APPROACH CURB & GUTTER DOWNSPOUTS

FOR BRIDGE BARRIER ON RURAL HIGHWAYS

BRIDGE APPROACH CURB & GUTTER, DETAIL 6


APPROACH CURB & GUTTER DOWNSPOUTS
(FOR BRIDGE BARRIER ON RURAL HIGHWAYS)
MICHIGAN DEPARTMENT OF TRANSPORTATION

OF SHEET PLAN DATE

BUREAU OF DEVELOPMENT STANDARD PLAN FOR 12-16-2019

R-32-F

APPROACH CURB & GUTTER, DETAIL 7

FOR BRIDGE BARRIER ON RURAL HIGHWAYS)

BRIDGE APPROACH GUTTER

LENGTH EQUAL TO CONCRETE BARRIER EXTENDING BEYOND PAVEMENT SEAT ON BRIDGE (SEE NOTES, SHEET 8)

BRIDGE APPROACH CURB & GUTTER, DETAIL 7

2'-5"

EPOXY COATED #4 BARS

SYMBOL (B) LONGITUDINAL PAVEMENT JOINT (SEE NOTES)

PLAN

BRIDGE APPROACH GUTTER, DETAIL 7

LENGTH DETERMINATE WITH PLACEMENT OF DOWNSPOUT HEADER BETWEEN GUARDRAIL POSTS (SEE NOTES, SHEET 8)

ELEVATION

BOTTOM OF CURB & GUTTER

SHOULDER HINGE POINT

NOTE: FOR USE WITH GUARDRAIL ANCHORAGE, BRIDGE, DETAIL M-1-1 AND THE REQUIRED NUMBER OF DRAINAGE STRUCTURES BASED ON A HYDROLOGICAL ANALYSIS OF THE AREA AND THE SIZE OF THE BRIDGE DECK.
BRIDGE APPROACH CURB & GUTTER, DETAIL 6A

(length when guardrail anchorage, bridge spans bridge expansion joint or if a bridge sleeper slab is used)

-width of bridge seat

-bridge barrier railing

-bridge expansion joint

-bridge backwall or sleeper slab

-epoxy coated #4 bars

-pavement seat on bridge

-e3 joint

-plan

-bridge approach curb & gutter, detail 6a

(length determinate with placement of spillway between guardrail posts (see notes, sheet 8)

-pay length measured along flow line (approx. 6.5')

-shoulder hinge point

-bridge barrier on rural highways

-bridge backwall or sleeper slab

-1/2" joint filler, e3 joint, and pavement seat are not used when bridge sleeper slab is used

-bottom of curb & gutter

-bridge approach curb & gutter

-note: for 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.)
BRIDGE APPROACH CURB & GUTTER, DETAIL 7A

NOTE: FOR 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.
PLAN OF CONCRETE DOWNSPOUT HEADER

DETAIL SHOWS RELATIONSHIP OF GUARDRAIL WITH DOWNSPOUT HEADER

SECTION G - G

SECTION H - H

PLAN OF ADDITIONAL CONCRETE DOWNSPOUT HEADERS

NOTE: ALL BARS ARE EPOXY COATED
NOTES:

ALL MATERIALS AND WORKMANSHIP SHALL BE ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS FOR CONCRETE CURB AND GUTTER.

FOR TYPE OF BRIDGE APPROACH CURB AND GUTTER TO USE AT A SPECIFIC LOCATION, SEE BRIDGE APPROACH PLANS.

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

THE LENGTH OF BRIDGE APPROACH GUTTER (USED WHEN THE BRIDGE BARRIER RAILING EXTENDS BEYOND PAVEMENT SEAT ON BRIDGE) SHALL BE INCLUDED IN THE PAY ITEM "CURB AND GUTTER, BRIDGE APPROACH".

Omit bridge approach gutter when concrete barrier ends at pavement seat on bridge or at a sleeper slab. (See Section A-A)

THE CURB AND GUTTER SHALL BE ALIGNED WITH THE BEAM GUARDRAIL AS SPECIFIED ON STANDARD PLAN R-67-SERIES.

THE LOCATION OF GUARDRAIL POSTS SHOULD BE DETERMINED PRIOR TO LOCATING THE SPILLWAY OR DOWNSPOUT HEADER.


ALL EXPANSION JOINTS REQUIRED WILL BE INCLUDED IN THE PAY ITEM FOR BRIDGE APPROACH CURB AND GUTTER.

JOINTS SHALL BE AS SPECIFIED ON STANDARD PLAN R-30-SERIES.

ALL EXPOSED EDGES SHALL BE CHAMFERED 1/4".

THE CONCRETE DOWNSPOUT HEADER SHALL BE USED IN CONJUNCTION WITH BRIDGE APPROACH CURB AND GUTTER. DETAILS 7 AND 7A.

CORRUGATED PIPE WILL BE PAID FOR SEPARATELY.

WHEN THE DRAINAGE AREA REQUIRES ADDITIONAL CONCRETE DOWNSPOUT HEADERS, SPACING OF THE SECOND AND/OR ADDITIONAL DOWNSPOUT HEADERS SHOULD BE DETERMINED ACCORDING TO THEIR INDIVIDUAL DRAINAGE AREAS. ADDITIONAL DOWNSPOUT HEADERS ARE TO BE LOCATED BETWEEN GUARDRAIL POSTS AS SPECIFIED ON THE PLAN OF CONCRETE DOWNSPOUT HEADER.

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