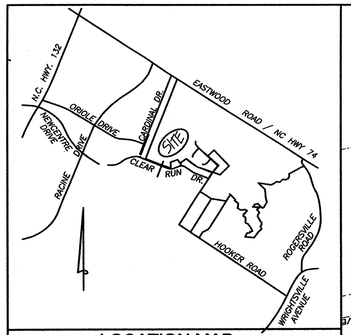


LOCATION MAP
NOT TO SCALE

CARDINAL DR.

R-15

SECTION 1-B COLLEGE ACRES M.B. 9 PG. 26

SECTION 2-B COLLEGE ACRES MAP BOOK 9, PAGE 5

COLLEGE ACRES BAPTIST CHURCH OF WILMINGTON BOOK 1829, PAGE 0471 FIRST TRACT

COLLEGE ACRES BAPTIST CHURCH OF WILMINGTON BOOK 1829, PAGE 0471 SECOND TRACT

COLLEGE ACRES BAPTIST CHURCH OF WILMINGTON BOOK 1829, PAGE 0848

CARDINAL DRIVE

SUSQUEHANNA LANE

SHANNON GARDEN

MENTONE LANE

OLD GARDEN RD.

DARIEN POINT RD.

MIDNIGHT CHANNEL RD.

PH III
AUTUMN HALL MX DEVELOPMENT
PHASE III RESIDENTIAL
32 SINGLE FAMILY LOTS

PH II
AUTUMN HALL MX DEVELOPMENT
PHASE II RESIDENTIAL
26 SINGLE FAMILY LOTS

PHASE 1A AND 1B
AUTUMN HALL MX DEVELOPMENT
PHASE 1A AND 1B RESIDENTIAL
94 SINGLE FAMILY LOTS

HANNAH DR.

MOUND BATTERY RD.

MEHERRIN LANE

STRIKING ISLAND DR.

DUNGANNON BLVD.

SHELL BRIDGE PARK

SKIPPER LANE

SHIP CABOOSE RD.

ENDEAVOR LANE

CLEAR RUN DRIVE

MOHR CIRCLE

TRASK BOOK 2936, PAGE 777

BROOKLINE INVSTMNT PROP BK.1331, PG.0335

BOOK 2936, PAGE 777

WAGNER BK.980, PG. 932

MCCARTY BK.2220, PG. 074

KEELY BK.1330, PG. 0965

ABROMS, ALBERT S. R-15

MARTIN J. LEE II R-15

FERNANDEZ, CONSTRO R-15

DANIEL, DOUGLAS R-15

DEL CONWAY R-15

EASTWOOD RD. / NC HWY. 132

EASTWOOD ROAD

U.S. HWY. 74

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: 10/2/15 Permit # 2015-0916-129
Signed:

Approved Construction Plan

	Name:	Date:
Planning		10/2/15
Traffic		10-6-15
Fire		10-6-15

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" = 100'
0 100 200 300

OVERALL SITE PLAN

AUTUMN HALL PHASE III RESIDENTIAL

WILMINGTON, NORTH CAROLINA 28403

OWNER:
AUTUMN HALL, INC.
1201 EASTWOOD ROAD
WILMINGTON, N.C. 28403
(910) 799-8755

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
902 MARKET STREET
WILMINGTON, NC, 28401
PHONE (910) 343-9653
FAX (910) 343-9604
licence #C-3641

14084

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	8/5/15

NORTH CAROLINA PROFESSIONAL SEAL 19951 ENGINEER JOHN S. TUNSTALL

C0
PHASE III

© 2015 NORRIS & TUNSTALL

REVISIONS

SYMBOL	DATE	DESCRIPTION	BY
R1	8.5.15	REV. SUSQUEHANNA LANE	NKS
R2	8.10.15	REV. GRADES AND ROAD LAYOUT STA. 6+50 THRU 9+00 MIDNIGHT CHANNEL DR.	NKS
R3	9.10.15	MOVED SUSQUEHANNA ALLEY WEST. ADDED DISTURBED AREA.	NKS

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: 10/8/15 Permit #
Signed: [signature]

Approved Construction Plan

	Name	Date
Planning	[signature]	10/2/15
Traffic	[signature]	10-6-15
Fire	[signature]	10-6-15

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" = 40'
0 40 80 120

GRADING, STORMWATER AND EROSION CONTROL PLAN
AUTUMN HALL PHASE III RESIDENTIAL
WILMINGTON, NORTH CAROLINA 28403

OWNER:
AUTUMN HALL, INC.
1201 EASTWOOD ROAD
WILMINGTON, N.C. 28403
(910) 799-8755

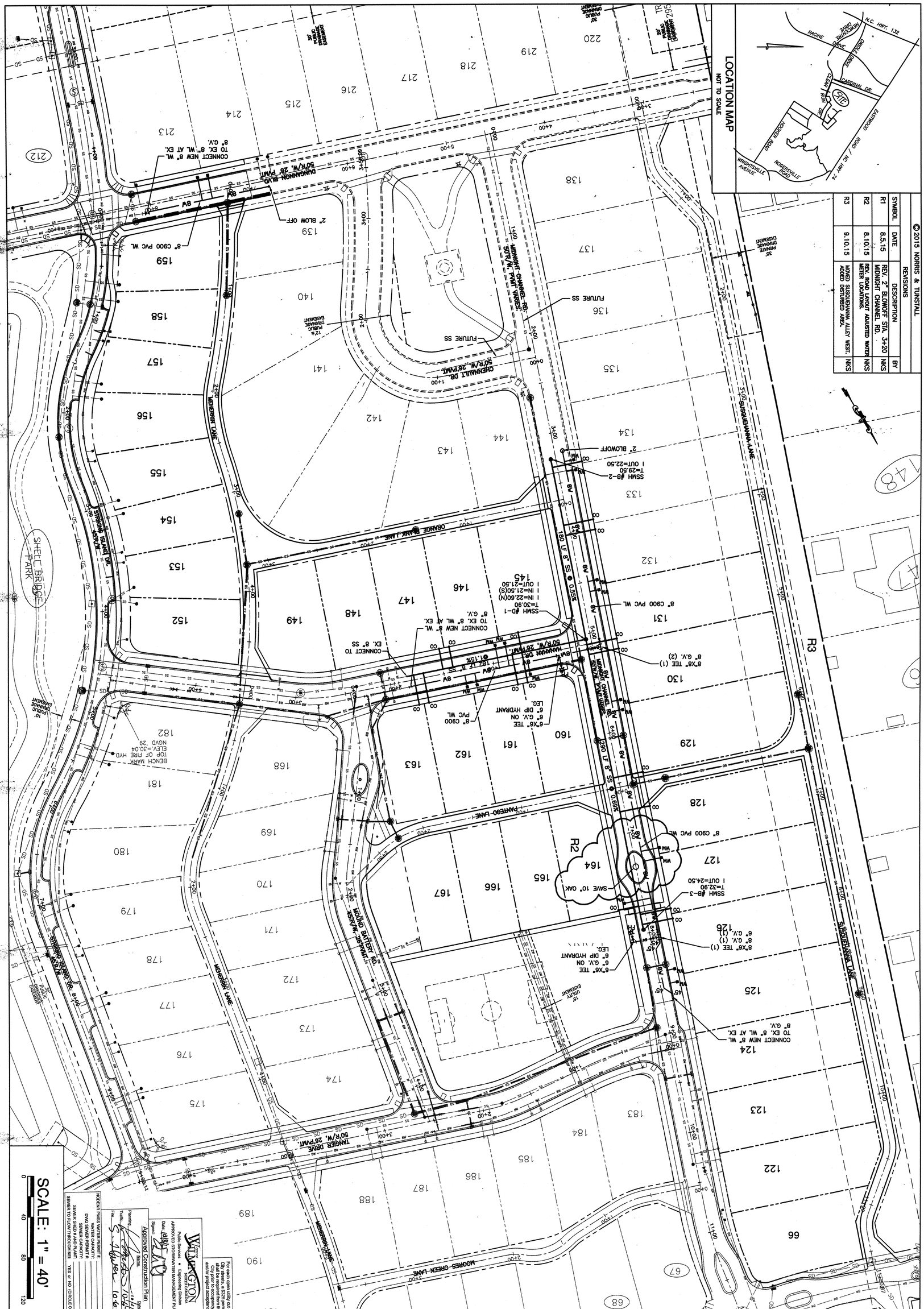
NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.
902 MARKET STREET
WILMINGTON, NC, 28401
PHONE (910) 343-9653
FAX (910) 343-9604
licence #C-3641

14084

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	1/14/15

NORTH CAROLINA PROFESSIONAL SEAL 19851 ENGINEER JOHN S. TUNSTALL

C1
PHASE III


LOCATION MAP
NOT TO SCALE
N.C. HWY. 132
RACINE DRIVE
CAROLINA BEACH ROAD
CARDINAL DR.
SITE
MARSH OAKS DRIVE
HOOKER ROAD
GUILFORD ROAD / NC HWY. 74
WRIGHTSVILLE AVENUE
ROGERSVILLE ROAD
REVISIONS
SYMBOL | DATE | DESCRIPTION | BY
R1 | 8.5.15 | REV. 2" BLOWOFF STA. 3+20 | NKS
R2 | 8.10.15 | MIDNIGHT CHANNEL RD. REV. ROAD LAYOUT ADJUSTED WATER LOCATIONS. | NKS
R3 | 9.10.15 | MOVED SUSQUEHANNA ALLEY WEST. ADDED DISTURBED AREA. | NKS
© 2015 NORRIS & TUNSTALL
SHELL BRIDGE PARK
MIDNIGHT CHANNEL RD.
50' R/W, 28' PVMT.
CHERNAULT DR.
50' R/W, 28' PVMT.
TANNER DRIVE
50' R/W, 28' PVMT.
MEHERRIN LANE
SUSQUEHANNA LANE
ORANGE GROVE LANE
HANFORD LANE
MOORES CREEK LANE
STRAWN ISLAND DR.
MEANDERING WATERS DR.
MEANDERING WATERS DR.
R1
R2
R3
SAVE 10" OAK
BENCH MARK
TOP OF PIPE HYD
ELEV.=10.04
NGVD 29
8" C900 PVC WL
2" BLOWOFF
SSMH #B-2
T=29.50
I OUT=22.50
SSMH #B-1
T=30.90
I IN=22.60(N)
I IN=21.50(S)
I OUT=21.50
SSMH #B-3
T=32.90
I OUT=24.50
180 LF 8" SS @ 0.55%
200 LF 8" SS @ 0.65%
100 LF 8" SS @ 1.15%
8"X8" TEE (1)
8" G.V.
8"X6" TEE
6" G.V. ON
6" DIP HYDRANT LEG.
CONNECT NEW 8" WL TO EX. 8" WL AT EX.
CONNECT TO EX. 8" SS
FUTURE SS
2" BLOW OFF
12' UTILITY EASEMENT
10' UTILITY EASEMENT
15' DRAINAGE EASEMENT
20' PUBLIC DRAINAGE EASEMENT
30' PUBLIC DRAINAGE EASEMENT
35' PRIVATE DRAINAGE EASEMENT
SCALE: 1" = 40'
0
40
80
120
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL
JOHN P. TUNSTALL
NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
902 MARKET STREET
WILMINGTON, NC, 28401
PHONE (910) 343-9653
FAX (910) 343-9604
licence #C-3641
14084
DES. JST
CHD. JPN
DRWN. NKS
DATE 7/15/15
C2
PHASE III
OWNER:
AUTUMN HALL, INC.
1201 EASTWOOD ROAD
WILMINGTON, N.C. 28403
(910) 799-8755
UTILITY PLAN
AUTUMN HALL PHASE III RESIDENTIAL
WILMINGTON, NORTH CAROLINA 28403

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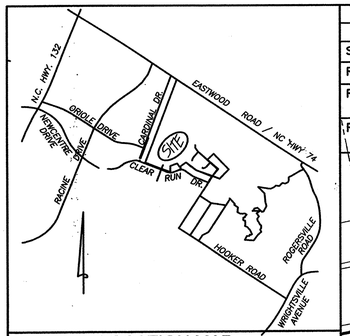
REVISIONS			
SYMBOL	DATE:	DESCRIPTION	BY
R1	8.5.15	REV. SUSQUEHANNA LANE	NKS
R2	8.10.15	REV. ROAD LAYOUT TO SAVE TREE MIDNIGHT CHANNEL DR.	NKS
R3	9.10.15	MOVED SUSQUEHANNA ALLEY WEST. ADDED DISTURBED AREA.	NKS



LOCATION MAP
NOT TO SCALE

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: 10/16/15 Permit#
Signed:

Approved Construction Plan

	Name	Date
Planning		10/16/15
Traffic		10.6.15
Fire	S. Power	10.6.15

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

LEGEND
ASPHALT
NEW CONCRETE/SIDEWALK

SCALE: 1" = 40'
0 40 80 120

LAYOUT PLAN
AUTUMN HALL PHASE III RESIDENTIAL
WILMINGTON, NORTH CAROLINA 28403

OWNER:
AUTUMN HALL, INC.
1201 EASTWOOD ROAD
WILMINGTON, N.C. 28403
(910) 799-8755

NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
902 MARKET STREET PHONE (910) 343-9653
WILMINGTON, NC, 28401 FAX (910) 343-9604
licence #C-3641

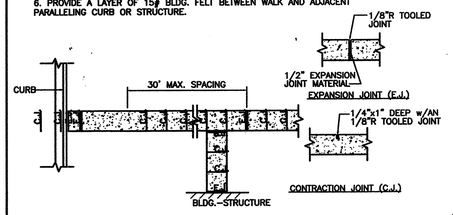
14084

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	1/14/15

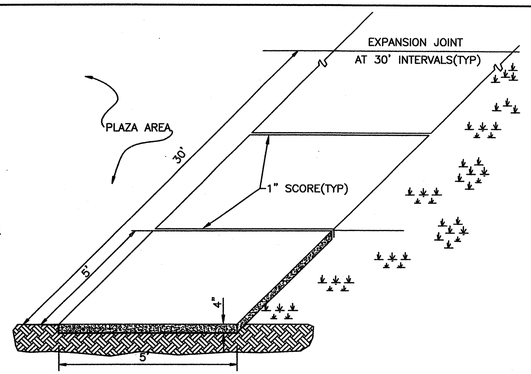
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19053 JOHN S. TUNSTALL II

C3
PHASE III

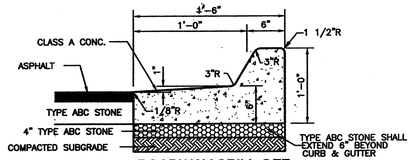
NOTES:
1. SIDEWALK THICKNESS SHALL BE 4" UNLESS NOTED OTHERWISE.
2. CONTRACTION JOINTS (C.J.) SPACE SAME AS SIDEWALK WIDTH.
3. THICKEN SIDEWALK TO 6" AT DRIVEWAYS.
4. THICKEN SIDEWALK TO 6" IN LAST 3' WHERE IT ABUTS PAVEMENT WITH NO CURB.
5. 1/2" EXPANSION JOINT (E.J.) AND SNAP CAP EXPANSION JOINT COVERS 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

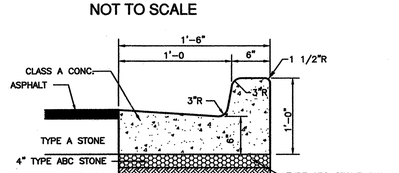


STANDARD SIDEWALK DETAIL
SD 8-15
NOT TO SCALE



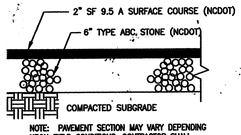
ROADWAY SPILL OFF
CURB SECTION
NTS

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.



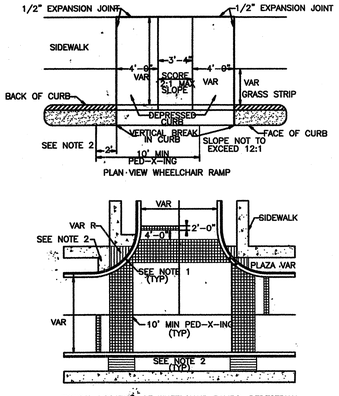
ROADWAY FLOW LINE
CURB SECTION
NTS

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.



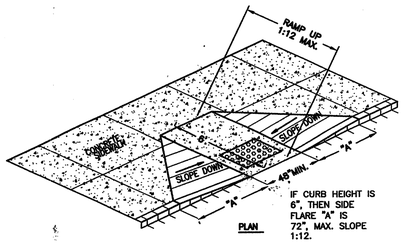
NOTE: PAVEMENT SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE w/OWNER & GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.

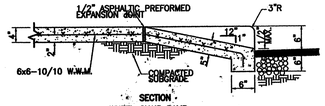
PAVEMENT SECTION
N.T.S.



TYPICAL LOCATION OF WHEELCHAIR RAMPS, PEDESTRIAN CROSS WALKS & STOP BARS FOR TEE INTERSECTION

GUIDELINES FOR WHEELCHAIR RAMPS & DEPRESSED CURBS
CITY OF WILMINGTON SD 8-11





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

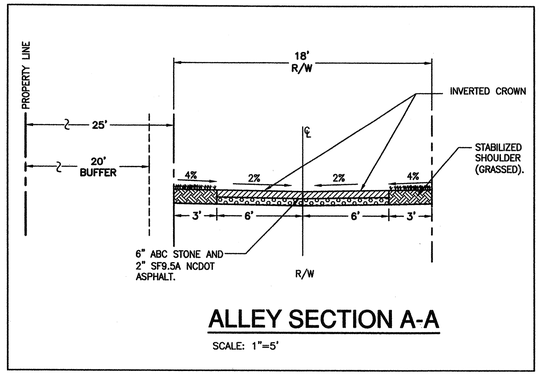
GENERAL NOTES

I. LOCATION OF WHEELCHAIR RAMPS:
1. IN ACCORDANCE WITH THE RATIFIED HOUSE BILL 1296, ALL STREET CURBS IN NORTH CAROLINA BEING CONSTRUCTED OR RECONSTRUCTED FOR MAINTENANCE PROCEDURES, TRAFFIC OPERATIONS, REPAIRS, CORRECTION OF UTILITIES OR ALTERED FOR ANY REASON AFTER SEPTEMBER 1, 1973 SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY HANDICAPPED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTERS AND SIDEWALKS ARE PROVIDED AND AT OTHER MAJOR POINTS OF PEDESTRIAN FLOW.
2. WHEELCHAIR RAMPS SHOULD BE LOCATED AS INDICATED IN DETAIL DRAWINGS, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.

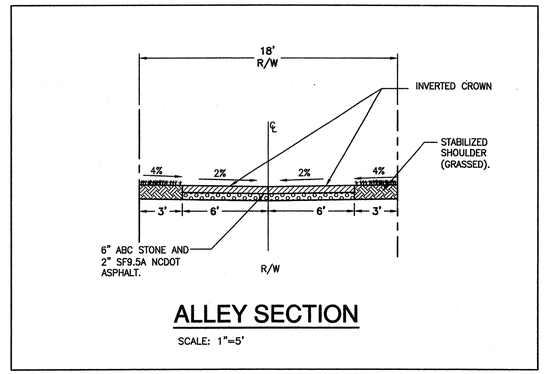
II. CONSTRUCTION NOTES:
1. NO SLOPE SHALL EXCEED 1"=1" (12:1) ON THE RAMP OR SIDEWALK.
2. IN NO CASE SHALL THE WIDTH OF WHEELCHAIR RAMPS BE LESS THAN 40" (3'-4"). WIDTHS MAY EXCEED 40" IF NECESSARY.
3. USE CLASS "A" CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
4. 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
5. CONSTRUCTION METHODS SHALL CONFORM WITH THOSE OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAR STREET.

III. ADDITIONAL NOTES:
1. THE INSIDE PEDESTRIAN CROSSWALK LINES SHALL BE ESTABLISHED BY BISECTING THE INTERSECTION RADII WHERE MARKED (SEE NOTE 6).
2. THE WHEELCHAIR RAMP SHALL BE LOCATED SO THAT THE BEGINNING OF THE WHEEL CHAIR RAMP WILL BE TWO FEET FROM THE INSIDE PEDESTRIAN CROSSWALK LINE.
3. THE WIDTH OF THE PEDESTRIAN CROSSWALK SHALL BE 10 FEET UNLESS A GREATER WIDTH IS REQUIRED TO ACCOMMODATE THE PEDESTRIAN TRAFFIC.
4. STOP BARS SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN, OR OTHER LEGAL REQUIREMENTS.
5. PARKING SHALL BE ELIMINATED A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK.
6. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION. THIS IS AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS, U.S GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402.

GUIDELINES FOR WHEELCHAIR RAMPS
CITY OF WILMINGTON SD 8-09

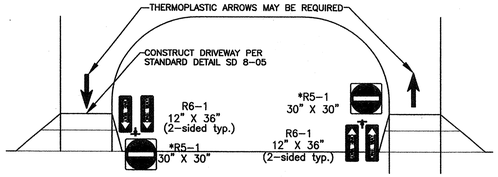


ALLEY SECTION A-A
SCALE: 1"=5'

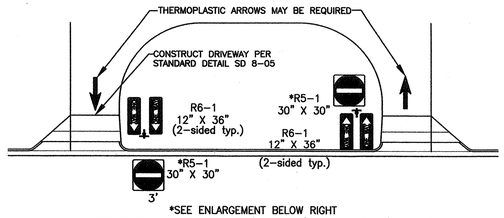


ALLEY SECTION
SCALE: 1"=5'

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



*SEE ENLARGEMENT BELOW RIGHT
STANDARD ONE-WAY DRIVEWAY PAIR (no curb on street)



*SEE ENLARGEMENT BELOW RIGHT
STANDARD ONE-WAY DRIVEWAY PAIR (curb on street)

*R5-1

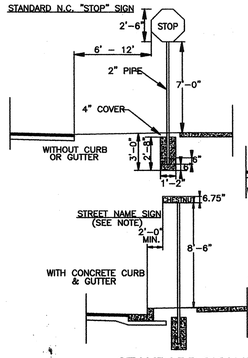
STANDARD ONE-WAY DRIVEWAY
SD 8-21

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: 10/6/15 Permit #
Signed:

Approved Construction Plan
Name / Date
Planning 10/6/15
Traffic 10/6/15
Fire 10.6.15

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)

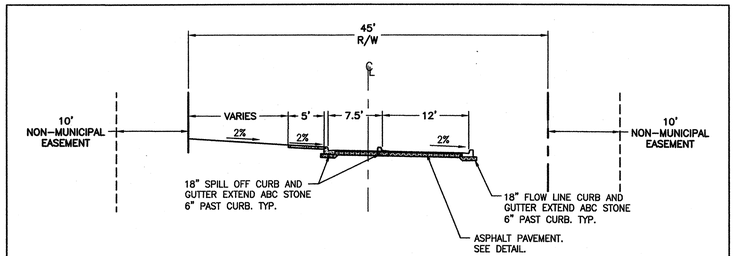
STANDARD N.C. "STOP" SIGN



STANDARD INFORMATION SIGN

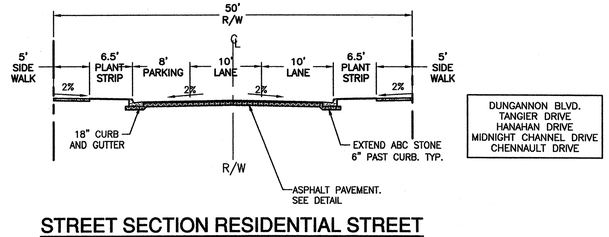
NOTES:
1. STREET NAME SIGNS SHALL BE A MINIMUM OF 6" EXTRUDED ALUMINUM BLADES USING A MINUMUM OF 4" C SERIES LETTERING IN REFLECTIVE SILVER & REFLECTIVE GREEN BACKGROUND.
2. ALL REFLECTIVE SIGNS SHALL BE MADE OF ENGINEERING GRADE OR HIGH INTENSITY GRADE REFLECTIVE SHEETING OR APPROVED EQUIVALENT.
3. 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



STRIKING ISLAND DR. STA. 4+90 TO STA. 14+10

ONE WAY RESIDENTIAL COLLECTOR STREET
SECTION WITH ON STREET PARKING
NTS



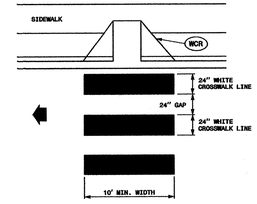
DUNGANNON BLVD.
TANGIER DRIVE
HANAHAN DRIVE
MIDNIGHT CHANNEL DRIVE
CHENNAULT DRIVE

STREET SECTION RESIDENTIAL STREET
SCALE: 1"=10'

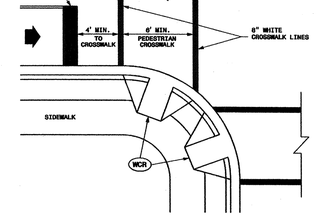
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
7.206

ENGLISH STANDARD DRAWING FOR
PAVEMENT MARKINGS
PEDESTRIAN CROSSWALKS

HI-VISIBILITY CROSSWALK



STANDARD CROSSWALK



GENERAL NOTES

1- THE MINIMUM WIDTH OF STANDARD CROSSWALKS IS 6 FEET. THE MINIMUM WIDTH OF HI-VISIBILITY CROSSWALKS IS 10 FEET.
2- CENTER CROSSWALKS TO THEIR CORRESPONDING WHEELCHAIR RAMPS, BUT DO NOT SET THEM WITHIN THE INTERSECTION AREA ESTABLISHED BY BISECTING THE INTERSECTION RADII.
3- PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE, BUT NOT WITHIN THE AREA OF A WHEELCHAIR RAMP. PLACE STOP BARS PARALLEL TO CROSSWALK LINES, BUT CAN BE PLACED PERPINDICULAR TO TRAVEL LANES.
4- COORDINATE PLACEMENT OF CROSSWALKS IN ALL CASES WITH THE LOCATION OF WHEELCHAIR RAMPS. (SEE SIGNAL PLANS).

LEGEND
DIRECTION OF TRAFFIC FLOW
WCR WHEELCHAIR RAMP

SHEET 1 OF 1
1205.07

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
7.206

ENGLISH STANDARD DRAWING FOR
PAVEMENT MARKINGS
PEDESTRIAN CROSSWALKS

SHEET 1 OF 1
1205.07

SYMBOL	DATE	DESCRIPTION	BY
R1	8.5.15	ADDED ALLEY SECTION A-A	NKS

REVISIONS

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NOTES AND DETAILS

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14084

DES.	JST
CKD.	JPN
DRWN.	NKS
DATE	1/14/15

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19651 JOHN P. NORRIS, JR. JOHN S. TUNSTALL

C5
PHASE III

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