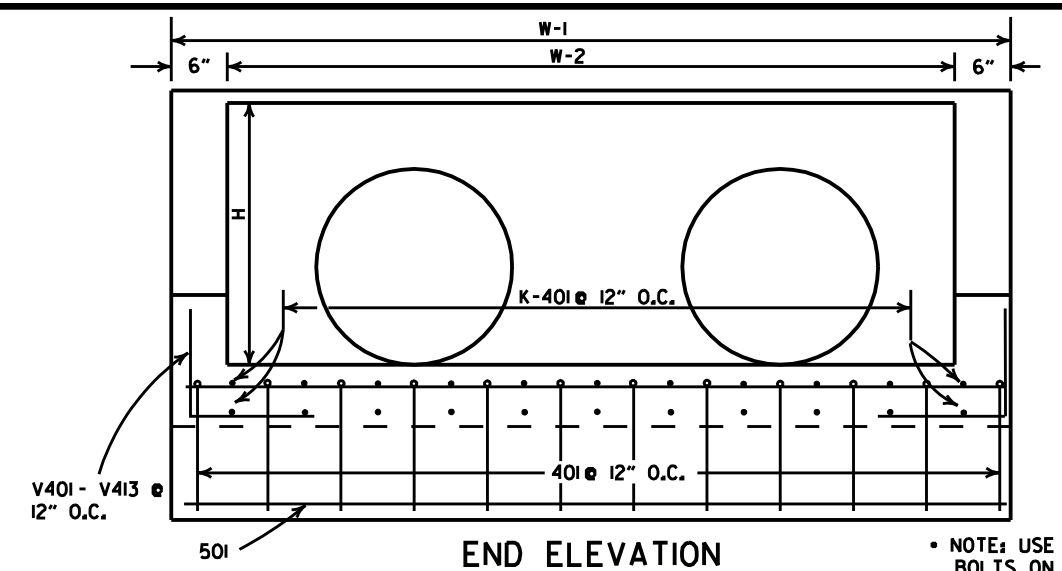
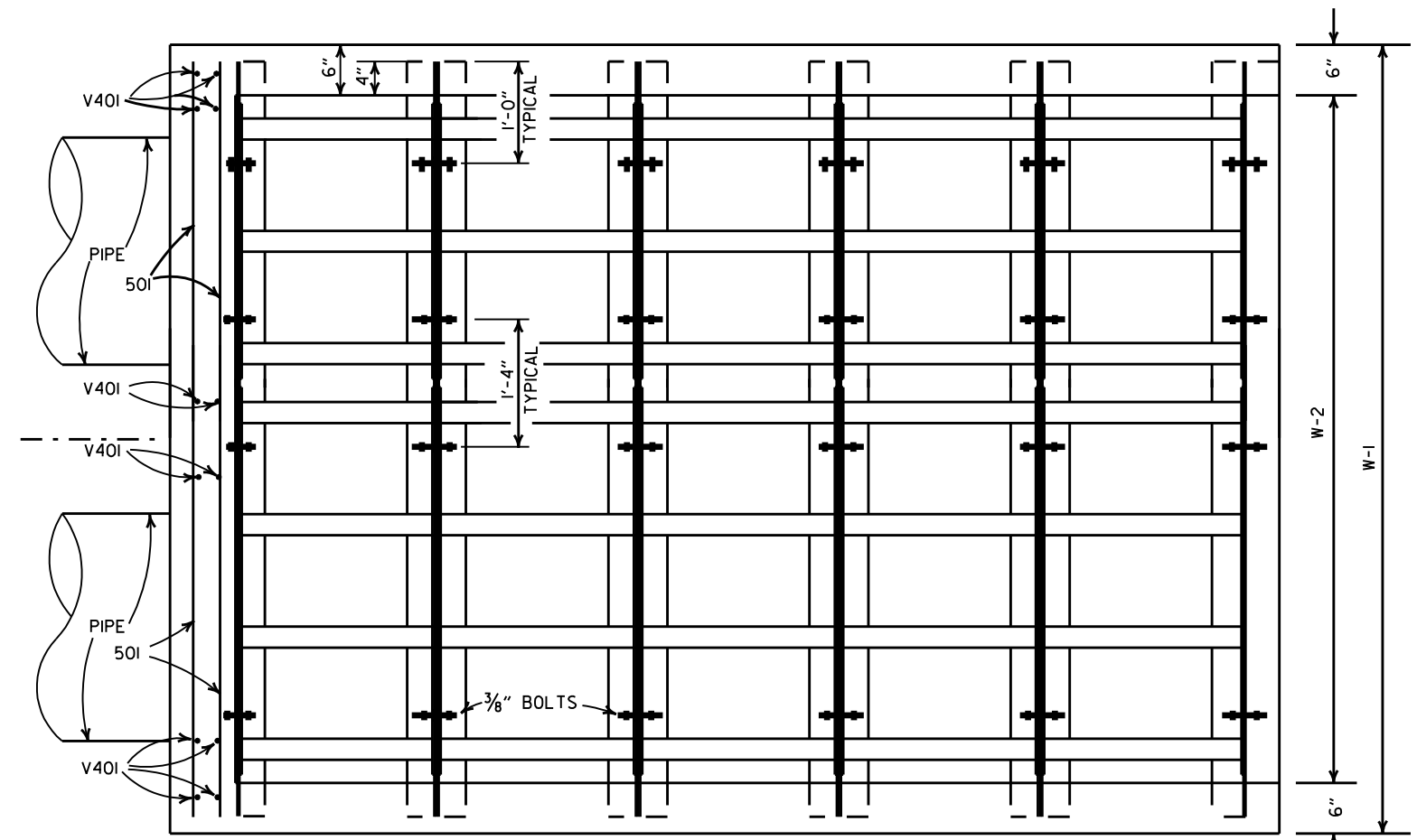


SIDE ELEVATION

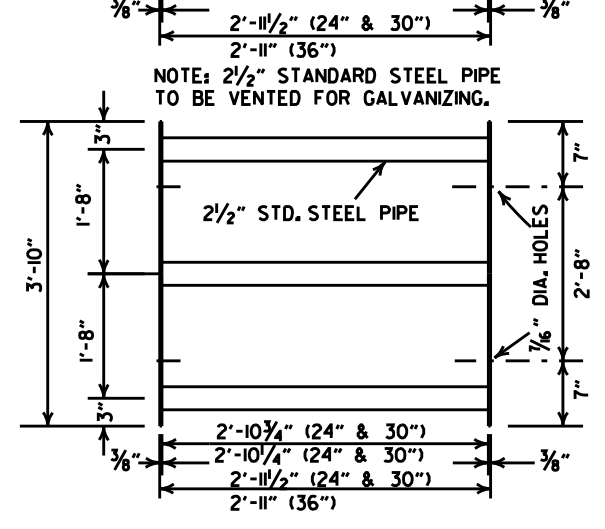
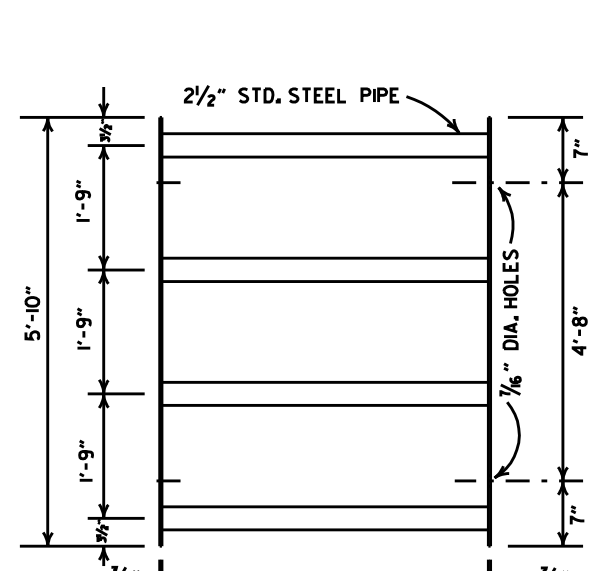


END ELEVATION

NOTE: USE 5" ANCHOR BOLTS ON FIRST ANGLE ON LOW END ONLY. BOLTS EMBEDDED IN CONCRETE NEED NOT BE GALVANIZED.

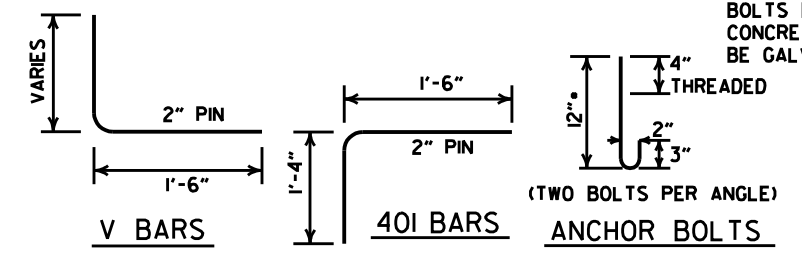


PLAN



STANDARD GRATE PANEL

NOTE: 2 1/2" STANDARD STEEL PIPE TO BE VENTED FOR GALVANIZING.



BENDING DIAGRAM

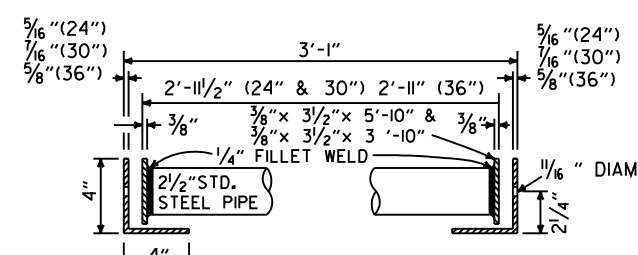
(DIMENSIONS ARE OUTSIDE TO OUTSIDE)

QUANTITIES & DIMENSIONS - ONE GRATE COMPLETE

PIPE DIA.	W - 1	W - 2	L	S	H	PANEL SIZE	NUMBER OF PANELS	ANGLE DIMEN. D	APPROX. CONC. QUANT. CU. YDS.
DBL. 24"	9'-0"	8'-0"	12'-6"	12'-8"	2'-8"	2'-5/2" x 3'-10"	8	4" x 4" x 3/4"	4.30
DBL. 30"	11'-0"	10'-0"	15'-6"	15'-6"	3'-2"	2'-5/2" x 3'-10"	5	4" x 4" x 3/4"	6.29
DBL. 36"	13'-0"	12'-0"	18'-6"	18'-9"	3'-8"	2'-5/2" x 5'-10"	12	4" x 4" x 3/4"	8.70

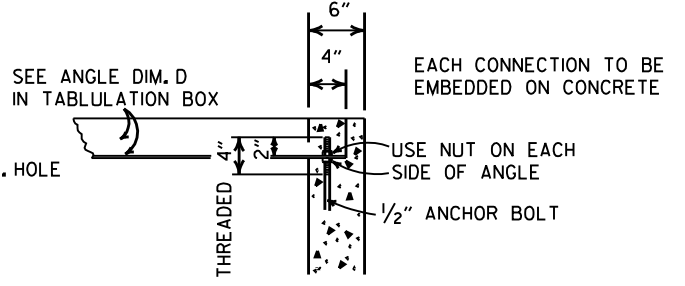
BAR LISTS - ONE HEADWALL

DBL. 24" PIPE			DBL. 30" PIPE			DBL. 36" PIPE		
MARK	LENGTH	NO.	MARK	LENGTH	NO.	MARK	LENGTH	NO.
401	2'-10"	10	401	2'-10"	12	401	2'-10"	12
501	8'-8"	30	501	10'-8"	36	601	12'-8"	42
K401	12'-2"	18	K401	15'-2"	22	K401	18'-2"	26
K402	10'-3"	2	K402	15'-3"	2	K402	15'-3"	2
K403	4'-3"	2	K403	7'-3"	2	K403	10'-3"	2
K404	1'-3"	2	K404	1'-3"	2	K404	4'-3"	2
V401	5'-1"	14	V401	5'-7"	14	V401	6'-1"	14
V402	4'-9"	2	V402	5'-3"	2	V402	5'-9"	2
V403	4'-7"	2	V403	5'-1"	2	V403	5'-7"	2
V404	4'-5"	2	V404	4'-11"	2	V404	5'-5"	2
V405	4'-3"	2	V405	4'-9"	2	V405	5'-3"	2
V406	4'-1"	2	V406	4'-7"	2	V406	5'-1"	2
V407	3'-11"	2	V407	4'-5"	2	V407	4'-11"	2
V408	3'-9"	2	V408	4'-3"	2	V408	4'-9"	2
V409	3'-7"	2	V409	4'-1"	2	V409	4'-7"	2
V410	3'-5"	2	V410	3'-11"	2	V410	4'-5"	2
V411	3'-3"	2	V411	3'-9"	2	V411	4'-3"	2
V412	3'-1"	2	V412	3'-7"	2	V412	4'-1"	2
V413	2'-11"	2	V413	3'-5"	2	V413	3'-11"	2
			V414	3'-3"	2	V414	3'-9"	2
			V415	3'-1"	2	V415	3'-7"	2
			V416	2'-11"	2	V416	3'-5"	2
			V417			V417	3'-3"	2
			V418			V418	3'-1"	2
			V419			V419	2'-11"	2



TYPICAL SECTION

FURNISH WASHERS WITH BOLTS



DETAIL OF ANGLE CONNECTION

DATE	REVISION	DATE FILMED
8-15-91	REVISED GRATE PANEL	8-15-91
2-16-89	ADDED (TYPE I) TO TITLE	583-2-16-89
7-15-88	CHANGED TITLE	643-7-15-88
10-2-72	REVISED & REDRAWN	761-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

STEEL GRATE ASSEMBLY (TYPE I)

STANDARD DRAWING G-3