

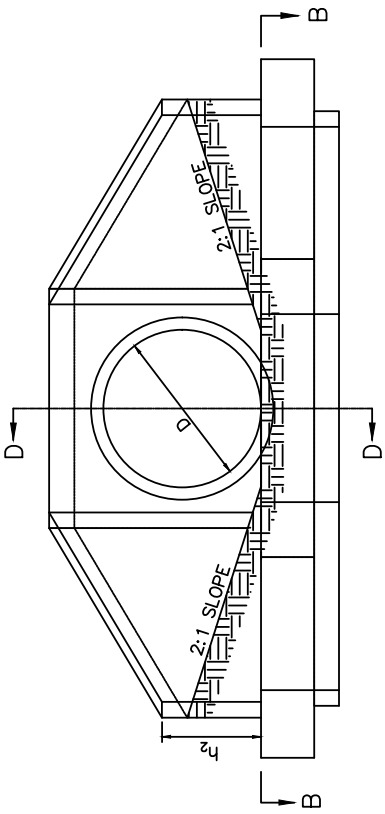
Revision Date: 4/13/2021

CINCINNATI
STORMWATER
 MANAGEMENT UTILITY

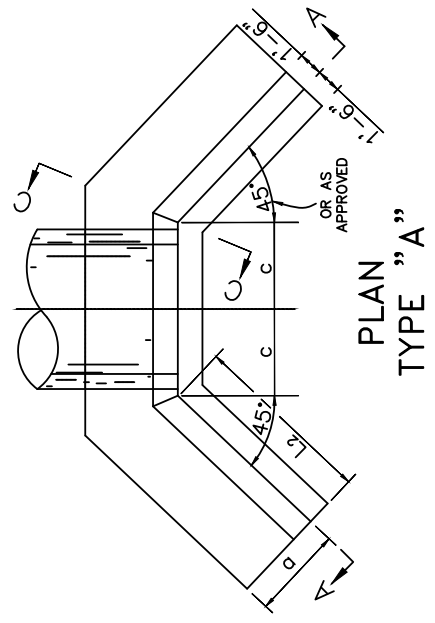


City Stormwater Management Engineer
 Approved: *Eric Bayler*
 Standard Wingwall - 120341

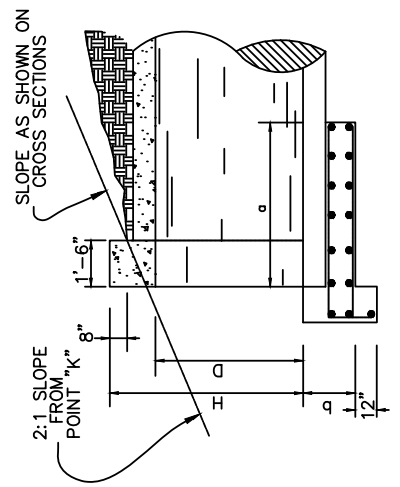
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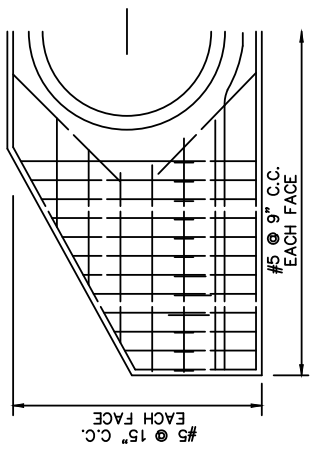
ELEVATION



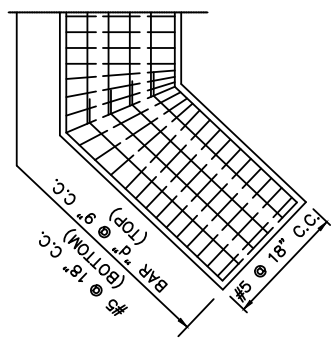
PLAN TYPE "A"



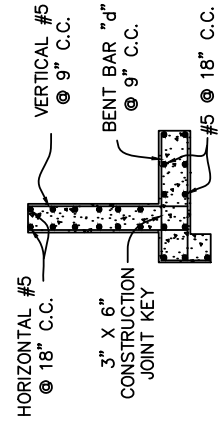
SECTION D-D



HALF-SECTION A-A



HALF-SECTION B-B



SECTION C-C

General SMU Notes

1. Inlet chambers shall be precast or made from concrete block in accordance with latest ODOT CMS and City Supplement specifications.
2. All structures must meet standard inside dimensions.
3. Block chambers shall be made from solid slab blocks.
4. Mortar joints shall be a minimum of 3/8".
5. Block walls shall be skim coated with a minimum 1/8" mortar.
6. Casting shall be set in a bed of mortar.
7. Block floors are not permitted.
8. Precast box shall be set on a bed of 6" compacted #57 stones with the floor poured to match flow lines.
9. Concrete floors shall be a minimum of 6" thick.
10. Precast walls shall be a minimum 6" thick.
11. All risers shall be sealed with 2 rows of Con-seal. One interior and one exterior.
12. Pipes shall not enter within 8" of an inside corner.
13. Outlet pipe shall be flush with wall or protrude no more than 1".
14. For incoming conduits with diameter of 8" and smaller see Acc. # 120340.
15. For standard casting, see Acc. # 49017.
16. For standard reinforcing steel notes see Acc. # 49010.
17. Inlet connections in a cone section are not permitted.
18. No more than 2 inlet connections spaced 2' +/- apart horizontally in a 3' or 4' manhole section.
19. Hubs inside of any structure are not permitted.
20. All reinforcing bars shall clear interior face of wall by 2".
21. For installation of risers, a 1" tolerance in either direction is permitted.
22. Protrusions for inlet pipes shall be a minimum of 1" and a maximum of 2".

23. All pipes shall be set in a bed of mortar, dry fitting is not permitted.
24. Pipe edges shall be smooth. No jagged edges are permitted.
25. Shop drawings for precast structures must be approved prior to work commencing.
26. No knockouts are permitted.
27. No steps are permitted.
28. All penetrations shall be manufactured or cored and shall not exceed 4" greater than the conduit's outside diameter.
29. Shims are not permitted.

Standard Wingwall

1. HW-3 HEADWALLS WHERE REQUIRED WILL BE PROVIDED FOR SKEWED AND NONSKEWED CULVERTS HAVING A DIAMETER OR RISE OF 42" TO 84" INCLUSIVE.
2. DIMENSIONS AND QUANTITIES ARE SHOWN FOR CIRCULAR SECTIONS ONLY.
3. WHEN USED WITH REINFORCED ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL PIPE ARCHES IT WILL BE NECESSARY TO DETERMINE SUCH DIMENSIONS AND QUANTITIES WHICH SHALL GENERALLY CONFORM WITH THOSE LISTED FOR THE NEAREST SIZE CIRCULAR PIPE.
4. THE DIMENSIONS ESTABLISHED BY VERTICAL DIAMETER SHALL APPLY TO RISE AND THE DIMENSIONS ESTABLISHED BY HORIZONTAL DIAMETER SHALL APPLY TO SPAN.
5. CHAMFER ALL EXPOSED CORNERS TO 1/4".
6. FOUNDATION: WHERE THE SOIL BORINGS INDICATE A BEARING CAPACITY OF LESS THAN 2500 LBS. PER SQUARE FOOT IT WILL BE NECESSARY TO INCREASE THE WIDTH OF THE FOOTING.

PIPE DIAM. D.	M	a	b	c	d	L ₂	h ₂	C.Y. CONC. REQ.	C.Y. CONC. SUP.	STEEL LBS.	PIPE DIAM. D.
42"	4'-11"	3'-3"	1'-6"	2'-5"	#5	7'-9"	3'-3"	8.7	8.5	718	42"
48"	5'-5"	3'-6"	1'-6"	2'-9"	#5	9'-2"	3'-7"	10.6	10.3	925	48"
54"	5'-11"	3'-9"	1'-6"	3'-0"	#5	10'-7"	3'-10"	12.6	12.2	1188	54"
60"	6'-6"	4'-0"	1'-6"	3'-3"	#5	12'-0"	4'-1"	14.8	14.3	1354	60"
72"	7'-7"	4'-6"	1'-7"	3'-9"	#5	14'-10"	4'-8"	20.2	19.6	2075	72"
84"	8'-8"	5'-0"	1'-10"	4'-3"	#8	17'-8"	5'-2"	27.9	27.0	2990	84"



Approved
Eric Sawyer