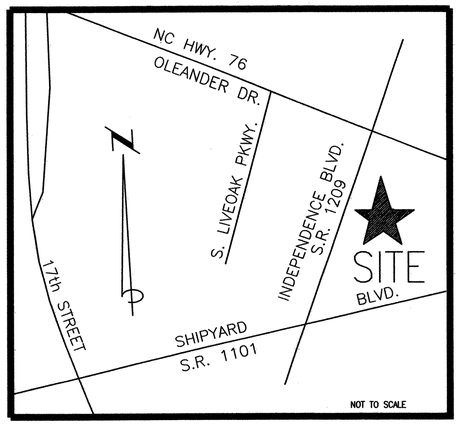
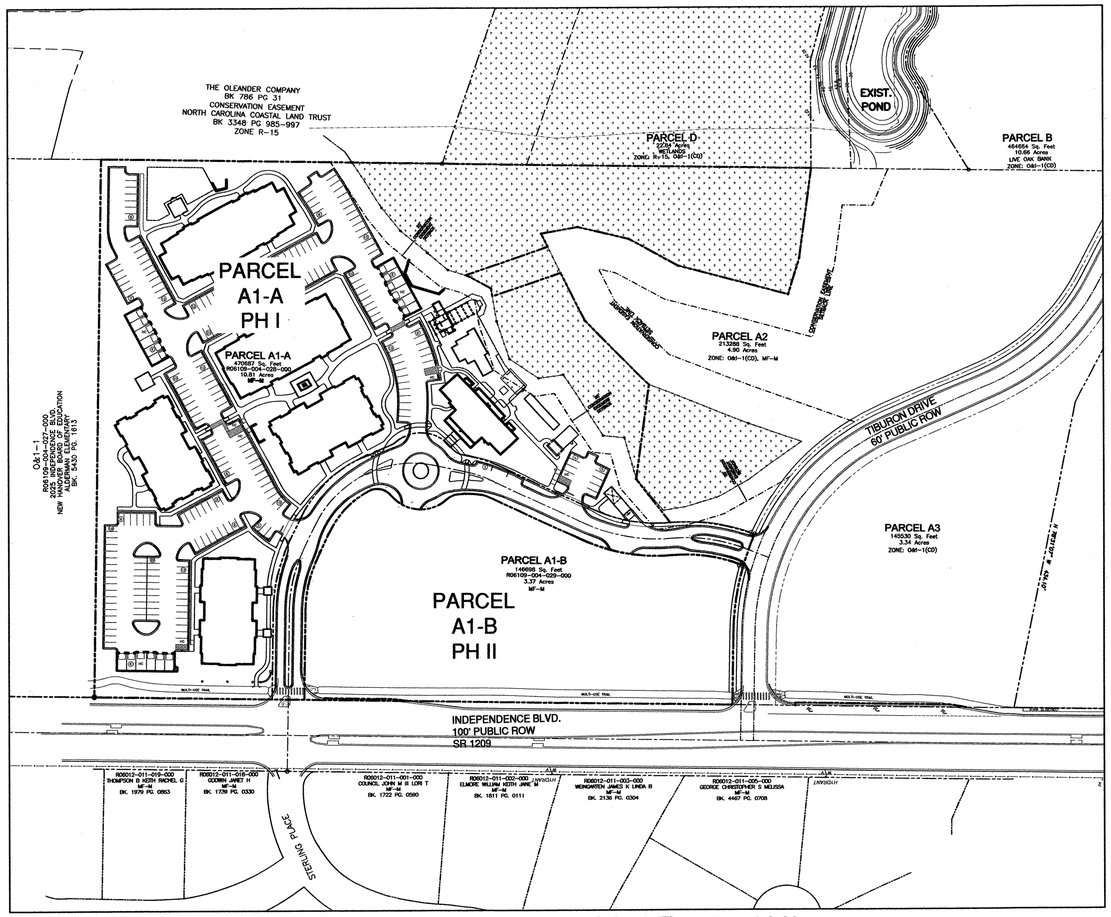


LOCATION MAP

TIBURON PARC APARTMENTS

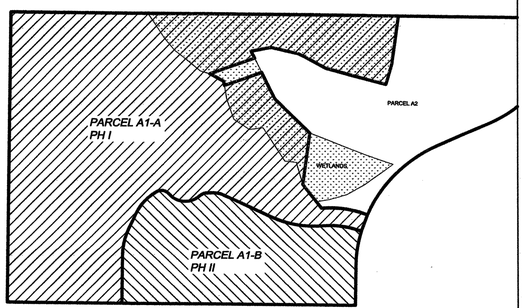
WILMINGTON, NC
NEW HANOVER COUNTY



SCALE: 1" = 100'

LEGEND

- PROPERTY LINE
- CONSERVATION EASEMENT SETBACK LINE
- EXISTING WETLANDS



PARCEL BOUNDARY DIVISIONS

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.

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)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 6/28/13 Permit # 2013020
Signed: [signature]

Approved Construction Plan

	Name	Date
Planning	Dawn M. Bradley	6/28/2013
Traffic	[signature]	6/27/13
Fire	[signature]	7/1/2013

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

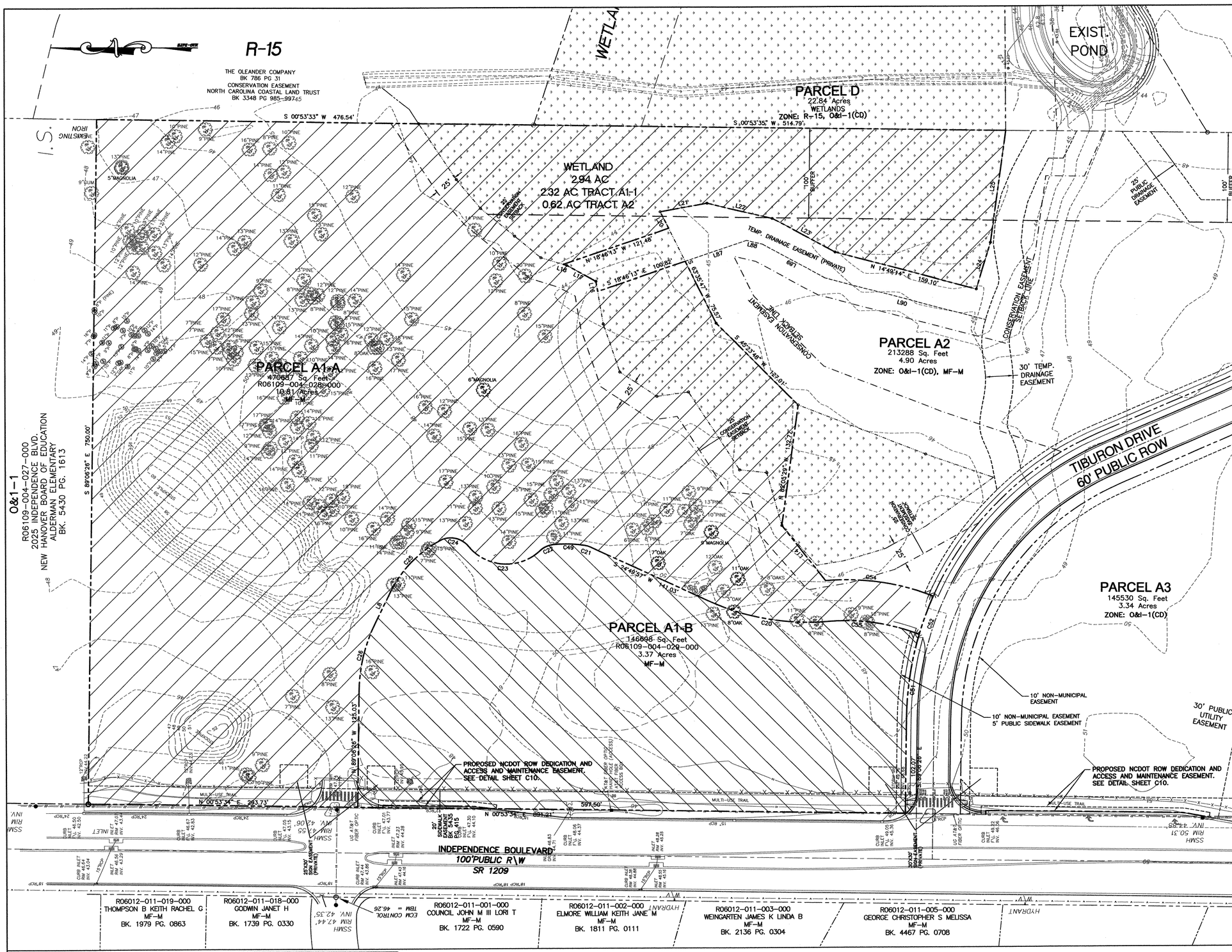
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC, 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nkteng.com
licence #C-3641

HUD/PERMIT SET
12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C0



LEGEND

- PROPERTY LINE
- CONSERVATION EASEMENT SETBACK LINE
- EASEMENT LINE
- BUFFER LINE
- EXISTING CONTOUR
- EXISTING TREE
- EXISTING WETLANDS
- PARCEL A1-A
- PARCEL A1-B

R06113
2351

SITE DATA

PARCEL ADDRESS:	2945 MOYNET WAY
PARCEL ID#:	R06109-004-028-000
MAP ID#:	313609.07.4012.000
ZONING:	MF-M
SOIL TYPES:	Mu: MURVILLE FINE SAND Le: LEON

CAMA LAND USE: URBAN

NO CAMA AEC OR SETBACKS

SITE CONTAINS A WETLANDS/CONSERVATION RESOURCE AREA AND IS SUBJECT TO A 25' RESIDENTIAL SETBACKS PURSUANT TO MUNICODE SECTION 18-341.

HISTORICAL SITE:	NONE
CEMETERY:	NONE
FORESTED AREA:	SEE PLAN FOR TREE SURVEY
WETLANDS:	SEE PLAN FOR DELINEATION
ENDANGERED SPECIES/HABITAT:	NONE REPORTED

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.

SCALE: 1" = 50'
0 50 100 150

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)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 6/28/13 Permit # 20130720
Signed:

Approved Construction Plan

	Name	Date
Planning	Dawn M Frolly	6/26/2013
Traffic		6/27/13
Fire		7/1/2013

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 WALNUT STREET
WILMINGTON, N.C. 28401
PHONE: 910 343-8002
FAX: 910 343-9941

APPLICANT/PREPARER OF PLAN:
NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITE 300/400
WILMINGTON, NC, 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

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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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
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@nktseng.com
licence #C-3641

HUD/PERMIT SET

12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19651 ENGINEER JOHN S. TUNSTALL

11

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	CONSTUCTION 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

SITE DATA TABLE PHASE I

USE: MULTI–FAMILY APARTMENTS
TOTAL SITE AREA: 10.81 ACRES (470,687 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#: 313609.07.4012.000
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 REQD.

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
STREETYARD 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.

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)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 6/28/13 Permit # 2013020
Signed: _____

Approved Construction Plan

	Name	Date
Planning	Dawn M. Greathouse	6/28/2013
Traffic		6/27/13
Fire		7/1/2013

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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SITE DATA
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@nteng.com
licence #C-3641

HUD/PERMIT SET

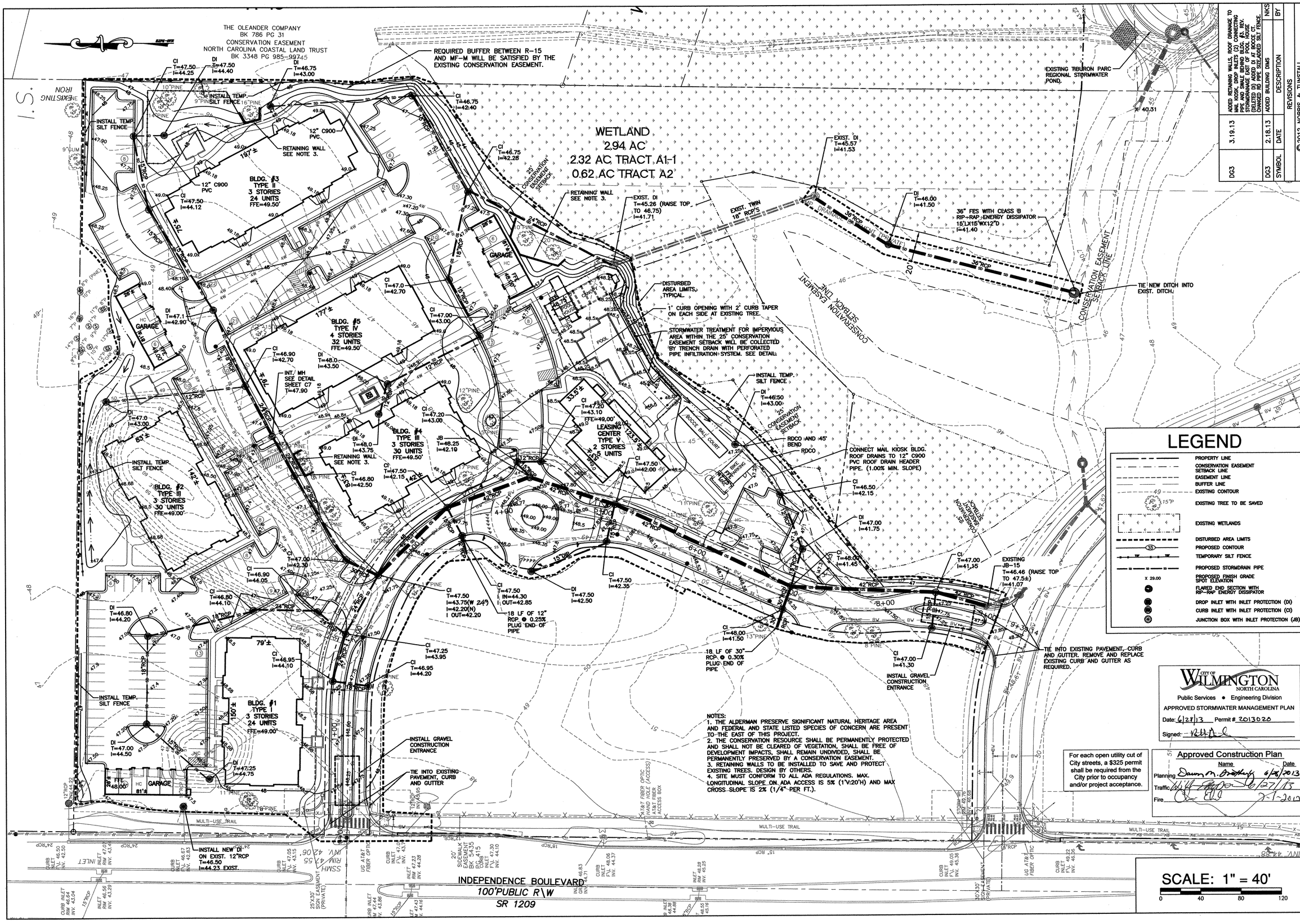
12073

DES. JST
CKD. JPN
DRWN. NKS

DATE 6/18/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C1



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% (1'V:20'H) AND MAX CROSS SLOPE IS 2% (1/4" PER FT.).

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)

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 6/27/13 Permit # 20130020
Signed:

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	Dawn M. Bradley	6/26/2013
Traffic		6/27/13
Fire		7-1-2013

DG3	3.19.13	ADDED RETAINING WALLS, ROOF DRAINAGE TO MAIL KIOSK, DROP INLETS (2) CONNECTING PIPE AND SWALE BEHIND BLDG. #3. REV. PARKING AT BLDG. #5, ADDED BIKE RACK (DELETED 2) ADDED DI AT BOCCE CT. CHANGED RO PIPE SIZE, ADDED SILT FENCE.	NKS
DG3	2.18.13	ADDED BUILDING DIMS	BY
SYMBOL	DATE	DESCRIPTION	

REVISIONS

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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
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@nntseng.com
licence #C-3641

HUD/PERMIT SET

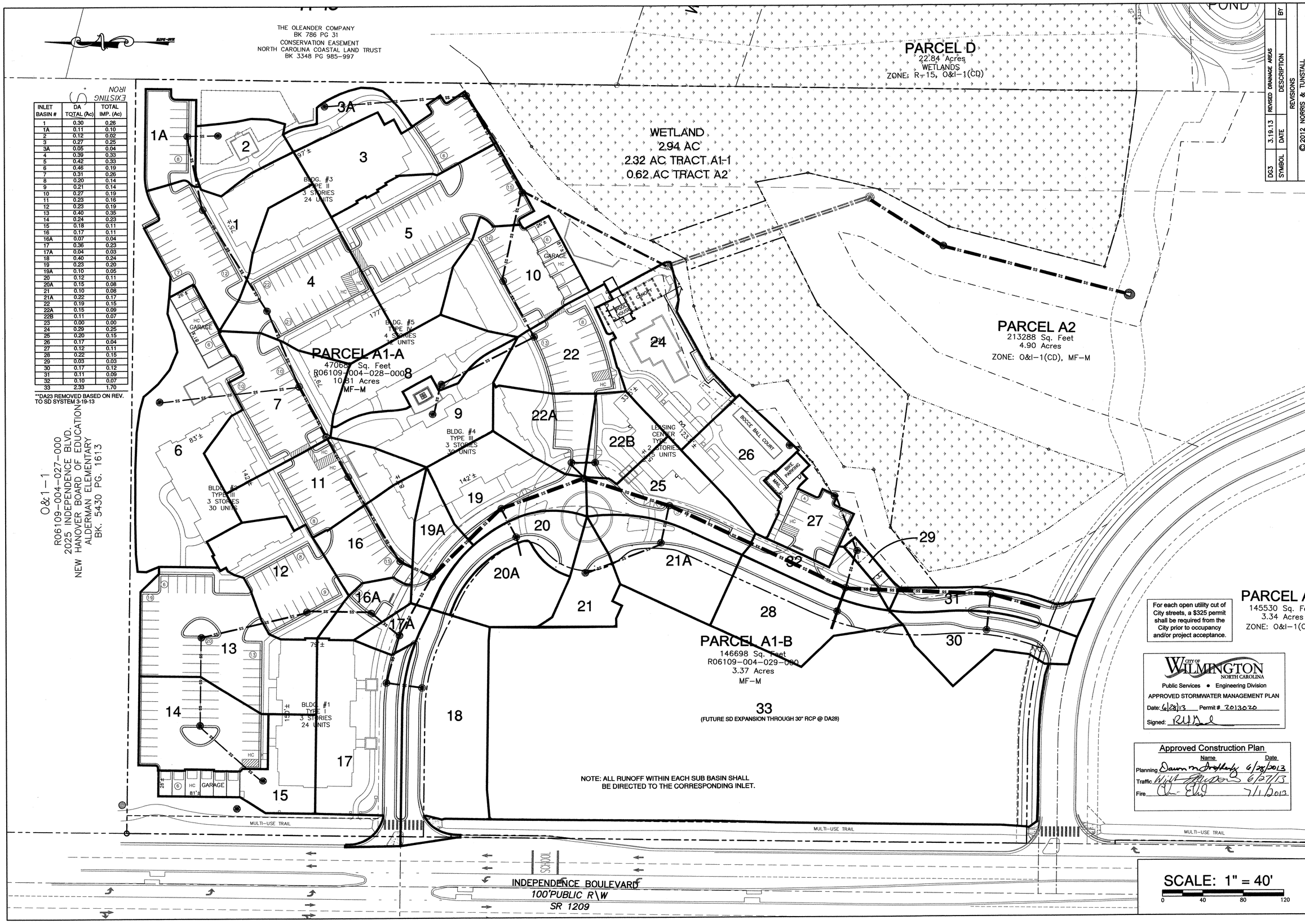
12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C2

F:\Projects\2012\12073 Midtown Apartments at Tiburon Parc\12073 Plans\dwg\12073.master.4.dwg, 5/7/2013 9:54:17 AM



INLET BASIN #	DA TOTAL (Ac)	TOTAL IMP. (Ac)
1	0.30	0.26
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	0.26
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 3-19-13

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

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 6/28/13 Permit # 2013020
Signed: RHM

Approved Construction Plan

	Name	Date
Planning	Dawn M Stotterbody	6/28/2013
Traffic	Wilt Thurston	6/27/13
Fire		7/1/2013

SYMBOL	DATE	DESCRIPTION	BY
DG3	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
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@nt3pg.com
licence # C-3641

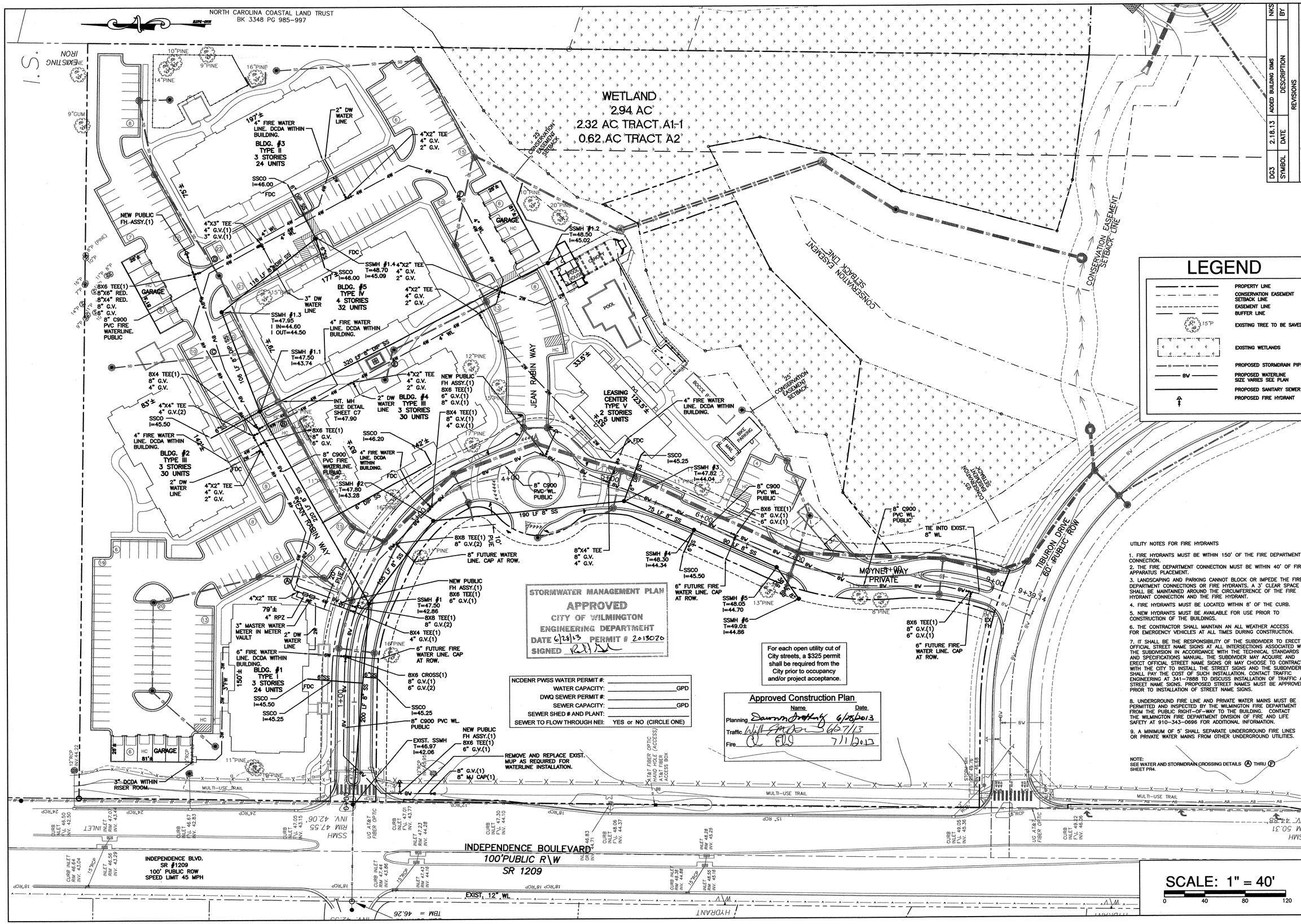
HUD/PERMIT SET

12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C2.1



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)

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	Dawn M Bratkovich	6/28/2013
Traffic	Will Simmons	6/27/13
Fire		7/1/2013

LEGEND

- PROPERTY LINE
- CONSERVATION EASEMENT SETBACK LINE
- EASEMENT LINE
- BUFFER LINE
- EXISTING TREE TO BE SAVED
- EXISTING WETLANDS
- PROPOSED STORMDRAIN PIPE
- 8V — PROPOSED WATERLINE SIZE VARIES SEE PLAN
- PROPOSED SANITARY SEWER
- PROPOSED FIRE HYDRANT

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. THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
7. 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.
8. 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.
9. 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 PR4.

SCALE: 1" = 40'
0 40 80 120

SYMBOL	DATE	DESCRIPTION	BY
DG3	2.18.13	ADDED BUILDING DIMS	NKS

REVISIONS

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

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

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

HUD/PERMIT SET

12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C3

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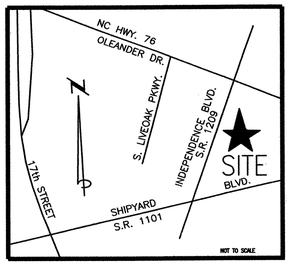
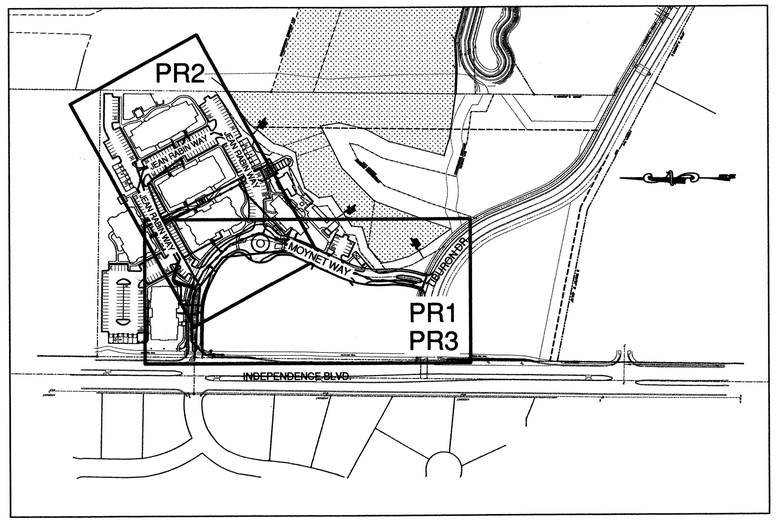
TIBURON PARC APARTMENTS

WILMINGTON, NC
NEW HANOVER COUNTY



LOCATION MAP



SCALE: 1" = 200'

0 200 400 600

LEGEND

- PROPERTY LINE
- CONSERVATION EASEMENT SETBACK LINE
- EASEMENT LINE
- BUFFER LINE
- 15"P — EXISTING TREE TO BE SAVED
- EXISTING WETLANDS
- PROPOSED STORMDRAIN PIPE
- 8W — PROPOSED WATERLINE SIZE VARIES SEE PLAN
- PROPOSED SANITARY SEWER
- PROPOSED FIRE HYDRANT

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

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)

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.

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 2013020
SIGNED [signature]

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	[signature]	6/28/2013
Traffic	[signature]	6/27/13
Fire	[signature]	7/1/2013

11021

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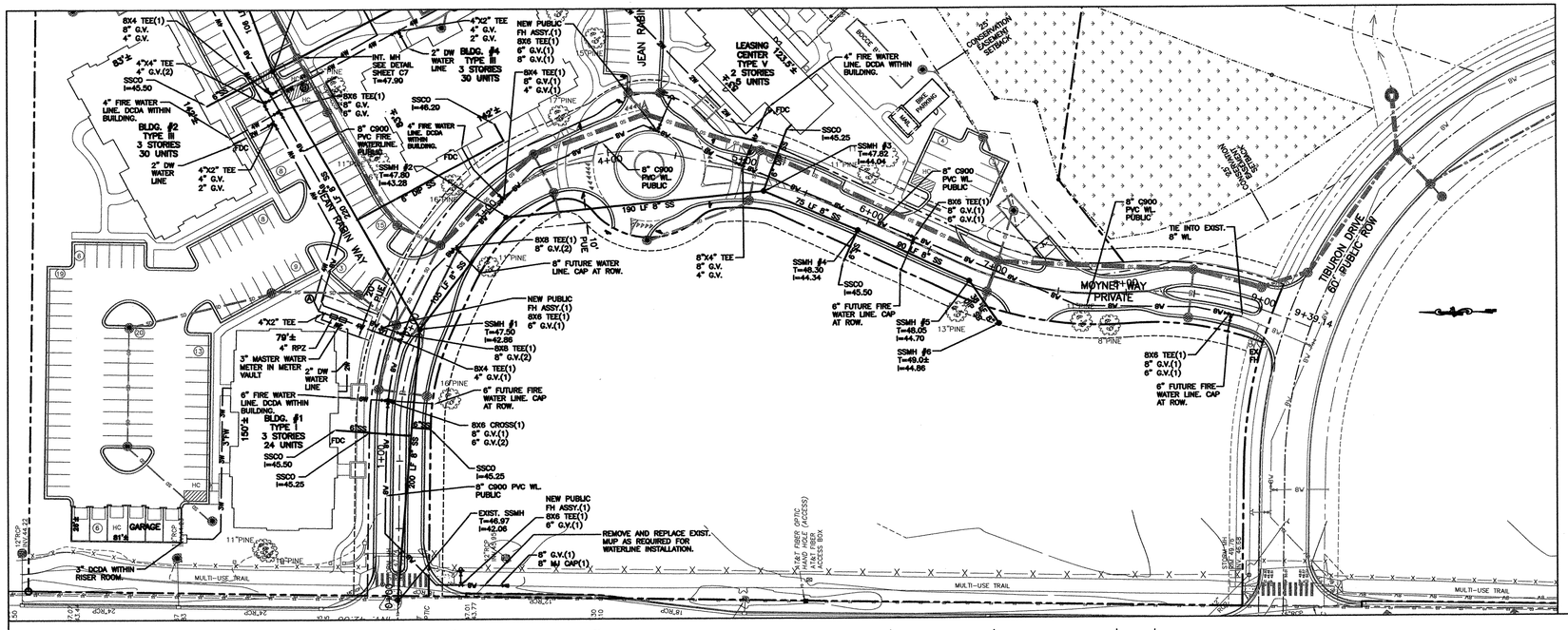
For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

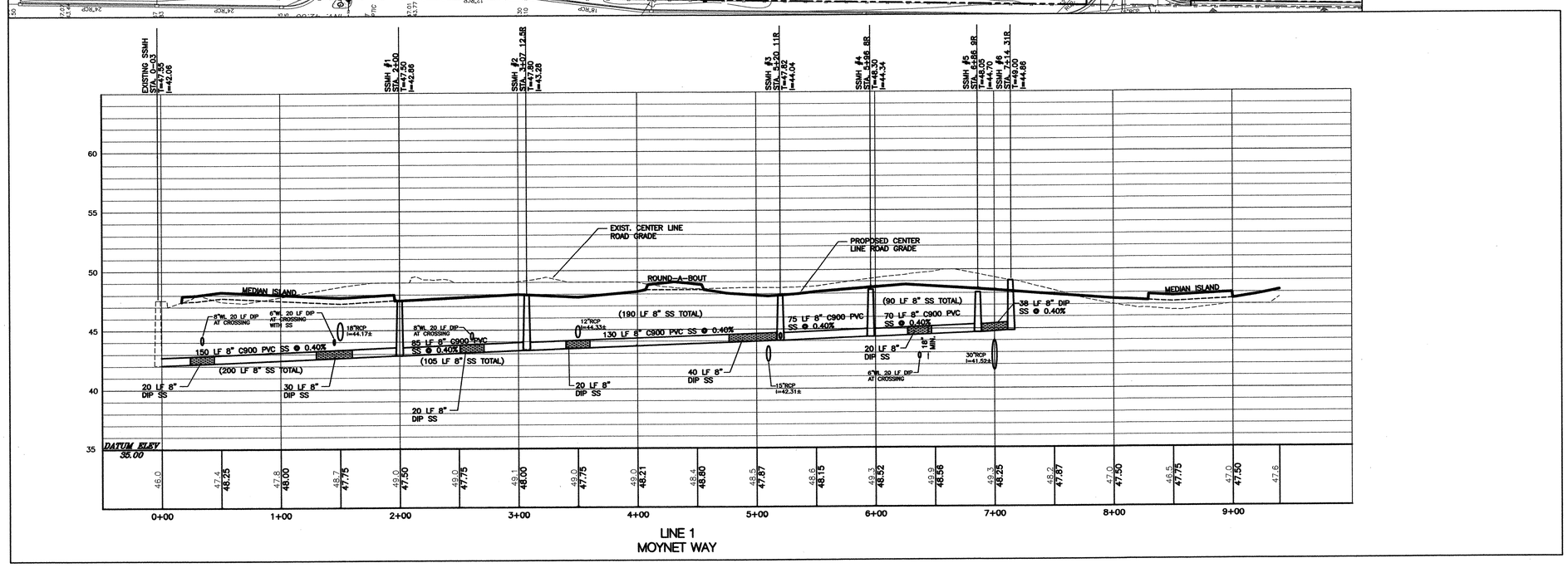
Approved Construction Plan

	Name	Date
Planning	Dawn M Bradley	6/28/2013
Traffic	Will Saxon	6/27/13
Fire	[illegible]	7/1/2013

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)

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130020
SIGNED [illegible]





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

REV NO.	DESCRIPTION	DATE
	REVISIONS	

UTILITY NOTES:

1. LATERAL SEPARATION OF SEWERS AND WATER MAINS. WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION-IN WHICH CASE:

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NORTH CAROLINA PROFESSIONAL SEAL 19651 ENGINEER JOHN S. TUNSTALL

Cape Fear Public Utility Authority
Stewardship. Sustainability. Service.

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WILMINGTON, NC, 28403
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licence #C-0520

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: PR1

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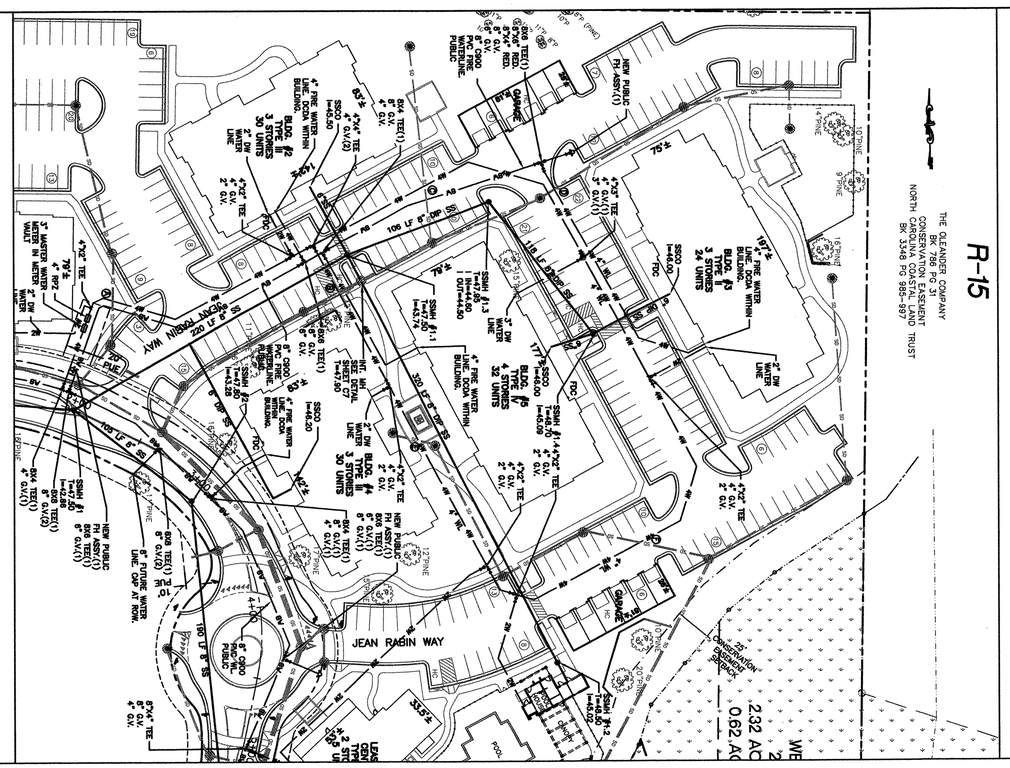

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Approved Construction Plan	Name	Date
Planning	Dawson, Bradley	6/28/2013
Traffic	Will Saunders	6/27/13
Fire	[illegible]	7/1/13

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
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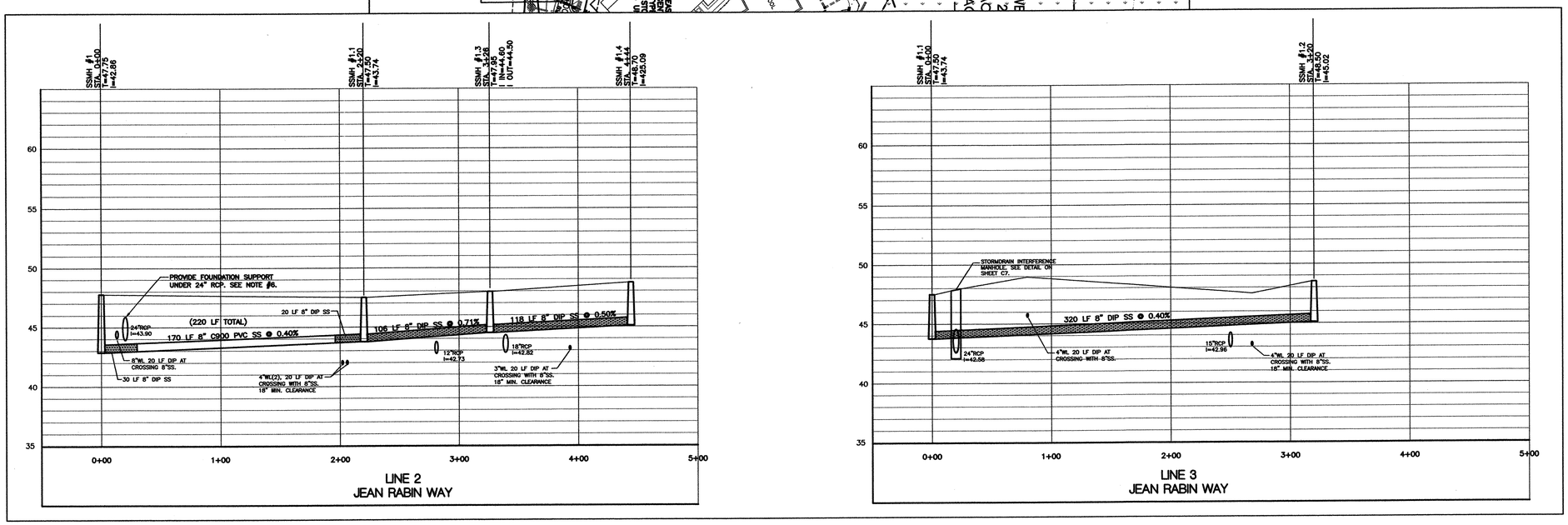
STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130020
SIGNED [illegible]



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

REV NO.	DESCRIPTION	DATE
	REVISIONS	

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

Cape Fear Public Utility Authority
Stewardship Sustainability Service

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITES 300 & 400
WILMINGTON, NC. 28403
PHONE (910) 343-9653
FAX (910) 343-9604
licence #C-0520

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

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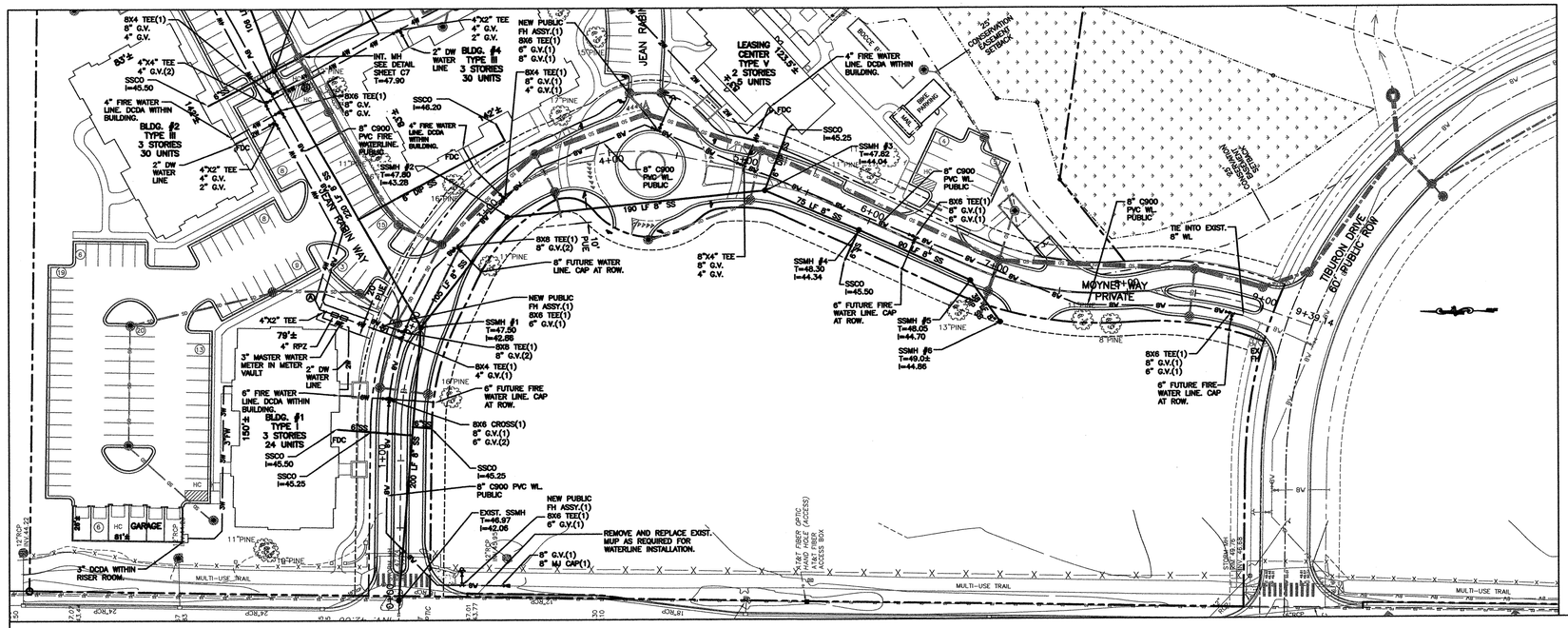
Approved Construction Plan	Name	Date
Planning		6/28/2013
Traffic		6/27/13
Fire		7/1/2013

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)



SCALE: 1" = 50'

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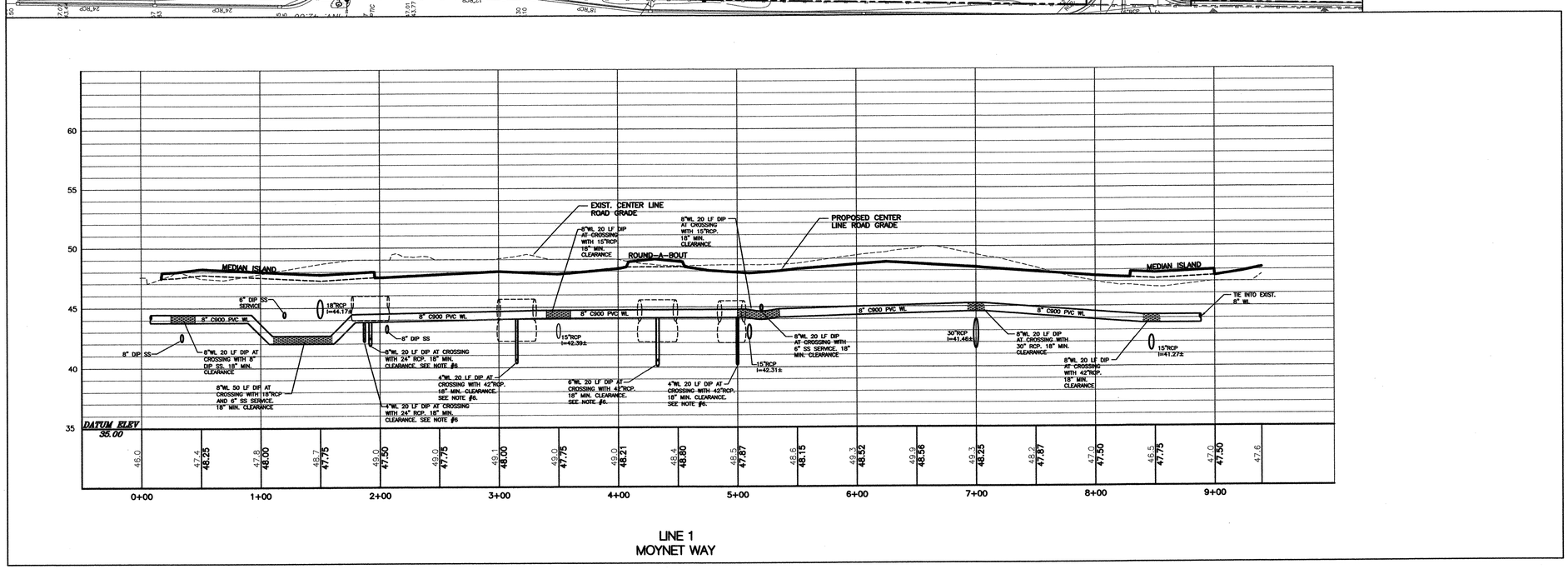

LINE 1
MOYNET WAY

HORIZ. 1" = 50'
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REV NO.	DESCRIPTION	DATE
	REVISIONS	

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STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130020
SIGNED

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

Cape Fear Public Utility Authority
Stewardship. Sustainability. Service.

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
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WILMINGTON, NC, 28403
PHONE (910) 343-9653
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licence #C-0520

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:
PR3

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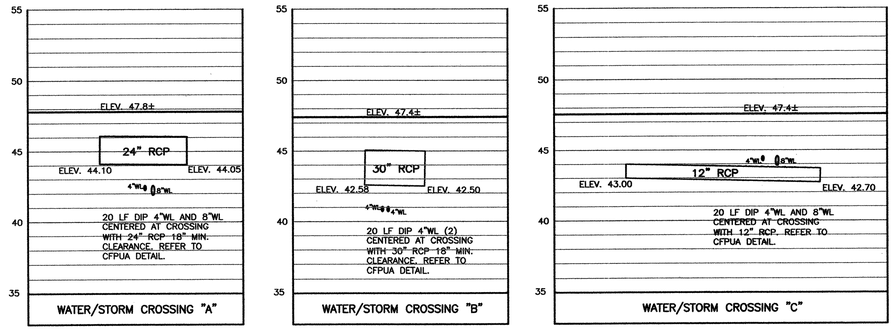
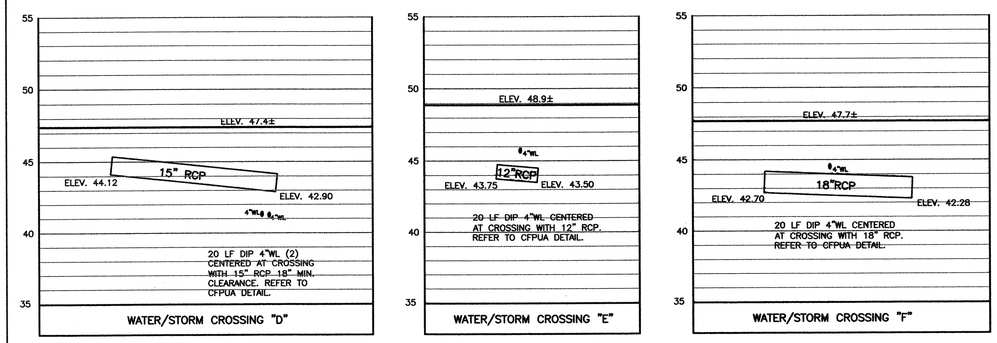


SEE SHEET C3 FOR PLAN VIEW



SEE SHEET C3 FOR PLAN VIEW

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130820
SIGNED RWB

Approved Construction Plan

	Name	Date
Planning	Dawn Hopkins	6/28/2013
Traffic	[illegible]	6/27/13
Fire	[illegible]	7/1/2013

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

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

REV NO.	DESCRIPTION	DATE

REVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

Cape Fear Public Utility Authority
Stewardship. Sustainability. Service.

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
1127 FLORAL PARKWAY
SUITES 300 & 400
WILMINGTON, NC. 28403
PHONE (910) 343-9653
FAX (910) 343-9804
licence #C-0520

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

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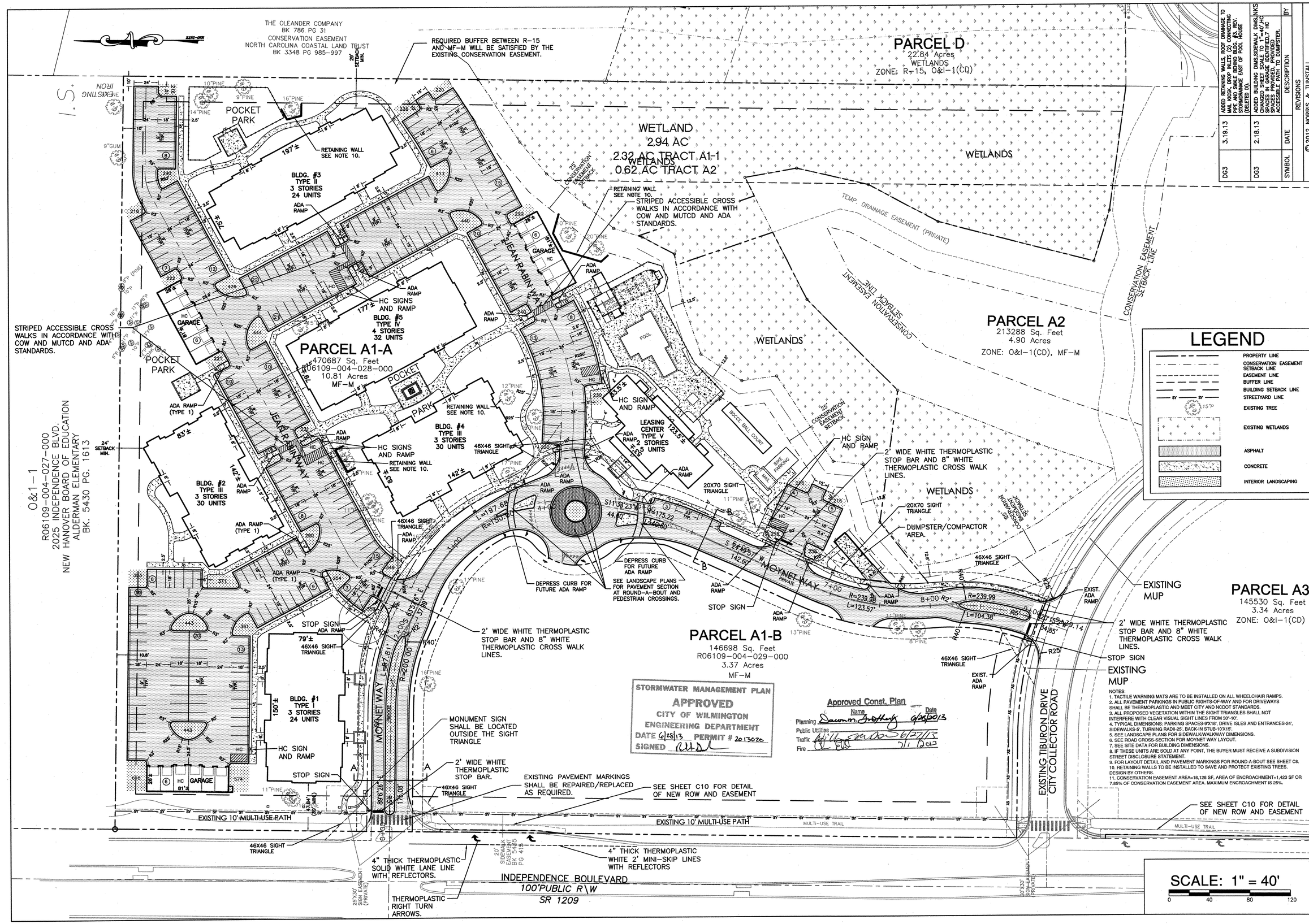

NOTES:
1. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
2. ALL PAVEMENT PARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS SHALL BE THERMOPLASTIC AND MEET CITY AND NCDOT STANDARDS.
3. ALL PROPOSED VEGETATION WITHIN THE SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30"-10'.
4. TYPICAL DIMENSIONS: PARKING SPACES-9'X18', DRIVE ISLES AND ENTRANCES-24', SIDEWALKS-5', TURNING RADII-25', BACK-IN STUB-10'X15'.
5. SEE LANDSCAPE PLANS FOR SIDEWALK/WALKWAY DIMENSIONS.
6. SEE ROAD CROSS-SECTION FOR MOYNET WAY LAYOUT.
7. SEE SITE DATA FOR BUILDING DIMENSIONS.
8. IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.
9. FOR LAYOUT DETAIL AND PAVEMENT MARKINGS FOR ROUND-A-BOUT SEE SHEET C8.
10. RETAINING WALLS TO BE INSTALLED TO SAVE AND PROTECT EXISTING TREES. DESIGN BY OTHERS.
11. CONSERVATION EASEMENT AREA=18,128 SF, AREA OF ENCROACHMENT=1,423 SF OR 7.85% OF CONSERVATION EASEMENT AREA. MAXIMUM ENCROACHMENT IS 25%.

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
DG3	3.19.13	ADDED RETAINING WALLS, ROOF DRAINAGE TO MAIL KIOSK, DROP INLETS (2) CONNECTING PIPE, AND SWALE BEHIND BLDG. #3. REV. STORMWATER MAKE EAST OF POOL HOUSE (STORM DRAIN)	
DG3	2.18.13	ADDED BUILDING DIMS.SIDEWALK DIMS.NKS CHANGED SHEET SCALE TO 1"=40' HC SPACES IN GARAGE IDENTIFIED,7 HC SPACES PROVIDED, DUMPSTER ACCESSIBLE WITH 10' DIAMETER.	

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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
910-392-3900

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
CKD.	JPN
DRWN.	NKS
DATE	6/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C4

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

EXISTING IRON I.S.

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

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

25' CONSERVATION EASEMENT SETBACK

116,552 SF
OPEN SPACE

CONSERVATION EASEMENT SETBACK LINE

CONSERVATION EASEMENT SETBACK LINE

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

14,615 SF

BLDG. #3
TYPE II
3 STORIES
24 UNITS

197'±

75'±

GARAGE

BLDG. #5
TYPE IV
4 STORIES
32 UNITS

177'±

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

16,303 SF

17,442 SF

BLDG. #4
TYPE III
3 STORIES
30 UNITS

142'±

63'±

BLDG. #2
TYPE III
3 STORIES
30 UNITS

30,960 SF

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

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/27/13 PERMIT # 2013020
SIGNED

4,262 SF

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

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

79'±

BLDG. #1
TYPE I
3 STORIES
24 UNITS

150'±

GARAGE

81'±

9,253 SF

19,178 SF

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

Approved Construction Plan

	Name	Date
Planning		6/28/2013
Traffic		6/27/13
Fire		7/1/2013

LEGEND

- OPEN SPACE
- ACTIVE/RECREATION OPEN SPACE
- PROPERTY LINE
- CONSERVATION EASEMENT SETBACK LINE
- EASEMENT LINE
- BUFFER LINE
- BUILDING SETBACK LINE
- SY — SY STREETYARD LINE
- EXISTING WETLANDS

MULTI–USE TRAIL

INDEPENDENCE BOULEVARD
100'PUBLIC R\W
SR 1209

SCALE: 1" = 40'
0 40 80 120

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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

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

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

12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C4.1

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

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

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

INSTALL TREE PROTECTION

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.

25' CONSERVATION EASEMENT SETBACK

CONSERVATION EASEMENT SETBACK LINE

MULTI-USE TRAIL

INDEPENDENCE BOULEVARD
100' PUBLIC R\W
SR 1209

LEGEND

15"P / 13"PINE	EXISTING TREE TO BE SAVED
15"P / 13"PINE	EXISTING TREE TO BE REMOVED
15"P	EXISTING TREE TO BE SPADED
	TREE PROTECTION FENCING

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 2015020
SIGNED

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		6/28/2013
Traffic		6/27/13
Fire		7-1-2013

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

SCALE: 1" = 40'
0 40 80 120

SYMBOL	DATE	DESCRIPTION	BY
DG3	3.19.13	ADDED RETAINING WALLS, ROOF DRAINAGE TO MAIL KIOSK, DROP INLETS (2) CONNECTING PIPE AND SWALE BEHIND BLDG. A3. REV. STORMDRAINAGE EAST OF POOL HOUSE (DELETED D).	

REVISIONS

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

OWNER:
NELSON MACRAE
MIDTOWN ONE, LLC
P.O. BOX 3145
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office@nrtseng.com
licence #C-3641

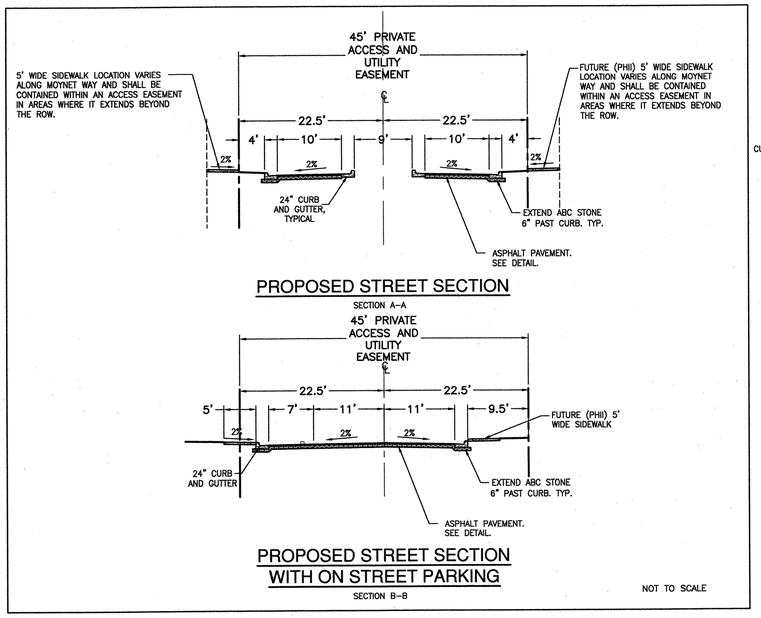
HUD/PERMIT SET

12073

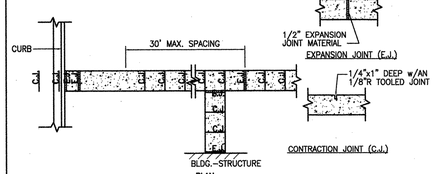
DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	9/18/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER SIMON S. TUNSTALL

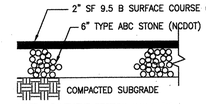
C5



NOTES:
1. SIDEWALK THICKNESS SHALL BE 4" UNLESS NOTED OTHERWISE.
2. CONTRACTION JOINTS (C.J.) SPACE SAME AS SIDEWALK WIDTH.
3. THICKEN SIDEWALK TO 6" AT DRIVEWAYS.
4. THICKEN SIDEWALK TO 6" IN LAST 3' WHERE IT ABUTS PAVEMENT WITH NO CURB.
5. 1/2" EXPANSION JOINT (E.J.) AND SNAP CAP EXPANSION JOINT COVERS ARE REQUIRED AT 50' MAX. AT SIDEWALK JUNCTIONS, AT STRUCTURES, AND AS NOTED ON SITE PLAN.
6. PROVIDE A LAYER OF 15# BLDG. FELT BETWEEN WALK AND ADJACENT PARALLELING CURB OR STRUCTURE.

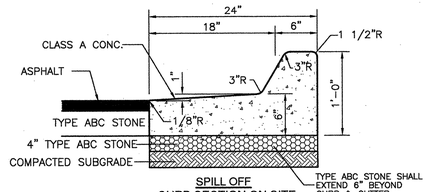


SIDEWALK JOINT DETAILS
NTS



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

ASPHALT PAVEMENT SECTION
NTS.



SPILL OFF CURB SECTION ON SITE
NTS

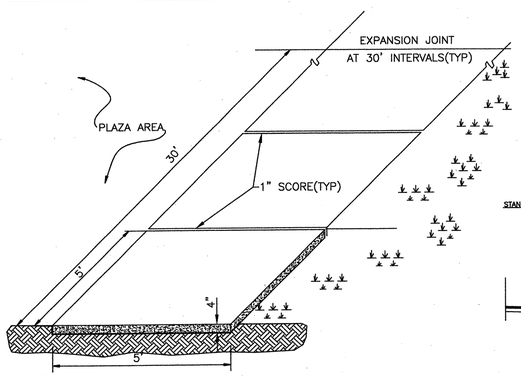
NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADE INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

CITY OF WILMINGTON STANDARD NOTES

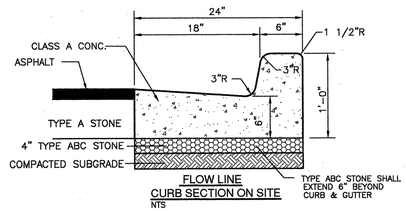
1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED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

SITE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. CLEARING AND GRUBBING: REMOVE ALL TREES AS REQUIRED UNLESS OTHERWISE NOTED TO REMAIN, STUMPS, ROOTS, SHRUBBERY, ASPHALT, CONCRETE, STRUCTURES, BURIED UTILITIES, STORAGE TANKS, ETC. WITHIN LIMITS OF CONSTRUCTION. REFERENCE SPECIFICATIONS.
4. STRIPPING: BEFORE EXCAVATING OR FILLING, REMOVE ALL TOPSOIL, WOOD, LEAVES, AND ANY OTHER UNSUITABLE MATERIAL. REFERENCE SPECIFICATIONS.
5. MUCKING: REMOVE ANY SOFT, ORGANIC SILT MATERIALS AND EXISTING BURIED CONSTRUCTION DEBRIS AS REQUIRED AND FILL TO SUBGRADE ELEVATIONS WITH A CLEAN SELECT-FILL COMPACTED AS SPECIFIED. REFERENCE SPECIFICATIONS.
6. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR EXCAVATED SPOIL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES. REFERENCE SPECIFICATIONS.
7. BORROW MATERIAL: THE CONTRACTOR SHALL FURNISH BORROW MATERIAL REQUIRED FROM OFF SITE AND OBTAIN ALL REQUIRED PERMITS ASSOCIATED WITH BORROW OPERATIONS. REFERENCE SPECIFICATIONS.
8. FILL AND COMPACTION: AFTER STRIPPING THOSE AREAS DESIGNATED TO RECEIVE FILL SHOULD BE PROOFROLLED. THE TOP 8" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. ANY AREA WHICH PUMPS OR RUTS EXCESSIVELY SHOULD BE UNDERCUT AND REPLACED WITH A CLEAN, SILTY OR CLAYEY SAND HAVING A UNIFIED SOIL CLASSIFICATION OF SP, SM, OR SC. FILL MATERIAL 5" OUTSIDE OF BUILDING AREAS SHALL THEN BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL MATERIALS WITHIN BUILDING AREAS TO A LINE OUTSIDE THE BUILDING AREAS SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED IN 6 INCH LAYERS TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IN AREAS WHERE NO STRUCTURAL FILL IS TO BE PLACED THE UPPER 12 INCHES OF IN-PLACE SUBGRADE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL SHALL BE PLACED IN SUCH A MANNER THAT THE SURFACE WILL DRAIN READILY AT ALL TIMES. SEE STRUCTURAL NOTES AND SOILS REPORT FOR ADDITIONAL REQUIREMENTS. REFERENCE SPECIFICATIONS.
9. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.
11. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY HANOVER DESIGN SERVICES, P.A. AND PROVIDED BY OWNER.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
14. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.
15. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.
16. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
17. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
18. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
19. REFER TO THE PLUMBING DRAWINGS FOR LOCATION AND INVERTS OF NEW WASTE AND WATER LINES.

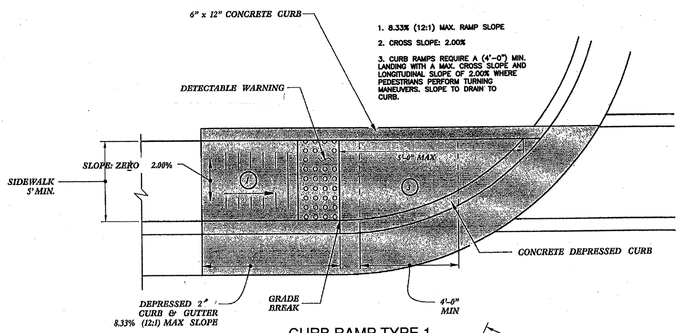


STANDARD SIDEWALK DETAIL
SD 8-15
NOT TO SCALE

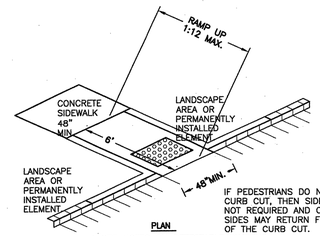


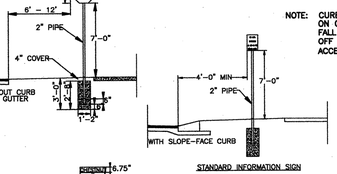
FLOW LINE CURB SECTION ON SITE
NTS

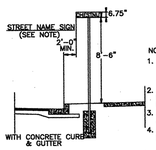
NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.



CURB RAMP TYPE 1
NTS

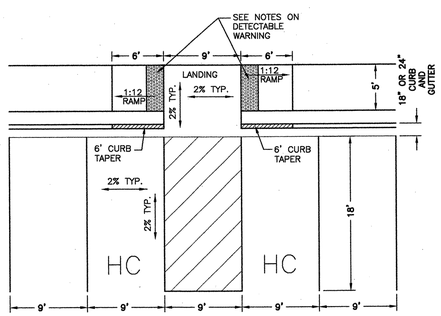


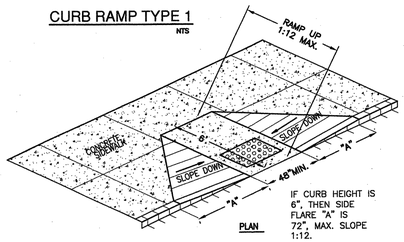


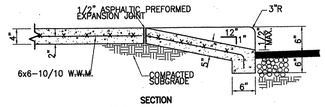


NOTES:
1. STREET NAME SIGNS SHALL BE A MINIMUM OF 6" EXTRUDED ALUMINUM BLADES USING A MINIMUM OF 4" C SERIES LETTERING IN REFLECTIVE SILVER & REFLECTIVE GREEN BACKGROUND.
2. ALL REFLECTIVE SIGNS SHALL BE MADE OF ENGINEERING GRADE OR HIGH INTENSITY GRADE REFLECTIVE SHEETING OR APPROVED EQUIVALENT.
3. ALL SIGNS PLACED IN RIGHT-OF-WAY WILL BE APPROVED BY TRAFFIC ENGINEERING DIVISION.
4. ALL FOOTINGS TYPICAL FOR ALL SIGNS, WHICH NEED TO BE ANCHORED IN CONCRETE.

STANDARD SIGN INSTALLATION LOCATION
SD 15-03
NOT TO SCALE

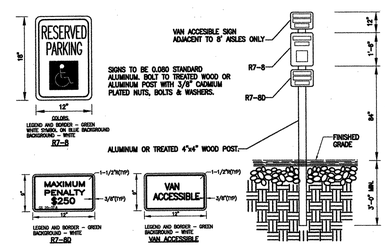




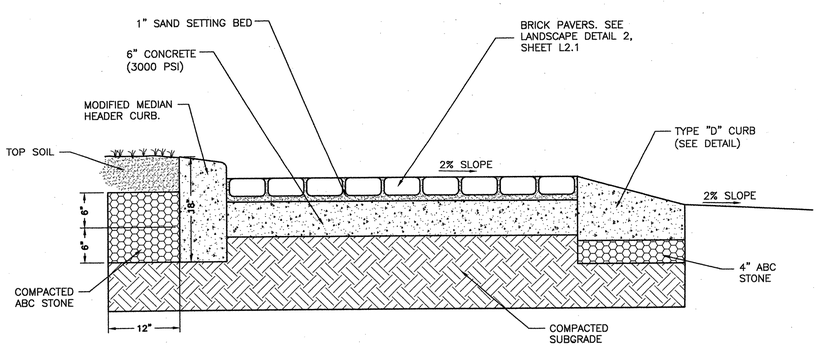


NOTE:
1. RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH ADA GUIDELINES:
2. THE DETECTABLE WARNINGS AT CURB RAMPS SHALL BE 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEN THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. MARKED CROSSINGS THAT ARE RAISED TO THE SAME LEVEL AS THE ADJOINING SIDEWALK SHALL BE PRECEDED BY A 24 INCH DEEP DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE MARKED CROSSING.
4. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN (23 MM), A HEIGHT OF NOMINAL 0.2 IN (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN (60 MM) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70% - REFER TO ADA GUIDELINES FOR DEFINITION OF "CONTRAST".
5. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.

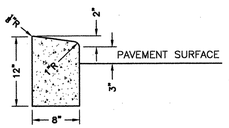
TYPICAL SIDEWALK AND WHEEL CHAIR RAMP DETAIL
NTS



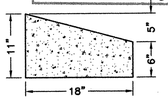
TYPICAL HANDICAPPED SIGN DETAIL
NTS



ROUND-A-BOUT SECTION
NTS



MEDIAN HEADER CURB
NTS



CURB SECTION TYPE "D"
NTS

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130120
SIGNED

Approved Construction Plan

	Name	Date
Planning	Dawn M. Toothaker	6/28/2013
Traffic		6/27/13
Fire		7/1/2013

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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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

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

HUD/PERMIT SET

12073

DES. JST
CKD. JPN
DRWN. NKS
DATE 6/21/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C6

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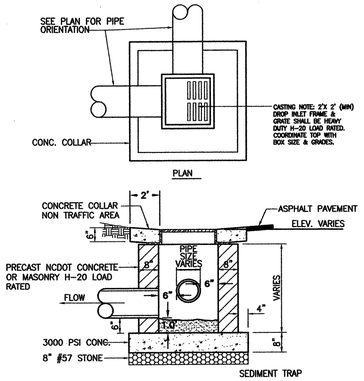
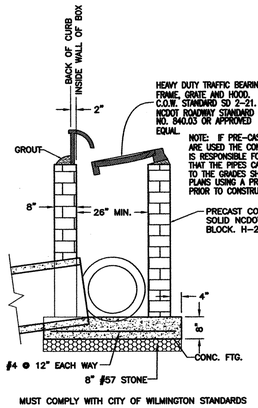


MUST COMPLY WITH CITY OF WILMINGTON STANDARDS

DROP INLET DETAIL

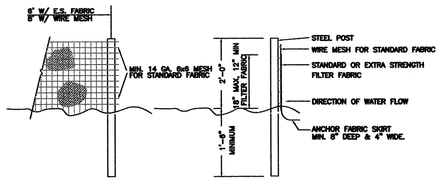
NTS



MUST COMPLY WITH CITY OF WILMINGTON STANDARDS

TYPICAL CATCH BASIN

NTS

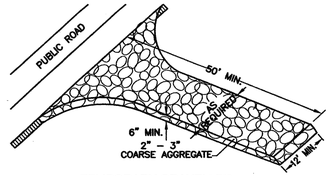


NOTES:

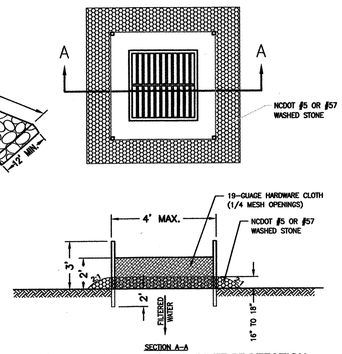
1. SYN. FENCE FABRIC SHALL BE MIN. OF 30" IN WIDTH WITH 30 LB/IN TENSILE STRENGTH FOR STANDARD FABRIC AND 50 LB/IN FOR EXTRA STRENGTH.
2. FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
3. STEEL POST SHALL BE MIN 4' IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE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

TEMPORARY SILT FENCE

NTS



TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE



HARDWARE CLOTH & GRAVEL INLET PROTECTION

NTS

CONSTRUCTION SEQUENCE:

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5' STEEL POST 2' INTO THE GROUND SURROUNDING THE INLET. SPACE POST EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4' APART.
3. SURROUND THE POST WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POST AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2' FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16" AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUNDCOVER.

MAINTENANCE:

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

TREE PROTECTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING TREE PROTECTION FENCING AROUND THE EXISTING TREES BEING SAVED PRIOR TO BEGINNING ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL SAWCUT ANY PERIMETER TREE ROOTS THAT CONFLICT WITH GRADING OPERATIONS. EXISTING TREES WILL BE REMOVED FROM THE SITE AS REQUIRED FOR CONSTRUCTION OF PONDS, ROADWAYS, ROAD IMPROVEMENTS, AND UTILITY INSTALLATION. ALL THE EXISTING VEGETATION AND TREES WILL REMAIN OUTSIDE THE DISTURBED AREA/CONSTRUCTION LIMITS.
2. PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

3. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS.

4. ANY TREES AND / OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.

5. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED.

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 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.

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 FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

6. 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.

7. 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.

8. LAND QUALITY REQUIRES:

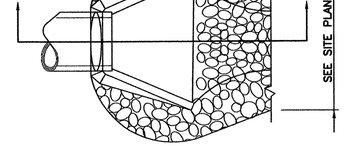
ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED, ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN, TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.

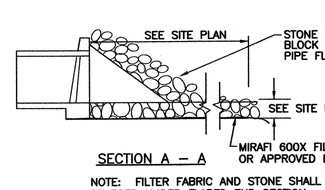
WATER QUALITY REQUIRES:

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3' HORIZONTAL TO 1' VERTICAL (3:1) AND ALL HIGH QUALITY WATER (HQW) ZONES SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN SEVEN (7) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

9. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.

10. BASIN OUTLET STRUCTURES AND SKIMMERS SHALL WITHDRAW WATER FROM THE SURFACE.



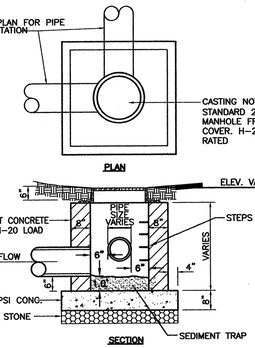


SECTION A – A

NOTE: FILTER FABRIC AND STONE SHALL BE TOED UNDER FLARED END SECTION

ENERGY DISSIPATOR

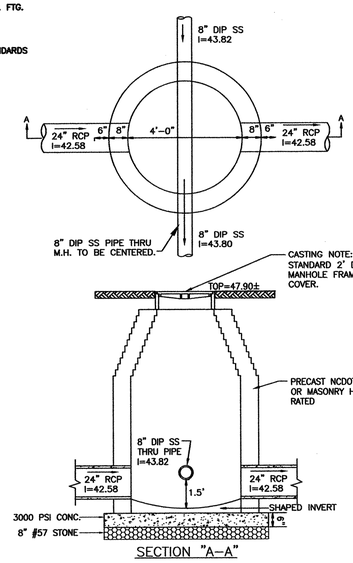
NTS



MUST COMPLY WITH CITY OF WILMINGTON STANDARDS

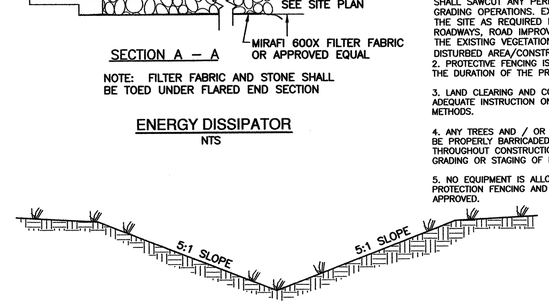
JUNCTION BOX DETAIL

NTS



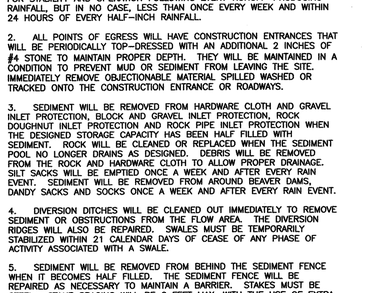
INTERFERENCE STORM DRAIN MANHOLE

SD 2-05



TYPICAL GRASS SWALE

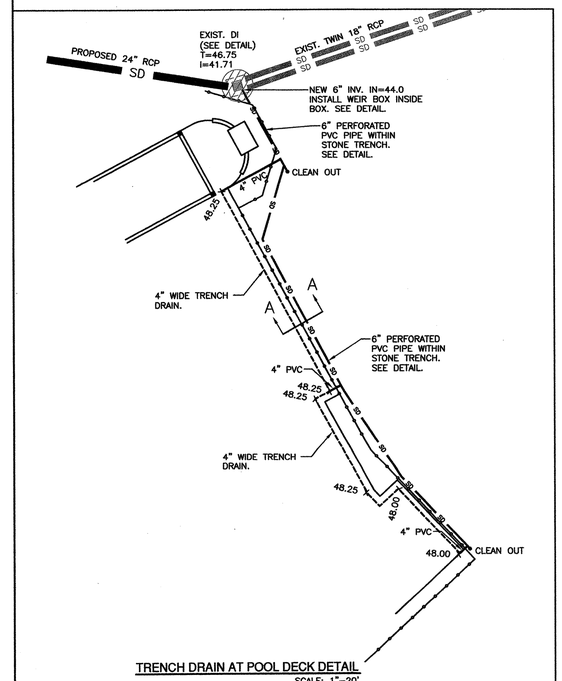
N.T.S.



METHOD OF TREE PROTECTION NTS

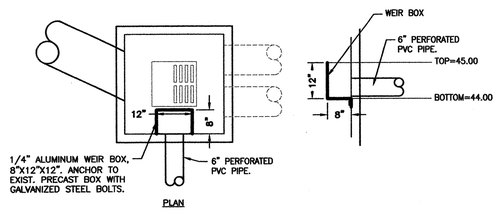
CLEARLY mark the trees to be saved prior to construction and erect a protective barrier at the dripline.

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



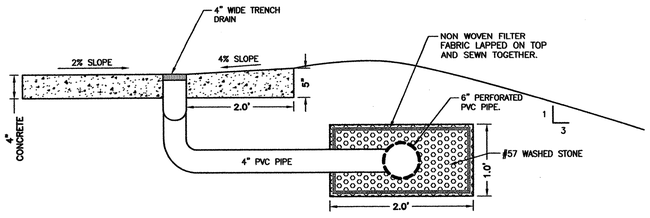
TRENCH DRAIN AT POOL DECK DETAIL

SCALE: 1"=20'



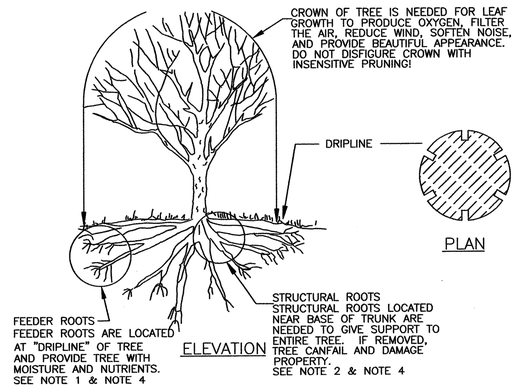
WEIR BOX AT EXISTING DROP INLET DETAIL

SCALE: NTS



TRENCH DRAIN AT POOL DECK SECTION A-A

SCALE: NTS



TREE PROTECTION DURING CONSTRUCTION

1. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO HEAVY MATERIALS SHALL BE STORED BENEATH TREES. RESULTS OF COMPACTION CAUSE WATER AND AIR NOT TO REACH THE ROOTS AND THE TREE WILL DIE. THESE "FEEDING ROOTS" OCCUR WELL AWAY FROM THE BASE OF THE TREE TO THE EDGE OF THE OVERHEAD BRANCH CANOPY. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. APROTECTIVE BARRIER SHOULD PREVENT DAMAGE FROM OCCURING DURING CONSTRUCTION.
2. NO CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK. THESE ARE ESSENTIAL IN SUPPORTING THE TREE AND HOLDING IT UPRIGHT IN HIGH WINDS. REMOVAL OF THESE ROOTS ALONG ONE SIDE IS OFTEN DONE BECAUSE OF A WALK, PAVING OR BUILDING WHICH IS BEING CONSTRUCTED.
3. AVOID CUT AND FILL WITHIN DIAMETER OF TREE CROWN DURING EXCAVATION.

METHOD OF TREE PROTECTION DURING CONSTRUCTION

SD 15-09

nts

CITY OF WILMINGTON NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 6/28/13 Permit # 20130026

Signed: [illegible]

Approved Construction Plan

	Name	Date
Planning	[illegible]	6/28/2013
Traffic	[illegible]	6/27/13
Fire	[illegible]	7/1/2013

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

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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

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

HUD/PERMIT SET

12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C7

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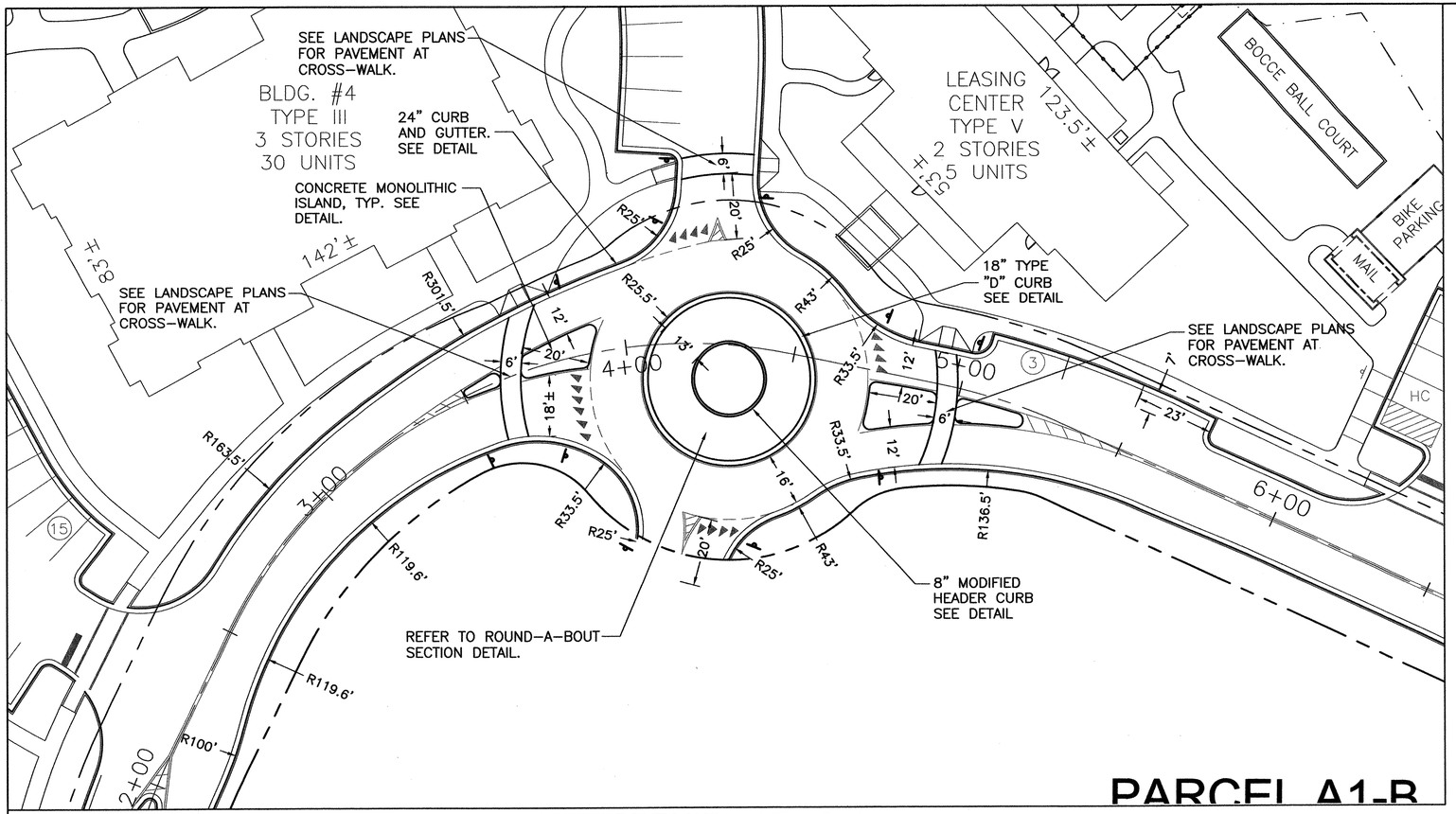
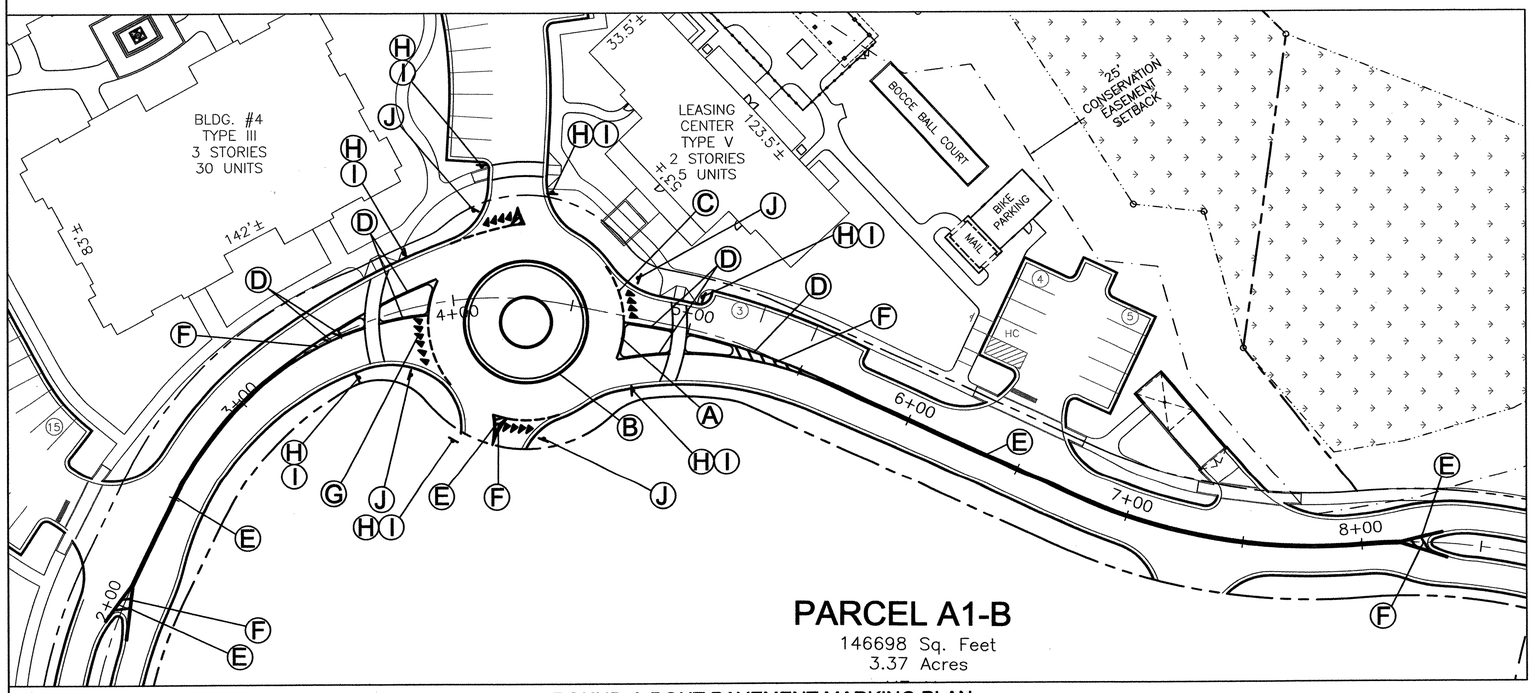


ROUND-A-BOUT LAYOUT DETAIL PLAN
SCALE: 1"=20'



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

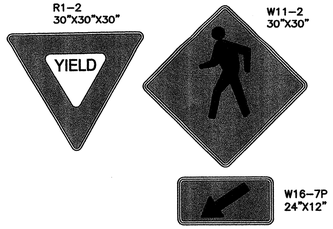
STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 2013020
SIGNED

Approved Construction Plan

	Name	Date
Planning	Dawn M Trotter	6/28/2013
Traffic	Will Emerson	6/27/13
Fire	[illegible]	7/1/2013

LEGEND

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



NOTES:

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

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 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
CKD.	JPN
DRWN.	NKS
DATE	5/2/13

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C8

F:\Projects\2012\12073 Midtown Apartments at Tiburon Parc\12073 Plans\dwg\12073.master.r4.dwg, 5/2/2013 2:17:32 PM

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** LINE TYPES AND OFFSETS

CONTINUOUS LINES

EDGE LINE — YELLOW OR WHITE — 4"/6"

LANE LINE — WHITE — 4"/6"

CENTER LINE — YELLOW — 4"/6"

GORE LINE — WHITE — 8"/12"

DIAGONAL LINE — YELLOW OR WHITE — 12" 45 MPH OR HIGHER; 8" LESS THAN 45 MPH

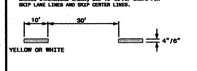
CROSSWALK LINE — WHITE — 8" TRANSVERSE, 24" LONGITUDINAL

RxR LINE — WHITE — 16"

STOP OR TRANSVERSE BAR — WHITE — 24"

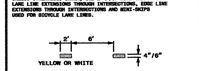
10'-30'/SP SKIP LINE

UNLESS OTHERWISED SHOWN, USE 10'-30'/SP SKIPS FOR SKIP LANE LINES AND DROP CENTER LINES.



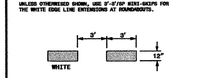
2'-6'/SP MINI-SKIP LINE

UNLESS OTHERWISED SHOWN, USE 2'-6'/SP MINI-SKIPS FOR LANE LINE EXTENSIONS THROUGH INTERSECTIONS. EDGE LINE EXTENSIONS THROUGH INTERSECTIONS AND MINI-SKIPS USED FOR DOUBLE LANE LINES.



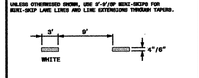
3'-3'/SP MINI-SKIP LINE

UNLESS OTHERWISED SHOWN, USE 3'-3'/SP MINI-SKIPS FOR THE WHITE EDGE LINE EXTENSIONS AT ROUNDABOUTS.



3'-9'/SP MINI-SKIP LINE

UNLESS OTHERWISED SHOWN, USE 3'-9'/SP MINI-SKIPS FOR MINI-SKIP LANE LINES AND LINE EXTENSIONS THROUGH TAPERS.



GENERAL NOTES:

1- USE 6" 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.

SHEET 1 OF 2 — 1205.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

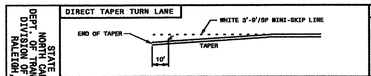
ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** LINE TYPES AND OFFSETS

SHEET 1 OF 2 — 1205.01

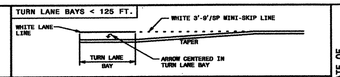
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** TURN LANES

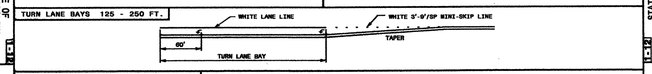
DIRECT TAPER TURN LANE



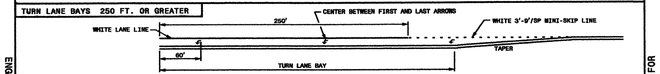
TURN LANE BAYS < 125 FT.



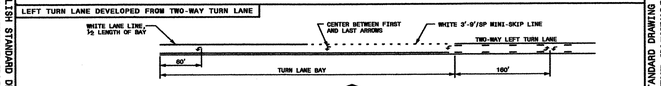
TURN LANE BAYS 125 - 250 FT.



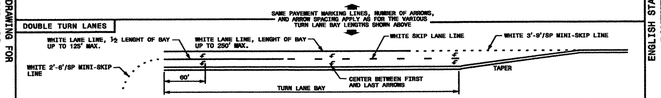
TURN LANE BAYS 250 FT. OR GREATER



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.

LEGEND: PAVEMENT MARKING SYMBOL

SHEET 1 OF 1 — 1205.05

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** TURN LANES

SHEET 1 OF 1 — 1205.05

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **RAISED PAVEMENT MARKERS** INSTALLATION 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 20 FT. CENTERS, AND OFFSET 2 INCHES FROM THE EDGE LINE ON THE TRAFFIC SIDE.

2- PLACE CRYSTAL/RED MARKERS AT INTERSECTIONS AND INTERCHANGES WHERE WRONG-WAY MOVEMENTS ARE POSSIBLE. POSITION THE RED SIDE OF THE MARKER TO FACE "WRONG-WAY" TRAFFIC. WHEN USED, PLACE CRYSTAL/RED MARKERS ALONG THE ENTIRE LENGTH OF THE PROJECT.

3- DO NOT PLACE PAVEMENT MARKERS CLOSER THAN 3 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 PASSING 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 MARKER TO REDUCE OVERSPRAYING THE MARKER DURING REPAINTING OPERATIONS.

6- MARKERS ARE NOT REQUIRED ALONG MINI-SKIP LINES IN TAPERS.

PAVEMENT MARKER SPACING CHART

TYPE OF PAVEMENT MARKING	TYPICAL SPACING (FT)
SKIP LINES AND CENTER LINES ALONG THRU LANES-	
ALONG TANGENT SECTIONS AND HORIZONTAL CURVES LESS THAN 6°	80
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	½ NORMAL SPACING

SHEET 1 OF 3 — 1250.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

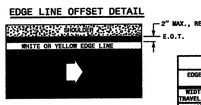
ENGLISH STANDARD DRAWING FOR **RAISED PAVEMENT MARKERS** INSTALLATION SPACING

SHEET 1 OF 3 — 1250.01

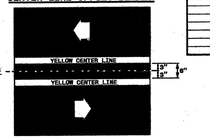
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** LINE TYPES AND OFFSETS

EDGE LINE OFFSET DETAIL



CENTER LINE OFFSET DETAIL



LANE LINE OFFSET DETAIL

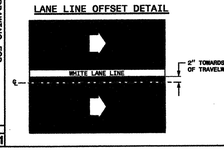


TABLE 1

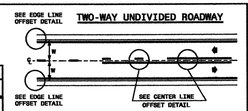
EDGE LINE OFFSETS FOR 2-LANE, 2-WAY ROADWAYS WITH UN-PAVED SHOULDERS

WIDTH (W) OF TRAVEL PAVEMENT	MAX. EDGE LINE OFFSET FROM E.O.T.	MINIMUM LANE WIDTH (W)
16' - 19'	2"	8' - 9'
19'	4"	9'
20'	6"	9.5'
21'	8"	10'
22'	10"	10'
23'	10"	10.5'
24'	1'	11'
26'	2'	11'
28'	2'	12'
30'	2'	12'
32'	4'	12'

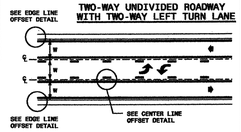
LEGEND

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

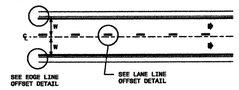
TWO-WAY UNDIVIDED ROADWAY



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



MULTI-LANE ROADWAY



SHEET 2 OF 2 — 1205.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

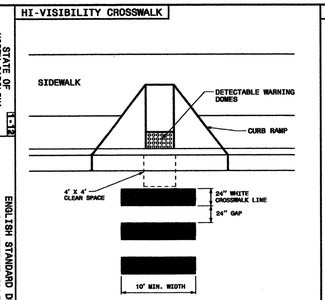
ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** LINE TYPES AND OFFSETS

SHEET 2 OF 2 — 1205.01

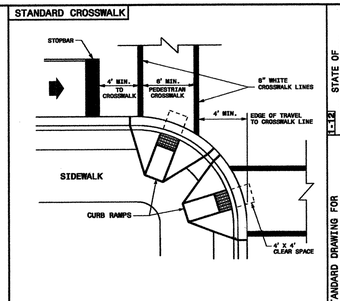
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** PEDESTRIAN CROSSWALKS

HI-VISIBILITY CROSSWALK



STANDARD CROSSWALK



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 SIGNALIZED 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 NCDOT ROADWAY STANDARD DRAWINGS.

LEGEND

DIRECTION OF TRAFFIC FLOW
CURB RAMP WITH DETECTABLE WARNING DOMES

SHEET 1 OF 1 — 1205.07

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

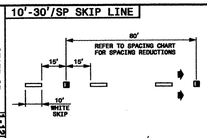
ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** PEDESTRIAN CROSSWALKS

SHEET 1 OF 1 — 1205.07

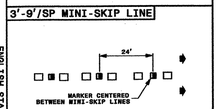
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **RAISED PAVEMENT MARKERS** INSTALLATION SPACING

10'-30'/SP SKIP LINE



3'-9'/SP MINI-SKIP LINE

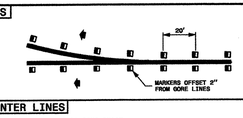


LEGEND

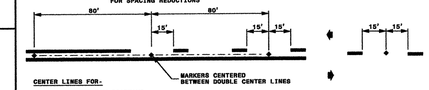
CRYSTAL/RED PAVEMENT MARKER
YELLOW/YELLOW PAVEMENT MARKER
DIRECTION OF TRAFFIC FLOW

SHEET 2 OF 3 — 1250.01

GORE LINES

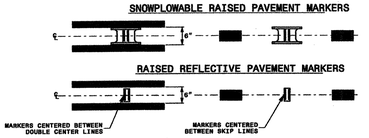


YELLOW CENTER LINES



CENTER LINES FOR:-
TWO-LANE, TWO-WAY ROADWAYS
UNDIVIDED ROADWAYS
TWO-WAY LEFT TURN LANES

DETAIL OF PAVEMENT MARKER PLACEMENT



SHEET 2 OF 3 — 1250.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

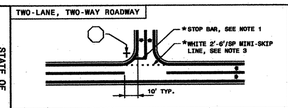
ENGLISH STANDARD DRAWING FOR **RAISED PAVEMENT MARKERS** INSTALLATION SPACING

SHEET 2 OF 3 — 1250.01

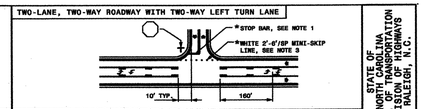
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** INTERSECTIONS

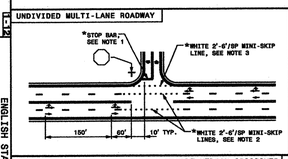
TWO-LANE, TWO-WAY ROADWAY



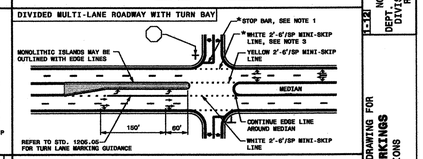
TWO-LANE, TWO-WAY ROADWAY WITH TWO-WAY LEFT TURN LANE



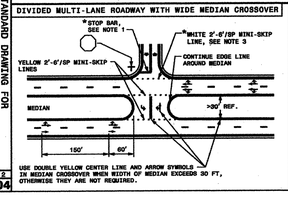
UNDIVIDED MULTI-LANE ROADWAY



DIVIDED MULTI-LANE ROADWAY WITH TURN BAY



DIVIDED MULTI-LANE ROADWAY WITH WIDE MEDIAN CROSSOVER



USE DOUBLE YELLOW CENTER LINE AND ARROW SYMBOLS IN MEDIAN CROSSOVER WHEN WIDTH OF MEDIAN EXCEEDS 30 FT, OTHERWISE THEY ARE NOT REQUIRED.

GENERAL NOTES:

1- PLACEMENT OF STOP BARS AT NON-SIGNALIZED 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 30 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, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND

STOP SIGN — STATIONARY SIGN
DIRECTION OF TRAFFIC FLOW — PAVEMENT MARKING SYMBOLS
OPTIONAL

SHEET 2 OF 2 — 1205.04

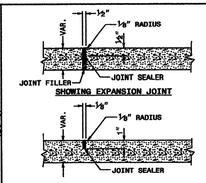
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **PAVEMENT MARKINGS** INTERSECTIONS

SHEET 2 OF 2 — 1205.04

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **CONCRETE ISLANDS**



PARTIAL LONGITUDINAL SECTIONS OF PAVED ISLANDS

NOTE:

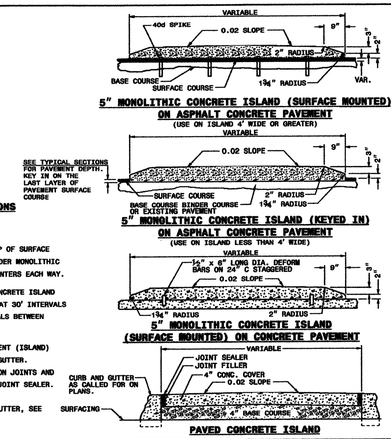
WHEN MONOLITHIC CONCRETE ISLAND IS ON TOP OF SURFACE COURSE, DRIVE 40d SPIKES INTO SURFACE UNDER MONOLITHIC CONCRETE ISLAND. STAGGER SPIKES ON 2' CENTERS EACH WAY.

IN THE CONCRETE PAVEMENT (ISLAND) AND CONCRETE ISLAND (MONOLITHIC) PLACE ½" 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 ½" 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



SHEET 1 OF 1 — 852.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

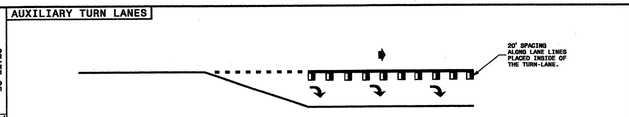
ENGLISH STANDARD DRAWING FOR **CONCRETE ISLANDS**

SHEET 1 OF 1 — 852.01

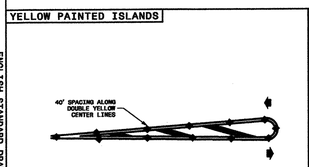
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR **RAISED PAVEMENT MARKERS** INSTALLATION SPACING

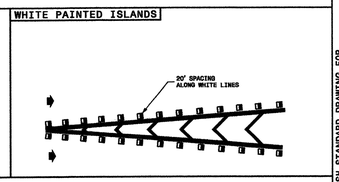
AUXILIARY TURN LANES



YELLOW PAINTED ISLANDS



WHITE PAINTED ISLANDS



LEGEND

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

SHEET 3 OF 3 — 1250.01

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

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

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

HUD/PERMIT SET

12073

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

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

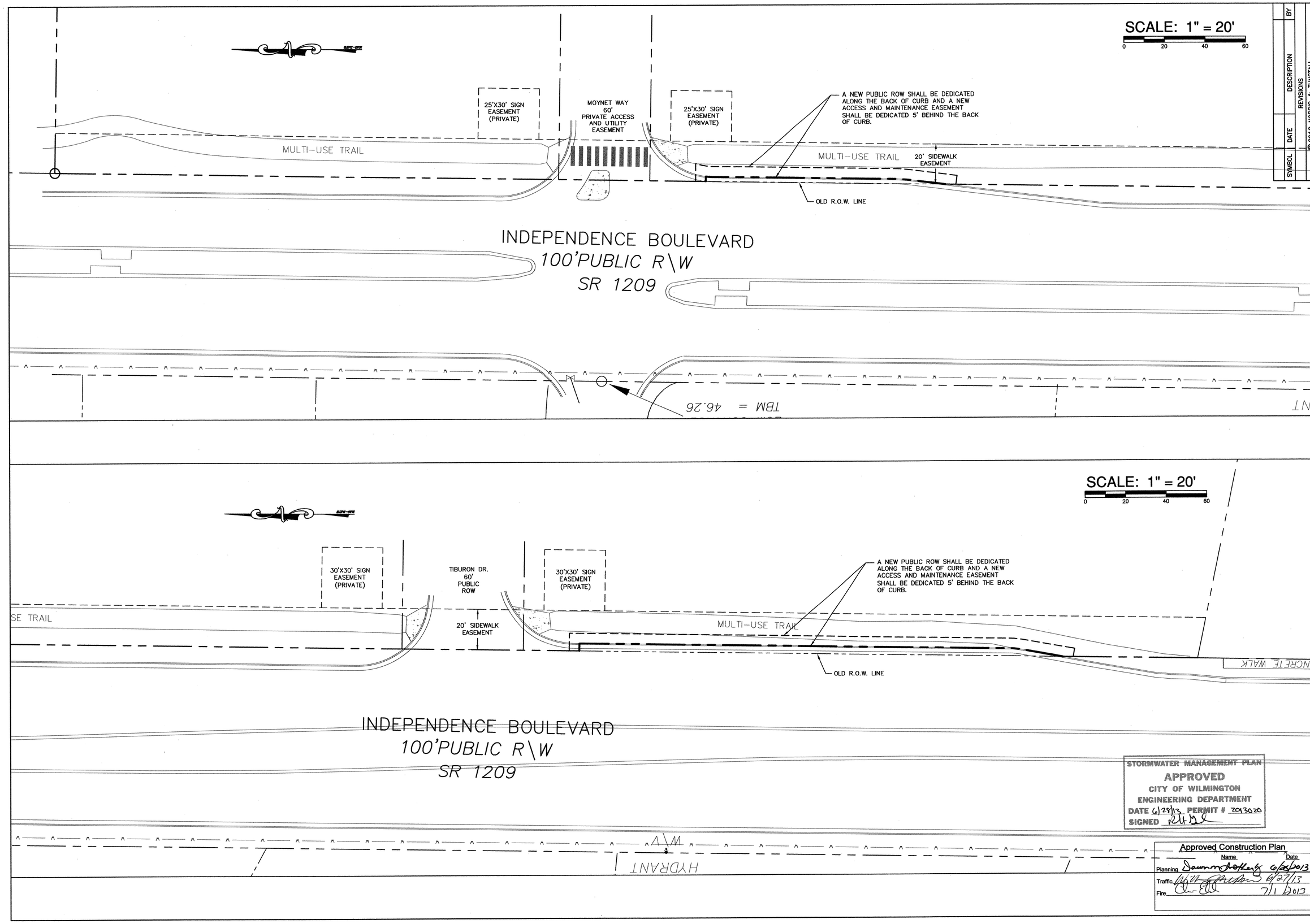
STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130703
SIGNED

Approved Construction Plan

	Name	Date
Planning	Dawn M Bradley	6/28/2013
Traffic		6/27/13
Fire		7/1/2013

C9

F:\Projects\2012\12073 Midtown Apartments at Tiburon Parc\12073 Plans\dwg\12073.master.r4.dwg, 5/2/2013 2:17:52 PM



STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 2013020
SIGNED

Approved Construction Plan

	Name	Date
Planning	Dawn Hoffman	6/25/2013
Traffic		6/27/13
Fire		7/1/2013

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

©2012 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. 28406
910-392-3300

NORRIS & TUNSTALL
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PHONE (910) 343-9653
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office@nteng.com
licence #C-3641

HUD/PERMIT SET

12073

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19851 JOHN P. TUNSTALL

C10

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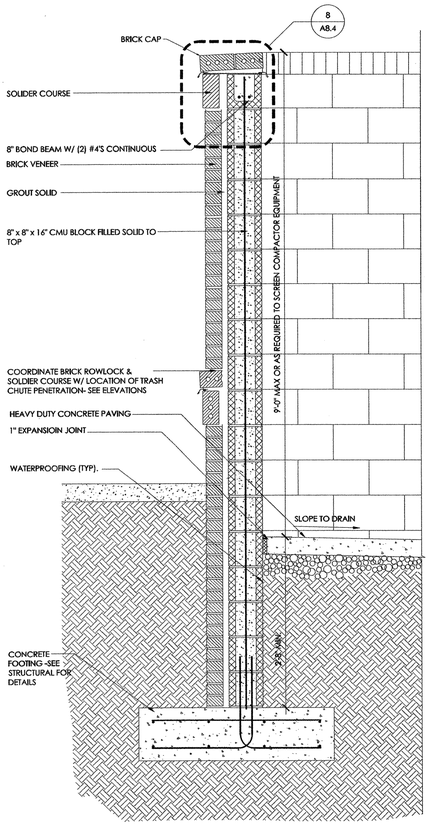
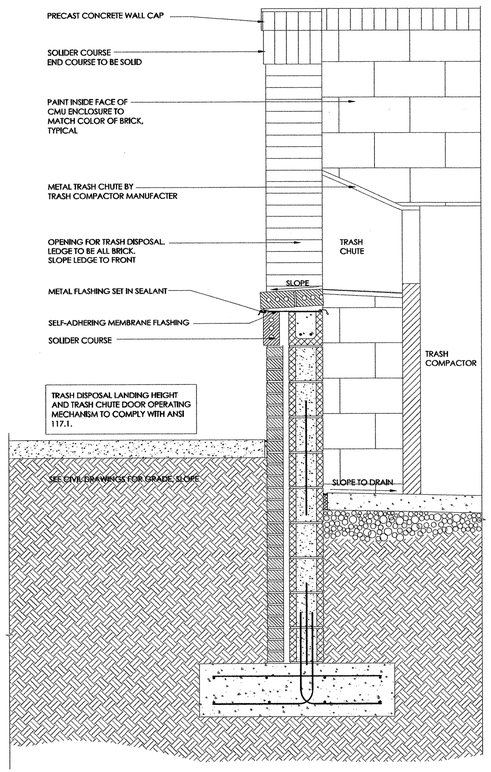
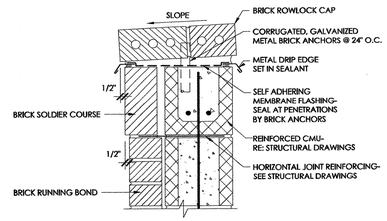


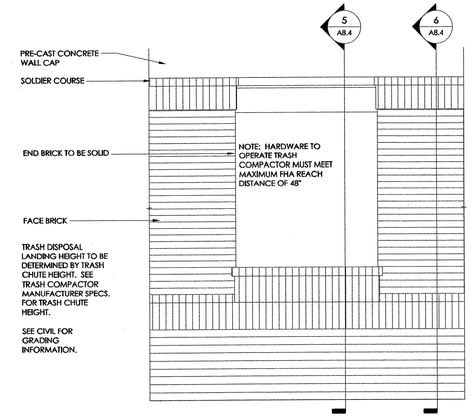
6 DUMPSTER ENCLOSURE WALL SECTION
3/4" = 1'-0"



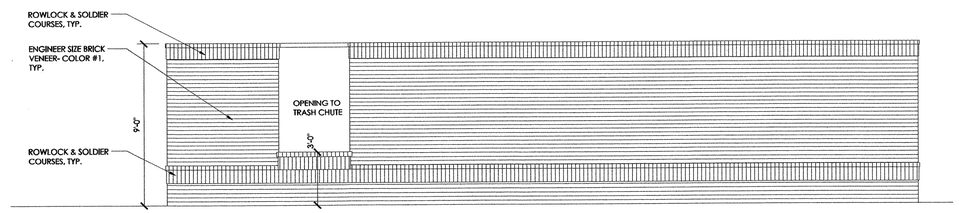
5 TRASH CHUTE WALL SECTION
3/4" = 1'-0"



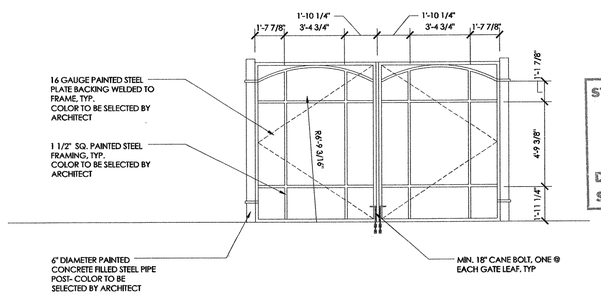
8 WALL CAP DETAIL
1 1/2" = 1'-0"



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



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

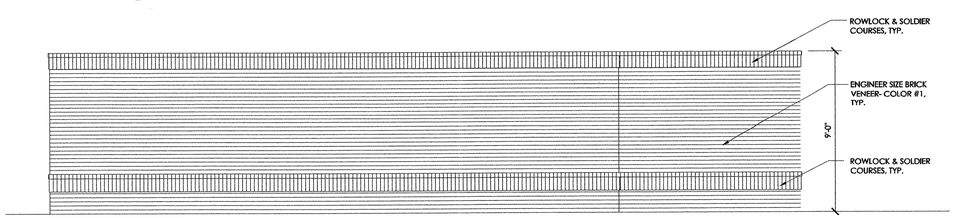


3 DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"

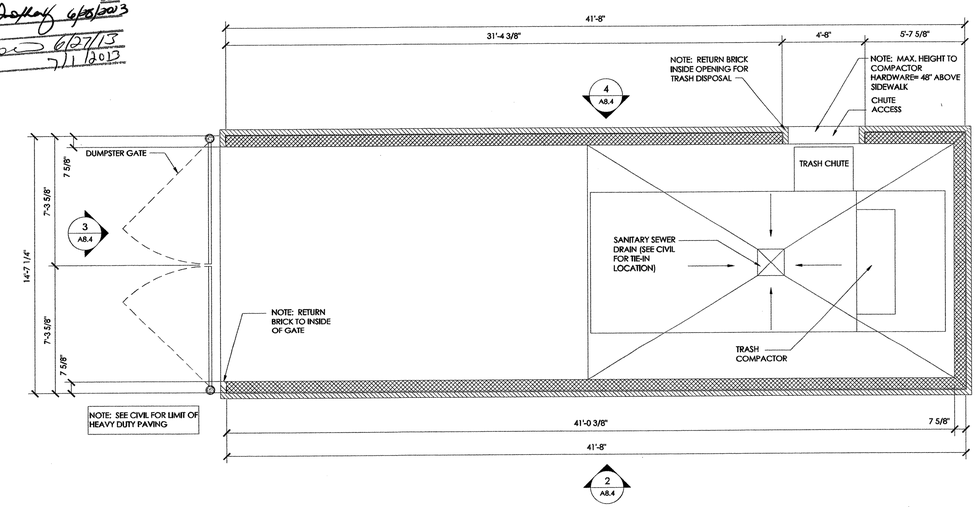
STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/25/13 PERMIT # 20130020
SIGNED

Approved Const. Plan

	Name	Date
Planning		6/25/2013
Public Utilities		6/27/13
Traffic		
Fire		7/1/2013



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



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

HOUSING STUDIO
333 West Trade Street, Suite 300
Charlotte, NC 28202
T: 704.333.7862 F: 704.343.9380

TIBURON PARC
APARTMENT HOMES
WILMINGTON, NC

THE OLEANDER COMPANY

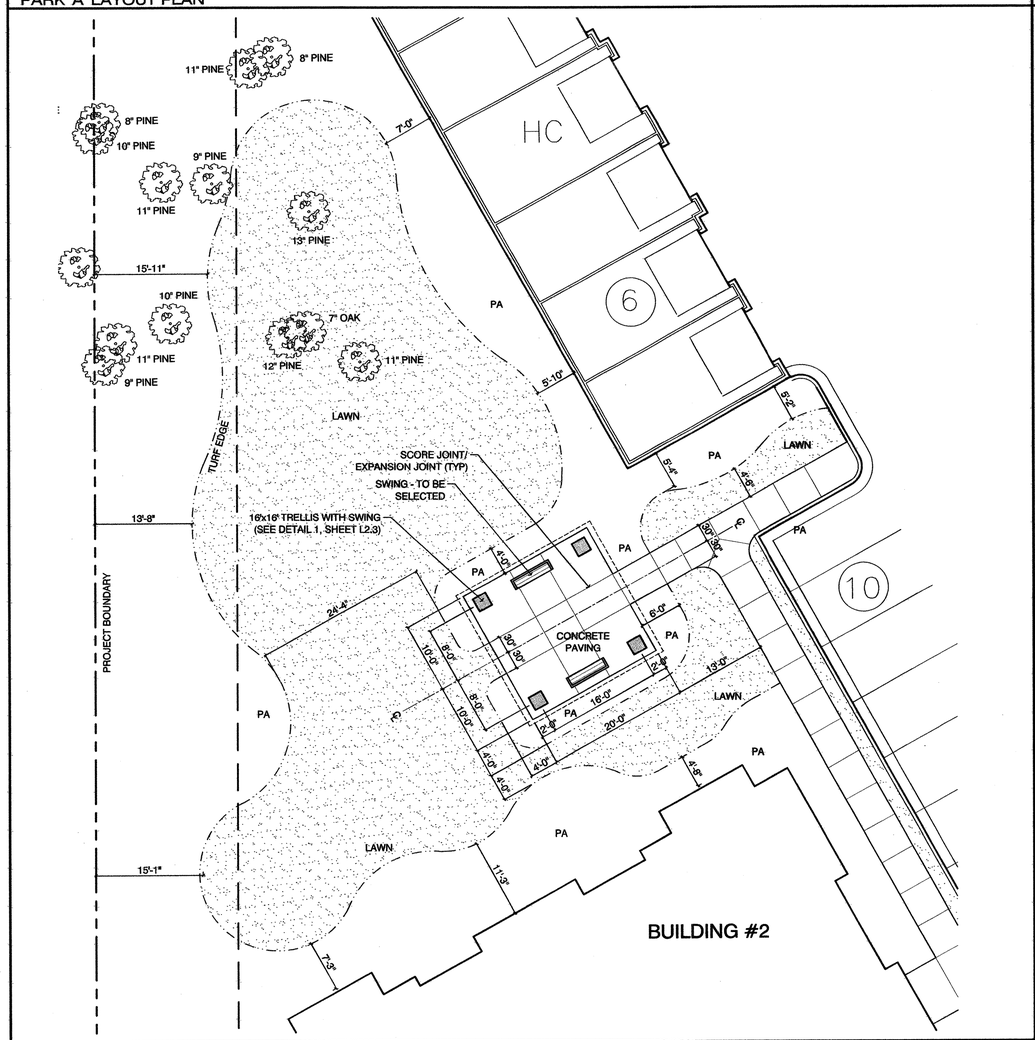
Project No: 2923
Issue Date: NOV. 30, 2012
Issued For: 60% PROGRESS SET
Issue Date: DEC. 31, 2012
Issued For: 90% PROGRESS SET
Issue Date: FEB. 18, 2013
Issued For: HUD/Permit Set

3 A8.4 SIM.

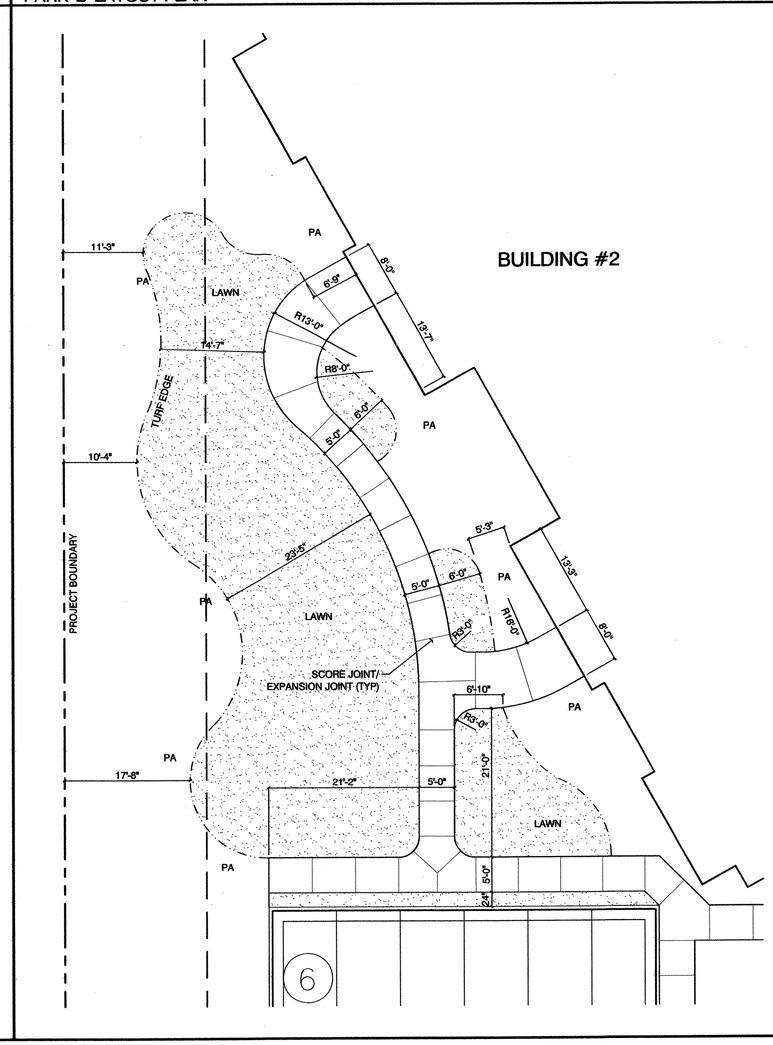
DUMPSTER ENCLOSURE PLAN & ELEVATIONS

A8.4

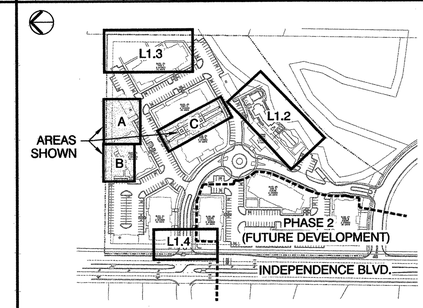
PARK 'A' LAYOUT PLAN



PARK 'B' LAYOUT PLAN



SITE MAP NOT TO SCALE



SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
PA	PLANTING AREA	℄	CENTER LINE
BOC	BEGINNING OF CURVE		ALIGN
EJ	EXPANSION JOINT	S-1	CALL OUT

FINISH SCHEDULE

SYMBOL	DESCRIPTION	DETAIL	SHEET
S-1	CONCRETE SIDEWALK		
S-2	BRICK PAVING	2	L2.1
S-3	LOW PLANTER WALL	4	L2.1
S-4	FOUNTAIN - TO BE SELECTED		
S-5	BENCH - TO BE SELECTED		

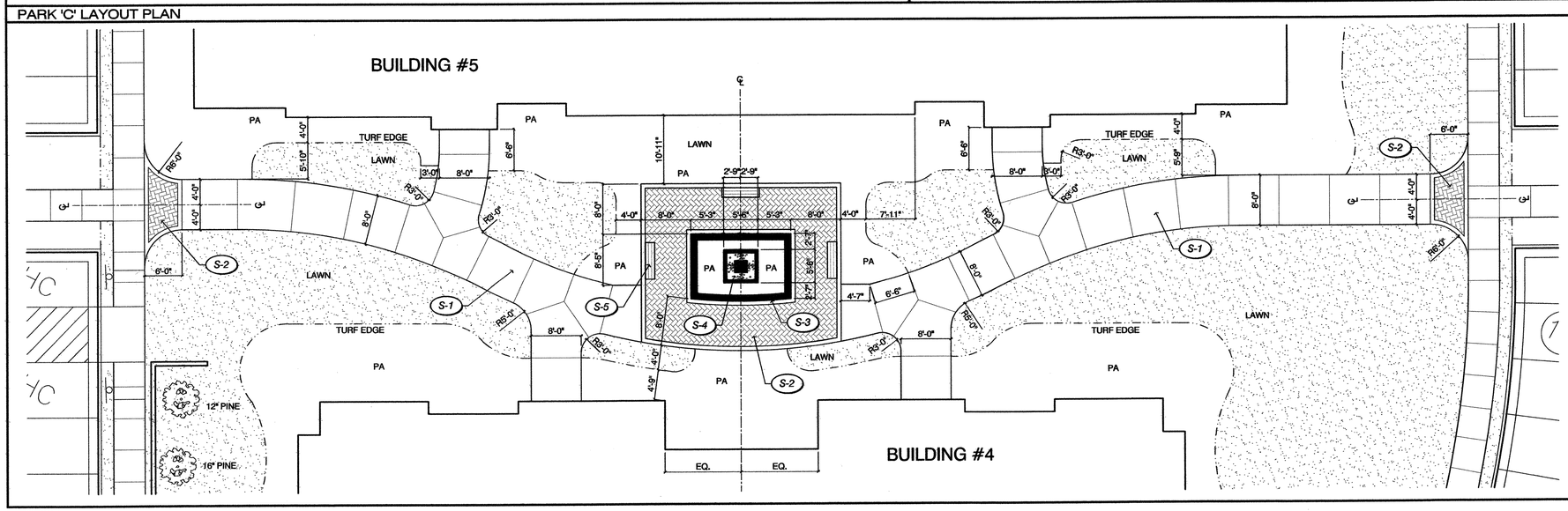
11" PINE — EXISTING TREE TO BE PRESERVED

Approved Const. Plan

	Name	Date
Planning	Dawn M. Buckley	6/25/2013
Public Utilities		
Traffic	[illegible]	6/27/13
Fire	[illegible]	7/1/2013

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 20130620
SIGNED RLH

PARK 'C' LAYOUT PLAN



GENERAL CONSTRUCTION NOTES

1. SCOPE OF WORK:
   THE GENERAL SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO, ALL LABOR, EQUIPMENT, AND MATERIALS FOR THE CONSTRUCTION OF ALL EXTERNAL LANDSCAPE ARCHITECTURAL HARDSCAPE AND SOFTSCAPE ELEMENTS AS PER PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS, DISTANCES, AND CONDITIONS PRIOR TO STARTING WORK. ANY DISCREPANCIES SHALL BE PROMPTLY REPORTED TO THE LANDSCAPE ARCHITECT.
3. ALL WORK SHALL COMPLY TO THE NATIONAL BUILDING CODE, LATEST EDITION, AS ADOPTED BY THE LOCAL MUNICIPALITY.
4. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY, AND ENVIRONMENTAL QUALITY.
5. PLUS/ MINUS DIMENSIONS MAY BE GIVEN FOR IMPROVEMENTS THAT MAY VARY SLIGHTLY. ALL OTHER DIMENSIONS ARE EXACT. CONTRACTOR TO STAKE PROPOSED WORK PRIOR TO CONSTRUCTION FOR OWNER AND LANDSCAPE ARCHITECT TO REVIEW.
6. ANY CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DRAWING AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK SO INVOLVED.
7. WHEN APPLICABLE, THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, ELECTRICAL, CIVIL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND SHALL COORDINATE WITH ALL OTHER TRADES TO ENSURE INTEGRITY OF WORK.
8. PAVING CONTRACTOR SHALL COORDINATE WITH DRAINAGE CONTRACTOR, IRRIGATION CONTRACTOR AND ELECTRICIAN TO ENSURE THAT ALL SLEEVES AND CROSSINGS ARE PROVIDED PRIOR TO PLACING OF PAVING, CONCRETE, ETC.
9. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO BEGINNING ANY WORK AND CONTACT LANDSCAPE ARCHITECT FOR AUTHORIZATION IF MODIFICATIONS ARE NECESSARY.
10. VERIFY WITH THE PROJECT SOILS ENGINEER THE NEED FOR REINFORCING, BASE MATERIALS, PRESATURATION, ETC., FOR WALKS, PATIOS, FOOTINGS, ETC.
11. EXPANSION JOINTS OCCUR AT BOTTOM OF STEPS, CHANGE IN DIRECTION OF CONCRETE WALKS, ADJACENT TO BUILDINGS AND WHERE NEW CONCRETE PAVING ABUTS EXISTING SIDEWALKS AND/OR CURBS. THE RECOMMENDED SPACING FOR EXPANSION JOINTS IN WALKS IS 10'-0" O.C. FOR CONTINUOUS WALKS UNLESS OTHERWISE RECOMMENDED BY SOILS ENGINEER.
12. SCORE JOINTS OCCUR WHERE SHOWN ON PLAN AND AS NECESSARY TO MINIMIZE AND CONTROL CRACKING OF CONCRETE PAVING.

NORTH

0 10 20 30 40
SCALE: 1" = 10'

MIHALY
LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LANDSCAPE ARCHITECT JOSHUA W. MIHALY

Revisions

1. 06/11/13 - ADDED EXISTING TREES TO BE PRESERVED; ADJUSTED LAYOUT ACCORDINGLY.
2. 06/18/13 - REVISED EXISTING TREE LABELS.

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

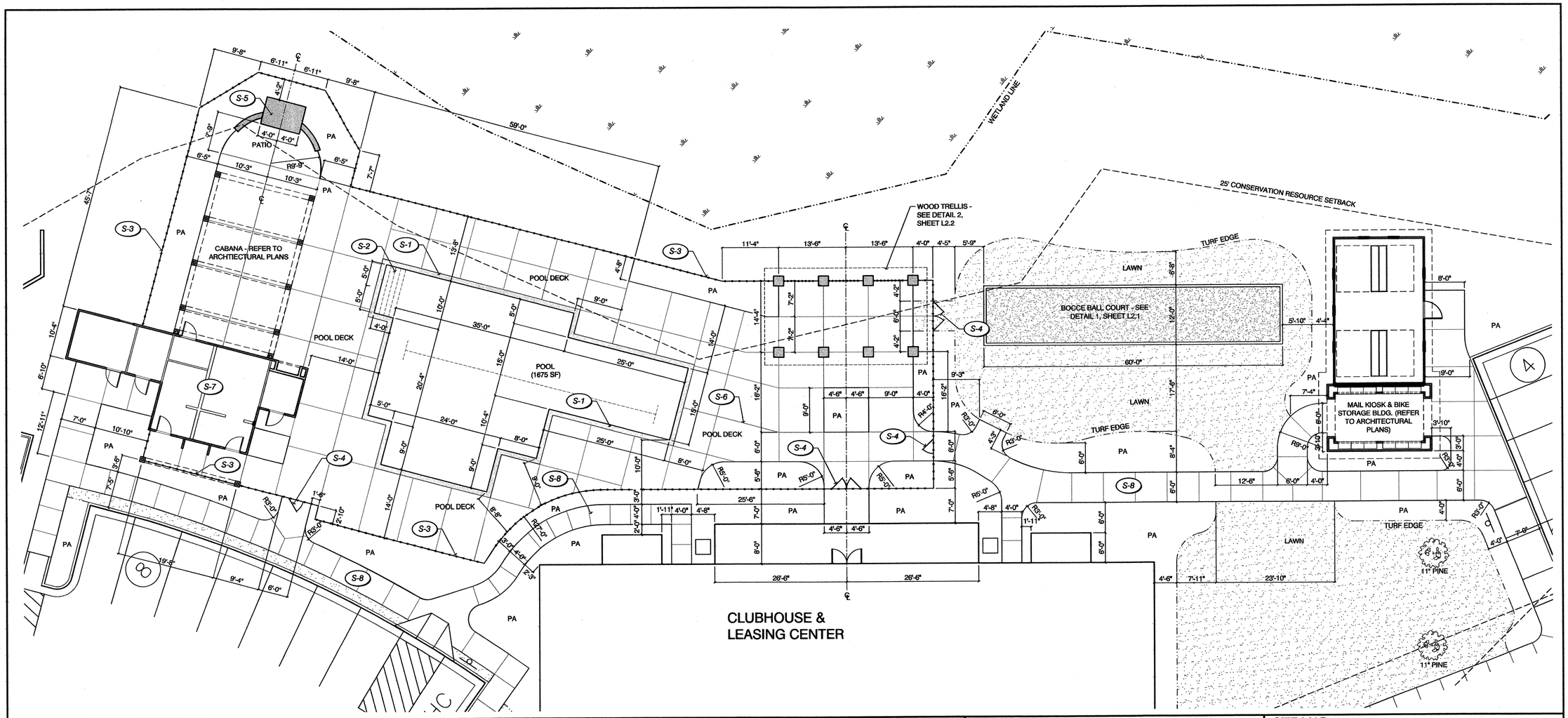
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
CONSTRUCTION LAYOUT PLAN - PARKS A,B,C

Sheet Number
L1.1
of 10 sheets

H.U.D. / PERMIT SET



FINISH SCHEDULE

SYMBOL	DESCRIPTION	DETAIL	SHEET
S-1	POOL COPING	7	L2.1
S-2	POOL STEPS		
S-3	ALUMINUM POOL FENCE	5	L2.1
S-4	ALUMINUM POOL GATE	6	L2.1
S-5	FIREPLACE	1	L2.2
S-6	SCORE JOINT / EXPANSION JOINT		
S-7	POOL HOUSE (REFER TO ARCHITECTURAL PLANS)		
S-8	CONCRETE SIDEWALK		

11" PINE — EXISTING TREE TO BE PRESERVED

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 2013020
SIGNED RLD

GENERAL CONSTRUCTION NOTES

1. SCOPE OF WORK:
THE GENERAL SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO, ALL LABOR, EQUIPMENT, AND MATERIALS FOR THE CONSTRUCTION OF ALL EXTERNAL LANDSCAPE ARCHITECTURAL HARDSCAPE AND SOFTSCAPE ELEMENTS AS PER PLANS AND SPECIFICATIONS.
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6. ANY CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DRAWING AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK SO INVOLVED.
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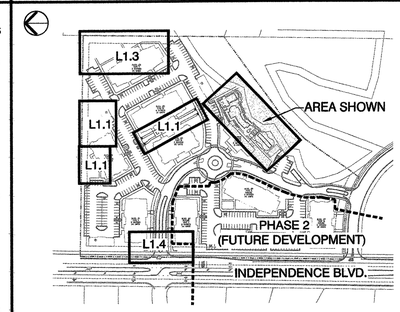
10. VERIFY WITH THE PROJECT SOILS ENGINEER THE NEED FOR REINFORCING, BASE MATERIALS, PRESATURATION, ETC., FOR WALKS, PATIOS, FOOTINGS, ETC.
11. EXPANSION JOINTS OCCUR AT BOTTOM OF STEPS, CHANGE IN DIRECTION OF CONCRETE WALKS, ADJACENT TO BUILDINGS AND WHERE NEW CONCRETE PAVING ABUTS EXISTING SIDEWALKS AND/OR CURBS. THE RECOMMENDED SPACING FOR EXPANSION JOINTS IN WALKS IS 10'-0" O.C. FOR CONTINUOUS WALKS UNLESS OTHERWISE RECOMMENDED BY SOILS ENGINEER.
12. SCORE JOINTS OCCUR WHERE SHOWN ON PLAN AND AS NECESSARY TO MINIMIZE AND CONTROL CRACKING OF CONCRETE PAVING.

Approved Const. Plan

	Name	Date
Planning	Dawn M Stickley	6/28/2013
Public Utilities		
Traffic	[illegible]	6/27/13
Fire	[illegible]	7/1/2013

SITE MAP NOT TO SCALE



SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
PA	PLANTING AREA	℄	CENTER LINE
BOC	BEGINNING OF CURVE		ALIGN
EJ	EXPANSION JOINT	S-1	CALL OUT

NORTH

0 10 20 30 40
SCALE: 1" = 10'

MIHALY LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT 1374 JOSHUA W. MIHALY

Revisions

1. 06/11/13 - ADDED EXISTING TREES TO BE PRESERVED; ADJUSTED LAYOUT ACCORDINGLY

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

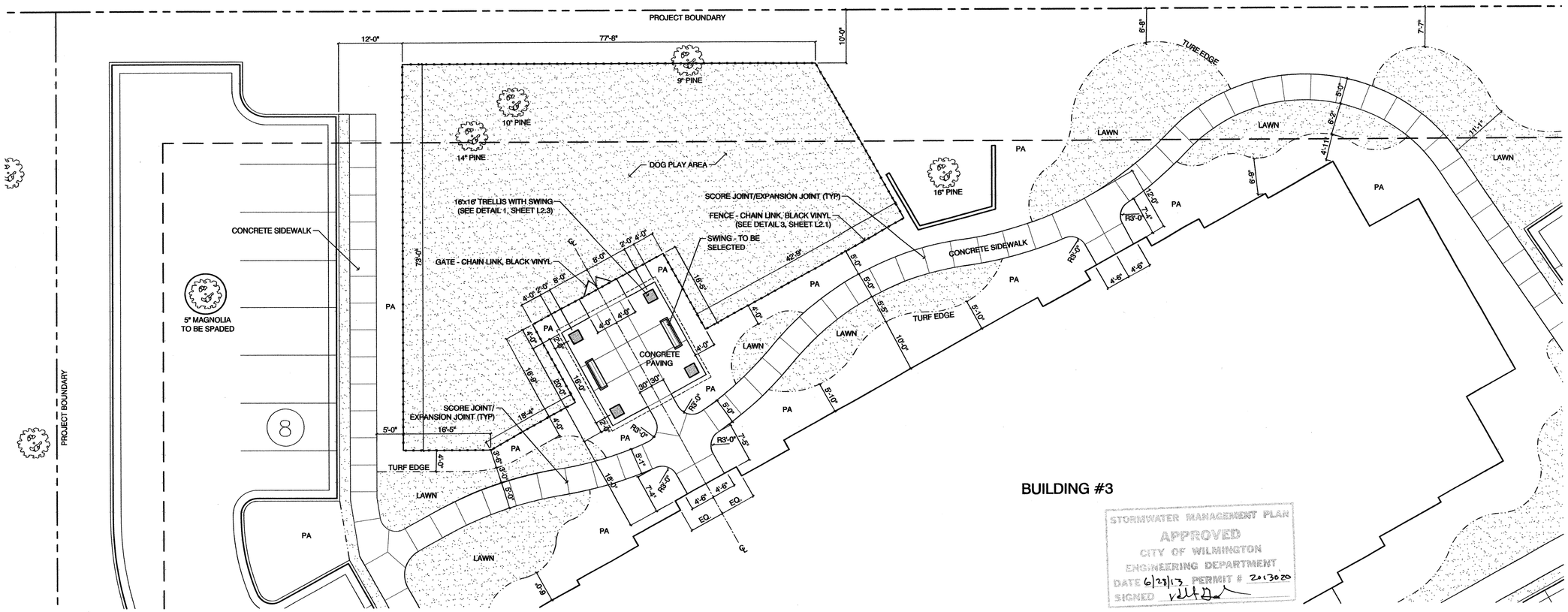
Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
CONSTRUCTION LAYOUT PLAN - AMENITY AREA

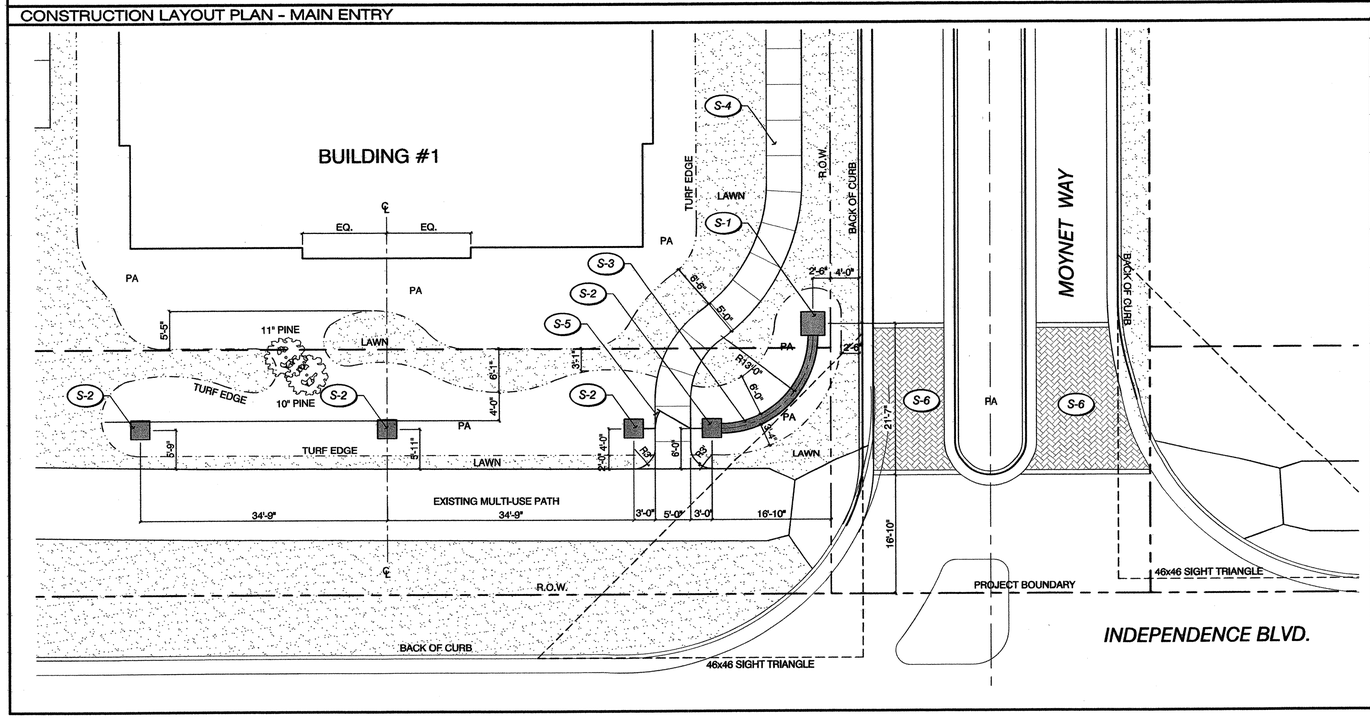
Sheet Number
L1.2
of 10 sheets

H.U.D. / PERMIT SET

CONSTRUCTION LAYOUT PLAN - DOG PARK



CONSTRUCTION LAYOUT PLAN - MAIN ENTRY



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10. VERIFY WITH THE PROJECT SOILS ENGINEER THE NEED FOR REINFORCING, BASE MATERIALS, PRESATURATION, ETC., FOR WALKS, PATIOS, FOOTINGS, ETC.
11. EXPANSION JOINTS OCCUR AT BOTTOM OF STEPS, CHANGE IN DIRECTION OF CONCRETE WALKS, ADJACENT TO BUILDINGS AND WHERE NEW CONCRETE PAVING ABUTS EXISTING SIDEWALKS AND/OR CURBS. THE RECOMMENDED SPACING FOR EXPANSION JOINTS IN WALKS IS 16'-0" O.C. FOR CONTINUOUS WALKS UNLESS OTHERWISE RECOMMENDED BY SOILS ENGINEER.
12. SCORE JOINTS OCCUR WHERE SHOWN ON PLAN AND AS NECESSARY TO MINIMIZE AND CONTROL CRACKING OF CONCRETE PAVING.

FINISH SCHEDULE

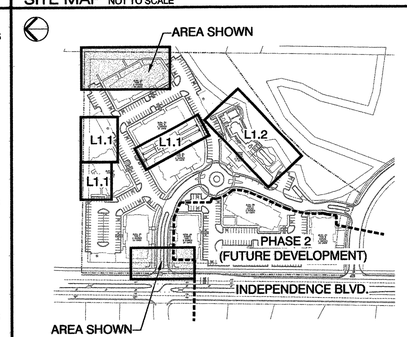
SYMBOL	DESCRIPTION	DETAIL	SHEET
S-1	12' BRICK PILASTER WITH PRE-CAST CAP	1	L2.4
S-2	8' BRICK PILASTER WITH PRE-CAST CAP	2	L2.4
S-3	ENTRY WALL WITH SIGN	3	L2.4
S-4	CONCRETE SIDEWALK		
S-5	IRON ENTRY GATE		
S-6	BRICK PAVING	2	L2.1

11" PINE — EXISTING TREE TO BE PRESERVED

Approved Const. Plan

	Name	Date
Planning	Dawn M. Hoffman	6/28/2013
Public Utilities		
Traffic		6/27/13
Fire		7/1/2013

SITE MAP NOT TO SCALE



SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
PA	PLANTING AREA	℄	CENTER LINE
BOC	BEGINNING OF CURVE		ALIGN
EJ	EXPANSION JOINT	S-1	CALL OUT

NORTH

0 10 20 30 40

SCALE: 1" = 10'

MIHALY LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT JOSHUA W. MIHALY

Revisions

1. 06/11/13 - ADDED EXISTING TREES TO BE PRESERVED; ADJUSTED LAYOUT ACCORDINGLY.
2. 06/18/13 - REVISED EXISTING TREES AND LABELS. UPDATED EXISTING CURB AND MULTI-USE PATH AND DIMENSIONS ACCORDINGLY. ADDED SIGHT TRIANGLES.

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

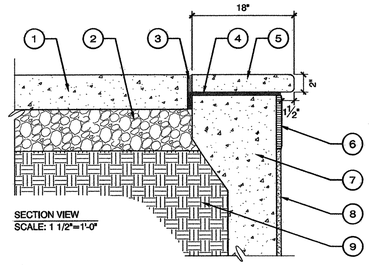
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title: CONSTRUCTION LAYOUT PLAN - DOG PARK AND MAIN ENTRY

Sheet Number
L1.3
of 10 sheets

H.U.D. / PERMIT SET



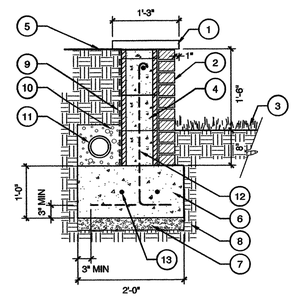
SECTION VIEW
SCALE: 1 1/2"=1'-0"

LEGEND

1. ADJACENT CONCRETE PAVING
2. AGGREGATE SUB-BASE - REFER TO SOILS REPORT FOR DEPTH REQUIREMENTS
3. EXPANSION JOINT
4. BOND BREAKER ABOVE AND BEHIND BOND BEAM
5. POURED-IN-PLACE CONCRETE COPING
   COLOR: TO BE SELECTED
   FINISH: SELECTED
6. WATERLINE TILE
   TILE: TO BE SELECTED
   AVAILABLE FROM: TO BE SELECTED
7. BOND BEAM - REFER TO POOL CONTRACTOR'S SHOP DRAWINGS
8. PLASTER FINISH
   COLOR: TO BE SELECTED
   FINISH: SMOOTH
9. COMPACTED SUBGRADE - REFER TO STRUCTURAL ENGINEER'S DRAWING FOR REQUIREMENTS

NOTE:
- *DETAIL IS CONCEPTUAL ONLY. POOL CONTRACTOR SHALL SUBMIT COMPLETE STRUCTURAL AND MECHANICAL DRAWINGS TO CONFORM TO LOCAL CODES.*

7 POOL COPING

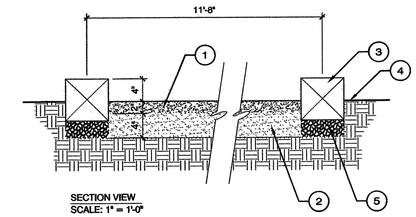


SECTION VIEW
SCALE: 3/4" = 1'-0"

LEGEND

1. PRECAST CONCRETE CAP
2. BRICK VENEER
3. ADJACENT TURF
4. 8" CMU - GROUT CELLS SOLID W/ REINFORCEMENT
5. FINISH GRADE
6. CONCRETE FOOTING
7. AGGREGATE SUB-BASE
8. COMPACTED SUBGRADE
9. WATERPROOF MEMBRANE
10. DRAIN ROCK WRAPPED IN FILTER FABRIC
11. 4" DIAMETER PERFORATED PVC DRAIN LINE
12. #4 VERTICAL REBAR @ 48" O.C. - ALTERNATE BENDS IN FOOTING
13. #4 HORIZONTAL REBAR

4 PLANTER RETAINING WALL



SECTION VIEW
SCALE: 1" = 1'-0"

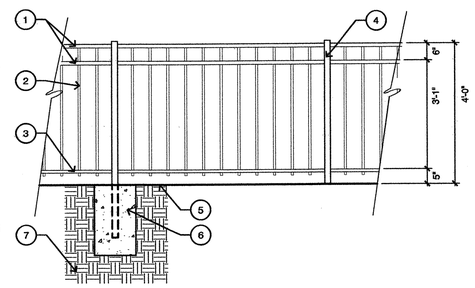
LEGEND

1. 2" DEEP COMPACTED OYSTER SHELL PLAYING SURFACE
2. 4" DEEP COMPACTED SAND
3. PRESSURE TREATED 8x8
4. FINISH GRADE
5. COMPACTED ABC STONE BASE

1 BOCCE BALL COURT

LEGEND

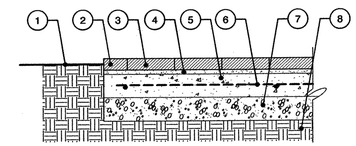
1. 2" x 2" TOP RAILS
2. ¾" X ¾" PICKETS
3. 1" X 1" BOTTOM RAIL
4. 2" x 2" POST
5. FINISH GRADE
6. CONCRETE FOOTING
7. COMPACTED SUBGRADE



SECTION/ELEVATION VIEW
SCALE: 1/2" = 1'-0"

NOTE:
- PRIME AND PAINT (2) COATS
  COLOR: BLACK
- FENCE MODEL: COMMERCIAL ASCOT 48"
  AVAILABLE FROM: ALUMI-GUARD (877.258.6448)

5 ALUMINUM POOL FENCE



SECTION VIEW
SCALE: 1"= 1'-0"

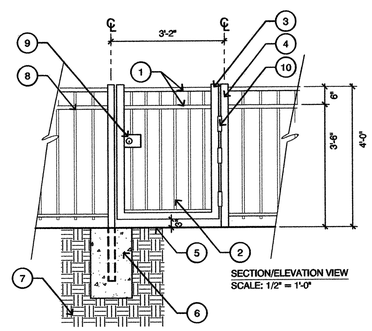
LEGEND

1. ADJACENT FINISH GRADE
2. BRICK BAND AT EDGE - REFER TO CONSTRUCTION LAYOUT PLAN FOR LAYOUT
3. BRICK FIELD - REFER TO CONSTRUCTION LAYOUT PLAN FOR PATTERN
4. MORTAR SETTING BEND
5. 4" MINIMUM CONCRETE SLAB
6. STEEL REINFORCEMENT - REFER TO SOILS REPORT
7. AGGREGATE SUB-BASE MATERIAL
8. COMPACTED SUBGRADE

2 BRICK PAVERS WITH BRICK BAND

LEGEND

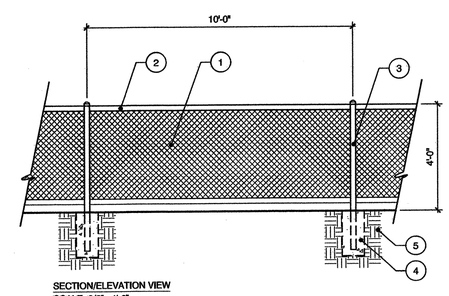
1. 1" x 1" TOP RAILS
2. ¾" X ¾" PICKETS
3. 2" x 2" FRAME
4. 2" x 2" POST
5. FINISH GRADE
6. CONCRETE FOOTING
7. COMPACTED SUBGRADE
8. ADJACENT FENCING - REFER TO DETAIL 5, THIS SHEET
9. GATE LATCH WITH KEYED ENTRY - INSTALL PER MANUFACTURER'S SPECIFICATIONS AND PER LOCAL HEALTH DEPARTMENT CODE
10. HEAVY-DUTY SELF CLOSING LATCHES



SECTION/ELEVATION VIEW
SCALE: 1/2" = 1'-0"

NOTE:
- PRIME AND PAINT (2) COATS
  COLOR: BLACK
- FENCE MODEL: COMMERCIAL ASCOT 48"
  AVAILABLE FROM: ALUMI-GUARD (877.258.6448)

6 ALUMINUM POOL GATE



SECTION/ELEVATION VIEW
SCALE: 3/8" - 1'-0"

LEGEND

1. 1 ¾" MESH GALVANIZED ALUMINUM CHAIN LINK FENCE WITH BLACK VINYL COATING
2. 1 ⅝" GALVANIZED ALUMINUM RAIL
3. 2 ⅜" GALVANIZED ALUMINUM POST
4. CONCRETE FOOTING
5. COMPACTED SUBGRADE

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 28130020
SIGNED

Approved Const. Plan

	Name	Date
Planning	Dawn M Smithwick	6/28/2013
Public Utilities		
Traffic		6/27/13
Fire		7/1/13

3 CHAIN LINK FENCE AT DOG PARK

MIHALY
LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LANDSCAPE ARCHITECT JOSHUA W. MIHALY

Revisions

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

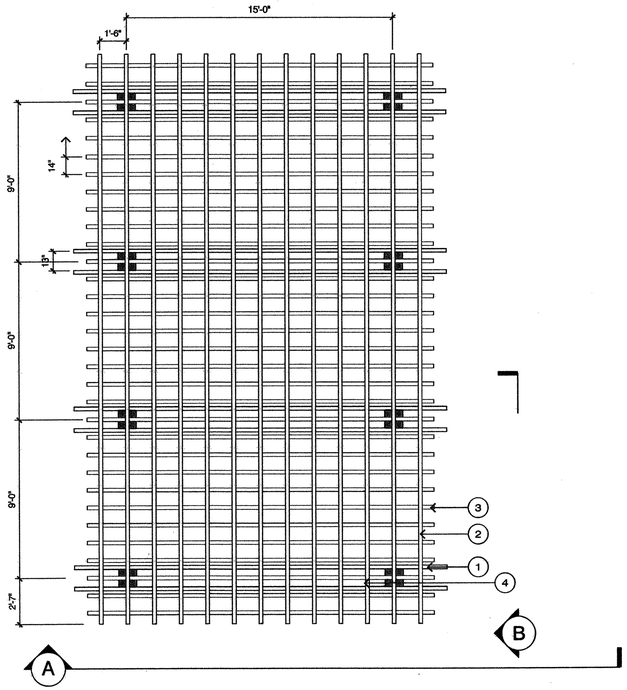
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

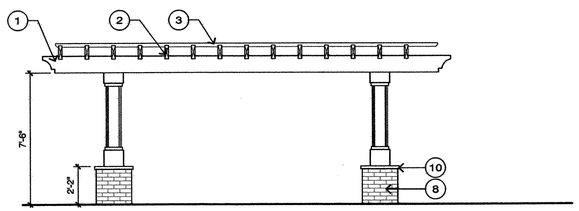
Sheet Title:
Details - Landscape

Sheet Number
L2.1
of 10 sheets

H.U.D. / PERMIT SET



PLAN VIEW
SCALE: 1/4" = 1'-0"

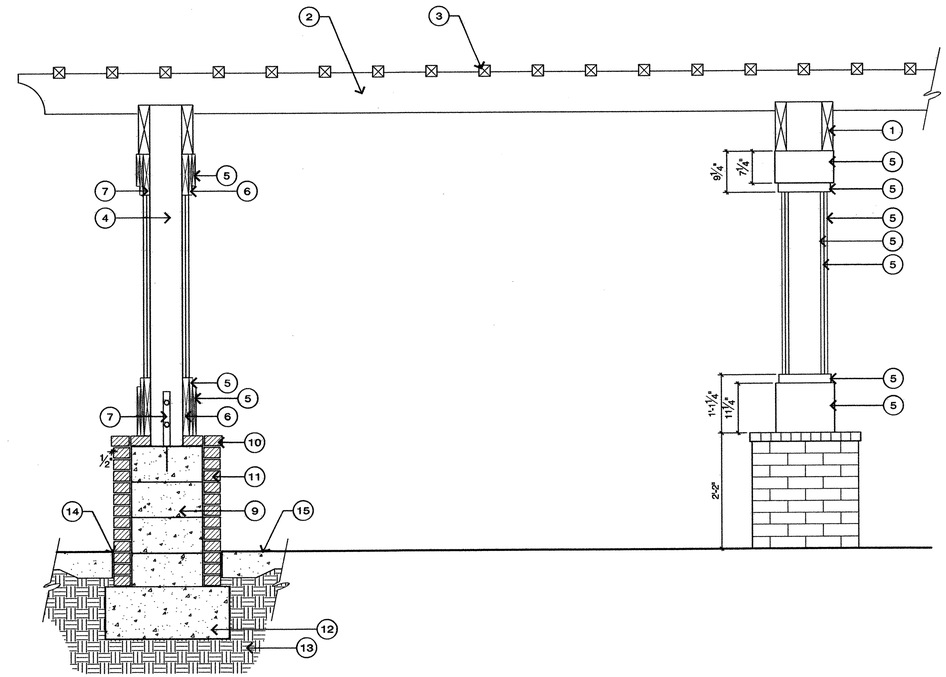


ELEVATION VIEW 'A'
SCALE: 1/4" = 1'-0"

LEGEND

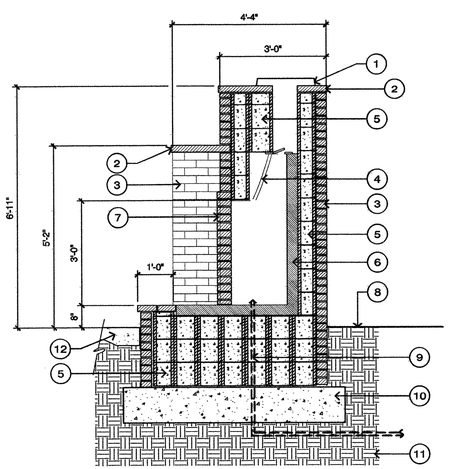
1. 3x12 GRAB BEAM
2. 3x10 JOIST
3. 3x3 LATTICE
4. 8x8 POST
5. 1x PLANT-ON
6. 2x PLANT-ON
7. SIMPSON POST BASE CONNECTION
8. BRICK BASE
9. CMU TO FIT
10. BRICK CAP - HEADER
11. BRICK VENEER - RUNNING BOND
12. CONCRETE FOOTING
13. COMPACTED SUBGRADE
14. EXPANSION JOINT
15. FINISH GRADE

NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAIL FOR ALL INFORMATION PERTAINING TO CONNECTIONS, FOOTING AND REINFORECEMENT
- ALL LUMBER SHALL BE KILN DRIED PRESSURE TREATED
- PAINT ALL LUMBER WITH (1) COAT MOISTURE PROOF PRIMER AND (2) FINISH COATS
- ALL CONNECTORS, FASTENERS AND OTHER HARDWARE SHALL BE HOT DIPPED GALVANIZED



SECTION / ELEVATION VIEW 'B'
SCALE: 3/4" = 1'-0"

2 WOOD TRELLIS AT AMENITY AREA

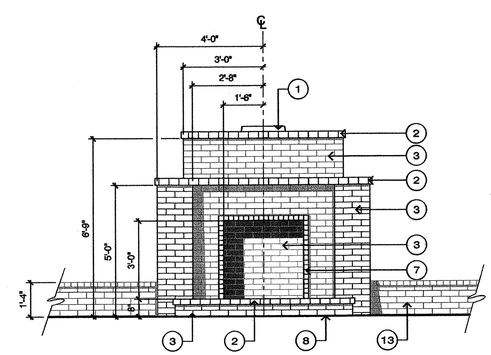


SECTION VIEW
SCALE: 1/2" = 1'-0"

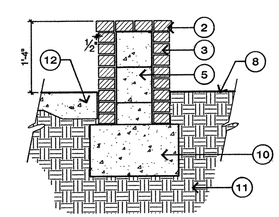
LEGEND

1. SPARK ARRESTOR
2. BRICK CAP (HEADER) - REFER TO FINISH SCHEDULE, SHEET L1.1
3. BRICK VENEER (RUNNING BOND STRETCHER) - REFER TO FINISH SCHEDULE, SHEET L1.1
4. FLUE LINER
5. CMU TO FIT
6. FIRE BRICK
7. FIRE BOX SURROUND - HEADER BRICK, CUT SQUARE
8. FINISH GRADE
9. GAS LINE
10. CONCRETE FOOTING
11. COMPACTED SUBGRADE
12. ADJACENT PAVING AND EXPANSION JOINT - REFER TO DETAIL 1, SHEET L2.1
13. WING WALL - REFER TO SECTION

NOTES:
- DETAILS ARE DIAGRAMMATIC ONLY AND NOT INTENDED FOR CONSTRUCTION. FINAL DETAILS AND STRUCTURAL INFORMATION SHALL BE REQUIRED PRIOR TO CONSTRUCTION.



ELEVATION VIEW
SCALE: 3/8" = 1'-0"



WING WALL SECTION VIEW
SCALE: 3/4" = 1'-0"

STORMWATER MANAGEMENT
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/27/13 PERMIT # 2013028
SIGNED

Approved Const. Plan

	Name	Date
Planning	Dawn M Stotling	6/28/2013
Public Utilities		
Traffic		6/27/13
Fire		7/1/2013

1 BRICK FIREPLACE AT AMENITY AREA

MIHALY
LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT JOSHUA W. MIHALY

Revisions

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

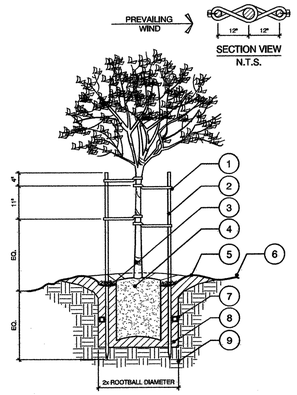
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
Details - Landscape

Sheet Number
L2.2
of 10 sheets

H.U.D. / PERMIT SET

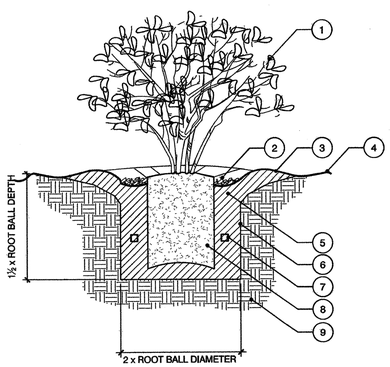


LEGEND

1. 24" CORDED BLACK RUBBER TREE TIE. LOOP AT TRUNK AND NAIL TO STAKE
2. 2½" DIA. x 12' LONG TREATED LODGEPOLE PINE STAKE
3. 3" LAYER OF MULCH
4. ROOT BALL
5. 3" WATER BASIN
6. FINISH GRADE
7. FERTILIZER TABLET - REFER TO SCHEDULE FOR QUANTITY, THIS SHEET
8. TOPSOIL & NATIVE BACKFILL MIXTURE
9. NATIVE SUBGRADE

NOTES:
- SCARIFY ROOT BALLS OF PLANTS WITH CIRCLING ROOTS.
- HEAVILY ROOT BOUND SHRUBS WILL NOT BE ACCEPTED

2 TREE STAKING & PLANTING

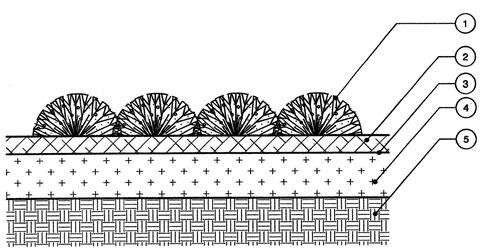


LEGEND

1. SHRUB
2. 3" LAYER OF MULCH
3. 3" WATER BASIN
4. FINISH GRADE
5. TOPSOIL & NATIVE BACKFILL MIXTURE
6. SCARIFY EDGE OF PIT
7. FERTILIZER TABLETS - REFER TO SCHEDULE FOR QUANTITY
8. ROOT BALL
9. NATIVE SUBGRADE

NOTES:
- SCARIFY ROOT BALLS OF PLANTS WITH CIRCLING ROOTS.
- HEAVILY ROOT BOUND SHRUBS WILL NOT BE ACCEPTED

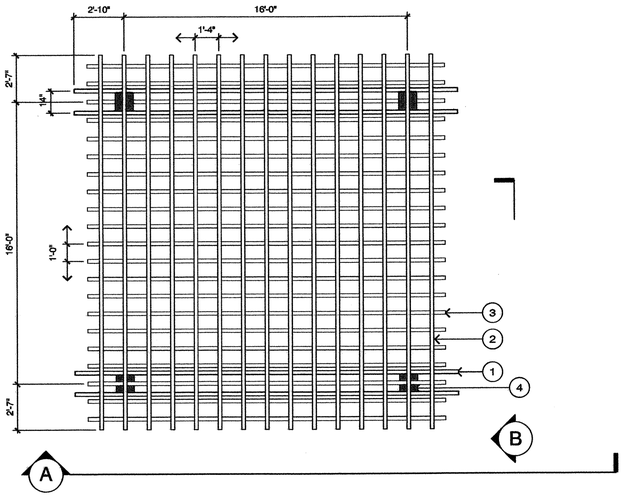
3 SHRUB PLANTING



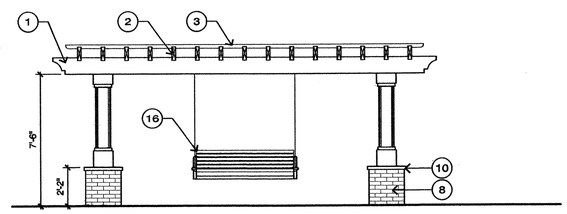
LEGEND

1. GROUND COVER PLANT FROM FLAT - REFER TO PLANTING PLAN AND TO DETAIL 1, THIS SHEET FOR SPACING INFORMATION
2. 3" LAYER OF MULCH
3. FINISH GRADE
4. TOPSOIL AND NATIVE BACKFILL - REFER TO PLANTING SPECIFICATIONS, SHEET L7.1 FOR TYPE AND DEPTH
5. COMPACTED SUBGRADE

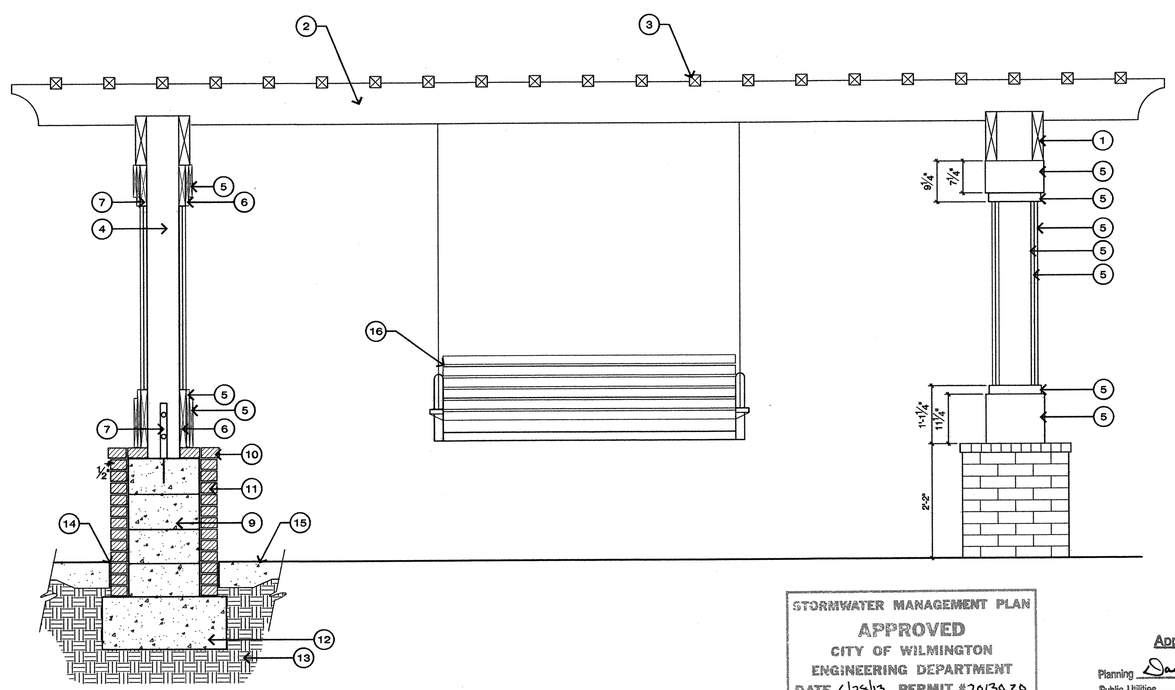
4 GROUNDCOVER PLANTING



PLAN VIEW
SCALE: 1/4" = 1'-0"



ELEVATION VIEW 'A'
SCALE: 1/4" = 1'-0"



SECTION / ELEVATION VIEW 'B'
SCALE: 3/4" = 1'-0"

LEGEND

1. 3x12 GRAB BEAM
2. 3x10 JOIST
3. 3x3 LATTICE
4. 8x8 POST
5. 1x PLANT-ON
6. 2x PLANT-ON
7. SIMPSON POST BASE CONNECTION
8. BRICK BASE
9. CMU TO FIT
10. BRICK CAP - HEADER
11. BRICK VENEER - RUNNING BOND
12. CONCRETE FOOTING
13. COMPACTED SUBGRADE
14. EXPANSION JOINT
15. FINISH GRADE
16. PORCH SWING - TO BE SELECTED

NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAIL FOR ALL INFORMATION PERTAINING TO CONNECTIONS, FOOTING AND REINFORECEMENT
- ALL LUMBER SHALL BE KILN DRIED PRESSURE TREATED
- PAINT ALL LUMBER WITH (1) COAT MOISTURE PROOF PRIMER AND (2) FINISH COATS
- ALL CONNECTORS, FASTENERS AND OTHER HARDWARE SHALL BE HOT DIPPED GALVANIZED

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/20/13 PERMIT #20130 20
SIGNED

Approved Const. Plan

	Name	Date
Planning	Dawn M. Brothers	6/20/2013
Public Utilities		
Traffic		6/20/13
Fire		7/1/2013

1 WOOD TRELLIS WITH PORCH SWING AT POCKET PARKS

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LAND DESIGN
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330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT
JOSHUA W. MIHALY

Revisions

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

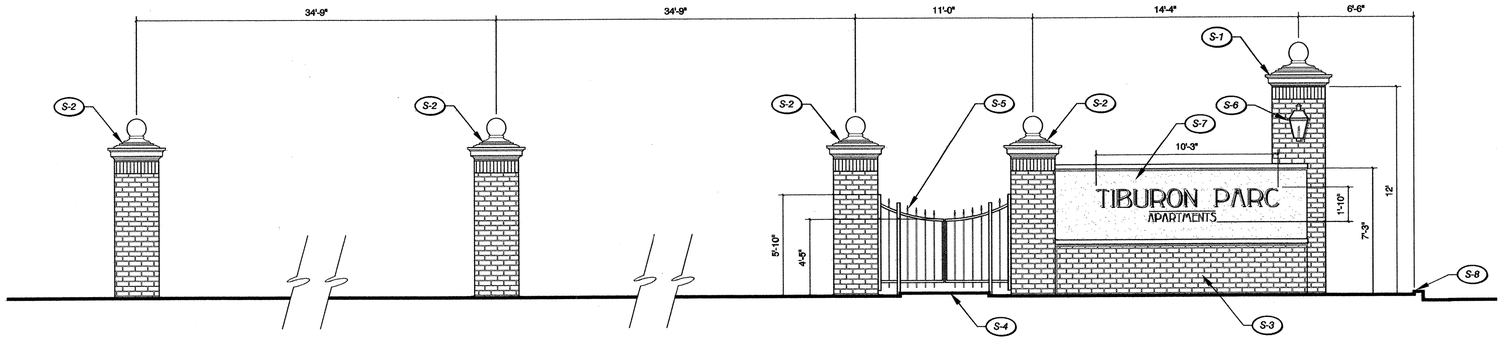
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
Details - Landscape

Sheet Number
L2.3
of 10 sheets

H.U.D. / PERMIT SET

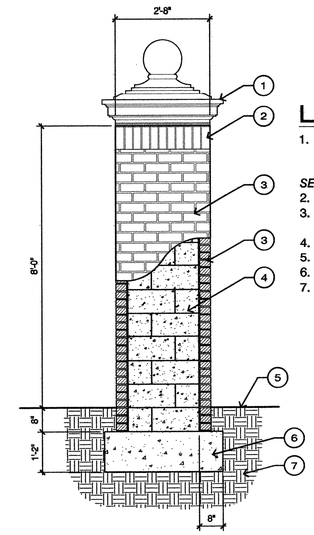


SECTION VIEW
SCALE: 1/4" = 1'-0"

LEGEND

SYMBOL	DESCRIPTION	DETAIL	SHEET
S-1	12' BRICK PILASTER WITH PRE-CAST CAP	1	L2.4
S-2	8' BRICK PILASTER WITH PRE-CAST CAP	2	L2.4
S-3	ENTRY WALL WITH SIGN	3	L2.4
S-4	CONCRETE SIDEWALK		
S-5	IRON ENTRY GATE		
S-6	LANTERN - TO BE SELECTED		
S-7	TABBY SHELL SIGN WALL	3	L2.4
S-8	BACK OF CURB		

5 ENTRY ELEVATION

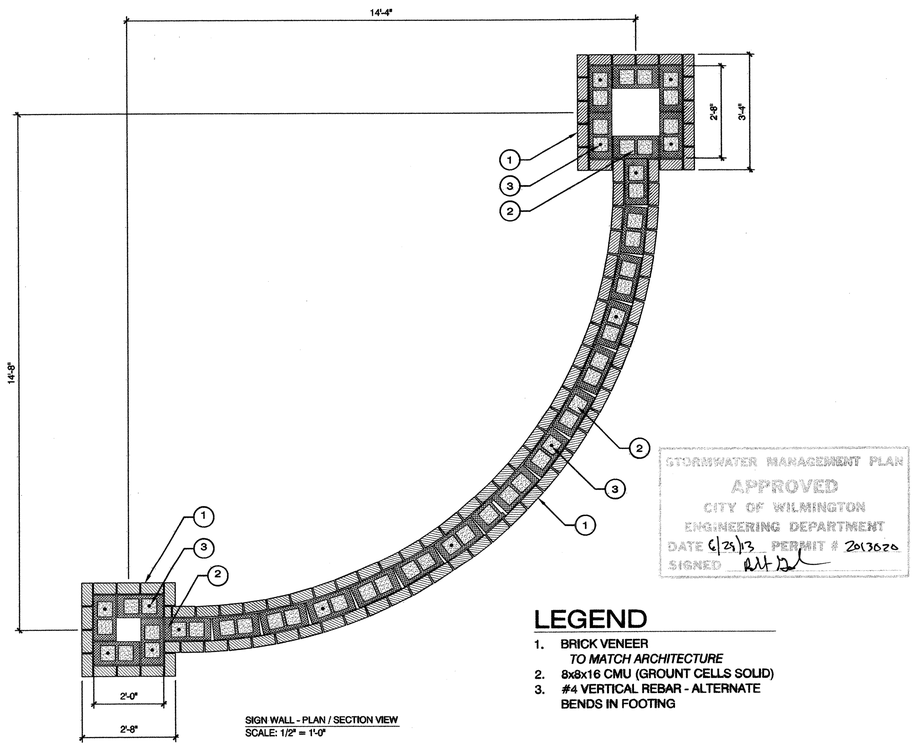


SECTION/ELEVATION VIEW
SCALE: 1/2" = 1'-0"

LEGEND

1. PRECAST CONCRETE CAP
   MODEL: TO BE SELECTED
   AVAILABLE FROM: TO BE SELECTED
2. BRICK BAND (SOLDIER)
3. BRICK VENEER
   TO MATCH ARCHITECTURE
4. CMU (GROUNT CELLS SOLID)
5. FINISH GRADE
6. CONCRETE FOOTING
7. COMPACTED SUBGRADE

2 8' BRICK PILASTER



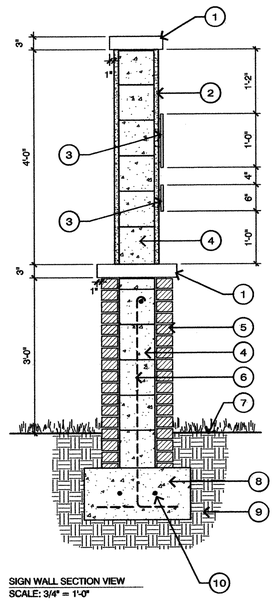
SIGN WALL - PLAN / SECTION VIEW
SCALE: 1/2" = 1'-0"

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/25/13 PERMIT # 2013020
SIGNED

LEGEND

1. BRICK VENEER
   TO MATCH ARCHITECTURE
2. 8x8x16 CMU (GROUNT CELLS SOLID)
3. #4 VERTICAL REBAR - ALTERNATE BENDS IN FOOTING

4 ENTRY WALL AND PILASTERS - PLAN VIEW



SIGN WALL SECTION VIEW
SCALE: 3/4" = 1'-0"

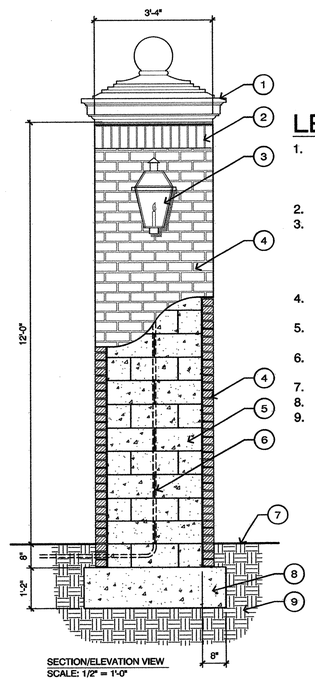
LEGEND

1. PRECAST CONCRETE CAP
2. TABBY STUCCO VENEER
3. SIGN LETTERING
4. 8x8x16 CMU - GROUT CELLS SOLID
5. BRICK VENEER
   TO MATCH ARCHITECTURE
6. #4 VERTICAL REBAR @ 48" O.C. - ALTERNATE BENDS IN FOOTING
7. FINISH GRADE
8. CONCRETE FOOTING
9. COMPACTED SUBGRADE
10. #4 HORIZONTAL REBAR

Approved Const. Plan

	Name	Date
Planning	Dawn Stefanchik	6/26/2013
Public Utilities		
Traffic		6/27/13
Fire		7/1/2013

3 ENTRY WALL WITH SIGN - SECTION VIEW



SECTION/ELEVATION VIEW
SCALE: 1/2" = 1'-0"

LEGEND

1. PRECAST CONCRETE CAP
   MODEL: TO BE SELECTED
   AVAILABLE FROM: TO BE SELECTED
2. BRICK BAND (SOLDIER)
3. LANTERN
   MODEL: TO BE SELECTED
   AVAILABLE FROM: CAROLINA LANTERN (877.881.4173)
4. BRICK VENEER
   TO MATCH ARCHITECTURE
5. 8x8x16 CMU (GROUNT CELLS SOLID)
6. ELECTRICAL CONDUIT FOR LANTERN
7. FINISH GRADE
8. CONCRETE FOOTING
9. COMPACTED SUBGRADE

1 12' BRICK PILASTER

MIHALY
LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT 1237 JOSHUA W. MIHALY

Revisions

1. 06/12/13 - ADDED DIMENSIONS FOR SIGN, GATE.

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

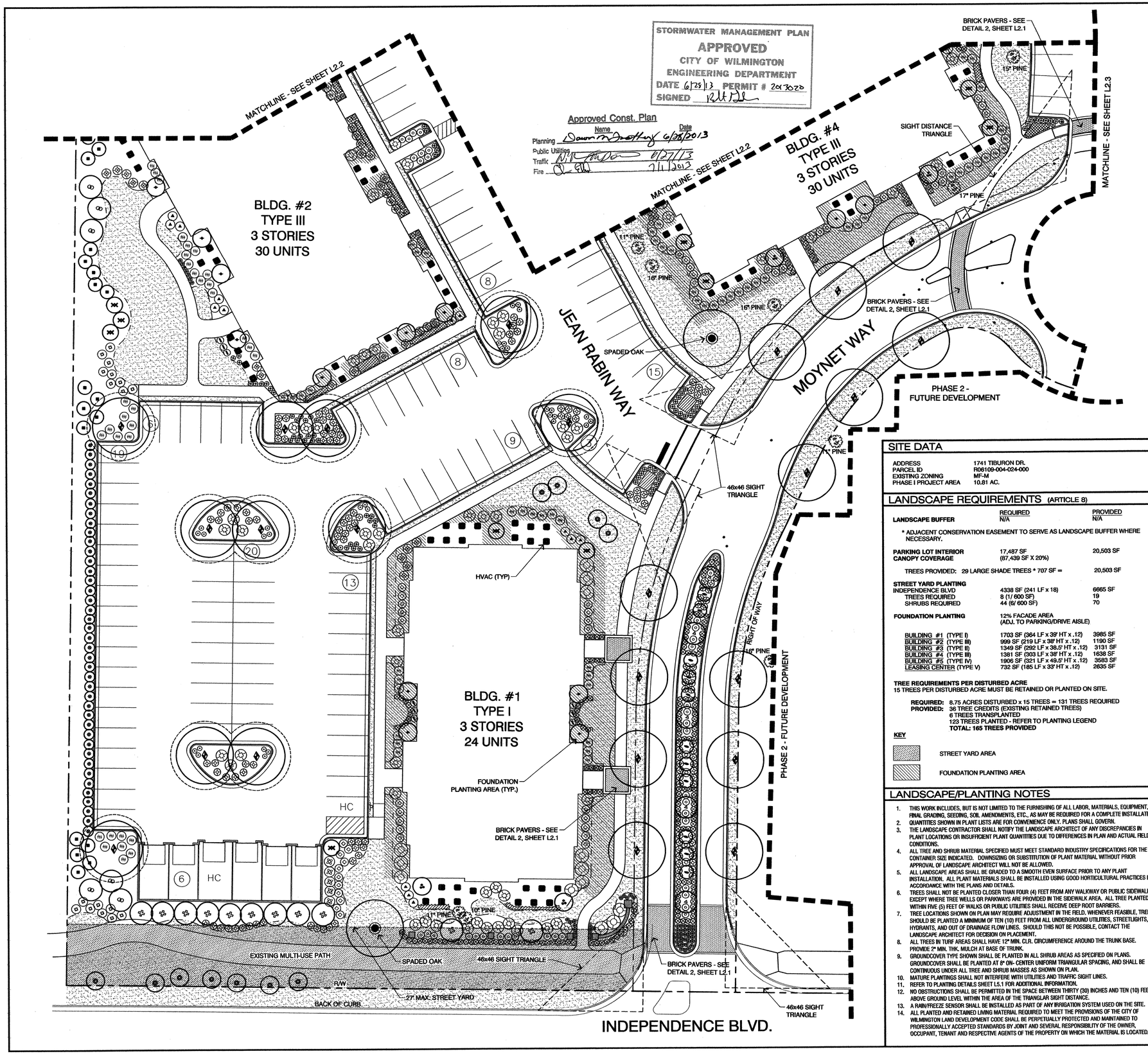
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

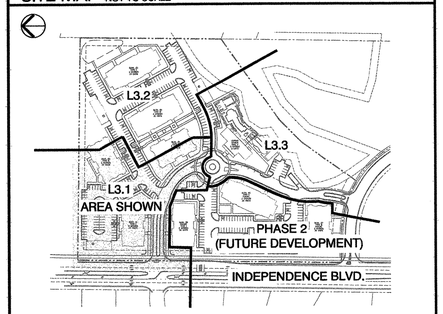
Sheet Title:
Details - Landscape

Sheet Number
L2.4
of 10 sheets

H.U.D. / PERMIT SET



SITE MAP NOT TO SCALE



SITE DATA

ADDRESS	1741 TIBURON DR.
PARCEL ID	R06109-004-024-000
EXISTING ZONING	MF-M
PHASE I PROJECT AREA	10.81 AC.

LANDSCAPE REQUIREMENTS (ARTICLE 8)

	REQUIRED	PROVIDED
LANDSCAPE BUFFER	N/A	N/A

* ADJACENT CONSERVATION EASEMENT TO SERVE AS LANDSCAPE BUFFER WHERE NECESSARY.

PARKING LOT INTERIOR CANOPY COVERAGE	17,487 SF (87,439 SF X 20%)	20,503 SF
TREES PROVIDED:	29 LARGE SHADE TREES * 707 SF =	20,503 SF
STREET YARD PLANTING		
INDEPENDENCE BLVD	4338 SF (241 LF x 18)	6665 SF
TREES REQUIRED	8 (1/ 600 SF)	19
SHRUBS REQUIRED	44 (6/ 600 SF)	70
FOUNDATION PLANTING	12% FACADE AREA (ADJ. TO PARKING/DRIVE AISLE)	
BUILDING #1 (TYPE I)	1703 SF (364 LF x 39' HT x .12)	3985 SF
BUILDING #2 (TYPE III)	959 SF (219 LF x 38' HT x .12)	1190 SF
BUILDING #3 (TYPE II)	1349 SF (292 LF x 38.5' HT x .12)	3131 SF
BUILDING #4 (TYPE III)	1381 SF (303 LF x 38' HT x .12)	1638 SF
BUILDING #5 (TYPE IV)	1906 SF (321 LF x 49.5' HT x .12)	3583 SF
LEASING CENTER (TYPE V)	732 SF (185 LF x 33' HT x .12)	2635 SF

TREE REQUIREMENTS PER DISTURBED ACRE
15 TREES PER DISTURBED ACRE MUST BE RETAINED OR PLANTED ON SITE.

REQUIRED: 8.75 ACRES DISTURBED x 15 TREES = 131 TREES REQUIRED
PROVIDED: 36 TREE CREDITS (EXISTING RETAINED TREES)
6 TREES TRANSPLANTED
123 TREES PLANTED - REFER TO PLANTING LEGEND
TOTAL: 165 TREES PROVIDED

KEY

STREET YARD AREA

FOUNDATION PLANTING AREA

LANDSCAPE/PLANTING NOTES

1. THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, FINAL GRADING, SEEDING, SOIL AMENDMENTS, ETC., AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION.
2. QUANTITIES SHOWN IN PLANT LISTS ARE FOR CONVENIENCE ONLY. PLANS SHALL GOVERN.
3. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANT LOCATIONS OR INSUFFICIENT PLANT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
4. ALL TREE AND SHRUB MATERIAL SPECIFIED MUST MEET STANDARD INDUSTRY SPECIFICATIONS FOR THE CONTAINER SIZE INDICATED. DOWNSIZING OR SUBSTITUTION OF PLANT MATERIAL WITHOUT PRIOR APPROVAL OF LANDSCAPE ARCHITECT WILL NOT BE ALLOWED.
5. ALL LANDSCAPE AREAS SHALL BE GRADED TO A SMOOTH EVEN SURFACE PRIOR TO ANY PLANT INSTALLATION. ALL PLANT MATERIALS SHALL BE INSTALLED USING GOOD HORTICULTURAL PRACTICES IN ACCORDANCE WITH THE PLANS AND DETAILS.
6. TREES SHALL NOT BE PLANTED CLOSER THAN FOUR (4) FEET FROM ANY WALKWAY OR PUBLIC SIDEWALK EXCEPT WHERE TREE WELLS OR PARKWAYS ARE PROVIDED IN THE SIDEWALK AREA. ALL TREE PLANTED WITHIN FIVE (5) FEET OF WALKS OR PUBLIC UTILITIES SHALL RECEIVE DEEP ROOT BARRIERS.
7. TREE LOCATIONS SHOWN ON PLAN MAY REQUIRE ADJUSTMENT IN THE FIELD. WHENEVER FEASIBLE, TREES SHOULD BE PLANTED A MINIMUM OF TEN (10) FEET FROM ALL UNDERGROUND UTILITIES, STREETLIGHTS, HYDRANTS, AND OUT OF DRAINAGE FLOW LINES. SHOULD THIS NOT BE POSSIBLE, CONTACT THE LANDSCAPE ARCHITECT FOR DECISION ON PLACEMENT.
8. ALL TREES IN TURF AREAS SHALL HAVE 12" MIN. CLR. CIRCUMFERENCE AROUND THE TRUNK BASE. PROVIDE 2" MIN. THK. MULCH AT BASE OF TRUNK.
9. GROUNDCOVER TYPE SHOWN SHALL BE PLANTED IN ALL SHRUB AREAS AS SPECIFIED ON PLANS. GROUNDCOVER SHALL BE PLANTED AT 8" ON- CENTER UNIFORM TRIANGULAR SPACING, AND SHALL BE CONTINUOUS UNDER ALL TREE AND SHRUB MASSES AS SHOWN ON PLAN.
10. MATURE PLANTINGS SHALL NOT INTERFERE WITH UTILITIES AND TRAFFIC SIGHT LINES.
11. REFER TO PLANTING DETAILS SHEET L5.1 FOR ADDITIONAL INFORMATION.
12. NO OBSTRUCTIONS SHALL BE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE GROUND LEVEL WITHIN THE AREA OF THE TRIANGLAR SIGHT DISTANCE.
13. A RAIN/FREEZE SENSOR SHALL BE INSTALLED AS PART OF ANY IRRIGATION SYSTEM USED ON THE SITE.
14. ALL PLANTED AND RETAINED LIVING MATERIAL REQUIRED TO MEET THE PROVISIONS OF THE CITY OF WILMINGTON LAND DEVELOPMENT CODE SHALL BE PERPETUALLY PROTECTED AND MAINTAINED TO PROFESSIONALLY ACCEPTED STANDARDS BY JOINT AND SEVERAL RESPONSIBILITY OF THE OWNER, OCCUPANT, TENANT AND RESPECTIVE AGENTS OF THE PROPERTY ON WHICH THE MATERIAL IS LOCATED.

PLANTING LEGEND

TREES

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QUANTITY
	CUPRESSUS ARIZ. 'CAROLINA SAPPHIRE' * CYPRESS	**2.5" CAL.** 10-12' HT.	6
	ERIOBOTRYA JAPONICA LOQUAT	7-8' 25 GAL.	4
	ILEX C. 'BURFORDII' BURFORD HOLLY (TREE FORM)	B&B 8'-10' HT.	13
	ILEX x EAST PALATKA EAST PALATKA HOLLY	B&B 8'-10' TREE FORM	11
	ILEX x NELLIE R. STEVENS NELLIE STEVENS HOLLY	B&B 8'-10' HT.	10
	LAGERSTROEMIA INDICA 'NATCHEZ' 'NATCHEZ' CRAPE MYRTLE	B&B 10-12' HT.	5
	MAGNOLIA G. 'D.D. BLANCHARD' * SOUTHERN MAGNOLIA	3" CAL. B&B 8-10' HT.	11
	MYRICA CERIFERA (TREE FORM) WAX MYRTLE	5-6' HT. 15 GAL.	17
	PINUS TAEDA * LOBLOLLY PINE	7-8' HT. 15 GAL.	11
	QUERCUS VIRGINIANA * LIVE OAK	B&B - 3" CAL 10'-12' HT.	24
	THUJA OCCIDENTALIS GIANT ARBORVITAE	15 GAL 5-6' HT.	41
	SPADED OAK RELOCATED		2

SHADE TREE CANOPY WITH 15' RADIUS TO BE USED FOR PARKING LOT SHADING REQUIREMENTS

11' PINE — EXISTING TREE TO BE PRESERVED *

* TREES COUNTED TOWARDS TREE PLANTING REQUIREMENTS

SHRUBS AND VINES

SYMBOL	BOTANICAL / COMMON NAME	SIZE / SPACING	QUANTITY
	AZALEA 'FORMOSA' SOUTHERN INDICA HYBRID	3 GAL 15-18"	14
	BUXUS M. 'WINTER GEM' WINTER GEM BOXWOOD	3 GAL 12-15"	221
	CAMELLIA S. 'YULETIDE' SASANQUA CAMELLIA	7 GAL 3-4'	56
	CLEYERA JAPONICA JAPANESE CLEYERA	3 GAL 24-30"	29
	HEMEROCALLIS 'STELLA DE ORO' STELLA DE ORO	1 GAL 12"	55
	HYDRANGEA 'NIKKO BLUE' NIKKO BLUE HYDRANGEA	3 GAL 15-18"	9
	ILEX VOMITORIA 'NANA' DWARF YAUPON HOLLY	3 GAL 12-15"	72
	LIGUSTRUM RECURVIFOLIUM PRIVET	7 GAL 24-30"	5
	LORPETALUM CHINENSE 'RUBY' RUBY LOROPETALUM	3 GAL 12-15"	52
	MISCANTHUS SINENSIS 'ADAGIO' DWARF MAIDEN GRASS	3 GAL 12-15"	131
	PITTOSPORUM 'VARIAGATA' VARIEGATED PITTOSPORUM	3 GAL 15-18"	17
	RHAPHIOLEPSIS 'MAJESTIC BEAUTY' MAJESTIC BEAUTY HAWTHORN	3 GAL 18-24"	89
	ROSA 'KNOCKOUT' KNOCKOUT ROSES	3 GAL 18-24"	38
	VERBENACEAE 'NEW GOLD' LANTANA	1 GAL 6-12"	34
	VIBURNUM 'AWABUKI CHINDO' AWABUKI CHINDO VIBURNUM	7 GAL 24-36"	13

VINES AND GROUNDCOVER

SYMBOL	BOTANICAL / COMMON NAME	SIZE / SPACING	QUANTITY
	TRACHELOSPERMUM ASIAN JASMINE		460 SF
	GROUND ROSES		40 SF
	CROWN ZOYSIA	SOD	SEE PLAN

NORTH

0 20 40 60 80
SCALE: 1" = 20'

MIHALY
LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT JOSHUA W. MIHALY

Revisions

1. 06/11/13 - ADDED LANDSCAPE REQUIREMENTS, TREES TO BE SPADED/RELOCATED; REVISED PLANTING.
2. 06/ 18 /13 - ADDED SIGHT DISTANCE TRIANGLES, ADJUSTED PLANTING ACCORDINGLY. REVISED LANDSCAPE REQUIREMENTS. EXISTING MULTI-USE PATH CORRECTED.

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

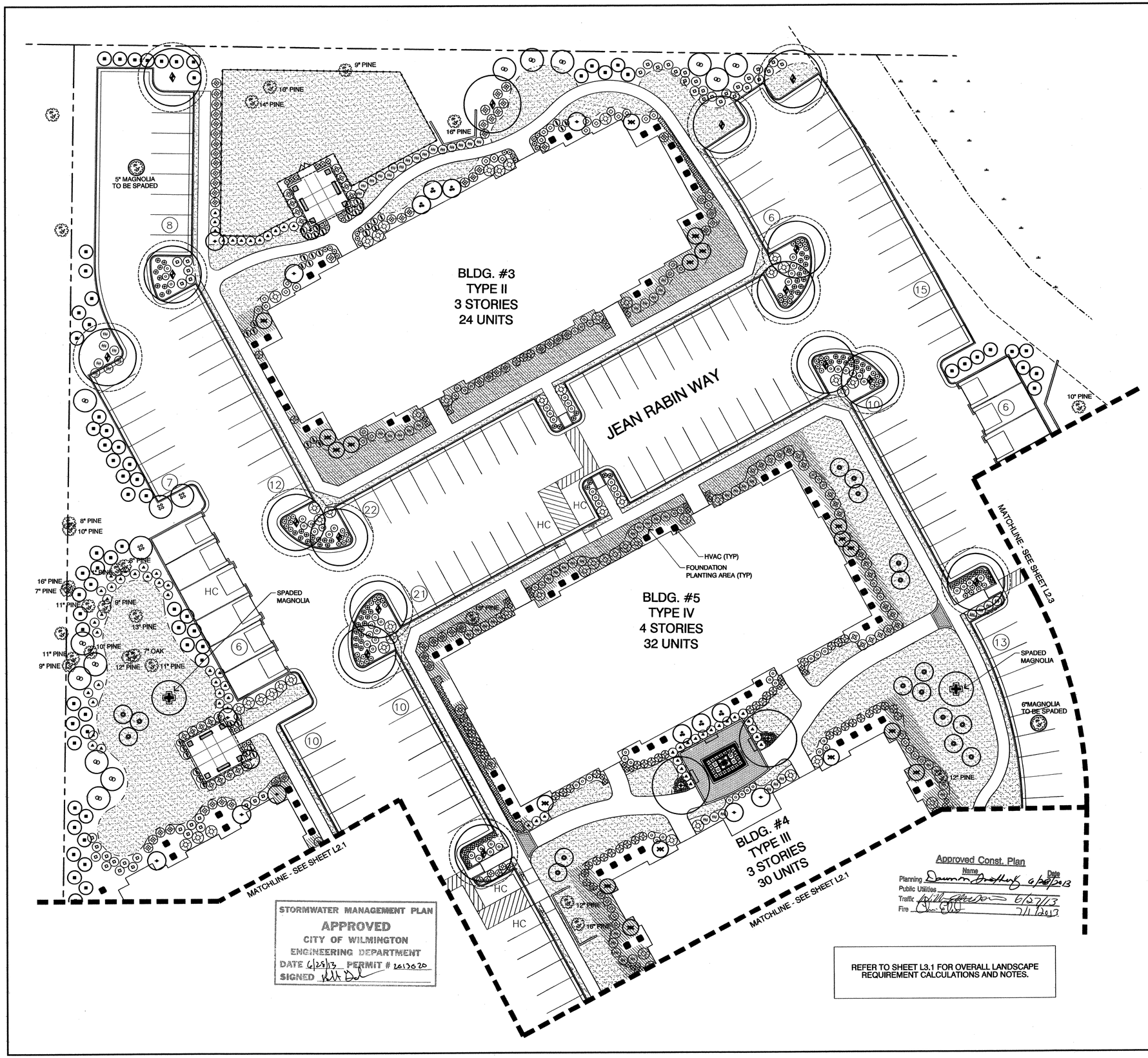
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
PLANTING PLAN

Sheet Number
L3.1
of 10 sheets

H.U.D. / PERMIT SET



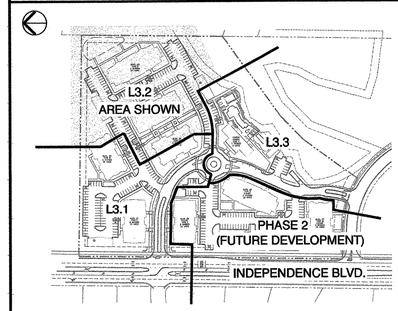
STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/25/13 PERMIT # 2013020
SIGNED

Approved Const. Plan

	Name	Date
Planning		6/26/2013
Public Utilities		
Traffic		6/27/13
Fire		7/1/2013

REFER TO SHEET L3.1 FOR OVERALL LANDSCAPE REQUIREMENT CALCULATIONS AND NOTES.

SITE MAP NOT TO SCALE



PLANTING LEGEND

TREES

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QUANTITY
	CUPRESSUS ARIZ. 'CAROLINA SAPPHIRE' * CYPRESS	2.5" CAL 10-12' HT.	13
	ERIOBOTRYA JAPONICA LOQUAT	7-8' HT. 25 GAL.	6
	ILEX C. 'BURFORDII' BURFORD HOLLY (TREE FORM)	B&B 8'-10' HT.	12
	ILEX x NELLIE R. STEVENS NELLIE STEVENS HOLLY	B&B 8'-10' HT.	18
	MAGNOLIA G. 'D.D. BLANCHARD' * SOUTHERN MAGNOLIA	3" CAL. B&B 8-10' HT.	3
	MYRICA CERIFERA (TREE FORM) WAX MYRTLE	5-6' HT. 15 GAL.	69
	PINUS TAEDA * LOBLOLLY PINE	7-8' HT. 15 GAL.	17
	QUERCUS VIRGINIANA * LIVE OAK	B&B - 3" CAL 10'-12' HT.	16
	QUERCUS VIRGINIANA * LIVE OAK	100 GAL - 5" CAL 12-14' HT.	2
	SPADED MAGNOLIA RELOCATED		2
	SHADE TREE CANOPY WITH 15' RADIUS TO BE USED FOR PARKING LOT SHADING REQUIREMENTS		
11" PINE	EXISTING TREE TO BE PRESERVED *		

* TREES COUNTED TOWARDS TREE PLANTING REQUIREMENTS

SHRUBS AND VINES

SYMBOL	BOTANICAL / COMMON NAME	SIZE / SPACING	QUANTITY
	AZALEA 'FORMOSA' SOUTHERN INDICA HYBRID	3 GAL 15-18"	63
	BUXUS M. 'WINTER GEM' WINTER GEM BOXWOOD	3 GAL 12-15"	58
	CAMELLIA S. 'VULETIDE' SASANQUA CAMELLIA	7 GAL 3-4'	53
	CLEYERA JAPONICA JAPANESE CLEYERA	3 GAL 24-30"	58
	HEMEROCALLIS 'STELLA DE ORO' STELLA DE ORO	1 GAL 12"	20
	HYDRANGEA 'NIKKO BLUE' NIKKO BLUE HYDRANGEA	3 GAL 15-18"	41
	ILEX VOMITORIA 'NANA' DWARF YAUPON HOLLY	3 GAL 12-15"	91
	LIGUSTRUM RECURVIFOLIUM PRIVET	7 GAL 24-30"	41
	LORPETALUM CHINENSE 'RUBY' RUBY LOROPETALUM	3 GAL 12-15"	39
	MISCANTHUS SINENSIS 'ADAGIO' DWARF MAIDEN GRASS	3 GAL 12-15"	6
	PITTOSPORUM 'VARIAGATA' VARIEGATED PITTOSPORUM	3 GAL 15-18"	46
	PODOCARPUS M. 'MAKI' SOUTHERN YEW	7 GAL 3-4'	50
	RHAPHIOLEPSIS 'MAJESTIC BEAUTY' MAJESTIC BEAUTY HAWTHORN	3 GAL 18-24"	72
	ROSA 'KNOCKOUT' KNOCKOUT ROSES	3 GAL 18-24"	95
	VERBENACEAE 'NEW GOLD' LANTANA	1 GAL 6-12"	83

VINES AND GROUNDCOVER

SYMBOL	BOTANICAL / COMMON NAME	SIZE / SPACING	QUANTITY
	TRACHELOSPERMUM ASIAN JASMNE		194 SF
	CROWN ZOYSIA	SOD	SEE PLAN

NORTH

0 20 40 60 80

SCALE: 1" = 20'

MIHALY
LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 Military Cutoff Rd. Suite A3
Wilmington, NC 28403 910.392.4355

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT JOSHUA W. MIHALY

Revisions

1. 06/11/13 - ADDED LANDSCAPE REQUIREMENTS, TREES TO BE SPADED/RELOCATED; REVISED PLANTING.
2. 06/ 18/ 13 - REVISED TREES TO BE SPADED, REVISED EXISTING TREE LABELS.

CLIENT
The Oleander Company, Inc.
P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

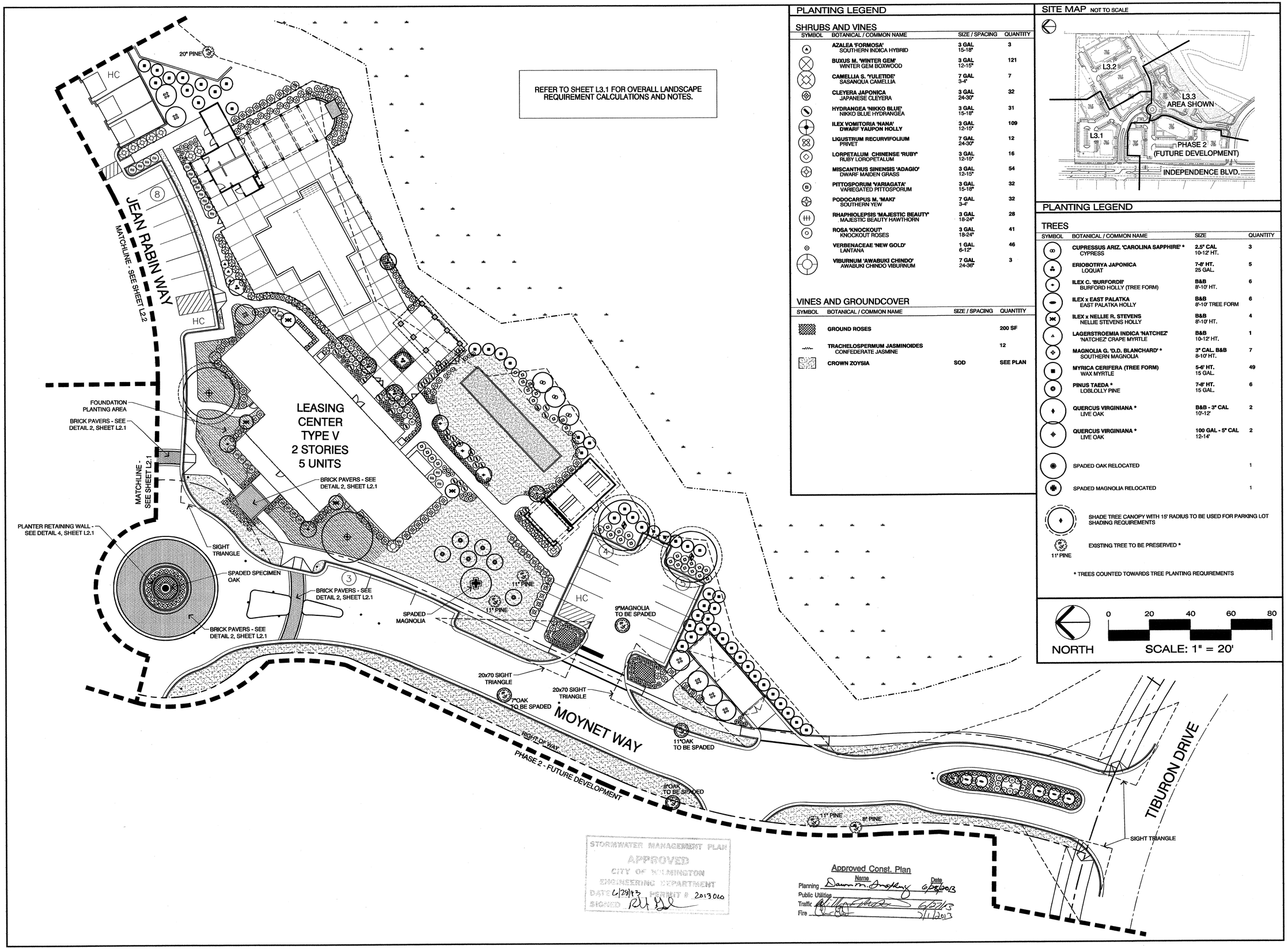
PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
PLANTING PLAN

Sheet Number
L3.2
of 10 sheets

H.U.D. / PERMIT SET



STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE 6/28/13 PERMIT # 2013010
SIGNED

Approved Const. Plan

	Name	Date
Planning	Dawn M. Smalley	6/28/13
Public Utilities		
Traffic		6/27/13
Fire		7/1/2013

PLANTING LEGEND

SHRUBS AND VINES

SYMBOL	BOTANICAL / COMMON NAME	SIZE / SPACING	QUANTITY
	AZALEA 'FORMOSA' SOUTHERN INDICA HYBRID	3 GAL 15-18"	3
	BUXUS M. 'WINTER GEM' WINTER GEM BOXWOOD	3 GAL 12-15"	121
	CAMELLIA S. 'YULETIDE' SASANQUA CAMELLIA	7 GAL 3-4'	7
	CLEYERA JAPONICA JAPANESE CLEYERA	3 GAL 24-30"	32
	HYDRANGEA 'NIKKO BLUE' NIKKO BLUE HYDRANGEA	3 GAL 15-18"	31
	ILEX VOMITORIA 'NANA' DWARF YAUPON HOLLY	3 GAL 12-15"	109
	LIGUSTRUM RECURVIFOLIUM PRIVET	7 GAL 24-30"	12
	LORPETALUM CHINENSE 'RUBY' RUBY LOROPETALUM	3 GAL 12-15"	16
	MISCANTHUS SINENSIS 'ADAGIO' DWARF MAIDEN GRASS	3 GAL 12-15"	54
	PITTOSPORUM 'VARIAGATA' VARIEGATED PITTOSPORUM	3 GAL 15-18"	32
	PODOCARPUS M. 'MAKI' SOUTHERN YEW	7 GAL 3-4'	32
	RHAPHIOLEPSIS 'MAJESTIC BEAUTY' MAJESTIC BEAUTY HAWTHORN	3 GAL 18-24"	28
	ROSA 'KNOCKOUT' KNOCKOUT ROSES	3 GAL 18-24"	41
	VERBENACEAE 'NEW GOLD' LANTANA	1 GAL 6-12"	46
	VIBURNUM 'AWABUKI CHINDO' AWABUKI CHINDO VIBURNUM	7 GAL 24-36"	3

VINES AND GROUNDCOVER

SYMBOL	BOTANICAL / COMMON NAME	SIZE / SPACING	QUANTITY
	GROUND ROSES		200 SF
	TRACHELOSPERMUM JASMINOIDES CONFEDERATE JASMINE		12
	CROWN ZOYSIA	SOD	SEE PLAN

SITE MAP NOT TO SCALE

PLANTING LEGEND

TREES

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QUANTITY
	CUPRESSUS ARIZ. 'CAROLINA SAPPHIRE' * CYPRESS	2.5" CAL 10-12' HT.	3
	ERIOBOTRYA JAPONICA LOQUAT	7-8' HT. 25 GAL.	5
	ILEX C. 'BURFORDII' BURFORD HOLLY (TREE FORM)	B&B 8-10' HT.	6
	ILEX x EAST PALATKA EAST PALATKA HOLLY	B&B 8-10' TREE FORM	6
	ILEX x NELLIE R. STEVENS NELLIE STEVENS HOLLY	B&B 8-10' HT.	4
	LAGERSTROEMIA INDICA 'NATCHEZ' 'NATCHEZ' CRAPE MYRTLE	B&B 10-12' HT.	1
	MAGNOLIA G. 'D.D. BLANCHARD' * SOUTHERN MAGNOLIA	3" CAL. B&B 8-10' HT.	7
	MYRICA CERIFERA (TREE FORM) WAX MYRTLE	5-6' HT. 15 GAL.	49
	PINUS TAEDA * LOBLOLLY PINE	7-8' HT. 15 GAL.	6
	QUERCUS VIRGINIANA * LIVE OAK	B&B - 3" CAL 10'-12'	2
	QUERCUS VIRGINIANA * LIVE OAK	100 GAL - 5" CAL 12-14'	2
	SPADED OAK RELOCATED		1
	SPADED MAGNOLIA RELOCATED		1
	SHADE TREE CANOPY WITH 15' RADIUS TO BE USED FOR PARKING LOT SHADING REQUIREMENTS		
11" PINE	EXISTING TREE TO BE PRESERVED *		

* TREES COUNTED TOWARDS TREE PLANTING REQUIREMENTS

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NORTH CAROLINA LANDSCAPE ARCHITECT LICENSE 1057 JOSHUA W. MIHALY

Revisions

1. 06/11/13 - ADDED LANDSCAPE REQUIREMENTS, TREES TO BE SPADED/RELOCATED; REVISED PLANTING.
2. 06/ 18 /13 - REVISED EXISTING TREES TO BE SPADED. SIGHT TRIANGLES ADDED AND PLANTING REVISED ACCORDINGLY.

CLIENT
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P.O. Box 3145
Wilmington, North Carolina
Phone: 910.392.3300

PROJECT
Tiburon Parc Apartment Homes
Wilmington, North Carolina

Date:	05.21.2013
Phase:	CD
Job Number:	530-01
Designed by:	JWM
Drawn by:	MWL
Checked by:	JWM

Sheet Title:
PLANTING PLAN

Sheet Number
L3.3
of 10 sheets

H.U.D. / PERMIT SET