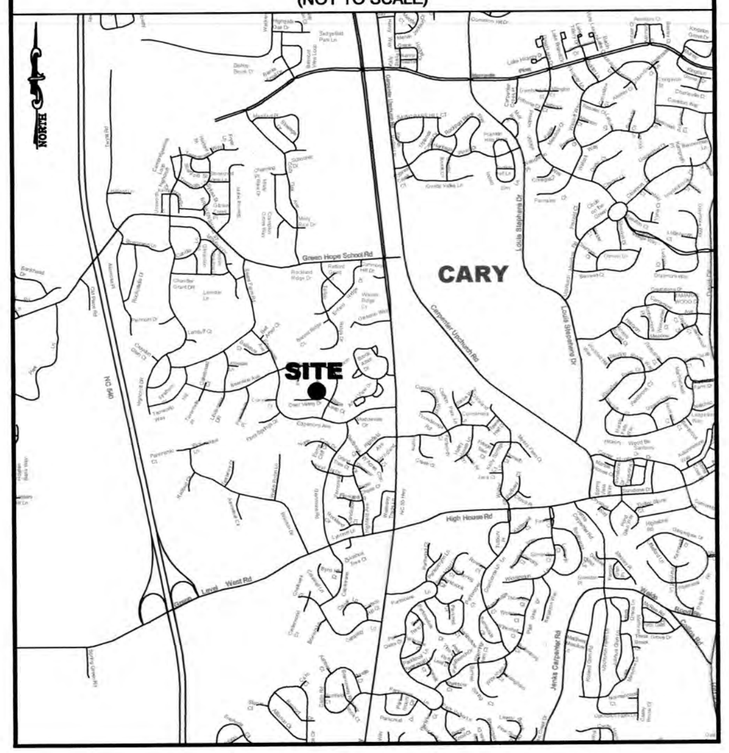
VICINITY MAP
(NOT TO SCALE)



TOWN of CARY
NORTH CAROLINA

316 North Academy Street
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Tel: 919-469-4030 Fax: 919-460-4935
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INDEX OF SHEETS

Sheet No.	Description
1	COVER SHEET
2	NORTH TRAFFIC CIRCLE PLAN
3	SOUTH TRAFFIC CIRCLE PLAN
4	DETAIL SHEET
5	WORK ZONE

Total Sheets: 5

The Reserve Traffic Calming

Project No. ST1107

Contact Information:
Rob.Myers@townofcary.org
919.380.4236

Revisions	
Date	Description
.	.
.	.
.	.
.	.
.	.

Survey for this project was completed by Town of Cary professional land surveyors. Coordinate control based on the following:
Horizontal _____ Vertical _____

Drawn By : Bryan Hayes
Designed By: David Spencer
Date: 1/11/2019

Project Engineer
David Spencer

Signature 3-11-19 Date

NORTH CAROLINA PROFESSIONAL SEAL 33171 ENGINEER DAVID H. SPENCER

SEAL

Internal Control Approval Authorizing Release By The Town of Cary Transportation & Facilities Dept. (Check Indicating Type of Plan)

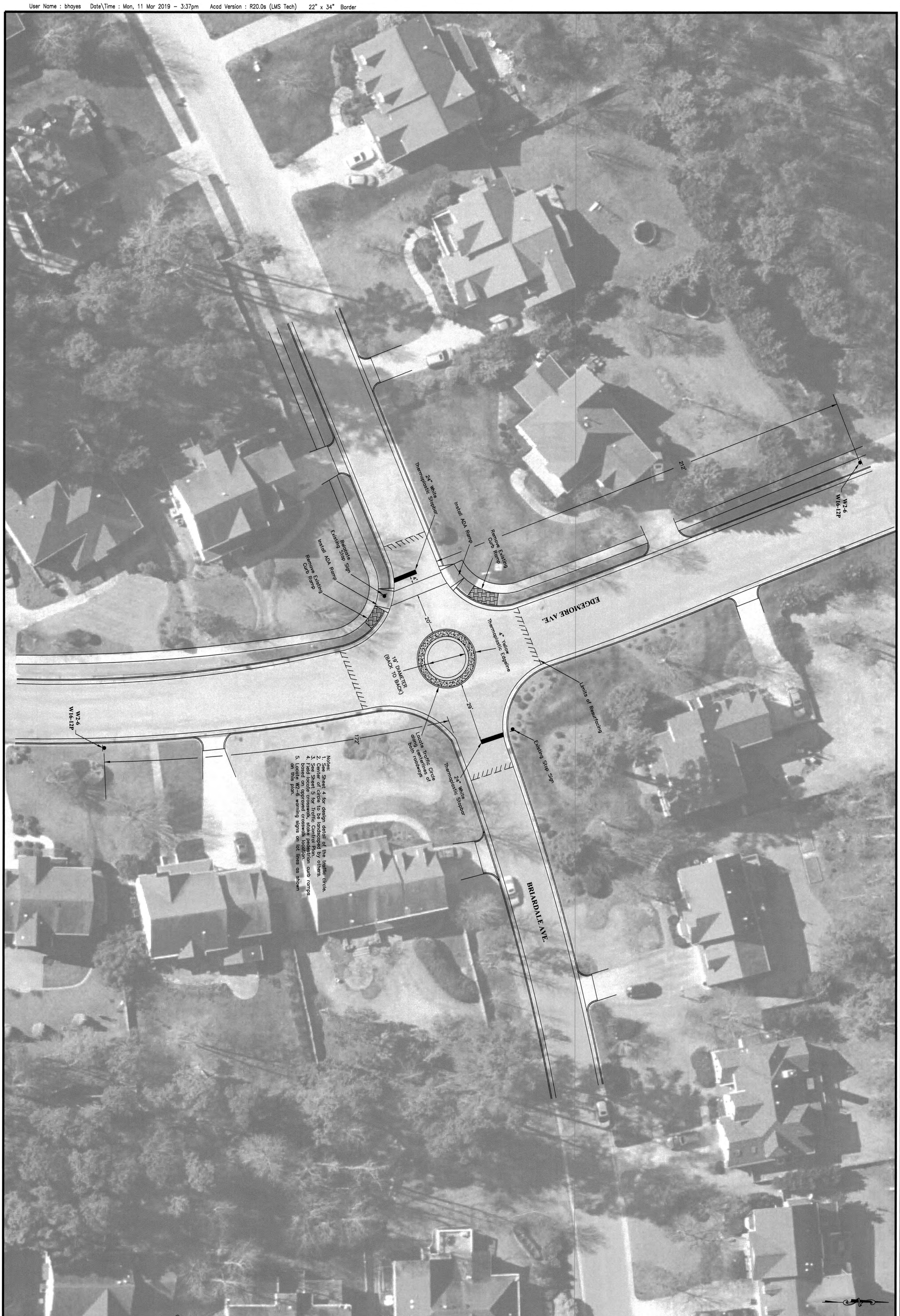
___ Final Drawings (No Marking)

Certification Optional:

___ Preliminary Drawings - Do Not Use For Construction
___ Progress Drawing - Do Not Use For Construction
___ Final Drawing - Not Released For Construction
___ Final Drawing - For Review Purposes Only
___ Not a Certified Document as to the Original Document but ONLY as to the Revisions

User Name : bhoyes Date\Time : Mon, 11 Mar 2019 - 3:39pm Acad Version : R20.0s (LMS Tech) 22" x 34" Border

User Name : bhayes Date\Time : Mon, 11 Mar 2019 – 3:37pm Acad Version : R20.0s (LMS Tech) 22" x 34" Border



Notes:
1. See Sheet 4 for design detail of the traffic circle.
2. Center of circle to be landscaped by others.
3. See Sheet 5 for Traffic Control Plan.
4. Field locate crosswalk, stake pedestrian curb ramps based on approved crosswalk location.
5. Locate W2-6 warning signs on lot lines as shown on this plan.

Proj. No. ST1107
Design By: D Spencer
Drawn By: B Hayes
Date: January 2019
Scale Hor: CUSTOM
Scale Ver: 1" =

SHEET NO. 2

Revisions

Signature

NORTH CAROLINA PROFESSIONAL ENGINEER DAVID H. SPENCER SEAL 33171

The Reserve Traffic Calming

TRAFFIC CIRCLE DESIGN (NORTH)

TOWN of CARY
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Contact Information:
Rob.Myers@townofcary.org
919.380.4236

User Name : bhayes Date\Time : Mon, 11 Mar 2019 – 3:31pm Acad Version : R20.0s (LMS Tech) 22" x 34" Border

Notes:
1. Center of circle to be landscaped by others.
2. See Sheet 5 for Traffic Control Plan.
3. Locate W2-6 warning signs on lot lines as shown on this plan.
4. See sheet 4 for design detail of the traffic circle.
5. 8" white diagonal markings are at 2:1 slope.
6. Adjust 8" existing water valve due to circle construction.

Proj. No. ST1107
Design By: D Spencer
Drawn By: B Hayes
Date: January 2019
Scale Hor: 1" = 20'
Scale Ver: 1" =

SHEET NO. 3

Revisions

Signature

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33171 DAVID H. SPENCER

The Reserve Traffic Calming

TRAFFIC CIRCLE DESIGN (SOUTH)

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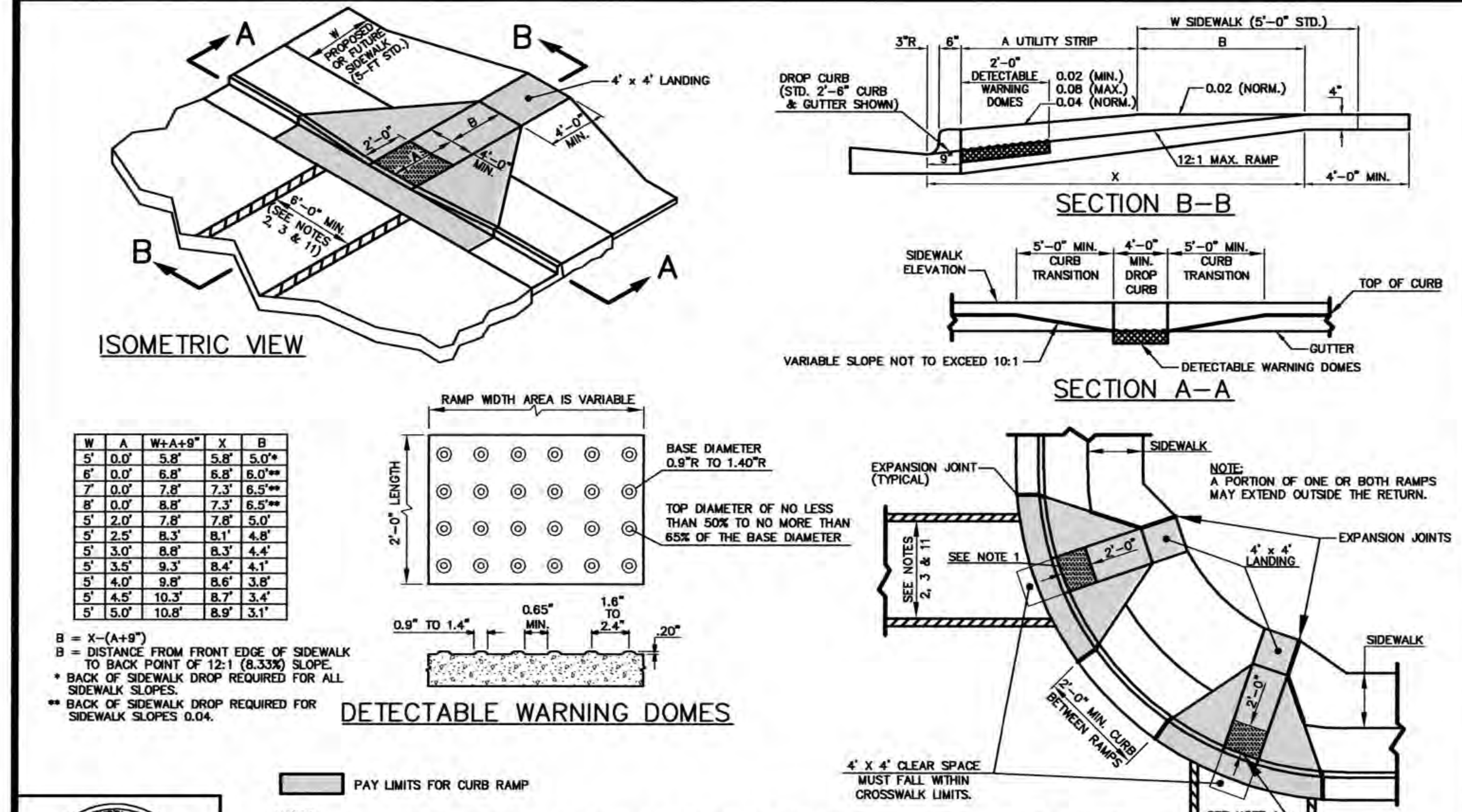


W	A	W+A+9"	X	B
5'	0.0'	5.8'	5.8'	5.0'*
6'	0.0'	6.8'	6.8'	6.0'**
7'	0.0'	7.8'	7.3'	6.5'**
8'	0.0'	8.8'	7.3'	6.5'**
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

B = X-(A+9")
B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.
* BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.
** BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPES 0.04.

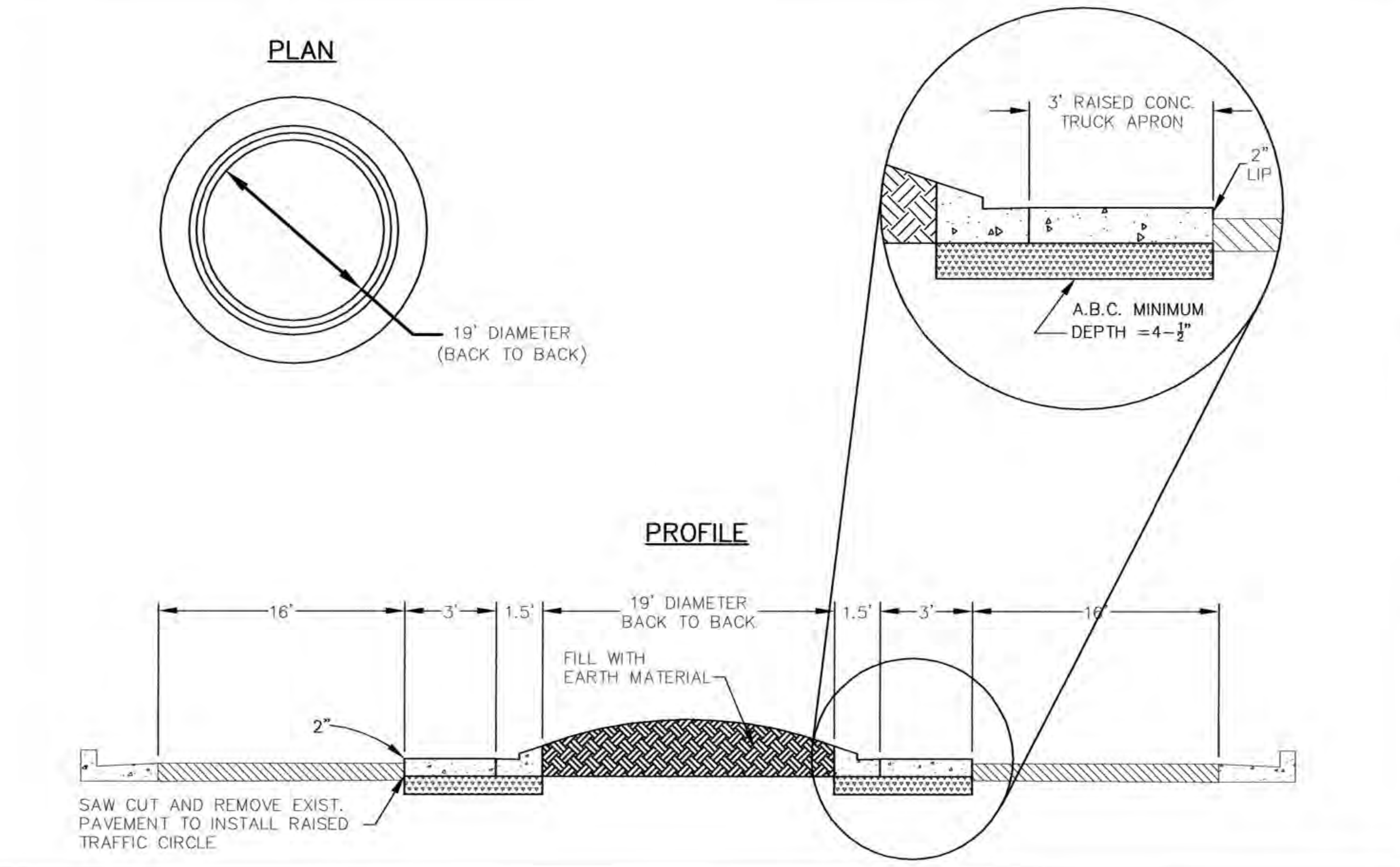
PAY LIMITS FOR CURB RAMP

NOTES:
1. DETECTABLE WARNING DOMES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
2. DETECTABLE WARNING DOMES WILL CONTRAST VISIBILITY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

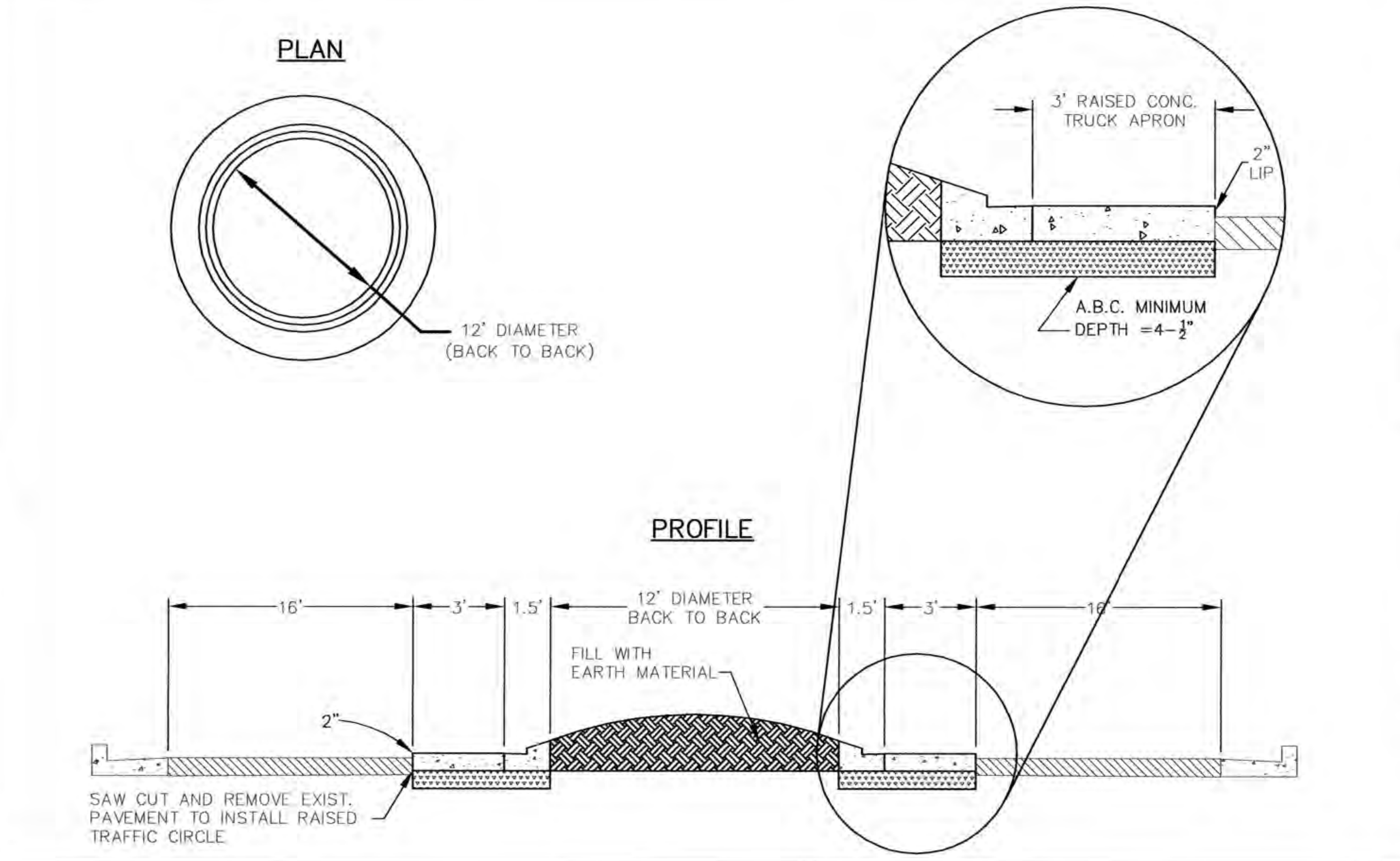
EFFECTIVE: 01/05/17

CURB RAMPS - PROPOSED CURB & GUTTER

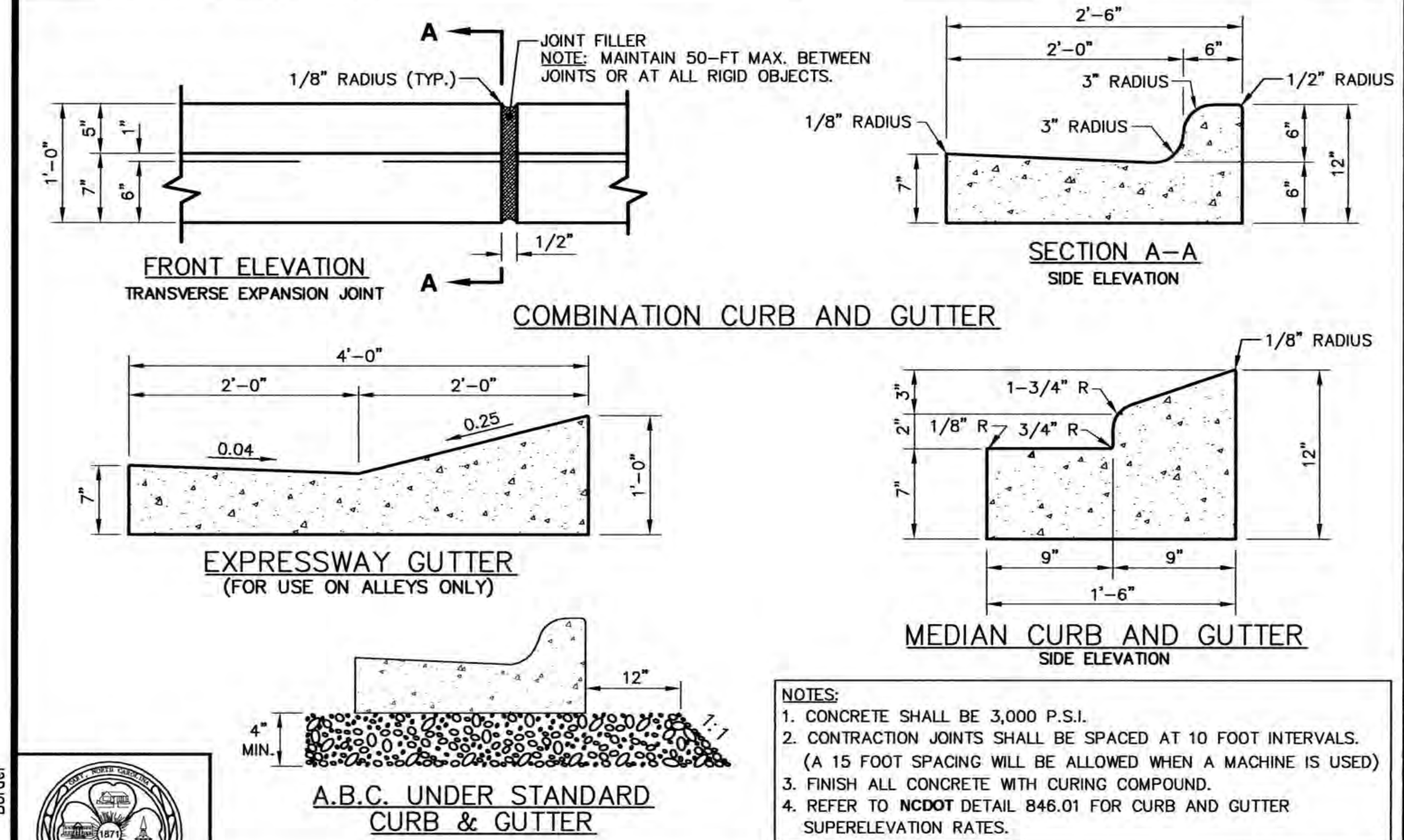
DETAIL No. 03000.14 SHEET 1 OF 3



NORTH TRAFFIC CIRCLE @ EDGEMORE AVE. AND BRIARDALE AVE.



SOUTH TRAFFIC CIRCLE @ EDGEMORE AVE. AND BRIARDALE AVE.

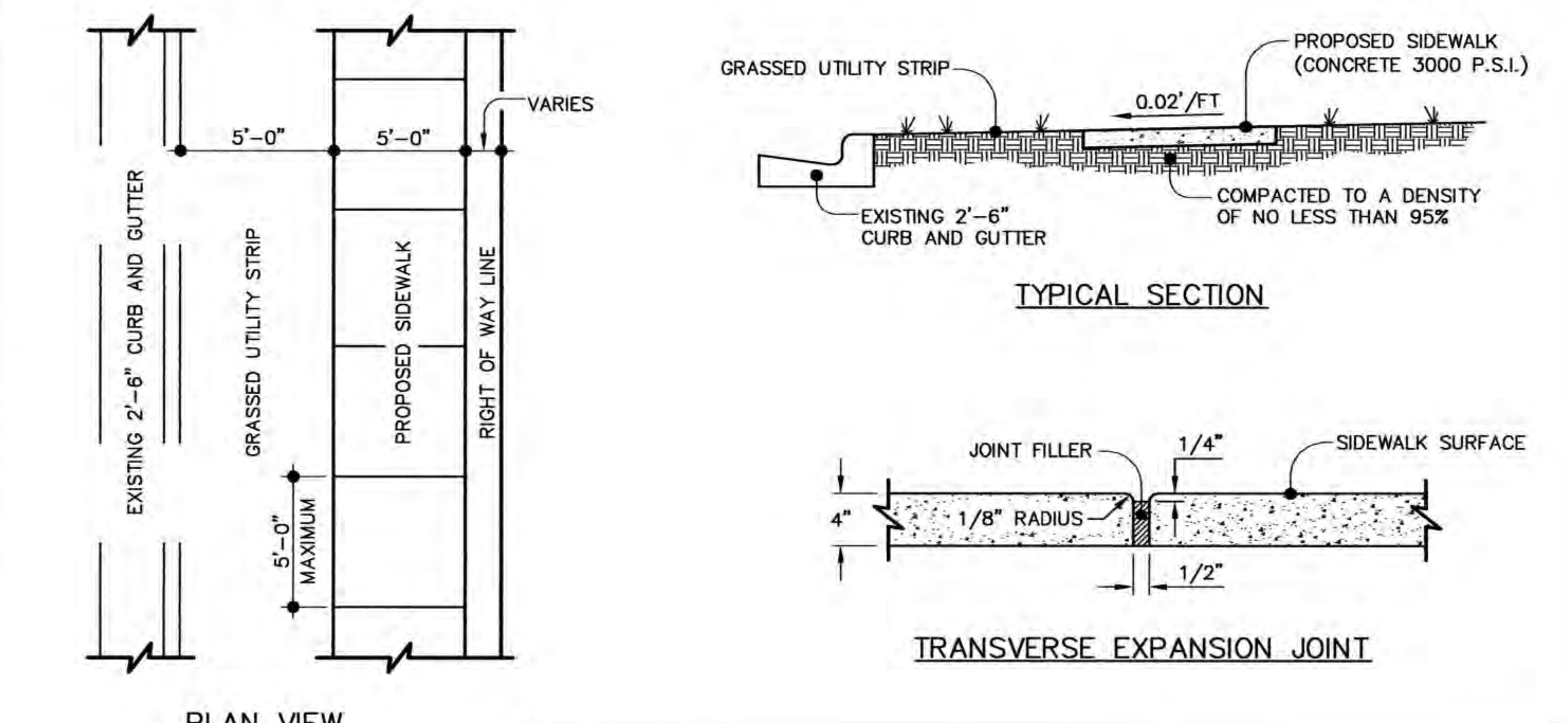


NOTES:
1. CONCRETE SHALL BE 3,000 P.S.I.
2. CONTRACTION JOINTS SHALL BE SPACED AT 10 FOOT INTERVALS. (A 15 FOOT SPACING WILL BE ALLOWED WHEN A MACHINE IS USED)
3. FINISH ALL CONCRETE WITH CURING COMPOUND.
4. REFER TO **NCDOT** DETAIL 846.01 FOR CURB AND GUTTER SUPERELEVATION RATES.

EFFECTIVE: 01/05/17

STANDARD CONCRETE CURB AND GUTTER

DETAIL No. 03000.02 SHEET 1 OF 1

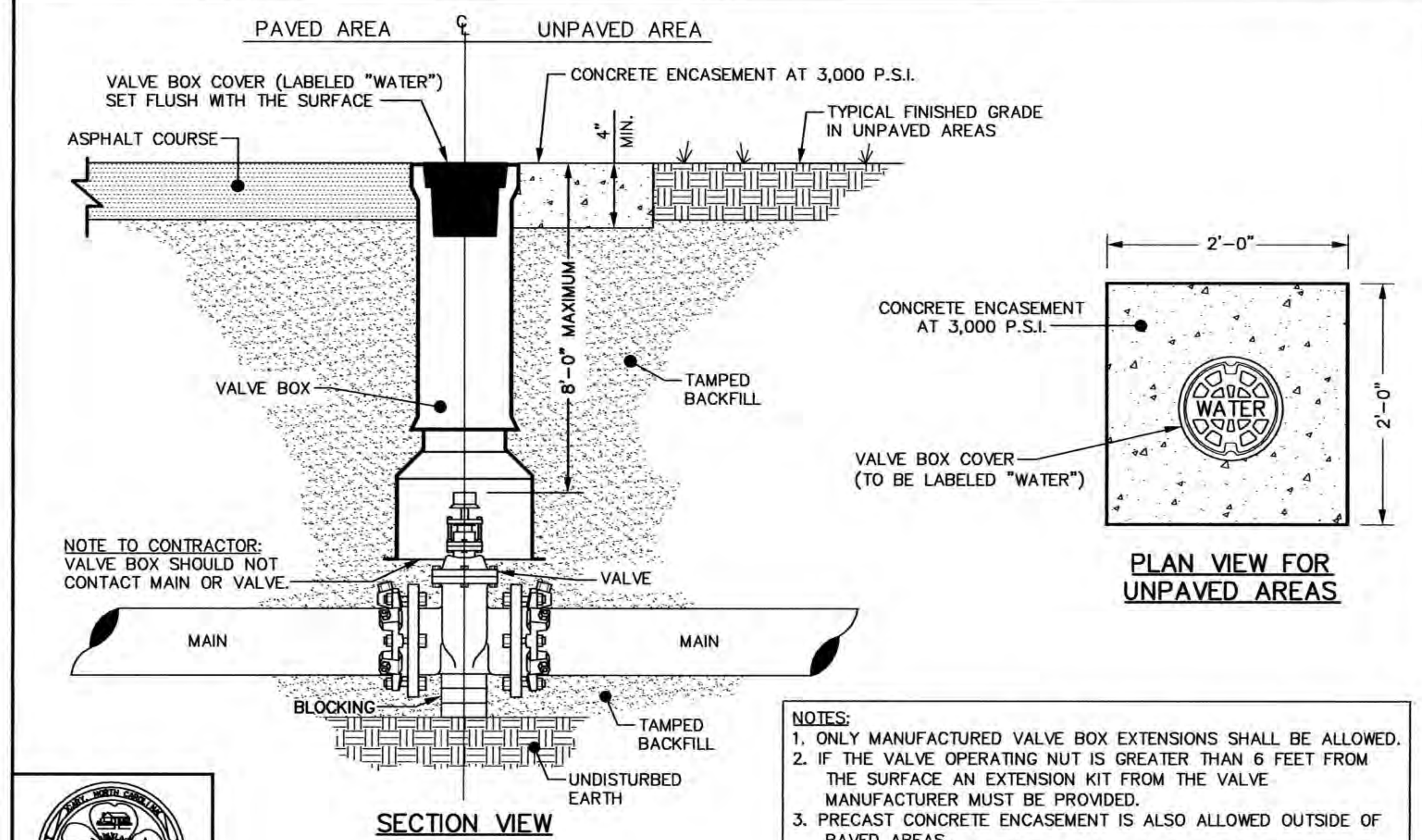


NOTES:
1. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 50 FEET.
2. ALL CONCRETE TO BE FINISHED WITH CURING COMPOUND.
3. A 6 INCH DEPTH IS REQUIRED AT LOCATIONS OF DRIVEWAY CROSSINGS, AT STREET INTERSECTIONS (ALONG THE LENGTH OF RADIUS CURB RETURNS), AND IN THE HANDICAP RAMPS.

EFFECTIVE: 01/05/17

STANDARD CONCRETE SIDEWALK

DETAIL No. 03000.07 SHEET 1 OF 2

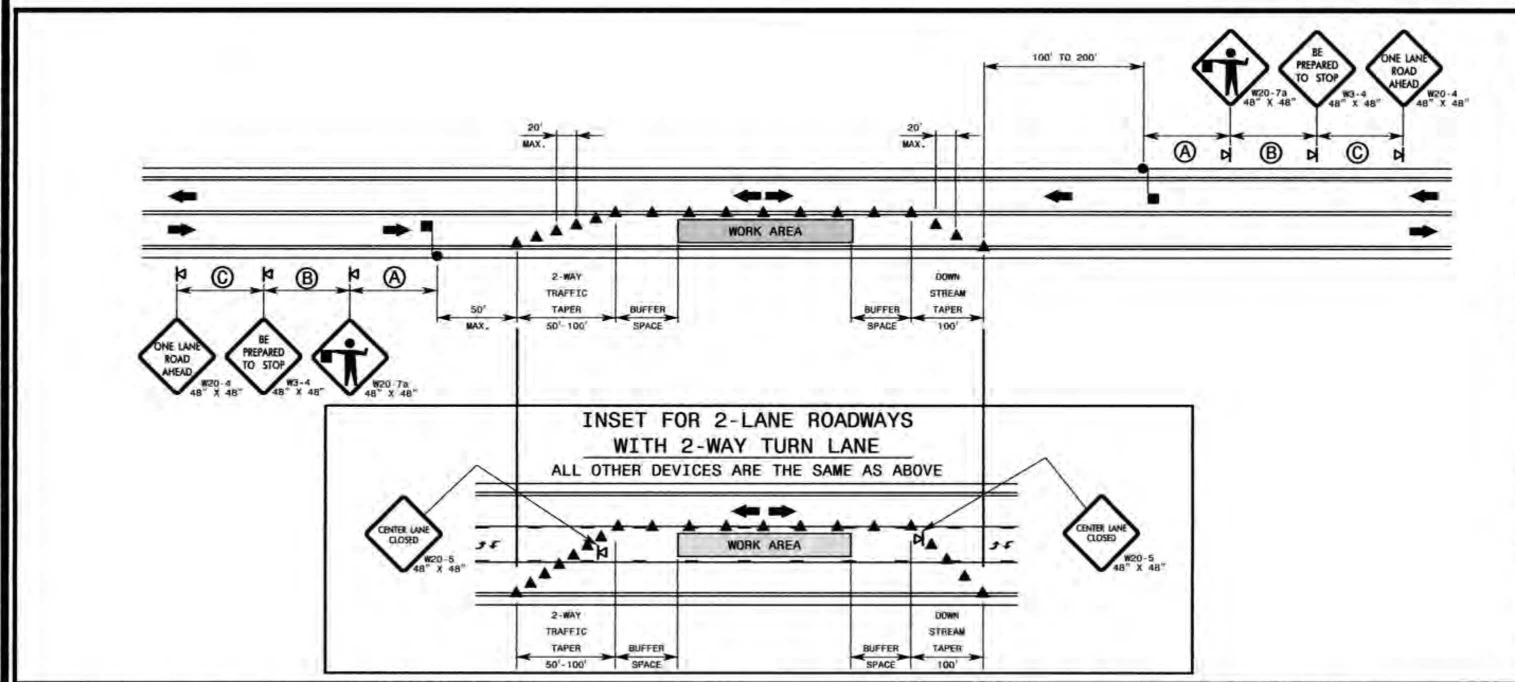


NOTES:
1. ONLY MANUFACTURED VALVE BOX EXTENSIONS SHALL BE ALLOWED.
2. IF THE VALVE OPERATING NUT IS GREATER THAN 6 FEET FROM THE SURFACE AN EXTENSION KIT FROM THE VALVE MANUFACTURER MUST BE PROVIDED.
3. PRECAST CONCRETE ENCASEMENT IS ALSO ALLOWED OUTSIDE OF PAVED AREAS.

EFFECTIVE: 01/05/17

STANDARD WATER VALVE BOX INSTALLATION

DETAIL No. 06000.08 SHEET 1 OF 3



GENERAL NOTES FOR FLAGGING OPERATIONS

1- REFER TO RSD. 1101.11, SHEETS 1 & 4, FOR "L" DISTANCE AND SIGN SPACING.
2- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
3- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
4- PLACE CONES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
5- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO RSD. 1101.11, SHEET 2).
6- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
7- DRUMS OR SKINNY DRUMS MAY BE USED IN LIEU OF CONES. REFER TO RSD. 1180.01 FOR SKINNY DRUM REQUIREMENTS.
8- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. SUPPLEMENT FLAGGERS LOCATED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS (W20-7a) PLACED APPROXIMATELY 250 FT. IN ADVANCE OF THE FLAGGER. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND USE LAW ENFORCEMENT.
9- REFER TO THE CURRENT MUTCD FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.
10- DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.
11- IF VEHICLE QUEUES WILL REACH WITHIN 15' OF EITHER SIDE OF ACTIVE RAILROAD TRACKS, PROVIDE A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER TO PREVENT VEHICLES FROM STOPPING WITHIN THE GRADE CROSSING. PROVIDE OFFICER OR FLAGGER EVEN IF AUTOMATIC WARNING MEASURES ALREADY EXIST.

GENERAL NOTES FOR PILOT CAR OPERATIONS

1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
2- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA, AND AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.
3- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.
4- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.
5- DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
6- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.

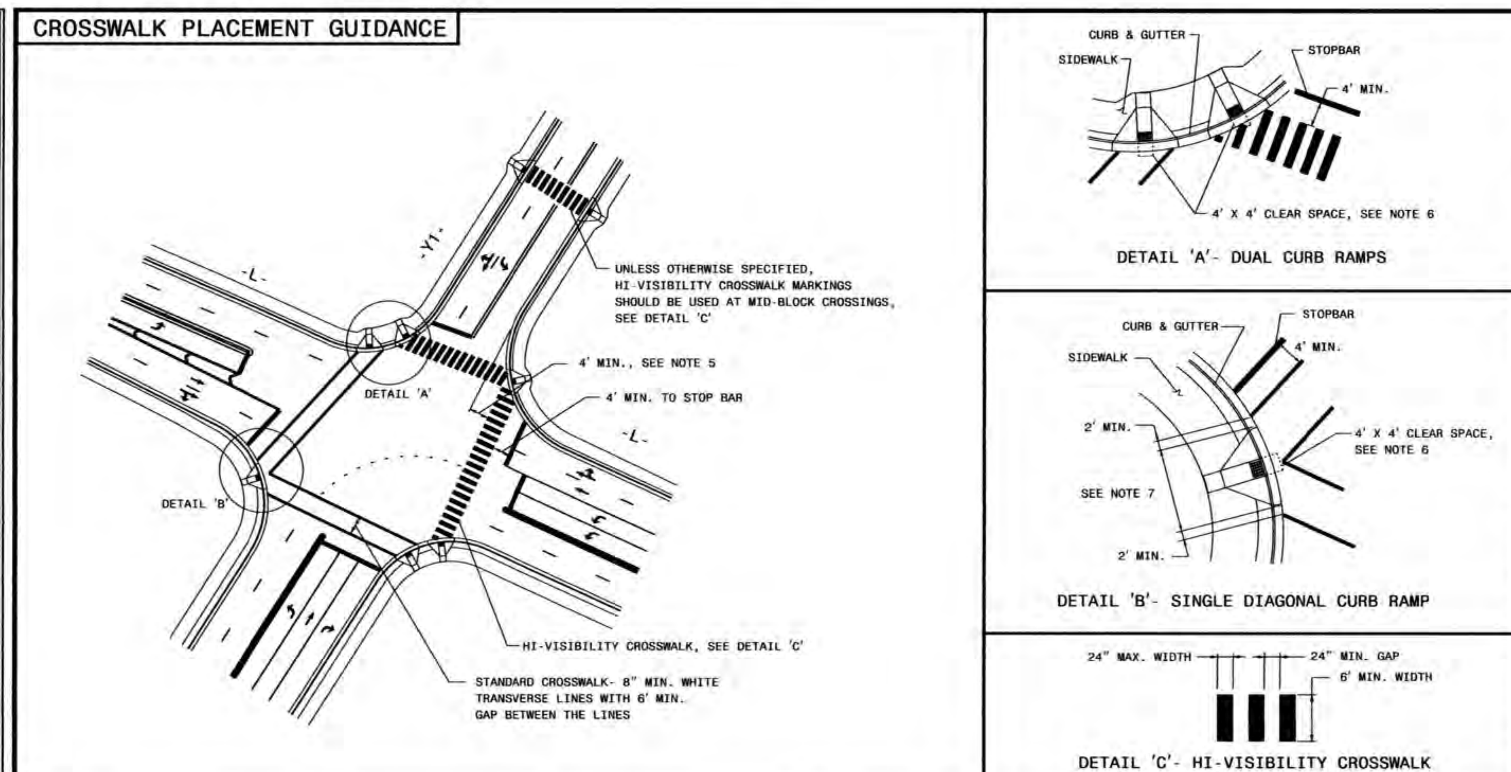
LEGEND
FLAGGER
CONE
PORTABLE SIGN
DIRECTION OF TRAFFIC FLOW

ROADWAY STANDARD DRAWING FOR **TEMPORARY LANE CLOSURES** 2-LANE, 2-WAY ROADWAY-1 LANE CLOSED

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

SHEET 1 OF 14 **1101.02**

CROSSWALK PLACEMENT GUIDANCE



GENERAL NOTES:
1- USE THE DETAILS ABOVE AND THE FOLLOWING NOTES FOR GUIDANCE IN PLACING CROSSWALK MARKINGS. REFER TO NCDOT ROADWAY STANDARD DRAWINGS, MUTCD AND ADA STANDARDS FOR ADDITIONAL GUIDANCE.
2- THE LOCATION AND TYPE OF CROSSWALK MARKINGS SHOWN ON THE ABOVE DETAILS ARE FOR REFERENCE ONLY. LOCATE CROSSWALK MARKINGS AS SHOWN ON THE PROJECT DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER. THE CROSSWALK MARKING TYPE, STANDARD OR HI-VISIBILITY, SHALL BE INSTALLED AS SPECIFIED ON THE PROJECT DETAIL SHEETS OR AS DIRECTED BY THE ENGINEER.
3- THE STANDARD CROSSWALK IS TWO WHITE 8" MIN. TRANSVERSE LINES WITH A 6' MIN. GAP BETWEEN THE LINES. THE HI-VISIBILITY CROSSWALK IS WHITE 24" MAX. WIDE LONGITUDINAL LINES WITH 24" MIN. GAPS BETWEEN LINES, SEE DETAIL 'C'. HI-VISIBILITY CROSSWALKS SHOULD BE A MINIMUM OF 6' WIDE. CURB RAMPS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARES.
4- STOP BARS SHOULD BE PLACED A 4' MIN. IN ADVANCE OF NEAREST CROSSWALK LINE.
5- SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL IS 4' MIN.
6- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4' X 4' MIN. SHALL BE PROVIDED WITHIN THE MARKINGS.
7- SINGLE DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 2' MIN. LONG LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING, SEE DETAIL 'B'.
8- CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST NCDOT ROADWAY STANDARD DRAWINGS. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR DETAILS OR A SPECIAL DESIGN.

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

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

SHEET 1 OF 1 **1205.07**

W2-6
30"X30"

W16-12P
24"X18"

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919.380.4236

The Reserve Traffic Calming

Details

NORTH CAROLINA PROFESSIONAL SEAL 33171 ENGINEER DAVID H. SPENCER

Signature

Revisions

Proj. No.	ST1107
Design By:	D Spencer
Drawn By:	B Hayes
Date:	January 2019
Scale Hor:	1" = 20'
Scale Ver:	1" =

SHEET NO. 4

1. Type III barricade required at closure with ROAD CLOSED sign.
2. Flagger operation may be required. To be determined by contractor.
3. Refer to NCDOT standard drawing for WORK ZONE.
4. Internal WORK ZONE site plans to be determined by contractor and approved by Town of Cary.
5. Contractor to coordinate with Cary Public Information Office for Traffic Alert and Waze Road Closure
6. One week prior to closure, contractor shall notify Wake County Public Schools, Cary Solid Waste, Cary Police Departmen, Fire Department, and USPS regarding any road closures.

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Work Zone

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Signature

Revisions

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Date:	January 2019
Scale Hor:	1" = 20'
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SHEET NO.
5

User Name : bhoyes Date\Time : Mon, 11 Mar 2019 - 3:31pm Acad Version : R20.0s (LMS Tech) 22" x 34" Border