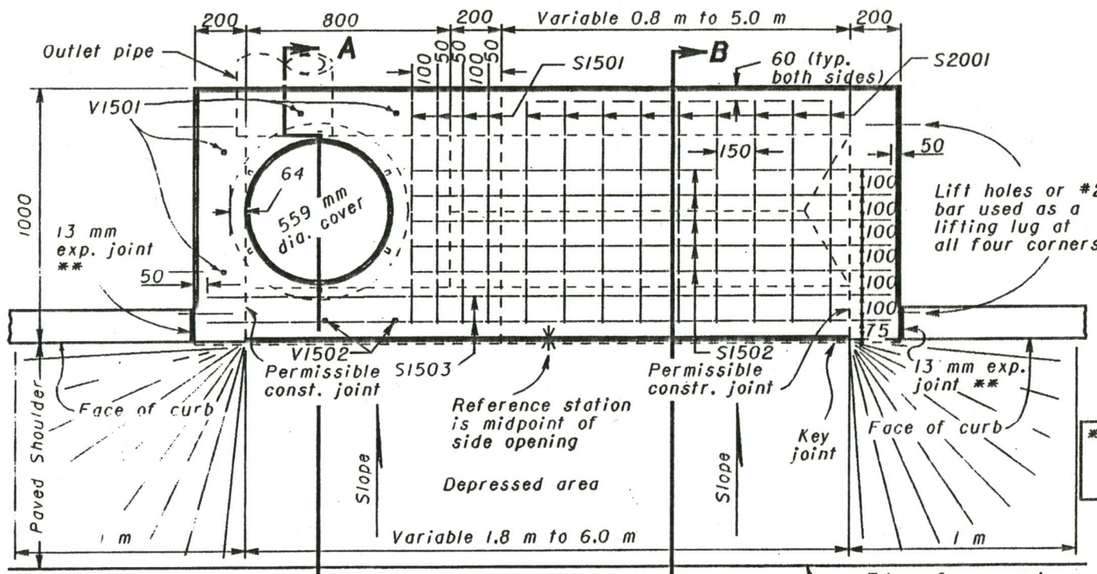
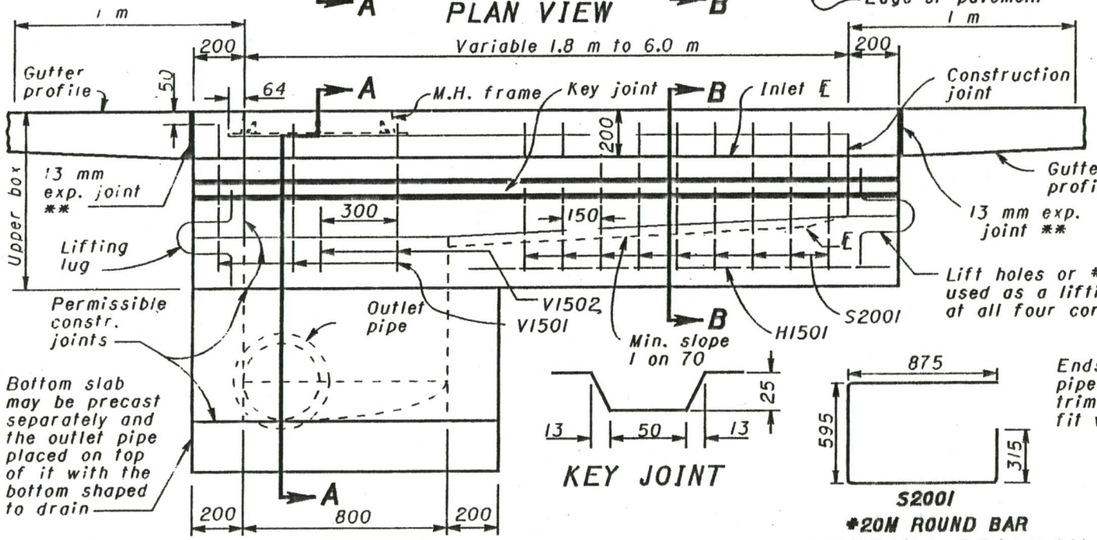
PAVEMENT INLETS (1.8 m to 6.0 m)

** A 25 mm minimum expansion joint shall be provided in concrete pavement or concrete shoulders.



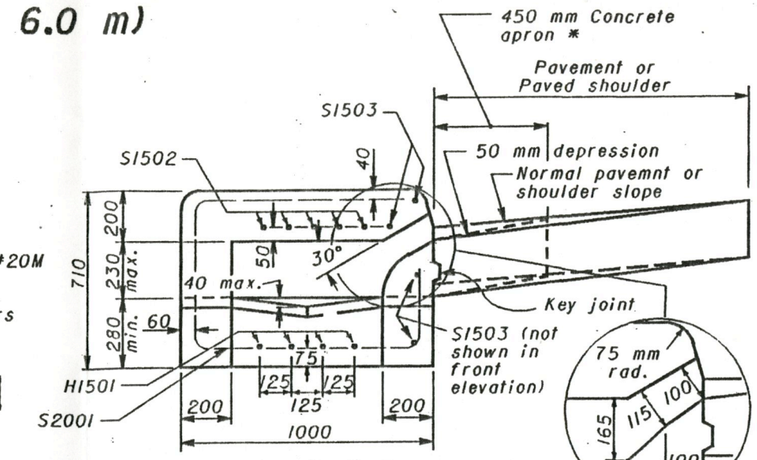
PLAN VIEW



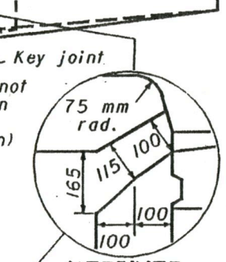
FRONT ELEVATION

KEY JOINT

S2001
#20M ROUND BAR
BENDING DIAGRAM

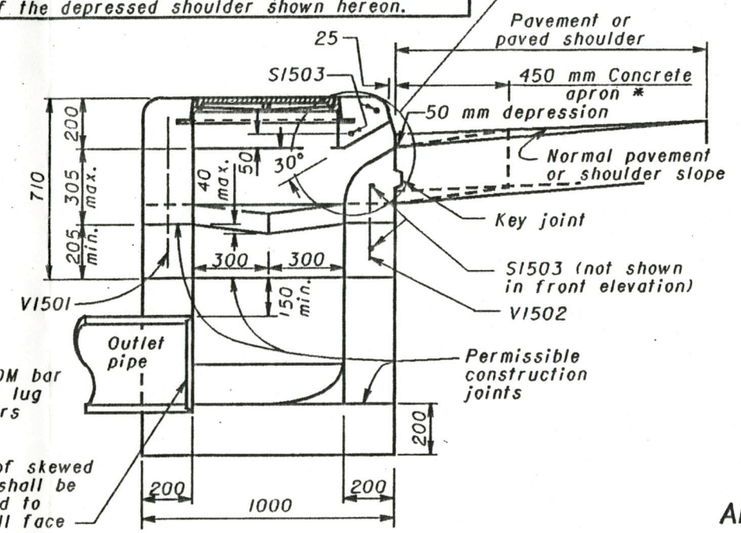


SECTION B-B



ALTERNATE OPENING

* When the inlet is placed at the edge of pavement, a concrete apron, as shown on Std. Constr. Dwg. I-1.1M, shall be provided in lieu of the depressed shoulder shown hereon.



SECTION A-A

NOTES

CASTINGS: The design shall be essentially the same and equally as strong as those shown hereon.

Bearing areas of frame and cover shall be so fitted and finished as to provide a firm and even seat for the entire cover in the frame. No projections shall exist on bearing areas of either casting and the cover shall seat in its frame without rocking.

Minimum mass of frame and cover: 88 kg.

SUMP WALLS: Walls between the upper box and bottom slab may be brick, concrete block, cast-in-place or precast concrete construction. Precast walls may have a minimum thickness of 150 mm and shall be reinforced sufficiently to permit shipping and handling without damage.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 with a minimum of 4% entrained air content in the hardened concrete. Required markings shall include the inlet number. Exposed concrete surfaces of the inlet shall be sealed with an approved sealer.

REINFORCING STEEL: All reinforcing steel shall be epoxy coated in accordance wiht CMS 509.10.

QUANTITIES: Curb quantities within the limits of the inlet shall be deducted from the project quantities.

SIDE OPENING: Details shown for the right side of the inlet shall also apply to left side openings where needed for drainage of the opposite outside shoulder as shown in the plans. The sump shall be located at the downgrade end of the inlet for both right and left side openings.

OPENINGS: Pipe openings shall be the outside diameter of the pipe being supplied plus 50 mm when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.

UPPER BOX: May be precast, or cast-in-place. If precast, it shall be set in a bed of mortar at the sump walls and in a bed of compacted sand at all other points. Reinforcing steel for precast upper boxes shall be equivalent to the design shown hereon. Construction joints other than those shown are permitted in the endwalls to facilitate the removal of precasting forms. The interior trough may have a flat bottom.

All dimensions are in millimeters unless otherwise noted.

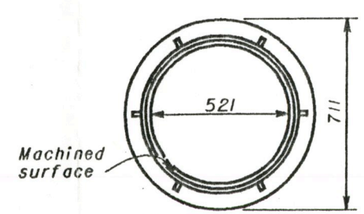
metric units

This Drawing Replaces I-2A.

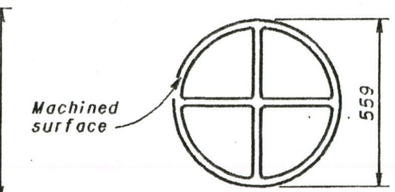
CONCRETE AND REINFORCING QUANTITIES

Inlet Length	Concrete	Reinforcing																Mass
		S2001		S1501		S1502		S1503		H1501		V1501		V1502				
(m)	(m³)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)			(kg)
1.8	1.8	5	2660	4	865	5	1300	4	2100	4	1100	4	610	2	300			72
2.4	2.1	9	2660	4	865	5	1900	4	2700	4	1700	4	610	2	300			109
3.0	2.4	13	2660	4	865	5	2500	4	3300	4	2300	4	610	2	300			146
3.6	2.8	17	2660	4	865	5	3100	4	3900	4	2900	4	610	2	300			184
4.2	3.1	21	2660	4	865	5	3700	4	4500	4	3500	4	610	2	300			221
4.8	3.4	25	2660	4	865	5	4300	4	5100	4	4100	4	610	2	300			258
5.4	3.7	29	2660	4	865	5	4900	4	5700	4	4700	4	610	2	300			296
6.0	4.0	33	2660	4	865	5	5500	4	6300	4	5300	4	610	2	300			333

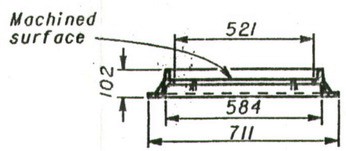
Note: The above table of quantities is included with this drawing for estimating purposes only. The cost of furnishing and placing all concrete, reinforcing steel, casting, etc., shall be included in Item 604 for payment. All straight bars are #15M.



PLAN OF FRAME

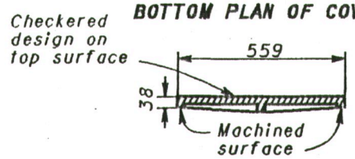


BOTTOM PLAN OF COVER



FRAME SECTION

MANHOLE FRAME



COVER SECTION

MANHOLE COVER

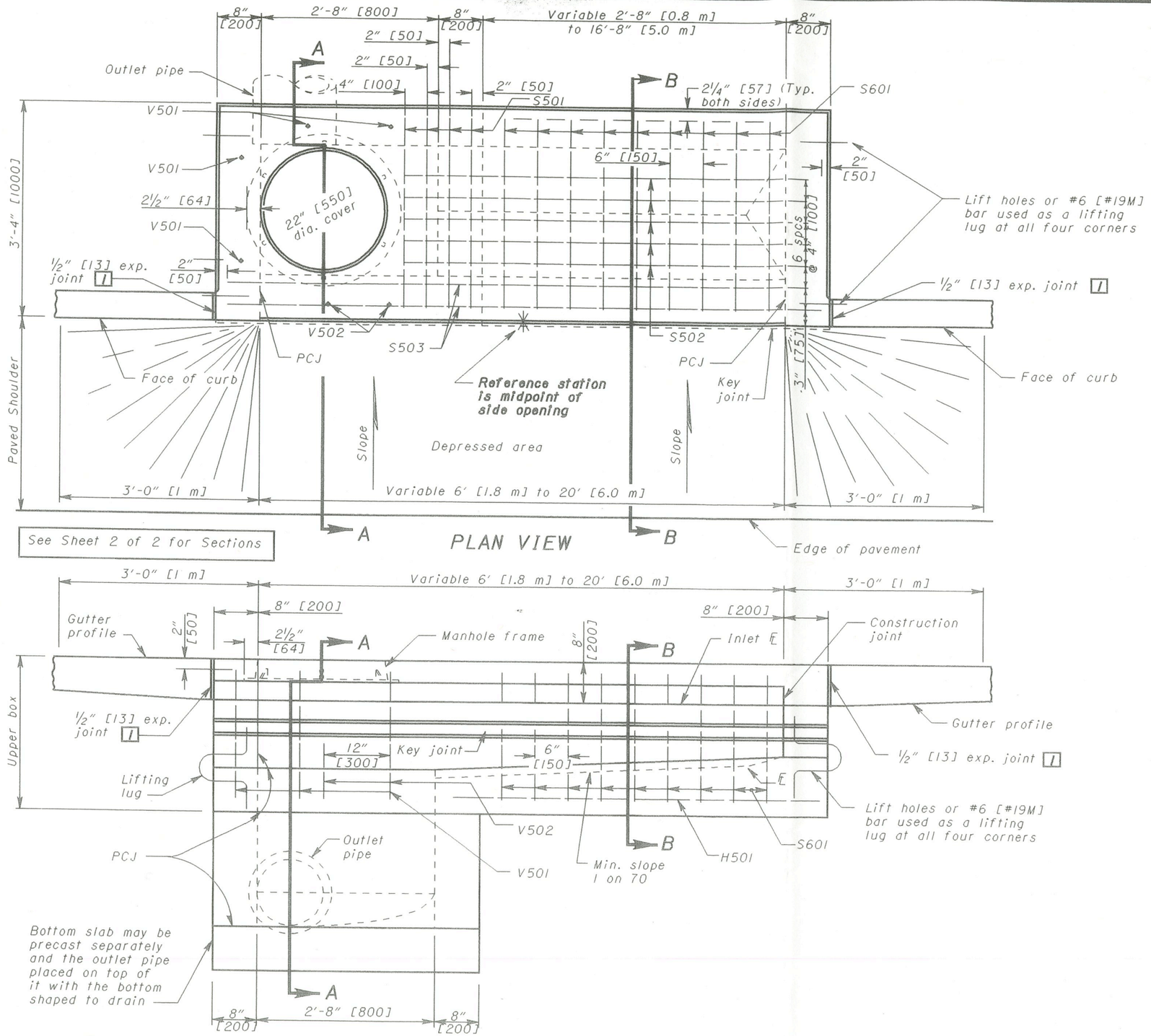
OFFICE OF ROADWAY ENGINEERING
OHIO DEPARTMENT OF TRANSPORTATION

PAVEMENT INLETS

DATE 9-6-95

STANDARD CONSTRUCTION DRAWING **I-1.2M**

APPROVED D.K. Hulman, P.E.
ADMINISTRATOR



FRONT ELEVATION

PAVEMENT INLETS (6' [1.8 m] to 20' [6.0 m])

NOTES

CASTINGS: The design shall be essentially the same and equally as strong as those shown, or meets AASHTO M 306.

Bearing areas of frame and cover shall be so fitted and finished as to provide a firm and even seat for the entire cover in the frame. No projections shall exist on bearing areas of either casting and the cover shall seat in its frame without rocking.

Minimum weight [mass] of frame and cover: 195 lbs. [88 kg].

SUMP WALLS: Walls between the upper box and bottom slab may be brick, concrete block, cast-in-place or precast concrete construction. Precast walls may have a minimum thickness of 6" [150] and shall be reinforced sufficiently to permit shipping and handling without damage.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 with a minimum of 4% entrained air content in the hardened concrete. Required markings shall include the inlet number. Exposed concrete surfaces of the inlet shall be sealed with an approved sealer.

REINFORCING STEEL: All reinforcing steel shall be epoxy coated in accordance wiht CMS 509.10.

QUANTITIES: Curb quantities within the limits of the inlet shall be deducted from the project quantities.

SIDE OPENING: Details shown for the right side of the inlet shall also apply to left side openings where needed for drainage of the opposite outside shoulder as shown in the plans. The sump shall be located at the downgrade end of the inlet for both right and left side openings.

OPENINGS: Pipe openings shall be the outside diameter of the pipe being supplied plus 2" [50] when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.

UPPER BOX: May be precast, or cast-in-place. If precast, it shall be set in a bed of mortar at the sump walls and in a bed of compacted sand at all other points. Reinforcing steel for precast upper boxes shall be equivalent to the design shown. Construction joints other than those shown are permitted in the endwalls to facilitate the removal of precasting forms. The interior trough may have a flat bottom.

PCJ: Permissible Construction Joint

LEGEND

1 A 1" [25] minimum expansion joint shall be provided in concrete pavement or concrete shoulders.

2 When the inlet is placed at the edge of pavement, a concrete apron, as shown on **SCD I-1.1**, shall be provided in lieu of the depressed shoulder shown here.

THIS DRAWING REPLACES I-1.2M DATED 9-6-95.

OHIO DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN ENGINEER — DATE 7-20-01

REVISIONS

STDS. ENGR. D. Focke — DRAWN D. Focke

All metric dimensions [in brackets] are in millimeters unless otherwise noted.

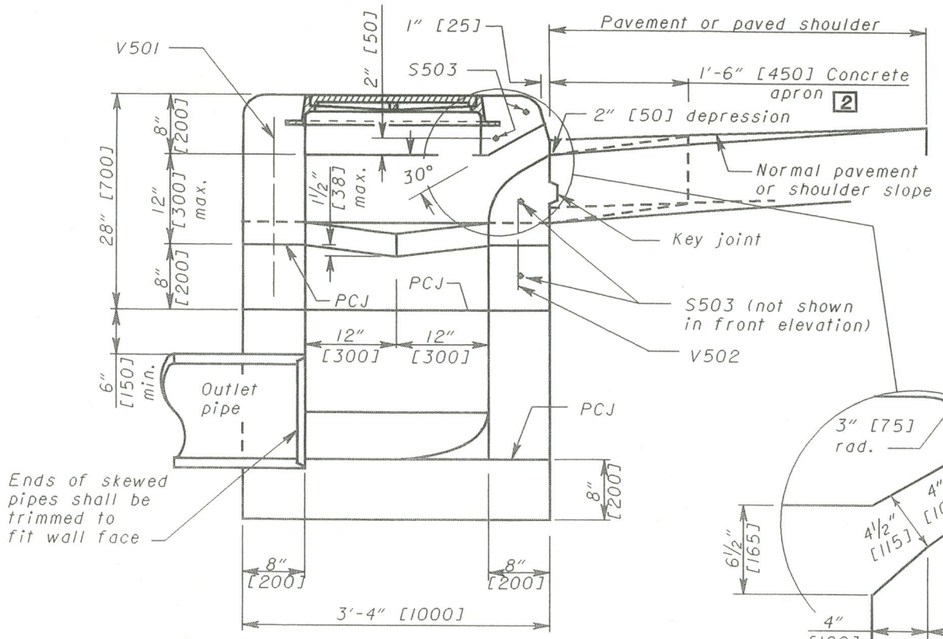
ROADWAY ENGINEERING SERVICES

STANDARD ROADWAY CONSTRUCTION DRAWING

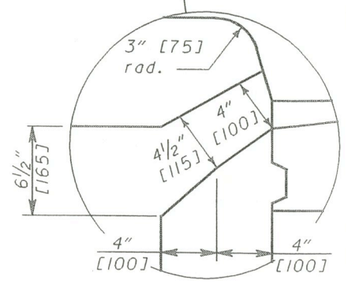
PAVEMENT INLET No. 2A

NUMBER I-1.2

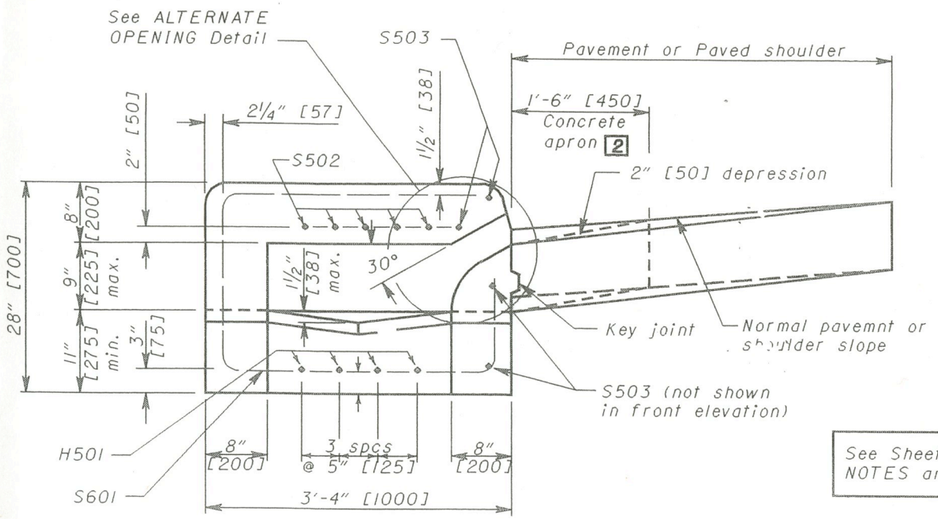
1/2



SECTION A-A
(See Sht. 1/2.)

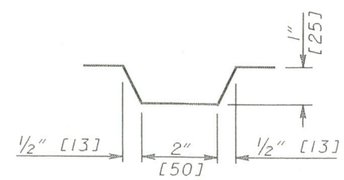


ALTERNATE OPENING

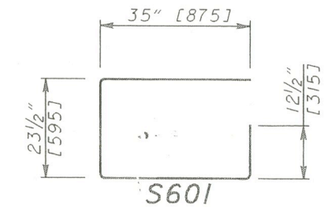


SECTION B-B
(See Sht. 1/2.)

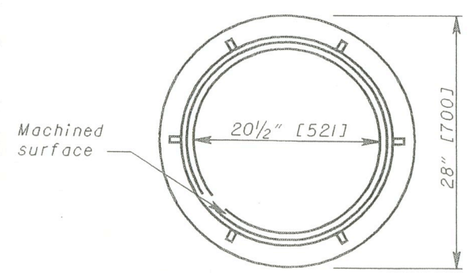
See Sheet 1 of 2 for NOTES and LEGEND



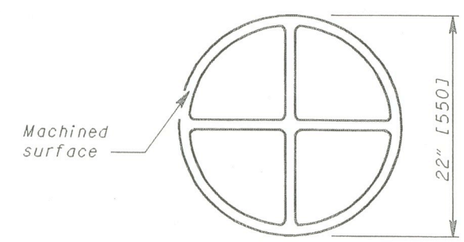
KEY JOINT



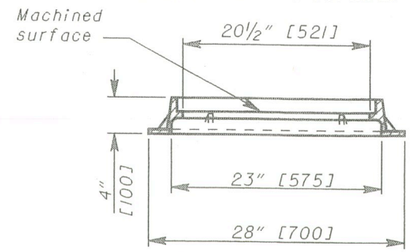
S601
#6 [#19M] ROUND BAR
BENDING DIAGRAM



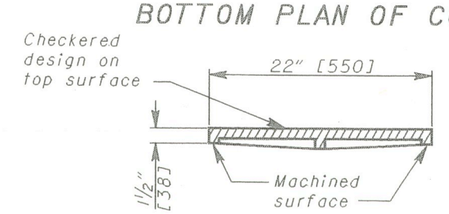
PLAN OF FRAME



BOTTOM PLAN OF COVER



FRAME SECTION
MANHOLE FRAME



COVER SECTION
MANHOLE COVER

CONCRETE AND REINFORCING QUANTITIES (English)

INLET LENGTH	CONCRETE (cu. yds.)	Reinforcing														
		S601 #6 bar		S501 #5 bar		S502 #5 bar		S503 #5 bar		H501 #5 bar		V501 #5 bar		V502 #5 bar		Weight
		No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	(lbs.)
6'	2.4	5	8'-10"	4	2'-11"	5	4'-4"	4	7'-0"	4	3'-8"	4	2'-0"	2	1'-0"	156
8'	2.8	9	8'-10"	4	2'-11"	5	6'-4"	4	9'-0"	4	5'-8"	4	2'-0"	2	1'-0"	236
10'	3.2	13	8'-10"	4	2'-11"	5	8'-4"	4	11'-0"	4	7'-8"	4	2'-0"	2	1'-0"	316
12'	3.6	17	8'-10"	4	2'-11"	5	10'-4"	4	13'-0"	4	9'-8"	4	2'-0"	2	1'-0"	397
14'	3.8	21	8'-10"	4	2'-11"	5	12'-4"	4	15'-0"	4	11'-8"	4	2'-0"	2	1'-0"	477
16'	4.4	25	8'-10"	4	2'-11"	5	14'-4"	4	17'-0"	4	13'-8"	4	2'-0"	2	1'-0"	557
18'	4.8	29	8'-10"	4	2'-11"	5	16'-4"	4	19'-0"	4	15'-8"	4	2'-0"	2	1'-0"	636
20'	5.2	33	8'-10"	4	2'-11"	5	18'-4"	4	21'-0"	4	17'-8"	4	2'-0"	2	1'-0"	717

CONCRETE AND REINFORCING QUANTITIES (Metric)

INLET LENGTH	CONCRETE	Reinforcing														
		S601 #19M		S501 #16M		S502 #16M		S503 #16M		H501 #16M		V501 #16M		V502 #16M		Mass
(m)	(m3)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	No.	Length (mm)	(kg)
1.8	1.8	5	2660	4	865	5	1300	4	2100	4	1100	4	610	2	300	72
2.4	2.1	9	2660	4	865	5	1900	4	2700	4	1700	4	610	2	300	109
3.0	2.4	13	2660	4	865	5	2500	4	3300	4	2300	4	610	2	300	146
3.6	2.8	17	2660	4	865	5	3100	4	3900	4	2900	4	610	2	300	184
4.2	3.1	21	2660	4	865	5	3700	4	4500	4	3500	4	610	2	300	221
4.8	3.4	25	2660	4	865	5	4300	4	5100	4	4100	4	610	2	300	258
5.4	3.7	29	2660	4	865	5	4900	4	5700	4	4700	4	610	2	300	296
6.0	4.0	33	2660	4	865	5	5500	4	6300	4	5300	4	610	2	300	333

Note: The above table of quantities is included with this drawing for estimating purposes only. The cost of furnishing and placing all concrete, reinforcing steel, casting, etc., shall be included in Item 604 for payment. All straight bars are #5 [#16M].

THIS DRAWING REPLACES 1-1.2M DATED 9-6-95.

OHIO DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN ENGINEER — DATE 7-20-01

REVISIONS

STDS. ENGR. D. Focke
DRAWN D. Focke

All metric dimensions [in brackets []] are in millimeters unless otherwise noted.

ROADWAY ENGINEERING SERVICES

STANDARD ROADWAY CONSTRUCTION DRAWING
PAVEMENT INLET No. 2A

NUMBER 1-1.2

2/2