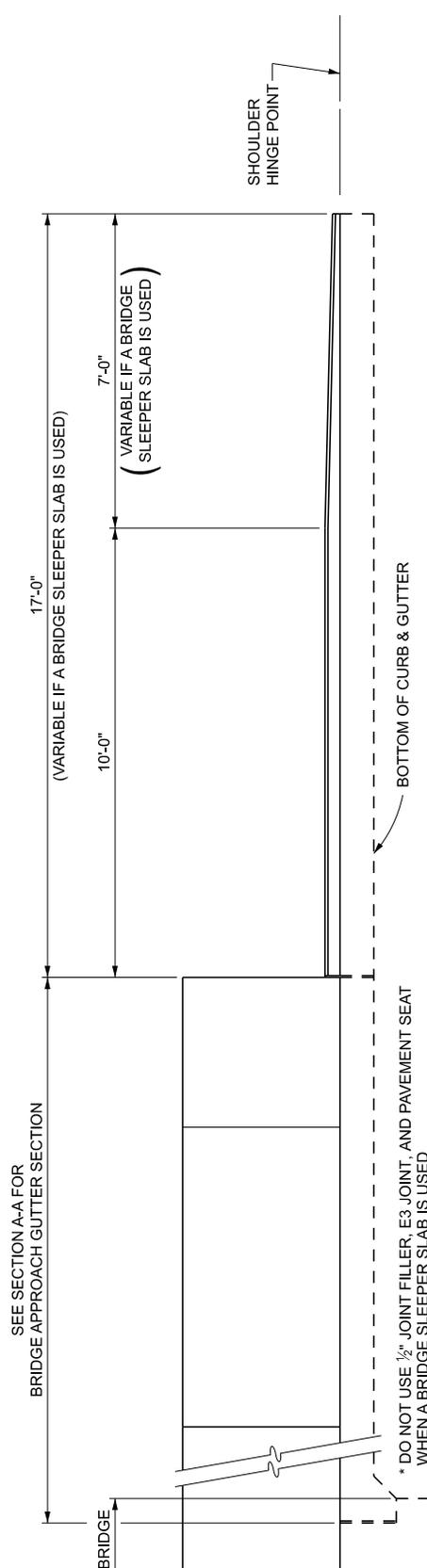


PLAN



ELEVATION

BRIDGE APPROACH CURB & GUTTER, DETAIL 5

NOTE: USE WITH GUARDRAIL ANCHORAGE, BRIDGE, DETAIL M- AND THE REQUIRED NUMBER OF DRAINAGE STRUCTURES BASED ON A HYDROLOGICAL ANALYSIS OF THE AREA AND THE SIZE OF THE BRIDGE DECK. USE ALSO ON DEPARTING ENDS WITH OR WITHOUT GUARDRAIL.

APPROVED BY: _____
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: _____
DIRECTOR, BUREAU OF DEVELOPMENT



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

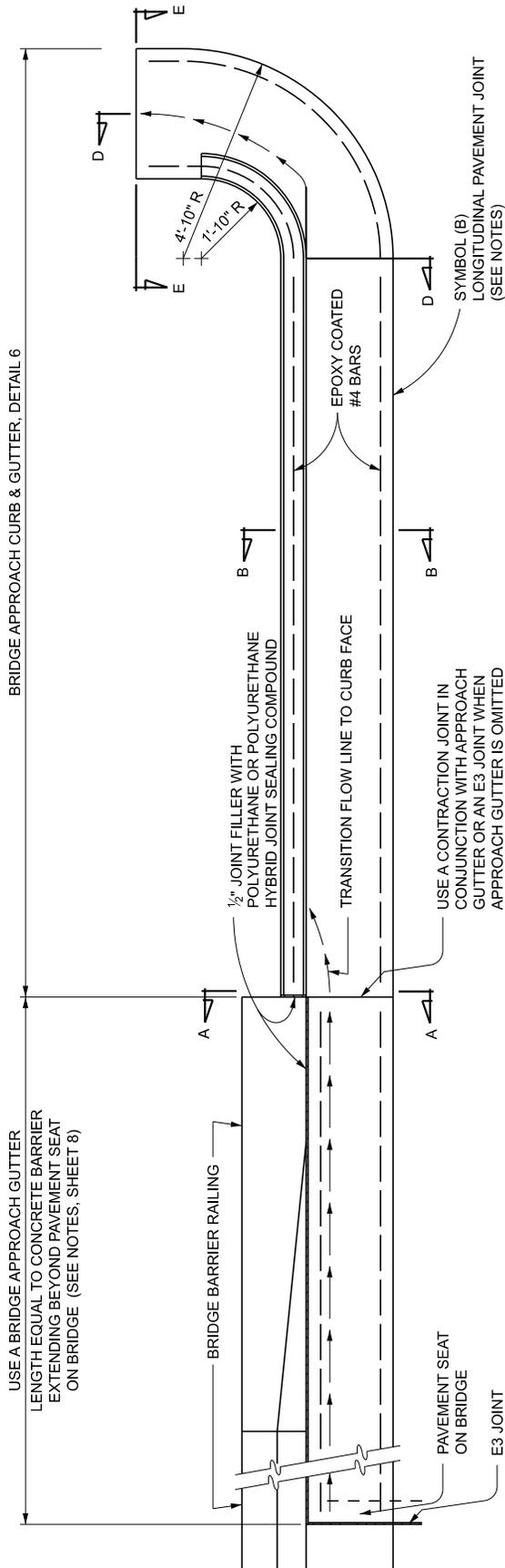
STANDARD PLAN FOR
APPROACH CURB & GUTTER DOWNSPOUTS
(FOR BRIDGE BARRIER ON RURAL HIGHWAYS)

FHWA APPROVAL

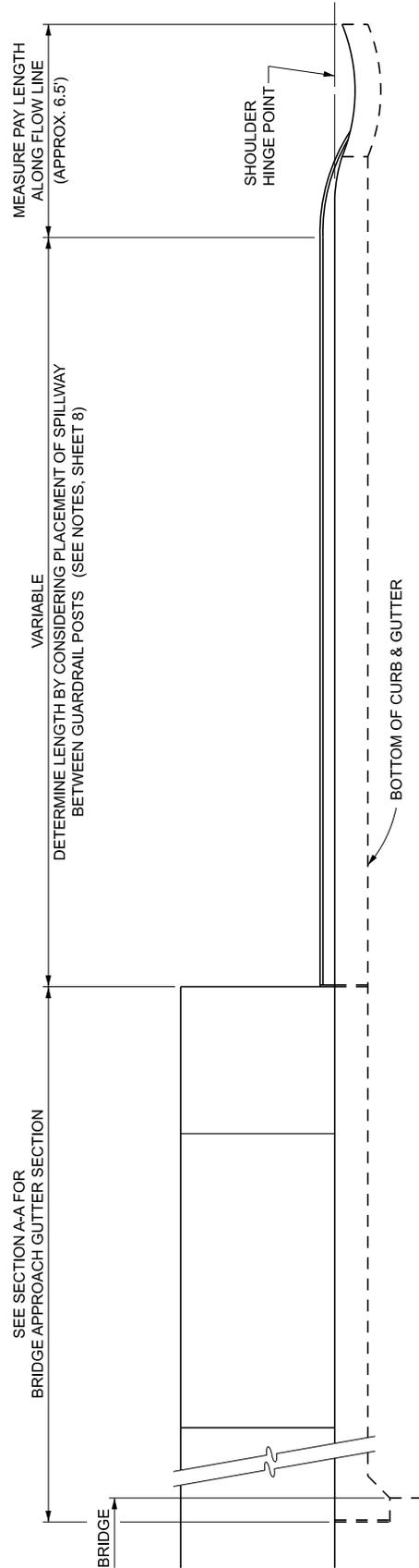
12/05/2025
PLAN DATE

R-32-F

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PLAN



ELEVATION
BRIDGE APPROACH CURB & GUTTER, DETAIL 6

NOTE: USE WITH GUARDRAIL ANCHORAGE, BRIDGE, DETAIL M- AND THE REQUIRED NUMBER OF DRAINAGE STRUCTURES BASED ON A HYDROLOGICAL ANALYSIS OF THE AREA AND THE SIZE OF THE BRIDGE DECK.



DEPARTMENT DIRECTOR
 BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
 APPROACH CURB & GUTTER DOWNSPOUTS
 (FOR BRIDGE BARRIER ON RURAL HIGHWAYS)

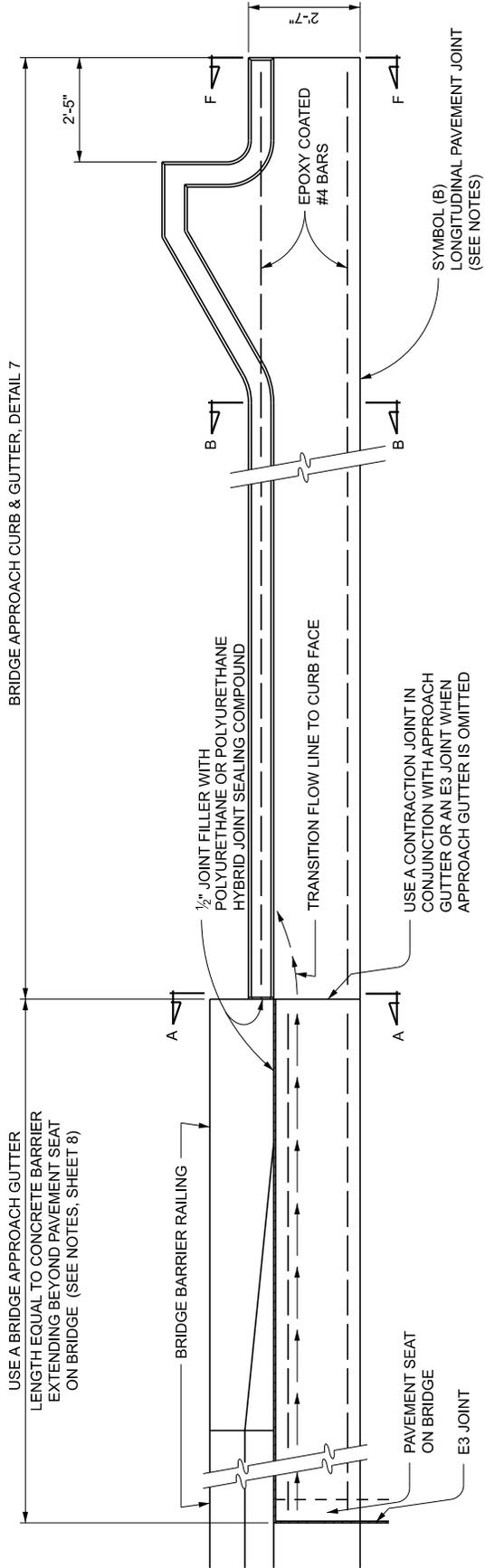
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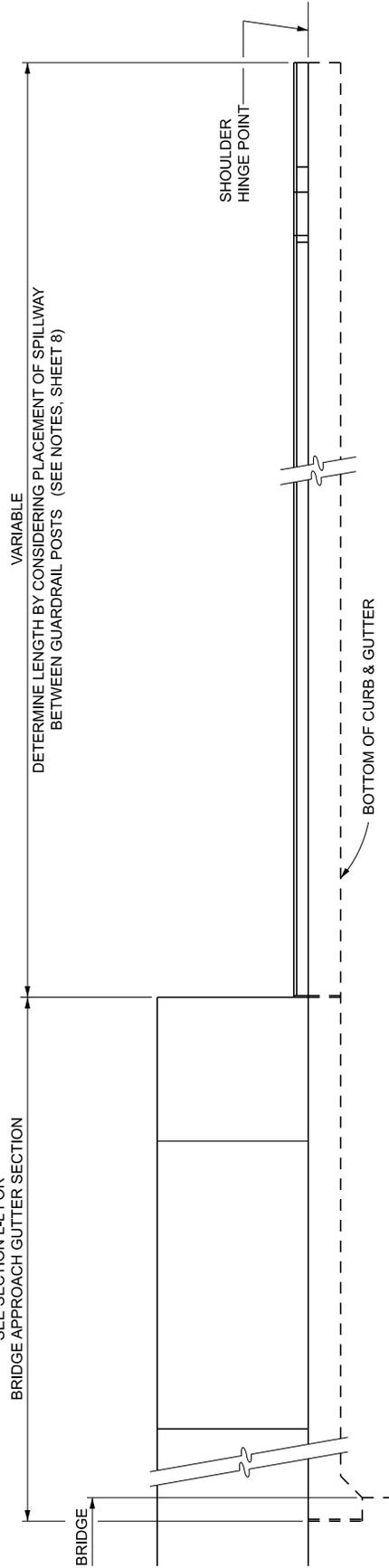
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BRIDGE APPROACH CURB & GUTTER, DETAIL 7



PLAN

SEE SECTION L-L FOR BRIDGE APPROACH GUTTER SECTION



ELEVATION
BRIDGE APPROACH CURB & GUTTER, DETAIL 7

NOTE:
USE WITH GUARDRAIL ANCHORAGE, BRIDGE, DETAIL M- AND THE REQUIRED NUMBER OF DRAINAGE STRUCTURES BASED ON A HYDROLOGICAL ANALYSIS OF THE AREA AND THE SIZE OF THE BRIDGE DECK.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

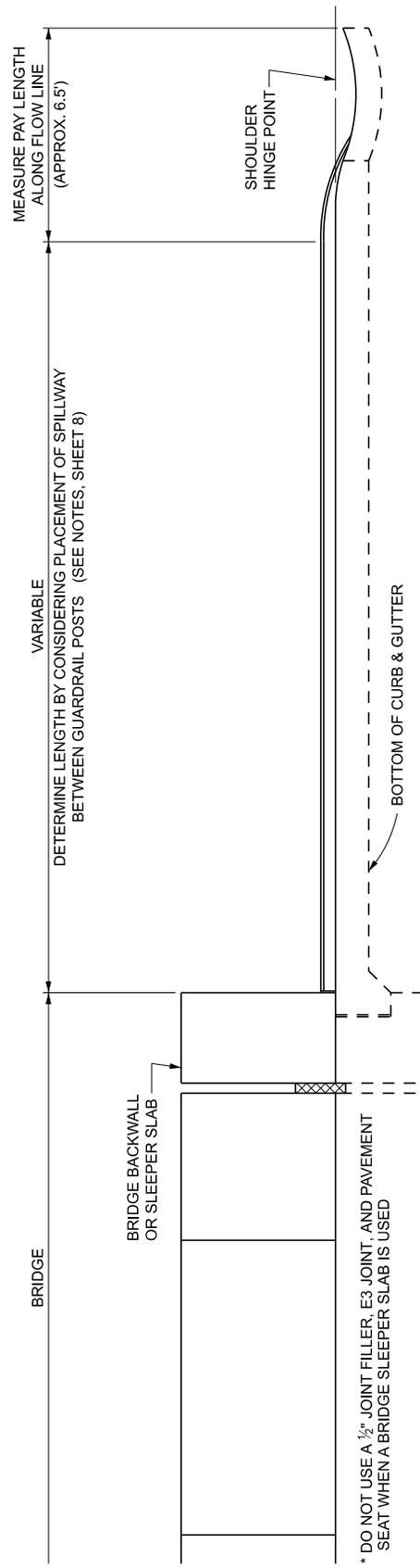
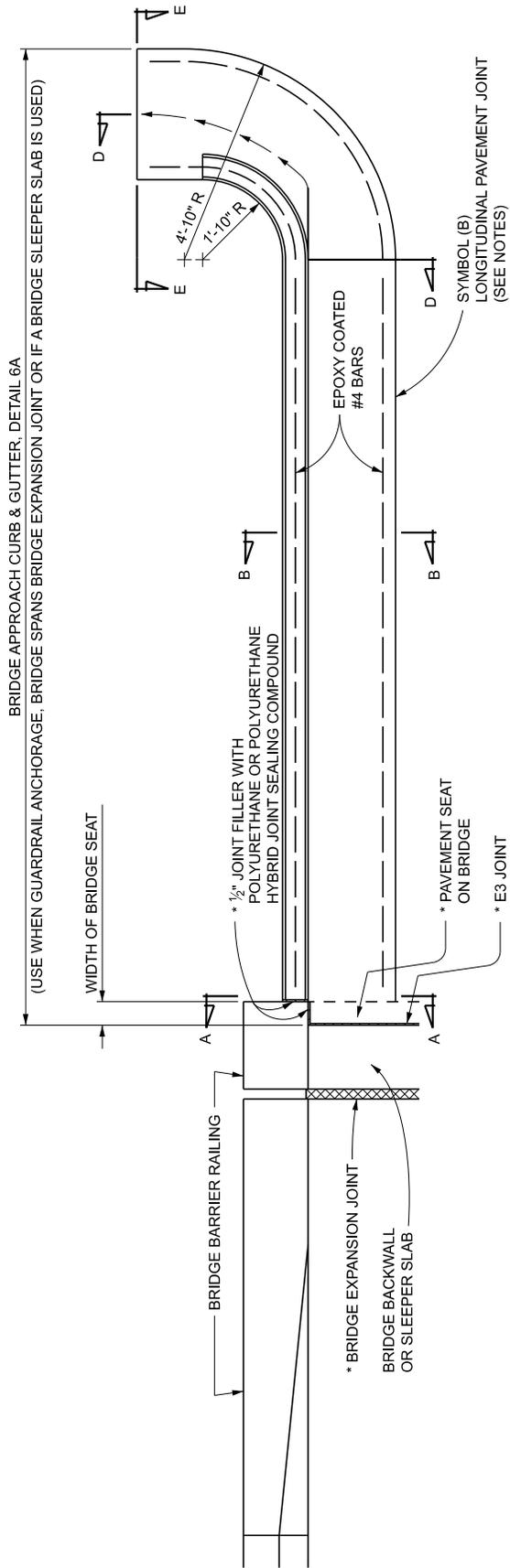
STANDARD PLAN FOR
APPROACH CURB & GUTTER DOWNSPOUTS
(FOR BRIDGE BARRIER ON RURAL HIGHWAYS)

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* DO NOT USE A 1/2" JOINT FILLER, E3 JOINT, AND PAVEMENT SEAT WHEN A BRIDGE SLEEPER SLAB IS USED

BRIDGE APPROACH CURB & GUTTER, DETAIL 6A
 ELEVATION
 USE WITH GUARDRAIL ANCHORAGE, BRIDGE, DETAIL M- AND THE REQUIRED NUMBER OF DRAINAGE STRUCTURES BASED ON A HYDROLOGICAL ANALYSIS OF THE AREA AND THE SIZE OF THE BRIDGE DECK.



DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
APPROACH CURB & GUTTER DOWNSPOUTS
 (FOR BRIDGE BARRIER ON RURAL HIGHWAYS)

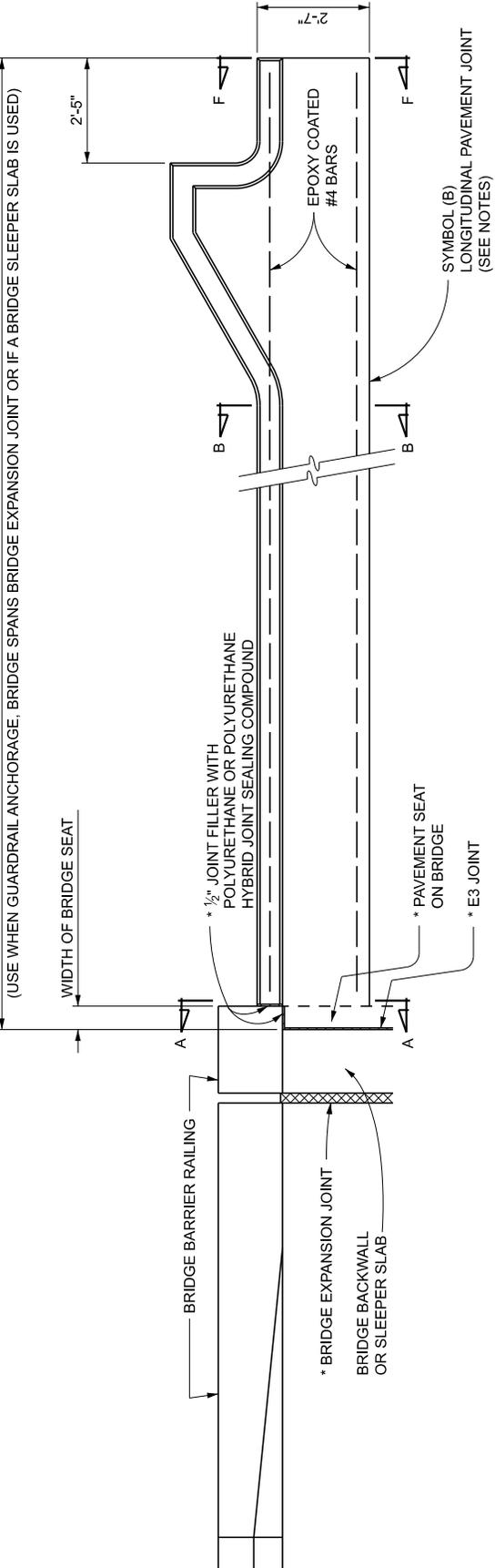
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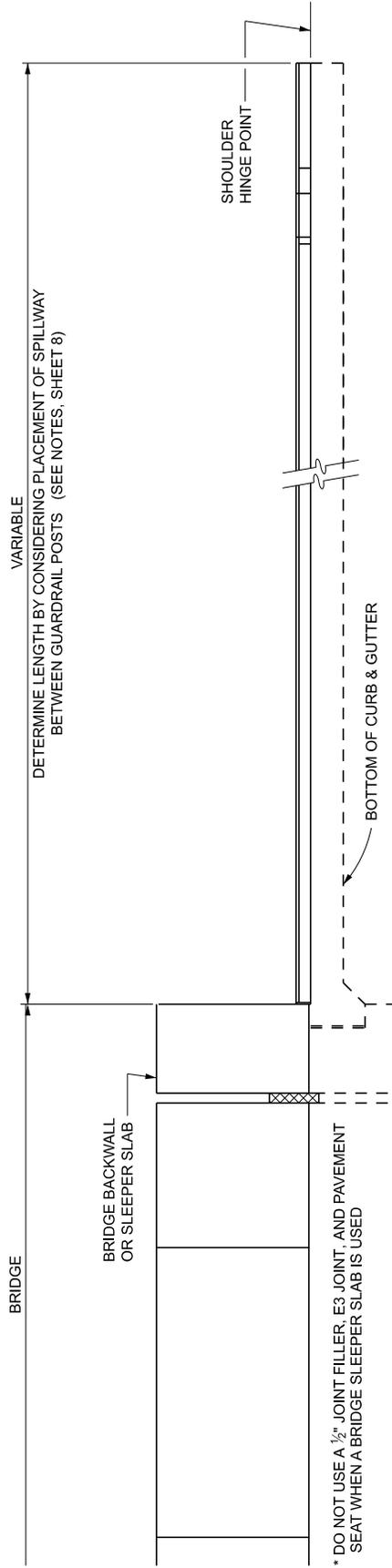
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BRIDGE APPROACH CURB & GUTTER, DETAIL 7A



PLAN

ELEVATION



BRIDGE APPROACH CURB & GUTTER, DETAIL 7A

NOTE: USE WITH GUARDRAIL ANCHORAGE, BRIDGE, DETAIL M- AND THE REQUIRED NUMBER OF DRAINAGE STRUCTURES BASED ON A HYDROLOGICAL ANALYSIS OF THE AREA AND THE SIZE OF THE BRIDGE DECK.

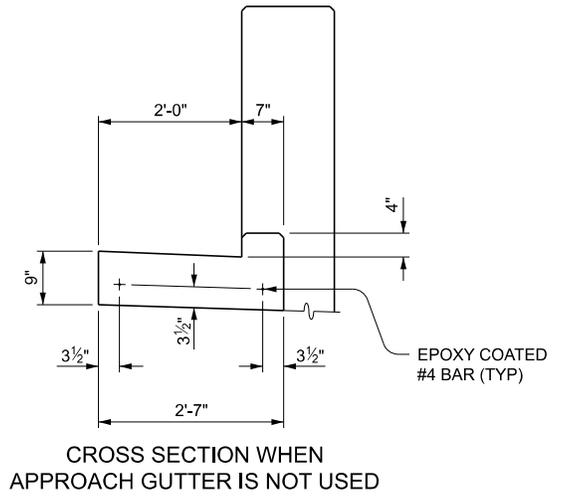
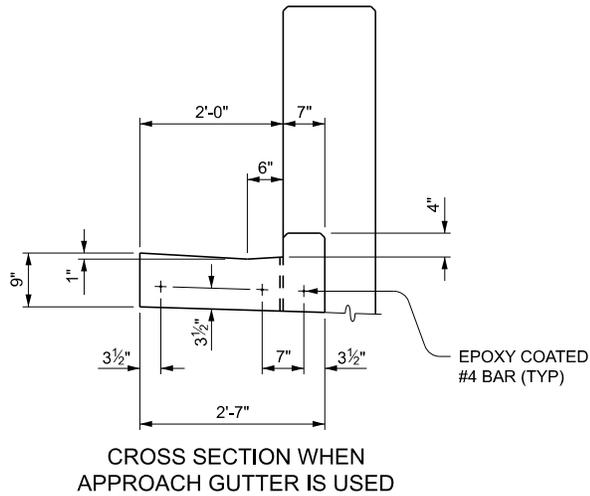
* DO NOT USE A 1/2" JOINT FILLER, E3 JOINT, AND PAVEMENT SEAT WHEN A BRIDGE SLEEPER SLAB IS USED



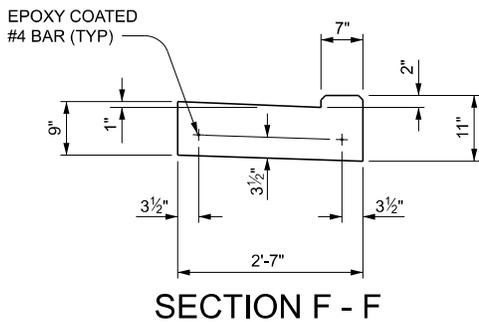
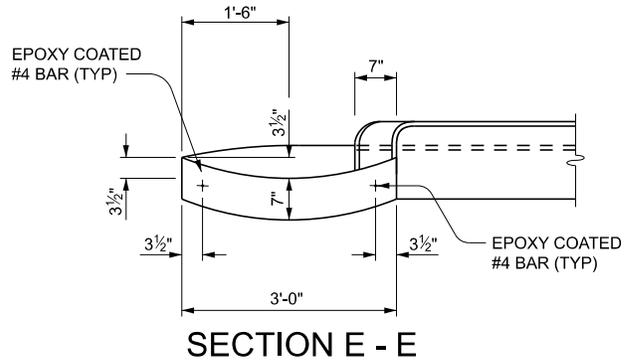
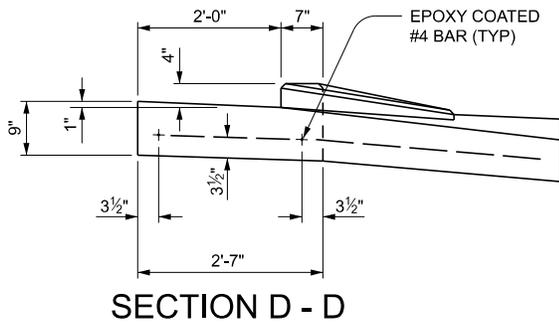
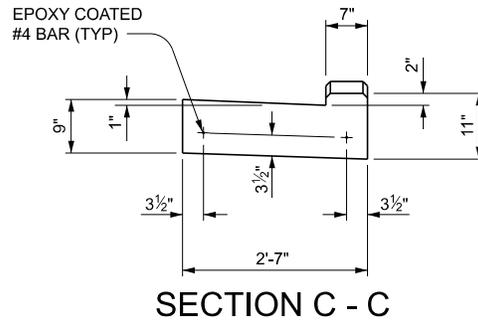
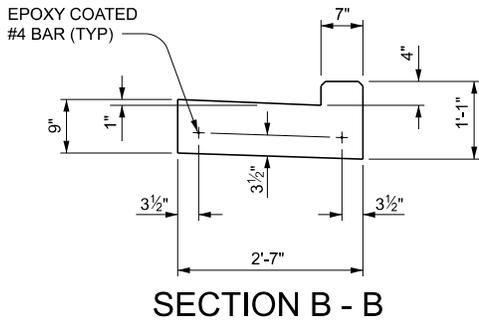
DEPARTMENT DIRECTOR
BRADLEY C. WIEFERICH, PE

STANDARD PLAN FOR
APPROACH CURB & GUTTER DOWNSPOUTS
(FOR BRIDGE BARRIER ON RURAL HIGHWAYS)

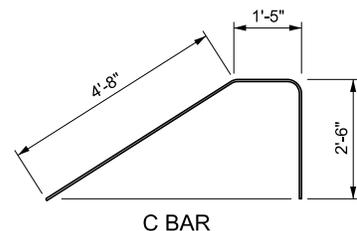
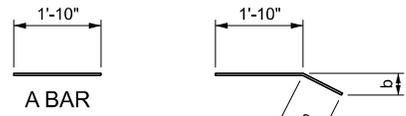
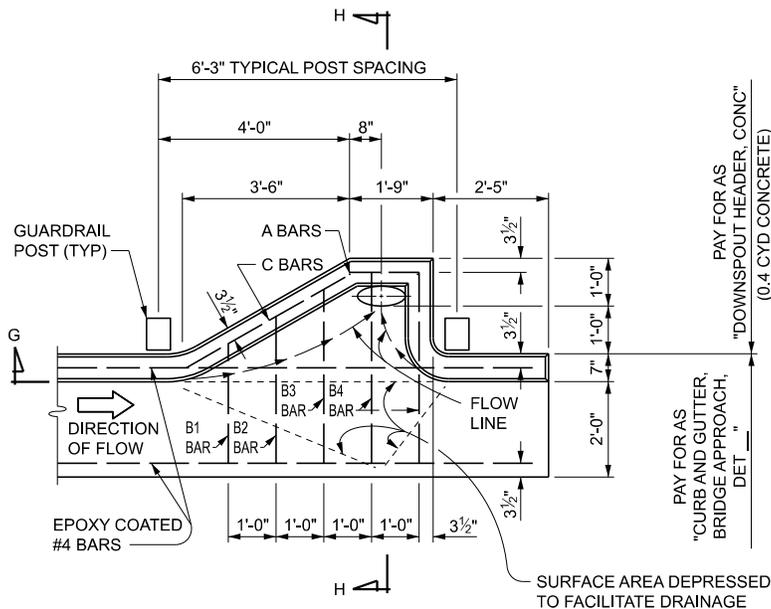
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SECTION A - A
(SEE NOTES, SHEET 8)

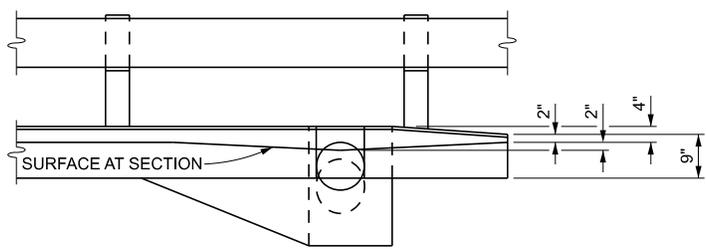


EPOXY COATED STEEL REINFORCEMENT FOR DOWNSPOUT					
BAR	DIMENSIONS		BAR SIZE	NUMBER REQUIRED	TOTAL LENGTH
	a	b			
A			#4	2	3'-8"
B1	11"	5"	#4	1	2'-9"
B2	1'-7"	8½"	#4	1	3'-5"
B3	2'-3"	1'-0"	#4	1	4'-1"
B4	2'-7"	1'-2"	#4	2	8'-10"
C			#4	2	17'-2"
TOTAL WEIGHT OF STEEL 26.7 LBS					

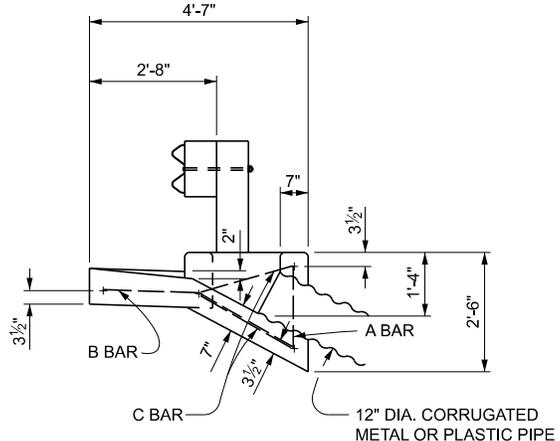


PLAN OF CONCRETE DOWNSPOUT HEADER

POUR CONCRETE FOR THE CONCRETE DOWNSPOUT HEADER (PIPE, CURB AND GUTTER, AND DOWNSPOUT HEADER) MONOLITHICALLY

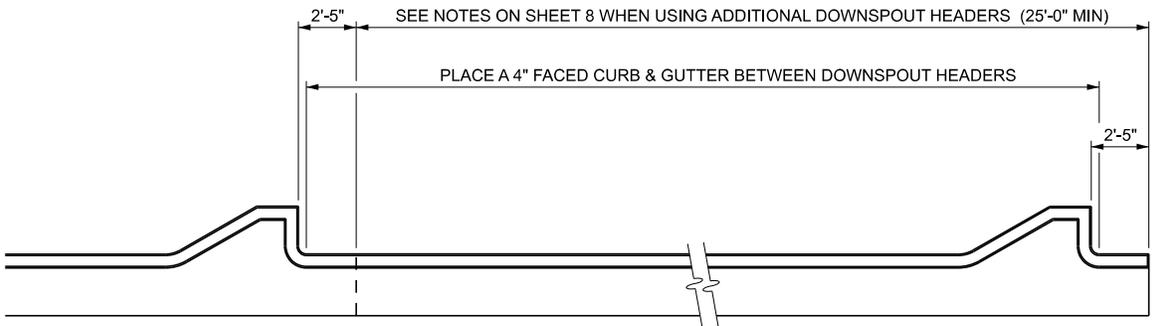


SECTION G - G



SECTION H - H

GUARDRAIL / DOWNSPOUT HEADER DETAILS



PLAN OF ADDITIONAL CONCRETE DOWNSPOUT HEADERS

<p>MDOT Michigan Department of Transportation</p> <p>DEPARTMENT DIRECTOR BRADLEY C. WIEFERICH, PE</p>	<p>STANDARD PLAN FOR APPROACH CURB & GUTTER DOWNSPOUTS (FOR BRIDGE BARRIER ON RURAL HIGHWAYS)</p>			<p>SHEET 7 OF 8</p>
	<p>FHWA APPROVAL</p>	<p>12/05/2025 PLAN DATE</p>	<p>R-32-F</p>	

NOTES:

SEE STANDARD SPECIFICATIONS FOR MATERIALS AND WORKMANSHIP FOR CONCRETE CURB AND GUTTER.

SEE BRIDGE APPROACH PLANS FOR TYPE OF BRIDGE APPROACH CURB AND GUTTER AT SPECIFIC LOCATIONS.

SEE STANDARD PLAN R-27-SERIES FOR BRIDGE APPROACH CURB AND GUTTER USING EXISTING CATCH BASIN.

INCLUDE THE LENGTH OF BRIDGE APPROACH GUTTER (USED WHEN THE BRIDGE BARRIER RAILING EXTENDS BEYOND PAVEMENT SEAT ON BRIDGE) IN THE PAY ITEM "CURB AND GUTTER, BRIDGE APPROACH, DET ____". OMIT BRIDGE APPROACH GUTTER WHEN CONCRETE BARRIER ENDS AT PAVEMENT SEAT ON BRIDGE OR AT A SLEEPER SLAB. (SEE SECTION A-A)

ALIGN THE CURB AND GUTTER WITH THE BEAM GUARDRAIL AS SPECIFIED ON STANDARD PLAN R-67-SERIES. DETERMINE THE LOCATION OF GUARDRAIL POSTS PRIOR TO LOCATING THE SPILLWAY OR DOWNSPOUT HEADER.

SURFACE THE AREA BETWEEN THE EDGE OF THE PAVEMENT AND THE GUTTER WITH THE SAME MATERIAL AS THE SHOULDERS, EXCEPT IN THE CASE OF AGGREGATE SHOULDERS, WHERE A BITUMINOUS TREATMENT IS REQUIRED.

INCLUDE ALL REQUIRED EXPANSION JOINTS IN THE PAY ITEM FOR BRIDGE APPROACH CURB AND GUTTER.

SEE STANDARD PLAN R-30-SERIES FOR JOINT DETAILS.

CHAMFER ALL EXPOSED EDGES $\frac{3}{4}$ ".

USE THE CONCRETE DOWNSPOUT HEADER IN CONJUNCTION WITH BRIDGE APPROACH CURB AND GUTTER, DETAILS 7A AND 7A.

PAY FOR CORRUGATED PIPE SEPARATELY.

WHEN THE DRAINAGE AREA REQUIRES ADDITIONAL CONCRETE DOWNSPOUT HEADERS, SPACE THE SECOND AND/OR ADDITIONAL DOWNSPOUT HEADERS ACCORDING TO THEIR INDIVIDUAL DRAINAGE AREAS. LOCATE ADDITIONAL DOWNSPOUT HEADERS BETWEEN GUARDRAIL POSTS AS SPECIFIED ON THE PLAN OF CONCRETE DOWNSPOUT HEADER.

PLACE A SYMBOL (B) JOINT BETWEEN CURB OR CURB AND GUTTER AND ADJACENT CONCRETE PAVEMENT AS SPECIFIED ON STANDARD PLAN R-41-SERIES.



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STANDARD PLAN FOR
APPROACH CURB & GUTTER DOWNSPOUTS
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FHWA APPROVAL

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