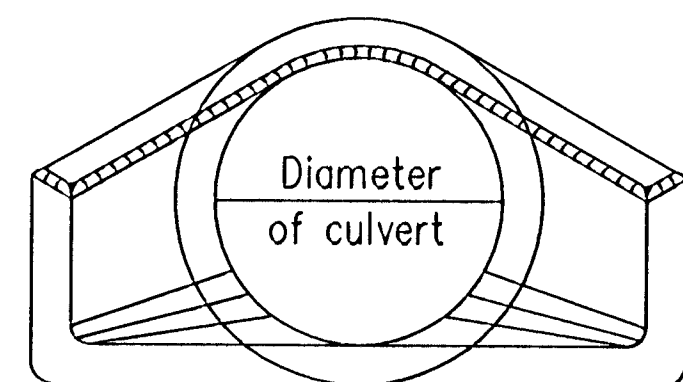
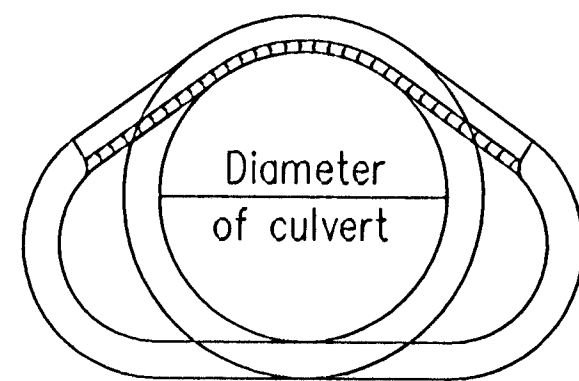
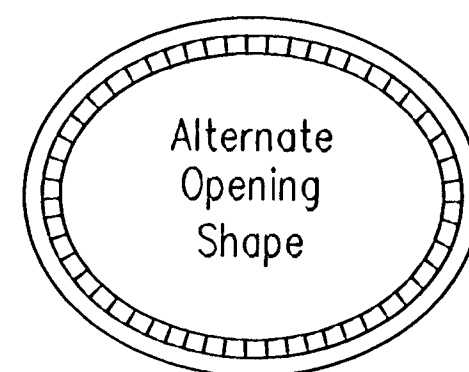


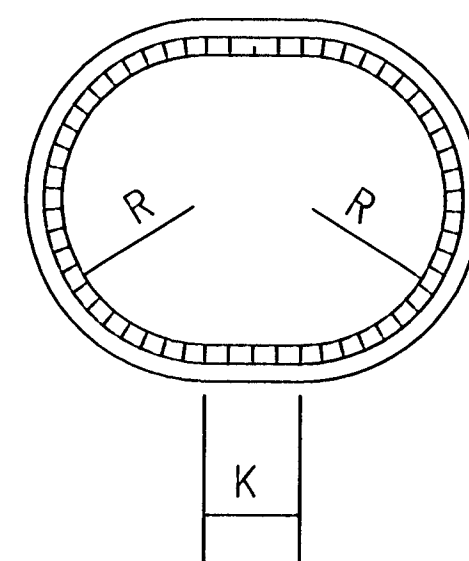
FWHA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	472 83673 (792310)	04	7	15



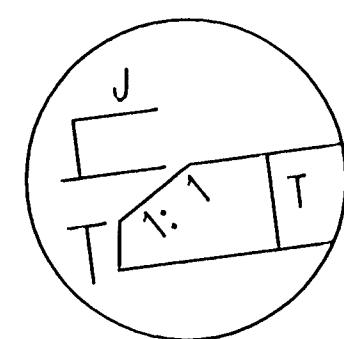
END ELEVATION (TYPE I)



SECTION A-A
Showing rounding of inside edge
of end section.



END ELEVATION
(TYPE III)



Ø Transition to round pipe.
Paid for as separate item of End Section, except when structures shall bid as alternates. In that case End Sections shall be subsidiary to bid item.

Minimum waterway area is calculated at the inside of the bevel.

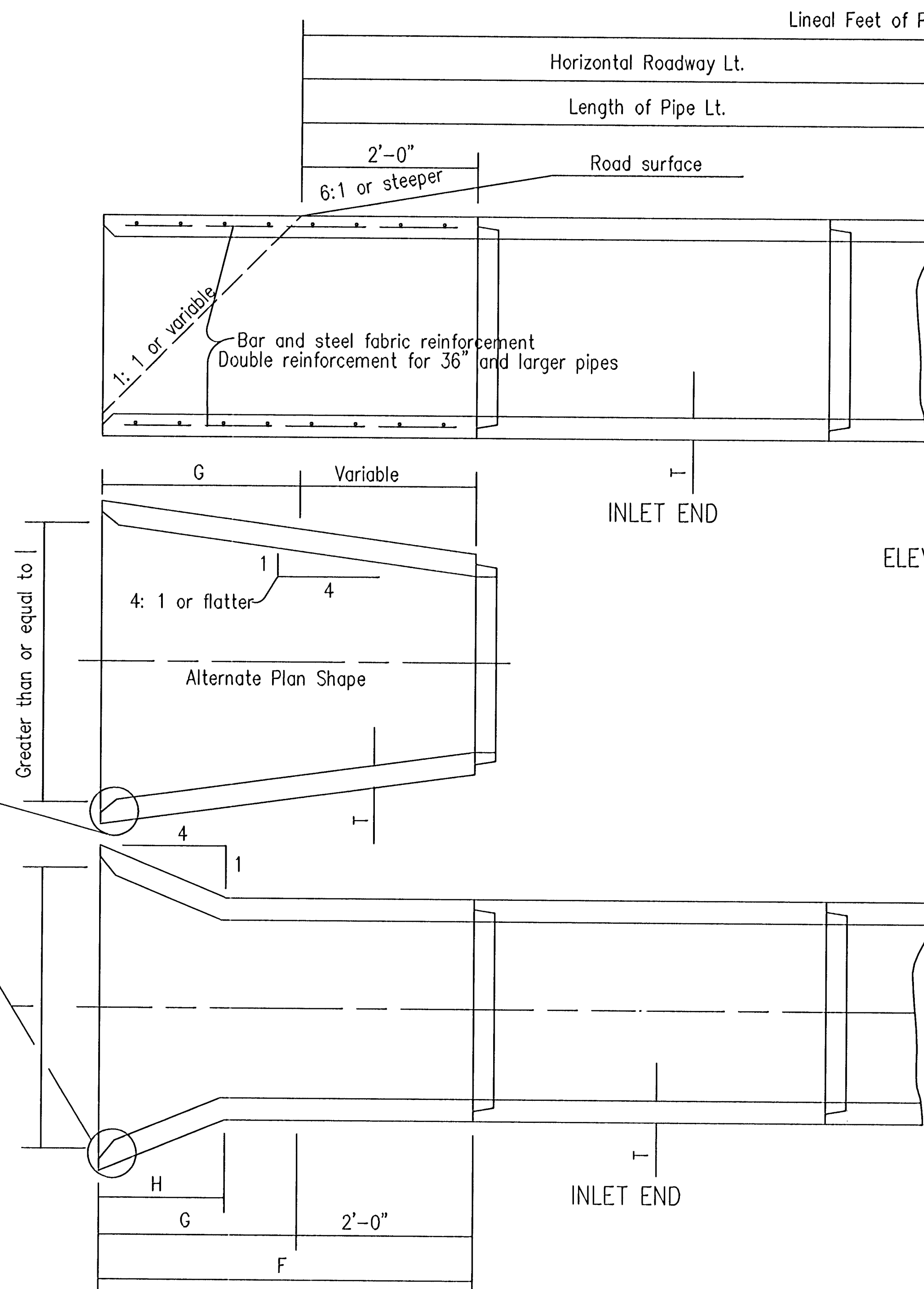
END SECTION (TYPE I) NOMINAL DIMENSIONS

Diam.	A	B	C	D	E	R _I	Slope	T
12"	6'-0 $\frac{7}{8}$ "	4'-0 $\frac{7}{8}$ "	2'-0"	2'-0"	4"	9	3: 1	2"
15"	6'-1"	3'-10"	2'-3"	2'-6"	6"	11	3: 1	2 $\frac{1}{4}$ "
18"	6'-1"	3'-10"	2'-3"	3'-0"	9"	12	3: 1	2 $\frac{1}{2}$ "
24"	6'-1 $\frac{1}{2}$ "	2'-6"	3'-7 $\frac{1}{2}$ "	4'-0"	9 ?"	14	3: 1	3"
30"	6'-1 $\frac{3}{4}$ "	1'-7 $\frac{3}{4}$ "	4'-6"	5'-0"	1'-0"	15	3: 1	3 $\frac{1}{2}$ "
36"	8'-1 $\frac{3}{4}$ "	2'-10 $\frac{3}{4}$ "	5'-3"	6'-0"	1'-3"	20	3: 1	4"
42"	8'-2"	2'-11"	5'-3"	6'-6"	1'-9"	22	3: 1	4 $\frac{1}{2}$ "
48"	8'-2"	2'-2"	6'-0"	7'-2"	2'-0"	22	3: 1	5"
54"	8'-2 $\frac{1}{4}$ "	2'-9 $\frac{1}{4}$ "	5'-5"	7'-6"	2'-3"	24	2.4 : 1	5 $\frac{1}{2}$ "
60"	8'-3"	3'-3"	5'-0"	8'-0"	2'-11"	24	2 : 1	6"
72"	8'-3"	1'-9"	6'-6"	9'-0"	3'-0"	24	1.86 : 1	7"
84"	9'-3 $\frac{1}{2}$ "	1'-9"	7'-6 $\frac{1}{2}$ "	10'-0"	3'-0"	24	1.6 : 1	8"

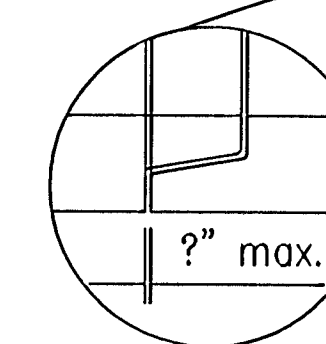
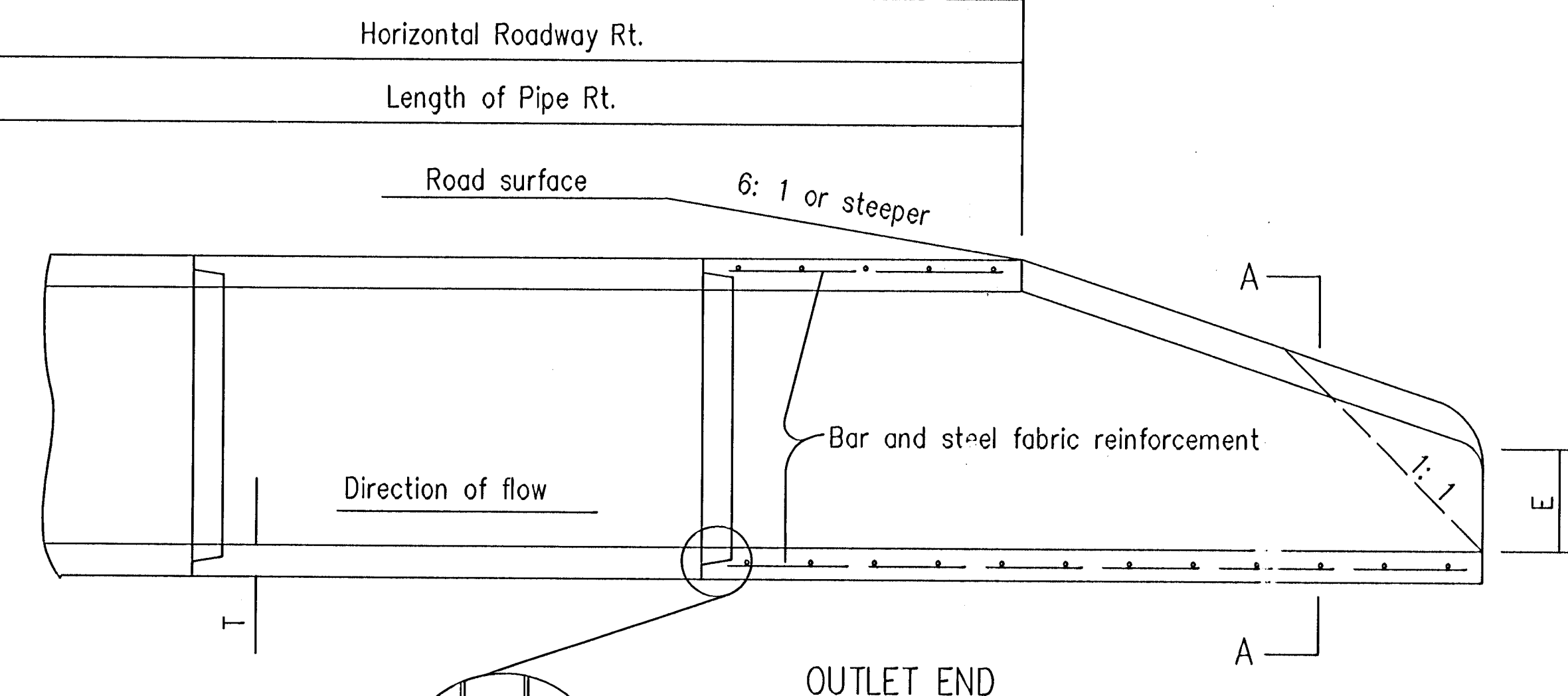
SIDE TAPERED INLET SECTION (TYPE III)—NOMINAL DIMENSIONS

Diam.	Min. W.W. Area Sq.Ft.	F	G	H	I	J	K	R	T
24"	4.5	4'-3"	2'-3"	1'-5½"	2'-8"	1½"	8"	1'-0"	3"
30"	7.0	4'-9½"	2'-9½"	1'-9½"	3'-4"	2"	10"	1'-3"	3½"
36"	10.1	5'-4"	3'-4"	2'-1½"	4'-0"	2"	1'-0"	1'-6"	4"
42"	13.7	5'-10½"	3'-10½"	2'-5½"	4'-8"	2½"	1'-2"	1'-9"	4½"
48"	17.9	6'-5"	4'-5"	2'-10½"	5'-4"	3"	1'-4"	2'-0"	5"
54"	22.7	6'-11½"	4'-11½"	3'-2½"	6'-0"	3½"	1'-6"	2'-3"	5½"
60"	28.0	7'-6"	5'-6"	3'-6¾"	6'-8"	4"	1'-8"	2'-6"	6"
72"	40.3	8'-7"	6'-7"	4'-3¾"	8'-0"	5"	2'-0"	3'-0"	7"
84"	54.8	9'-8"	7'-8"	5'-0¾"	9'-4"	6"	2'-4"	3'-6"	8"

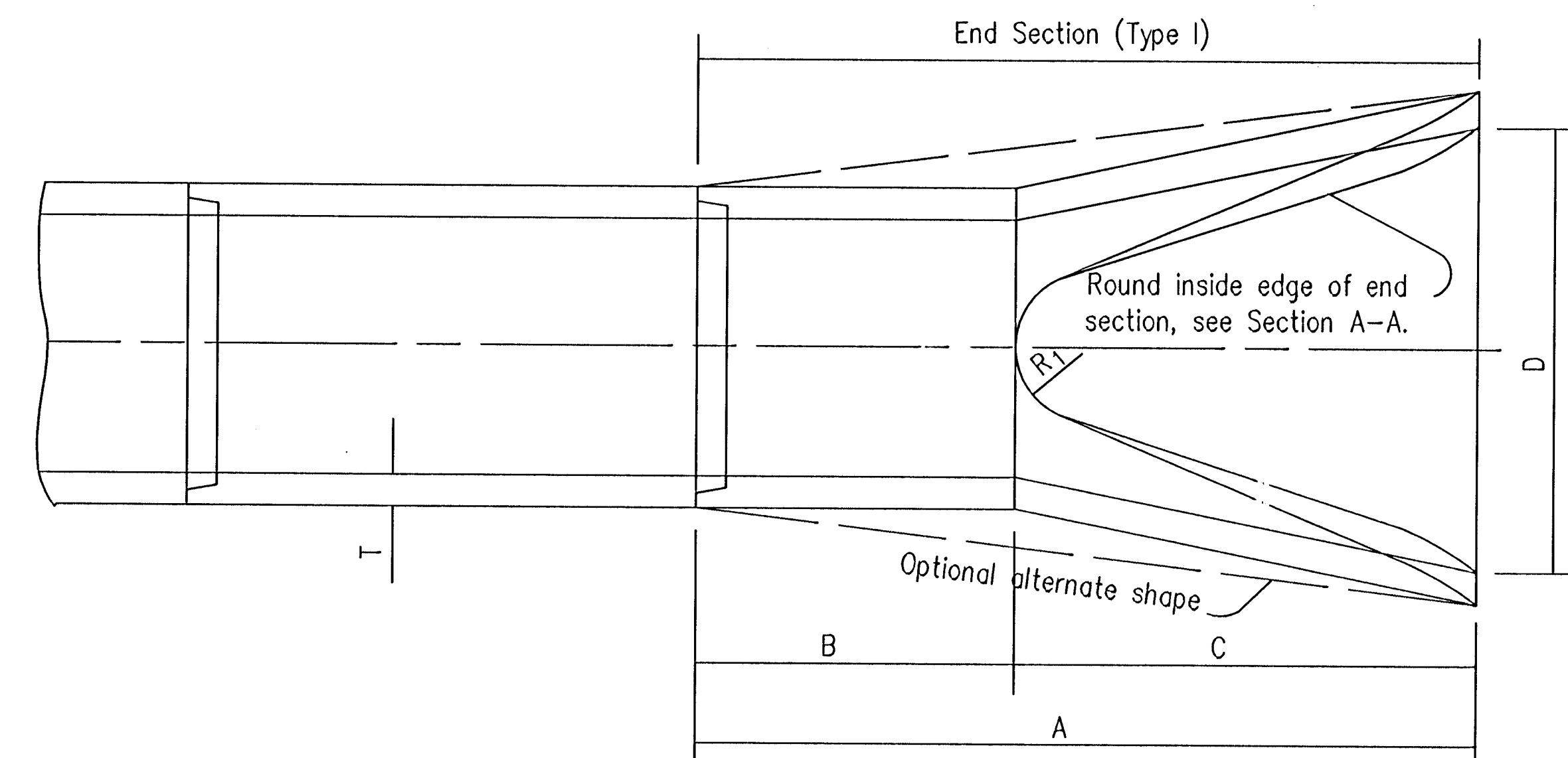
Dimensions for alternate shapes shall be equal to or greater than those shown in the table, unless otherwise shown.



ELEVATION SECTION



Note: Gain in length due to joint fit tolerance will not be paid for.



OUTLET END

Note: The culverts listed on this sheet may or may not indicate that the culvert installed will be reinforced concrete, steel, or aluminum.

[illegible]

NO.	DATE	REVISIONS	BY	APP'D	
KANSAS DEPARTMENT OF TRANSPORTATION CONCRETE END SECTIONS FOR CONCRETE PIPES TYPE I & SIDE TAPERED INLET SECTION (TYPE III)					
RD662					
FHWA APPROVAL	1 - 8-92	J. P.D. James O. Brewer			
DESIGNED	DETAILED	QUANTITIES	TRACED	BOWSER	
DESIGN CK.	DETAIL CK.	QUANCK.	TRACE CK.	SEIT	