

SUMMARY OF QUANTITIES CONDUIT SYSTEM (LIGHTING)

Precast Conc. Handholes (Std. Plate 8117)	4 Units
① Light Standard Anchorage	6 Units
③ 1-1/2" dia. Conduit	40 Lin. Ft.
1-1/2" dia. Conduit End Caps	6 Units
Expansion/Deflection Fittings	4 Units
Reinforcement Bars	85 Lbs.
2" dia. Conduit	590 Lin.Ft.

③ System to be grounded.
All material listed above is included in "CONDUIT SYSTEM LIGHTING"

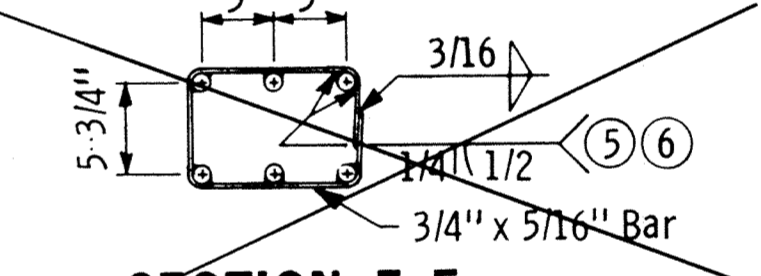
BILL OF REINFORCEMENT FOR RAILING

BAR	NO.	LENGTH	SHAPE	LOCATION
R521E	3	5' 6"	Bent	Light Std. Long.
R522E	3	5' 8"	Bent	Light Std. Long.
R523E	3	5' 10"	Bent	Light Std. Long.
R524E	6	6' 6"	Bent	Light Std. Long.
R525E	6	6' 10"	Bent	Light Std. Long.
R526E	6	6' 10"	Bent	Light Std. Long.
R527E	7	7' 4"	Bent	Light Std. Vert.
R528E	6	6' 2"	Bent	Light Std. Vert.
R524E	6	5' 0"	Strt.	Light Std. Long.

⑤ welding permitted for alternate (X).
Use stainless steel electrode-Type 308 for welding or repairing.

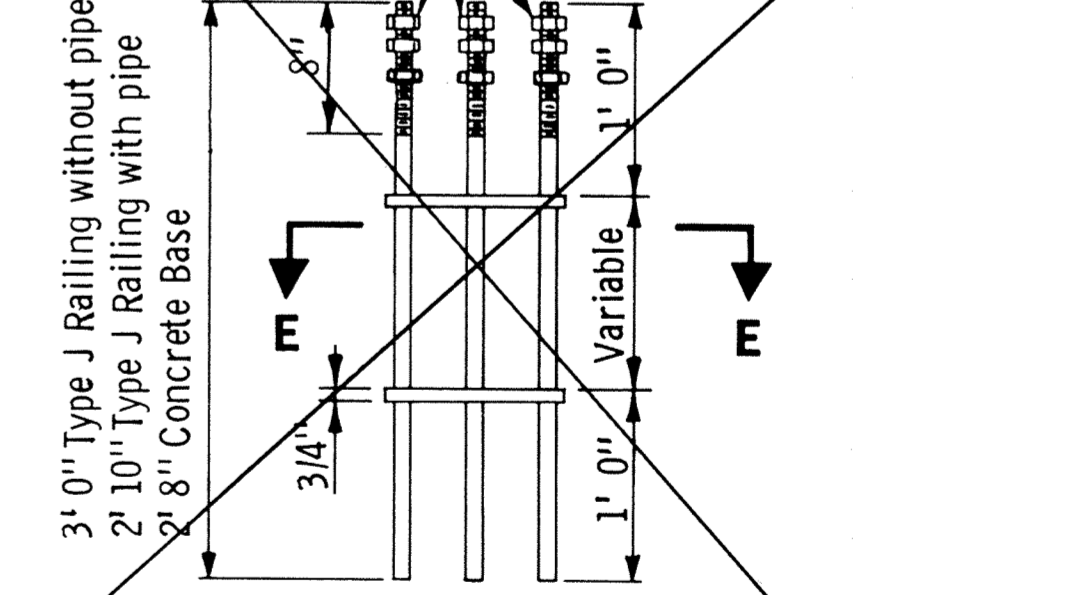
⑥ Welding permitted for alternate (Y).
For procedures and electrodes refer to Spec. 2471.3J and Spec. 3339.

⑦ FOR ANCHOR BOLT CLUSTER DETAILS SEE DETAIL B950.



SECTION E-E

See alternate materials (X) and (Y).
Use only one type of alternate material per cluster.



ELEVATION ANCHOR BOLT CLUSTER

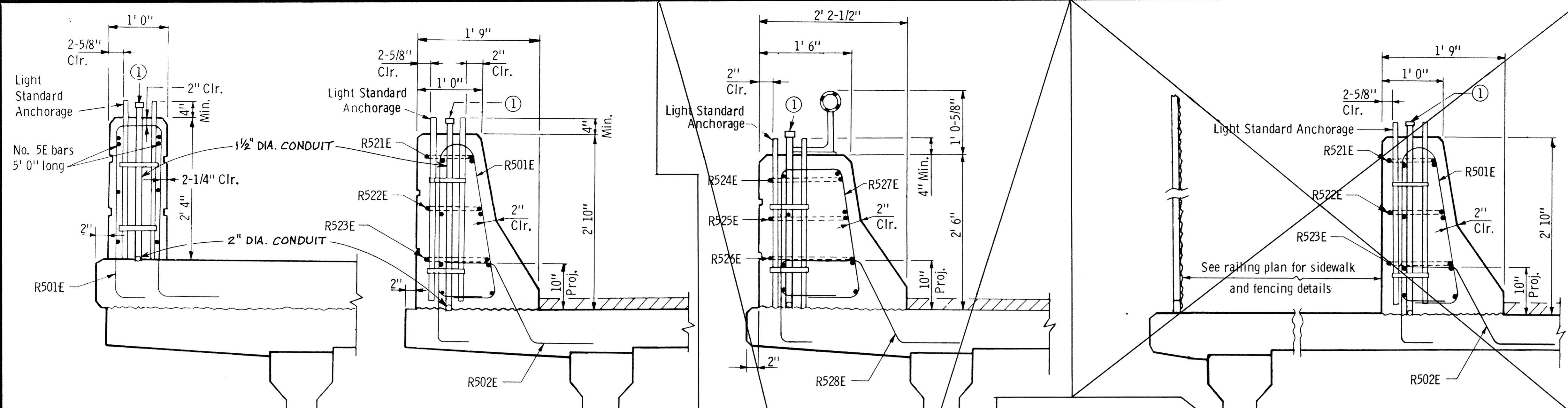
GENERAL NOTES:
Bars marked with the suffix "E" shall be epoxy coated.

① Six 1" dia. stainless steel rods, with 8" threads, and eighteen stainless steel hex. nuts. Stainless steel to have a min. yield point of 60 KSI and to be approved by the Structural Metals Engineer.
② Six 1" dia. Type C steel rods with 8" lg. threads, and upper 10" of rods threads plus 2" galvanized, all as per Spec. 3385, and eighteen galvanized steel hex. nuts. Remaining 26" of rod cluster shall be either galvanized or epoxy coated after fabrication. Epoxy coat as per special provisions.

Approved: June 27, 1980 (MODIFIED) 2-19-91
Revised: Sept. 11, 1981
RECORD
PLANS OCT. 1993
FIG. 5-397.403

DES: MnDOT	DR: MnDOT/LEM	APPROVED: 7-2-92	Bridge No. 71517
CHK: RLD	CHK: RLD		

Sheet No. 22 of 24 Sheets

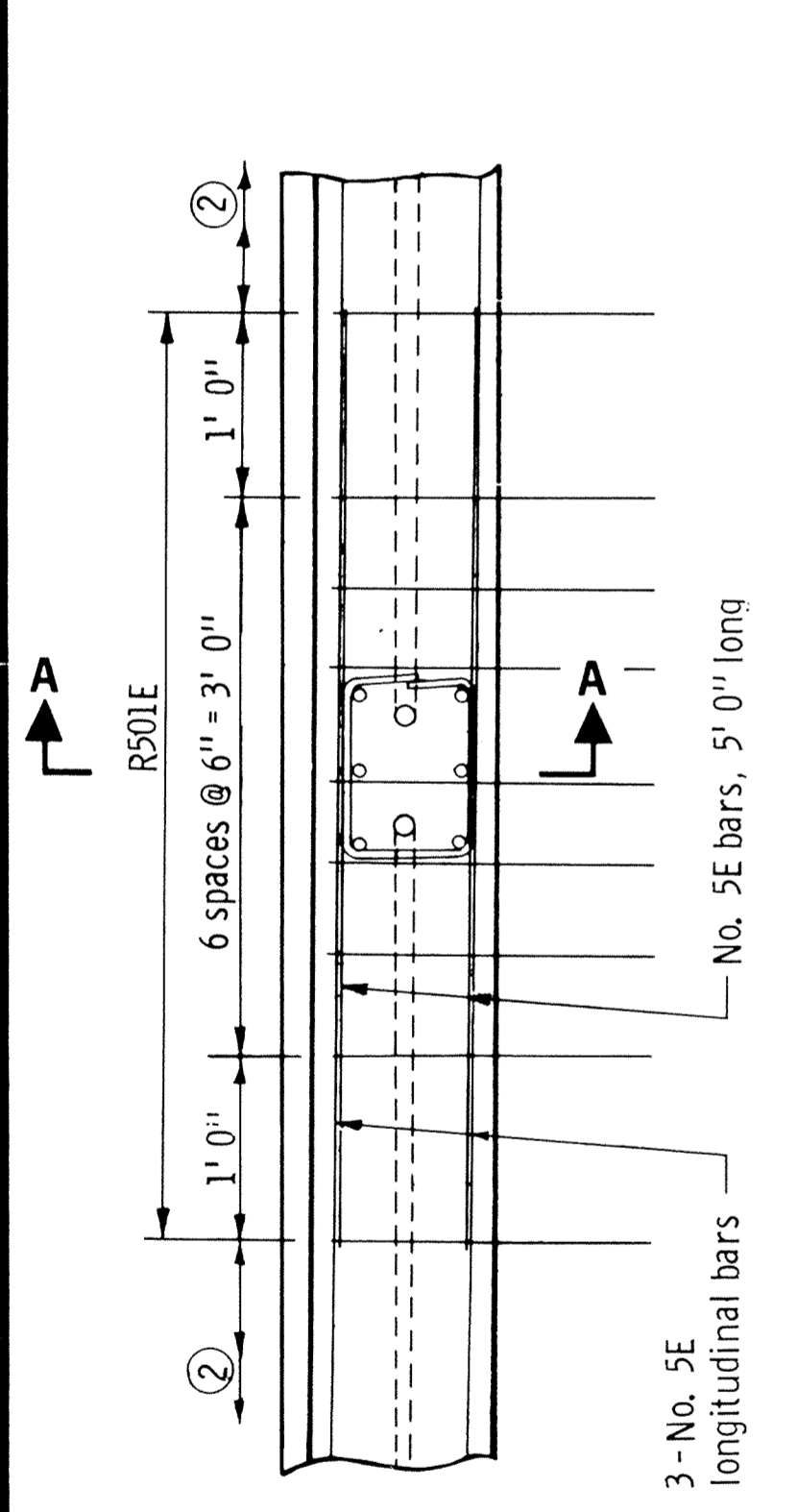


SECTION A-A

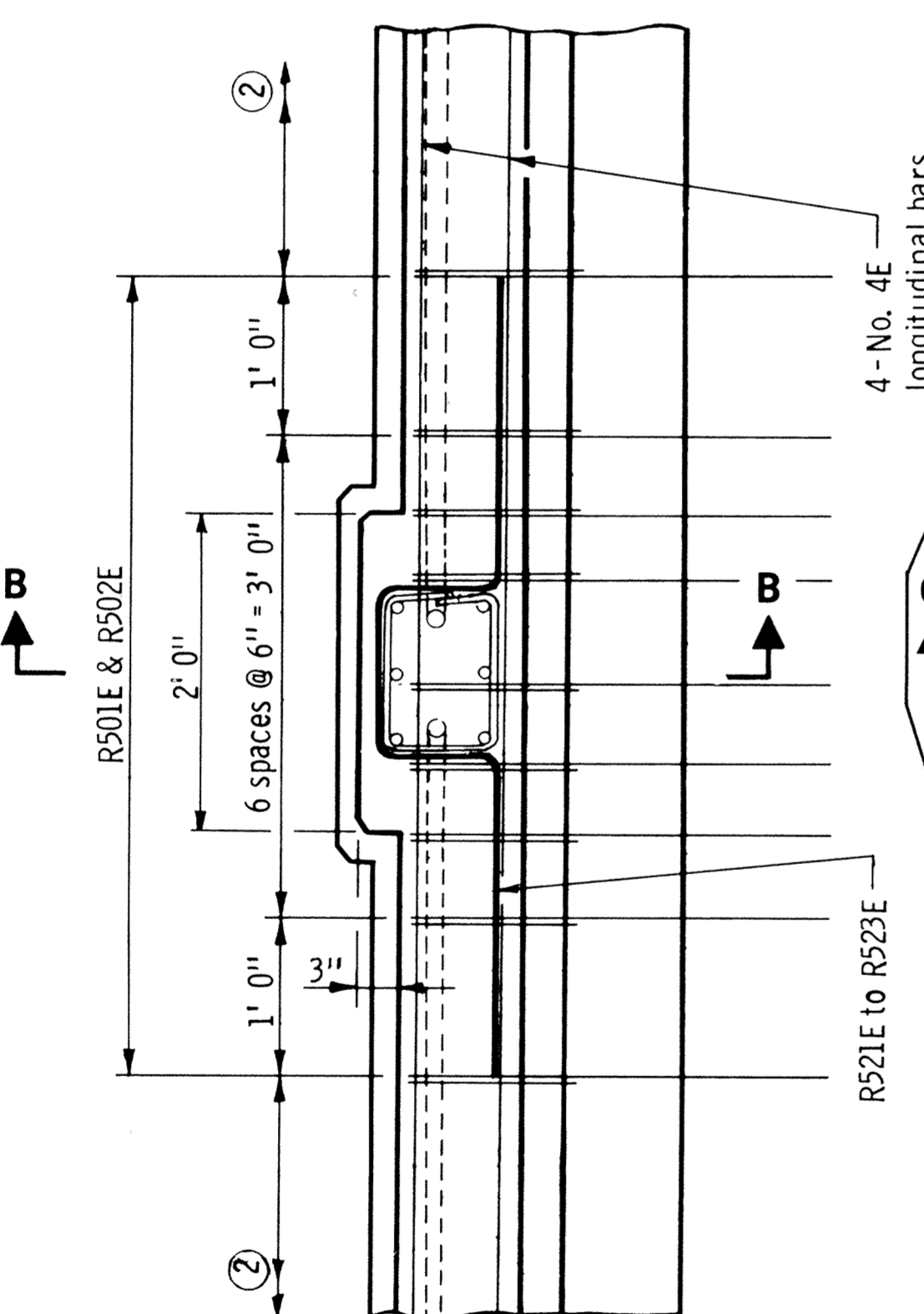
SECTION B-B

SECTION C-C

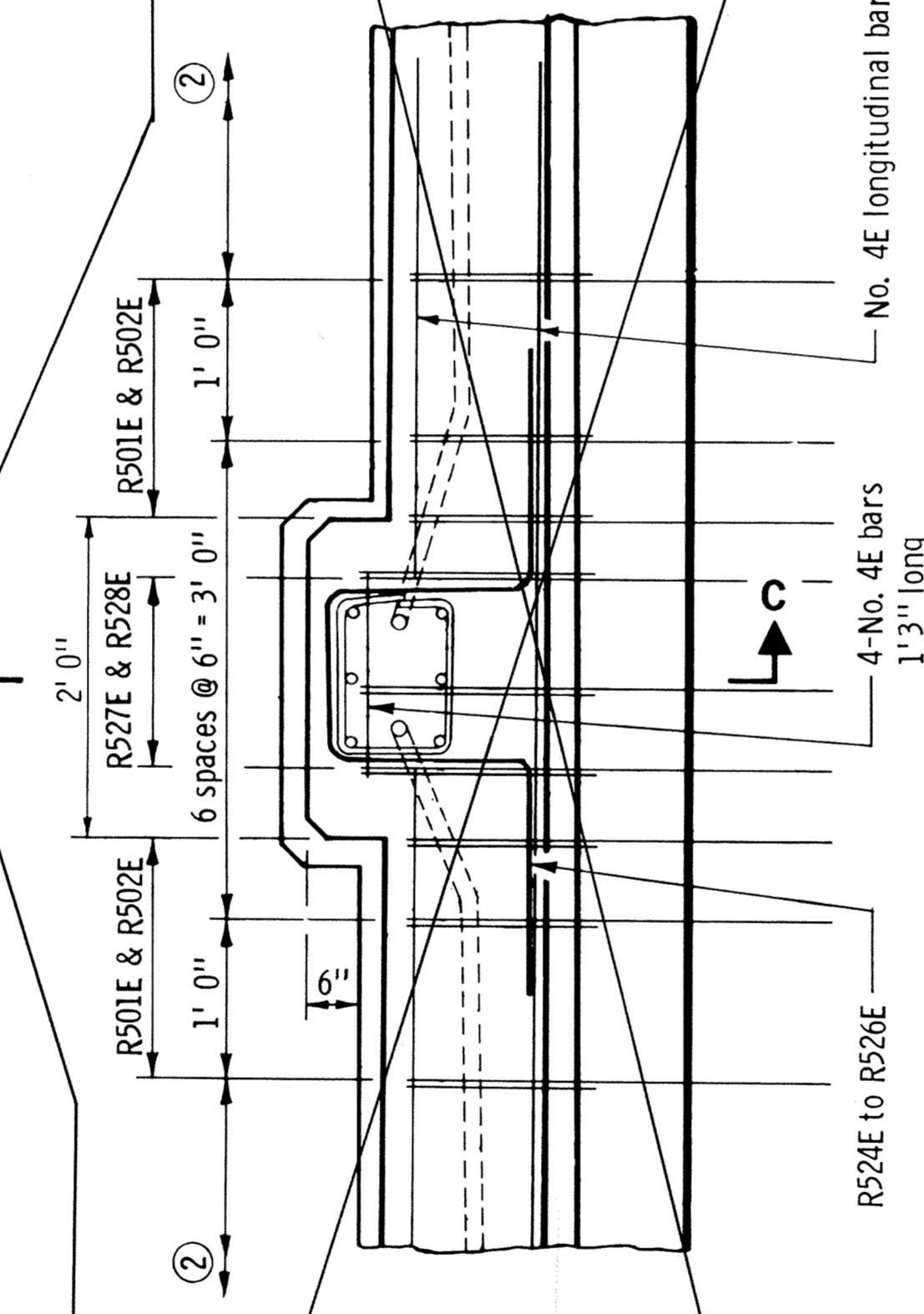
SECTION D-D



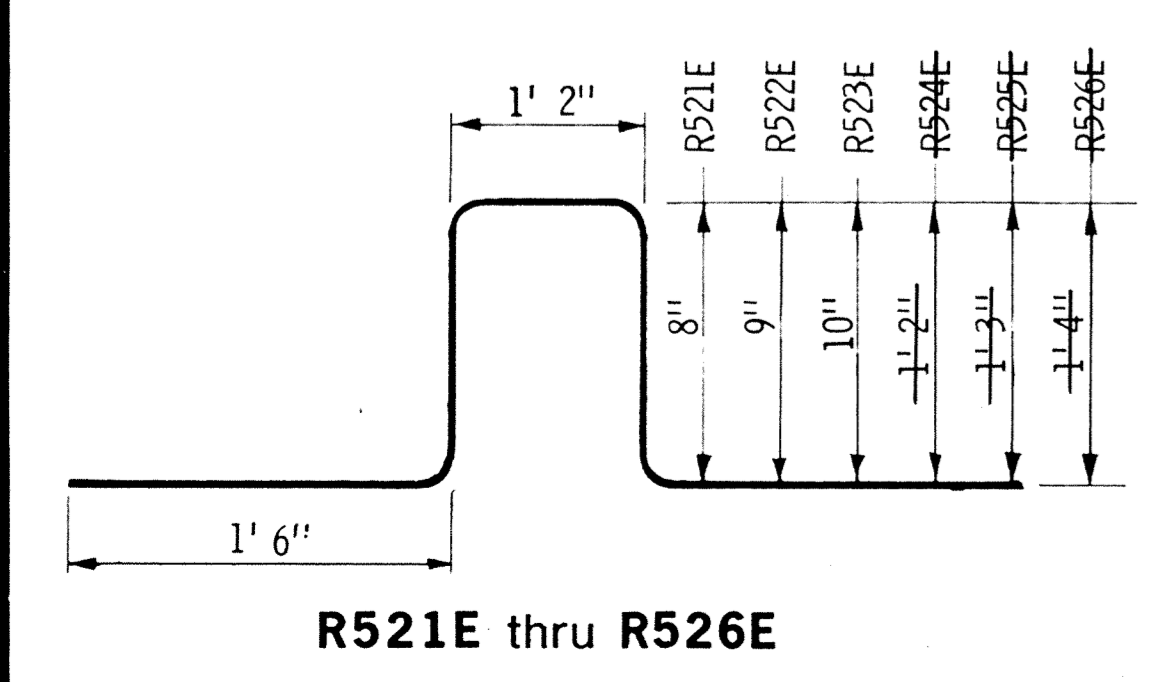
LIGHT STANDARD ON CONCRETE BASE WITH FENCE



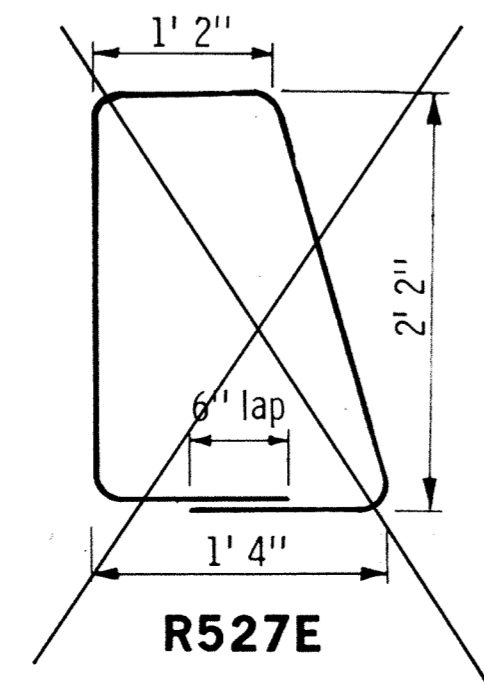
LIGHT STANDARD ON TYPE J RAILING



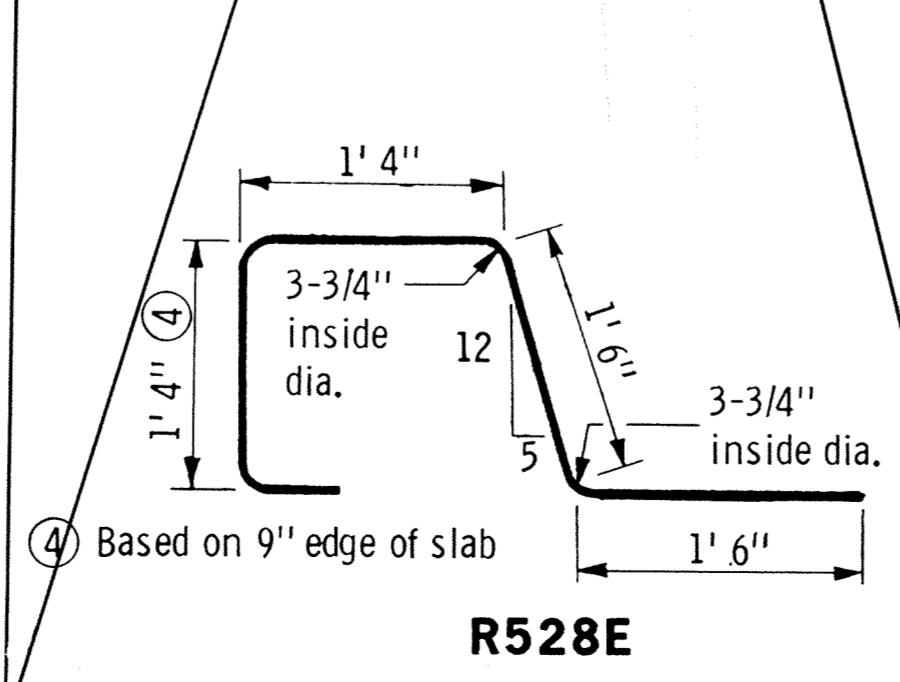
LIGHT STANDARD ON TYPE J RAILING WITH PIPE



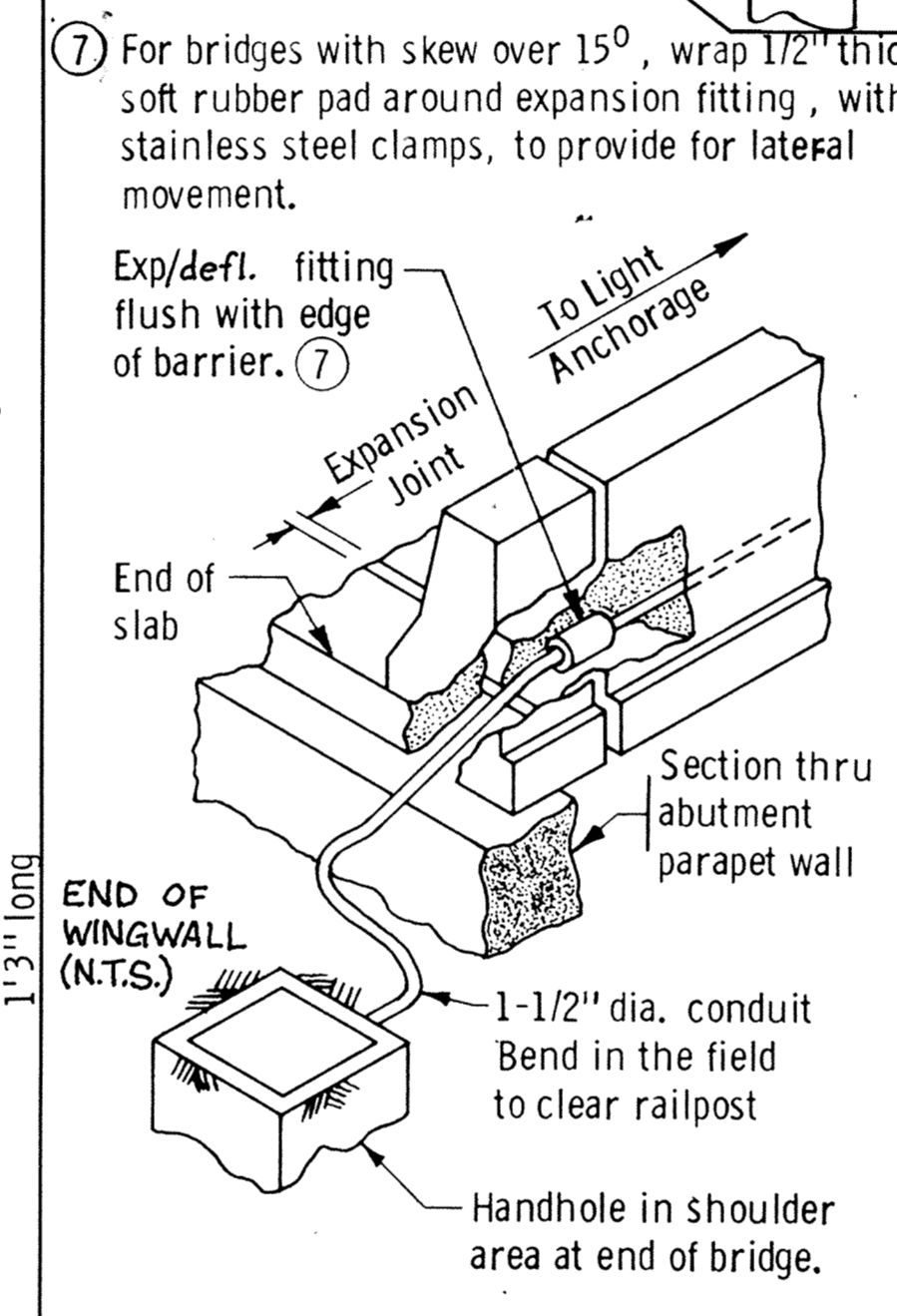
R521E thru R526E



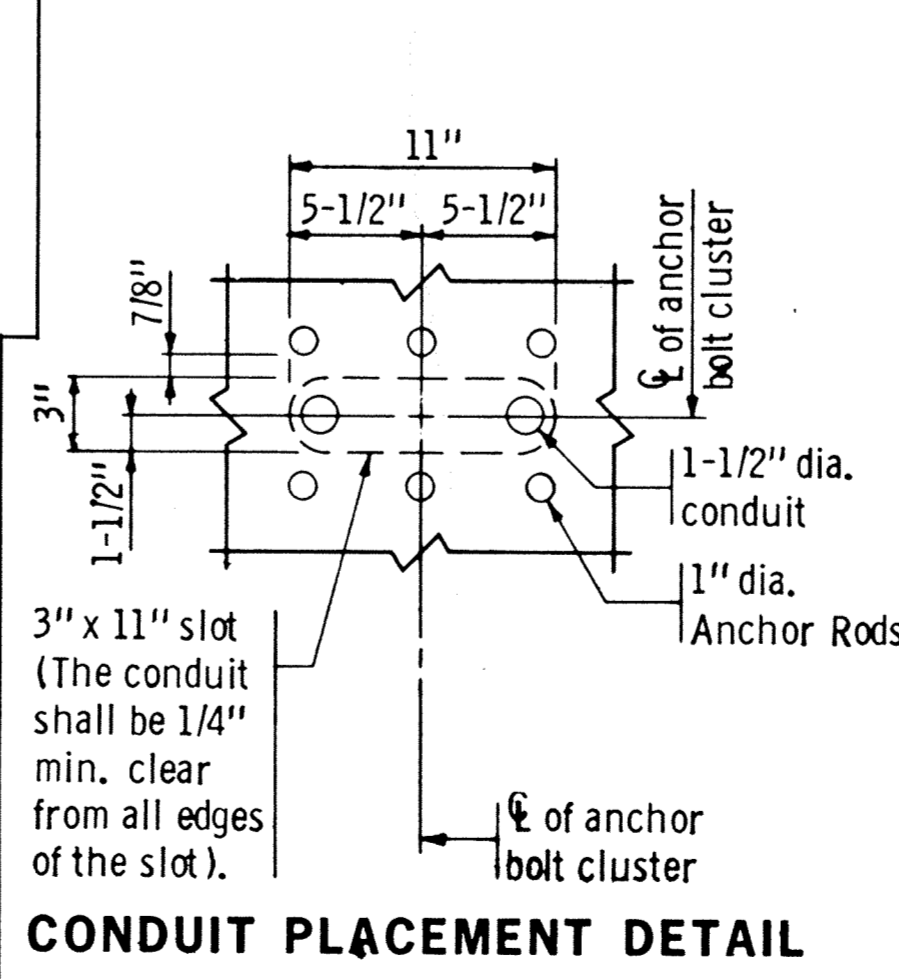
R527E



R528E

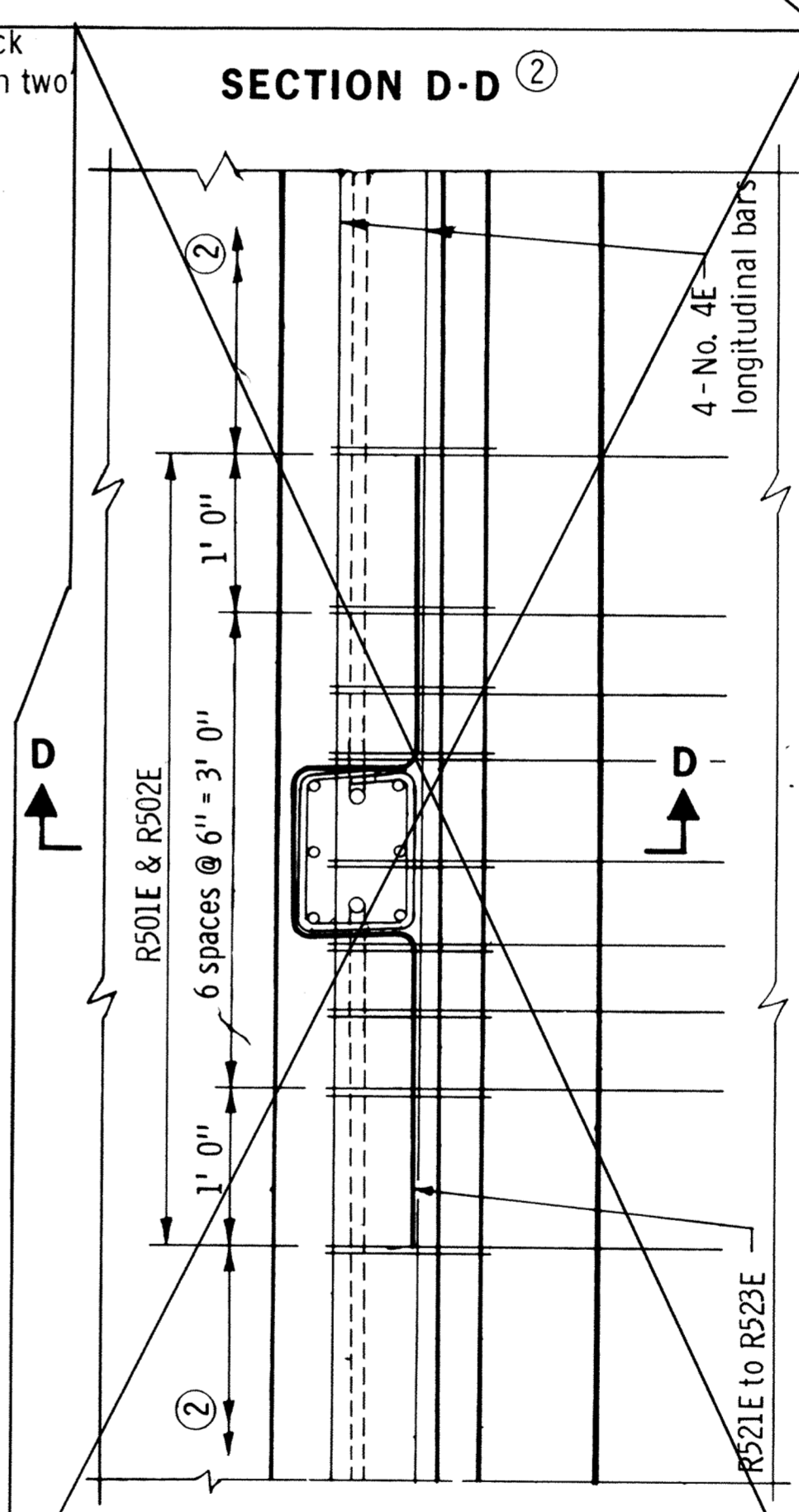


VIEW AT END OF BRIDGE (Approach Slab Not Shown)



CONDUIT PLACEMENT DETAIL

S.P. 204-113-03



LIGHT STANDARD ON TYPE J RAILING WITH SIDEWALK

- ① The 1-1/2" dia. conduit shall extend 3" above the railing and be capped.
- ② See standard railing sheets for additional reinforcement placement and detail dimensions.

TITLE: CONDUIT SYSTEM FOR LIGHTING (RAILING)