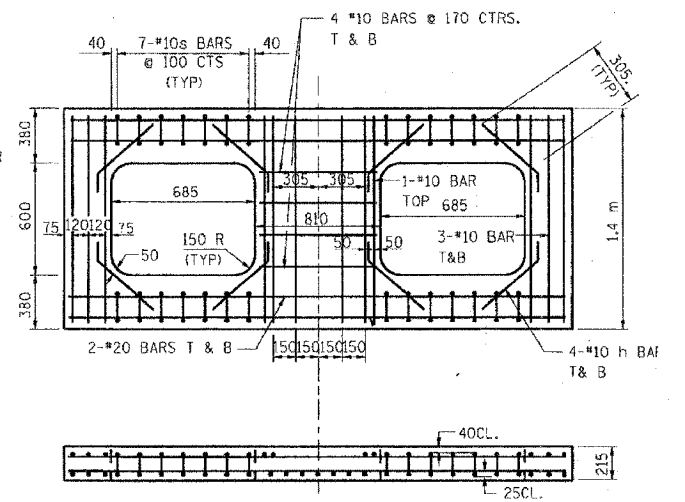
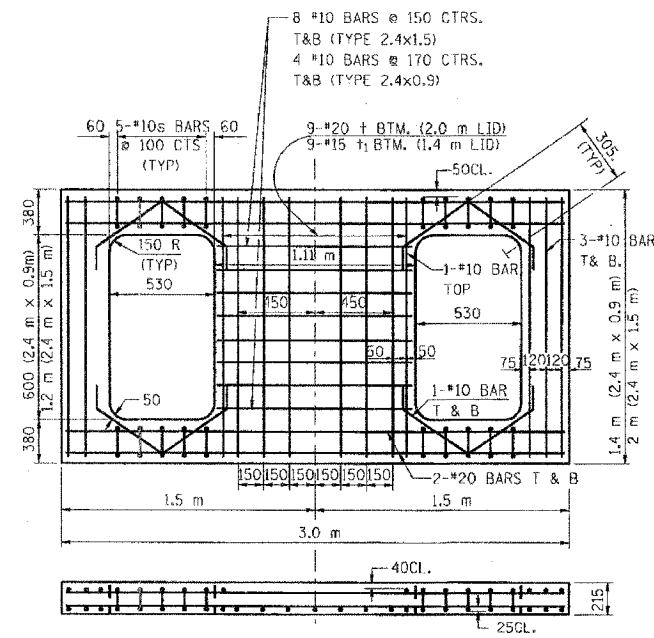


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.		681	81
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(2425 & 2626) R-2			CONTRACT NO. 62111	

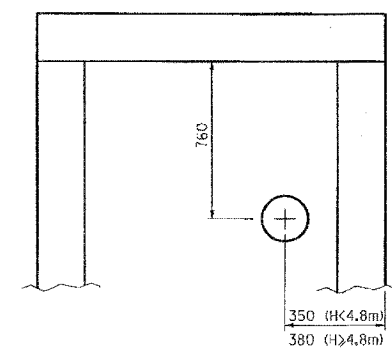
DRAINAGE STRUCTURE TYPE 2.4m x 0.9m		REINFORCEMENT BARS SCHEDULE																										
TYPE	H METERS	a <sub>1</sub> BARS		b <sub>1</sub> BARS		h <sub>1</sub> BARS		h <sub>2</sub> BARS		h <sub>3</sub> BARS		n <sub>1</sub> BARS		n <sub>2</sub> BARS		v <sub>1</sub> BARS		v <sub>2</sub> BARS										
		SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH						
1	>2.4	*15	16	1.2 m	*10	8	2.72 m	*15	16	4.38 m	*15	16	1.8 m	*15	16	3.3 m	*15	30	1.52 m	*10	30	1.09 m	*15	30	2.2 m	*10	30	2.2 m
2	2.6	*15	16	1.2 m	*10	8	2.72 m	*15	18	4.38 m	*15	18	1.8 m	*15	18	3.3 m	*15	30	1.52 m	*10	30	1.09 m	*15	30	2.4 m	*10	30	2.4 m
3	2.7	*15	16	1.2 m	*10	8	2.72 m	*15	18	4.38 m	*15	18	1.8 m	*15	18	3.3 m	*15	30	1.52 m	*10	30	1.09 m	*15	30	2.5 m	*10	30	2.5 m
4	2.9	*15	16	1.2 m	*10	8	2.72 m	*15	20	4.38 m	*15	20	1.8 m	*15	20	3.3 m	*15	30	1.52 m	*10	30	1.09 m	*15	30	2.7 m	*10	30	2.7 m
5	3.0	*15	16	1.2 m	*10	8	2.72 m	*15	20	4.38 m	*15	20	1.8 m	*15	20	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	2.8 m	*10	30	2.8 m
6	3.2	*15	16	1.2 m	*10	8	2.72 m	*15	22	4.38 m	*15	22	1.8 m	*15	22	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	2.9 m	*10	30	2.9 m
7	3.4	*15	16	1.2 m	*10	8	2.72 m	*15	22	4.38 m	*15	22	1.8 m	*15	22	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	3.1 m	*10	30	3.1 m
8	3.5	*15	16	1.2 m	*10	8	2.72 m	*15	24	4.38 m	*15	24	1.8 m	*15	24	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	3.2 m	*10	30	3.2 m
9	3.7	*15	16	1.2 m	*10	8	2.72 m	*15	24	4.38 m	*15	24	1.8 m	*15	24	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	3.4 m	*10	30	3.4 m
10	3.8	*15	16	1.2 m	*10	8	2.72 m	*15	26	4.38 m	*15	26	1.8 m	*15	26	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	3.6 m	*10	30	3.6 m
11	4.0	*15	16	1.2 m	*10	8	2.72 m	*15	26	4.38 m	*15	26	1.8 m	*15	26	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	3.7 m	*10	30	3.7 m
12	4.1	*15	16	1.2 m	*10	8	2.72 m	*15	28	4.38 m	*15	28	1.8 m	*15	28	3.3 m	*20	30	1.52 m	*10	30	1.09 m	*20	30	3.9 m	*10	30	3.9 m
13	4.3	*15	16	1.2 m	*10	8	2.72 m	*15	56	4.38 m	*20	28	1.8 m	*20	28	3.3 m	*20	48	1.52 m	*15	30	1.09 m	*20	48	4.0 m	*15	30	4.0 m
14	4.8	*15	16	1.2 m	*10	8	2.72 m	*15	64	4.38 m	*20	32	1.8 m	*20	32	3.3 m	*20	48	1.52 m	*15	30	1.09 m	*20	48	4.6 m	*15	30	4.6 m
15	5.5	*15	16	1.2 m	*10	8	2.72 m	*15	72	4.38 m	*20	36	1.8 m	*20	36	3.3 m	*20	48	1.52 m	*15	30	1.09 m	*20	48	5.3 m	*15	30	5.3 m
16	6.0	*15	16	1.2 m	*10	8	2.72 m	*15	78	4.38 m	*20	40	1.8 m	*20	40	3.3 m	*20	48	1.52 m	*15	30	1.09 m	*20	48	5.9 m	*15	30	5.9 m
17	6.7	*15	16	1.2 m	*10	8	2.72 m	*15	86	4.38 m	*20	44	1.8 m	*20	44	3.3 m	*20	48	1.52 m	*15	30	1.09 m	*20	48	6.5 m	*15	30	6.5 m

DRAINAGE STRUCTURE TYPE 2.4m x 1.5m		REINFORCEMENT BARS SCHEDULE																										
TYPE	H METERS	a <sub>1</sub> BARS		b <sub>1</sub> BARS		h <sub>1</sub> BARS		h <sub>2</sub> BARS		h <sub>3</sub> BARS		n <sub>1</sub> BARS		n <sub>2</sub> BARS		v <sub>1</sub> BARS		v <sub>2</sub> BARS										
		SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH						
1	>2.4	*15	16	1.8 m	*10	12	2.72 m	*15	16	4.9 m	*15	16	2.4 m	*15	16	3.3 m	*15	34	1.52 m	*10	34	1.09 m	*15	34	2.2 m	*10	34	2.2 m
2	2.6	*15	16	1.8 m	*10	12	2.72 m	*15	18	4.9 m	*15	18	2.4 m	*15	18	3.3 m	*15	34	1.52 m	*10	34	1.09 m	*15	34	2.4 m	*10	34	2.4 m
3	2.7	*15	16	1.8 m	*10	12	2.72 m	*15	18	4.9 m	*15	18	2.4 m	*15	18	3.3 m	*15	34	1.52 m	*10	34	1.09 m	*15	34	2.5 m	*10	34	2.5 m
4	2.9	*15	16	1.8 m	*10	12	2.72 m	*15	20	4.9 m	*15	20	2.4 m	*15	20	3.3 m	*15	34	1.52 m	*10	34	1.09 m	*15	34	2.7 m	*10	34	2.7 m
5	3.0	*15	16	1.8 m	*10	12	2.72 m	*15	20	4.9 m	*15	20	2.4 m	*15	20	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	2.8 m	*10	34	2.8 m
6	3.2	*15	16	1.8 m	*10	12	2.72 m	*15	22	4.9 m	*15	22	2.4 m	*15	22	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	2.9 m	*10	34	2.9 m
7	3.4	*15	16	1.8 m	*10	12	2.72 m	*15	22	4.9 m	*15	22	2.4 m	*15	22	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	3.1 m	*10	34	3.1 m
8	3.5	*15	16	1.8 m	*10	12	2.72 m	*15	24	4.9 m	*15	24	2.4 m	*15	24	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	3.2 m	*10	34	3.2 m
9	3.7	*15	16	1.8 m	*10	12	2.72 m	*15	24	4.9 m	*15	24	2.4 m	*15	24	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	3.4 m	*10	34	3.4 m
10	3.8	*15	16	1.8 m	*10	12	2.72 m	*15	26	4.9 m	*15	26	2.4 m	*15	26	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	3.6 m	*10	34	3.6 m
11	4.0	*15	16	1.8 m	*10	12	2.72 m	*15	26	4.9 m	*15	26	2.4 m	*15	26	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	3.7 m	*10	34	3.7 m
12	4.1	*15	16	1.8 m	*10	12	2.72 m	*15	28	4.9 m	*15	28	2.4 m	*15	28	3.3 m	*20	34	1.52 m	*10	34	1.09 m	*20	34	3.9 m	*10	34	3.9 m
13	4.3	*15	16	1.8 m	*10	12	2.72 m	*15	56	4.9 m	*20	28	2.4 m	*20	28	3.3 m	*20	52	1.52 m	*15	34	1.09 m	*20	52	4.0 m	*15	34	4.0 m
14	4.8	*15	16	1.8 m	*10	12	2.72 m	*15	64	4.9 m	*20	32	2.4 m	*20	32	3.3 m	*20	52	1.52 m	*15	34	1.09 m	*20	52	4.6 m	*15	34	4.6 m
15	5.5	*15	16	1.8 m	*10	12	2.72 m	*15	72	4.9 m	*20	36	2.4 m	*20	36	3.3 m	*20	52	1.52 m	*15	34	1.09 m	*20	52	5.3 m	*15	34	5.3 m
16	6.0	*15	16	1.8 m	*10	12	2.72 m	*15	78	4.9 m	*20	40	2.4 m	*20	40	3.3 m	*20	52	1.52 m	*15	34	1.09 m	*20	52	5.9 m	*15	34	5.9 m
17	6.7	*15	16	1.8 m	*10	12	2.72 m	*15	86	4.9 m	*20	44	2.4 m	*20	44	3.3 m	*20	52	1.52 m	*15	34	1.09 m	*20	52	6.5 m	*15	34	6.5 m

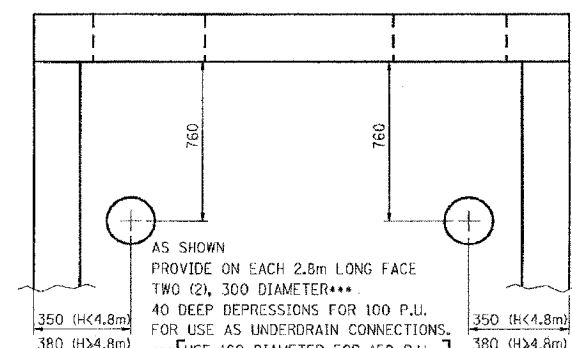


REINFORCED LID FOR TYPE 20 & 22 FRAME & GRATE

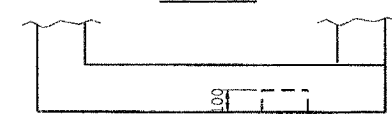
REINFORCED LID FOR TYPE 21 FRAME & GRATE (FOR USE IN SAG AREAS)



ELEVATION



ELEVATION



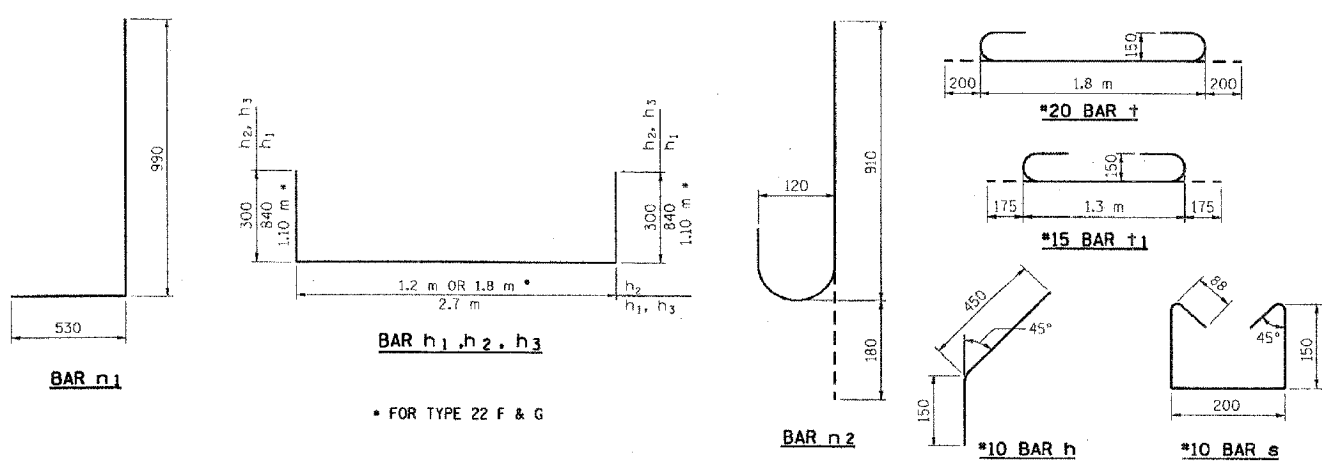
PLAN



PLAN

AS SHOWN PROVIDE ON EACH FACE ONE (1), 100 DEPRESSION FOR USE AS UNDERDRAIN CONNECTIONS. USE 120 DIAMETER FOR 100 P.U., 180 DIAMETER FOR 150 P.U., 220 DIAMETER FOR 200 P.U. REFER TO PLANS FOR SIZE & LOCATION OF PIPE UNDERDRAINS.

PIPE UNDERDRAIN CONNECTION DETAIL



BAR h<sub>1</sub>, h<sub>2</sub>, h<sub>3</sub>

• FOR TYPE 22 F & G

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. ROUTE 80/94 (KINGERY EXPRESSWAY)  
**DRAINAGE STRUCTURES**  
CATCH BASINS 2.4m x 0.9m & 2.4m x 1.5m  
FOR DEPTHS WHERE H > 2.4m  
SHEET 2 OF 2  
SCALE NONE  
DATE 03/03  
DRAWN BY ACE/CAD  
CHECKED BY