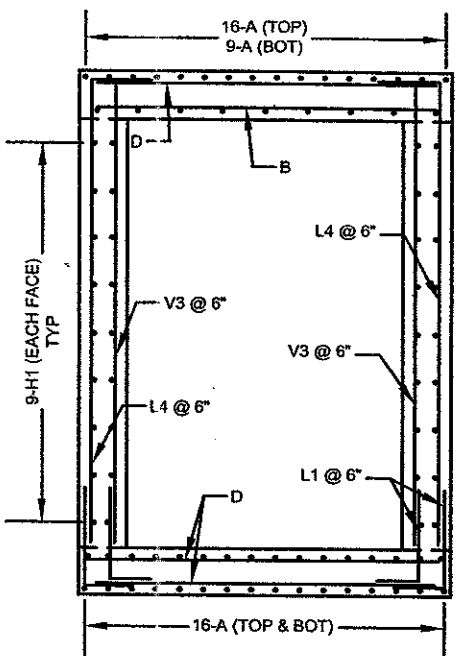
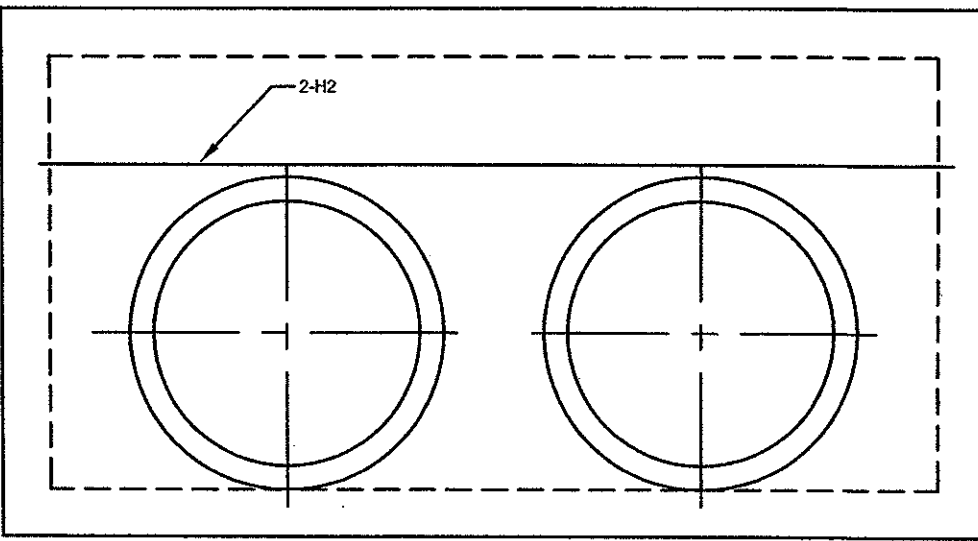


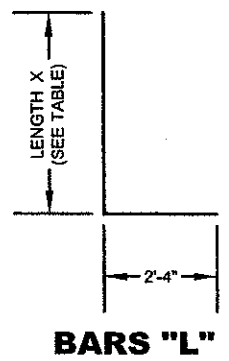
**SECTION A-A**



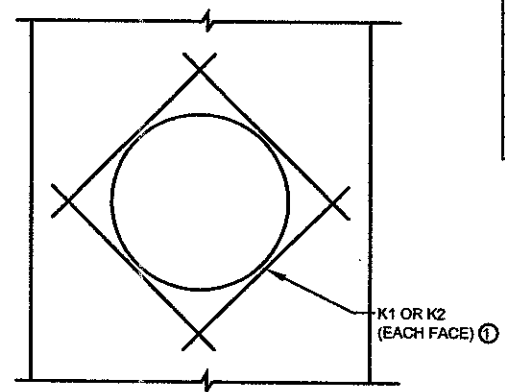
**SECTION B-B**



**DETAIL 2 - TYPICAL MAIN PIPE OPENING**

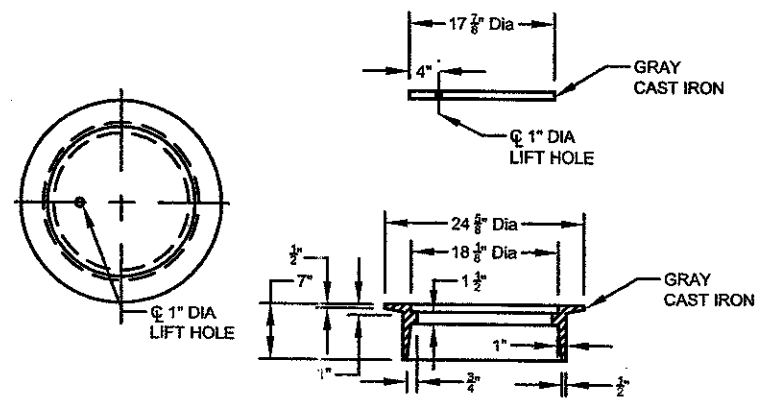


**BARS "L"**



**DETAIL 1 - TYPICAL OPENING**

① K1 BARS AT MANHOLE COVER OPENING  
K2 BARS AT 24" Ø OR 36" Ø RCP OPENING



**RING AND COVER DETAIL**

APPROXIMATE WEIGHT = 200 LB

RINGS AND COVERS OF SLIGHTLY DIFFERENT DIMENSIONS BUT APPROXIMATELY THE SAME WEIGHT MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.

**ESTIMATED QUANTITIES MANHOLE NO. 1**

BAR	NO.	SIZE	LENGTH X	TOT. LENGTH	WEIGHT
A	57	# 5		20'-1"	1194
B	40	# 7		7'-4"	600
D	102	# 4		7'-4"	500
H1	36	# 4		20'-1"	483
H2	4	# 6		20'-1"	121
K1	8	# 5		4'-3"	35
K2	8	# 4		6'-0"	32
L1	220	# 5	2'-4"	4'-8"	1071
L2	16	# 5	9'-6"	11'-10"	197
L3	16	# 5	9'-6"	11'-10"	197
L4	82	# 5	9'-6"	11'-10"	1012
V1	12	# 5		9'-6"	119
V2	12	# 5		9'-6"	119
V3	82	# 5		9'-6"	812
REINFORCING STEEL - LBS					6492
CL C CONCRETE - C.Y.					24

**ESTIMATED QUANTITIES MANHOLE NO. 3**

BAR	NO.	SIZE	LENGTH X	TOT. LENGTH	WEIGHT
A	57	# 5		20'-1"	1194
B	40	# 7		7'-4"	600
D	102	# 4		7'-4"	500
H1	36	# 4		20'-1"	483
H2	4	# 6		20'-1"	121
K1	8	# 5		4'-3"	35
K2	8	# 4		6'-0"	32
L1	220	# 5	2'-4"	4'-8"	1071
L2	16	# 5	9'-0"	11'-4"	189
L3	16	# 5	8'-8"	11'-0"	184
L4	2 x 41	# 5	VARIES 9'-0" TO 8'-8"	VARIES 11'-4" TO 11'-0"	955
V1	12	# 5		9'-0"	113
V2	12	# 5		8'-8"	108
V3	2 x 41	# 5		VARIES 9'-0" TO 8'-8"	755
REINFORCING STEEL - LBS					6340
CL C CONCRETE - C.Y.					23

**ESTIMATED QUANTITIES MANHOLE NO. 2**

BAR	NO.	SIZE	LENGTH X	TOT. LENGTH	WEIGHT
A	57	# 5		20'-1"	1194
B	40	# 7		7'-4"	600
D	102	# 4		7'-4"	500
H1	36	# 4		20'-1"	483
H2	4	# 6		20'-1"	121
K1	8	# 5		4'-3"	35
K2					
L1	220	# 5	2'-4"	4'-8"	1071
L2	16	# 5	9'-9"	12'-1"	202
L3	16	# 5	9'-6"	11'-10"	197
L4	2 x 41	# 5	VARIES 9'-9" TO 9'-6"	VARIES 12'-1" TO 11'-10"	1023
V1	12	# 5		9'-9"	122
V2	12	# 5		9'-6"	119
V3	2 x 41	# 5		VARIES 9'-9" TO 9'-6"	823
REINFORCING STEEL - LBS					6490
CL C CONCRETE - C.Y.					24

**ESTIMATED QUANTITIES MANHOLE NO. 5**

BAR	NO.	SIZE	LENGTH X	TOT. LENGTH	WEIGHT
A	57	# 5		20'-1"	1194
B	40	# 7		7'-4"	600
D	102	# 4		7'-4"	500
H1	36	# 4		20'-1"	483
H2	4	# 6		20'-1"	121
K1	8	# 5		4'-3"	35
K2					
L1	220	# 5	2'-4"	4'-8"	1071
L2	16	# 5	10'-0"	12'-4"	208
L3	16	# 5	10'-0"	12'-4"	206
L4	82	# 5	10'-0"	12'-4"	1055
V1	12	# 5		10'-0"	125
V2	12	# 5		10'-0"	125
V3	82	# 5		10'-0"	855
REINFORCING STEEL - LBS					6576
CL C CONCRETE - C.Y.					25

**NOTES:**

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FAA STANDARD SPECIFICATION P-810.
- DESIGN IS IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS 16TH ED. WITH 1999 INTERIMS.
- LIVE LOAD IS BASED ON GRUMAN GULFSTREAM IV (75,000 LBS) WITH 95% ON THE REAR WHEELS.
- DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
- ALL CIP CONCRETE SHALL BE CLASS C WITH A MINIMUM 28 DAY CYLINDER STRENGTH (F<sub>c</sub>) = 4000 PSI.
- CHAMFER ALL EXPOSED CORNERS 3/4" UNLESS NOTED OTHERWISE (UNO).
- REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 60 SPECIFICATION.
- CLEARANCE MEASURED FROM THE FACE OF CONCRETE TO THE SURFACE OF ANY REINFORCING BAR SHALL BE 2" (UNO).
- REINFORCING BAR SPACING DIMENSIONS ARE TO THE CENTERLINE OF BAR. BAR BENDING DETAILS SHOW OUT-TO-OUT DIMENSIONS.
- IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, BLOCKOUTS OR PIPES, THE REINFORCING STEEL SHALL BE BENT, ADJUSTED, OR CUT TO CLEAR AS DIRECTED BY THE ENGINEER.
- MANHOLE STEPS SHALL BE PROVIDED ON WALL ADJACENT TO MANHOLE OPENING.

PROJECT NO.	ADDISON AIRPORT
BID NO.	URS Greiner Woodward Clyde
URS NO.	4100 Arcom Center Boulevard, Suite 108 Houston, TX 77030 www.urscorp.com
DESIGN	U.F.
DRAWN	B.M.
CHECKED	T.S.
SCALE	
PROJECT NAME	RUNWAY 15 ESA GRADING
DRAWING TITLE	STRUCTURAL DETAILS FOR MANHOLE NO.S 1,2,3, & 5
DRAWING NO.	S2.1
DATE	12/8/00