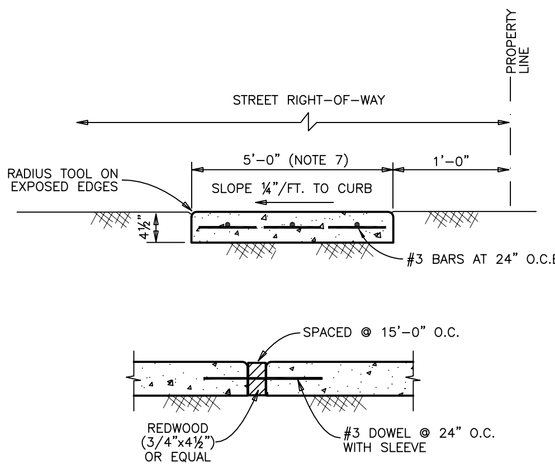
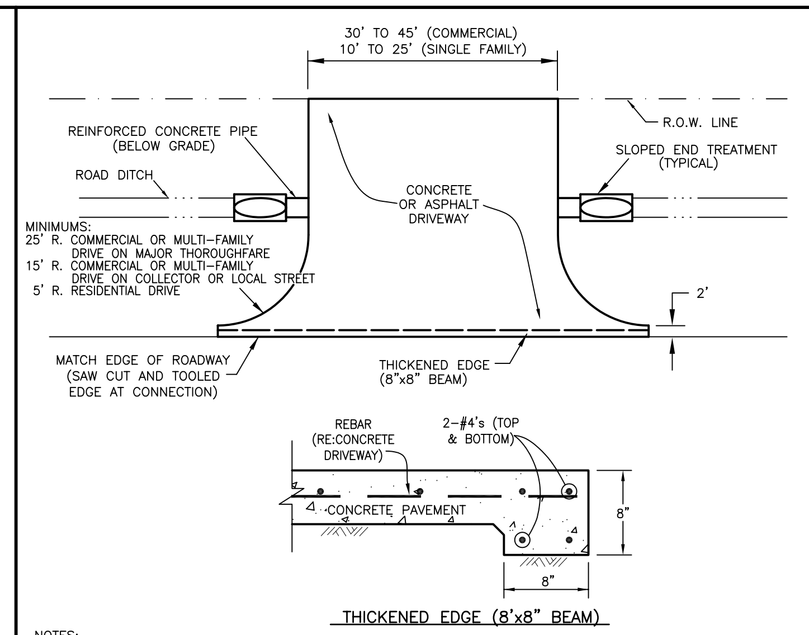


EXPANSION JOINT

NOTES:

1. CONCRETE SHALL CONTAIN A MINIMUM OF FIVE AND ONE HALF (5½) SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, 3500 P.S.I. @ 28 DAYS.
2. TIE TO EXISTING STEEL IN CONNECTION TO EXISTING WALK.
3. FINISH CONCRETE IN ACCORDANCE WITH CITY REQUIREMENTS.
4. SCORED CONTRACTION JOINTS AT 4'-0" O.C.
5. MAXIMUM SLOPE ALONG LENGTH OF SIDEWALK AT ANY LOCATION IS 5%. MAXIMUM SLOPE ACROSS SIDEWALK AT ANY LOCATION IS 2%.
6. SIDEWALK THICKNESS AND REINFORCEMENT SHALL MATCH DRIVEWAY REQUIREMENTS WITHIN THE LIMITS OF A DRIVEWAY.
7. WIDTH MAY BE REDUCED TO 4'-0" IF A SIDEWALK PEDESTRIAN PLAN IS INCLUDED IN THE PLANS SHOWING 5'-0"x5'-0" PASSING AREAS AT A MAXIMUM SPACING OF 200 FEET.

1. CONCRETE SIDEWALK

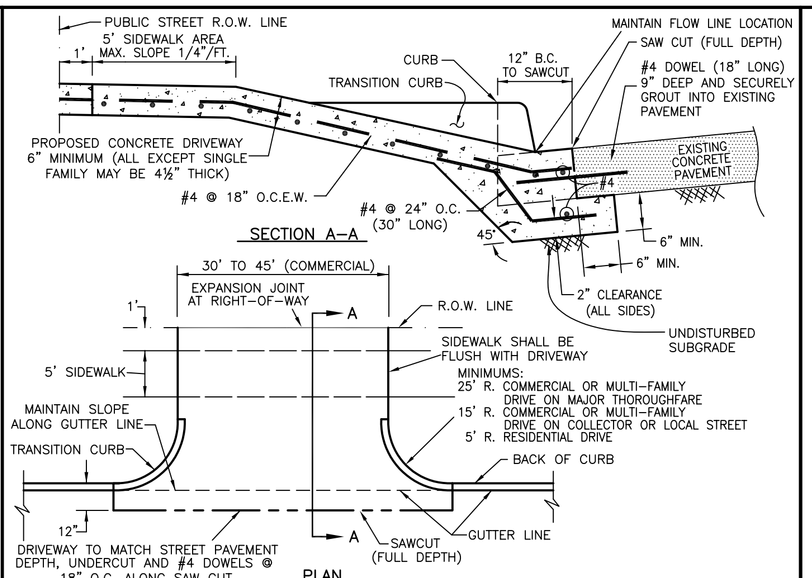


THICKENED EDGE (8'x8" BEAM)

NOTES:

1. CULVERT DIAMETER SHALL BE A MINIMUM OF 15" (IN CITY ONLY) OR 24" (IN ETJ).
2. SLOPED END TREATMENTS SHALL BE INSTALLED ON ALL CULVERTS. SLOPED END TREATMENTS ON CULVERTS WITHIN COLLECTOR OR RESIDENTIAL STREET RIGHT-OF-WAYS SHALL HAVE A MINIMUM SLOPE OF 3 TO 1. SLOPED END TREATMENTS ON CULVERTS WITHIN MAJOR THOROUGHFARE RIGHT-OF-WAYS SHALL HAVE A MINIMUM SLOPE OF 6 TO 1.

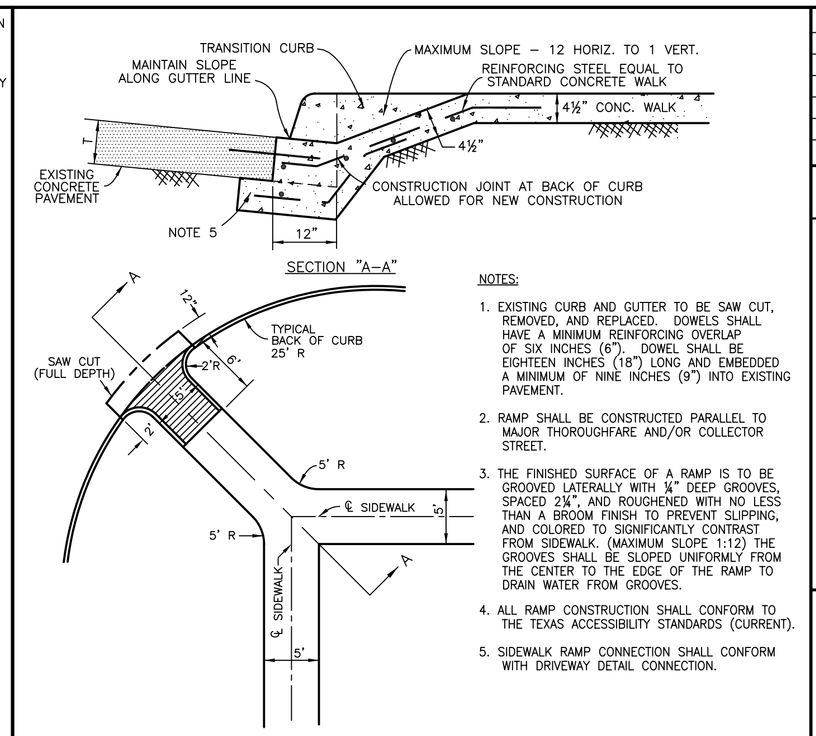
2. DRIVEWAY WITH OPEN DITCH



DRIVEWAY NOTES:

1. SAW CUT & BREAKOUT NO MORE THAN 48 HOURS PRIOR TO PROPOSED CONCRETE PLACEMENT.
2. UNACCEPTABLE SUBGRADE SHALL BE OVEREXCAVATED AND REPLACED WITH CONCRETE.
3. EDGE ALL SIDES WITH EDGING TOOL AND BROOM FINISH.
4. PROVIDE BARRICADES AND TRAFFIC WARNING DEVICES DURING CONSTRUCTION.
5. PORTLAND CEMENT CONCRETE CONTAIN A MINIMUM 5½ SACKS PER CUBIC YARD (3500 P.S.I. AT 28 DAYS).
6. REINFORCING SHALL BE ASTM A-615 GRADE WITH 10" MINIMUM OVERLAP AT JOINTS.
7. COMPACT SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY (+/- 2% OF OPTIMUM MOISTURE).
8. EXTEND EXPANSION JOINT FROM STREET TO THE RIGHT-OF-WAY.

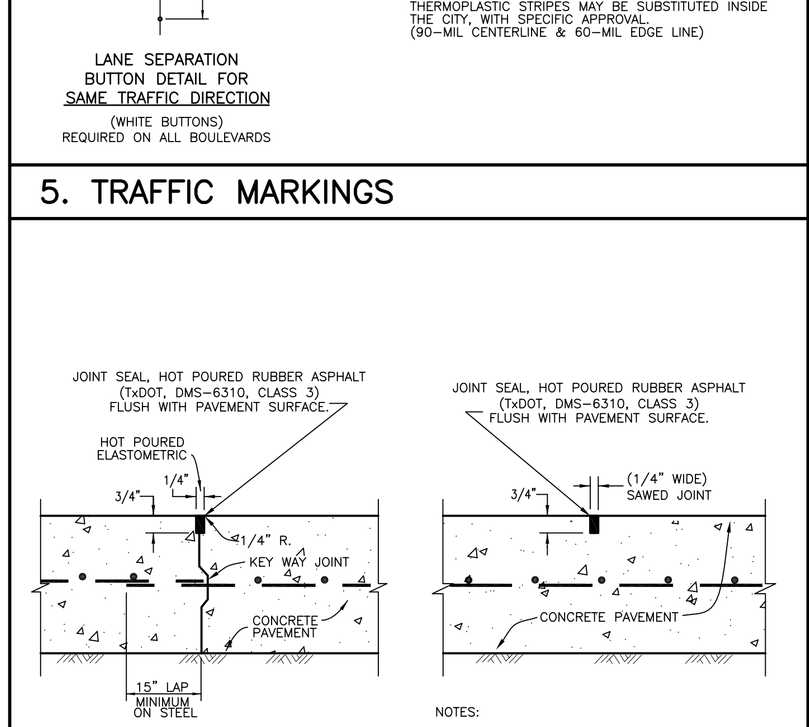
3. CONCRETE DRIVEWAY



NOTES:

1. EXISTING CURB AND GUTTER TO BE SAW CUT, REMOVED, AND REPLACED. DOWELS SHALL HAVE A MINIMUM REINFORCING OVERLAP OF SIX INCHES (6"). DOWEL SHALL BE EIGHTEEN INCHES (18") LONG AND EMBEDDED A MINIMUM OF NINE INCHES (9") INTO EXISTING PAVEMENT.
2. RAMP SHALL BE CONSTRUCTED PARALLEL TO MAJOR THOROUGHFARE AND/OR COLLECTOR STREET.
3. THE FINISHED SURFACE OF A RAMP IS TO BE GROOVED LATERALLY WITH ¼" DEEP GROOVES, SPACED 2¼", AND ROUGHENED WITH NO LESS THAN A BROOM FINISH TO PREVENT SLIPPING, AND COLORED TO SIGNIFICANTLY CONTRAST FROM SIDEWALK. (MAXIMUM SLOPE 1:12) THE GROOVES SHALL BE SLOPED UNIFORMLY FROM THE CENTER TO THE EDGE OF THE RAMP TO DRAIN WATER FROM GROOVES.
4. ALL RAMP CONSTRUCTION SHALL CONFORM TO THE TEXAS ACCESSIBILITY STANDARDS (CURRENT).
5. SIDEWALK RAMP CONNECTION SHALL CONFORM WITH DRIVEWAY DETAIL CONNECTION.

4. CONCRETE SIDEWALK RAMP



TYPICAL BUTTON DETAIL FOR KNUCKLE CUL-DE-SAC

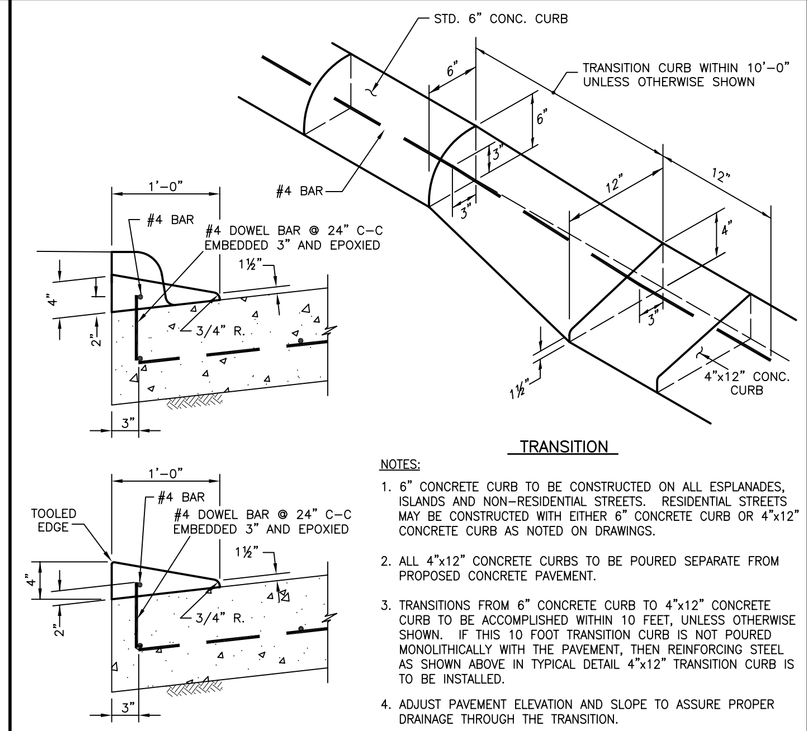
NOTES:

THERMOPLASTIC STRIPES MAY BE SUBSTITUTED INSIDE THE CITY, WITH SPECIFIC APPROVAL. (90-MIL CENTERLINE & 60-MIL EDGE LINE)

LANE SEPARATION BUTTON DETAIL FOR SAME TRAFFIC DIRECTION

(WHITE BUTTONS) REQUIRED ON ALL BOULEVARDS

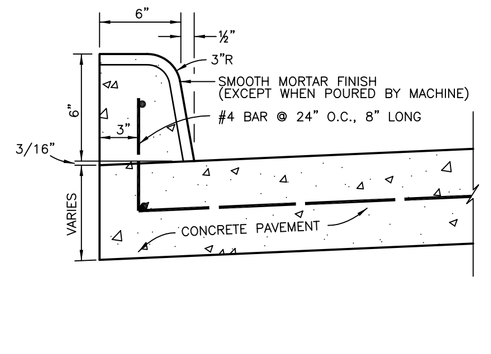
5. TRAFFIC MARKINGS



NOTES:

1. 6" CONCRETE CURB TO BE CONSTRUCTED ON ALL ESPLANADES, ISLANDS AND NON-RESIDENTIAL STREETS. RESIDENTIAL STREETS MAY BE CONSTRUCTED WITH EITHER 6" CONCRETE CURB OR 4"x12" CONCRETE CURB AS NOTED ON DRAWINGS.
2. ALL 4"x12" CONCRETE CURBS TO BE POURED SEPARATE FROM PROPOSED CONCRETE PAVEMENT.
3. TRANSITIONS FROM 6" CONCRETE CURB TO 4"x12" CONCRETE CURB TO BE ACCOMPLISHED WITHIN 10 FEET, UNLESS OTHERWISE SHOWN. IF THIS 10 FOOT TRANSITION CURB IS NOT POURED MONOLITHICALLY WITH THE PAVEMENT, THEN REINFORCING STEEL AS SHOWN ABOVE IN TYPICAL DETAIL 4"x12" TRANSITION CURB IS TO BE INSTALLED.
4. ADJUST PAVEMENT ELEVATION AND SLOPE TO ASSURE PROPER DRAINAGE THROUGH THE TRANSITION.

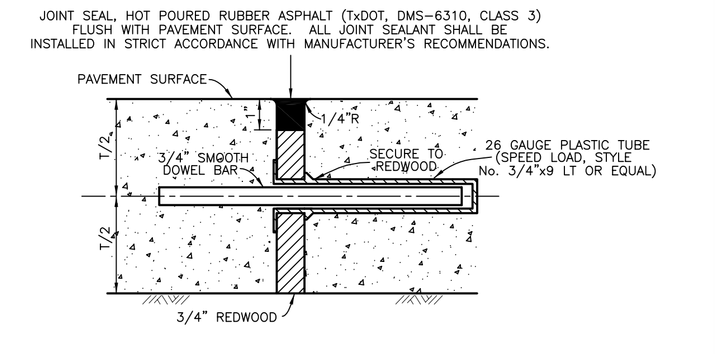
6. 4"x12" TRANSITION CURB



NOTES:

1. MORTAR FINISH NOT REQUIRED WHEN CURB IS POURED BY A MACHINE, BUT CURB SHALL HAVE THE SAME OUTSIDE DIMENSIONS.
2. WHEN CONCRETE CURB IS TO BE PLACED ON EXISTING CONCRETE BASE, USE #4 DEFORMED BARS, 8" LONG, 24" O.C., DOWELLED, AND SET IN QUICK SETTING CEMENT GROUT.
3. REDWOOD EXPANSION JOINTS SHALL BE INSTALLED AT ALL PAVEMENT EXPANSION JOINTS.

7. CONCRETE CURB



NOTES:

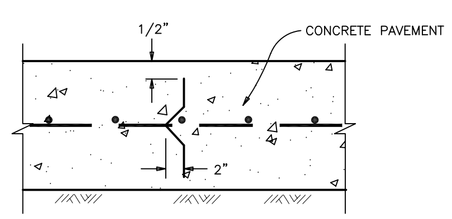
1. EXPANSION JOINT TO BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED A MAXIMUM OF 60'-0" APART.
2. STAKES FOR TRANSVERSE JOINTS SHALL NOT BE PLACED CLOSER THAN 6" TO A LONGITUDINAL JOINT. THE TOP OF EACH STAKE SHALL NOT BE LESS THAN 2" BELOW THE FINISHED SURFACE.
3. DOWEL SHALL BE SECURED IN A HORIZONTAL ALIGNMENT PRIOR TO POURING CONCRETE.
4. INSTALL BACKER RODS (TxDOT, DMS-6310) IN ACCORDANCE WITH SEALANT MANUFACTURER'S RECOMMENDATIONS.

8. DOWEL TYPE EXPANSION JOINT

NOTES:

1. SAWCUT SHALL BE COMPLETED IN 6 TO 12 HOURS AFTER PLACEMENT OF CONCRETE.
2. MAXIMUM SPACING OF LATERAL SAWED JOINTS SHALL BE 20'0".

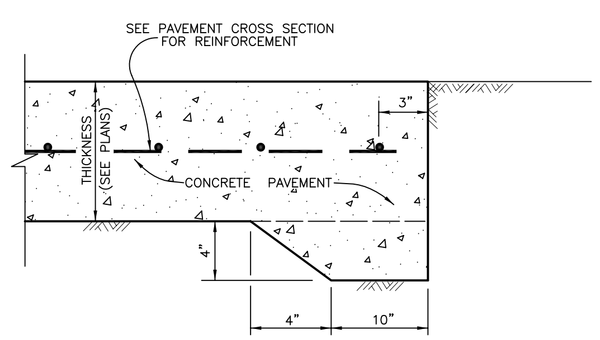
9. PAVEMENT JOINTS



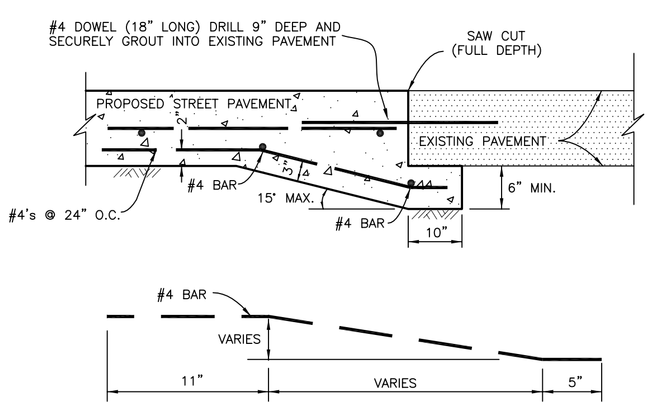
NOTES:

1. THE LOCATION OF DEFORMED STRIPS MAY BE VARIED, WITH THE APPROVAL OF THE CITY. MAXIMUM LONGITUDINAL SPACING FOR DEFORMED STRIPS SHALL BE 14'-0". DEFORMED METAL STRIPS SHALL BE PLACED VERTICALLY ALONG A STRAIGHT ALIGNMENT.

10. DEFORMED METAL STRIP



11. PAVEMENT HEADER



UNDERCUT BAR LAYOUT

12. PAVEMENT UNDERCUT

NO.	DATE	REVISIONS	APP.

CITY OF RICHMOND
APPROVALS

LENERT KURTZ, DIRECTOR OF PUBLIC WORKS	DATE
GARREN SCHMIDT, WATER SUPERINTENDENT	DATE
JIM SEBESTA, WASTEWATER SUPERINTENDENT	DATE
JIM WHITEHEAD, STREET SUPERINTENDENT	DATE
DWAYNE PRICE, PARKS SUPERINTENDENT	DATE

CITY OF RICHMOND
STANDARD CONSTRUCTION DETAILS

PAVING

SCALE		
HORIZONTAL	1" = NTS	DESIGNED BY: RWS
VERTICAL	1" = NTS	DRAWN BY: DCB
		CHECKED BY: KRK
		DATE: OCTOBER 24, 2005
		JOB NO:
		DWG. NO:
		Sheet: R-6 of