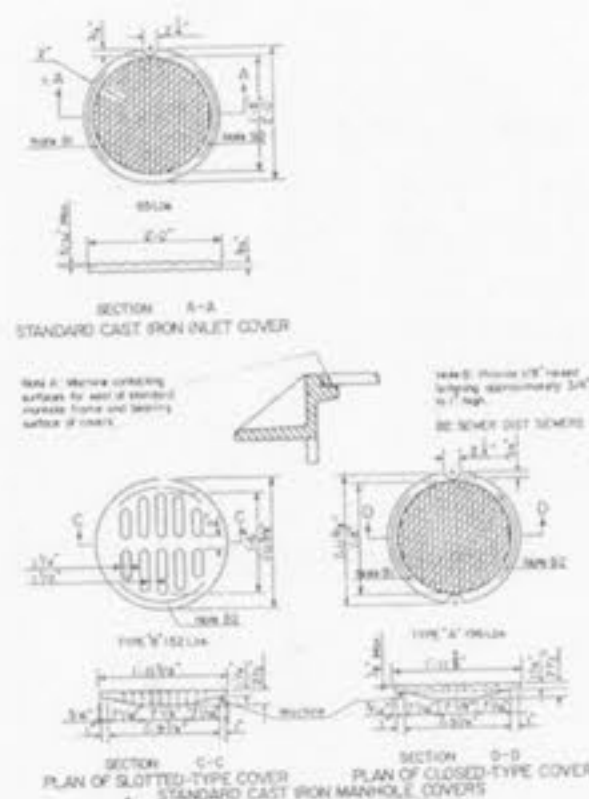
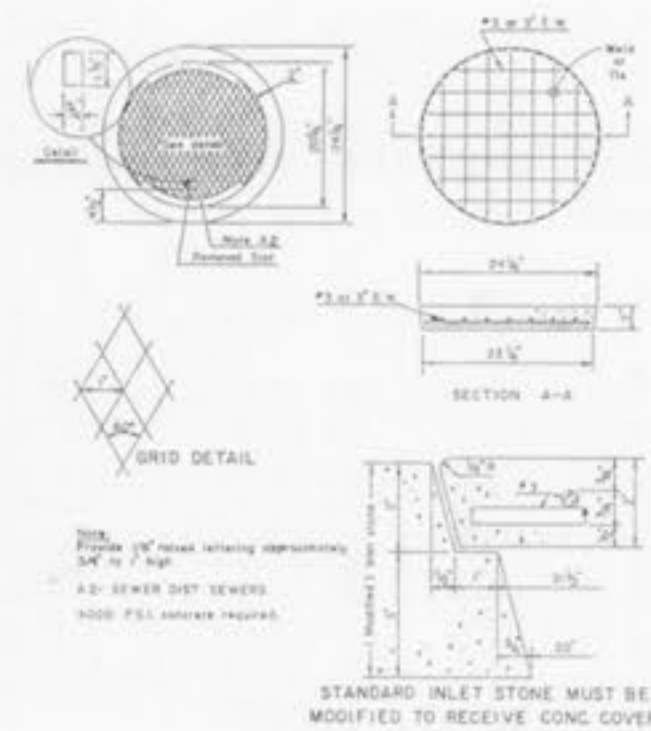


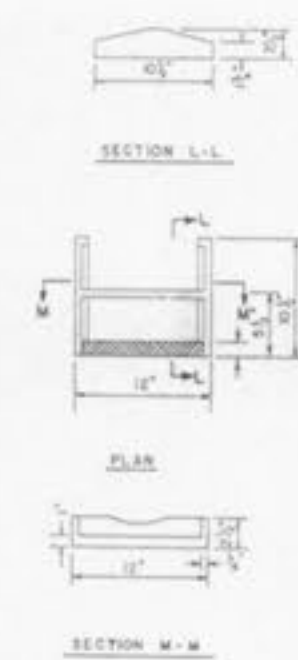
* CAST IRON MANHOLE FRAME



* CAST IRON COVERS

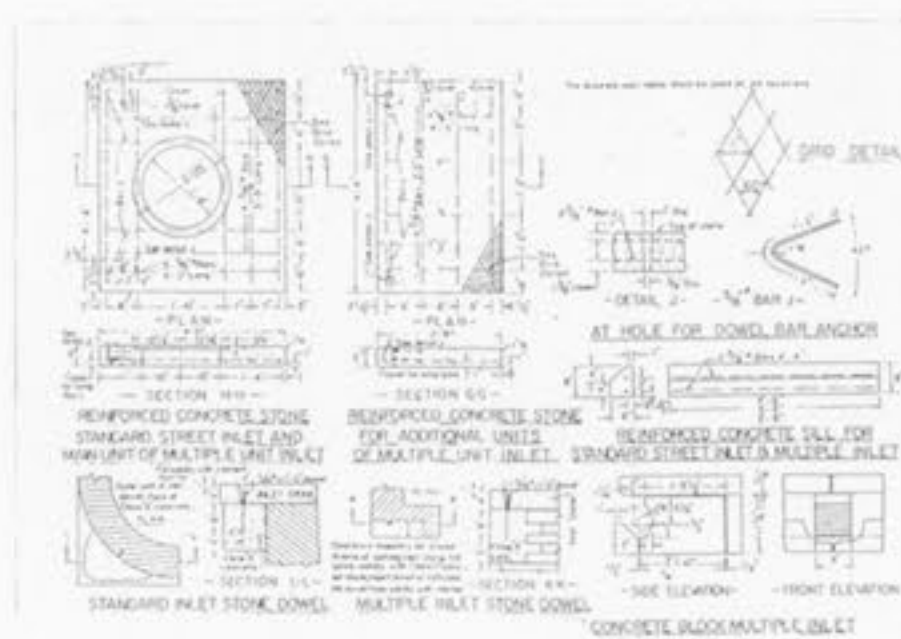


PRE-CAST CONCRETE INLET COVER

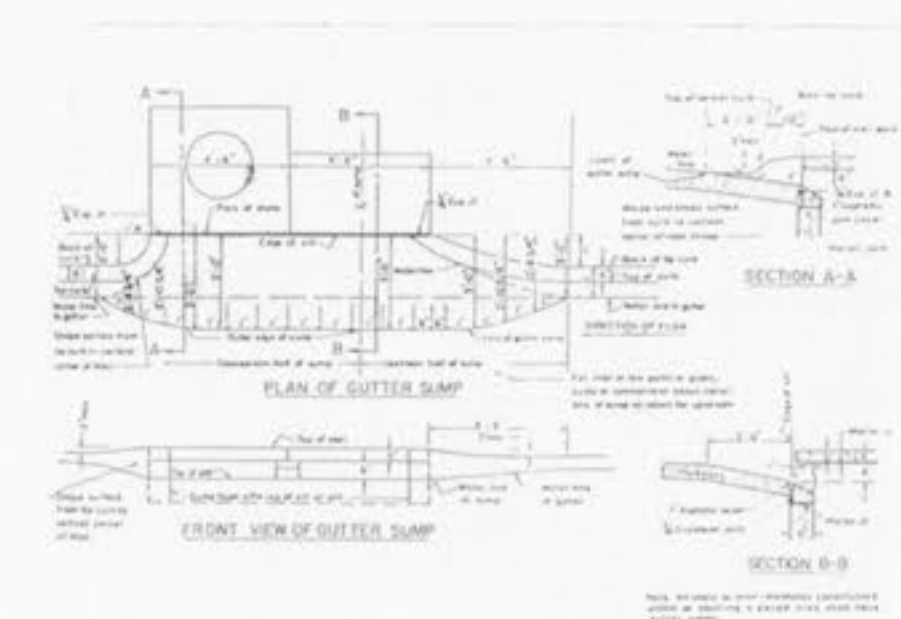


CAST IRON MANHOLE STEPS

* Manhole Frame & Cover Shall Be Clay & Bailey No. 2008, Neenah R-1736, Deeter 1315 or Approved Equal.

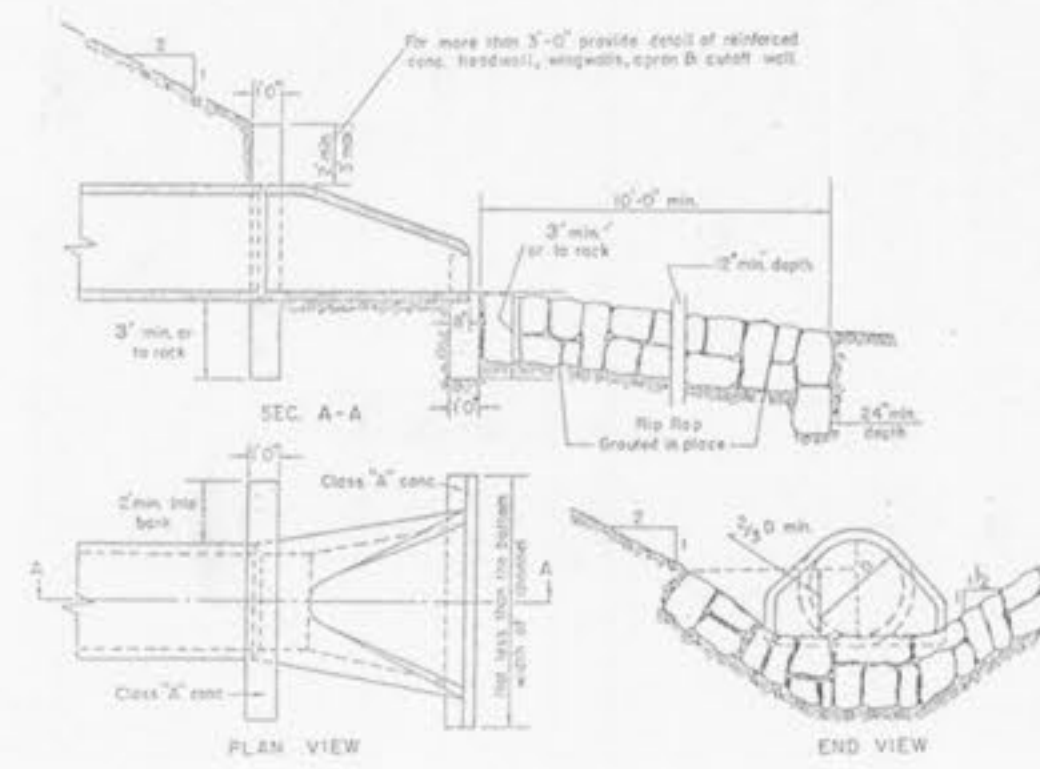


STANDARD INLET STONES & BLOCKS

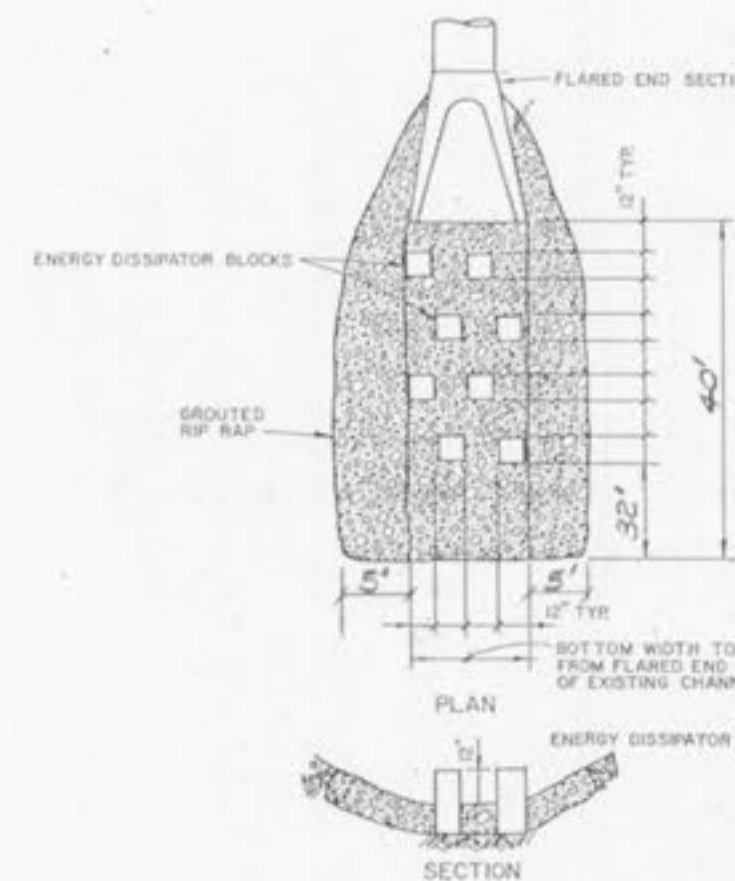


GUTTER SUMP FOR ROLLED CURB

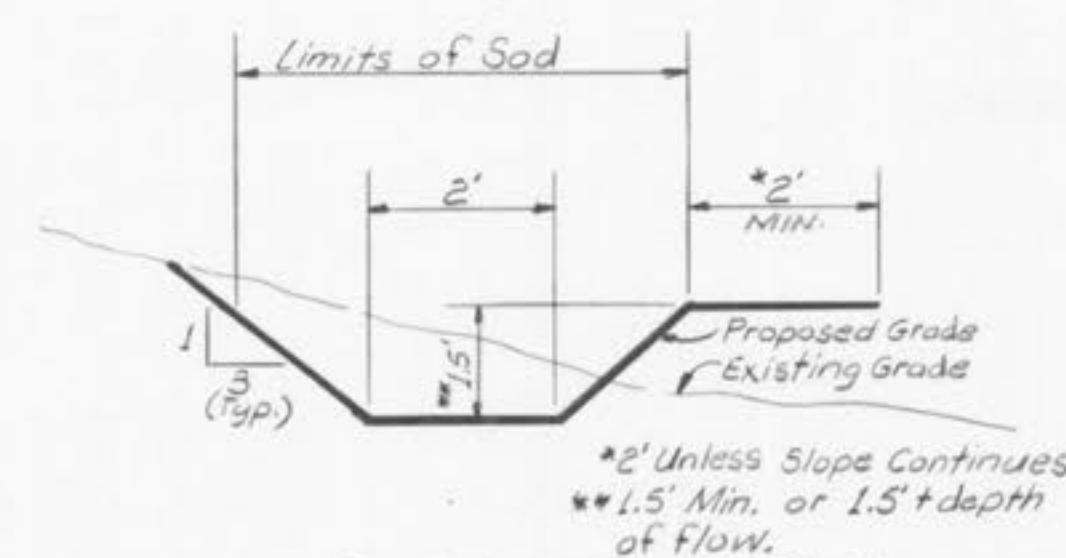
Details Adapted From The Metropolitan St. Louis Sewer District "Standard Construction Details For Sewers And Drainage Facilities." (1986)



DISCHARGE HEADWALL FLARED END SECTION



ENERGY DISSIPATOR DETAIL
(@ Structures 13 & 50)

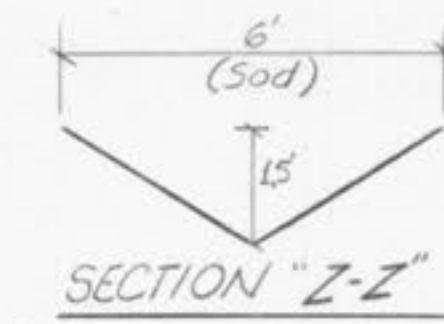


SODDED SWALE DETAIL

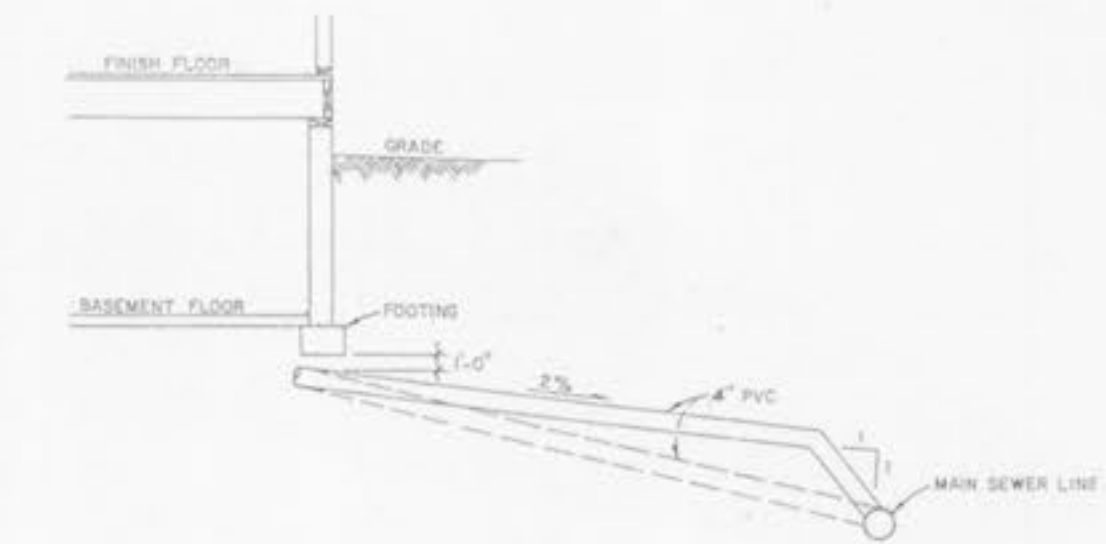
Mannings Equation: $Q = A \frac{1.486}{n} r^{2/3} S^{1/2}$

| Swale Section | Q | n | A | Wp | r | r ^{2/3} | S | S ^{1/2} | V | DEPTH | Structure Location |
|---------------|------|------|--------|---------|-------|------------------|-------|------------------|------|-------|--------------------|
| A-A | 2.22 | .035 | 1.7003 | 10.0390 | .1694 | .5061 | .0100 | .1000 | 1.31 | .50 | (1) |
| B-B | 3.10 | " | 1.4608 | 9.4228 | .1550 | .2886 | .0317 | .1780 | 2.12 | .44 | (2) |
| C-C | 2.16 | " | 1.2810 | 8.9298 | .1433 | .2759 | .0225 | .1500 | 1.69 | .40 | (3) |
| D-D | 3.34 | " | 1.0268 | 8.1903 | .1254 | .2505 | .1000 | .3162 | 3.25 | .34 | (4) |
| E-E | 0.43 | " | 0.2043 | 5.1092 | .0400 | .1169 | .2000 | .4472 | 2.10 | .03 | (5) |
| F-F | 3.02 | " | 0.9083 | 7.8206 | .1161 | .2380 | .1130 | .3362 | 3.32 | .31 | (6) |
| G-G | 3.50 | " | 1.5075 | 9.5460 | .1579 | .2922 | .0364 | .1908 | 2.32 | .45 | (7) |

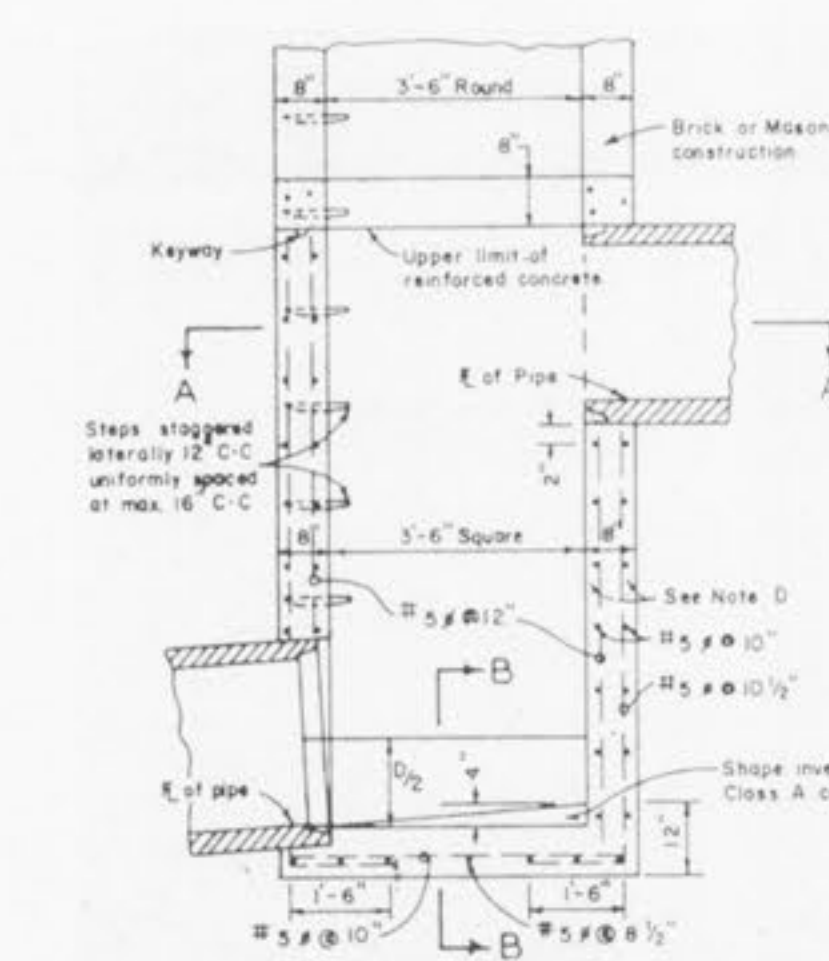
Z-Z 18.81 .035 6.4827 18.1111 .3578 .5040 .0182 .1349 2.90 1.48 (Temp Ditch @ Commercial Property)



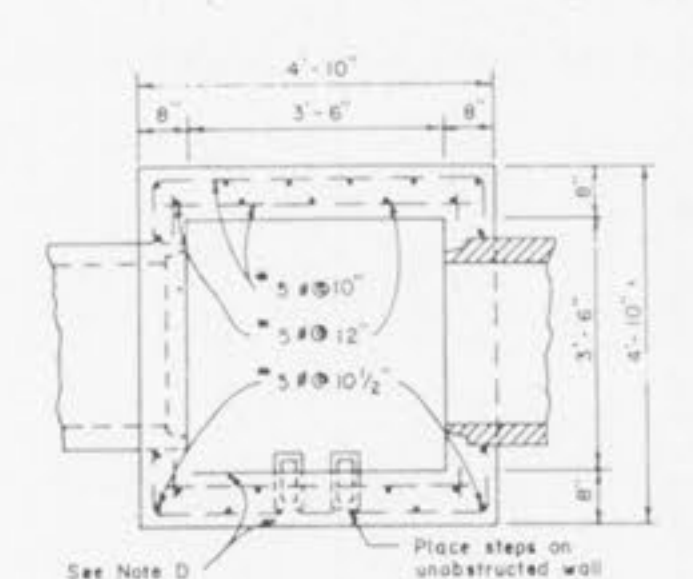
NOTE: See Sheets 2 & 3 of 22 For Locations of Swale Sections. All Swale Calculations Are For 25 yr. Storm.



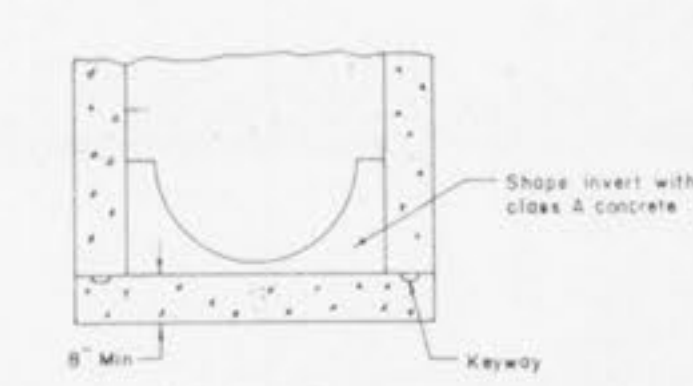
HOUSE CONNECTION
NOTE: CONTRACTOR TO DETERMINE APPLICATION FOR EACH LOT. NOT ALL LOTS WILL REQUIRE RISER AT MAIN. (4" LATERAL TO BE 2% MINIMUM.)



REINFORCED STRUCTURE FOR STORM STRUCTURES 3, 14, 17, 31 & 43.



SECTION A-A



SECTION B-B

LAKEVIEW
SEWER DETAILS

HALL, HALSEY & WIND
LAND PLANNING
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE

10820 SUNSET OFFICE DRIVE, SUITE 208, ST. LOUIS, MO 63127 • 314/966-5577

| | | | |
|------------------------|--------------------------|----------------------------------|---------------------------------|
| Drawn By VLB | Checked By DCW | Project Number 86025 | Sheet Number 12 OF 22 |
| Date 2/28/87 | | Revisions City 5-21-87 | |