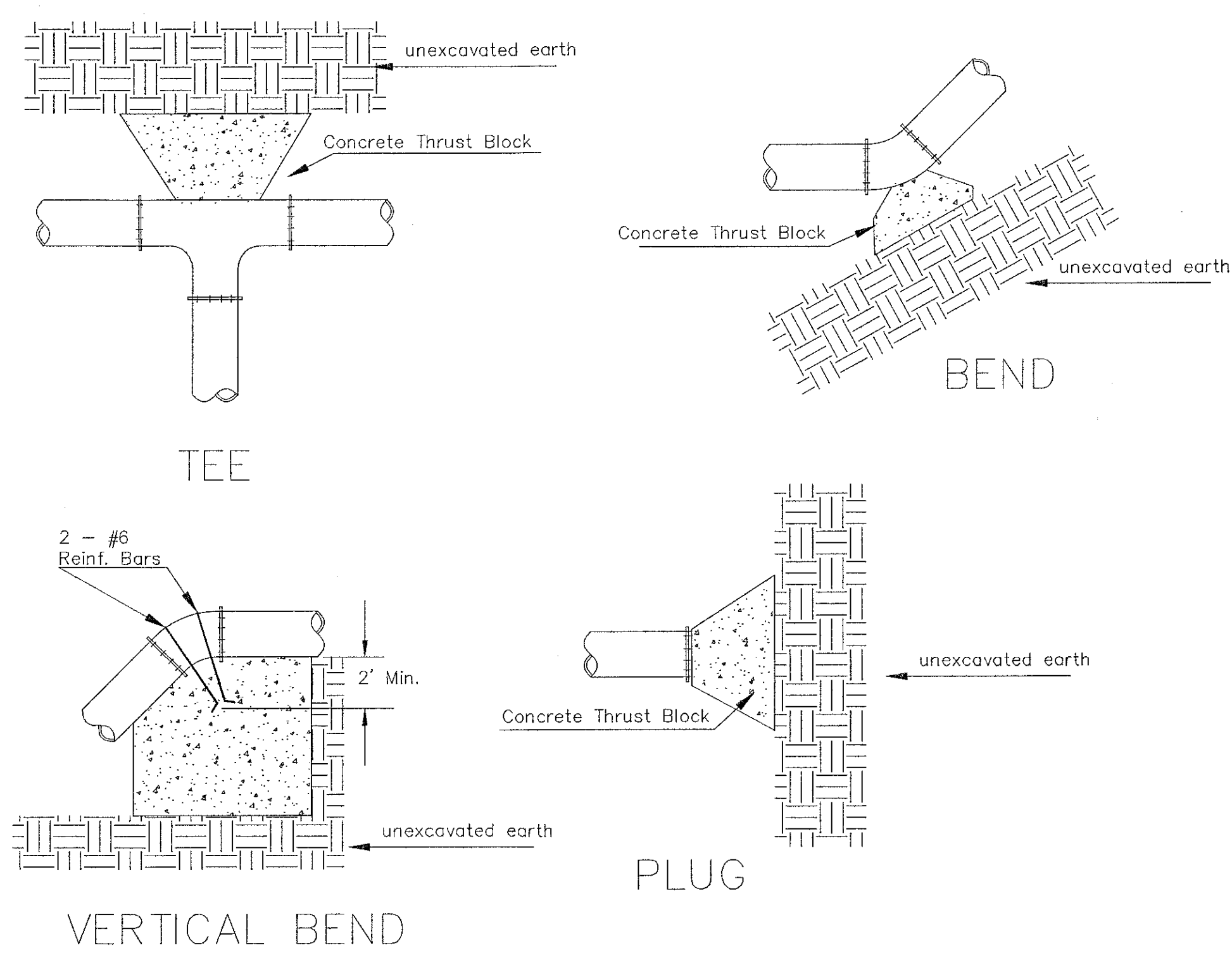
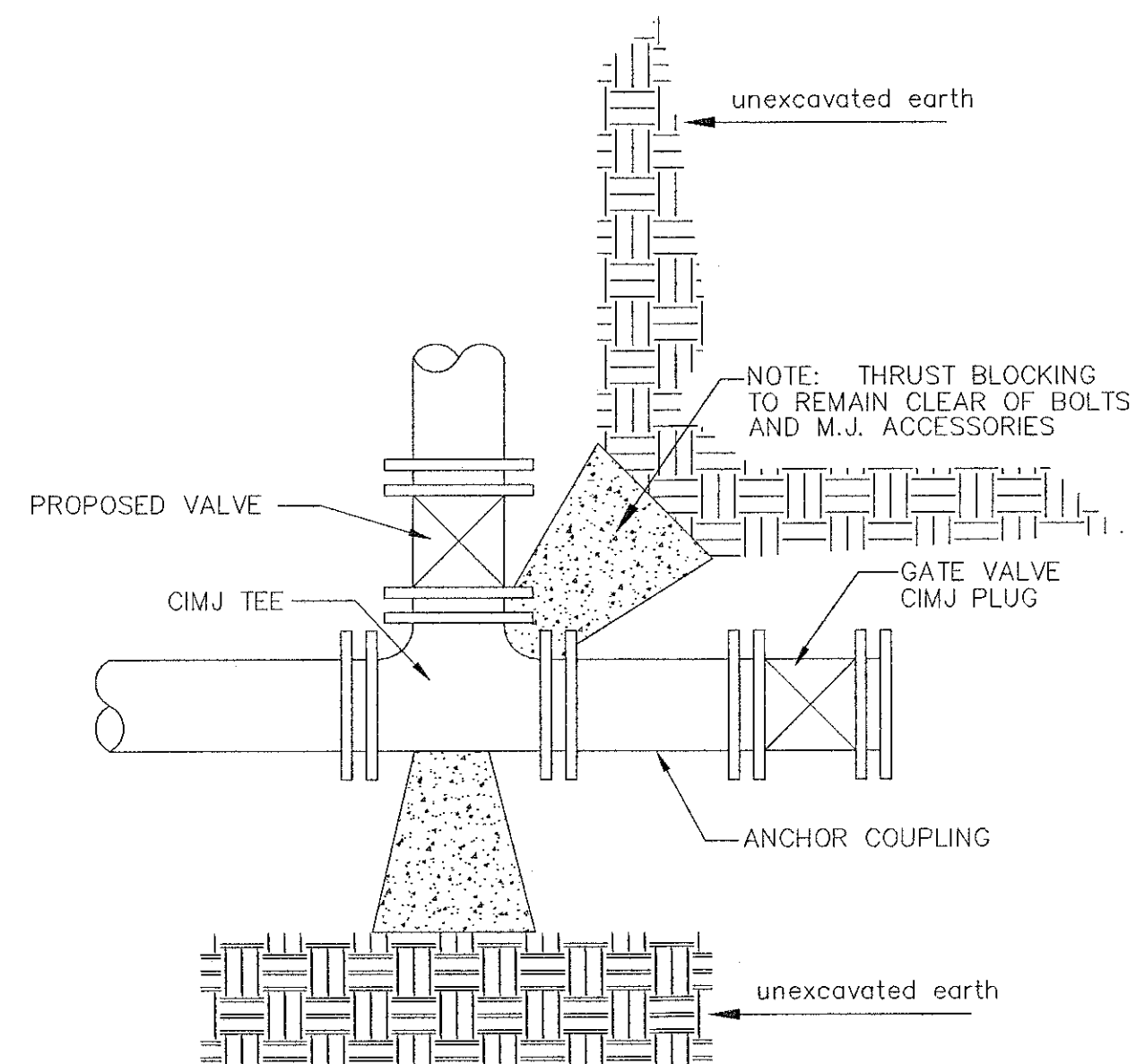




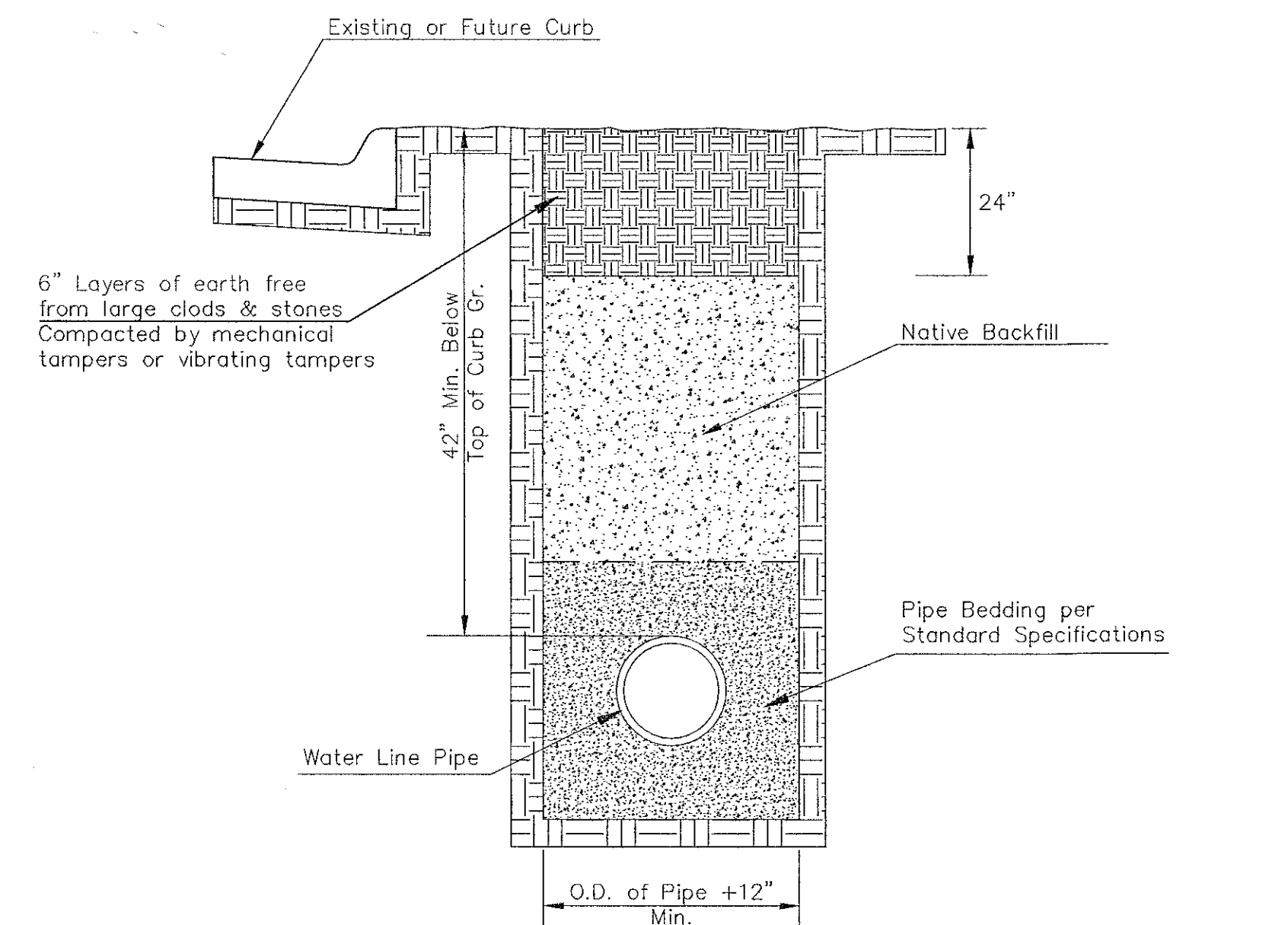
| PIPE SIZE | THRUST AT FITTINGS IN TONS-AT 150#/IN <sup>2</sup> P |      |       |         |         |       |  |
|-----------|------------------------------------------------------|------|-------|---------|---------|-------|--|
|           | PLUG                                                 | 90°  | 45°   | 22 1/2° | 11 1/4° | TEE   |  |
| 6"        | 2.8                                                  | 3.95 | 2.15  | 1.09    | .55     | 2.8   |  |
| 8"        | 4.9                                                  | 6.95 | 3.75  | 1.90    | .96     | 4.9   |  |
| 12"       | 11.4                                                 | 16.1 | 8.75  | 4.45    | 2.25    | 11.4  |  |
| 16"       | 20.15                                                | 28.5 | 15.4  | 7.85    | 3.95    | 20.15 |  |
| 20"       | 31.15                                                | 44.0 | 23.85 | 12.15   | 6.10    | 31.15 |  |
| 24"       | 44.55                                                | 63.0 | 34.1  | 17.4    | 8.75    | 44.55 |  |

TYPICAL THRUST BLOCKS



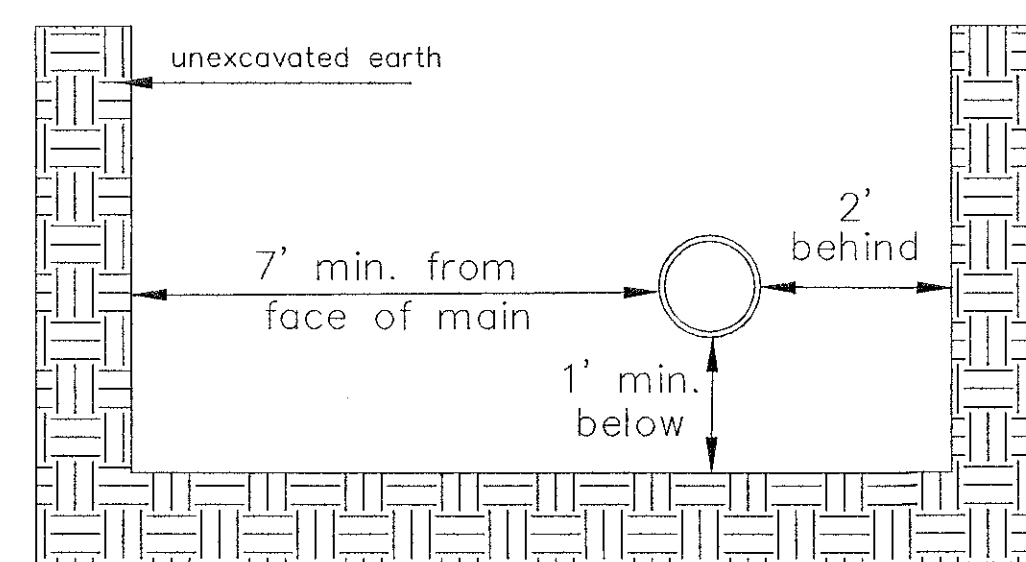
KEY BLOCK DETAIL

\* PLANS GOVERN  
UNLESS OTHERWISE NOTED ON PLANS



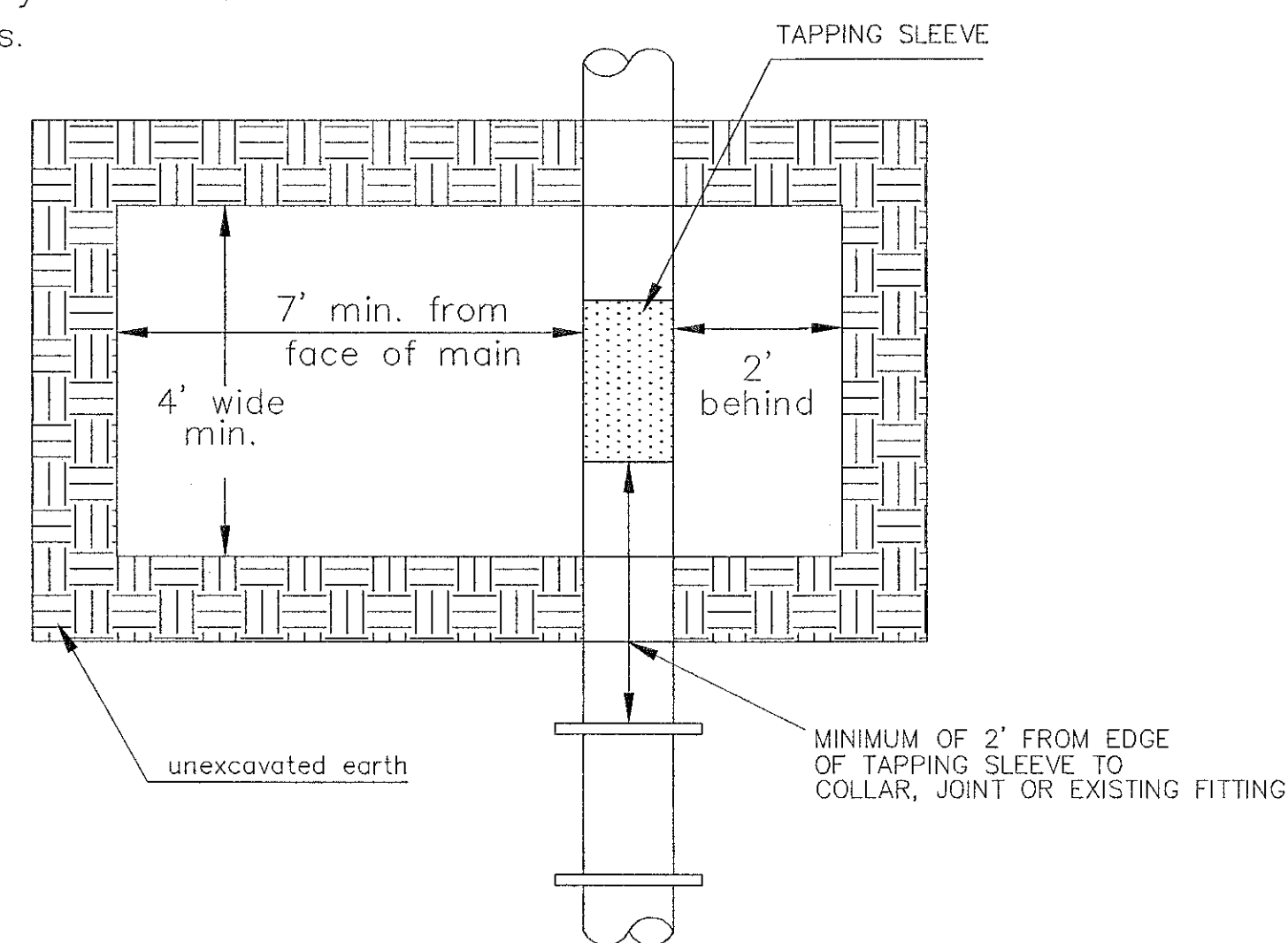
TRENCH COMPACTION IN ROAD RIGHT-OF-WAY

SIDE VIEW

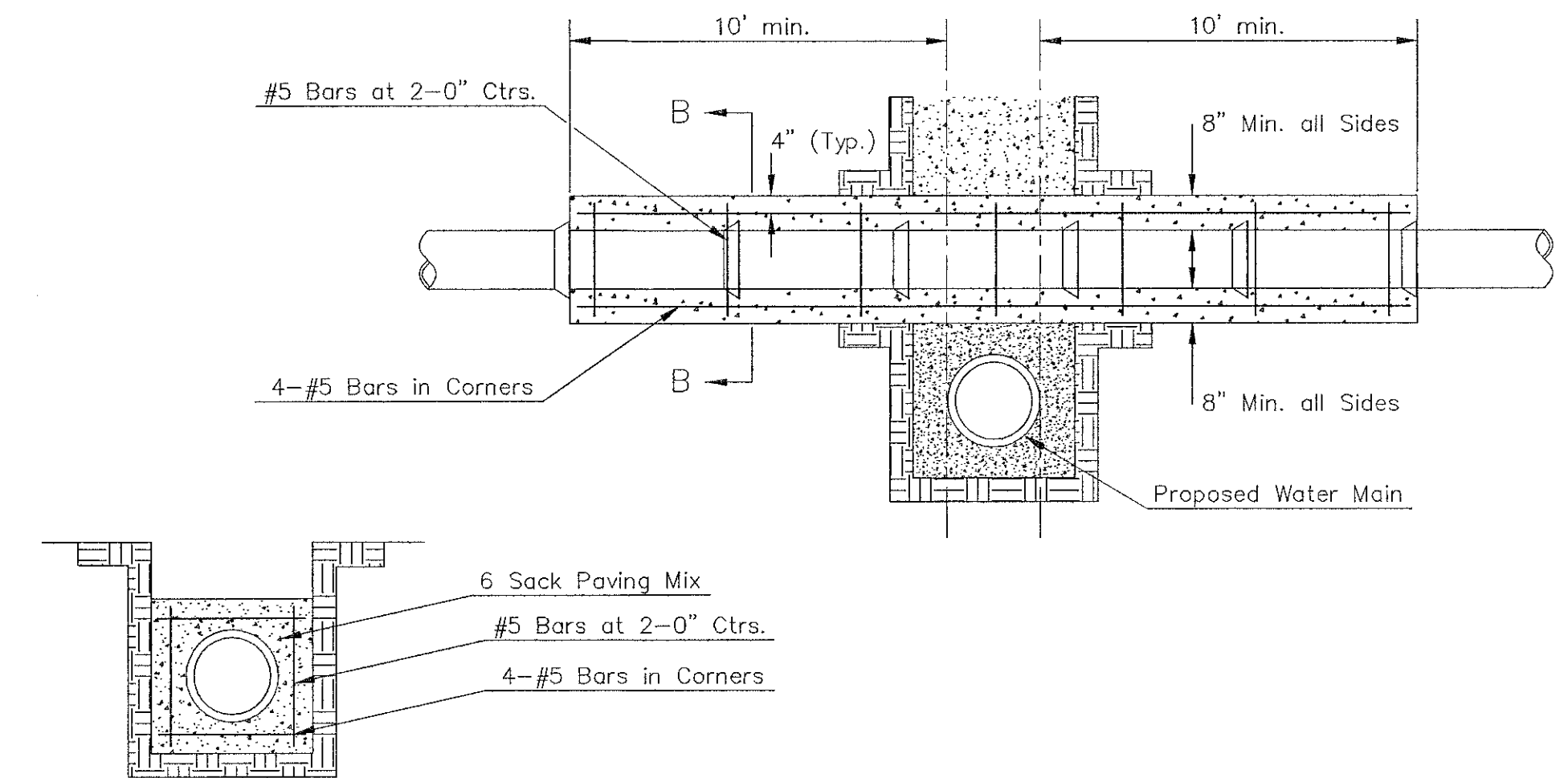


Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

TOP VIEW



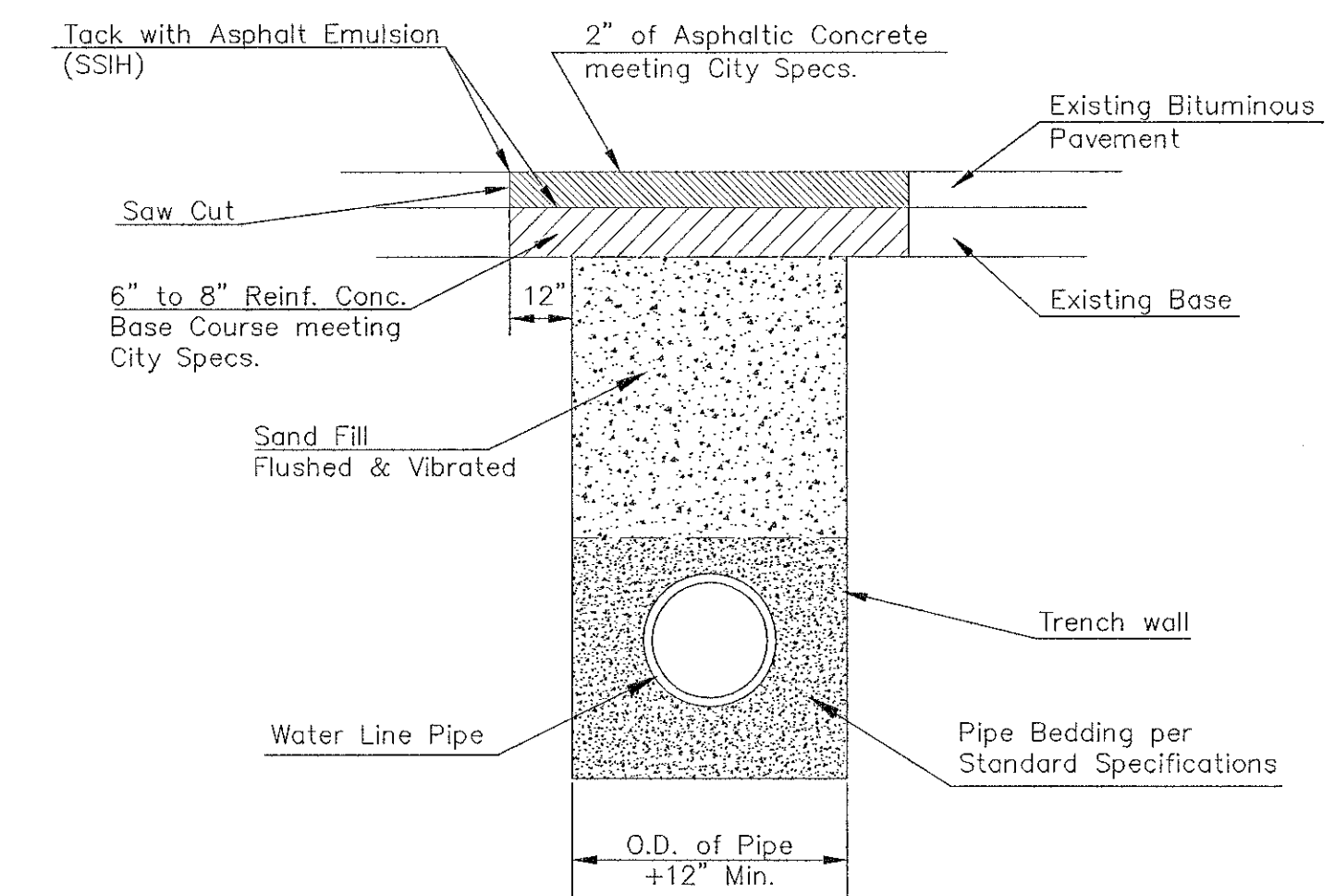
EXCAVATION FOR WET TAP



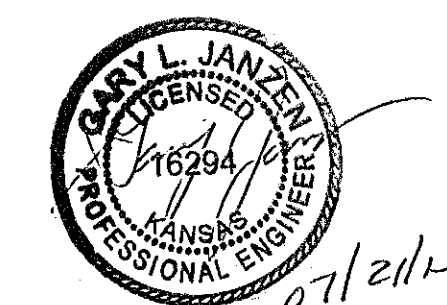
Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

SECTION B-B

REINFORCED CONCRETE ENCASEMENT  
OF SANITARY SEWER



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER  
EXISTING AND PROPOSED CITY ROADS



|                                                                                                                              |            |      |                                           |  |  |
|------------------------------------------------------------------------------------------------------------------------------|------------|------|-------------------------------------------|--|--|
| <br><b>CITY OF WICHITA</b><br>PUBLIC WORKS & UTILITIES<br>ENGINEERING DIVISION                                               |            |      | MISCELLANEOUS<br>WATER<br>DETAILS         |  |  |
|                                                                                                                              |            |      | CITY ENGINEER<br><b>GARY JANZEN, P.E.</b> |  |  |
| PROJECT NUMBER                                                                                                               | OCA NUMBER | DATE | SHEET                                     |  |  |
| CITY ENGINEER'S OFFICE<br>CITY HALL - SEVENTH FLOOR<br>455 NORTH MAIN STREET<br>WICHITA, KANSAS 67202-1620<br>(316) 268-4501 |            |      | <b>3 of 14</b>                            |  |  |