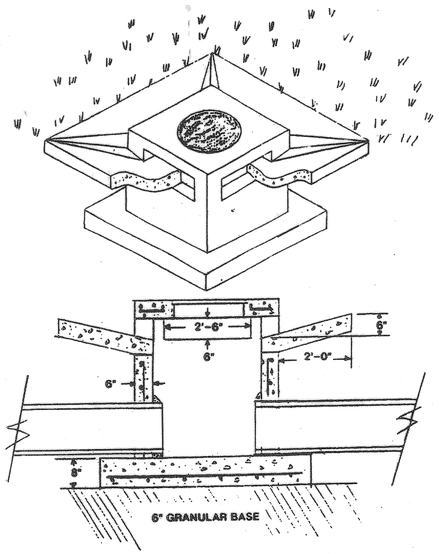
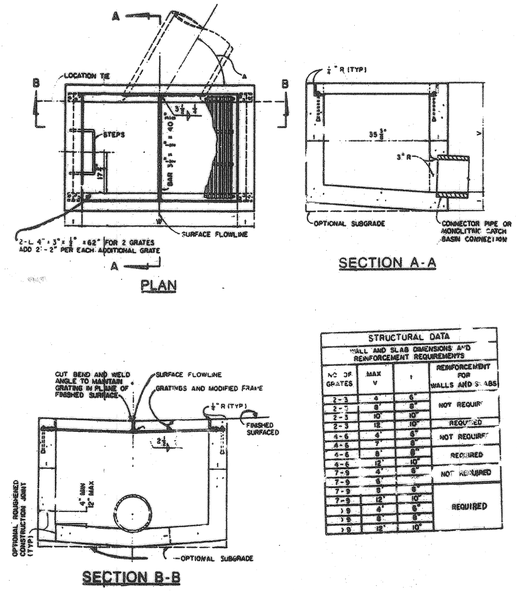
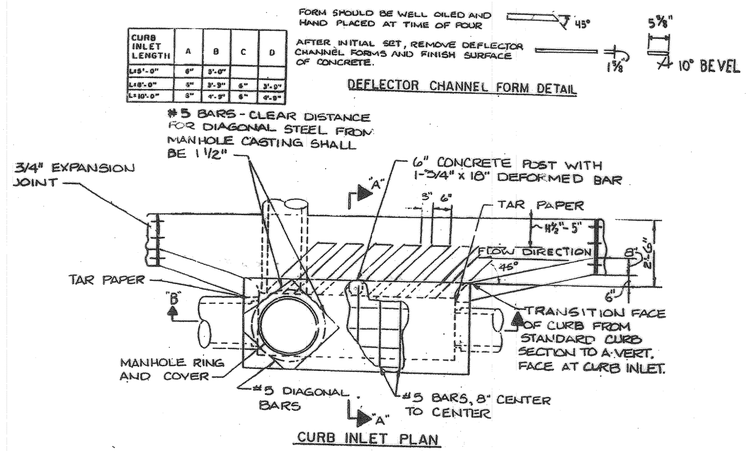


AREA DRAIN



STRUCTURAL DATA "WALL AND SLAB DIMENSIONS AND REINFORCEMENT REQUIREMENTS"			
NO. OF GRATES	MAX V	t	REINFORCEMENT FOR WALLS AND SLABS
1-3	4'	6"	NOT REQUIRED
2-1	8'	8"	
2-2	10'	10"	
2-3	12'	10"	REQUIRED
4-6	4'	6"	NOT REQUIRED
4-6	7'	8"	
4-6	8'	8"	REQUIRED
4-6	12'	10"	
7-9	4'	6"	NOT REQUIRED
7-9	6'	8"	REQUIRED
7-9	8'	8"	
7-9	12'	10"	
>9	4'	8"	
>9	8'	8"	
>9	12'	10"	

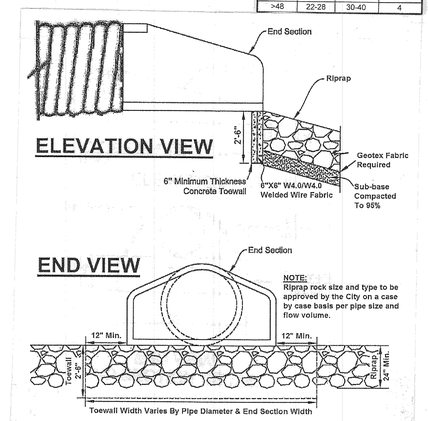
CATCH BASIN DETAIL



CURB INLET LENGTH	A	B	C	D
L=8'-0"	6"	5'-0"		
L=8'-0"	5"	3'-3"	6"	3'-0"
L=10'-0"	5"	4'-9"	6"	4'-0"

DROP INLET DETAIL

MINIMUM RIPRAP REQUIRED			
PIPE DIA. (IN.)	LENGTH (FT.)	QUANTITY (CY.)	CLASS
12	8	5	3
15	8	5	3
18	10	6	3
24	12	8	3
30	14	12	3
36	16	14	3
42	18	22	4
48	20	26	4
>48	22-28	30-40	4



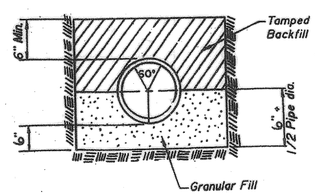
END SECTION DETAIL

CLASS 3 RIP-RAP

No more than 10% of the stone will have a diameter greater than twenty two (22) inches; no more than 50% of the stone will have a diameter less than sixteen (16) inches; and no more than 10% of the stone will have a diameter of less than eight (8) inches. The thickness of the rip-rap liner will be no less than twenty two (22) inches.

CLASS 4 RIP-RAP

No more than 10% of the stone will have a diameter greater than twenty seven (27) inches; no more than 50% of the stone will have a diameter less than twenty two (22) inches; and no more than 10% of the stone will have a diameter of less than ten (10) inches. The thickness of the rip-rap liner will be no less than twenty seven (27) inches.



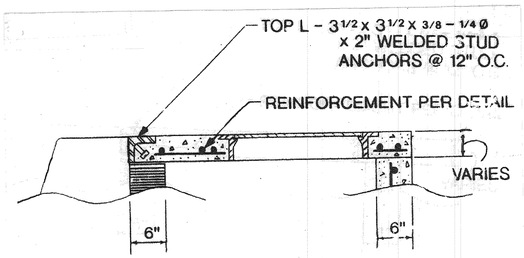
Notes:

Granular fill to be crushed stone or pea gravel with not less than 95% passing 1/2" and not less than 95% to be retained on a #4 sieve to be placed in not more than 6" layers.

Tamped backfill shall be finely divided job excavated material free from debris, organic material, and stones, compacted to 95% maximum density as determined by AASHTO Standard Method T-99. Granular fill may be substituted for all or part of tamped backfill.

Where pipe is in fill, the contractor shall construct compacted fill to a depth of 18" above the top of the pipe, or to proposed grade, whichever is less before trenching operations for the pipe are started. Granular fill extends to road subgrade under streets or driveways.

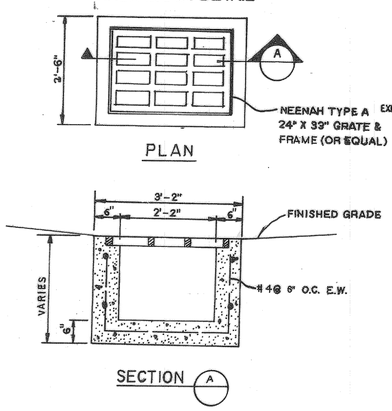
STORM SEWER BEDDING DETAIL

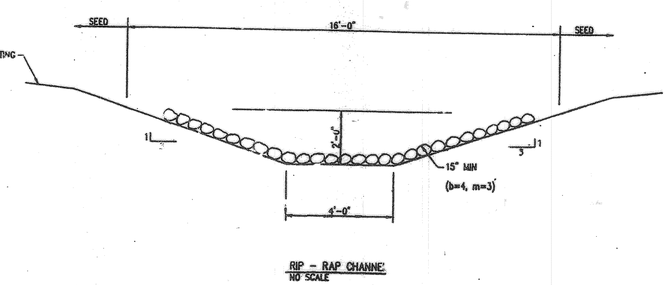


CURB INLET TOP DETAIL

NOTE: Curb inlets and junctions boxes in sidewalk use Clay & Bailey No. 2020, EJIW 1501A Cover w/ 1501Z Frame or approved equal, not embossed.

AREA DRAIN DETAIL





CHANNEL DETAIL

Warrensburg MISSOURI

CITY OF WARRENSBURG, MISSOURI

STORM DRAINAGE STANDARD DETAIL

SCALE: N/A	APPROVED BY:	DRAWN BY WDG
DATE:		REVISED 04/15/16
		DRAWING NUMBER