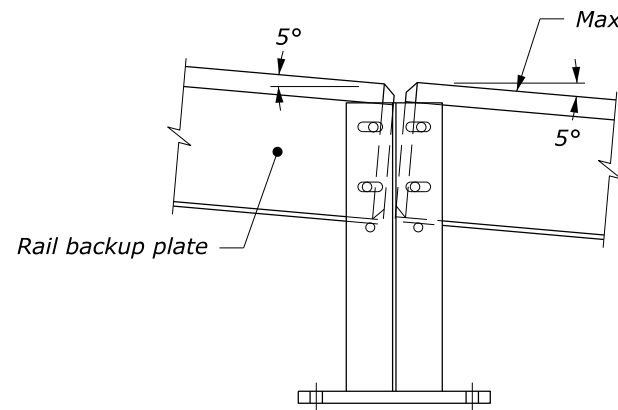


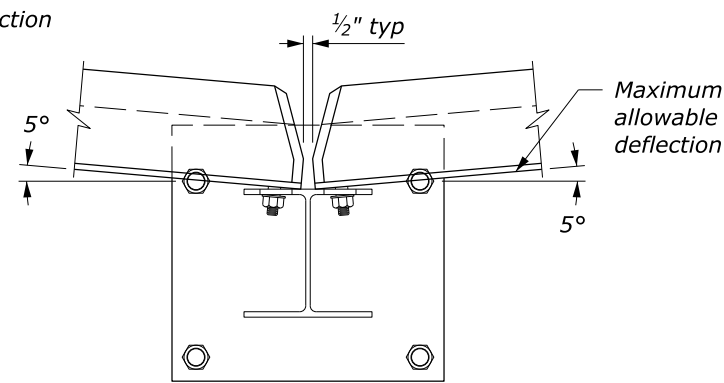
PLAN VIEW

NOTE:

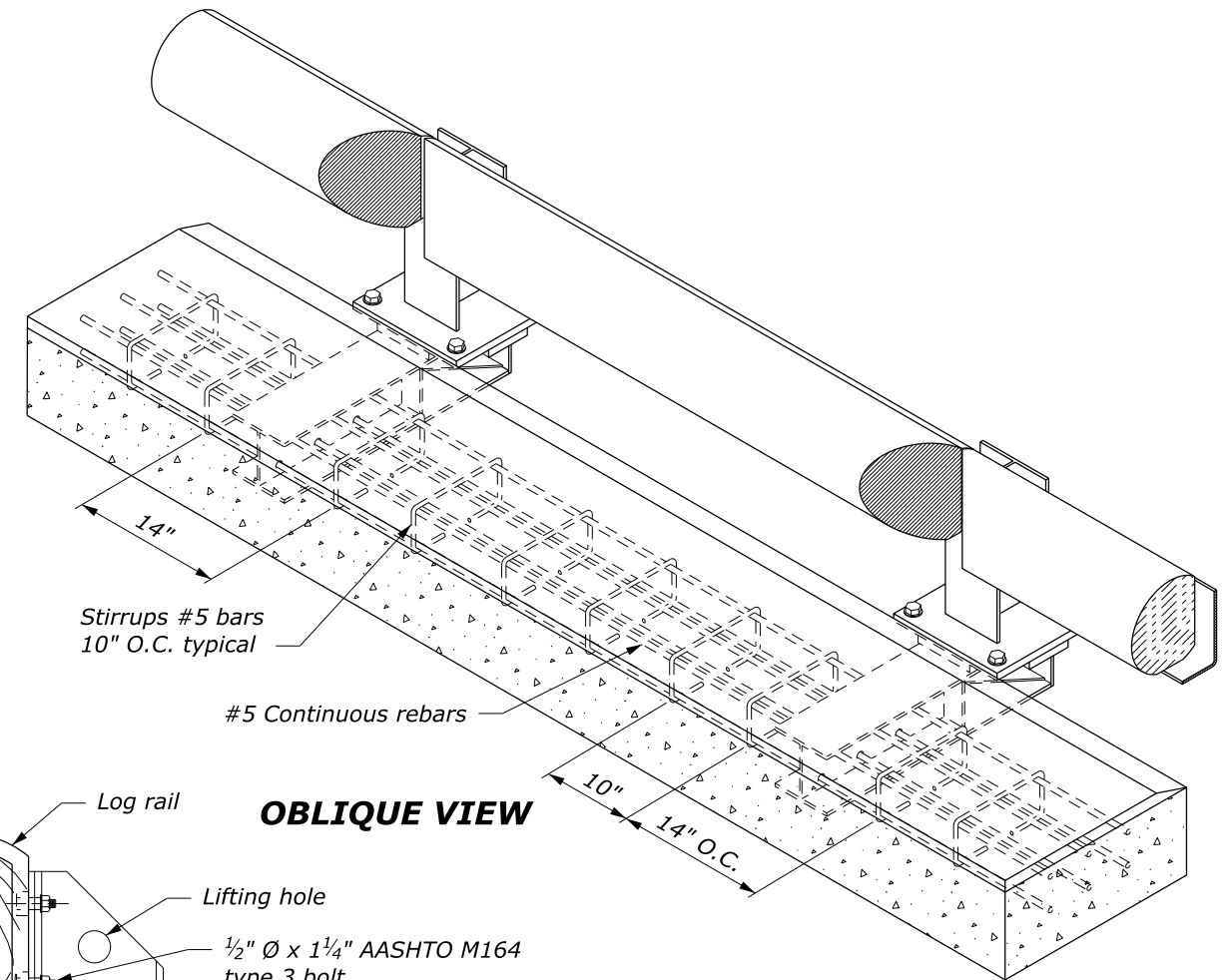
1. Steel is ASTM A242 or A588, Grade 50.
2. Concrete: minimum $f_c' = 3500$ psi



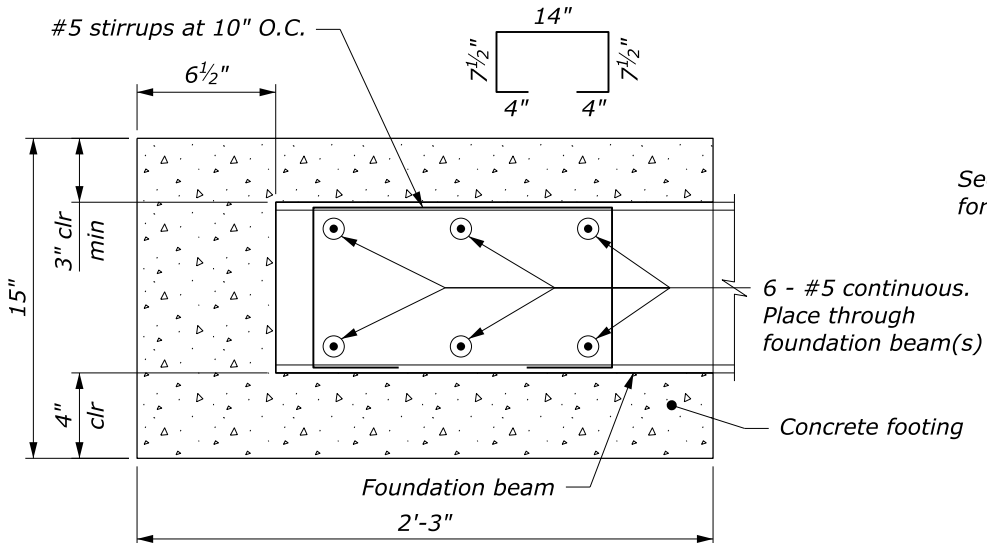
**ENDS OF RAILS AT POST:
MAXIMUM VERTICAL
DEFLECTION ALLOWABLE
ELEVATION**



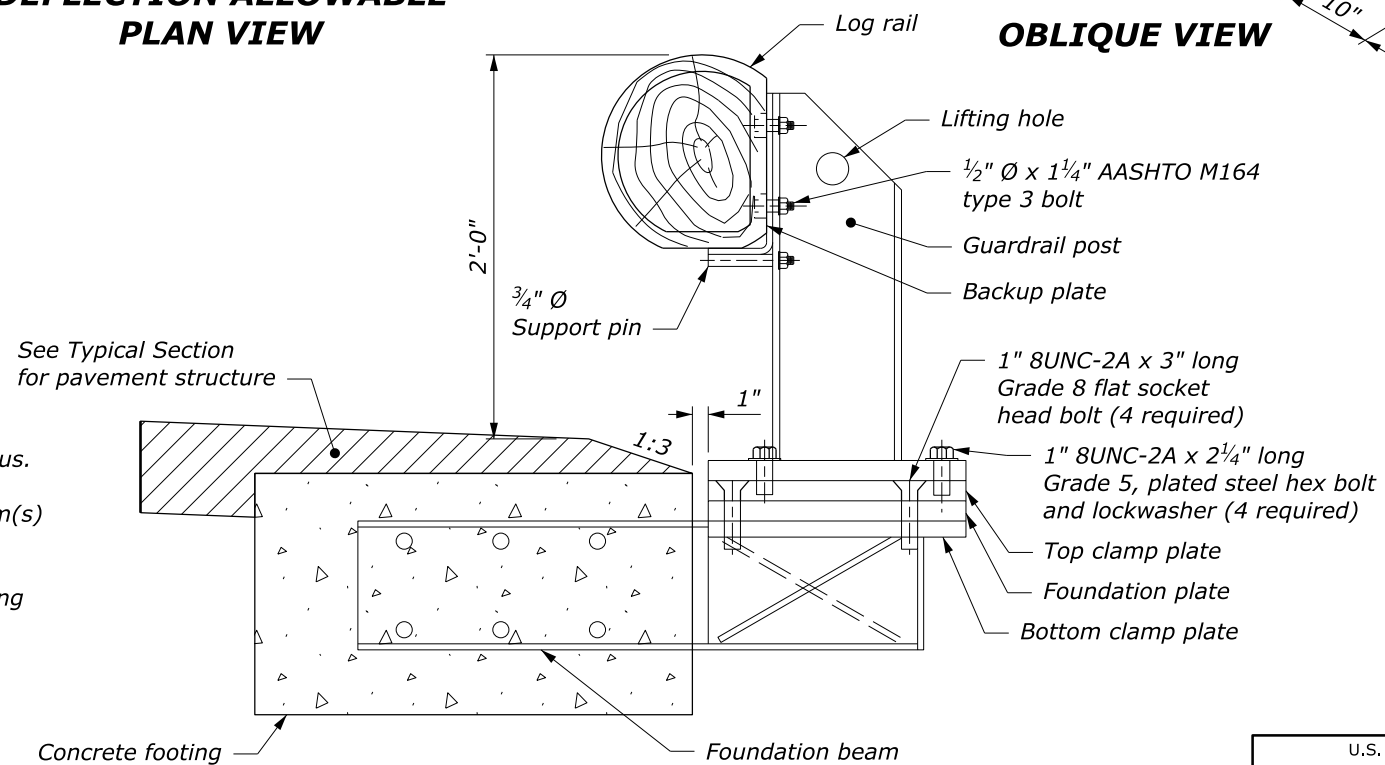
**MAXIMUM HORIZONTAL
DEFLECTION ALLOWABLE
PLAN VIEW**



OBLIQUE VIEW



**FOOTING DETAIL
TYPICAL SECTION**



TYPICAL SECTION

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY

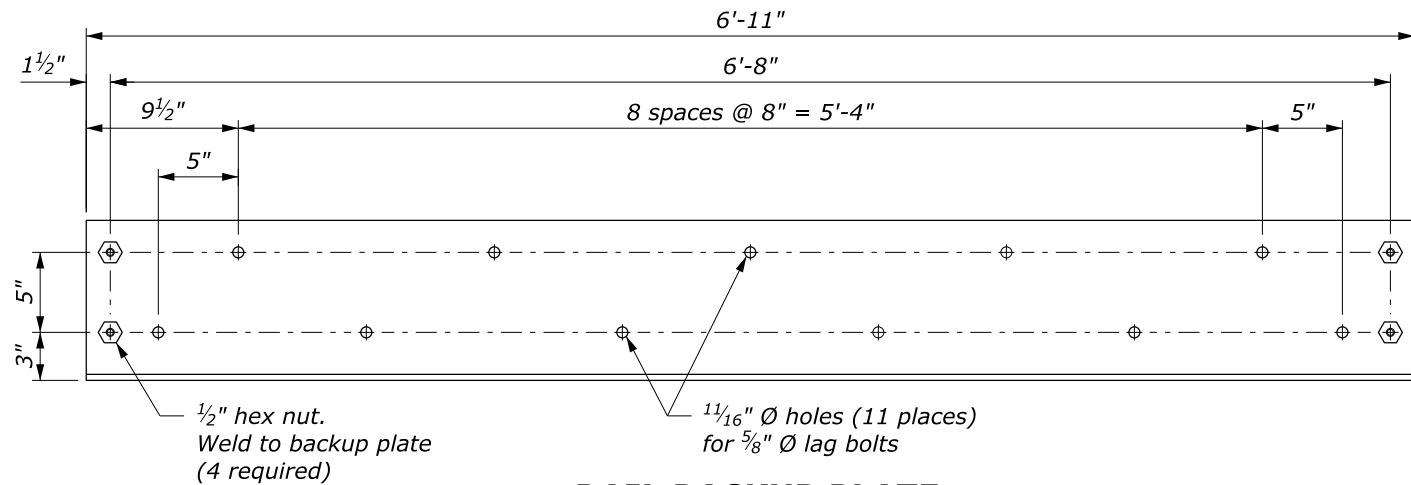
**REMOVABLE
STEEL-BACKED LOG RAIL**

Sheet 1 of 3

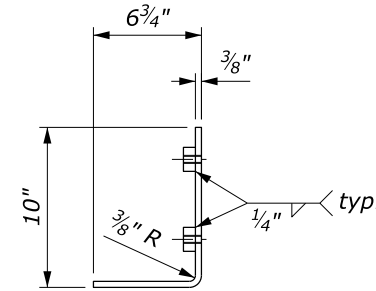
WFL STANDARD
W617-83

SPECIFICATION
FP-24, FP-14

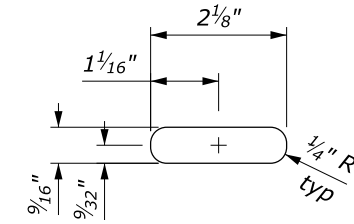
APPROVED FOR USE
10/2024



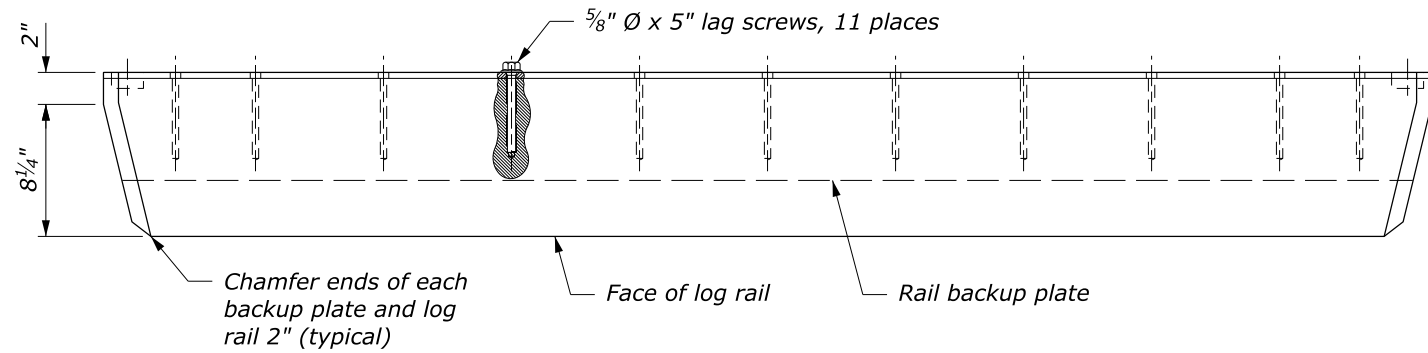
**RAIL BACKUP PLATE
ELEVATION VIEW**



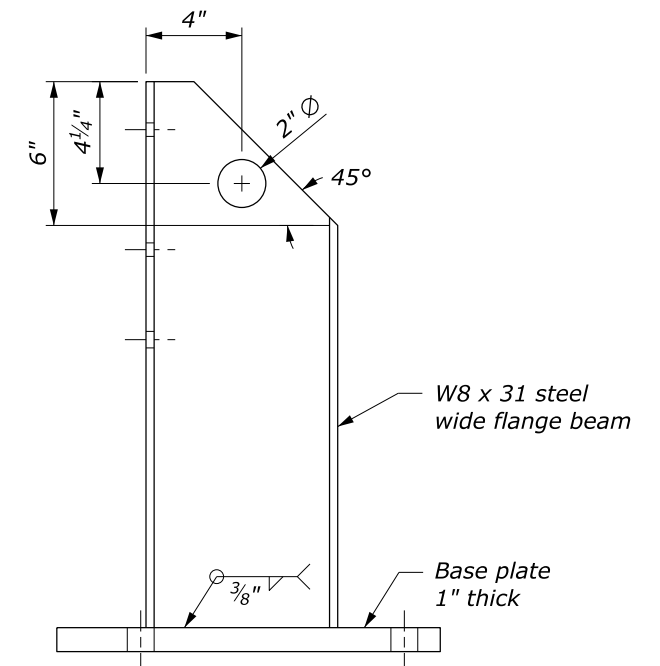
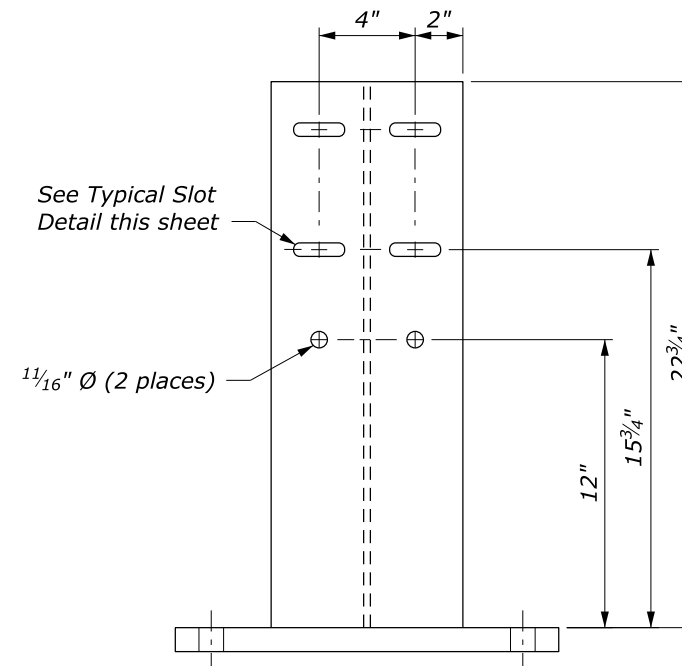
**RAIL BACKUP PLATE
SECTION VIEW**



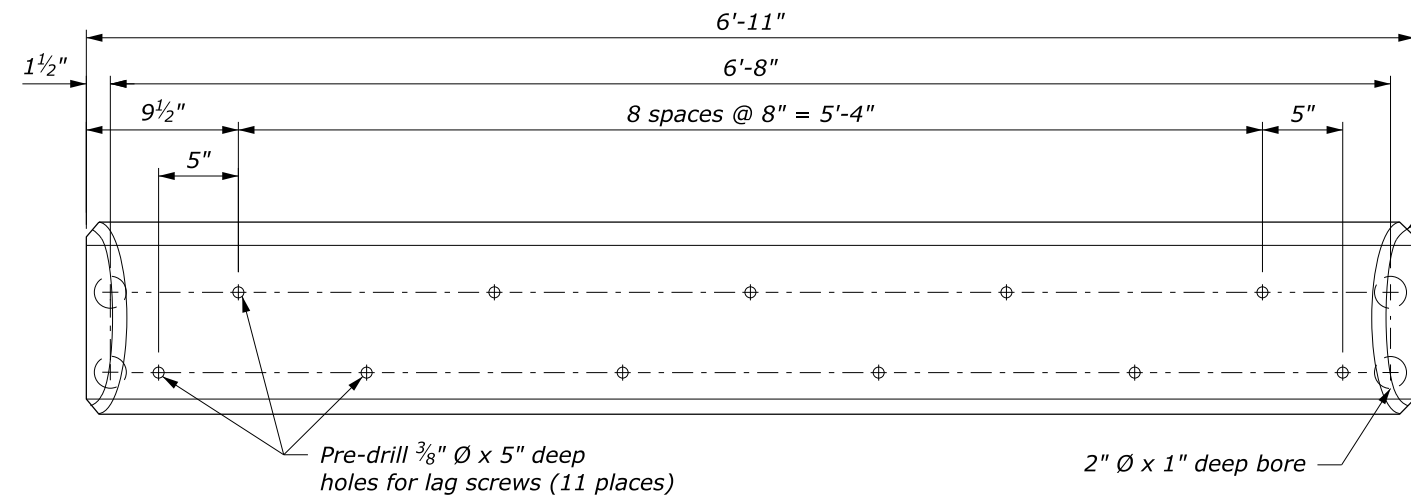
TYPICAL SLOT DETAIL



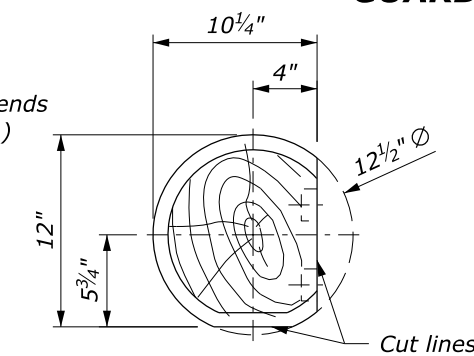
**LOG RAIL & RAIL BACKUP PLATE
PLAN VIEW**



GUARDRAIL POST



**LOG RAIL
ELEVATION VIEW**



**LOG RAIL
SECTION VIEW**

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY

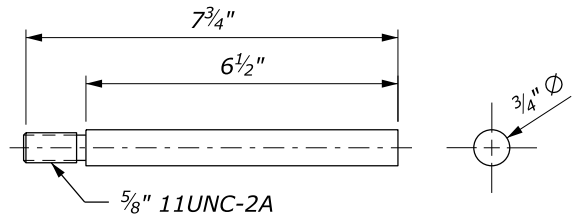
**REMOVABLE
STEEL-BACKED LOG RAIL**

Sheet 2 of 3

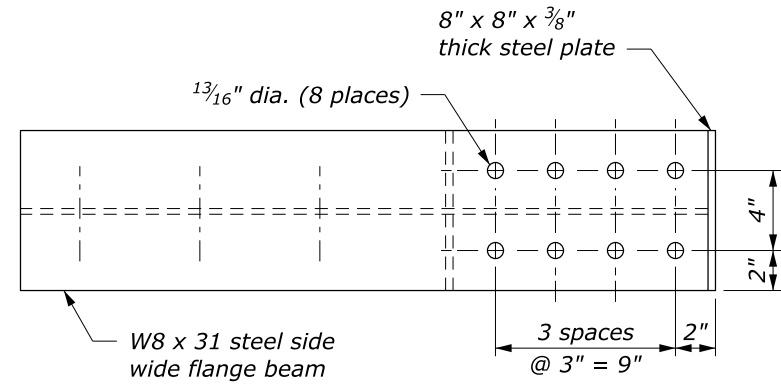
WFL STANDARD
W617-83

SPECIFICATION
FP-24, FP-14

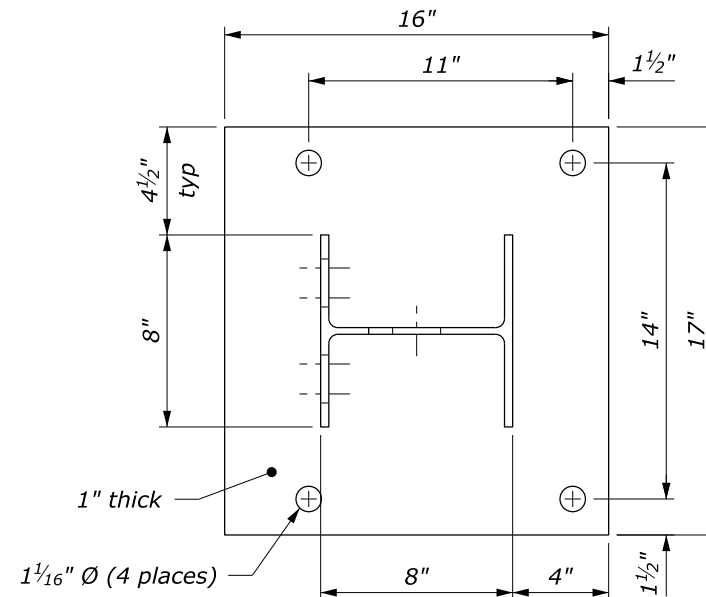
APPROVED FOR USE
10/2024



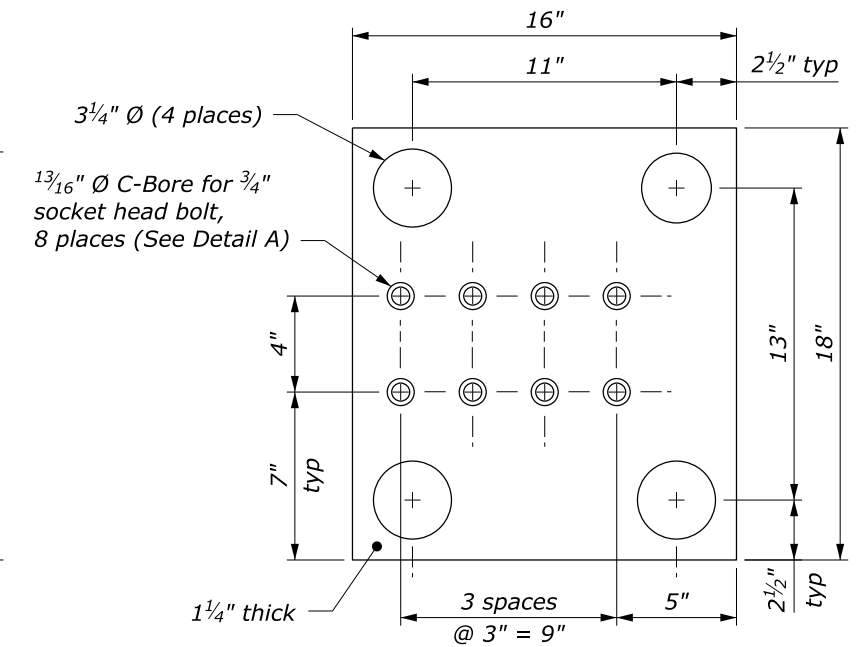
SUPPORT PIN



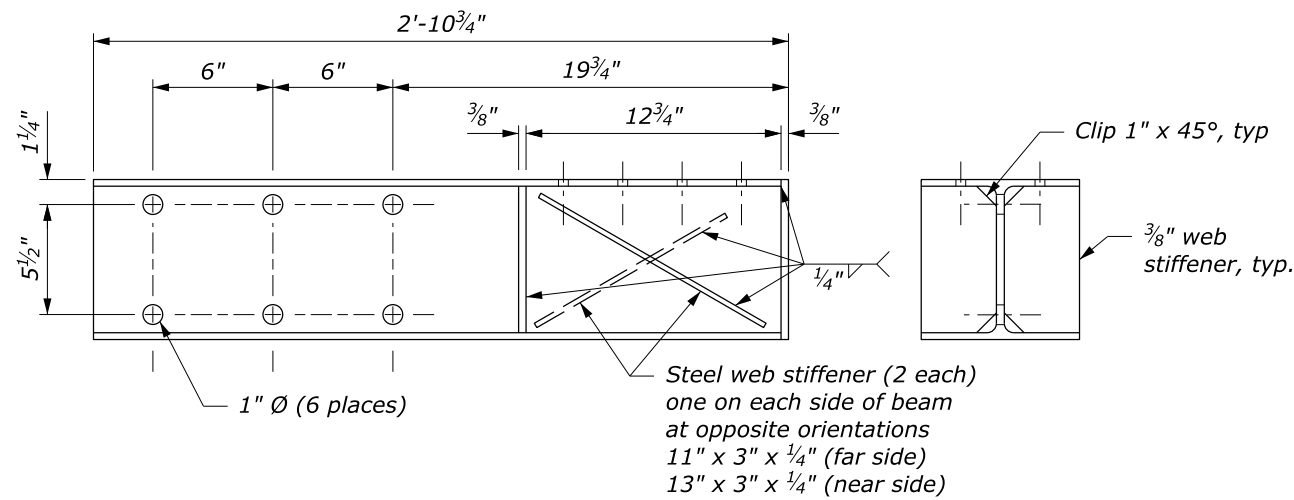
W8 x 31 steel side wide flange beam



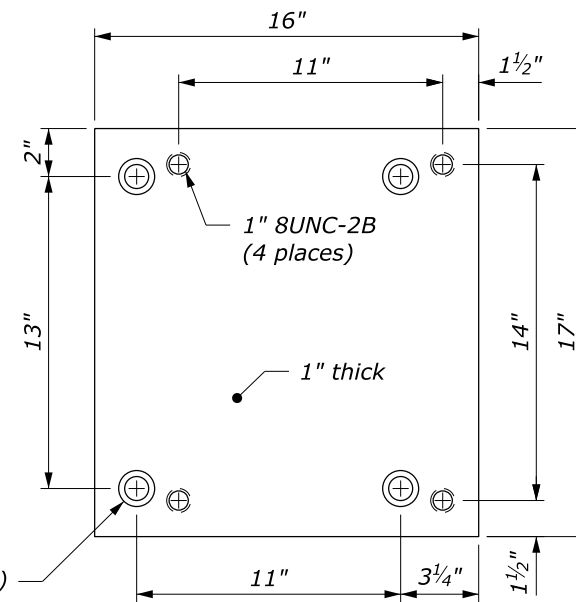
RAIL POST BASE PLATE



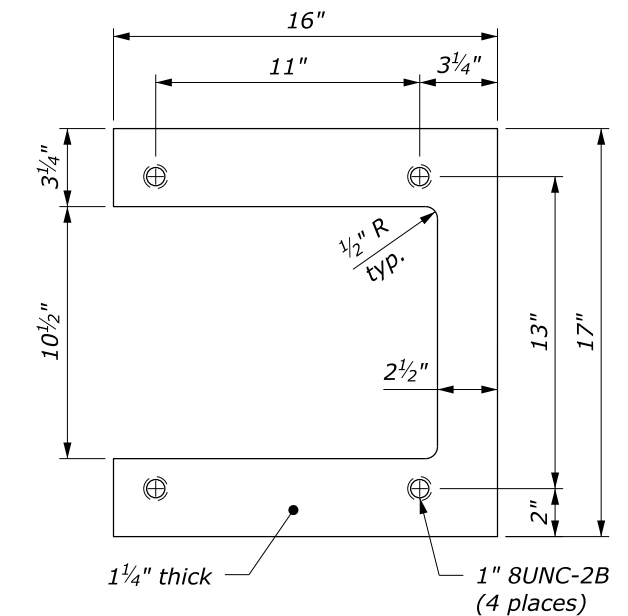
FOUNDATION PLATE



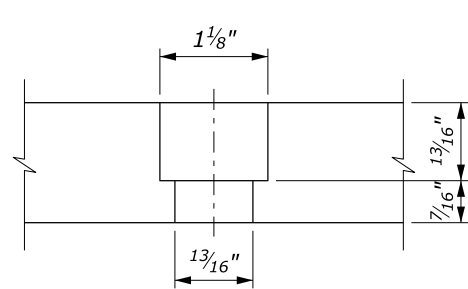
FOUNDATION BEAM



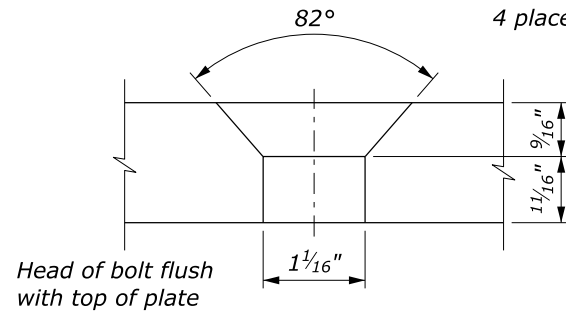
TOP CLAMP PLATE



BOTTOM CLAMP PLATE



DETAIL A

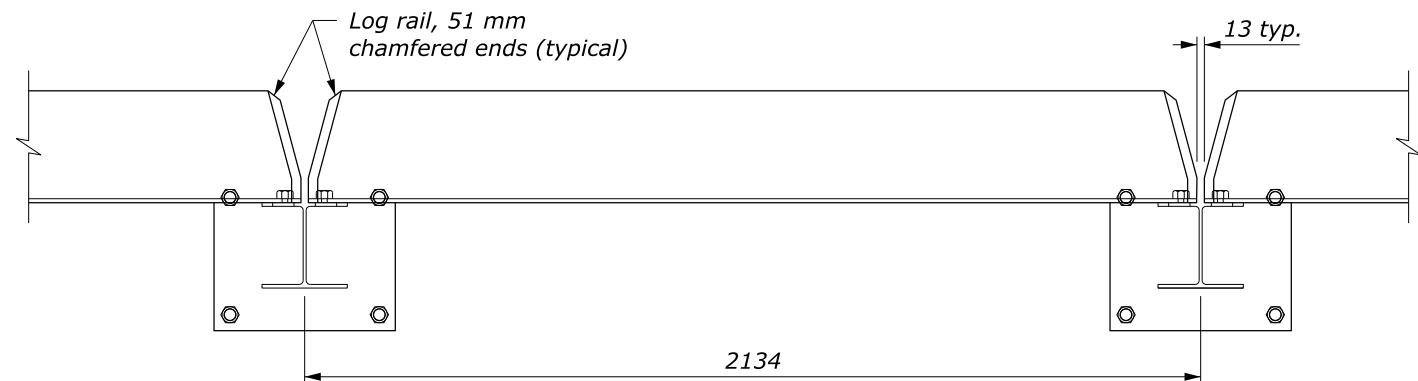


DETAIL B

1 1/16" Ø C-Sink for 1" flat socket head bolt, 4 places (See Detail B)

NO SCALE

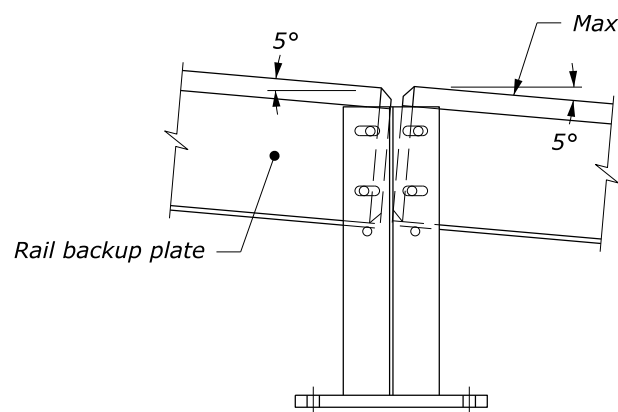
U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	WFL STANDARD W617-83
REMOVABLE STEEL-BACKED LOG RAIL	SPECIFICATION FP-24, FP-14
Sheet 3 of 3	APPROVED FOR USE 10/2024



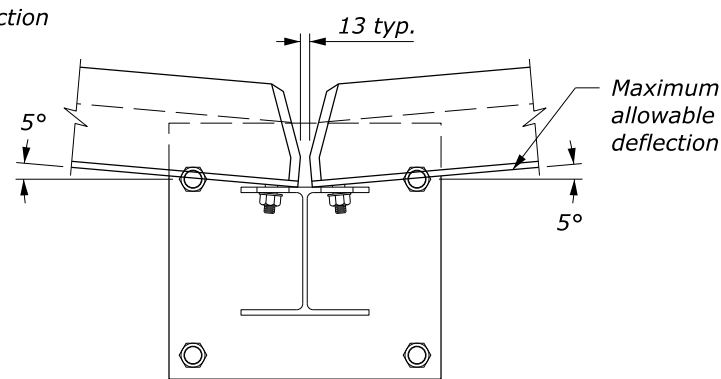
PLAN VIEW

NOTE:

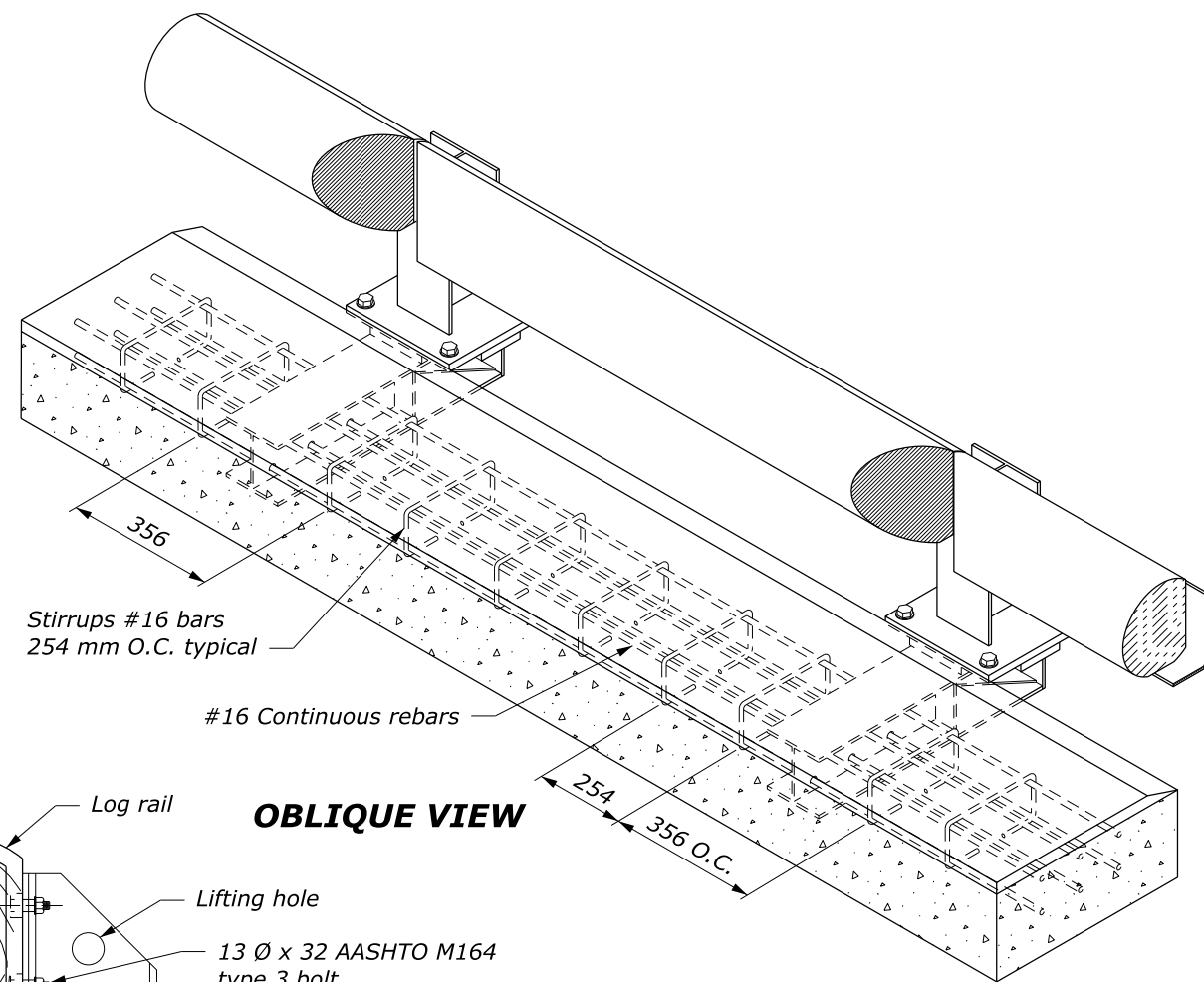
1. Steel is ASTM A242 or A588, Grade 50.
2. Concrete: minimum $f_c' = 24$ MPA
3. Furnish hardware in equivalent US Customary sizes.



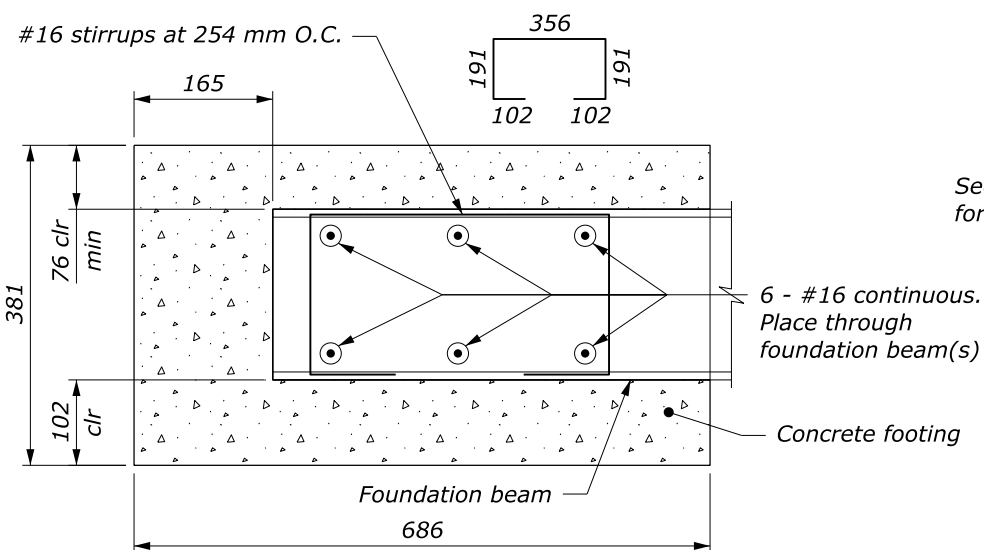
**ENDS OF RAILS AT POST:
MAXIMUM VERTICAL
DEFLECTION ALLOWABLE
ELEVATION**



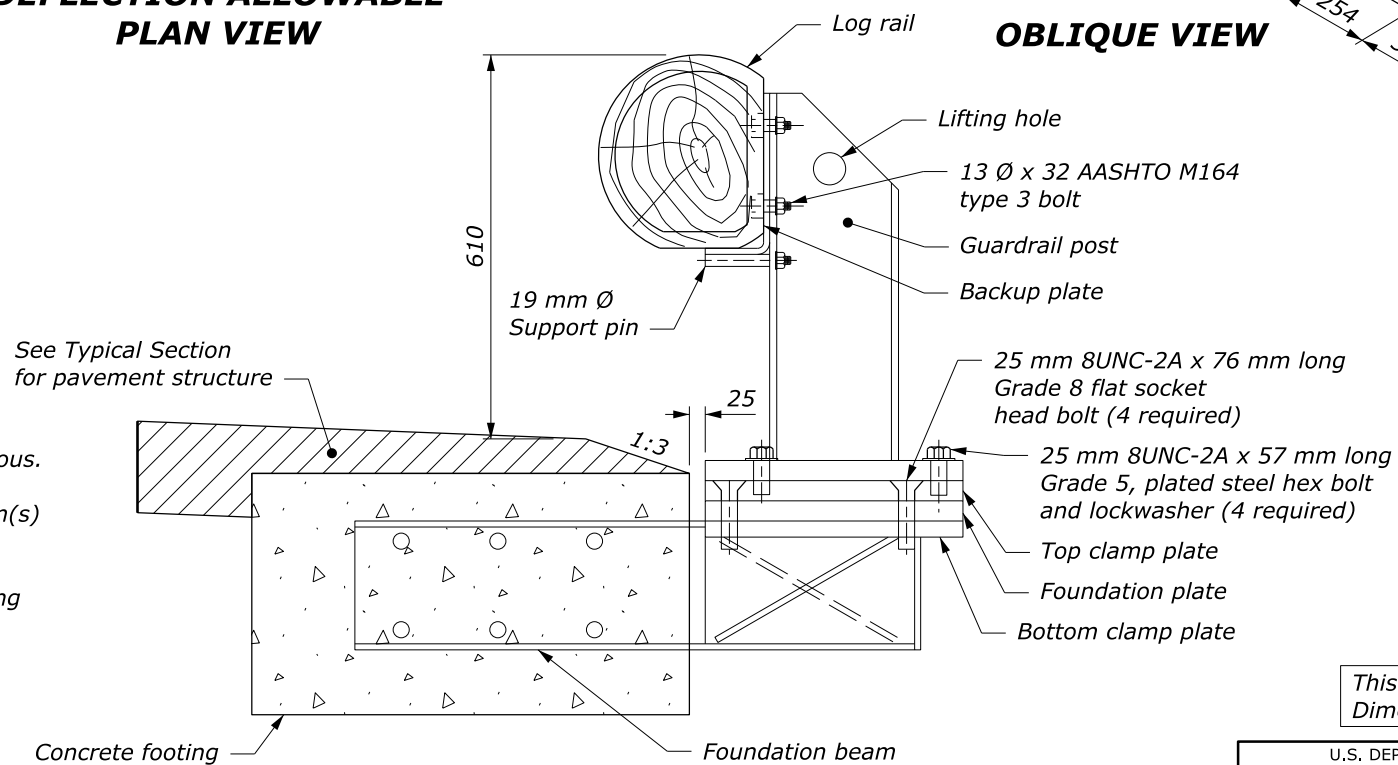
**MAXIMUM HORIZONTAL
DEFLECTION ALLOWABLE
PLAN VIEW**



OBLIQUE VIEW



**FOOTING DETAIL
TYPICAL SECTION**



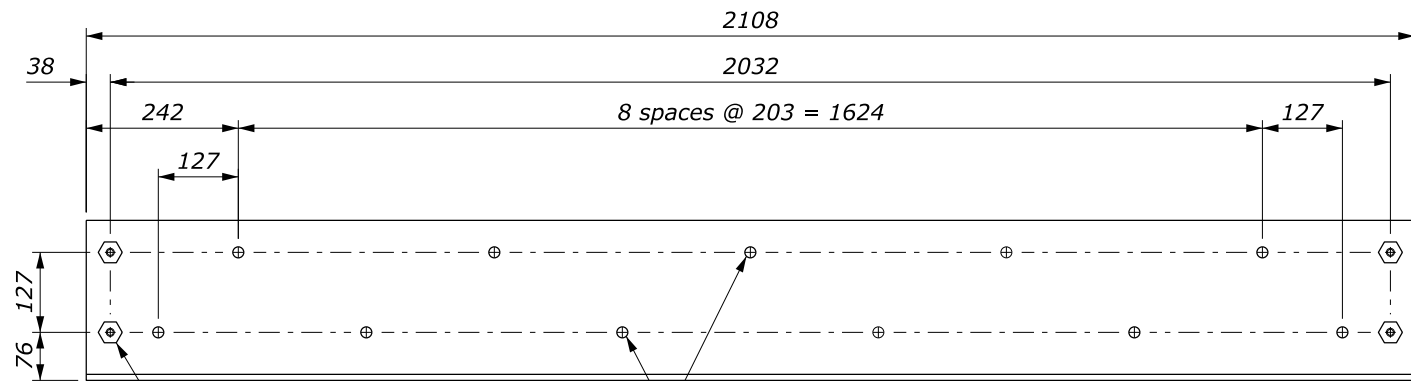
TYPICAL SECTION

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	WFL STANDARD WM617-83
REMOVABLE STEEL-BACKED LOG RAIL	SPECIFICATION FP-24/FP-14
Sheet 1 of 3	APPROVED FOR USE 10/2024

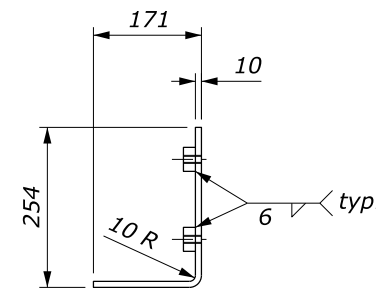
NO SCALE

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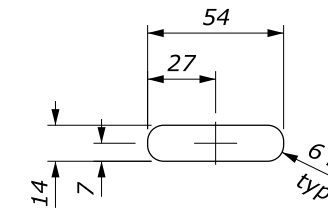


13 mm hex nut. Weld to backup plate (4 required)
 17 mm Ø holes (11 places) for 16 mm Ø lag bolts

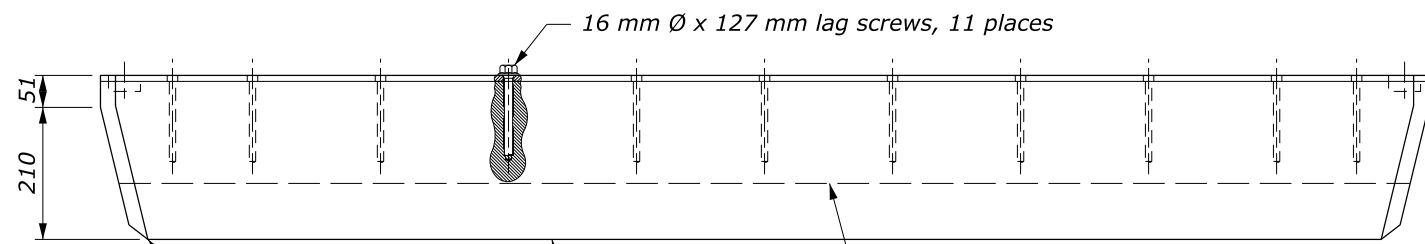
RAIL BACKUP PLATE ELEVATION VIEW



RAIL BACKUP PLATE SECTION VIEW

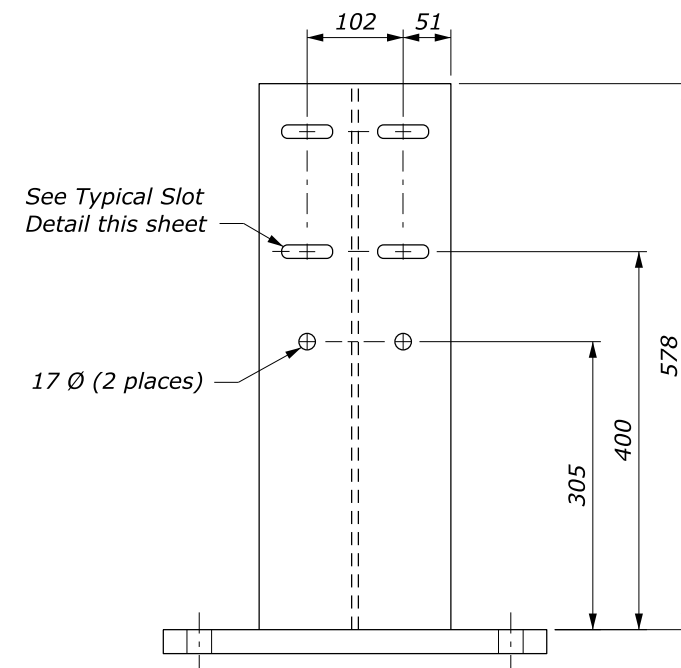


TYPICAL SLOT DETAIL



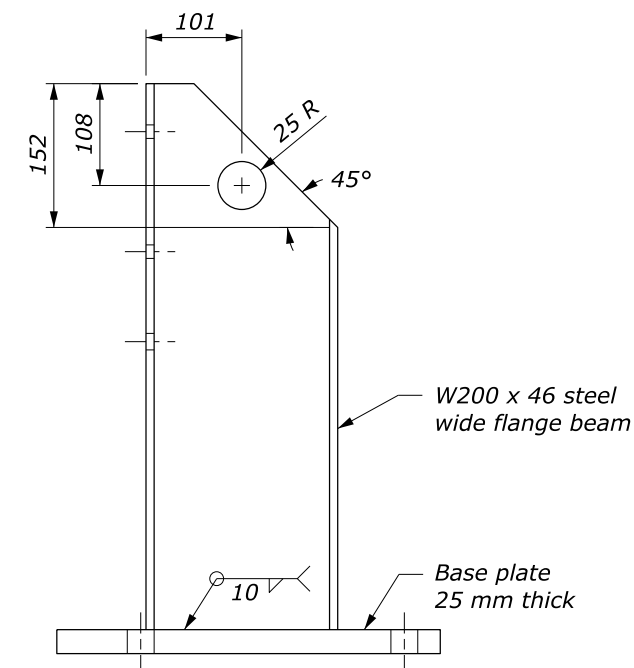
16 mm Ø x 127 mm lag screws, 11 places
 Chamfer ends of each backup plate and log rail 51 mm (typical)
 Face of log rail
 Rail backup plate

LOG RAIL & RAIL BACKUP PLATE PLAN VIEW

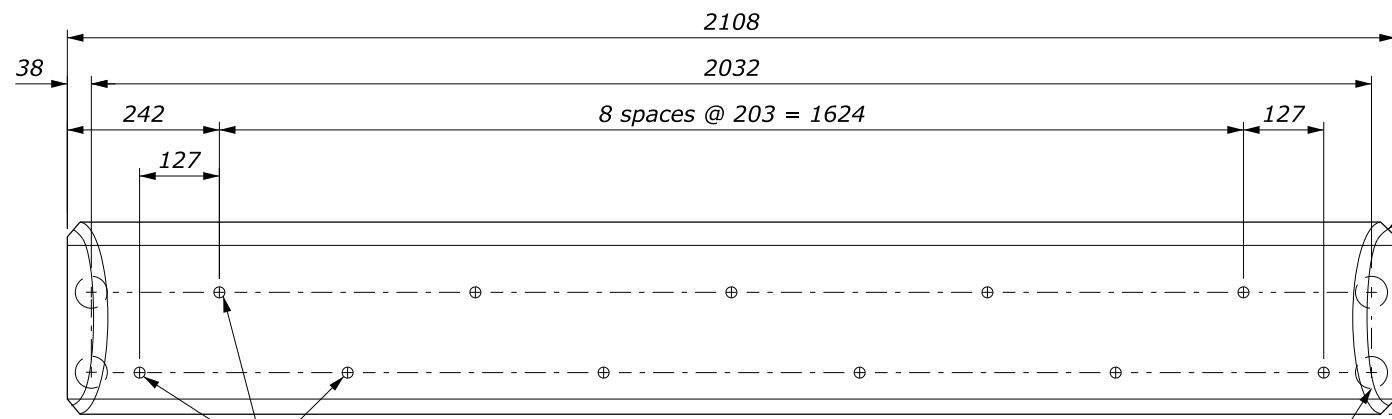


See Typical Slot Detail this sheet
 17 Ø (2 places)

GUARDRAIL POST

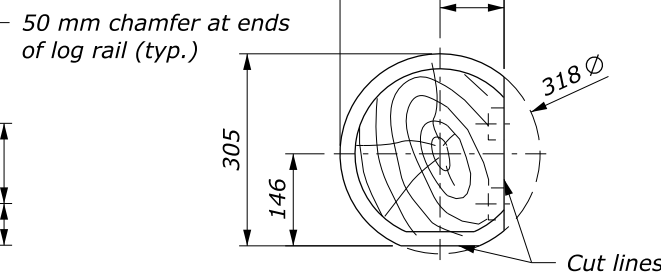


W200 x 46 steel wide flange beam
 Base plate 25 mm thick



Pre-drill 10 mm Ø x 127 mm deep holes for lag screws (11 places)
 51 mm Ø x 25 mm deep bore

LOG RAIL ELEVATION VIEW



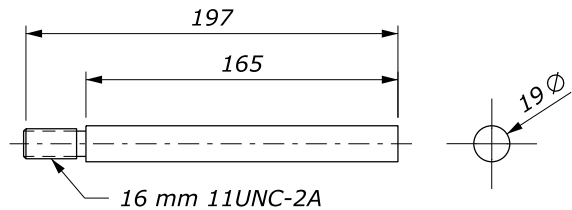
50 mm chamfer at ends of log rail (typ.)

LOG RAIL SECTION VIEW

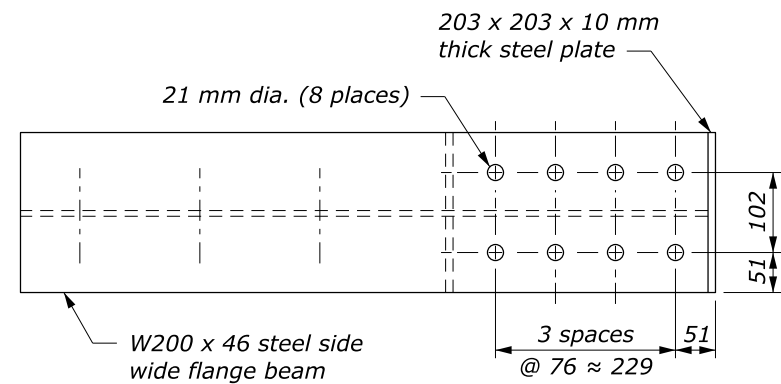
NO SCALE

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

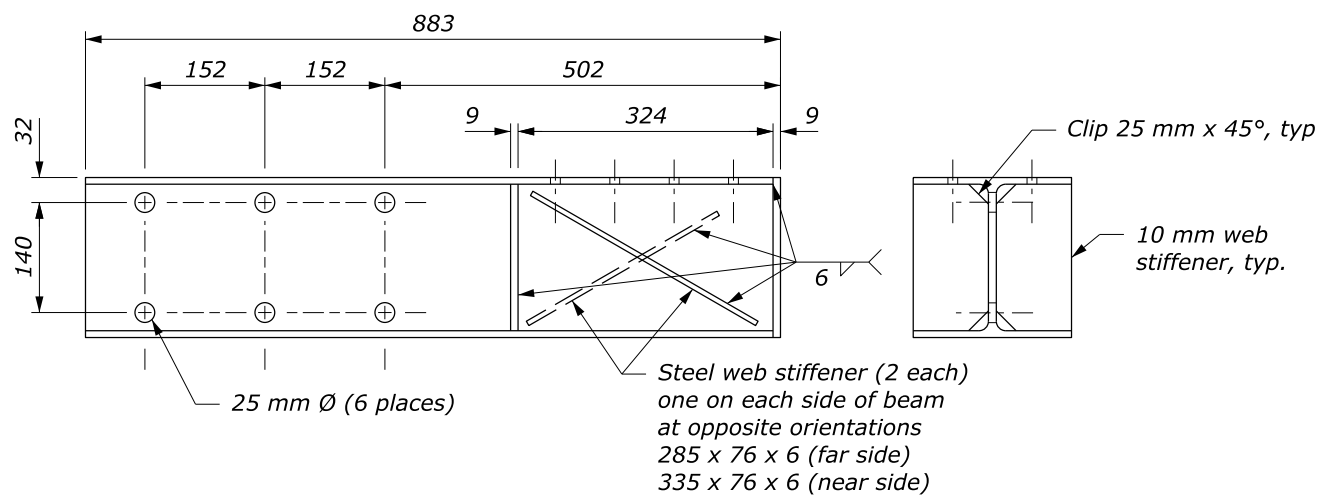
U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	WFL STANDARD WM617-83
REMOVABLE STEEL-BACKED LOG RAIL	SPECIFICATION FP-24/FP-14
Sheet 2 of 3	APPROVED FOR USE 10/2024



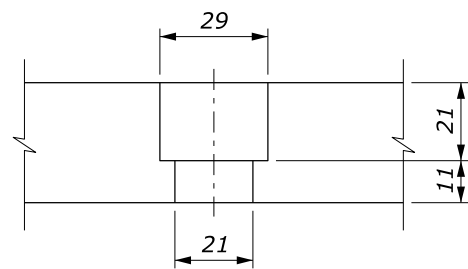
SUPPORT PIN



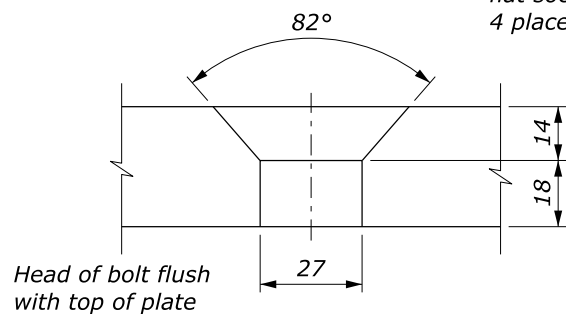
FOUNDATION BEAM



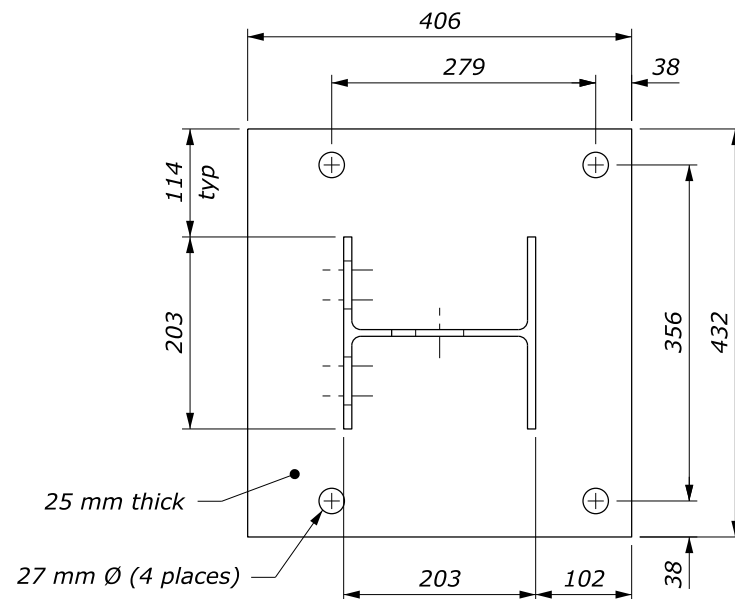
FOUNDATION BEAM



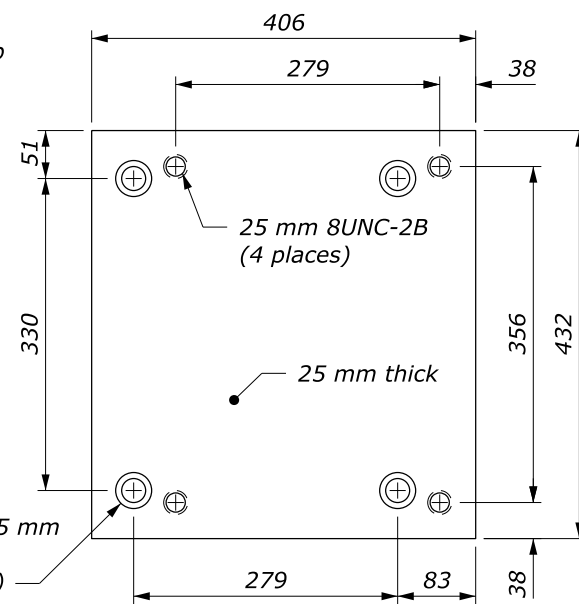
DETAIL A



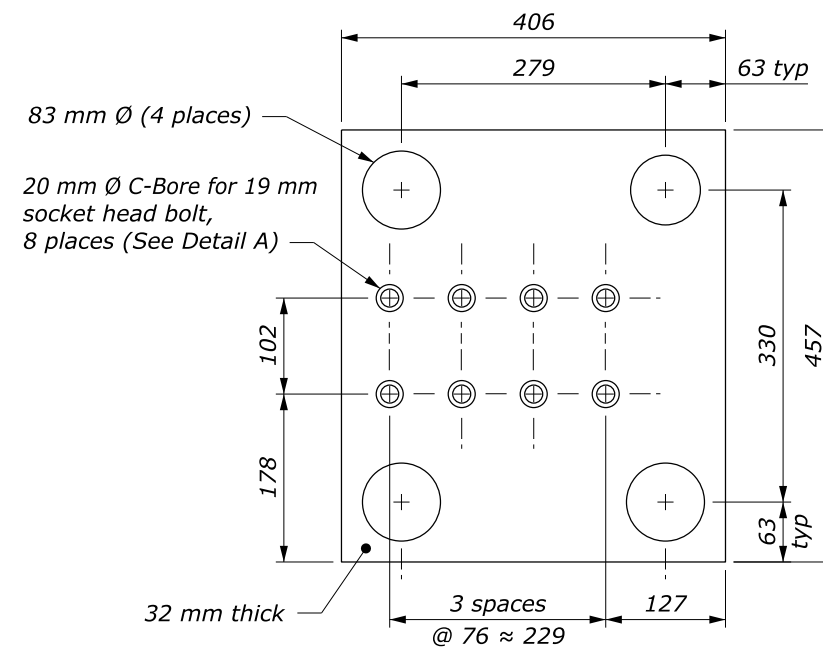
DETAIL B



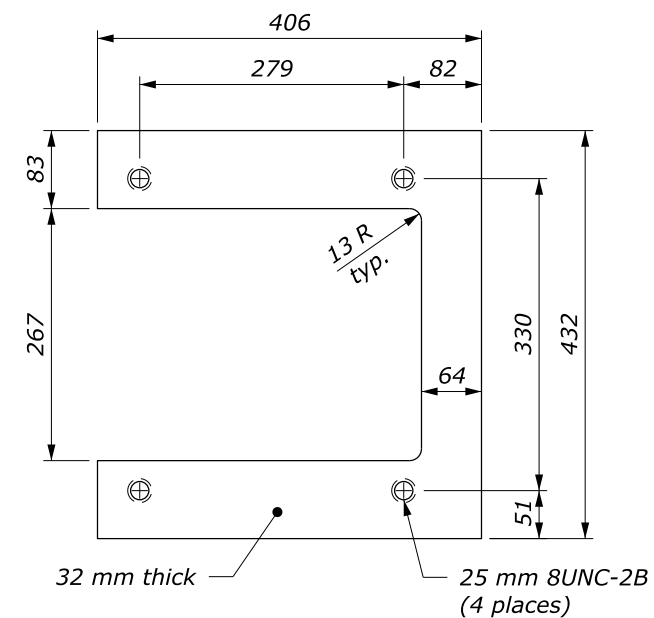
RAIL POST BASE PLATE



TOP CLAMP PLATE



FOUNDATION PLATE



BOTTOM CLAMP PLATE

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	WFL STANDARD WM617-83
REMOVABLE STEEL-BACKED LOG RAIL	SPECIFICATION FP-24/FP-14
Sheet 3 of 3	APPROVED FOR USE 10/2024

NO SCALE

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