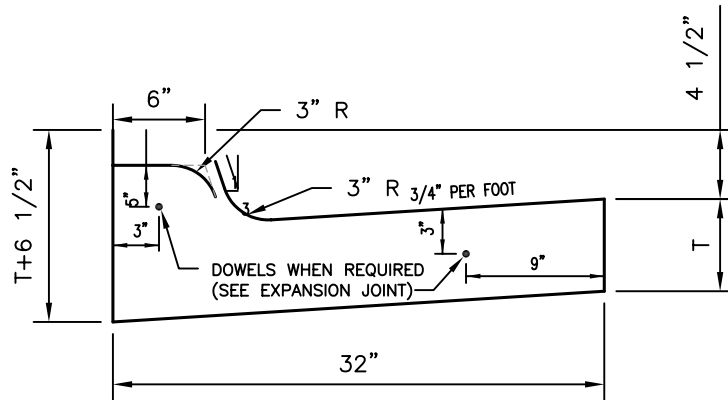


**NOTE:**  
 ALL REINFORCING BARS SHALL BE TIED AND CHAIRED, HAVE 2.0" CLEARANCE, AND CONFORM TO ASTM A615 GRADE 60 EPOXY COATED STEEL.  
 THE CONCRETE CURB SHALL BE MONOLITHIC WITH THE CONCRETE FILLET.

**NOTES:**  
 ALL REINFORCEMENT STEEL SHALL BE EPOXY COATED, DEFORMED BAR.  
 \*SEE PLANS FOR FLOW LINE CONFIGURATION  
 MINIMUM DEPTH OF GRANULAR MATERIAL PLACED UNDER FILLETS & PANS SHALL BE 4"

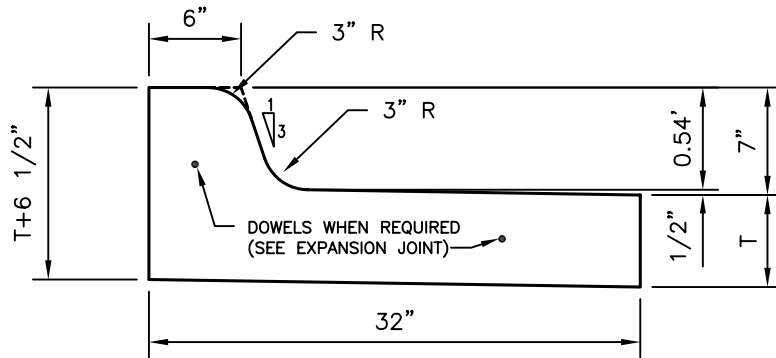
(ASPHALT CONCRETE STREET ONLY – FORM DRAINAGE CHANNEL IN PORTLAND CEMENT CONCRETE STREET PAVING)

CITY OF RAPID CITY		PUBLIC WORKS DEPARTMENT	
REINFORCED PORTLAND CEMENT CONCRETE FILLET & PAN		DATE: 5-1-07	
		SEC. 60-1	SHT. 1

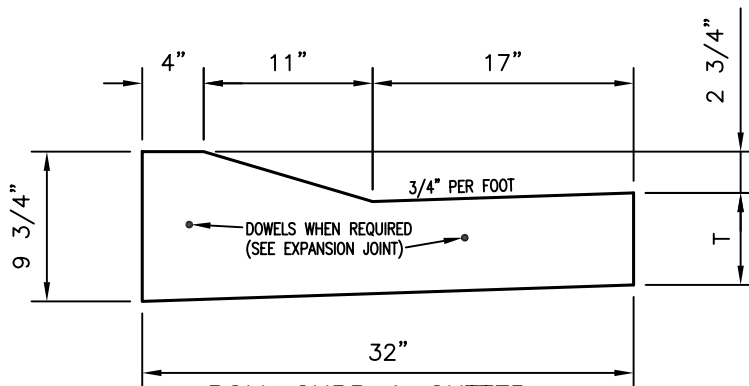


**STANDARD CURB & GUTTER (TYPE B)**

WHERE T IS EQUAL TO PAVEMENT THICKNESS OR 6", WHICHEVER IS GREATER

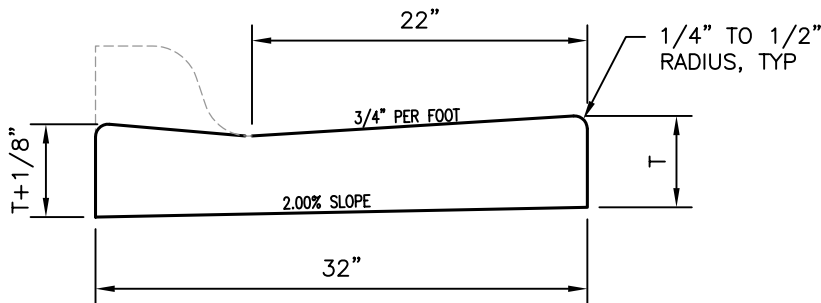


**TILTED CURB & GUTTER (TYPE BL)**



**ROLL CURB & GUTTER**

(WHEN APPROVED)

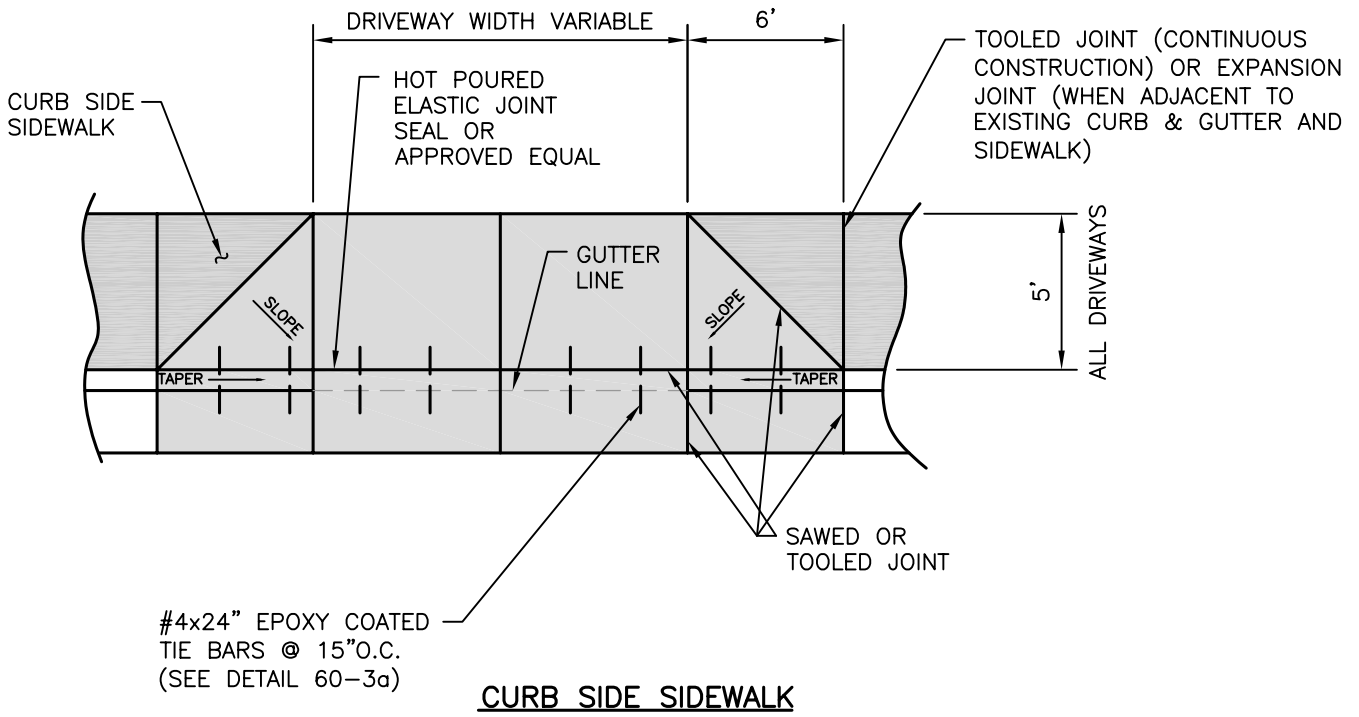


**"P" GUTTER**

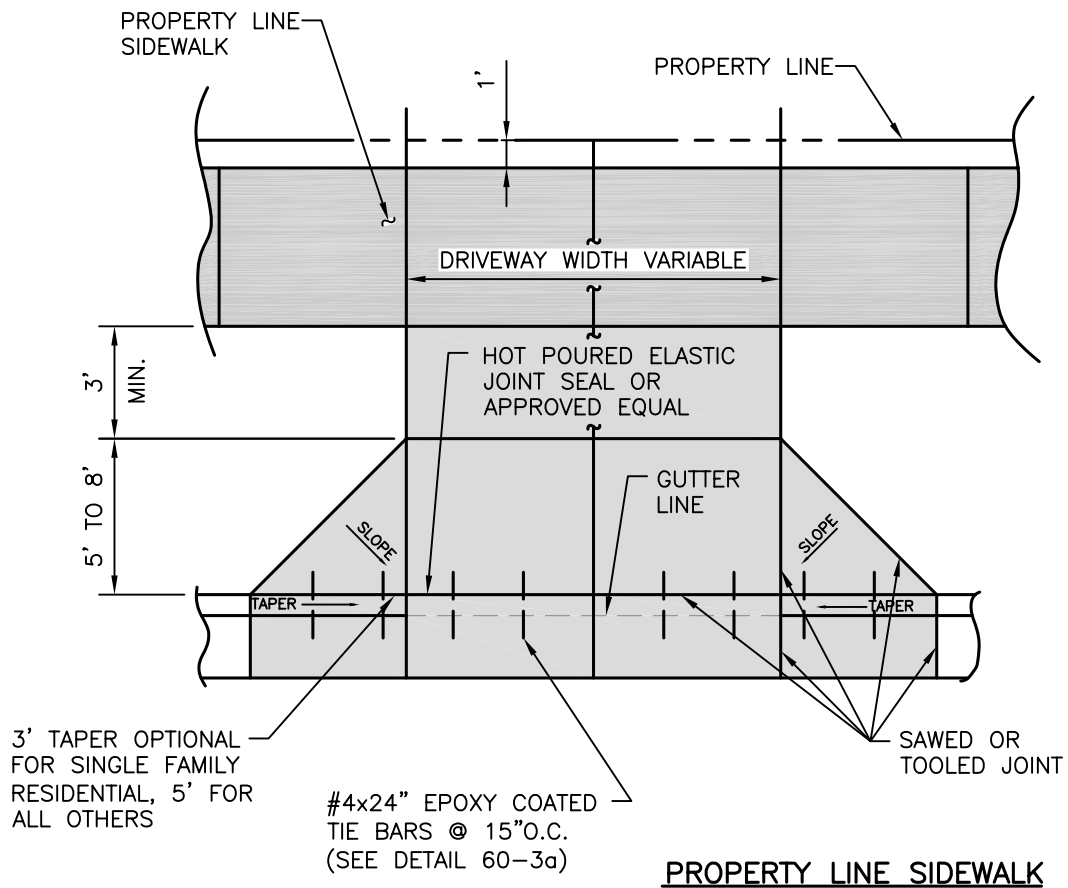
**NOTES:**

ALL CURB & GUTTER SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 P.S.I. & AIR ENTRAINED 6% ± 1.5% (4.5% TO 7.5%). ALL DESIGN GRADES ARE TOP OF CURB ELEVATIONS UNLESS OTHERWISE INDICATED ON PLANS. EXPANSION JOINT FILLER IS TO BE PLACED IN THE CURB & GUTTER AT EACH JUNCTION OF A RADIUS. IT SHALL BE PLACED AS PER DETAIL. 60-7, TRANSVERSE EXPANSION JOINT OR CONTRACTION JOINTS SHALL BE PLACED IN THE CURB & GUTTER AT 15' MAXIMUM INTERVALS OR MATCH JOINTS OF CONCRETE PAVEMENT. DOWELS WHEN REQUIRED SHALL BE #5 SMOOTH EPOXY COATED.

MINIMUM DEPTH OF GRANULAR MATERIAL PLACED UNDER CURB & GUTTER SHALL BE 4".



**NOTE:**  
MINIMUM DEPTH OF GRANULAR MATERIAL PLACED UNDER DRIVEWAY APPROACH SHALL BE 4".



CITY OF RAPID CITY

PUBLIC WORKS DEPARTMENT

**STANDARD DRIVEWAY  
APPROACH PAVEMENT**

DATE: 5-1-07

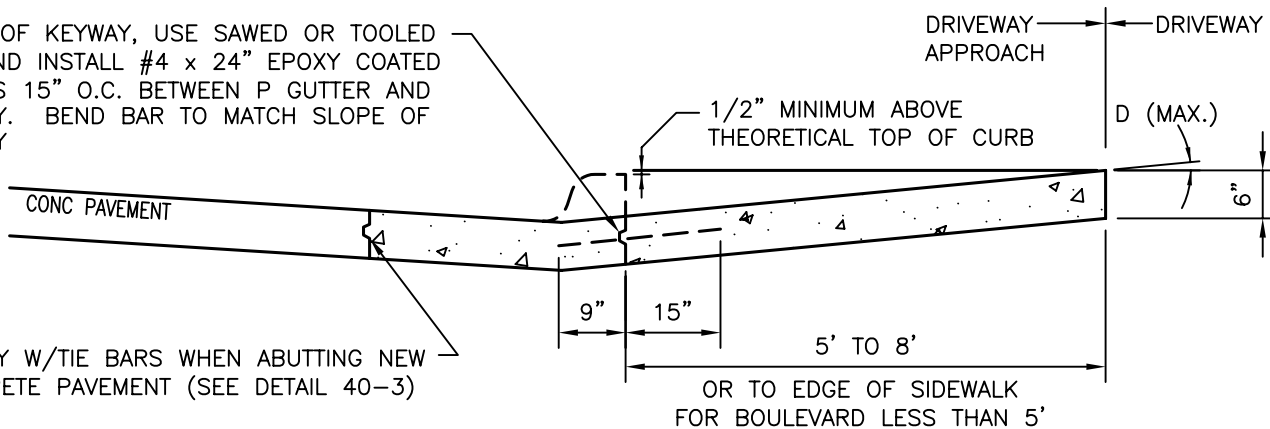
SEC. SHT.

**60-3**

MAXIMUM GRADE CHANGE (D)

	DESIRABLE	MIN.	MAX.
HIGH VOLUME DRIVEWAY	0%	-3%	+3%
LOW-VOLUME DRIVEWAY ON MAJOR OR COLLECTOR STREETS	+3%	-6%	+6%
LOW-VOLUME DRIVEWAY ON LOCAL STREETS	+6%	-6%	+10%

IN LIEU OF KEYWAY, USE SAWED OR TOOLED JOINT AND INSTALL #4 x 24" EPOXY COATED TIE BARS 15" O.C. BETWEEN P GUTTER AND DRIVEWAY. BEND BAR TO MATCH SLOPE OF DRIVEWAY



KEYWAY W/TIE BARS WHEN ABUTTING NEW CONCRETE PAVEMENT (SEE DETAIL 40-3)

NO KEYWAY FOR EXISTING PAVEMENT

NO KEYWAY OR TIE BARS FOR ASPHALT PAVEMENT

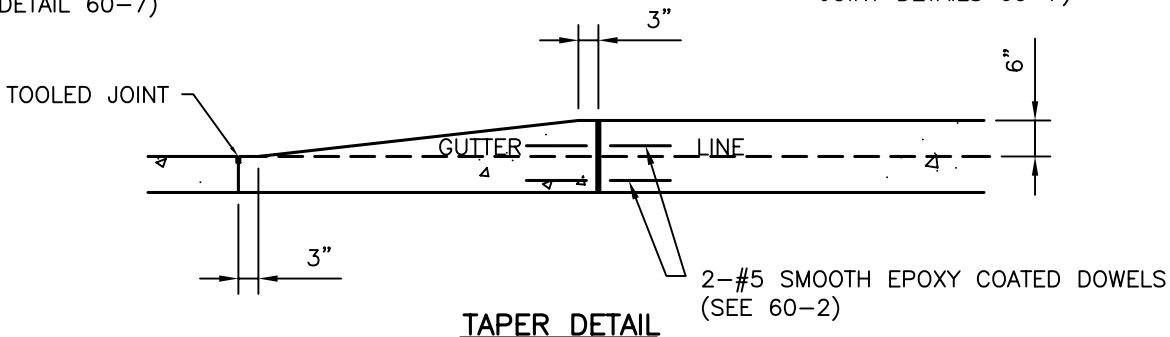
3/8" x 5/8" SAWED OR TOOLED JOINT W/ HOT Poured ELASTIC JOINT SEALER OR APPROVED EQUAL (OMIT KEYWAY JOINT WHEN PLACED MONOLITHICALLY)

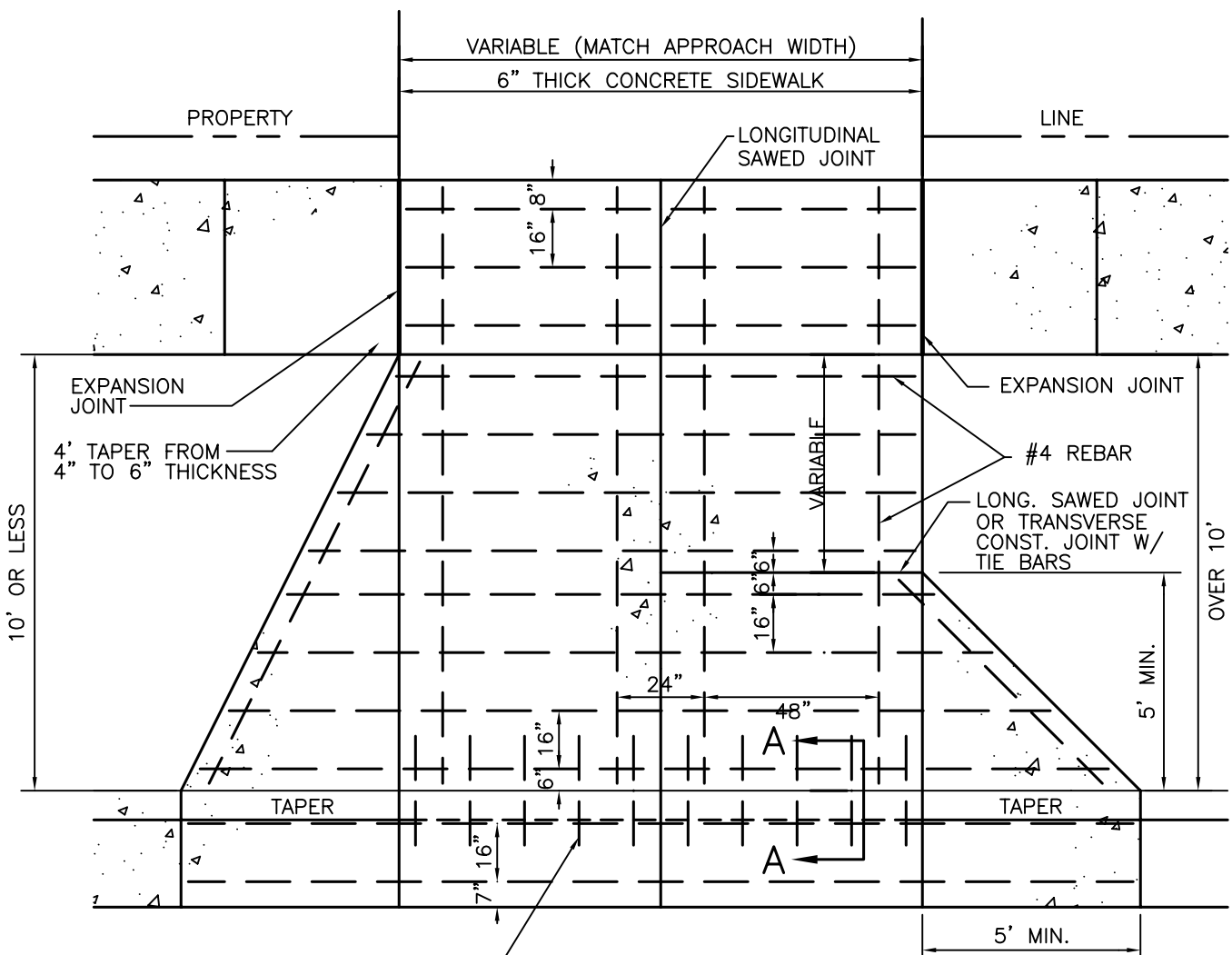
NOTE:

TOOLED JOINT (CONTINUOUS CONSTRUCTION) OR EXPANSION JOINT (WHEN ADJACENT TO EXISTING CURB & GUTTER) (SEE CURB & GUTTER DETAILS 60-2 AND EXPANSION JOINT DETAIL 60-7)

NOTE:

WHEN REMOVING EXISTING CURB & GUTTER FOR NEW APPROACH CONSTRUCTION, AN EXPANSION JOINT SHALL BE CONSTRUCTED. (SEE JOINT DETAILS 60-7)



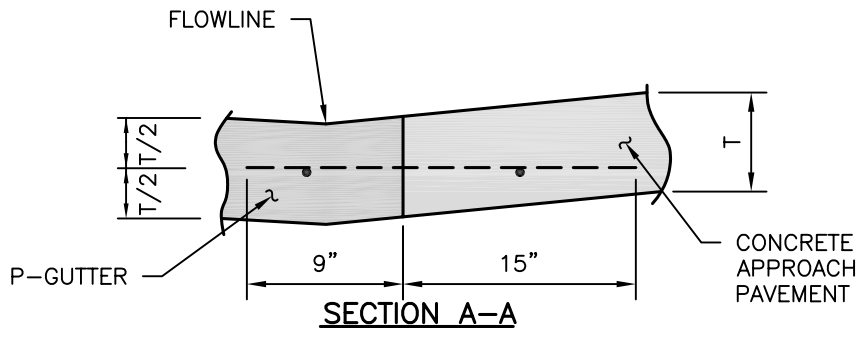


**NOTE:**  
MINIMUM DEPTH OF GRANULAR MATERIAL PLACED UNDER REINFORCED DRIVEWAY APPROACH SHALL BE 4".

#4 x 24" EPOXY COATED TIE BARS @ 15" O.C. TO BE PLACED BETWEEN P-GUTTER & DRIVEWAY

WHEN REMOVING EXISTING CURB & GUTTER FOR NEW APPROACH CONSTRUCTION, AN EXPANSION JOINT SHALL BE CONSTRUCTED. (SEE JOINT DETAILS 60-7)

REINFORCED DRIVEWAY & SIDEWALK SHALL BE PLACED AT ALL ALLEY ENTRANCES & AT DRIVEWAYS INTO PROPERTY WHICH IS MULTI-FAMILY, COMMERCIAL, LIGHT INDUSTRIAL & HEAVY INDUSTRIAL. #4 EPOXY COATED REBAR SHALL BE PLACED AS PER DETAIL & TIED TOGETHER. TWO INCH (2") CLEARANCE SHALL BE MAINTAINED BETWEEN BOTTOM OF CONCRETE & REBAR. (PROPERTY LINE SIDEWALK SHOWN)



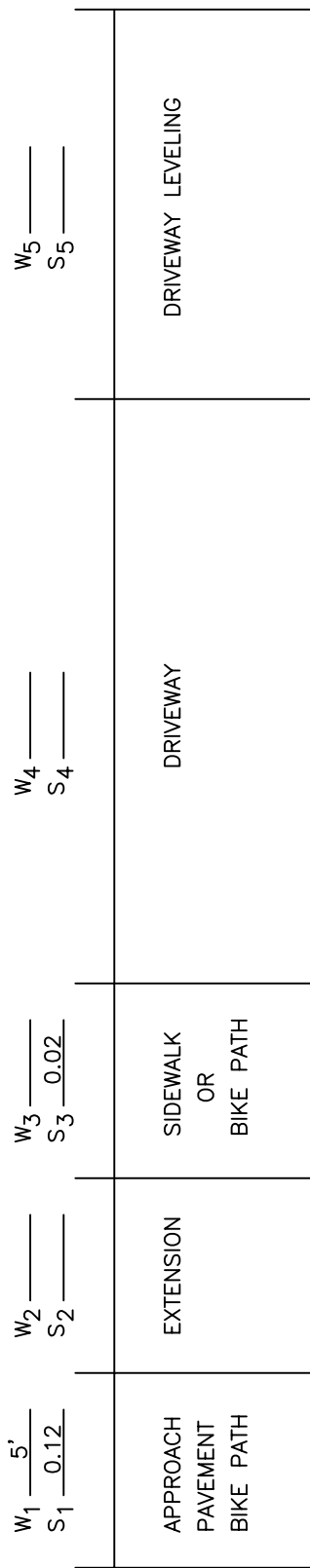
HEIGHT OF GARAGE FLOOR ABOVE GUTTER FLOWLINE

$$H = WS + WS + WS + WS + WS + WS$$

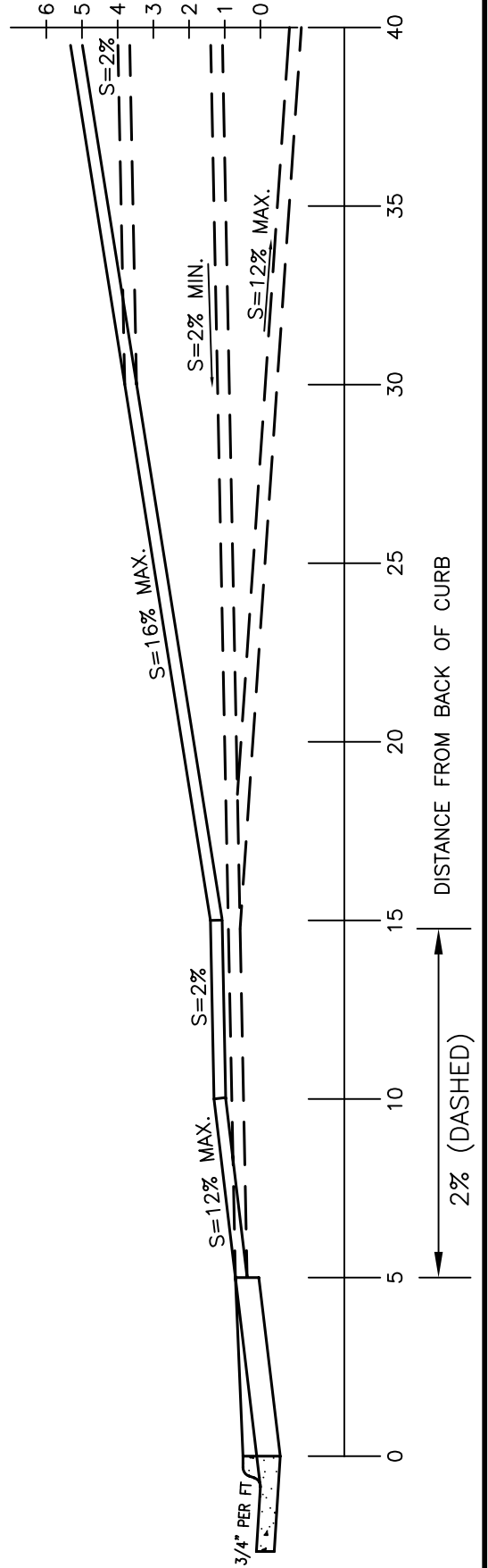
$$= 0.6 + \frac{W_1}{S_1} + \frac{W_2}{S_2} + \frac{W_3}{S_3} + \frac{W_4}{S_4} + \frac{W_5}{S_5}$$

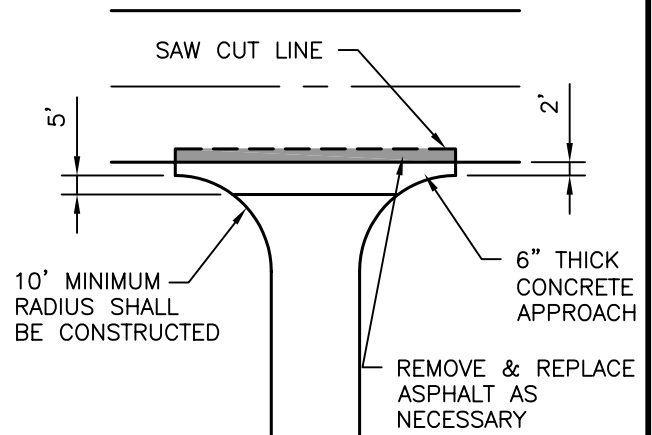
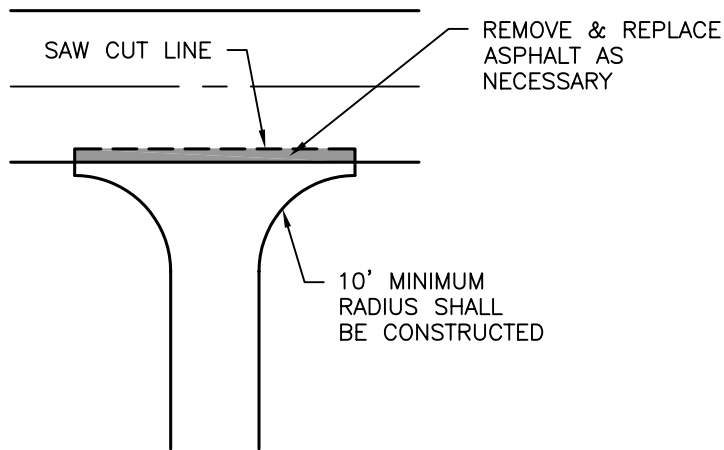
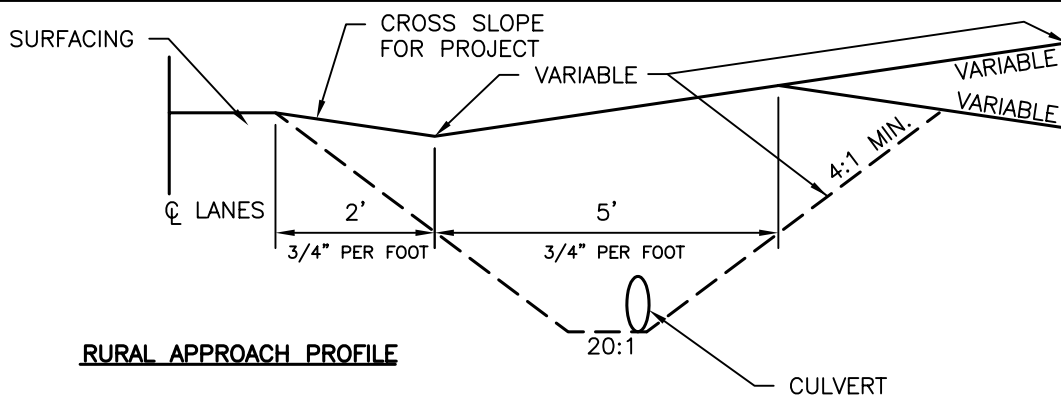
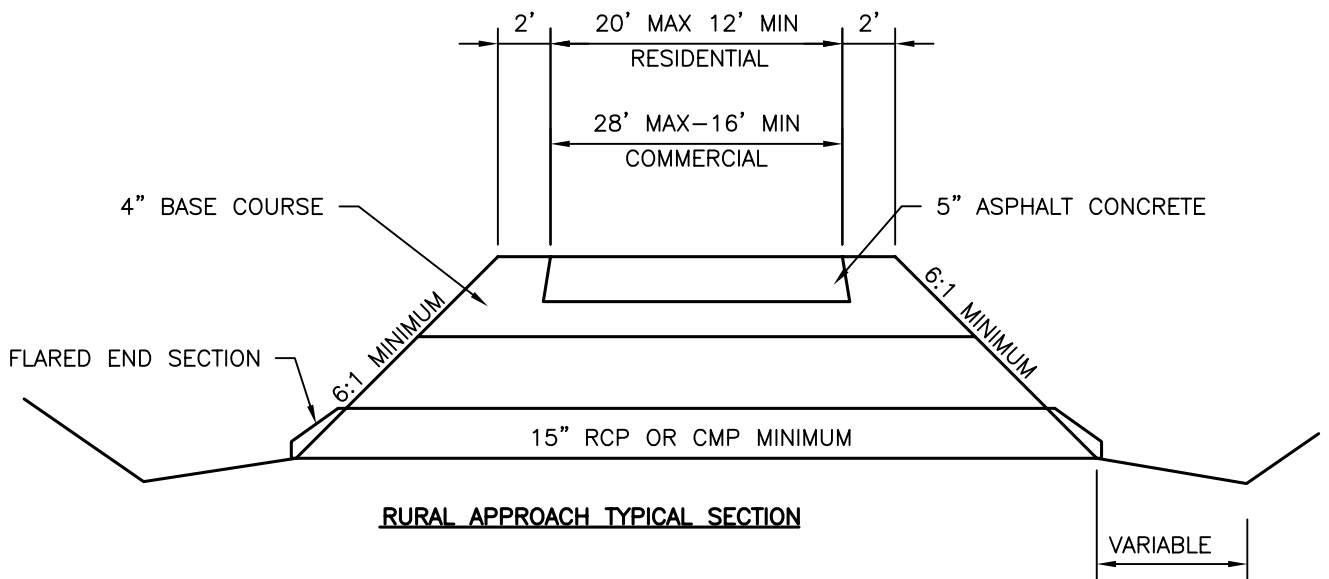
DISTANCE FROM BACK OF CURB TO GARAGE

$$W = W_1 + W_2 + W_3 + W_4 + W_5 = \text{_____}$$

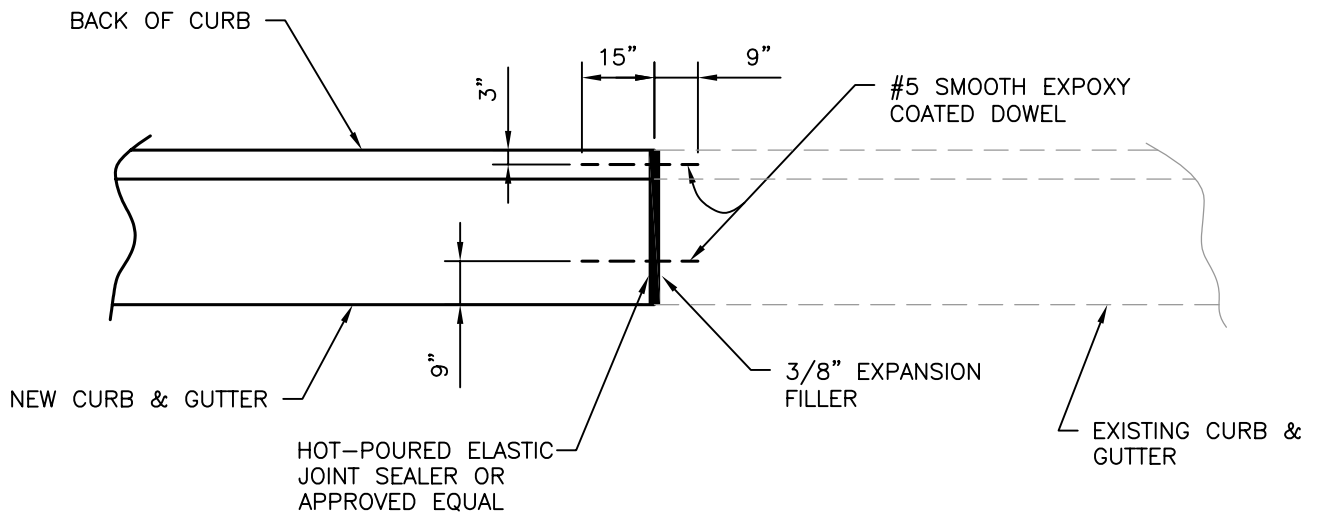


H: HEIGHT ABOVE GUTTER FLOWLINE

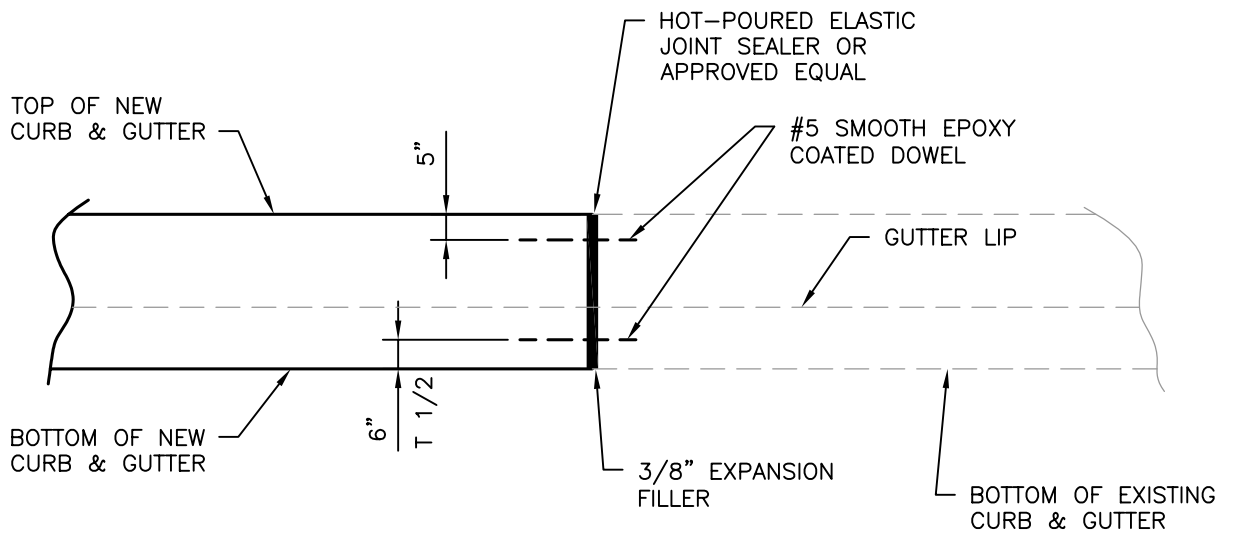




MAXIMUM GRADE OF THE APPROACH IN THE RIGHT-OF-WAY SHALL NOT EXCEED 10%.  
 CULVERTS SHALL BE SIZED TO ASSURE PROPER DRAINAGE.  
 CONSTRUCT APPROACH SO AS NOT TO DIRECT DRAINAGE ONTO THE ROADWAY.  
 CONSTRUCT APPROACH PERPENDICULAR TO THE STREET OR ROAD.



**PLAN**



**PROFILE**

CITY OF RAPID CITY

PUBLIC WORKS DEPARTMENT

DATE: 5-1-07

CURB & GUTTER EXPANSION JOINT

SEC. SHT.

60-7