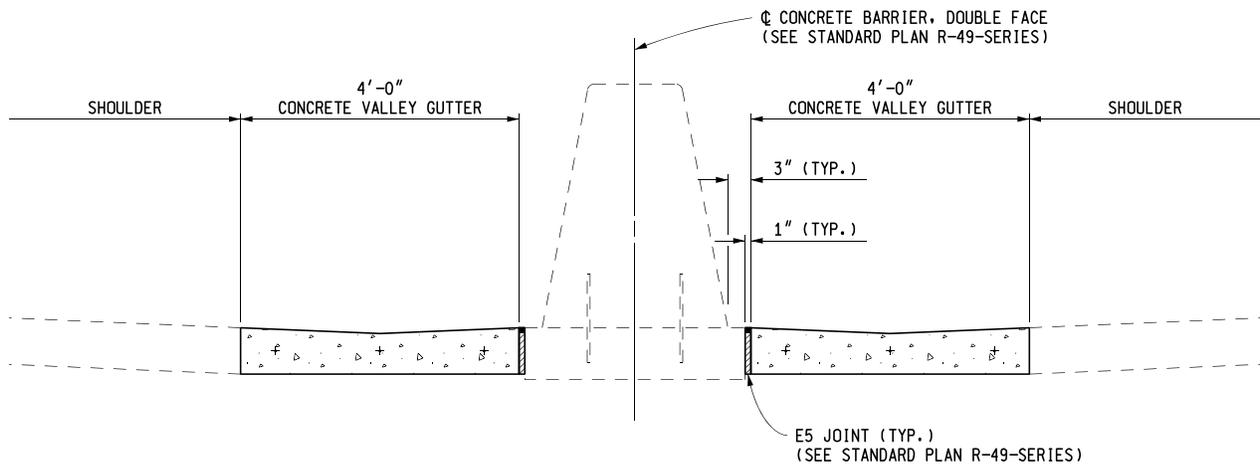
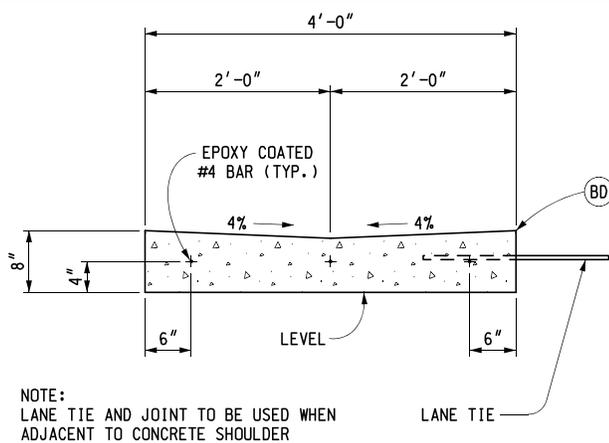


**CONCRETE VALLEY GUTTER  
WITH CONCRETE BARRIER, DOUBLE FACE, TYPE A**



**CONCRETE VALLEY GUTTER  
WITH CONCRETE BARRIER, DOUBLE FACE, TYPE B**



NOTE:  
LANE TIE AND JOINT TO BE USED WHEN  
ADJACENT TO CONCRETE SHOULDER

**CONCRETE VALLEY GUTTER**

**NOTES:**

THE SHOULDER AND VALLEY GUTTER OR CURB AND GUTTER MAY BE CAST INTEGRALLY WHEN THE SHOULDER AND VALLEY GUTTER OR CURB AND GUTTER ARE THE SAME SLOPE. WHEN THEY ARE CAST INTEGRALLY, THE SLOPE ON THE BOTTOM OF THE SHOULDER MAY BE EXTENDED THROUGH THE VALLEY GUTTER OR CURB AND GUTTER.

TRANSVERSE JOINTS IN CURB AND GUTTER OR VALLEY GUTTER SHALL BE ALIGNED WITH THE SAME SIZE, TYPE, AND SEALANT AS IN THE PAVEMENT AND SHOULDER, EXCEPT THAT NO LOAD TRANSFER ASSEMBLY WILL BE PROVIDED IN THE SHOULDER OR CURB AND GUTTER. NO PLANE OF WEAKNESS JOINTS WILL BE PLACED IN CURB AND GUTTER.

JOINTS, CURB AND GUTTER, AND CONCRETE BARRIER, DOUBLE FACE SHALL BE ACCORDING TO STANDARD PLANS R-30, R-31, R-39, R-40, R-41, AND R-49-SERIES, EXCEPT AS SPECIFIED ON THESE PLANS.

OMIT LONGITUDINAL REINFORCEMENT WHEN CONCRETE VALLEY GUTTER OR URBAN FREEWAY CURB IS TIED TO A NON-REINFORCED PAVEMENT.



PREPARED  
BY  
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

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Paul C. Ajegba

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Oct 14 2021 12:32 PM  
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wiefersich Bradley C. Wiefersich  
Oct 14 2021 11:02 AM  
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**CONCRETE VALLEY GUTTER  
AND URBAN FREEWAY CURB**

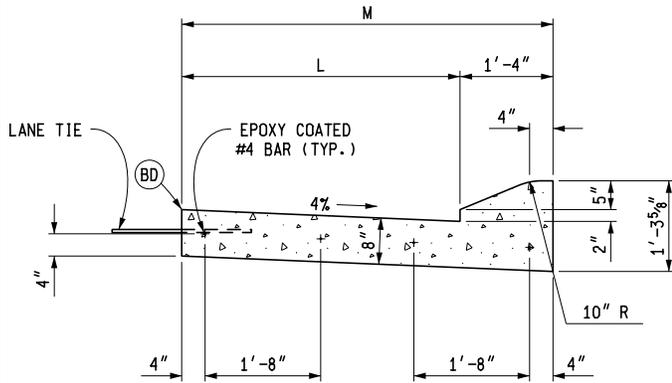
4-7-2022  
F.H.W.A. APPROVAL

8-14-2019  
PLAN DATE

**R-33-G**

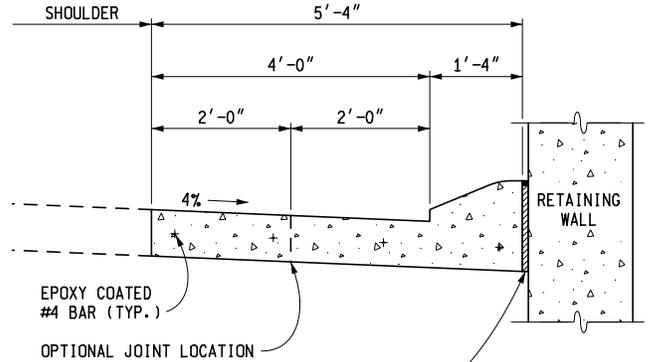
SHEET  
1 OF 2

NOTE: LANE TIE AND JOINT TO BE USED WHEN ADJACENT TO CONCRETE SHOULDER



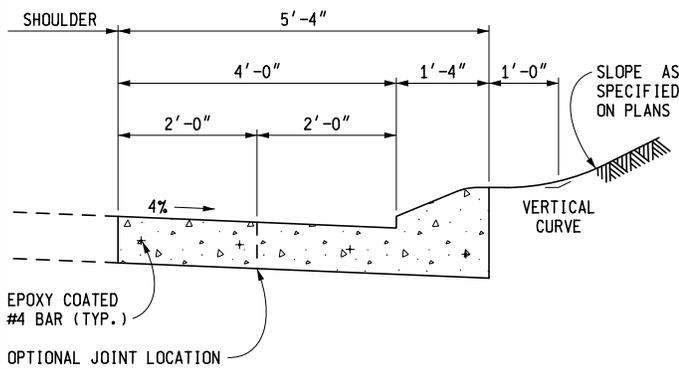
DETAIL	DIMENSION		LANE TIES	CONCRETE CYD / LFT
	L	M		
G1	2'-0"	3'-4"	AS SHOWN	0.1019
G2	4'-0"	5'-4"	AS SHOWN	0.1515

G

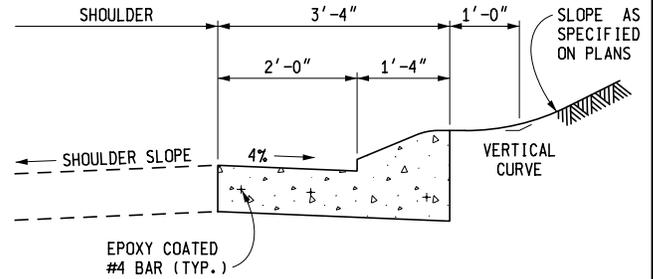


E5 JOINT (SEE STANDARD PLAN R-49-SERIES)

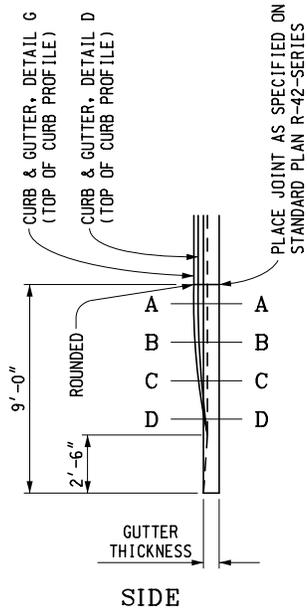
DETAIL G1 OR G2  
ABUTTING RETAINING WALL



DETAIL G1 OR G2  
IN CUT SECTION

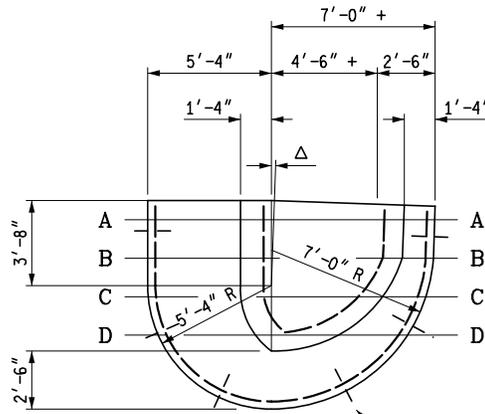


DETAIL G1  
IN SUPERELEVATION OR TRANSITION



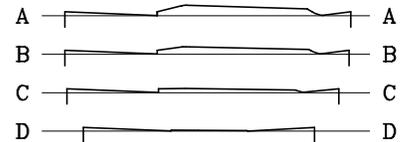
SIDE

CURB & GUTTER, DETAIL G CURB & GUTTER, DETAIL D  
SEE STANDARD PLAN R-30-SERIES



PLAN  
CURB NOSE DETAIL

$\Delta$  = DEFLECTION ANGLE FOR RAMP



SECTIONS THROUGH NOSE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR  
**CONCRETE VALLEY GUTTER  
AND URBAN FREEWAY CURB**

4-7-2022  
F.H.W.A. APPROVAL

8-14-2019  
PLAN DATE

**R-33-G**

SHEET  
2 OF 2