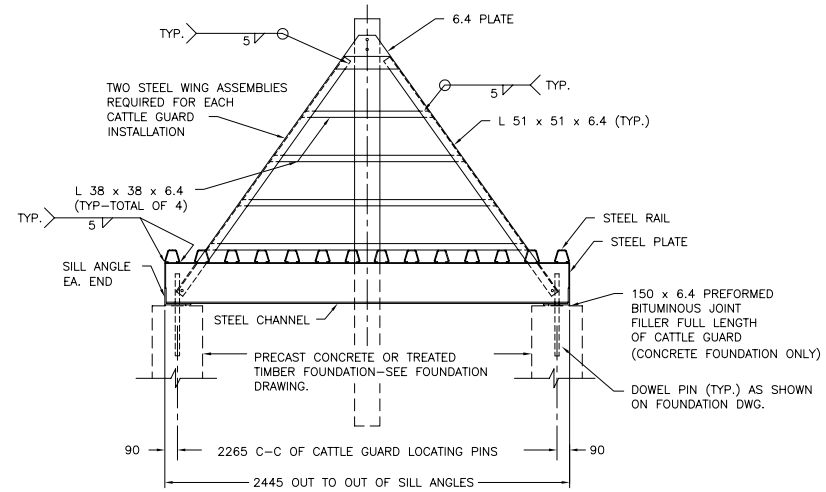
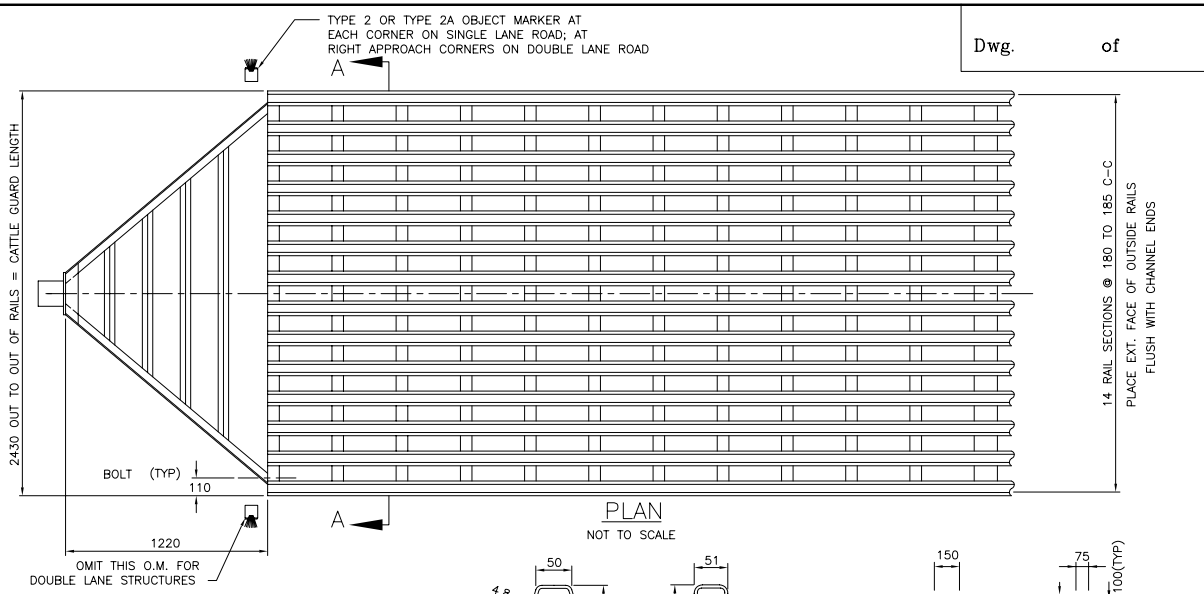
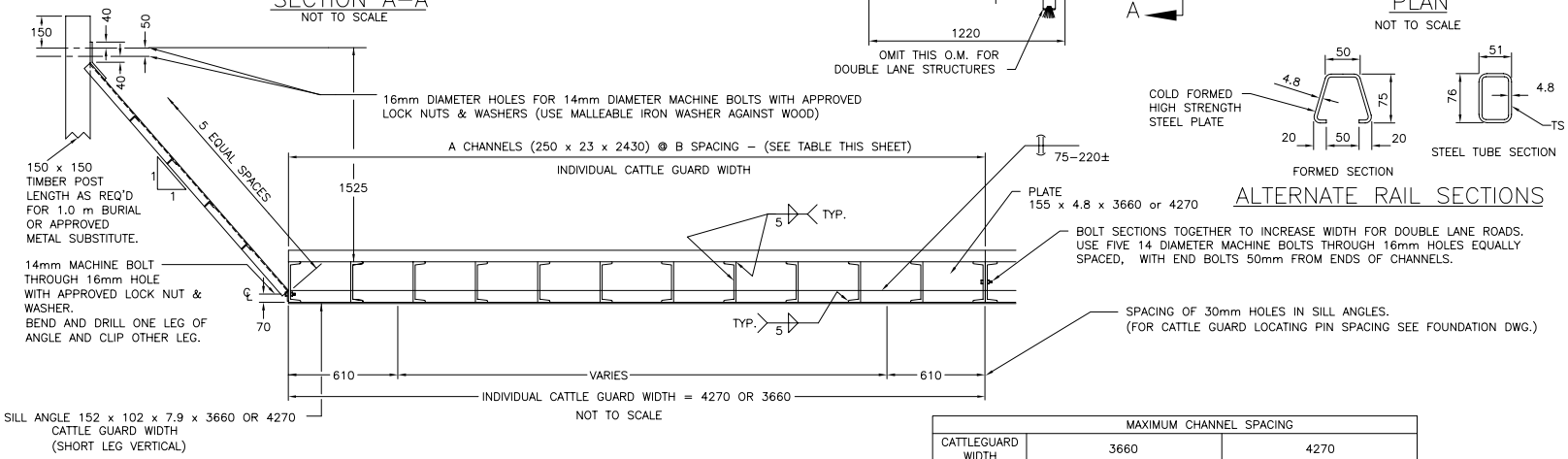
Dwg. of



SECTION A–A
NOT TO SCALE

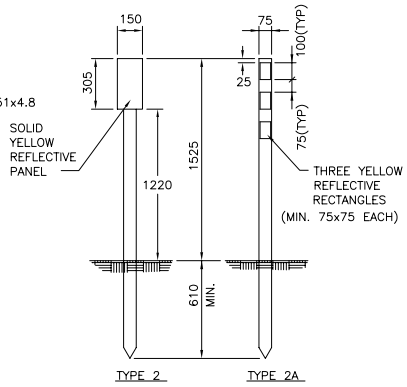


PLAN
NOT TO SCALE



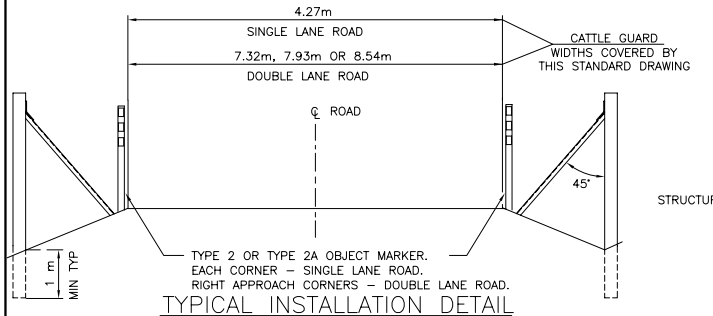
NOT TO SCALE

ALTERNATE RAIL SECTIONS

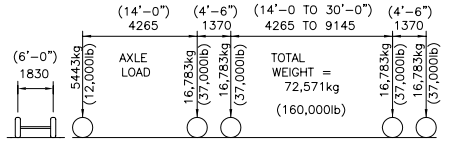


OBJECT MARKER
TYPE 2 – 150X150 TREATED TIMBER OR GALVANIZED STEEL POST
TYPE 2A – FLEXIBLE FIBERGLASS POST, , 1.637 kg/m

MAXIMUM CHANNEL SPACING				
CATTLEGUARD WIDTH	3660		4270	
LOADING	MU72.6 (U80)	M18 (HS20)	MU72.6 (U80)	M18 (HS20)
A(NUMBER)	10	9	12	10
B(SPACING)±	405	455	385	475



TYPICAL INSTALLATION DETAIL
NOT TO SCALE



MU72.6 (U80) OFF HIGHWAY TRUCK

NOTE: SINGLE LANE STRUCTURES SHALL BE 4270 WIDTH. 3660 WIDE ELEMENTS ARE TO BE USED ONLY IN COMBINATIONS TO CONSTRUCT DOUBLE LANE STRUCTURES AS SHOWN IN TYPICAL INSTALLATION DETAIL.

GENERAL NOTES

DESIGN LOADING: AASHTO MS18 (HS20–44) LOADING AND U.S.F.S. MU72.6 (U80) LOADING AS SHOWN.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL EXCEPT RAIL SECTIONS SHALL CONFORM TO AASHTO M183M (ASTM A36M). RAIL SECTIONS SHALL BE FORMED SECTIONS MADE FROM HIGH STRENGTH STEEL CONFORMING TO ASTM A992M OR ASTM A570M, GRADE 310 OR HIGHER; OR RECTANGULAR STEEL TUBE SECTIONS CONFORMING TO ASTM A500, GRADE B. BOLTS AND OTHER HARDWARE SHALL CONFORM TO ASTM F568M, CLASS 4.6. WELDING AND FABRICATION SHALL BE DONE IN ACCORDANCE WITH SECTION 555 OF THE SPECIFICATION, EXCEPT WELDING SHALL CONFORM TO THE STRUCTURAL WELDING CODE, ANSI/AWS D1.1.

TIMBER: SHALL BE ROUGH SAWN NO.1 COASTAL DOUGLAS FIR OR WESTERN LARCH, INCISED ALL SIDES AND THEN TREATED WITH: 1) CREOSOTE MEETING AWPA P1; OR 2) PENTACHLOROPHENOL, OR COPPER NAPHTHENATE, BOTH MEETING AWPA P8 IN A P9 TYPE A HYDROCARBON SOLVENT. TREAT IN ACCORDANCE WITH AWPA C1 AND C2 FOR SOIL CONTACT USE.

PAINT: AFTER BLAST CLEANING CONFORMING TO SSPC–SP6 (COMMERCIAL BLAST CLEANING) ALL METAL PARTS OF THE CATTLE GUARD SHALL BE PAINTED IN ACCORDANCE WITH SECTION 563 OF THE SPECIFICATION. PAINT SYSTEM 2 OR 3 SHALL BE USED FOR COASTAL ENVIRONMENTS. AND SYSTEM 4 OR 5 ELSEWHERE UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. THE COLOR OF THE FINAL COAT SHALL BE DETERMINED BY THE CONTRACTING OFFICER AS INDICATED IN THE CONTRACT DOCUMENTS.

HARDWARE: SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111 (ASTM A123).

THIS IS A METRIC DRAWING
ALL DIMENSIONS ARE IN mm (MILLIMETERS) UNLESS NOTED
DO NOT SCALE DRAWING

REV.	DESCRIPTION	APPROVED	DATE
1	CONVERTED RS201 REV. 4 TO METRIC PLUS GENERAL UPDATE		

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
THE PACIFIC NORTHWEST REGION (R–6)

STANDARD
WELDED CATTLE GUARD

Forest:
Bridge No.:
Location:
Loading: MS18 (HS20–44) OR MU72.6 (U80)
Length: 2.43m
Width: 4.27, 7.32, 7.93, or 8.54m ROADWAY

Designed: R.E.S. Drawn: C.L.Y. Checked: RES
Submitted: _____ Date: _____
SUPERVISORY STRUCTURAL ENGINEER
Approved: /S/ R.E. SCHMIDT Date: 4/79
REGIONAL BRIDGE ENGINEER

SHEET 1 of 1 | DWG.No. RS201M