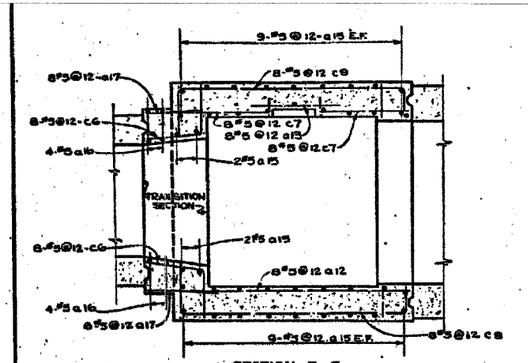
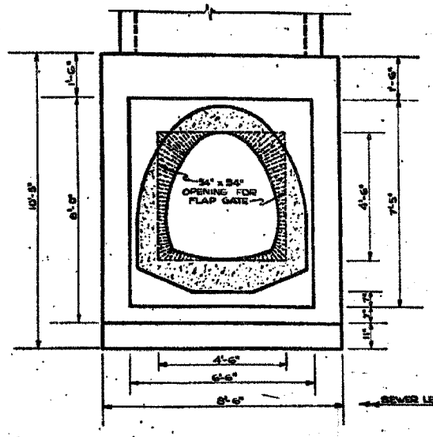
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	•	COOK	556	400
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62300 • (1818, ETC, 2324.6-1PJR-8

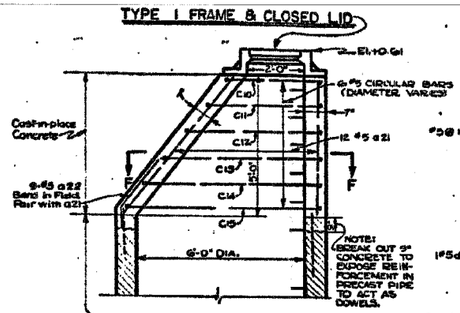


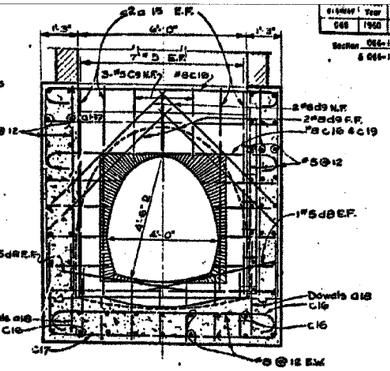
SECTION E-E

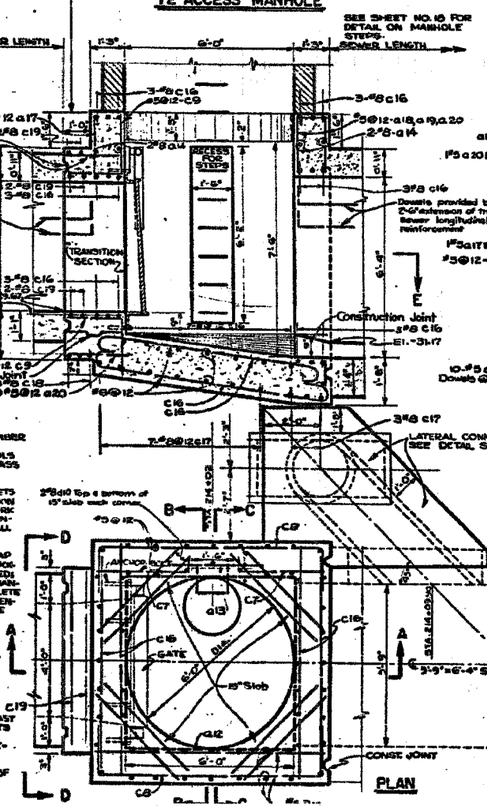
REINFORCING #5 PLACED AS SHOWN

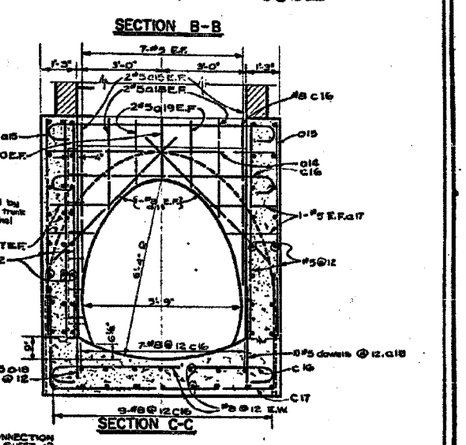


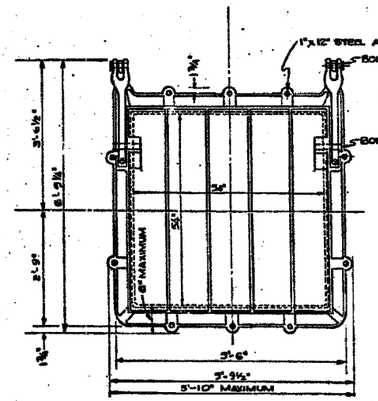
SECTION D-D

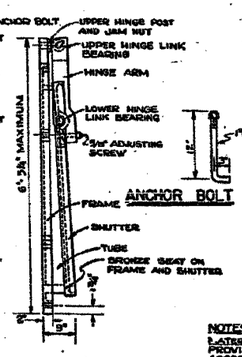


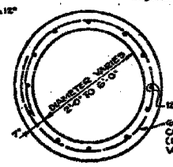












SECTION F-F

NOTES

MATERIALS: THAT PORTION OF THE FLAP GATE CHAMBER PROVIDED FOR ACCESS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 72" ACCESS MANHOLE DETAILS AND SPECIFICATIONS. BELOW THE ACCESS PORTION CLASS X CONCRETE SHALL BE USED THROUGHOUT.

METHOD OF CONSTRUCTION: SEE PLAN & PROFILE SHEETS FOR LOCATION OF FLAP GATE CHAMBER AND ELEVATION OF INVERT SEMI-ELLIPTICAL STORM SEWER. THIS WORK SHALL COMPLY WITH SECTIONS 52 AND 79 OF THE STANDARD SPECIFICATIONS. MINIMUM STEEL CLEARANCE SHALL BE 2 INCHES.

BASIS OF PAYMENT: THE CONTRACT UNIT PRICE OF FLAP GATE CHAMBER SHALL INCLUDE ALL EXCAVATION AND BACK-FILL, FURNISHING AND PLACING ALL MATERIALS REQUIRED, INCLUDING COMPLETE FLAP GATE & SEAT, 72" ACCESS MANHOLE, FRAME & GRATE, AND NECESSARY CEMENT COMPLETE IN PLACE AS REQUIRED. WHERE ROCK EXCAVATION IS ENCOUNTERED, IT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ROCK EXCAVATION.

A 36"x 84" FLAP GATE SHALL BE INSTALLED AS INDICATED ON THE PLANS. THIS GATE SHALL BE A FLAP GATE CONFORMING TO THE REQUIREMENTS OF THE SPECIAL PROVISIONS.

THE GATE SHALL BE DESIGNED TO WITHSTAND A MAXIMUM HYDRAULIC HEAD OF 30 FEET ABOVE THE CENTERLINE OF THE GATE.

THE FRAME AND SHUTTER ARE TO BE MADE OF CAST IRON WITH BRONZE HINGE FITTINGS WITH BRONZE SEATS ON FRAME AND SHUTTER. ALL REINFORCEMENT BARS ARE #5 @ 12" SPACING EXCEPT AS SHOWN.

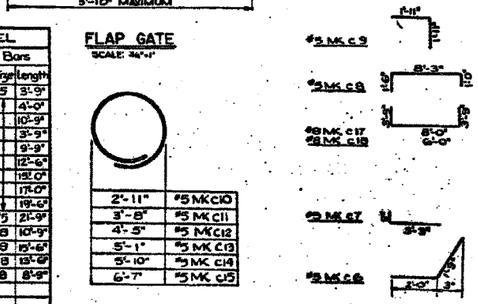
THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FLAP GATE FOR APPROVAL PRIOR TO SHIPMENT.

REINFORCING STEEL								
Straight Bars					Bent Bars			
Bar	No.	Size	Length		Bar	No.	Size	Length
a12	8	#5	8'-3"		c6	16	#5	3'-9"
a13	8		3'-0"		c7	16		4'-0"
a14	4		8'-0"		c8	16		10'-9"
a15	44		7'-9"		c9	12		3'-9"
a16	8		7'-3"		c10	1		9'-9"
a17	36		2'-0"		c11	1		12'-6"
a18	26		4'-0"		c12	1		15'-0"
a19	4		2'-9"		c13	1		17'-0"
a20	11		2'-3"		c14	1		19'-6"
a21	12		5'-6"		c15	1	#5	21'-9"
a22	9	#5	3'-3"		c16	39	#8	10'-9"
					c17	10	#8	15'-6"
					c18	3	#8	13'-6"
					c19	6	#8	8'-9"
d8	4	#5	4'-0"					
d9	4	#8	5'-6"					
d10	16	#8	4'-3"					
d11	2	#8	6'-6"					

FLAP GATE

SCALE: 3/4"=1'

2'-11"	#5 MK c10
3'-8"	#5 MK c11
4'-5"	#5 MK c12
5'-1"	#5 MK c13
5'-10"	#5 MK c14
6'-7"	#5 MK c15



c16 & c19				
Bar	A	B	C	D
c16	6"	1'-2"	7'-5"	7"
c19	6"	1'-2"	3'-5"	7"

BILL OF MATERIAL

Reinforcing Steel – 3275 Lbs
Class X Concrete – 17.8 Cu.Yds
Reinforced Concrete Pipe (ASTM C76-87) Class III – 17.25 Lin.Ft.

SCALE: ½"=1" EXCEPT AS NOTED

COUNTY OF COOK
DEPARTMENT OF HIGHWAYS
DANIEL HYNES — DIRECTOR
WILLIAM J. McGINNIS — SUPERINTENDENT OF HIGHWAYS

FLAP GATE CHAMBER DETAILS

CHECKED E.G.G.
DRAWN M.I.P.
CHECKED E.G.

APPROVED _____
DATE _____
DATE COMPLETED _____

DE LEUW, CATHER & COMPANY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
NB EXPRESS LANE RECONSTRUCTION

JUNCTION CHAMBER 4-01
DETAIL 4

SCALE:

DRAWN BY: JRW

DATE: 7/7/05

CHECKED BY: EL

FOR INFORMATION ONLY

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

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