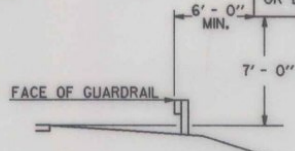


"GUARDRAIL DEFLECTION CHART"

TYPE	DEFLECTION
Three Cable w/Lt. Steel Posts	12 ft.
Three Cable w/Hvy. Steel Posts	12 ft.
W-Beam w/Lt. Steel Posts	8 ft.
Box Beam w/Steel Posts	5 ft.
W-Beam w/Wood Posts	4 ft.
W-Beam w/Hvy. Steel Posts	4 ft.
Two-Rail Elliptical Aluminum	2 ft.

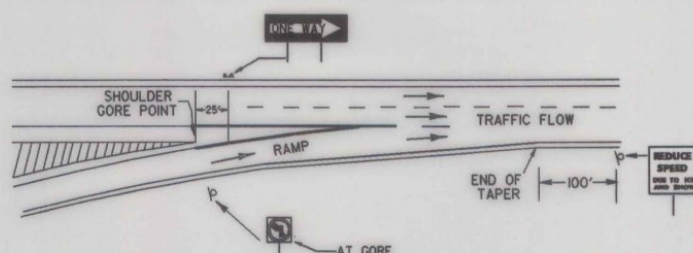
WHEN PLACED BEHIND GUARDRAIL AND BEYOND THE DEFLECTION DISTANCE FOR THAT PARTICULAR RAIL, SIGN POSTS DO NOT HAVE TO BE PLACED ON YIELDING SUPPORTS. SIGN POSTS SHALL BE PLACED ON YIELDING SUPPORTS WHEN THEY CAN BE STRUCK BY AN ERRANT VEHICLE LEAVING THE ROADWAY AT AN ENCROACHMENT ANGLE OF APPROXIMATELY 15 DEGREES OR LESS.



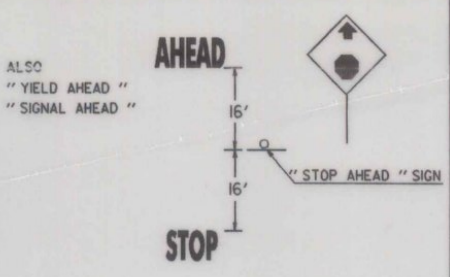
INSTALLATION DETAILS

NORMALLY SIGNS SHOULD BE MOUNTED AT 93° TO THE DIRECTION OF TRAFFIC, ON CURVED ALIGNMENT THE ANGLE OF PLACEMENT SHOULD BE DETERMINED BY THE PATH OF APPROACHING TRAFFIC RATHER THAN BY THE ROADSIDE EDGE AT THE POINT WHERE THE SIGN IS LOCATED. WHEN INSTALLING OVERHEAD SIGNS, TILT THE SIGN FROM THE TOP TOWARD APPROACHING TRAFFIC AT A THREE DEGREE TILT ANGLE.

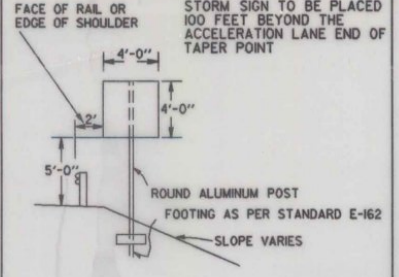
GUIDE SIGNS



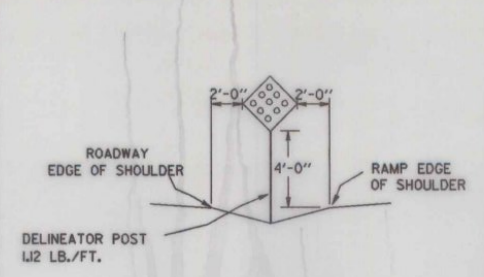
SIGN PLACEMENT AT END OF RAMP



WORD MARKING LAYOUT DETAIL



STORM SIGN



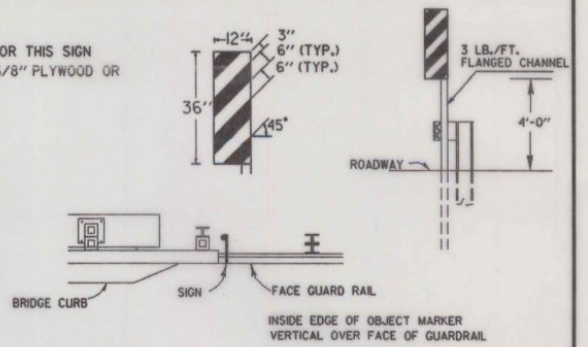
HAZARD MARKER

MATERIALS:

THE SIGN BASE MATERIAL USED FOR THIS SIGN MAY BE EITHER HIGH DENSITY 5/8" PLYWOOD OR 0.100" FLAT SHEET ALUMINUM.

COLORS:

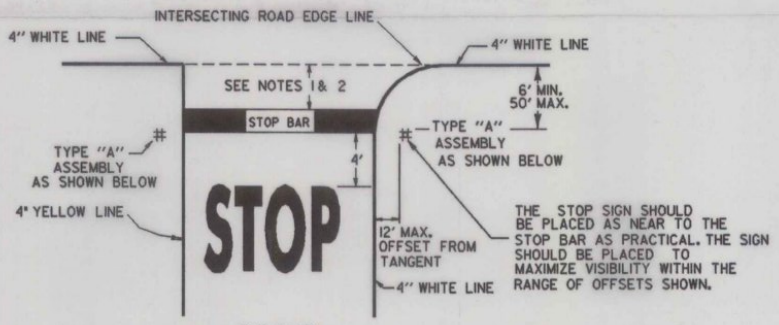
THIS SIGN SHALL HAVE A REFLECTORIZED YELLOW BACKGROUND WITH BLACK PAINTED OR LETTERING FILM STRIPES.



OBJECT MARKER

(TO BE USED WHEN FULL WIDTH SHOULDERS ARE NOT CARRIED ACROSS THE BRIDGE)

MARKERS MOUNTED ON THE LEFT SIDE SHALL HAVE THE DIAGONAL STRIPES SLOPING TOWARD CENTERLINE

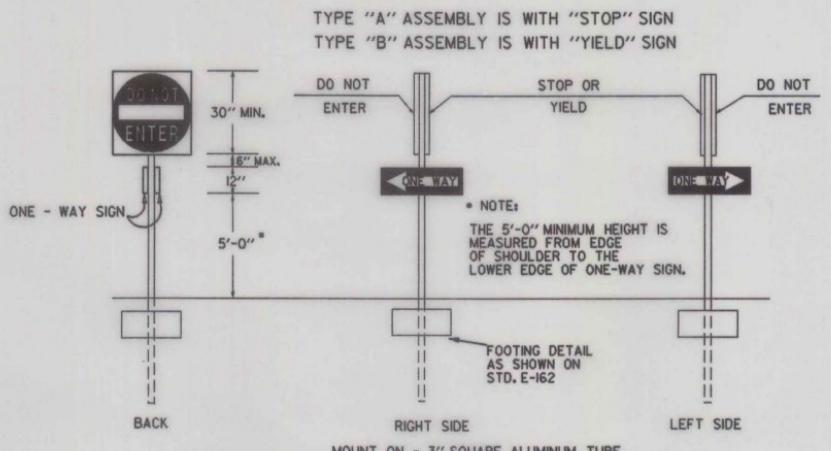


PAVEMENT MARKING & STOP SIGN LOCATION DETAILS FOR OFF RAMP

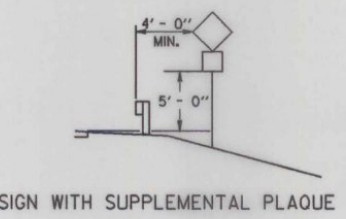
NOTES:

1. THE STOP BAR SHOULD BE PLACED AT THE DESIRED STOPPING POINT, IN NO CASE MORE THAN 30' OR LESS THAN 4' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.
2. AT A SIGNALIZED INTERSECTION, DELETE WORDING "STOP" AND THE STOP SIGN AND PLACE STOP BAR A MINIMUM OF 40' FROM THE NEAREST SIGNAL HEAD FOR THE APPROACH.
3. EXCLUDE STOP BAR WHEN ONLY YIELD SITUATION.

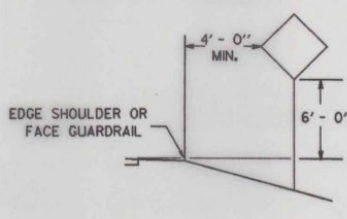
PAVEMENT MARKING & STOP SIGN LOCATION DETAILS FOR OFF RAMP



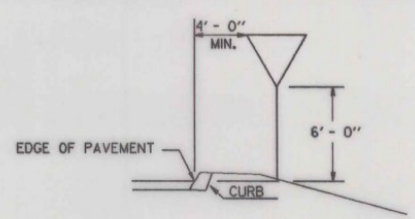
REGULATORY SIGN ASSEMBLY DETAIL FOR OFF RAMP



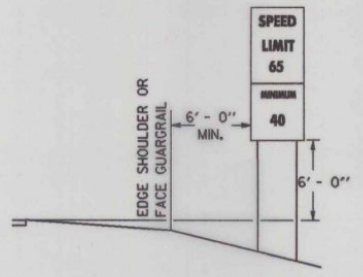
SIGN WITH SUPPLEMENTAL PLAQUE



STANDARD SIGN PLACEMENT RAMP

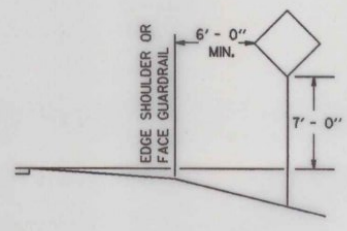


STANDARD SIGN PLACEMENT MAINLINE

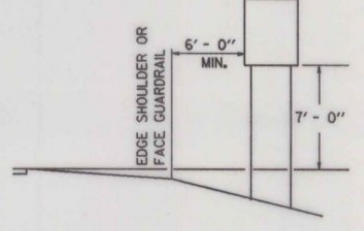


REGULATORY SIGN

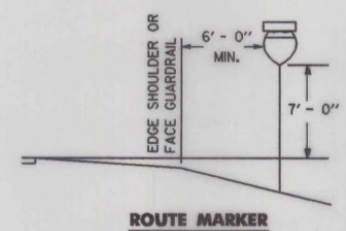
SPEED LIMIT SIGN TO BE PLACED 1600 FEET BEYOND ACCELERATION LANE END OF TAPER POINT.



WARNING SIGN

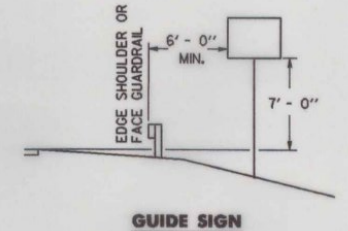


REGULATORY SIGN

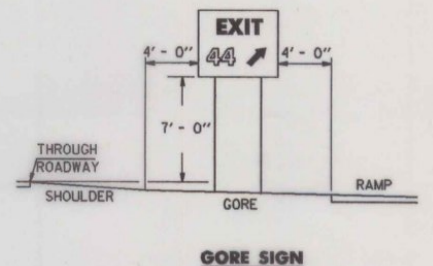


ROUTE MARKER

ROUTE REASSURANCE MARKER TO BE PLACED 600' BEYOND ACCELERATION LANE END OF TAPER POINT



GUIDE SIGN



GORE SIGN

REVISIONS AND CORRECTIONS
JUNE 21, 1989 - FHWA - CHANGE TO 7' FUSE PLATE CLEARANCE

APPROVED

APRIL 1, 1988
DATE
Paul B. Kelley
CHIEF ENGINEER
Arthur J. ...
DIRECTOR OF PLANNING AND PRE-CONSTRUCTION
Gordon B. MacArthur
TRAFFIC AND SAFETY ENGINEER

STANDARD SIGN PLACEMENT EXPRESSWAY AND FREEWAY



STANDARD E-120