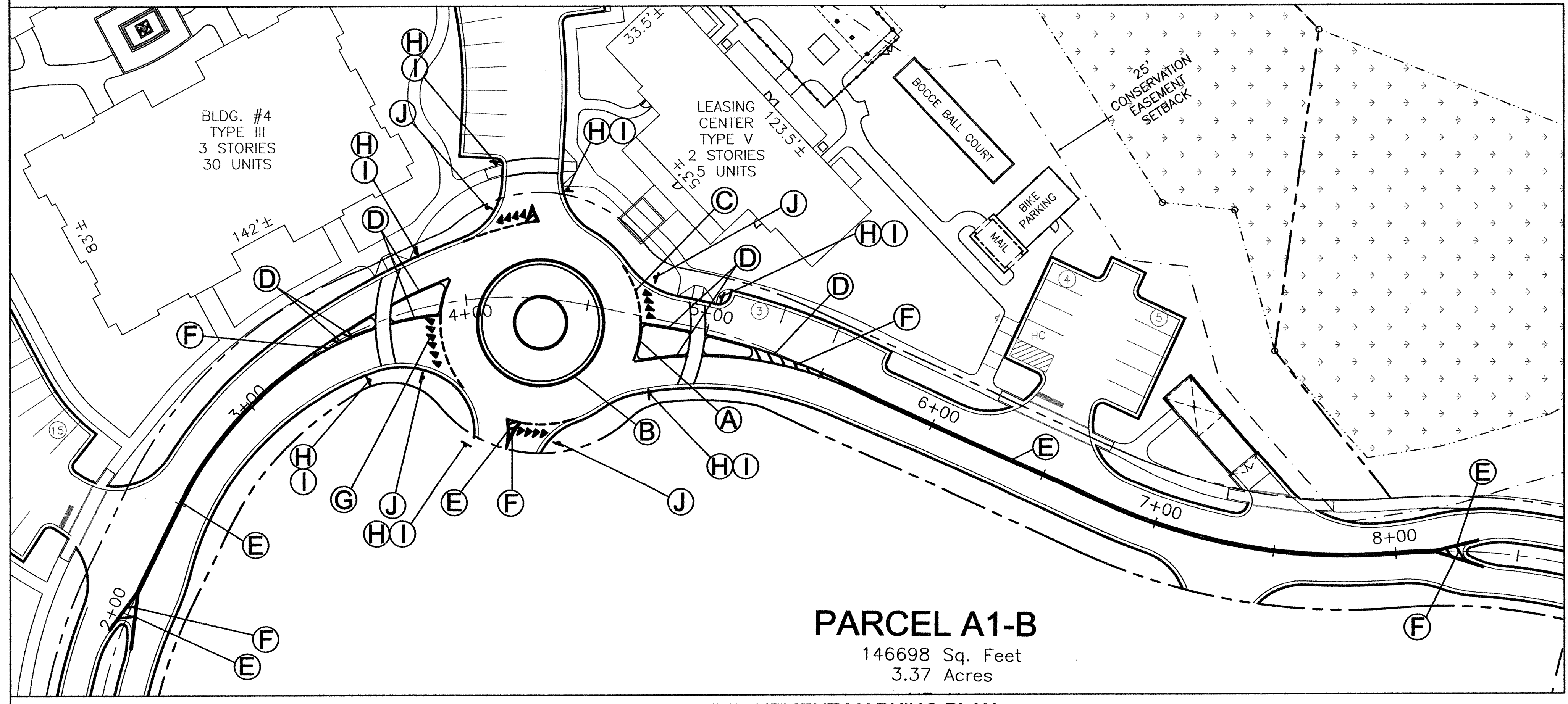
BY _____
REVISIONS _____
DESCRIPTION _____
DATE _____

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PARCEL A1-B

ROUND-A-BOUT LAYOUT DETAIL PLAN
SCALE: 1"=20'



PARCEL A1-B

146698 Sq. Feet
3.37 Acres

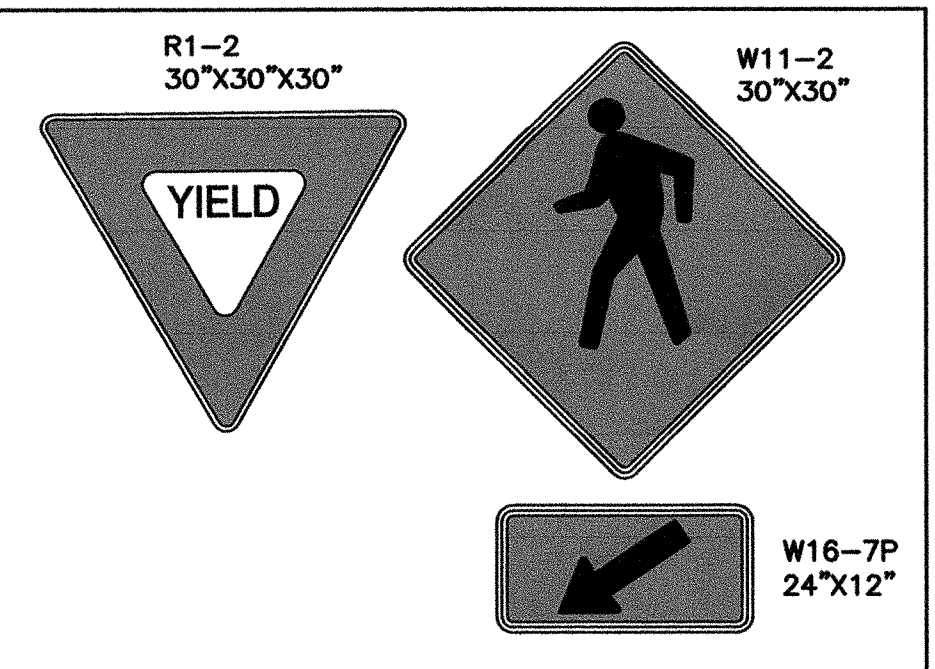
ROUND-A-BOUT PAVEMENT MARKING PLAN
SCALE: 1"=30'

LEGEND

- (A) 4" WHITE EDGE LINE
- (B) 4" YELLOW EDGE LINE
- (C) 4" 2 FT. WHITE MINI SKIP WITH 4 FT. GAP
- (D) 4" YELLOW SINGLE CENTER LINE
- (E) 4" YELLOW DOUBLE CENTER LINE
- (F) 8" YELLOW DIAGONAL LINE
- (G) WHITE TRIANGLES
- (H) W11-2
- (I) W16-7P
- (J) R1-2

NOTES:

1. All pavement markings shall be to NCDOT Standards.
2. All pavement markings shall be thermoplastic.



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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ROUND-A-BOUT DETAILS
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

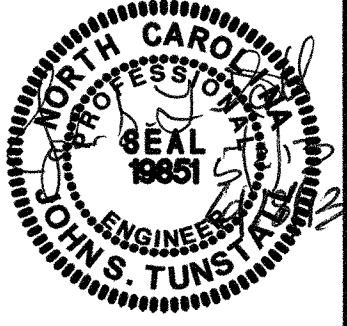
OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3146
WILMINGTON, N.C. 28406
910-382-3300

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
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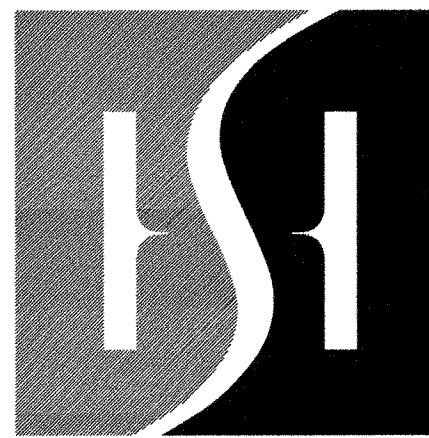
HUD/PERMIT SET

12073

DES. JST
CRD. JPN
DRWN. NKS
DATE 5/2/13



C8



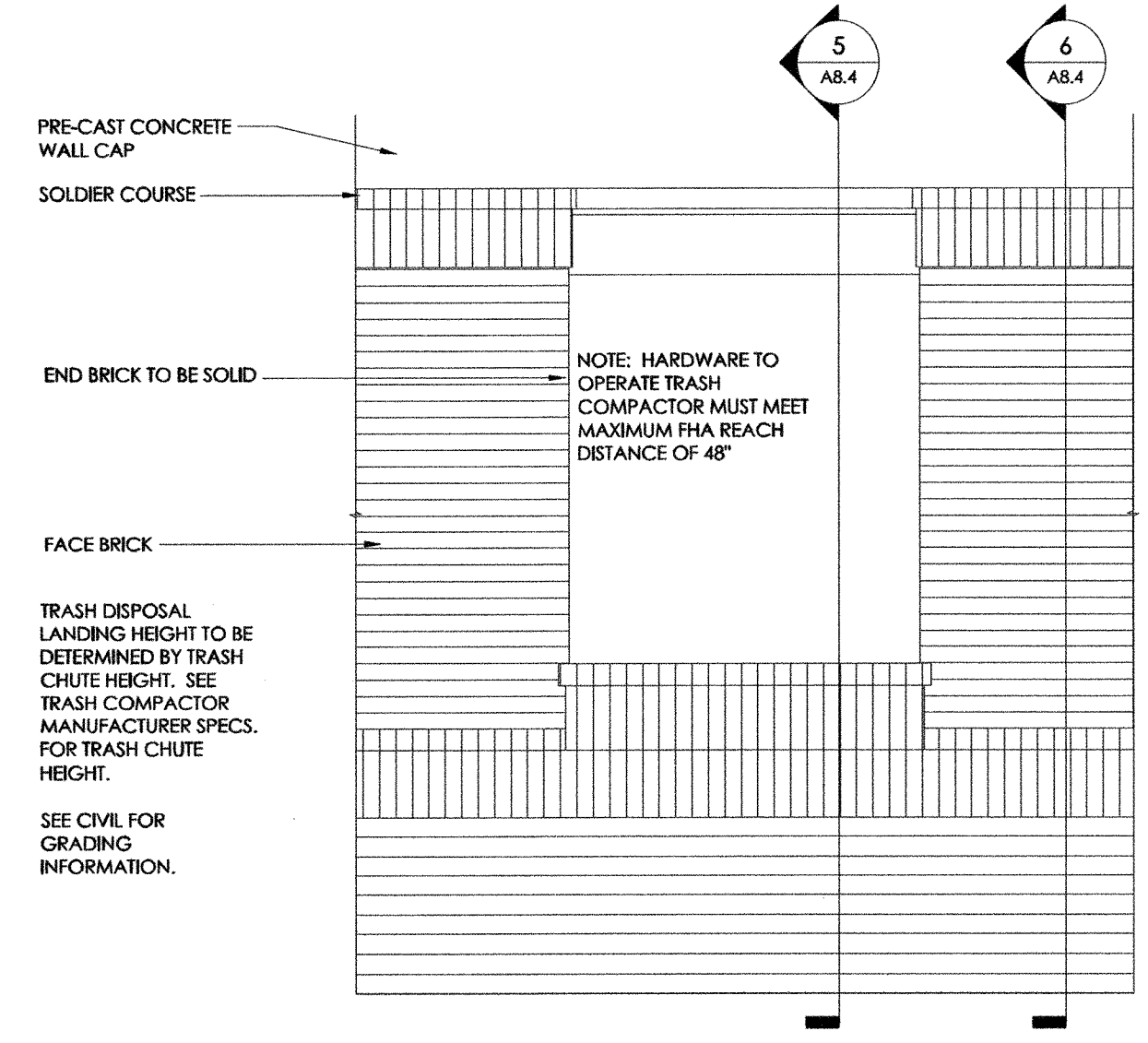
HOUSING STUDIO

333 West Trade Street, Suite 300
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T: 704.333.7862 F: 704.343.9380

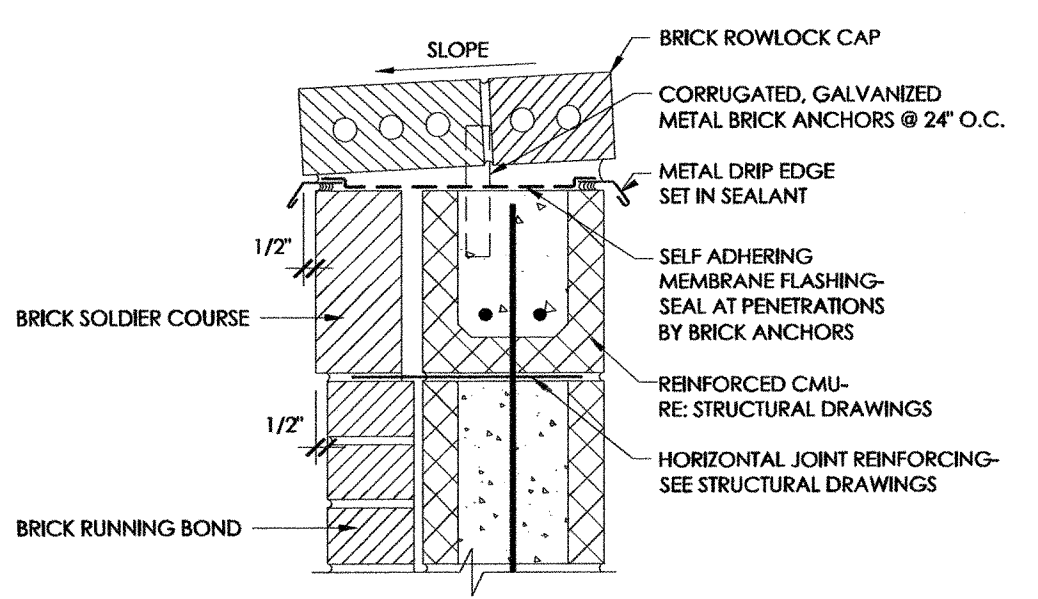
TIBURON PARC
APARTMENT HOMES
WILMINGTON, NC

THE
OLEANDER
COMPANY

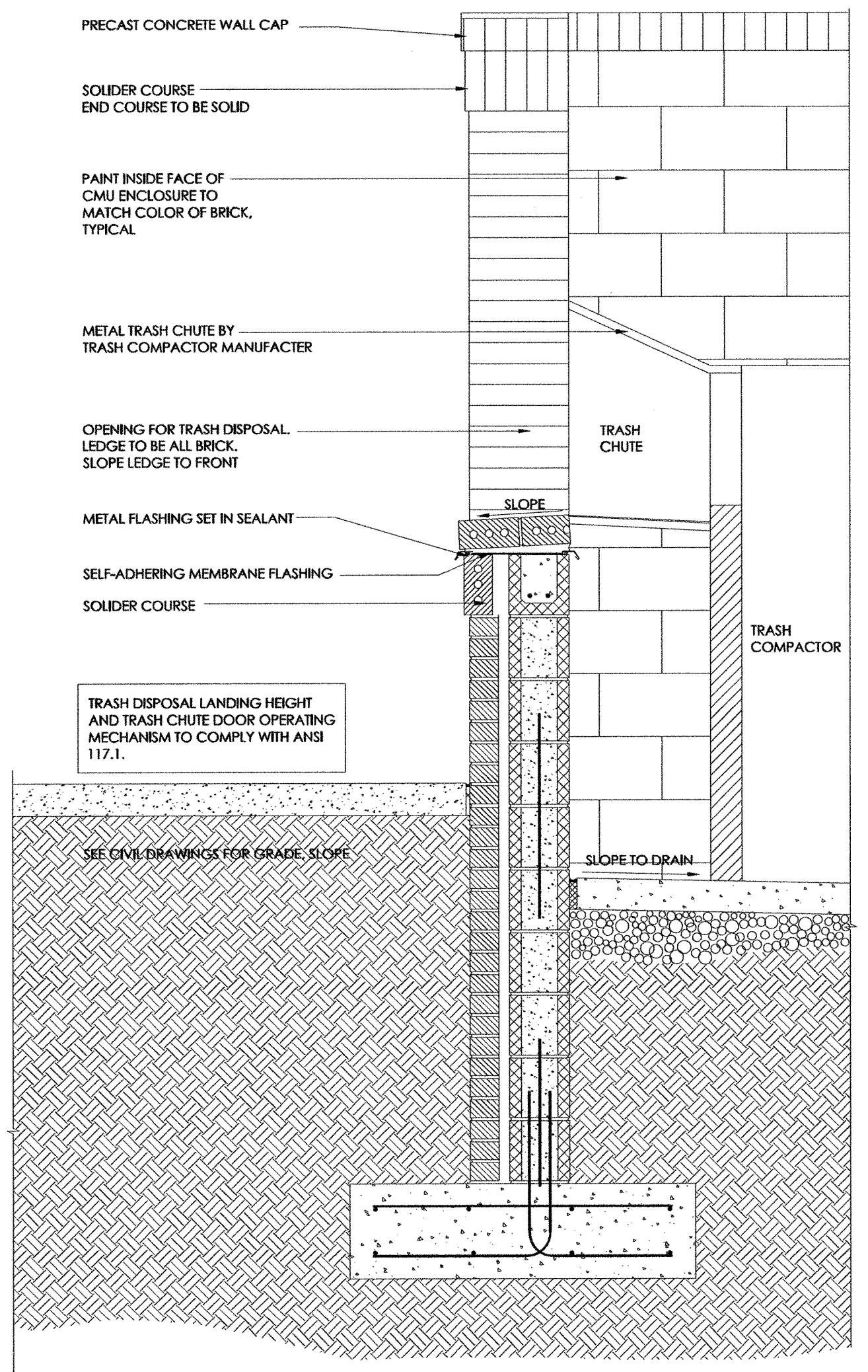
Project No: 2923
Issue Date: NOV. 30, 2012
Issue For: 60% PROGRESS SET
Issue Date: DEC. 31, 2012
Issue For: 90% PROGRESS SET
Issue Date: FEB. 18, 2013
Issue For: HUD/Permit Set



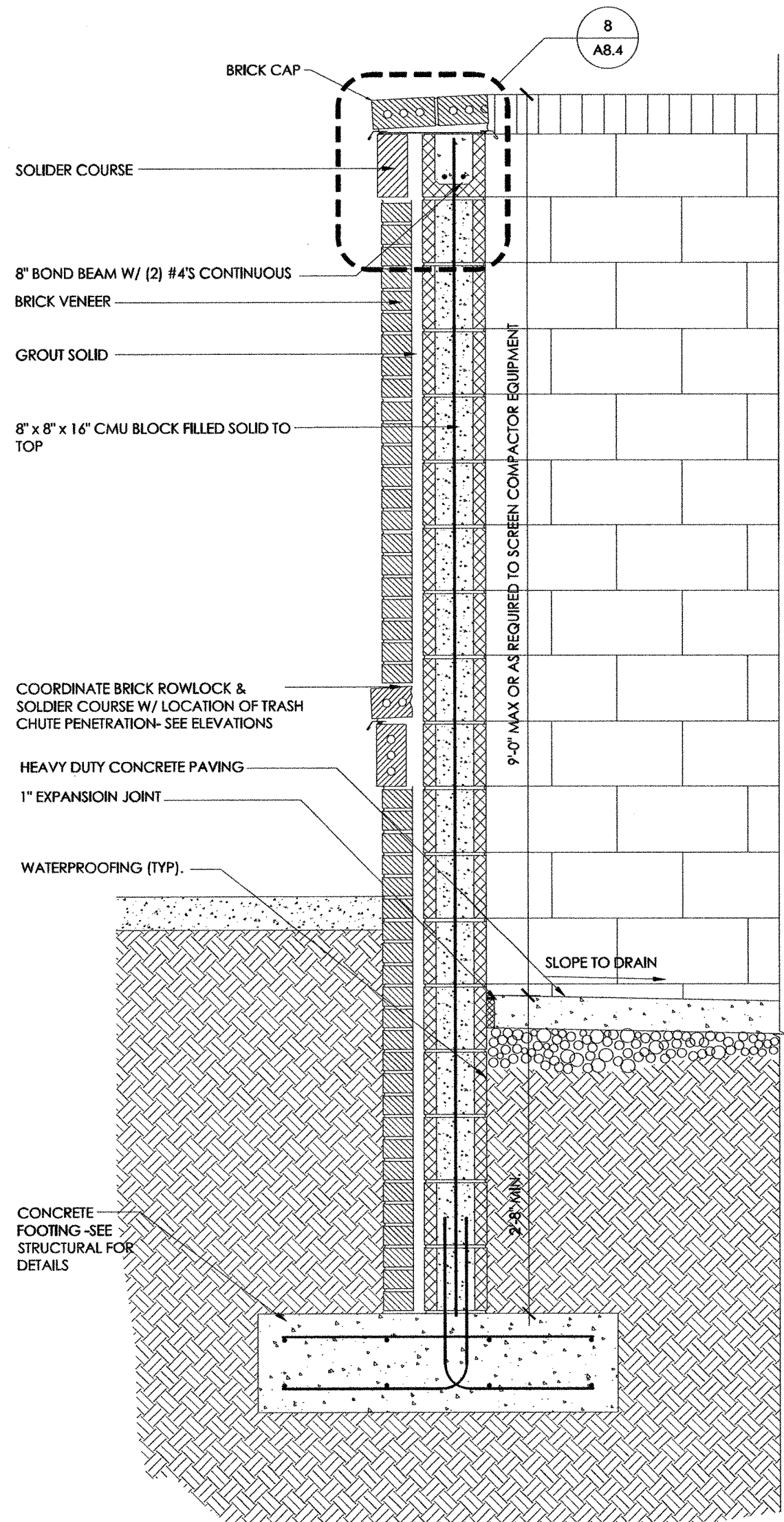
7 DUMPSTER ENCLOSURE ENLARGED ELEVATION
1/2" = 1'-0"



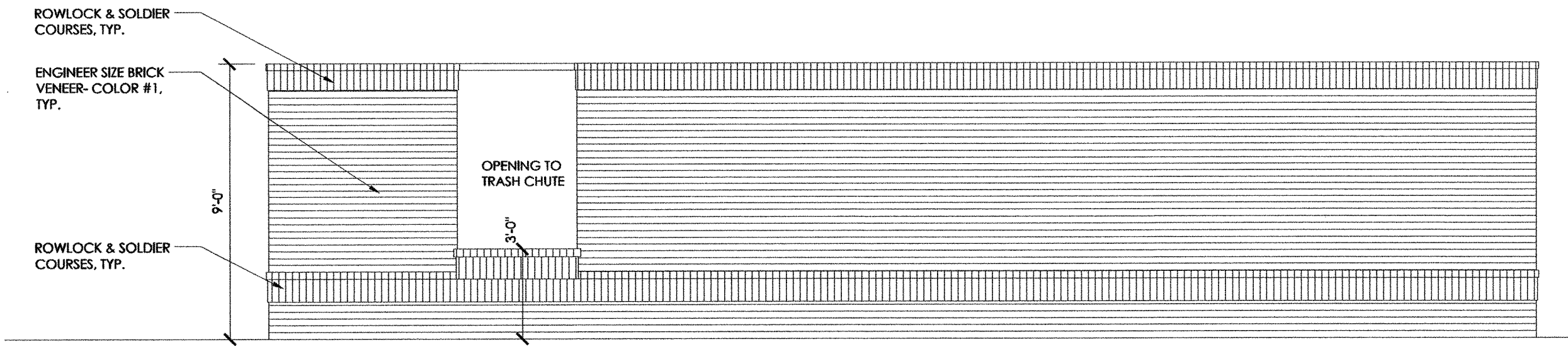
8 WALL CAP DETAIL
1 1/2" = 1'-0"



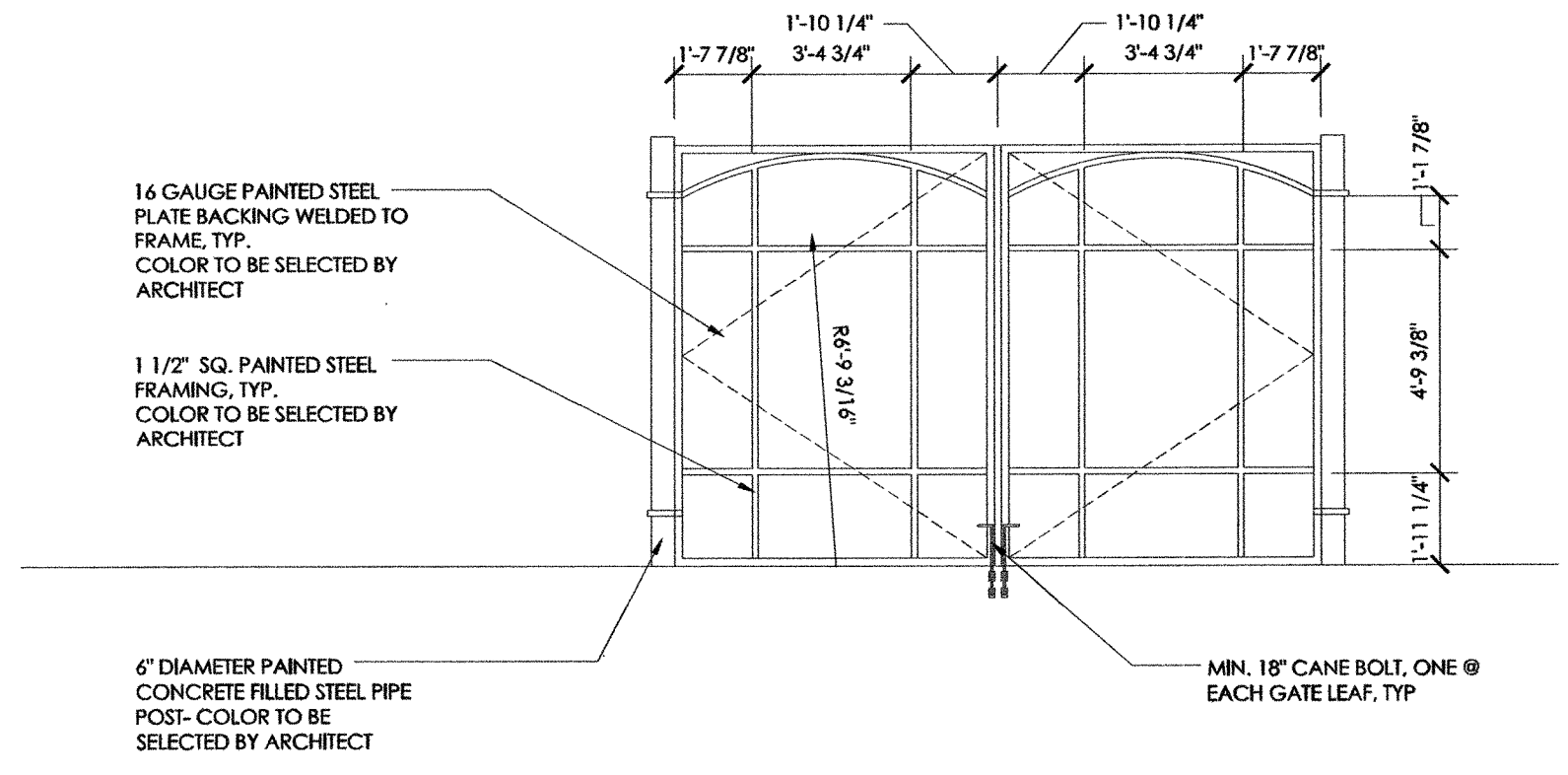
5 TRASH CHUTE WALL SECTION
3/4" = 1'-0"



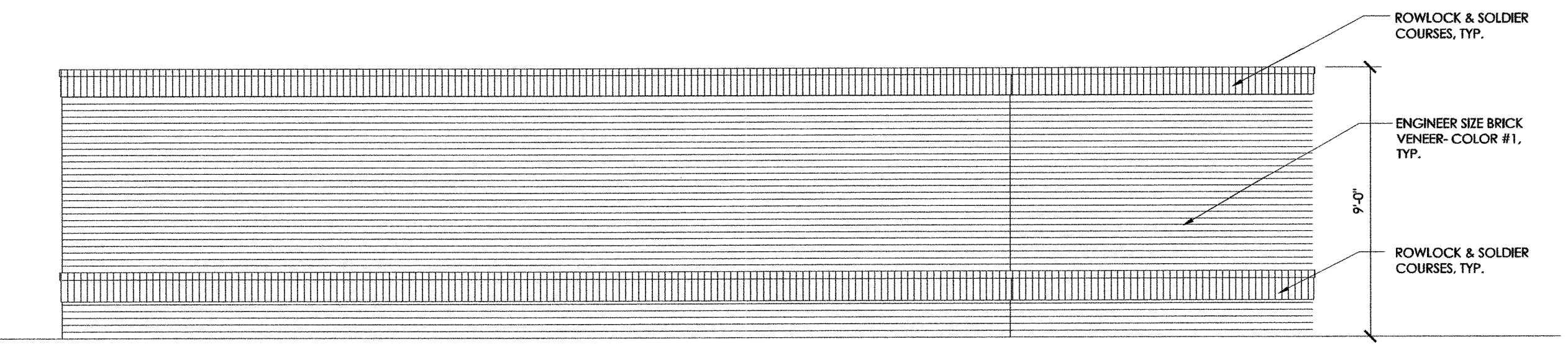
6 DUMPSTER ENCLOSURE WALL SECTION
3/4" = 1'-0"



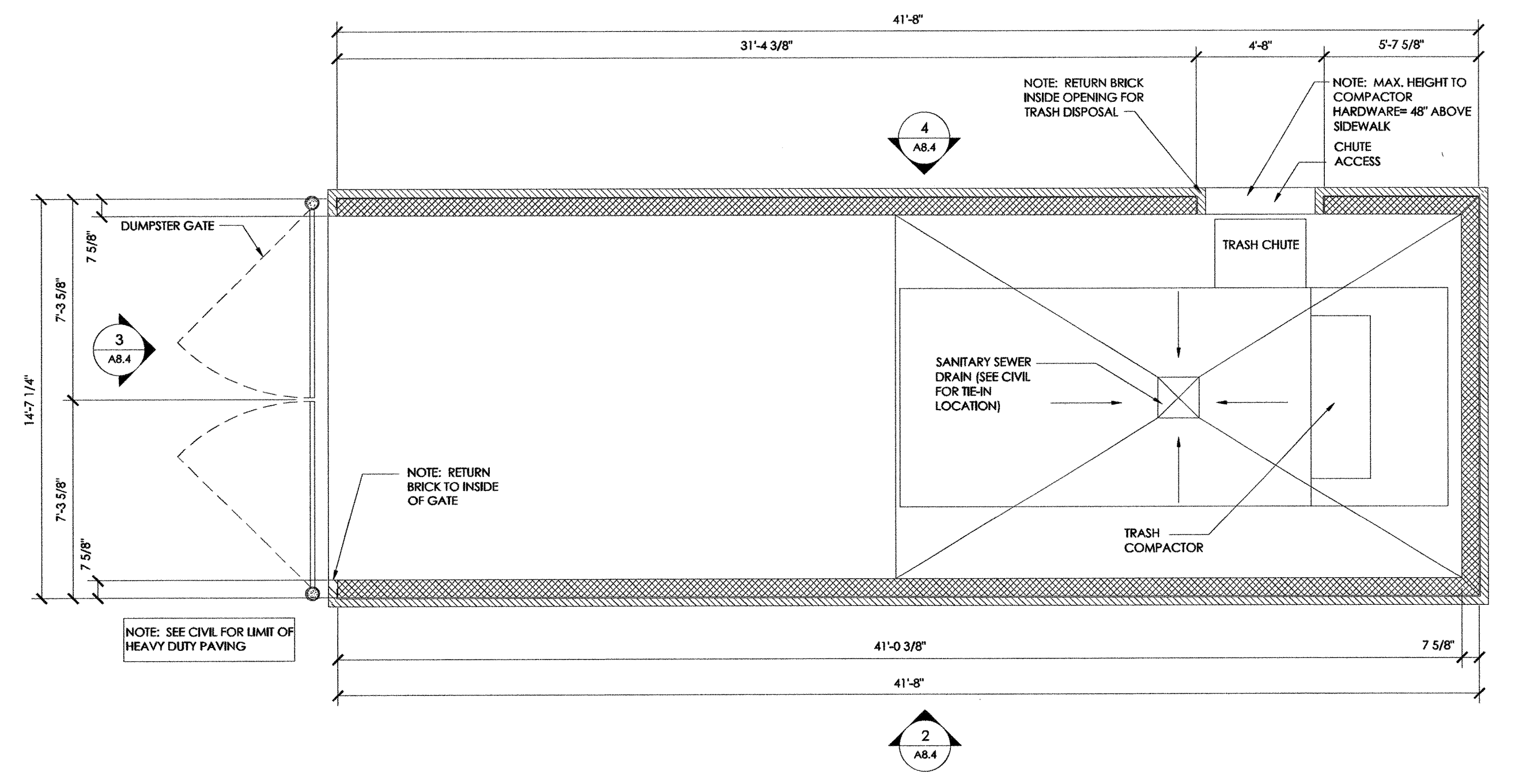
4 DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"



3 DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"



2 DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"



1 DUMPSTER ENCLOSURE PLAN
1/4" = 1'-0"

DUMPSTER ENCLOSURE PLAN & ELEVATIONS

A8.4

CONTINUOUS LINES

EDGE LINE: YELLOW OR WHITE, 4" / 16"

LANE LINE: WHITE, 4" / 16"

CENTER LINE: YELLOW, 4" / 16"

GORE LINE: WHITE, 6" / 12"

DIAGONAL LINE: YELLOW OR WHITE, 12" 45 MPH OR HIGHER, 6" LESS THAN 45 MPH

CROSSWALK LINE: WHITE, 6" TRANSVERSE, 24" LONGITUDINAL

RXR LINE: WHITE, 16"

STOP OR TRANSVERSE BAR: WHITE, 24"

10'-30'/SP SKIP LINE

2'-6'/SP MINI-SKIP LINE

3'-3'/SP MINI-SKIP LINE

3'-9'/SP MINI-SKIP LINE

GENERAL NOTES:
 1. USE OF LANE, EDGE, AND CENTER LINES ON ALL FULL CONTROL OF ACCESS FACILITIES AND OTHER ROUTES AS DIRECTED BY THE ENGINEER.
 2. LANE LINES INDICATED AS "WIDE" ON THE ROADWAY STANDARD DRAWINGS SHALL BE AT LEAST TWICE THE WIDTH OF THE NORMAL LINE.
 3. GORE LINES SHALL BE TWICE THE WIDTH OF THE NORMAL LINE.

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS LINE TYPES AND OFFSETS
 SHEET 1 OF 2
1205.01

DIRECT TAPER TURN LANE

TURN LANE BAYS < 125 FT.

TURN LANE BAYS 125 - 250 FT.

TURN LANE BAYS 250 FT. OR GREATER

LEFT TURN LANE DEVELOPED FROM TWO-WAY TURN LANE

DOUBLE TURN LANES

GENERAL NOTES:
 1. USE THE GUIDANCE SHOWN ABOVE IN CONJUNCTION WITH THE INTERSECTION GUIDANCE SHOWN ON ROADWAY STANDARD DRAWING 1205.04.
 2. THE NUMBER OF ARROWS SHOWN IS THE MINIMUM REQUIRED. USE ADDITIONAL ARROWS AS DIRECTED BY THE ENGINEER.

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS TURN LANES
 SHEET 1 OF 1
1205.05

PAVEMENT MARKER SPACING CHART

TYPE OF PAVEMENT MARKING	TYPICAL SPACING (FT)
SKIP LINES AND CENTER LINES ALONG THRU LANES	80
ALONG TAPERED SECTIONS AND HORIZONTAL CURVES LESS THAN 6" HORIZONTAL CURVES ≥ 6"	40
TURN LANES- MINI-SKIP LINES	24
SKIP LINES	40
SOLID LINES	20
CENTER LINES	40
MINI-SKIP LINES AT LANE DROP APPROACHES	24
TWO-WAY RAMP CENTER LINES	40
GORE LINES	20
PAINTED ISLANDS- WHITE	20
YELLOW	40
RAISED MEDIAN ISLANDS	40
WRONG WAY RAMP ARROW	5
TAPERS	40
NARROW BRIDGES- EDGE LINE	20
CENTER LINE	40
ONE-LANE BRIDGES- EDGE LINE	20
WORK ZONE APPLICATIONS	
2-LANE, 2-WAY ON-SITE DIVERSION	20 FT. FOR CENTER LINE
ALL OTHER DIVERSIONS	1/2 NORMAL SPACING

GENERAL NOTES:
 1. MARKERS ARE GENERALLY NOT REQUIRED ALONG EDGE LINES EXCEPT IF DESIGNATED IN THE PLANS OR DIRECTED BY THE ENGINEER. WHEN THEY ARE REQUIRED, SPACE THEM ON 50 FT. CENTERS, AND OFFSET 2 INCHES FROM THE EDGE LINE ON THE TRAFFIC SIDE.
 2. PLACE CRYSTAL/RED MARKERS AT INTERSECTIONS AND INTERCHANGES WHERE WIDENING MOVEMENTS ARE POSSIBLE. POSITION THE RED SIDE OF THE MARKER TO FACE "BROWNS WAY" TRAFFIC. WHEN USED, PLACE CRYSTAL/RED MARKERS ALONG THE ENTIRE LENGTH OF THE PRODUCT.
 3. DO NOT PLACE PAVEMENT MARKERS CLOSER THAN 5 INCHES TO A PAVEMENT CONSTRUCTION JOINT (AS FEASIBLE). EXCEPT WHEN PLACED BETWEEN DOUBLE YELLOW CENTER LINES, AND ALONG YELLOW SKIP LINES ON TWO-LANE, TWO-WAY ROADWAYS WHERE PAVING IS ALLOWED IN BOTH DIRECTIONS.
 4. DO NOT PLACE PAVEMENT MARKERS DIRECTLY ON PAVEMENT MARKING LINES.
 5. PLACE PAVEMENT MARKERS USED IN CONJUNCTION WITH DOUBLE YELLOW CENTER LINES MID-WAY BETWEEN THE LINES, PROVIDE A GAP BETWEEN THE LINES AND THE MARKERS TO REDUCE OVERPAVING THE MARKER DURING REPAVING OPERATIONS.
 6. MARKERS ARE NOT REQUIRED ALONG MINI-SKIP LINES IN TAPERS.

ENGLISH STANDARD DRAWING FOR RAISED PAVEMENT MARKERS INSTALLATION SPACING
 SHEET 1 OF 3
1250.01

EDGE LINE OFFSET DETAIL

CENTER LINE OFFSET DETAIL

LANE LINE OFFSET DETAIL

TWO-WAY UNDIVIDED ROADWAY

TWO-WAY UNDIVIDED ROADWAY WITH TWO-WAY LEFT TURN LANE

MULTI-LANE ROADWAY

TABLE 1
 EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UNPAVED SHOULDERS

WIDTH (W) OF TRAVEL PAYMENT	MAX. EDGE LINE OFFSET FROM E.O.T.	MINIMUM LANE WIDTH (L)
12'	4"	9'
14'	6"	11'
16'	8"	13'
18'	10"	15'
20'	12"	17'
22'	14"	19'
24'	16"	21'
26'	18"	23'
28'	20"	25'
30'	22"	27'
32'	24"	29'
34'	26"	31'
36'	28"	33'
38'	30"	35'
40'	32"	37'

LEGEND:
 W = WIDTH OF TRAVEL LANE
 E.O.T. = EDGE OF TRAVEL
 DIRECTION OF TRAFFIC FLOW

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS LINE TYPES AND OFFSETS
 SHEET 2 OF 2
1205.01

HI-VISIBILITY CROSSWALK

STANDARD CROSSWALK

SIDEWALK

GENERAL NOTES:
 1. THE MINIMUM WIDTH OF STANDARD CROSSWALKS IS 6 FEET. THE MINIMUM WIDTH OF HI-VISIBILITY CROSSWALKS IS 10 FEET.
 2. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4" MIN.
 3. BEYOND THE CURB FACE, A CLEAR SPACE OF 4' X 4' FEET MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK.
 4. PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE. STOP BARS AT STABILIZED INTERSECTIONS SHOULD BE COORDINATED WITH THE SIGNAL DESIGN SECTION OR AS DIRECTED BY THE ENGINEER.
 5. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST MCDOT ROADWAY STANDARD DRAWINGS.

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS PEDESTRIAN CROSSWALKS
 SHEET 1 OF 1
1205.07

10'-30'/SP SKIP LINE

3'-9'/SP MINI-SKIP LINE

GORE LINES

YELLOW CENTER LINES

DETAIL OF PAVEMENT MARKER PLACEMENT

SNOWPLOWABLE RAISED PAVEMENT MARKERS

RAISED REFLECTIVE PAVEMENT MARKERS

LEGEND:
 CRYSTAL/RED PAVEMENT MARKER
 YELLOW/YELLOW PAVEMENT MARKER
 DIRECTION OF TRAFFIC FLOW

ENGLISH STANDARD DRAWING FOR RAISED PAVEMENT MARKERS INSTALLATION SPACING
 SHEET 2 OF 3
1250.01

TWO-LANE, TWO-WAY ROADWAY

UNDIVIDED MULTI-LANE ROADWAY

DIVIDED MULTI-LANE ROADWAY WITH TURN BAY

DIVIDED MULTI-LANE ROADWAY WITH WIDE MEDIAN CROSSOVER

GENERAL NOTES:
 1. PLACEMENT OF STOP BARS AT NON-STABILIZED INTERSECTIONS IS OPTIONAL AND USED WHERE IT IS IMPORTANT TO INDICATE THE POINT WHICH VEHICLES ARE REQUIRED TO STOP. PLACE STOP BARS NO LESS THAN 4 FEET AND NO MORE THAN 50 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. USE 10 FEET AS THE TYPICAL SETBACK DISTANCE OR AS DIRECTED BY THE ENGINEER.
 2. MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.
 3. MINI-SKIP EDGE LINE EXTENSIONS MAY BE PLACED THROUGH INTERSECTIONS AND MAJOR DRIVEWAYS.
 4. REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.06 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

ENGLISH STANDARD DRAWING FOR PAVEMENT MARKINGS INTERSECTIONS
 SHEET 2 OF 2
1205.04

PARTIAL LONGITUDINAL SECTIONS OF PAVED ISLANDS

5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED) ON ASPHALT CONCRETE PAVEMENT

5" MONOLITHIC CONCRETE ISLAND (KEYED IN) ON ASPHALT CONCRETE PAVEMENT

5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED) ON CONCRETE PAVEMENT

PAVED CONCRETE ISLAND

NOTE:
 WHEN MONOLITHIC CONCRETE ISLAND IS ON TOP OF SURFACE COURSE, DRIVE 400 SPIKES INTO SURFACE UNDER MONOLITHIC CONCRETE ISLAND. STAGGER SPIKES ON 2' CENTERS EACH WAY. IN THE CONCRETE PAVEMENT (ISLAND) AND CONCRETE ISLAND (MONOLITHIC) PLACE 1/2" EXPANSION JOINTS AT 30' INTERVALS AND GROOVED JOINTS 1" DEEP AT 10' INTERVALS BETWEEN EXPANSION JOINTS.

LINE UP THE JOINTS IN THE CONCRETE PAVEMENT (ISLAND) WITH THE JOINTS IN THE CURB OR CURB AND GUTTER. FILL AND SEAL THE TOP 1/2" OF THE EXPANSION JOINTS AND THE ENTIRE DEPTH OF GROOVED JOINTS WITH JOINT SEALER.

FOR JOINTS IN THE CURB AND/OR CURB AND GUTTER, SEE STANDARD NO. 846.01

ENGLISH STANDARD DRAWING FOR CONCRETE ISLANDS
 SHEET 1 OF 1
852.01

AUXILIARY TURN LANES

YELLOW PAINTED ISLANDS

WHITE PAINTED ISLANDS

LEGEND:
 DIRECTION OF TRAFFIC FLOW
 CRYSTAL/RED PAVEMENT MARKER
 YELLOW/YELLOW PAVEMENT MARKER
 PAVEMENT MARKING SYMBOL

ENGLISH STANDARD DRAWING FOR RAISED PAVEMENT MARKERS INSTALLATION SPACING
 SHEET 3 OF 3
1250.01

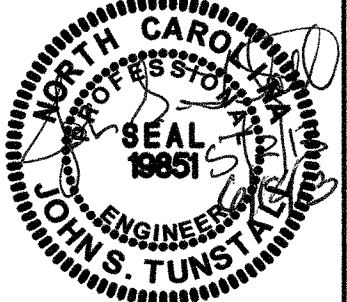
NOTES AND DETAILS
 TIBURON PARC APARTMENTS
 2945 MOYNET WAY
 WILMINGTON, NORTH CAROLINA

OWNER:
 NELSON MACRAE
 MIDTOWN ONE, LLC
 P.O. BOX 3145
 WILMINGTON, N.C. 28406
 910-392-3300

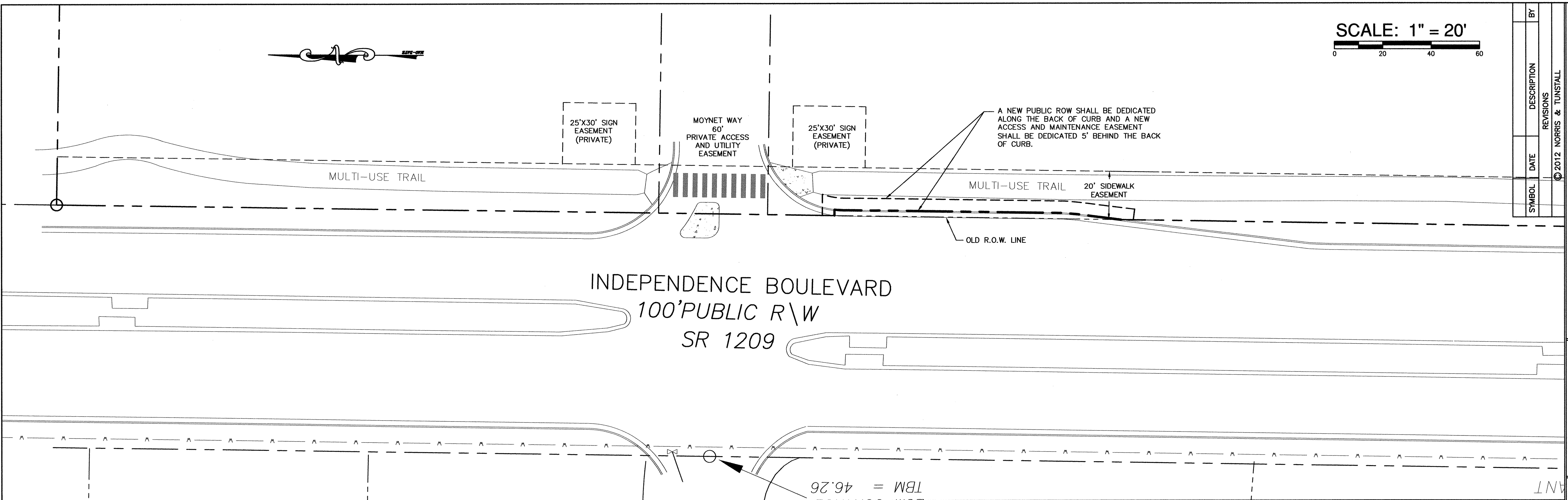
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HUD/PERMIT SET
12073
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 DRWN. NKS
 DATE 5/2/13

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 Name _____ Date _____
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C9

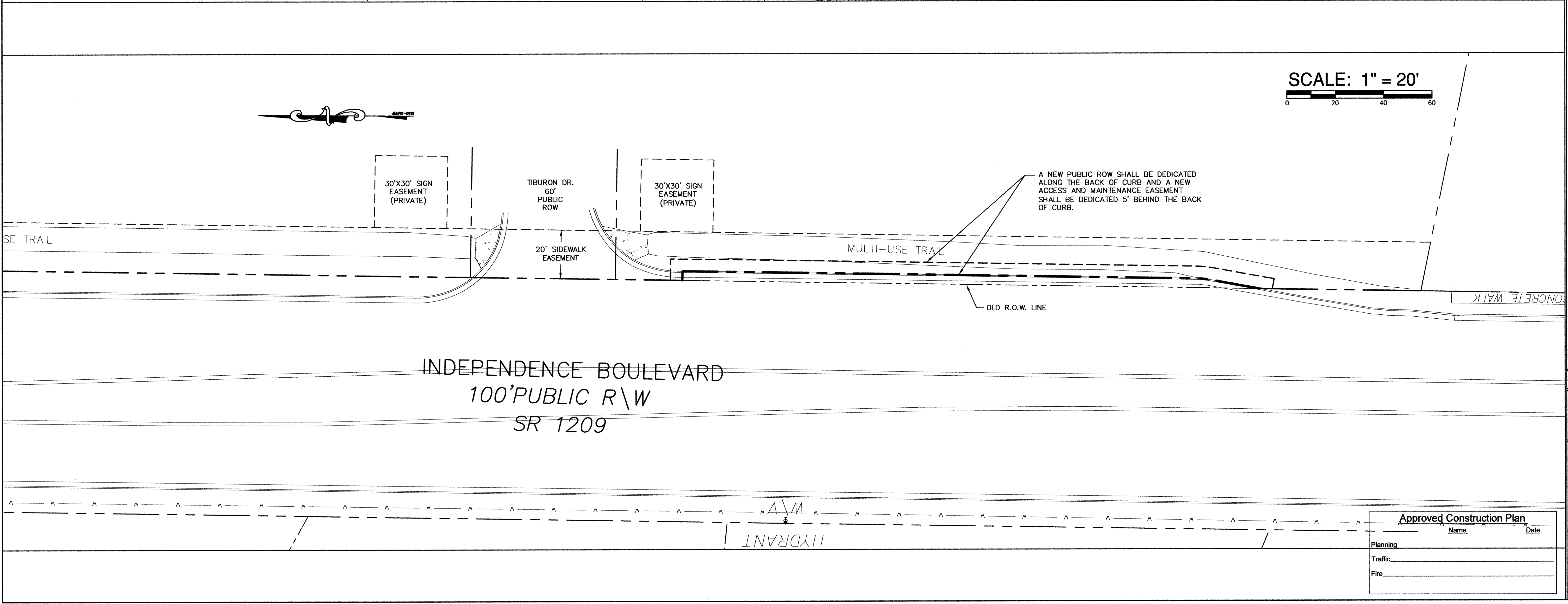


INDEPENDENCE BOULEVARD
100' PUBLIC R\W
SR 1209

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

NORRIS & TUNSTALL
RIGHT-OF-WAY DEDICATION AND
ACCESS AND MAINTENANCE EASEMENT
TIBURON PARC APARTMENTS
2945 MOYNET WAY
WILMINGTON, NORTH CAROLINA

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
WILMINGTON, N.C. 28408
910-392-9300

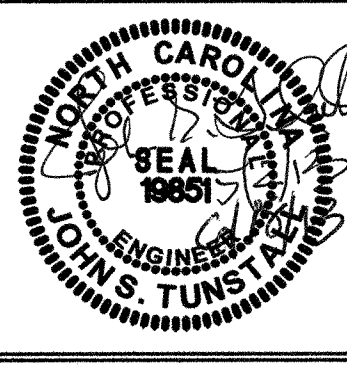


INDEPENDENCE BOULEVARD
100' PUBLIC R\W
SR 1209

SCALE: 1" = 20'

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HUD/PERMIT SET
12073
DES. JST
S.D. JPN
DRWN. NKS
DATE 5/2/13



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

C10