

TRANSFORMER NO. 2 RATING & CHARACTERISTICS

Moloney Electric Co.

Type CR

Serial Nos. 89582-83-84 & 85

Normal continuous rating, on all taps, oil-immersed, self-cooled kva	8,333
Frequency, Hertz	60
Number of phases	Single
High voltage, rated kv	69 Grd Y/39.84
Low voltage, rated kv	13.8
High-voltage winding connection	Star
Low-voltage winding connection	Delta
Average impedance (at 75°C and 8,333 kva)	7.3 percent
Polarity	Subtractive
Average excitation current at rated voltage	1 percent
Taps, low-voltage winding	None
Taps, high-voltage winding at rated kva:	1 @ 5% above normal 1 @ 2-1/2% above normal 1 @ 2-1/2% below normal 1 @ 5% below normal

Efficiency at 75% rated load, self-cooled
Oil immersed
Self cooled

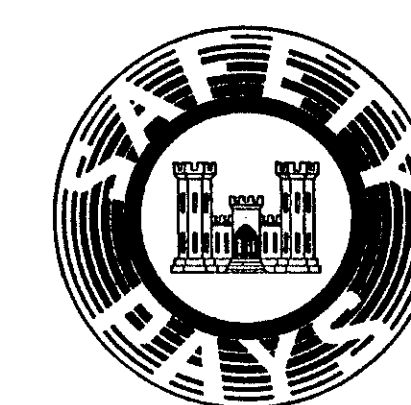
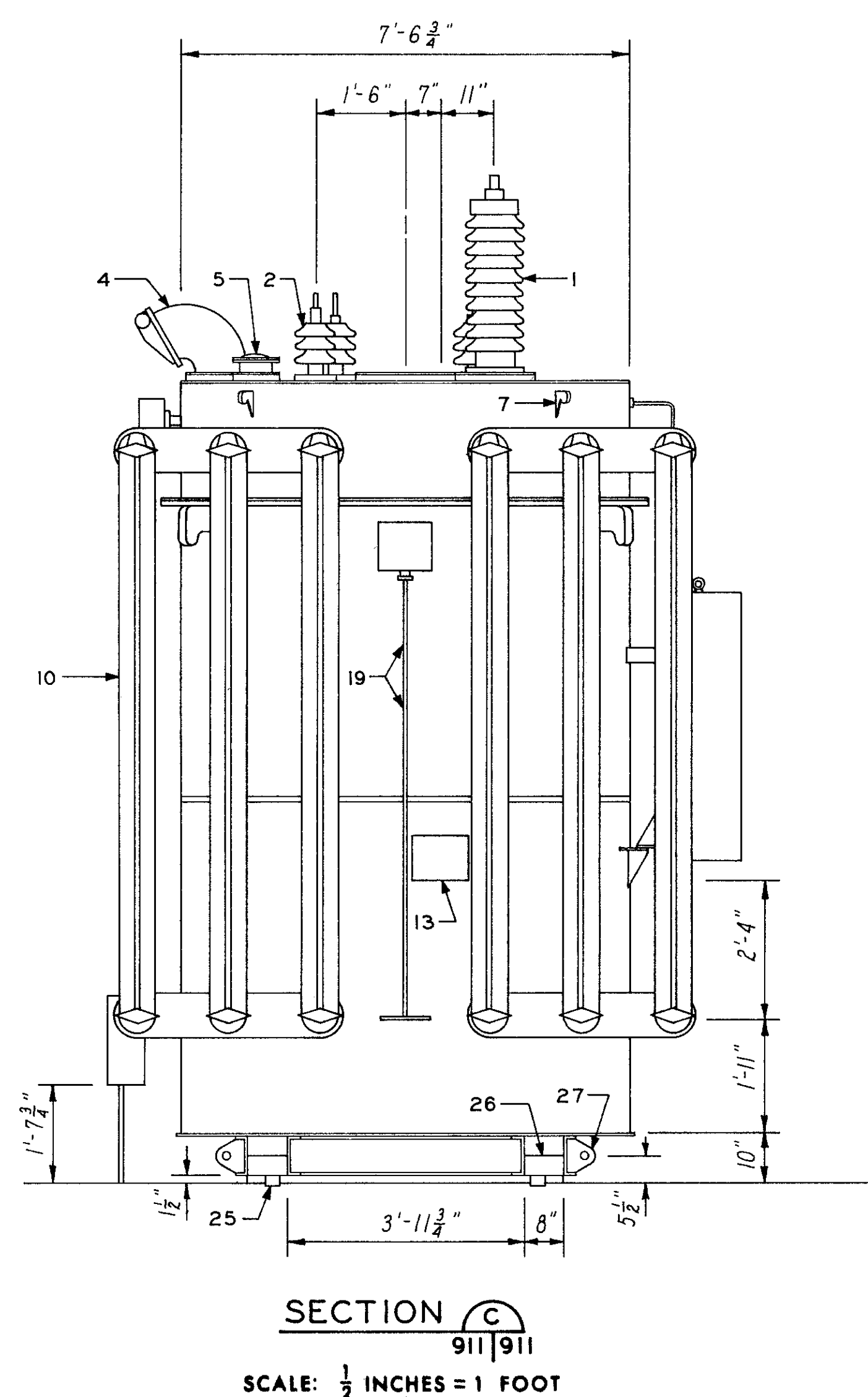
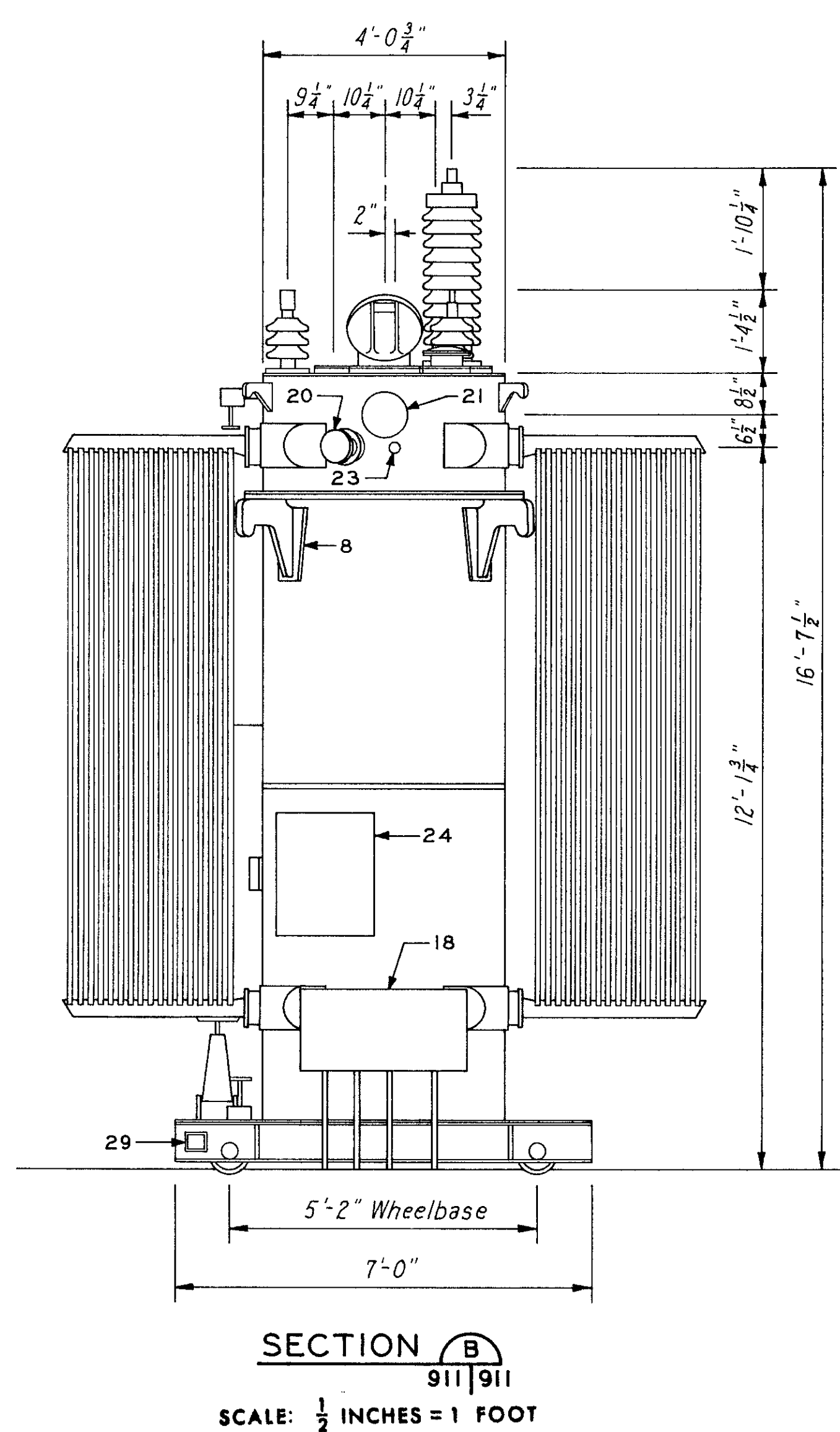
BUSHINGS. The bushings on each transformer consist of one high voltage bushing, one high voltage neutral bushing, and two low voltage bushings. The high voltage bushings were replaced in March 1959. New high voltage bushings are: Lapp Style POC (paper-oil-condenser) sealed oil-filled bushings, Catalog No. 862532, rated 69 kv, 400 Amperes. Each high voltage bushing is provided with a capacitance tap (not presently used) and a magnetic oil level gauge. Bushing type multi-ratio 600:5 ampere current transformers are supplied with each high voltage bushing but they are not in use at the present time, (Jan. 1952). The high voltage neutral bushing manufactured by the Moloney Electric Company is rated 15-kv and 400 amps. The two low voltage bushings, also manufactured by the Moloney Electric Company, are rated 15-kv, 1200 amps. Protective gaps are provided on all bushings as back-up

LEGEND:

- 1 H. V. Bushing with gaps and 250 M. C. M. clamp type term lugs.
- 2 H. V. Neutral bushing with gaps & 250 M. C. M. clamp type term lugs.
- 3 L. V. Bushings with gaps (see terminal detail).
- 4 Relief vent-reclosing type-with alarm contacts.
- 5 H. V. Current transf. secondary leads outlet box.
- 6 Manhole 18" dia.
- 7 Lifting hooks (4) for top section only.
- 8 Lifting hooks (4) for complete unit. (Slings included).
- 9 Magnetic oil gauge with alarm contacts.
- 10 Radiators with 3/4" plugs for drain & vent, top & bottom shut off valves & lifting lugs.
- 11 Inert Air Control Cabinet. (See Note 1).
- 12 Oil temp. therm. - Max. Ind. with alarm contacts.
- 13 Diagram Nameplate.
- 14 3/4" Air vent valve piped to top of tank for exhausting air when filling with oil or nitrogen gas.
- 15 1-1/2" top filter-globe type - baffled & plugged.
- 16 1-1/2" bottom filter valve - globe type - with 1/2" sampler valve.
- 17 3" oil drain valve - gate type.
- 18 Split type terminal box. Bottom of box equipped with 4 conduit hubs - 1-1/2", 3/4", 1" & 1".
- 19 Ratio adj. operating mech. & dial.
- 20 Winding temp. ind. equipment outlet box.
- 21 Outlet box for T. R. O. equipment.
- 22
- 23 Provisions for future blower control - Mercoid well plugged.
- 24 Thermal relay (T. R. O.) control box.
- 25 Trucks (4) broad flange (roller bearing with zerker fittings.)
- 26 Jack Lugs (4).
- 27 Pulling plates (4).
- 28 Gas expansion tank.
- 29 Ground pads (2) opp. sides & ends of base for 250 M. C. M. cable.

NOTE:

1. Inert Air Control Cabinet has been moved out approx. 2'-4-7/8" and down approx. 2'-2" from shown location to facilitate gas cylinder handling. Cabinets are replaced to their original locations when transformers are moved to the transformer service room.



THIS PLAN ACCOMPANIES CONTRACT NO. MODIFICATION NO.

REVISIONS		DATE	DESCRIPTION	MADE	APPROV
10-30-72		General Revisions		J.H.H.	R.L.B.

**U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS
OMAHA, NEBRASKA**

DESIGNED BY:	MISSOURI RIVER	
DRAWN BY:	FORT PECK LAKE, MONTANA	
CHECKED BY:		
SUBMITTED BY:		
CHIEF SECTION	SWITCHYARD 1	
RECOMMENDED:	TRANSFORMER NO. 2	
CHIEF	APPROVED:	DATE: DEC. 1971
BRANCH	CHIEF ENGINEERING DIVISION	
APPROVED:	SCALE: AS SHOWN	SPEC. NO.
	DRAWING NUMBER	
	MFP-OPN93E911.I	
	SHEET	

COL. G. E. DISTRICT ENGINEER