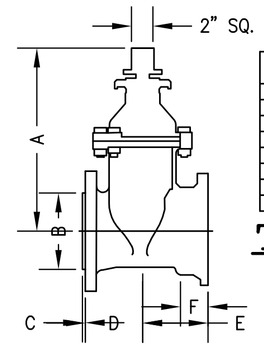


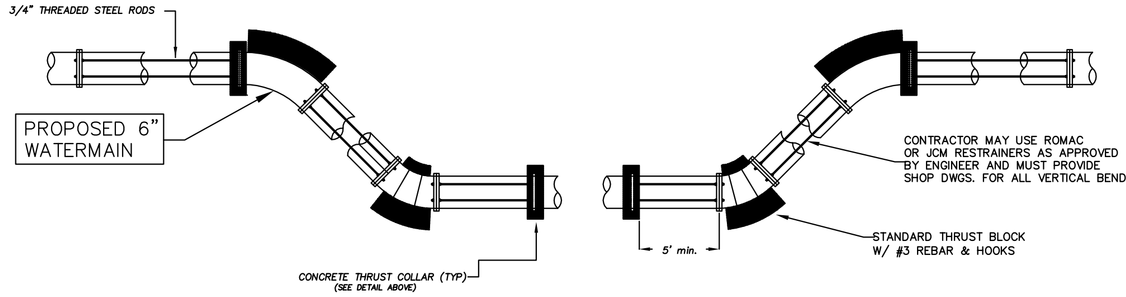
DIMENSION	VALVE SIZE				
	4"	6"	8"	10"	12"
A	13-3/8	16-3/4	20-3/16	24-1/8	27-1/2
B +.000/-.031	4.984	6.984	8.984	10.984	12.984
C ±.016	.188	.250	.250	.250	.250
D (FLANGED END)	4-1/2	5-1/4	5-3/4	6-1/2	7
E (MJ END)	5-5/8	6	6-7/8	7-3/8	8-5/16
F	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2
NO. OF TURNS TO OPEN	13	19	26	32	38
MAX. CUTTER DIAMETER	3-3/4	5-3/4	7-3/4	9-3/4	11-3/4

TYPICAL TAPPING VALVE DETAIL

AMERICAN FLOW CONTROL SERIES 2500 RESILIENT WEDGE VALVE

NOTE:
THE DATA GIVEN ON THESE PLANS IS BELIEVED TO BE ACCURATE, BUT THE ACCURACY IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL LEVELS, LOCATIONS, TYPES, AND DIMENSIONS OF THE EXISTING UTILITIES PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND, WORK SHALL CEASE AND THE ENGINEER NOTIFIED. WORK MAY CONTINUE UPON ENGINEERS NOTICE TO PROCEED.

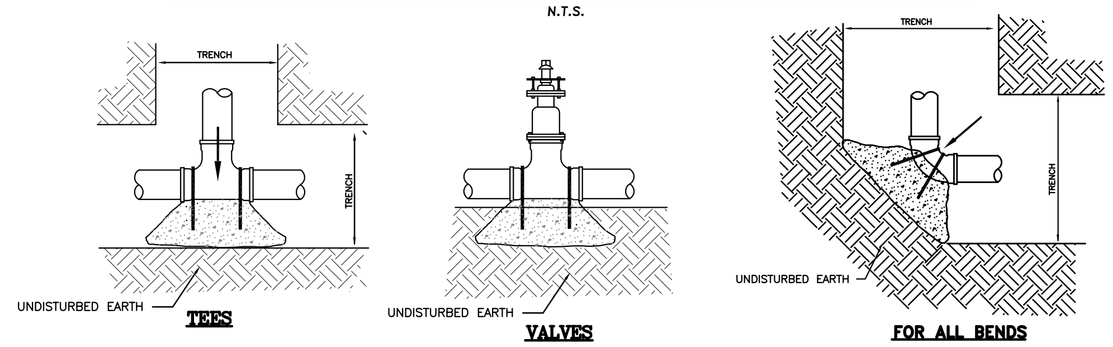
SURVEY DATA PROVIDED BY BARNETTE INTEGRATED LAND DEVELOPMENT ON PLAT ENTITLED "TOPOGRAPHIC BASE MAP FOR: THE TOWN OF SOUTHERN SHORES, STREET IMPROVEMENT, DOGWOOD TRAIL" AND DATED 7/9/14.



GENERAL NOTES
1. ONCE INSTALLED AND TIGHT, THE STEEL RODS AND BOLTS SHALL BE COATED WITH 2 COATS OF BITUMINOUS BASE PAINT.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
3. PROVIDE SHOP DRAWINGS FOR ALL VERTICAL BENDS

STANDARD VERTICAL OR HORIZONTAL BEND

N.T.S.



CONCRETE THRUST BLOCK

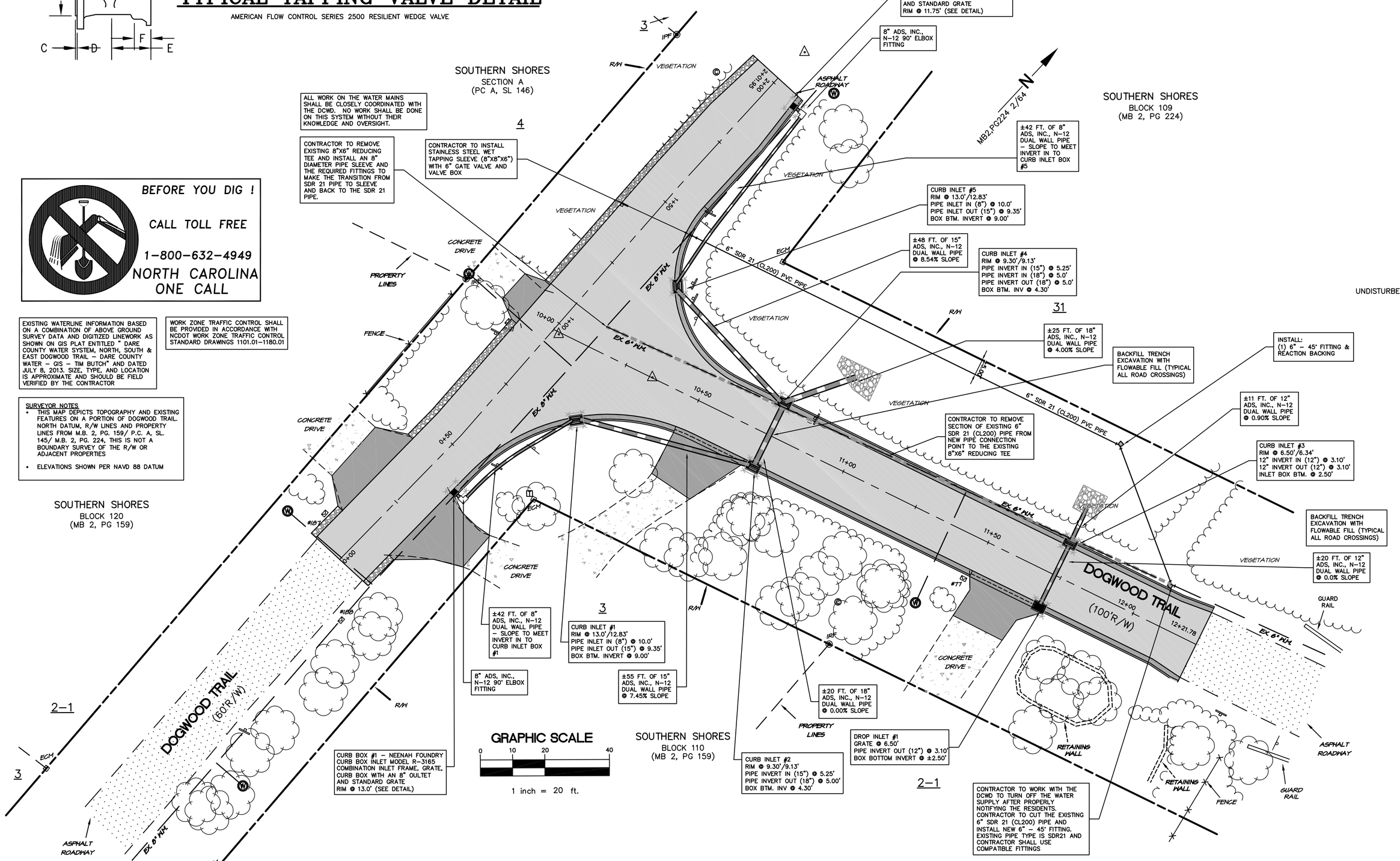
PIPE SIZE	FITTING	L (FT.)	H (FT.)	T (FT.)
2 – 3 – 4	TEE OR BLOCK	2.0	1.0	1.0
2 – 3 – 4	90	2.0	1.5	1.0
2 – 3 – 4	45	1.5	1.0	1.0
2 – 3 – 4	22 1/2	1.0	1.0	1.0
6	TEE OR BLOCK	2.0	2.0	1.0
6	90	3.0	2.0	1.5
6	45	2.0	1.5	1.0
6	22 1/2	1.5	1.0	1.0
8	TEE OR BLOCK	3.0	2.5	1.5
8	90	4.0	2.5	2.0
8	45	2.5	2.0	1.5
8	22 1/2	2.0	1.5	1.0
12	TEE OR BLOCK	4.0	4.0	2.0
12	90	5.0	4.5	2.5
12	45	4.0	3.0	2.0
12	22 1/2	3.0	2.0	1.5

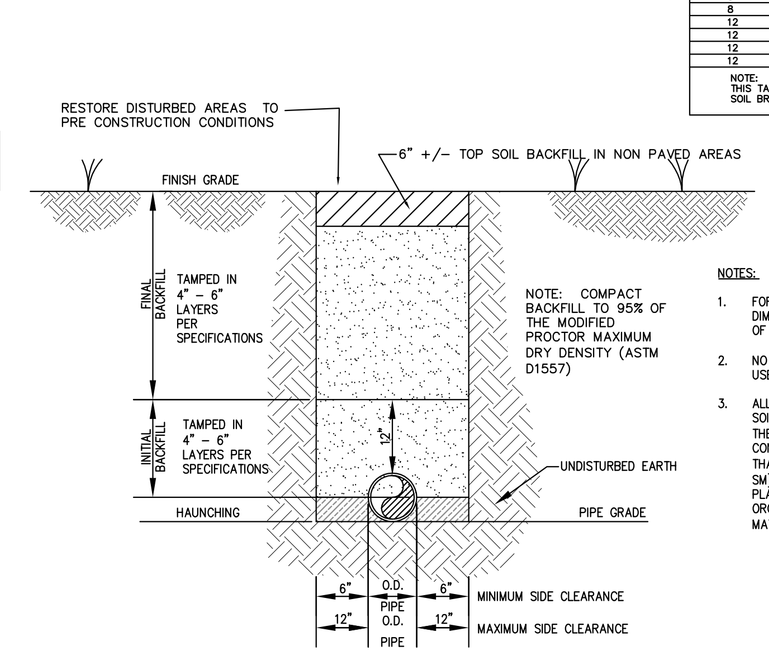
NOTE:
THIS TABLE BASED ON WATER PRESSURE 150 PSI
SOIL BRG. 1500 #/SQ. FT. TO 2000 #/SQ. FT.

EXISTING WATERLINE INFORMATION BASED ON A COMBINATION OF ABOVE GROUND SURVEY DATA AND DIGITIZED LINEWORK AS SHOWN ON GIS PLAT ENTITLED " DARE COUNTY WATER SYSTEM, NORTH, SOUTH & EAST DOGWOOD TRAIL – DARE COUNTY WATER – GIS – TIM BUTCH" AND DATED JULY 8, 2013. SIZE, TYPE, AND LOCATION IS APPROXIMATE AND SHOULD BE FIELD VERIFIED BY THE CONTRACTOR

WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH NCDOT WORK ZONE TRAFFIC CONTROL STANDARD DRAWINGS 1101.01–1160.01

SURVEYOR NOTES
- THIS MAP DEPICTS TOPOGRAPHY AND EXISTING FEATURES ON A PORTION OF DOGWOOD TRAIL. NORTH DATUM, R/W LINES AND PROPERTY LINES FROM M.B. 2, PG. 159/ P.C. A, SL. 145/ M.B. 2, PG. 224, THIS IS NOT A BOUNDARY SURVEY OF THE R/W OR ADJACENT PROPERTIES
- ELEVATIONS SHOWN PER NAVD 88 DATUM





NOTE: COMPACT BACKFILL TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557)

NOTES:
1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING
2. NO ROCKS OR BOULDERS 4" AND LARGER SHALL BE USED IN INITIAL BACKFILL AREA.
3. ALL BACKFILL MATERIAL SHALL BE SATISFACTORY SOIL MATERIALS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. (SATISFACTORY SOIL FILL SHALL CONSIST OF SAND OR GRAVEL CONTAINING LESS THAN 20% BY WEIGHT OF FINES [SW, SP, SP–SM, SM], HAVING A LIQUID LIMIT LESS THAN 20 AND PLASTIC LIMIT LESS THAN 6, AND FREE OF RUBBLE, ORGANICS, CLAY, DEBRIS, AND OTHER UNSUITABLE MATERIAL.)

TYPICAL BACKFILLING REQUIREMENTS AND TRENCH BOTTOM DIMENSIONS

N.T.S.

IT SHALL BE THE RESPONSIBILITY OF ALL CONTRACTORS TO WORKING IN THE VICINITY OF UTILITY LINES TO COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES. THE FOLLOWING IS A LIST OF CONTACT INFORMATION FOR THE KNOWN UTILITY COMPANIES HAVING UTILITIES WITHIN THE PROJECT AREA:

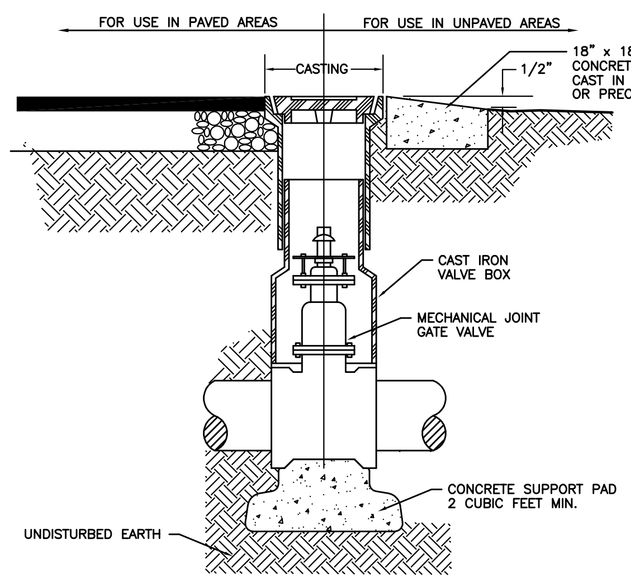
CENTURY LINK
TIMMY MIDGETT, AREA PLANT SUPERVISOR
MANTEO, NORTH CAROLINA
OFFICE: (252)473–5811
MOBILE: (252)475–8265
EMAIL: TIMOTHY.L.MIDGETT@CENTURYLINK.COM

CHARTER COMMUNICATIONS
CINDY MUSCIA, CONSTRUCTION COORDINATOR
OFFICE: (252)715–2106
CELL: (252)581–0049
EMAIL: CINDY.MUSCIA@CHARTERCOM.COM

DARE COUNTY WATER DEPARTMENT
SAMMY MIDGETT, HEAD OF DISTRIBUTION
OFFICE: (252)441–8072
CELL: (252)256–1721
EMAIL: SAMMYM@DARENC.COM

DOMINION NC POWER
HAROLD R. PARKER, CUSTOMER PROJECTS DESIGNER III
OFFICE: (252)255–2155
CELL: (252)256–2888
EMAIL: HAROLD.R.PARKER@DOM.COM

ALTHOUGH THIS INFORMATION IS PROVIDED THIS NOTE IN NO WAY SIGNIFIES THAT THESE ARE THE ONLY UTILITIES WITHIN THE RIGHTS–OF–WAY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL THE UTILITIES LOCATED IN ACCORDANCE WITH THE LAW.



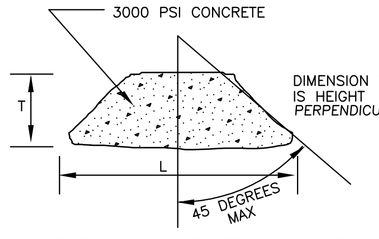
GATE VALVE ASSEMBLY

N.T.S.

NOMINAL PIPE SIZE	SLEEVE O.D. RANGE (INCHES)	CATALOG NUMBER			APPROX. WEIGHT (LBS.)
		SLEEVE NUMBER	BY	BRANCH SIZE	
4"	4.40 – 4.60 4.70 – 4.90 5.10 – 5.30	SST – 4.60 SST – 4.90 SST – 5.30	X	3" FLG. 4" FLG.	38# 30#
6"	6.60 – 7.00 6.90 – 7.30 7.10 – 7.50	SST – 7.00 SST – 7.30 SST – 7.50	X	3" FLG. 4" FLG. 6" FLG.	56# 58# 45#
8"	7.90 – 8.30 8.62 – 9.06 9.04 – 9.45 9.20 – 9.60 9.90 – 10.30	SST – 8.30 SST – 9.06 SST – 9.45 SST – 9.60 SST – 10.30	X	3" FLG. 4" FLG. 6" FLG. 8" FLG.	42# 44# 48# 66#
10"	10.73 – 11.13 11.06 – 11.45 11.79 – 12.19	SST – 11.13 SST – 11.45 SST – 12.19	X	3" FLG. 4" FLG. 6" FLG. 10" FLG.	45# 48# 55# 70# 80#
12"	12.75 x 12 12.45 – 12.85 12.90 – 13.30 13.18 – 13.58 13.40 – 13.80 13.88 – 14.38	SST – 12.85 SST – 13.30 SST – 13.58 SST – 13.80 SST – 14.38	X	3" FLG. 4" FLG. 6" FLG. 8" FLG. 10" FLG. 12" FLG.	50# 52# 60# 81# 98# 145#
14"	15.20 – 15.60 15.80 – 16.20 16.38 – 16.78	SST – 15.60 SST – 16.20 SST – 16.78	X	3" FLG. 4" FLG. 6" FLG. 8" FLG. 12" FLG.	62# 64# 74# 85# 154#
16"	17.15 – 17.55 17.40 – 17.80 17.70 – 17.95 17.85 – 18.25 18.56 – 18.96 19.30 – 19.70	SST – 17.55 SST – 17.80 SST – 17.95 SST – 18.25 SST – 18.96 SST – 19.70	X	3" FLG. 4" FLG. 6" FLG. 8" FLG. 10" FLG. 12" FLG.	70# 76# 85# 100# 119# 172#
18"	19.80 – 20.20 20.20 – 20.60 21.00 – 21.40	SST – 20.20 SST – 20.60 SST – 21.40	X	3" FLG. 4" FLG. 6" FLG. 10" FLG. 12" FLG.	92# 94# 99# 115# 139# 191#
20"	21.40 – 21.80 21.80 – 22.30 22.30 – 22.70	SST – 21.80 SST – 22.30 SST – 22.70	X	3" FLG. 4" FLG. 6" FLG. 10" FLG. 12" FLG.	81# 83# 99# 99# 120# 205#
24"	23.30 – 23.70 23.60 – 24.00 24.40 – 24.80 26.10 – 26.50	SST – 23.70 SST – 24.00 SST – 24.80 SST – 26.50	X	3" FLG. 4" FLG. 6" FLG. 10" FLG. 12" FLG.	85# 87# 100# 120# 145# 230#

TYPICAL TAPPING SLEEVE DETAIL

ROMAC INDUSTRIES, INC. "SST" STAINLESS STEEL TAPPING SLEEVE



TYPICAL THRUST BLOCK

ANCHOR ROD SIZES

PIPE SIZE	ROD SIZE
4" THRU 6"	#4
8" THRU 10"	#6
12" THRU 18"	#8

NOTES:
1. ALL WORK ON THE WATER MAIN MUST BE COORDINATED WITH THE DARE COUNTY WATER DEPARTMENT.
2. CLOSURES TO THE WATER MAIN WILL BE LIMITED.
3. THE CONTRACTOR SHALL COORDINATE AND OR ASSIST IN NOTIFICATION TO THE OWNERS OF WATER SYSTEM CLOSURES
4. ALL NEW WATER MAINS MUST MAINTAIN 36" OF COVER
5. ALL NEW WATER MAINS MUST MAINTAIN A 12" SEPARATION TO STORMWATER SYSTEM COMPONENTS, THIS INCLUDES PIPES AND BOXES.
6. ALL EXISTING PIPE MATERIALS ARE SDR 21 (CL200) PVC AND FITTINGS MUST BE CONSISTENT WITH THIS PIPE MATERIAL.

LEGEND

+ 33.05	EXISTING ELEVATION(±.03')		TELEVISION PEDESTAL
+ 33.0	EXISTING ELEVATION(±.05')		MAIL BOX
	CONCRETE MONUMENT		TRAFFIC SIGN
	IRON ROD/PIPE		LIGHT POLE
	WATER METER		R/W
	WATER VALVE		VEGETATION LIMITS
	TELEPHONE PEDESTAL		TREE
	EXISTING ASPHALT	11	EXISTING CONTOURS
	PROPOSED ASPHALT	10	APPROX. LOCATION OF POWER UTILITY LINE
	PROPOSED CONCRETE		APPROX. LOCATION OF CABLE UTILITY LINE
			APPROX. LOCATION OF PHONE UTILITY LINE
	PROPOSED ABC	24	PROPOSED CONTOURS
			PROPOSED N-12 SOLID WALL PIPE
	PROPOSED RIPRAP		PROPOSED CURB INLET
			PROPOSED CURB & GUTTER

DRAWING FILE: NSE Dogwood Intersection.DWG
PLOT SCALE: 1"=20'

Anlauf Engineering, PLLC
CIVIL ENGINEERING SERVICES
PO BOX 1000 KILL DEVIL HILLS, NC 27948 (252) 449-1845
JAY A. ANLAUF LICENSED NC CIVIL ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 26980 ENGINEER JOSEPH A. ANLAUF, P.E.
CERTIFICATION

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NO.	DATE	REVISIONS
1	8.15.14	REVISIONS TO W.M. ALIGNMENT

WATER SYSTEM MODIFICATION PLAN

NORTH, SOUTH & EAST DOGWOOD TRAIL INTERSECTION

TOWN OF SOUTHERN SHORES

DARE COUNTY, NORTH CAROLINA
ATLANTIC TOWNSHIP

COMMISSION NO.	P11009.21
DESIGNED BY	JJA
DRAWN BY	JJA
CHECKED BY	JJA
ISSUE DATE	8/7/14

SHEET NO.
U1
OF A1 SHEETS