STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION 6

PLANS

Letting Date: SEPTEMBER 18, 2024

CONTRACT ID: DF00493

TIP NO.: BO-2406A

FEDERAL AID NO.: 5093503

WBS ELEMENT NO.: 50935.3.3

ROUTE NO.: VARIOUS

LOCATION: VARIOUS

COUNTY: BLADEN, COLUMBUS, CUMBERLAND, HARNETT & ROBESON

LENGTH OF PROJECT: VARIES

TYPE OF WORK: CONCRETE INSTALLATIONS

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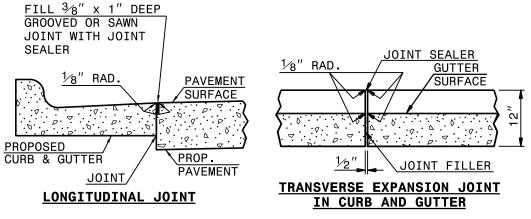
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				0000100000-N	0106000000-E	0156000000-E	1220000000-E	1575000000-E		2286000000-N	20100000002	4" Concrete	2600000000-N	2605000000-N			2830000000-N	Adjustment of Meter		4695000000-E Thermoplastic	Removal of	5648000000-N			
COUNTY	MUNICIPALITY	MAJOR ROUTE	MINOR ROUTE	Mobilization	Borrow Excavation	Removal of Existing Asphalt Pavement	Incidental Stone Base	Asphalt Binder for Plant Mix	Asphalt Plant Mix, N Pavement Repair	Masonry Drainage Structures	2'-6" Concrete Curb & Gutter	Sidewalk (5' Wide)	Retrofit Existing Curb Ramp	Concrete Curb Ramp	6" Concrete Driveway	Remove & Replace Curb Ramps	Adjustment of Manholes	Boxes or Valve Boxes	Temporary Traffic Control	-	avement Marking Lines (8")	Relocate Water Meter	Matting for Erosion Control	Seeding and Mulching	NOTES
				LS	CY	SY	TON	TON	TON	EA	LF	SY	EA	EA	SY	EA	EA	EA	LS	LF	LF	EA	SY	ACR	
					<u> </u>	0.		1011				0.			<u>.</u>					-			<u>. </u>	, and the second	
Bladen	Bladenboro	NC 410	NC 211 BUS			85								2						330					Add 2 ramps and 3 crosswalks Extend existing sidewalk from NC 87 to IGA parking It
Bladen	Dublin	NC 410	NC 87								40	120	3	6											(passes US Post Office)
Bladen Bladen	Elizabethtown Elizabethtown	SR 1700 Mercer Mill Rd. SR 1145 MLK Dr.	Smith Cir Martin St. to King St.								18	25 10													Remove existing ramp and replace C&G with sidewalk Widen existing sidewalk to 5' every 200' for passing
Bladen	Elizabethtown	SR 1145 MLK Dr.	Exist Drive #302								28	6			8										vilden existing sidewalk to 5 every 200 for passing
Bladen Bladen	Elizabethtown Elizabethtown	SR 1145 MLK Dr. SR 1145 MLK Dr.	Exist Drive #502 Exist Drive #500								28	6			8 8										
Bladen	Elizabethtown	SR 1145 MLK Dr.	Dunham St								20	O		1	8	1				64	64	1			Replace Ramp. Add Ramp. Relocate crosswalk
Bladen Bladen	Elizabethtown Elizabethtown	SR 1145 MLK Dr. SR 1145 MLK Dr.	Exist Drive #418 Exist Drive #406								28	6		1	8										
Bladen	Elizabethtown	SR 1145 MLK Dr.	City Driveway								24	14			Ö										Remove Driveway and add C&G
Bladen Bladen	Elizabethtown Elizabethtown	SR 1145 MLK Dr. SR 1145 MLK Dr.	Mill St Exist Drive #312								28	6			Ω						64				Remove crosswalk
Bladen	Elizabethtown	SR 1145 MLK Dr.	Exist Drive #310								28	6			8										
Bladen Bladen	Elizabethtown Elizabethtown	SR 1145 MLK Dr. SR 1145 MLK Dr.	Exist Drive #308 Exist Drive #203								28	6			8										
Bladen	Elizabethtown	SR 1145 MLK Dr.	Swanzy St.								20	Ŭ			Ü					190					Add 2 crosswalks
Bladen Bladen	Elizabethtown Elizabethtown	SR 1145 MLK Dr. SR 1145 MLK Dr.	Carwash Exist Drive #210								56	6		1	16										
Bladen	Tar Heel	NC 87	Driveways								180	112			10										Remove unused Driveways
Bladen	Tar Heel	NC 87	Faith Deliverance Ministries Driveway			Ι Τ							1		22										1
Bladen	Tar Heel	NC 87	Tar Heel School											2											
				0.0	0.0	85.0	0.0	0.0	0.0	0.0	570.0	353.0	3.0	13.0	110.0	1.0	0.0	0.0	0.0	584.0	128.0	1.0	0.0	0.0	<u> </u>
				U.U	0.0	00.0	U.U	U.U	0.0	U.U	310.0		ა.ს	13.0	1 10.0	1.0	U.U	U.U	U.U	J04.U	140.0	1.0	U.U	U.U	
Calcumat	Chadbourn	NC 410	Strawberry Blvd									225		5			1				_				Strawberry Blvd to Dollar General. Locate sidewalk behind
Columbus Columbus	Chadbourn	SR 1425 (Railroad Ave)	Wilson St									165		1	15										ditch. Extend sidewalk to Park - 10' offset from pavement.
Columbus	Chadbourn	SR 1574 (Strawberry Blvd)	8th Ave									365		10			1				4.40	2			
Columbus	Tabor City	US 701 BUS	NC 904			 														 	140				Remove crosswalk lines From Pete Cir. To State Employees' Driveway. Convert DI
	Tabor City	5th St/NC 410/US 701 BUS	Pete Cir.							1		575		6	200										to openthroat catch basin with manhole. STD. 840.04.
Columbus				<u>L</u> _				<u>L</u>				<u> </u>						<u> </u>	<u>L</u>						Frame and Cover will be incidental to pay item "Masonry Drainage Structure" 1 EA.
																									,
				0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1330.0	0.0	22.0	215.0	0.0	2.0	0.0	0.0	0.0	140.0	2.0	0.0	0.0	
Cumberland		SR 2835 Tudor Pl.	SR 2854 Castlebrooke Ln										1												
Cumberland Cumberland		SR 2835 Tudor Pl. SR 2835 Tudor Pl.	SR 2856 Damsel Ct. SR 2857 Lancelot Ct.										2												
Cumberland		SR 1140 Strickland Bridge Rd	School Driveway										2												
Cumberland Cumberland		NC 53/210 NC 53/210	SR 1215 Fields Rd Sleep Inn Driveway										2												
Cumberland		NC 53/210	Country Inn Driveway										2												
Cumberland Cumberland		NC 53/210 NC 53/210	Red Roof Inn Driveway Cedar Creek Motel Driveway										4												
Cumberland		NC 53/210	BP C-Store Driveway										4												
Cumberland		NC 53/210	Exxon C-Store Driveway										4												Install Sidewalk to connect the Falcon Children's Home
Cumberland	Falcon	NC 82 (Godwin-Falcon Rd)	SR 1806 (Sherrill Bagget Rd)								50	885		9											buildings
Cumberland	Linden	NC 217 (Main St)	SR 1700 (McBryde St)									685		9											Install sidewalk along existing curb and gutter section to connect Town Hall and Post Office
Cambonana																									donnest Town Hair and Tost Office
		T T		0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	1570.0	27.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
																									Widen short sections of sidewalk in approximately 20
Harnett	Coats	NC 55 (S McKinley St)	Various								60	60													locations where utility poles are in the center of the existing sidewalk. Close unused curb cuts.
Harnett	Spring Lake	Ray Road	Gordon Lane													1									Sidewaik. Close difused curb cuts.
										•		20.0				1.0									
				0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Robeson	Maxton	Business 74	N 5th St.									13													Remove and replace sidewalk
Robeson Robeson	Maxton Maxton	Business 74 Business 74	S 5th St. Hooper St.					1				30 5							1						Remove and replace sidewalk Remove and replace sidewalk
Robeson	Maxton	Business 74	N 3rd St.									9													Remove and replace sidewalk
Robeson Robeson	Maxton Maxton	Business 74 Business 74	N 3rd St. N 3rd St.					+	 			9	 						 	 					Remove and replace sidewalk Remove and replace sidewalk
Robeson	Maxton	Business 74	2nd St.									9													Remove and replace sidewalk
Robeson Robeson	Maxton Maxton	Business 74 Business 74	2nd St. 1st St.					+	 			6	 						 	 					Remove and replace sidewalk Remove and replace sidewalk
Robeson	Maxton	Business 74	1st St.									15													Remove and replace sidewalk
Robeson Robeson	Maxton Maxton	Business 74 Business 74	Middle St. NC 130 Patterson St.	<u> </u>	<u> </u>				<u> </u>		<u> </u>	8 15	<u> </u>						<u> </u>						Remove and replace sidewalk New Sidewalk
Robeson	Maxton	Business 74	NC 130 Patterson St.									8													Remove and replace sidewalk
Robeson Robeson	Maxton Maxton	NC 130 SR 1300	W Baldwin St. N Vann St.									40 9	 	2											New sidewalk with new ADA ramps Remove and replace sidewalk
Robeson	Maxton Maxton	SR 1300 SR1300	N Vann St. N Elm St.									11													Remove and replace sidewalk
Robeson Robeson	Maxton Maxton	SR 1301	NC 130 Patterson St.	<u> </u>								15	<u> </u>						<u>L</u>						Remove and replace sidewalk New Sidewalk
Robeson	Maxton Ped Springs	SR1303 NC 71/211	NC 130 Patterson St.									68													Remove and replace sidewalk New sidewalk
Robeson Robeson	Red Springs Red Springs	NC 71/211	2nd Ave. 2nd Ave.	<u> </u>	<u> </u>							12	<u> </u>						<u>L</u>						New sidewalk Remove and replace sidewalk
Robeson	Red Springs		Evon Rd. Market St.									15		0											Remove and replace sidewalk
Robeson Robeson	Fairmont Fairmont	SR 2442	Church St.	<u> </u>	<u> </u>							12	<u> </u>						<u>L</u>						Add curb ramps Remove and replace sidewalk
Robeson	Rowland	NC 130	S Pine St.									6													Remove and replace sidewalk
Robeson Robeson	Rowland Rowland	NC 130 NC 130	S Ward St. Mc Callum St.									6 11													Remove and replace sidewalk Remove and replace sidewalk
Robeson	Rowland	NC 130	S Webster St.				_					6									_				Remove and replace sidewalk
Robeson Robeson	Rowland Rowland	NC 130 NC 130	S Webster St. N Railroad St.					1				6		1					1						Remove and replace sidewalk New curb ramp
Robeson	Rowland	US 301	E Elm St.									12			40										Remove and replace sidewalk
Robeson Robeson	Rowland Rowland	SR 1185 SR 1185	New Hope Church New Hope Church								25	16			12										Remove and replace sidewalk. New driveway Remove driveway and replace with curb and gutter
	-											1 .		_											, , , , , , , , , , , , , , , , , , , ,
			Incidentals	0.0	100	100	100	0.0	0.0	0.0	25.0 50	399.0	0.0	5.0 5	12.0 25	0.0 5	0.0 5	0.0	0.0	0.0 50	0.0 50	0.0	100	0.0	
		Project Totals	incidentals	11	100	100	100	11	30	1	755	100	35	63	362	7	7	5	11	634	318	5	100	11	
																									

SECTION VIEW OF CURBS OR CURBS AND GUTTERS

-PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.

GENERAL NOTES:

- -JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
- -CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
- CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1½" DEEP.
 -FILL ALL CONSTRUCTION JOINTS, EXCEPT IN 8"x6" MEDIAN CURB,
- WITH JOINT FILLER AND SEALER.
- -SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.



SECTION VIEW OF JOINTS

SHEET 1 OF 3

846.01

STATE OF STATE OF TRANSPORTATION STON OF HIGHWAYS N.C.

NORTH OF T

DEPT

STANDARD DRAWING FOR

GUTTER

CURB

CONCRETE

ROADWAY

GUTTER

Ø

CURB

AND

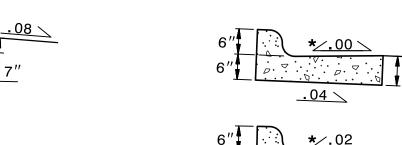
DIVISION OF RALEIGH,

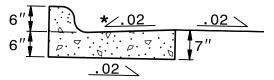
ROADWAY STANDARD DRAWING FOR CONCRETE

SHEET 2 OF 3

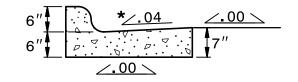
846.01

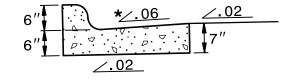


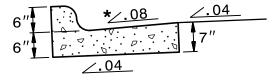


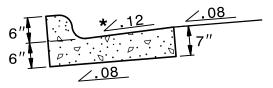


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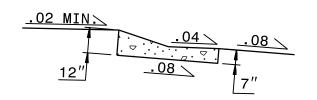


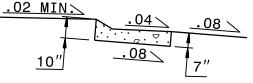


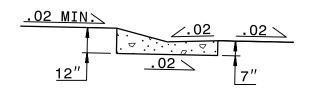


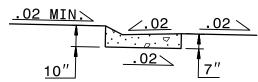
THE GUTTER SLOPE FOR 1'-6" CURB AND GUTTER SHALL MATCH THE SLOPE OF THE ADJOINING PAVEMENT.

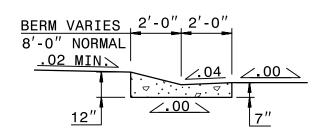
SECTION VIEWS OF 2'-9" AND AND GUTTER SUPERELEVATION RATES

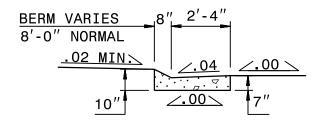


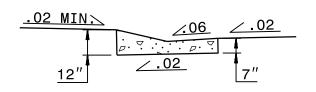


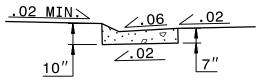


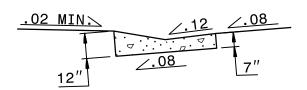


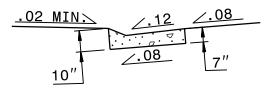








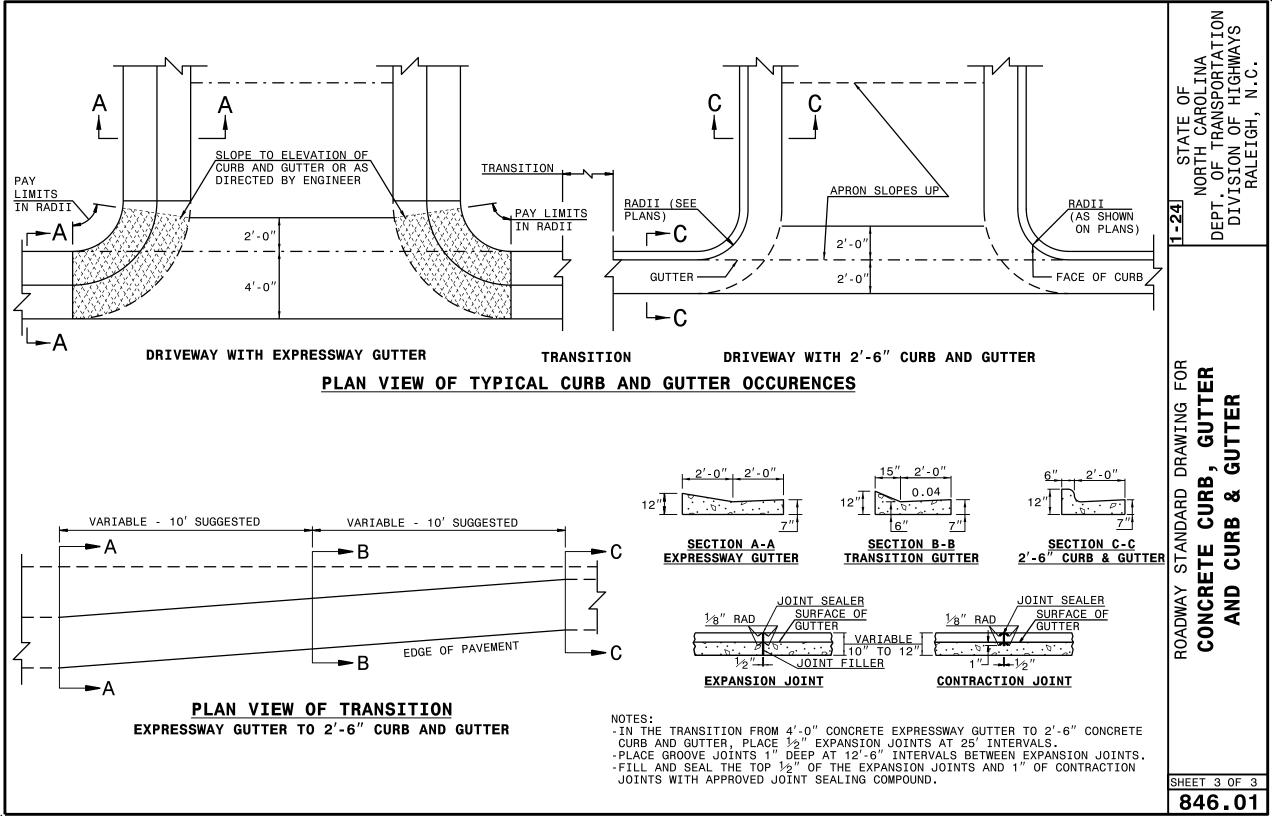




EXPRESSWAY GUTTER

SHOULDER BERM GUTTER

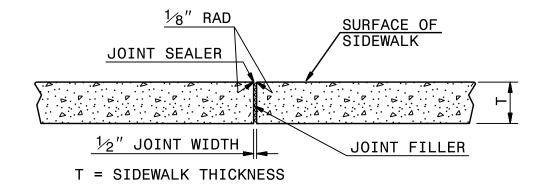
SECTION VIEWS OF EXPRESSWAY GUTTER AND SHOULDER BERM GUTTER SUPERELEVATION RATES



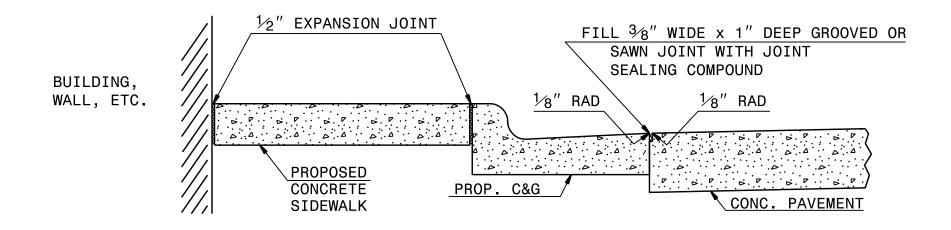
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.05 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



TRANSVERSE EXPANSION JOINT IN SIDEWALK



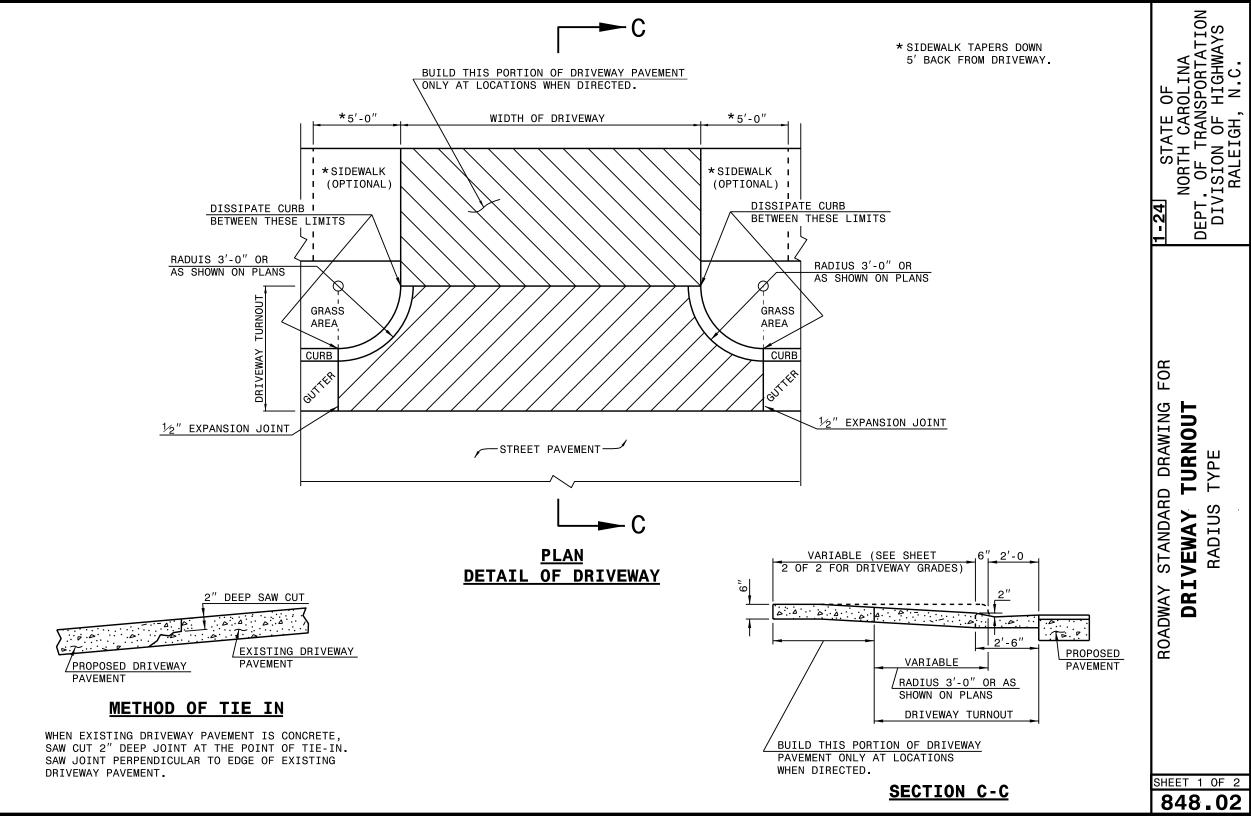
DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

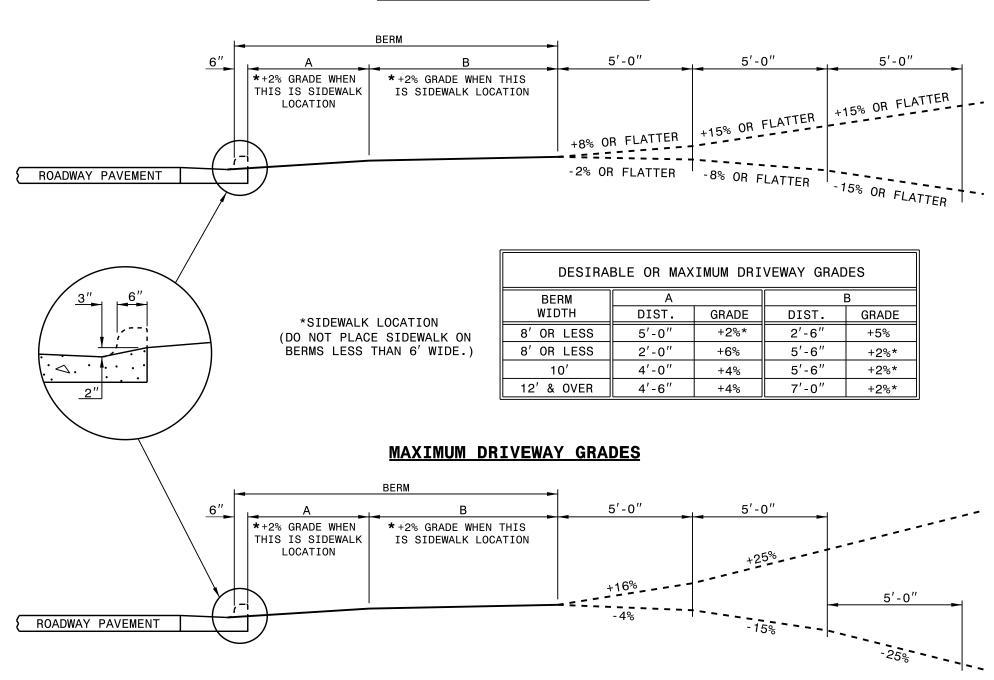
FOR SIDEWALK STANDARD DRAWING

CONCRETE

ROADWAY

SHEET 1 OF 1





1-24 STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATIC
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR DRIVEWAY TURNOUT DRIVEWAY GRADES

SHEET 2 OF 2

ROADWAY

PROPOSED

PAVEMENT

DEEP SAW CUT

PAVEMENT

PROPOSED DRIVEWAY

VARIABLE (SEE SHEET 2 OF 2 FOR DRIVEWAY GRADES)

BUILD THIS PORTION OF DRIVEWAY PAVEMENT ONLY AT LOCATIONS

METHOD OF TIE IN

WHEN EXISTING DRIVEWAY PAVEMENT IS CONCRETE,

SAW JOINT PERPENDICULAR TO EDGE OF EXISTING

SAW CUT 2" DEEP JOINT AT THE POINT OF TIE-IN.

2'-6"

SECTION B-B

DRIVEWAY TURNOUT

PAVEMENT

DRIVEWAY PAVEMENT.

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WHEN DIRECTED.

EXISTING DRIVEWAY

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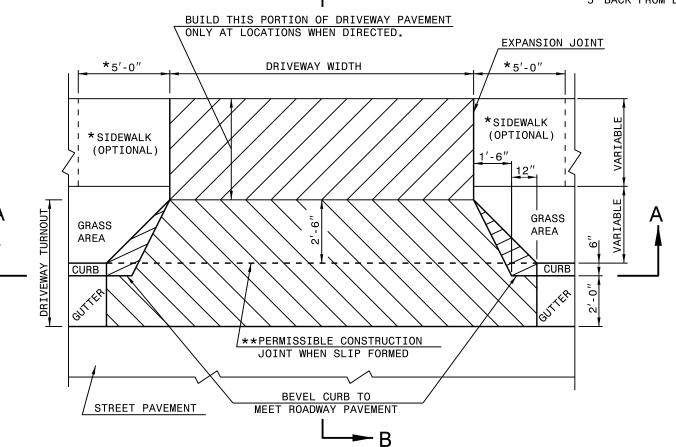
2'-6"

FOR CURB DROP

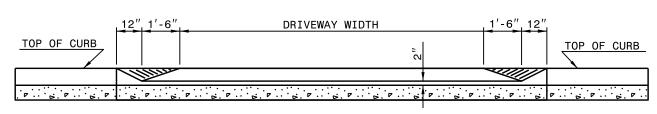


SHEET 1 OF 2 848.03

*SIDEWALK TAPERS DOWN 5' BACK FROM DRIVEWAY.



PLAN DETAIL OF DRIVEWAY

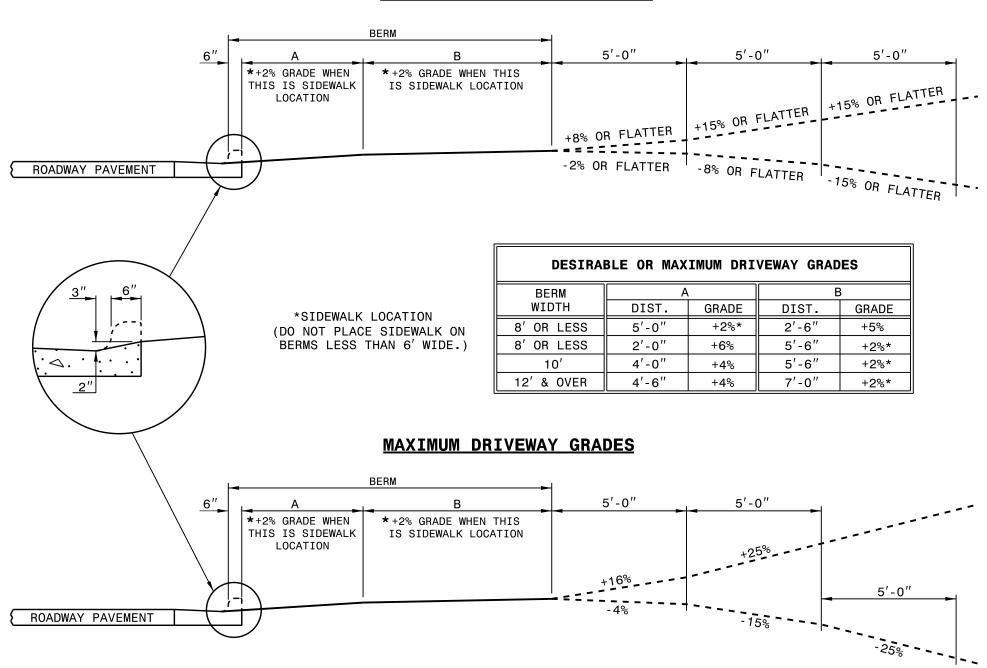


SECTION A-A

GENERAL NOTES:

**NO CONSTRUCTION JOINT WILL BE PERMITTED IF FORMS ARE USED TO CAST DRIVEWAY. SLIP FORMING OF CURB AND GUTTER PERMITS THE USE OF CONSTRUCTION JOINT.

6,,



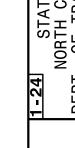
1-24 STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

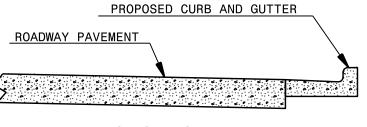
ROADWAY STANDARD DRAWING FOR DRIVEWAY GRADES

SHEET 2 OF 2

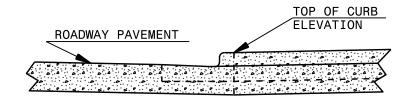
DIVISION OF RALEIGH,

FOR STANDARD DRAWING TURNOUT STREET

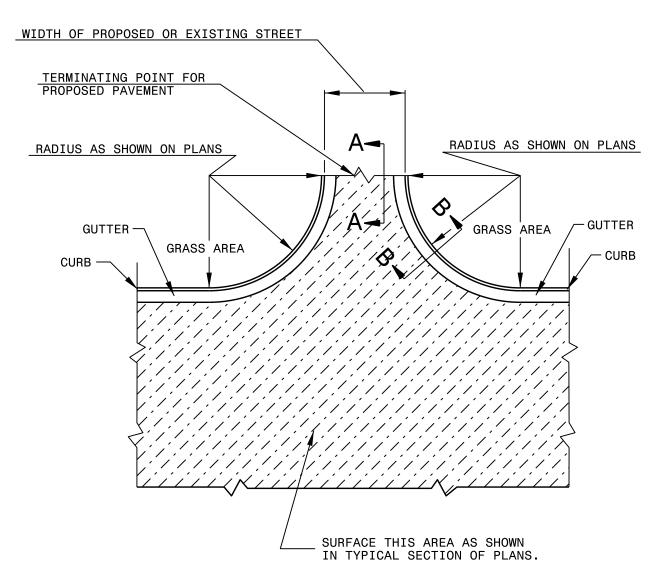








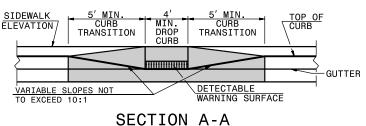
SECTION A-A

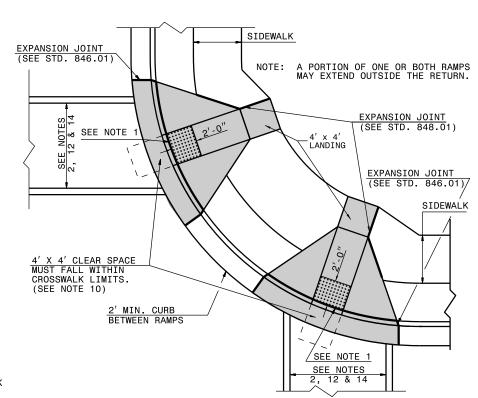


PARTIAL PLAN OF PAVED STREET TURNOUT

USE ON PROPOSED AND EXISTING STREET INTERSECTIONS OR MAJOR TYPE COMMERICAL ENTRANCES.

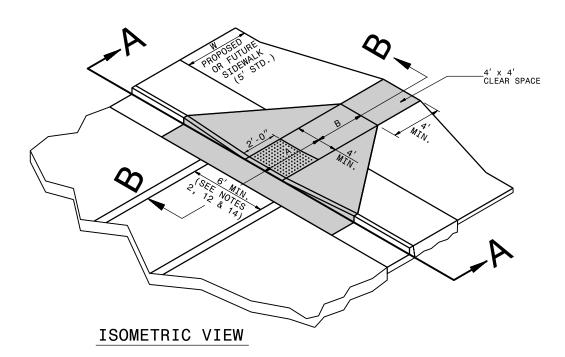
SHEET 1 OF 1





PLAN VIEW

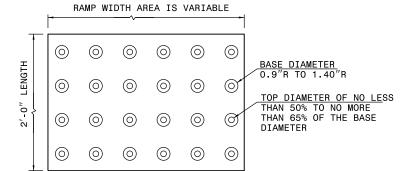
DUAL RAMPS ANY RADII (4' MIN. FLOOR WIDTH)



PAY LIMITS FOR CURB RAMP

DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



0.9" TO	0.65" MIN	20"	1.6"	тс
			Ø	. 0

DETECTABLE WARNING SURFACE

W	Α	W+A+9"	Х	В
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'')

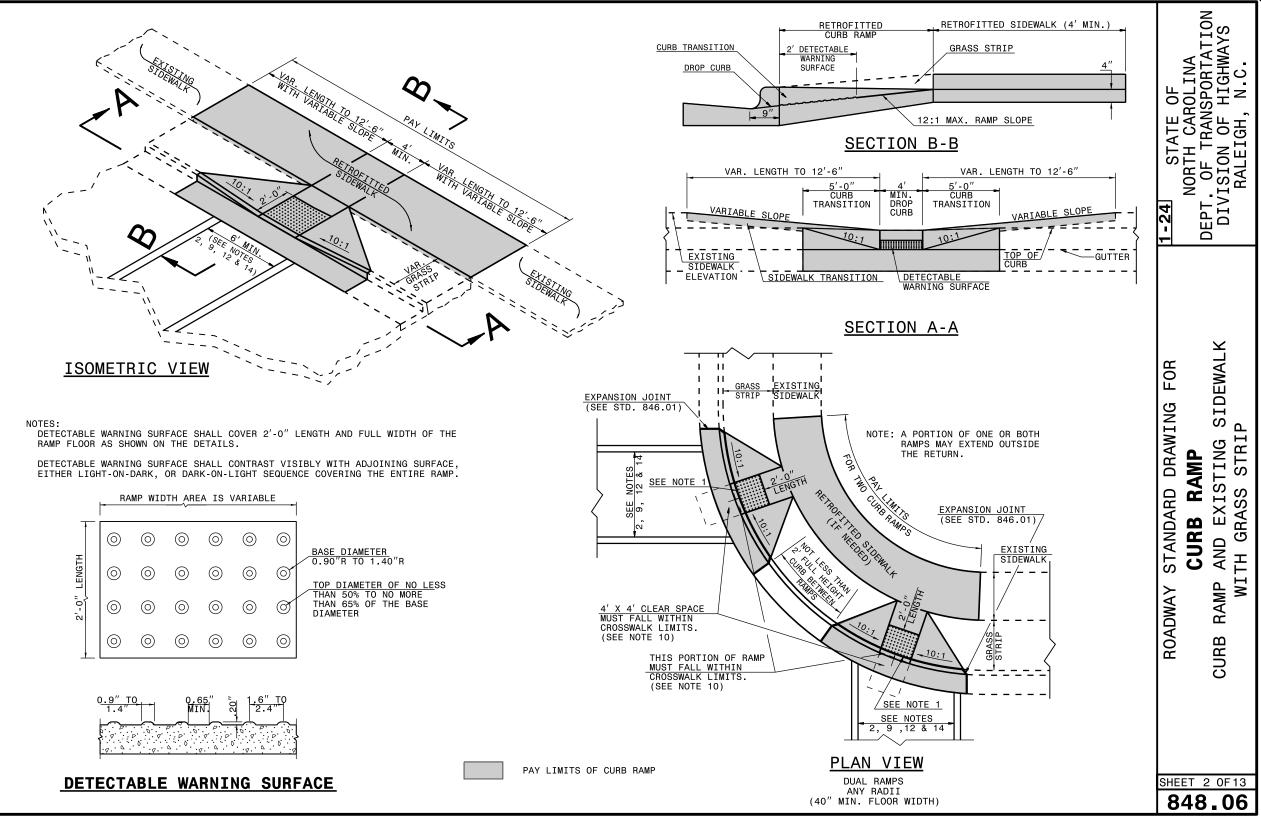
- B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.
- * BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.
- ** BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPES 0.04.

GUTTER DRAWING **RAMP** AND STANDARD CURB CURB ROADWAY

-24 STATE OF
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DEPT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

DEP.

SHEET 1 OF 13 848.06



SIDEWALK DRAWING EXISTING **RAMP** STANDARD CURB AND RAMP ROADWAY CURB

STRI

GRASS

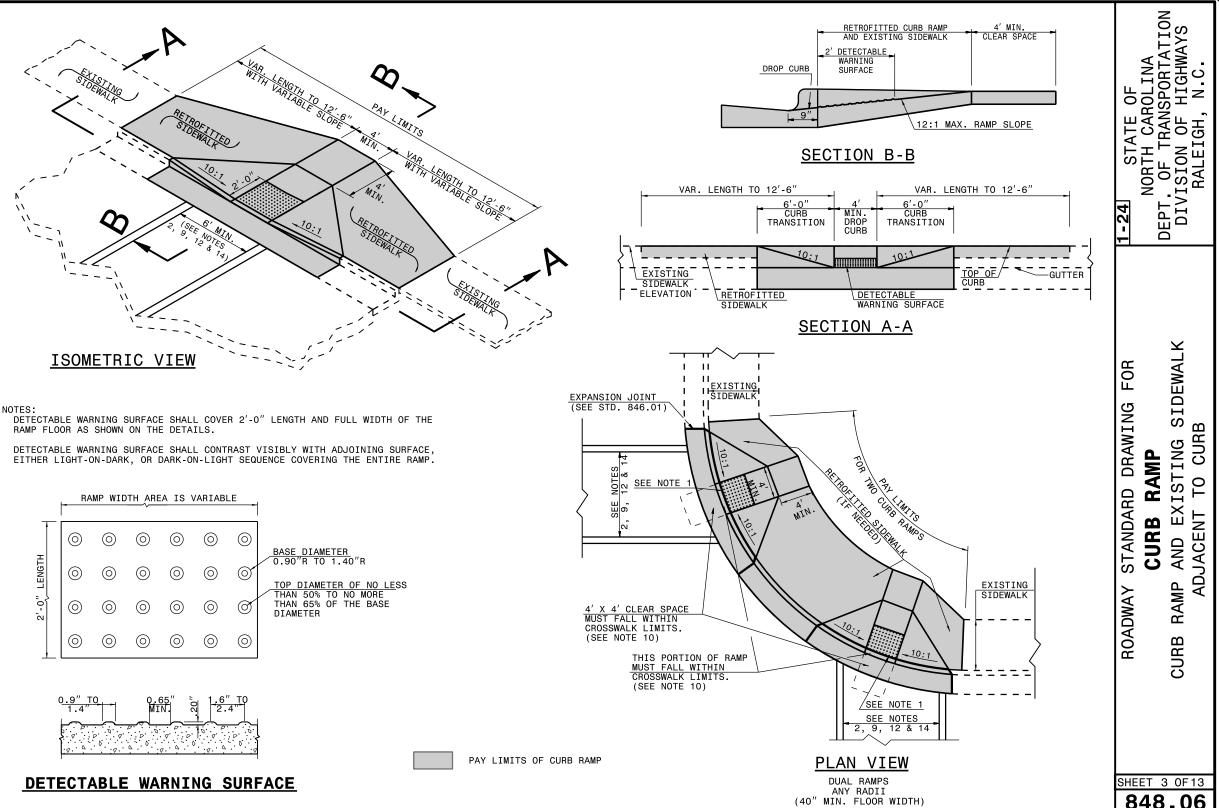
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SHEET 2 OF 13



SIDEWALK DRAWING ISTING **RAMP** STANDARD EX **ADJACENT** CURB AND RAMP ROADWAY CURB

CURB

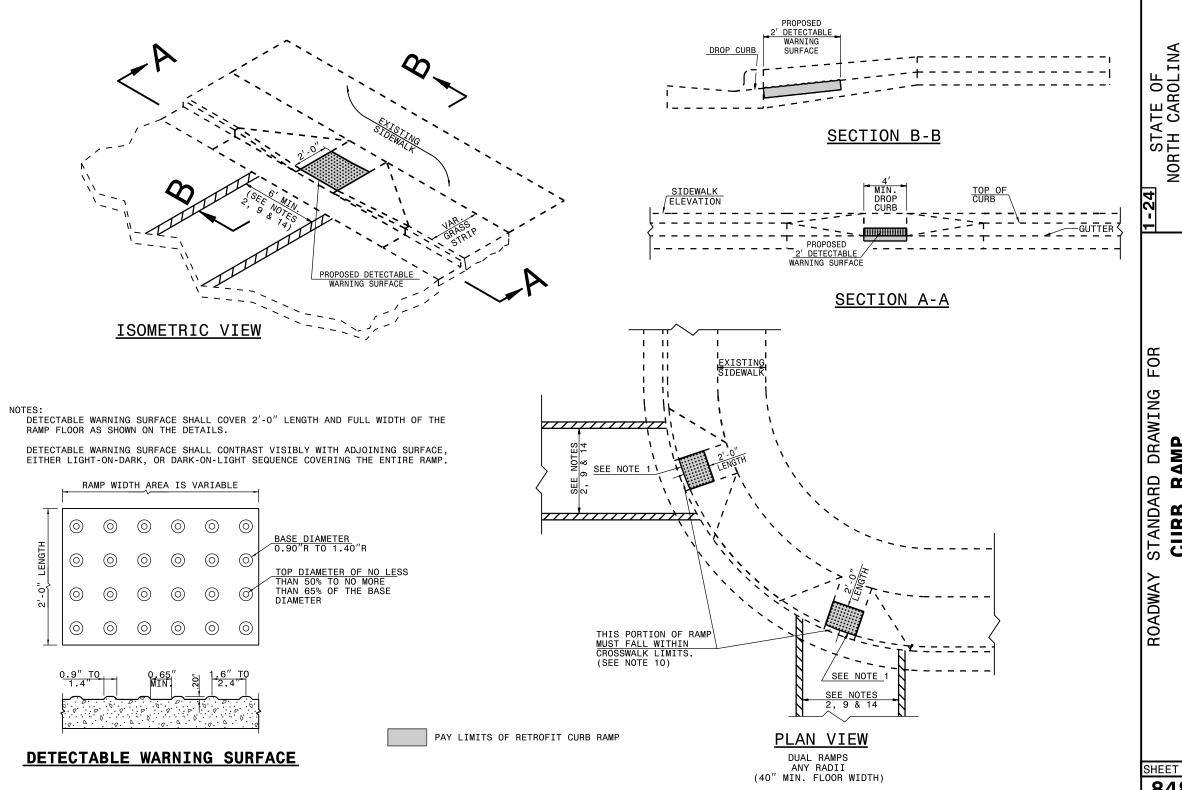
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SHEET 3 OF 13



SURFACE WARNING JRB RAMP E WAF **RAMP** ABL DETECTABL EXISTING CURB TING ONTO **ETROF**

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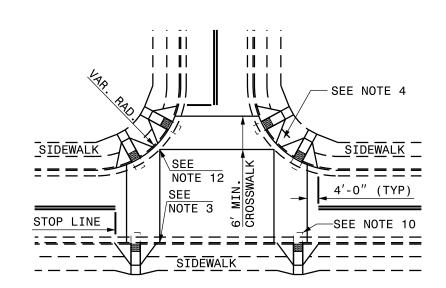
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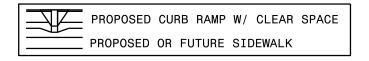
SHEET 4 OF 13





DETAIL SHOWING TYPICAL LOCATION OF CURB RAMPS,
PEDESTRIAN CROSSWALKS AND STOP LINES FOR TEE INTERSECTIONS





ALLOWABLE LOCATIONS
DUAL RAMP RADII.....ANY

SIDEWALK

ROADWAY STANDARD DRAWING FOR CURB RAMP LOCATION

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DIVISION OF RALEIGH

NORTH

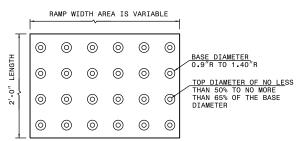
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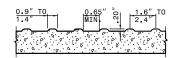
SHEET 5 OF 13

- 8.33% (12:1) MAX RAMP SLOPE
- CROSS SLOPE: 2.00%
- MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE

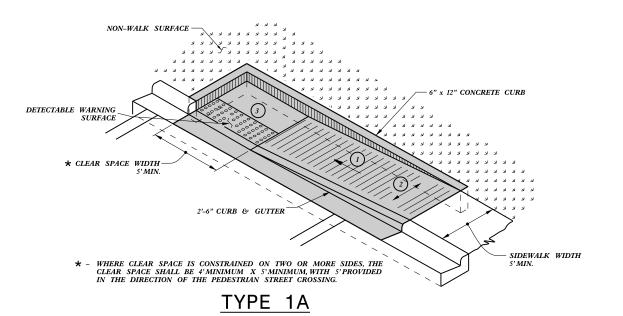
NOTES: DETECTABLE WARNING SURFACE SHALL COVER $2^\prime\text{-}0^{\prime\prime}$ LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.





DETECTABLE WARNING SURFACE



PAY LIMITS FOR 1 CURB RAMP

STANDARD DRAWING DIRECTIONAL RAMP RAMP CURB ROADWAY

FOR

HIGHWAYS N.C.

VISION OF RALEIGH,

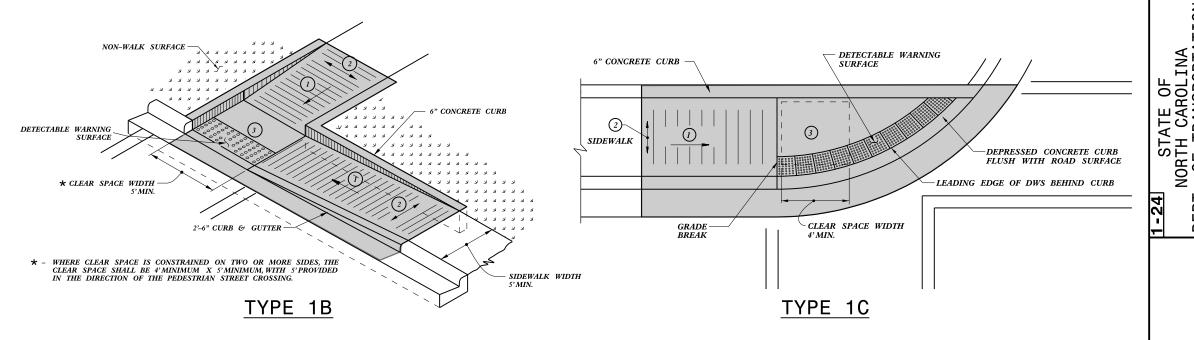
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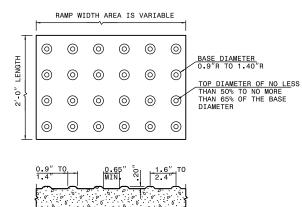
SHEET 6 OF 13



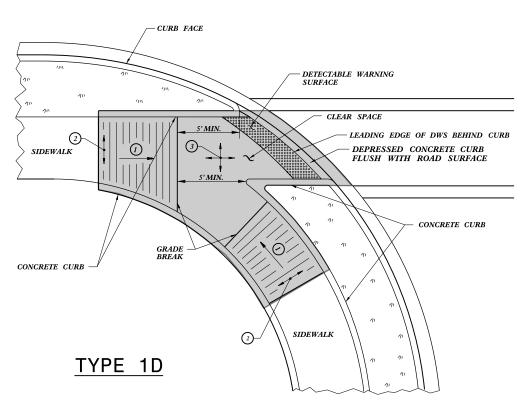
- (1) 8.33% (12:1) MAX RAMP SLOPE
- CROSS SLOPE: 2.00%
- MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE



PAY LIMITS FOR 1 CURB RAMP

FOR STANDARD DRAWING RAMP DIRECTIONAL CURB ROADWAY

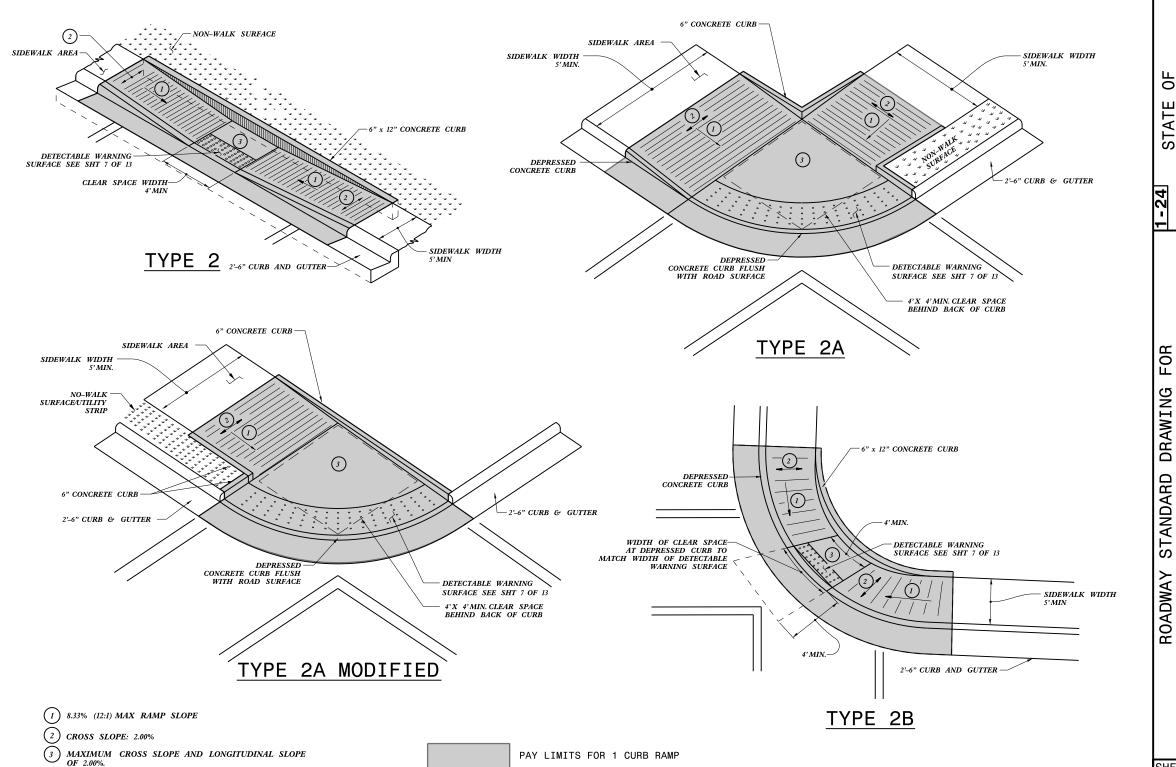
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FOR

RAMP

CURB

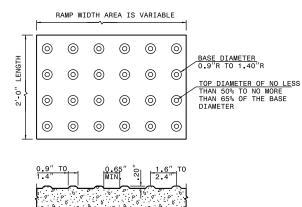
ROADWAY

PARALLEL

NOTES:

DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE

TYPE 3 MODIFIED INSTALLATION IN A RADIUS

- (1) 8.33% (12:1) MAX RAMP SLOPE
- (2) CROSS SLOPE: 2.00%
- MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

PAY LIMITS FOR 1 CURB RAMP

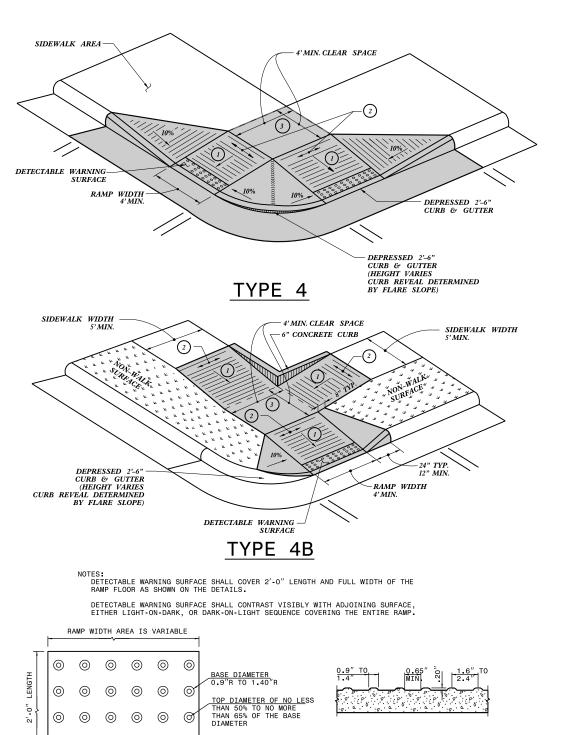
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RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CURB RAMP

RAMP

PARALL

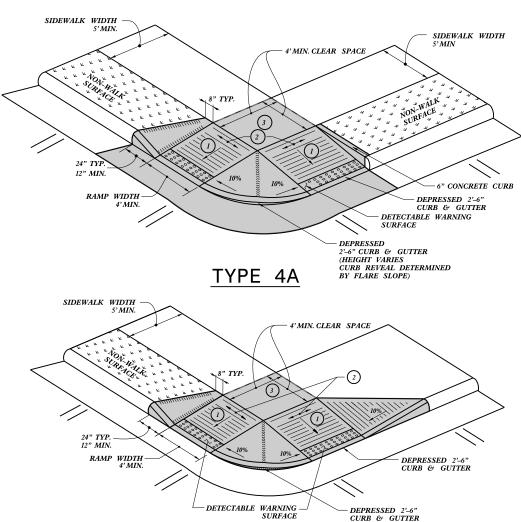
SHEET 9 OF 13



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DETECTABLE WARNING SURFACE

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- 8.33% (I2:1) MAX RAMP SLOPE
- CROSS SLOPE: 2.00%
- MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

TYPE 4C

OF DETECTABLE WARNING SURFACES

PAY LIMITS FOR 1 OR 2 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS

(HEIGHT VARIES

CURB REVEAL DETERMINED BY FLARE SLOPE)

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DIVISION OF HIGHWAYS
RALEIGH, N.C.

DEP.

FOR

DRAWING

STANDARD

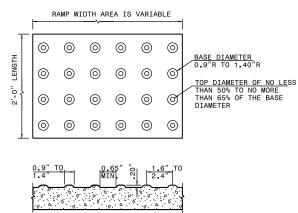
ROADWAY

CURB SHARED

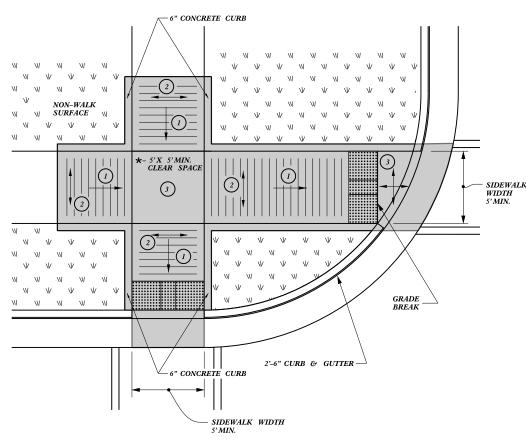
LANDING RAMP

NOTES: DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE



* - WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4 MINIMUM X 5 MINIMUM, WITH 5 PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.

TYPE 5A

- 1) 8.33% (12:1) MAX RAMP SLOPE
- (2) CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

PAY LIMITS FOR 1 OR 2 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES) 1-24 STATE OF
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DIVISION OF HIGHWAYS
RALEIGH, N.C.

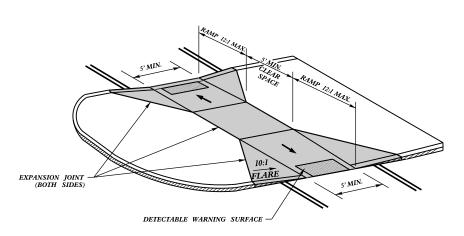
ROADWAY STANDARD DRAWING

CURB RAMP

SHARED LANDING

FOR

HEET 11 OF 13



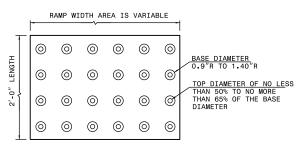
TYPE 6

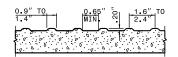
MEDIAN ISLAND CURB RAMPS TYPE 8 with cut through TYPE 7

PAY LIMITS FOR 2 OR 3 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES)

NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.





DETECTABLE WARNING SURFACE

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ROADWAY STANDARD DRAWING CURB RAMP

FOR

SHEET 12 0F 13

- 2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
- 3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4'x4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
- 4. SET BACK DISTANCE FROM INSIDE CROSSWALK MARKING TO NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
- 5. REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
- 6. TERMINATE PARKING A MINIMUM OF 20' FROM THE BACK OF PEDESTRIAN CROSSWALK.
- 7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
- 8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
- 9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
- 10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
- 11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
- 12. CONSTRUCT CLEAR SPACES FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT CLEAR SPACES FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. IF CONSTRAINED ON TWO OR MORE SIDES, THE THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
- 13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
- 14. SMALL CHANNELIZATION ISLANDS THAT CAN NOT PROVIDE A 5'X5' CLEAR SPACE AT THE TOP OF RAMPS, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
- 15. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, WHERE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE, OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
- 16. PLACE A $\frac{1}{2}$ " EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01.
- 17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
- 18. DETECTABLE WARNING SURFACES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
- 19. DETECTABLE WARNING SURFACES WILL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

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AY STANDARD DRAWING FOI CURB RAMP

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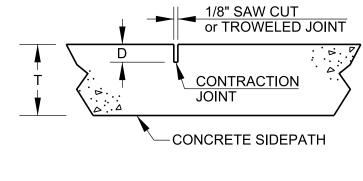
PLACE CONTRACTION JOINTS AT INTERVALS EQUAL TO THE WIDTH OF THE PATH. L=W

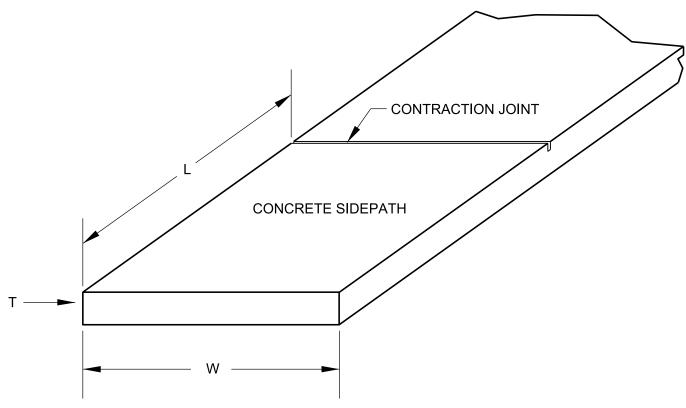
CONSTRUCT JOINTS AT A DEPTH OF 1/4 OF THE SLAB THICKNESS. D=T/4

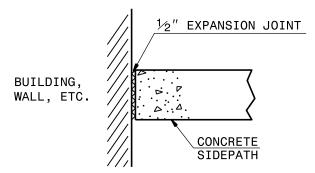
DO NOT USE JOINT SEALANT FOR CONTRACTION JOINT CONSTRUCTION.

A $1\!\!/2^{\prime\prime}$ EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE SIDEPATH JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.05 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.







EXPANSION JOINT FOR RIGID STRUCTURE

SHEET 1 OF 1