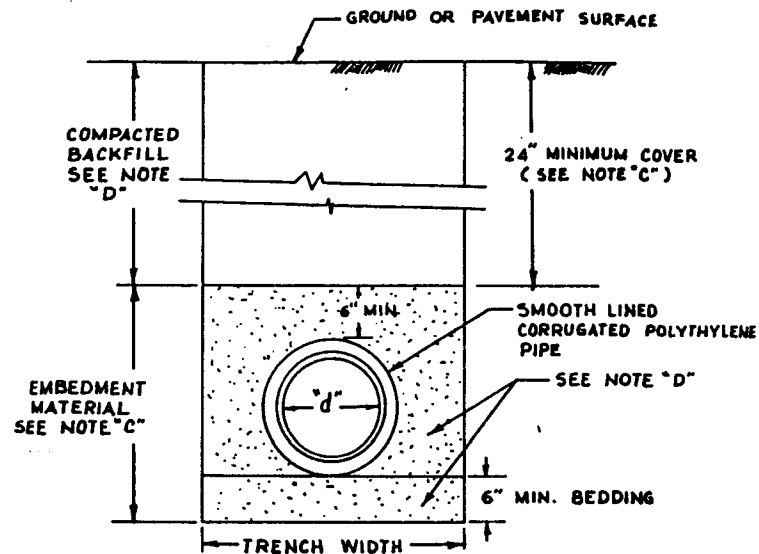


PLAN
(NO SCALE)

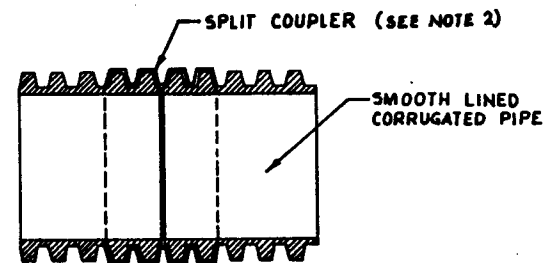
NOTES: 1) ALL CONNECTIONS TO PLANNED LATERALS FOR SUBLOTS IN A NEW DEVELOPMENT SHALL BE MADE WITH THERMO-MOLDED FITTINGS. AN APPROVED TAP TO AN EXISTING SMOOTH LINED CORRUGATED POLYTHYLENE PIPE SHALL BE MADE WITH A FACTORY MADE SADDLE.

2) ALL JOINTS SHALL BE MADE WITH A SPLIT COUPLER INSTALLED WITH AT LEAST FOUR (4) CORRUGATIONS COVERED, WITH AT LEAST TWO ON EACH SIDE OF THE JOINT. A JOINT SEALING MEETING THE REQUIREMENTS OF O.D.O.T. 706.10 SHALL BE PROVIDED ON ONE CORRUGATION ON EACH SIDE OF THE JOINT OR A FLEXIBLE PLASTIC GASKET RECOMMENDED BY THE MANUFACTURER SHALL BE PROVIDED

(SEE ADDITIONAL NOTES ON SH. 3 OF 3)

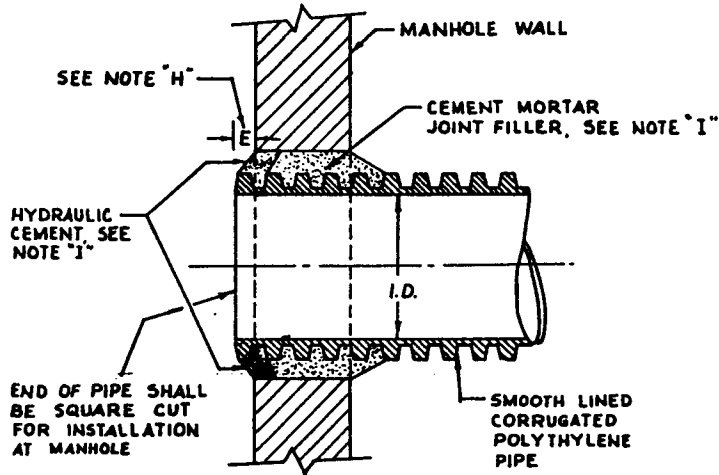


TYPICAL TRENCH BACKFILL DETAILS
(NO SCALE)

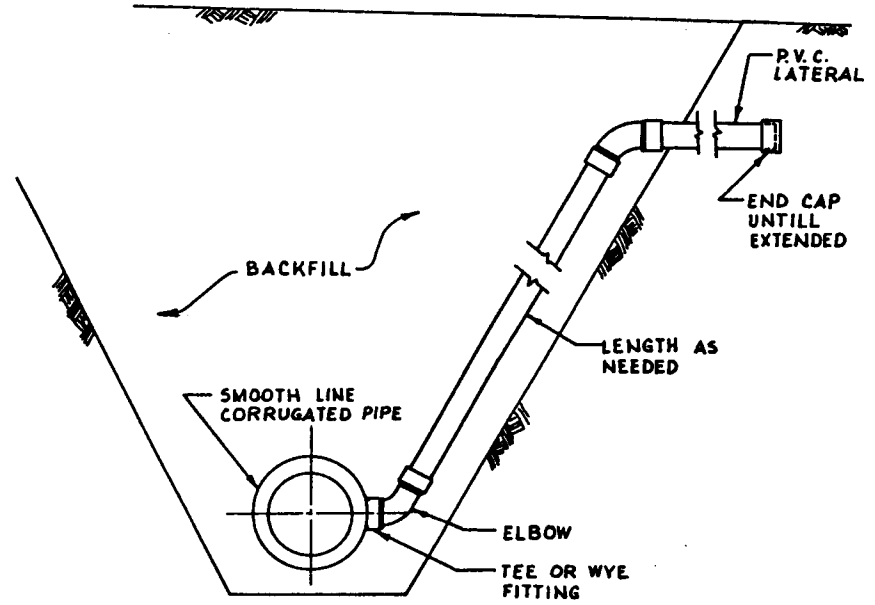


PIPE JOINT DETAILS
(NO SCALE)

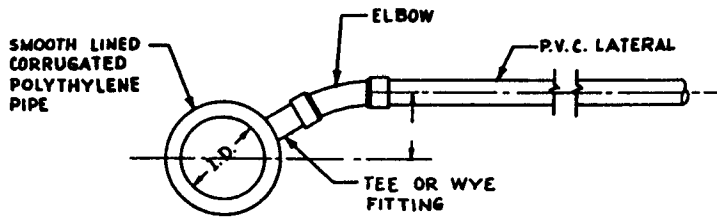
| | | | |
|---|------------|------|--------------|
| CITY OF ELYRIA, OHIO ENGINEERING DEPARTMENT | | | |
| SMOOTH LINED CORRUGATED POLYTHYLENE PIPE FOR STORM SEWERS UP TO 18" | | | |
| DR. BY | M.R.M. | DATE | 7-92 |
| CK. BY | <i>lsh</i> | DATE | 7-22-92 |
| APPROVED | | | DRAWING |
| <i>Thomas D. Blaylock</i> | | | 1-301 (A) |
| CITY ENGINEER. | | | SH. 1 OF 3 |
| REVISIONS | | | |



DETAILS AT MANHOLE CONNECTION
(NO SCALE)



ANGULR RISER AND LATERAL HOUSE CONNECTION
(NO SCALE)



SECTION THROUGH LATERAL CONNECTION
(NO SCALE)

(SEE ADDITIONAL NOTES ON SH.3 OF 3)

| | | | |
|-----------|--|---|-----------|
| | | CITY OF ELYRIA, OHIO ENGINEERING DEPARTMENT | |
| | | SMOOTH LINED CORRUGATED POLYTHYLENE PIPE FOR STORM SEWERS UP TO 18" | |
| | | DR. BY M.R.M. | DATE 7-92 |
| | | CK. BY <i>MS</i> | DATE 7-92 |
| | | DRAWING 1-301 (B) | |
| REVISIONS | | APPROVED CITY ENGINEER. <i>Larry J. Slippy</i> | |
| | | SH 2 OF 3 | |

GENERAL NOTES

A. When specified on approved construction drawings, storm sewers up to and including 18 inch diameter, may be constructed with smooth lined corrugated polyethylene pipe. The pipe shall conform to AASHTO M 294. The pipe and fittings shall be made of virgin PE compounds, except that clean reworked material generated from the manufacturer's own operation may be used. The pipe shall be Mancor HI-Q; Advanced Drainage Systems (ADS) M-12 or approved equal.

B. The inner liner shall be fused to the outer corrugated wall section, at each corrugation. The inner liner shall have the following minimum thickness:

| PIPE INSIDE DIAMETER (inches) | INNER WALL THICKNESS (inches) |
|----------------------------------|----------------------------------|
| 12 | 0.035 |
| 15 | 0.035 |
| 18 | 0.050 |

C. The embedment material shall be crushed limestone meeting the gradation requirement for ODOT Item 310 subbase grade "A" or "B" per ODOT 310.02.

D. The pipe shall be laid on grade, on a compacted layer of bedding without blocks. The embedment material shall be placed in 4 inch layers under the haunches, around the sides and to the height of the minimum cover. Each layer shall be hand or mechanically tamped until the embedment material reaches a compaction of 95% of the maximum dry density as determined by AASHTO T-99.

E. Concrete or asphalt pavement thickness may be included as part of the minimum cover.

F. COMPACTED BACKFILL:

Backfill under pavement, under driveway, and under sidewalk shall be compacted to an in place minimum density of 95% of the maximum dry density as determined by AASHTO T-99. The trenches under roadway pavement, and any "cross" trench to a point 24 inches past the back of curb from the top of the embedment material to the base under the pavement shall be backfilled with layers not over 8 inches thick of crushed limestone meeting the gradation requirements for ODOT Item 310 subbase grade "A" or "B" per ODOT Section 310.02. When the pipe trench is in the tree lawn area, and it is parallel or nearly parallel to the back of the pavement curb and the closest edge of the trench is within 30 inches of the back of the street curb, then the trench shall be backfilled with crushed limestone and compacted the same way as for trench under the pavement.

G. TESTING FOR DEFLECTION IS REQUIRED:

Between 10 and 12 months after installation the contractor installing the pipe shall demonstrate that each pipe run has not deflected more than 5 percent by pulling a mandrel furnished by the City through each pipe run. The mandrel size shall be 95 percent of the inside diameter of the pipe.

H. Pipe to extend into manhole at center of pipe for a minimum distance "M" in total.

| PIPE DIAMETER | (4' - 0" MH) M | (5' - 0" MH) M |
|---------------|----------------|----------------|
| 12" | 1.0" | 1" |
| 15" | 1.5" | 1.25" |
| 18" | 2.5" | 1.75" |

I. Pipe openings in precast sections shall be cast in at the time of manufacture, or field cut as recommended by the manufacturer. The contractor shall furnish the manufacturer's certification that structural requirements are met with method of providing pipe openings used. Space between pipe O.D. and precast M.W. shall be 2" max. and .75" min. This space shall be filled and sealed from precast O.D. inward. The first 4.5" to 4.75" shall be filled with cement mortar and the last .25" to .5" sealed with Hydraulic Cement such as Water Plug as manufactured by Standard Drywall Products of Miami, Fla. or equal.

NOTE: All connection to planned laterals for sublots in a new development shall be made with thermo-molded fittings. An approved tap to an existing smooth lined corrugated polyethylene pipe shall be made with a factory made saddle.

| | | | |
|-----------|--|--|------------|
| | | CITY OF ELYRIA, OHIO ENGINEERING DEPARTMENT | |
| | | SMOOTH LINED CORRUGATED POLYETHYLENE PIPE FOR STORM SEWERS UP TO 18" | |
| | | DR. BY M.R.M. | DATE 7-92 |
| | | CK. BY <i>TJB</i> | DATE 11-92 |
| | | <i>Ronny D. Shippy</i> APPROVED CITY ENGINEER. | |
| REVISIONS | | DRAWING 1-301 (C) SH 3 OF 3 | |