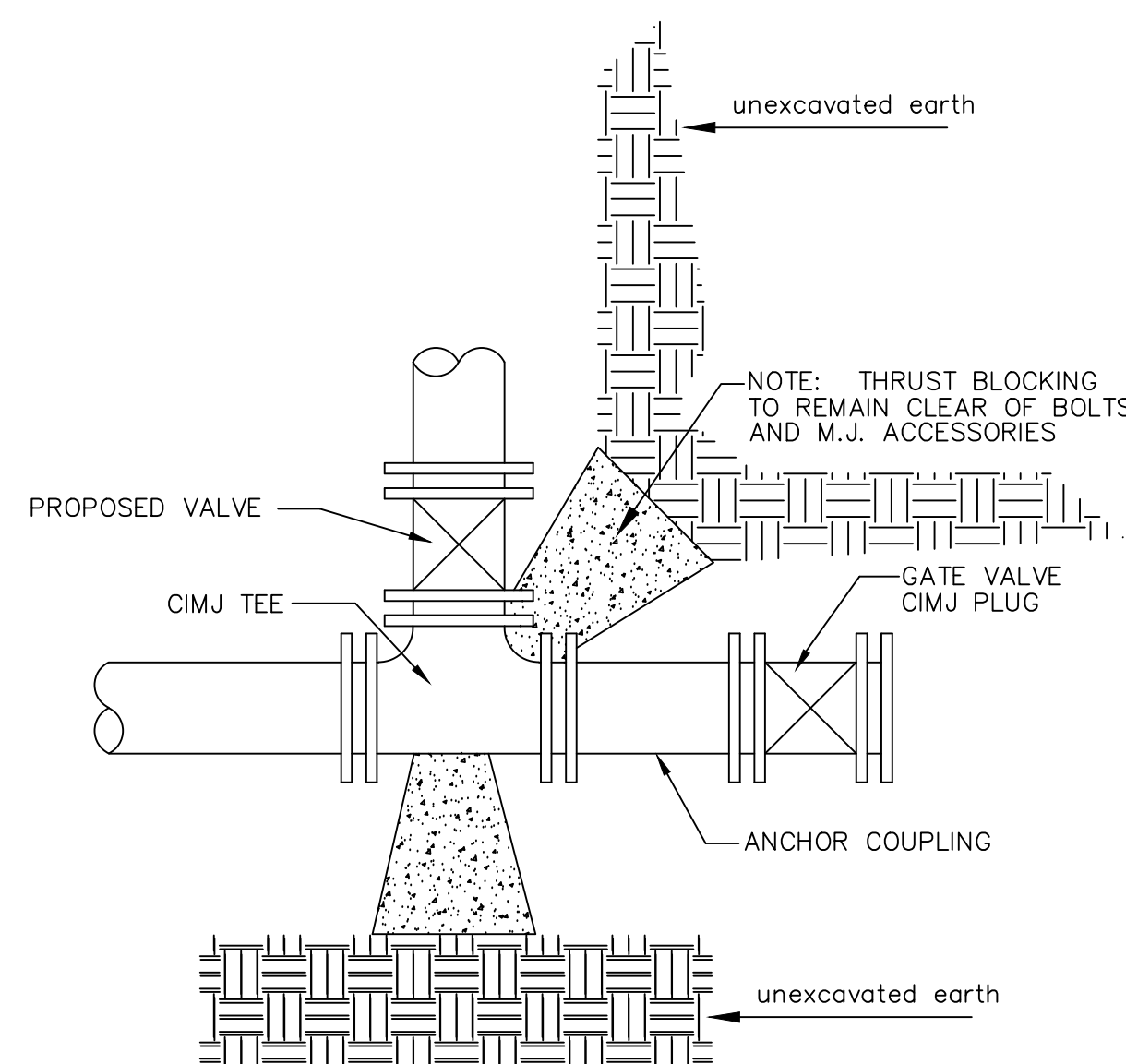


VERTICAL BEND

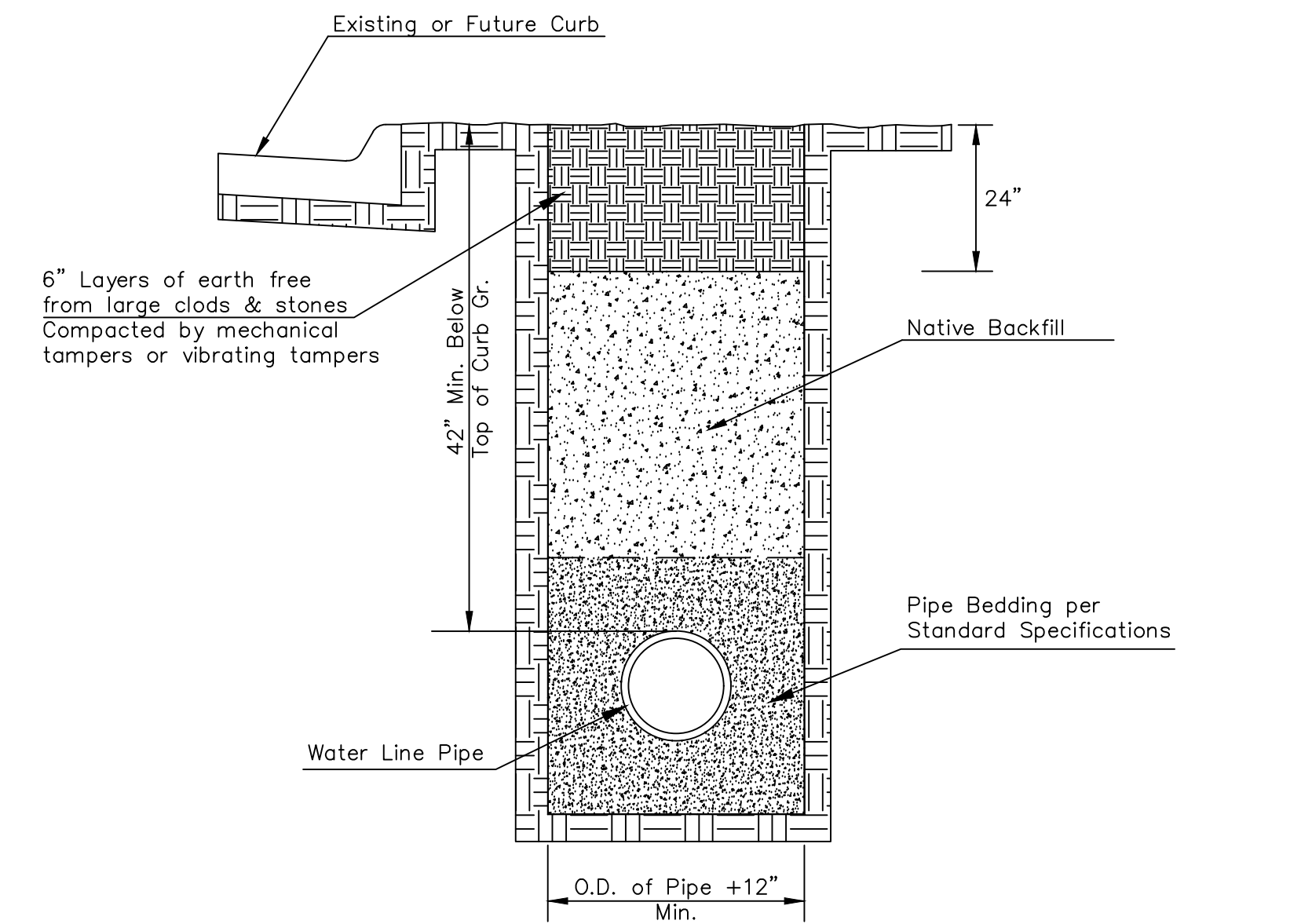
| PIPE SIZE | THRUST AT FITTINGS IN TONS—AT 150#/IN <sup>2</sup> P |      |       |         |         |       |
|-----------|--|------|-------|---------|---------|-------|
|           | PLUG   | 90°  | 45°   | 22 1/2° | 11 1/4° | TEE   |
| 6"        | 2.8  | 3.95 | 2.15  | 1.09    | .55     | 2.8   |
| 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



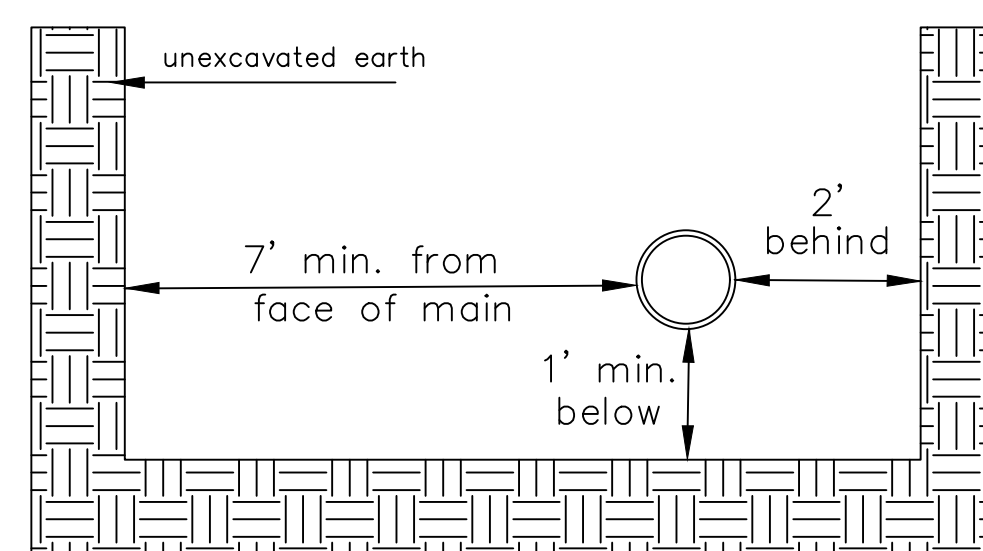
KEY BLOCK DETAIL

\* PLANS GOVERN  
UNLESS OTHERWISE NOTED ON PLANS



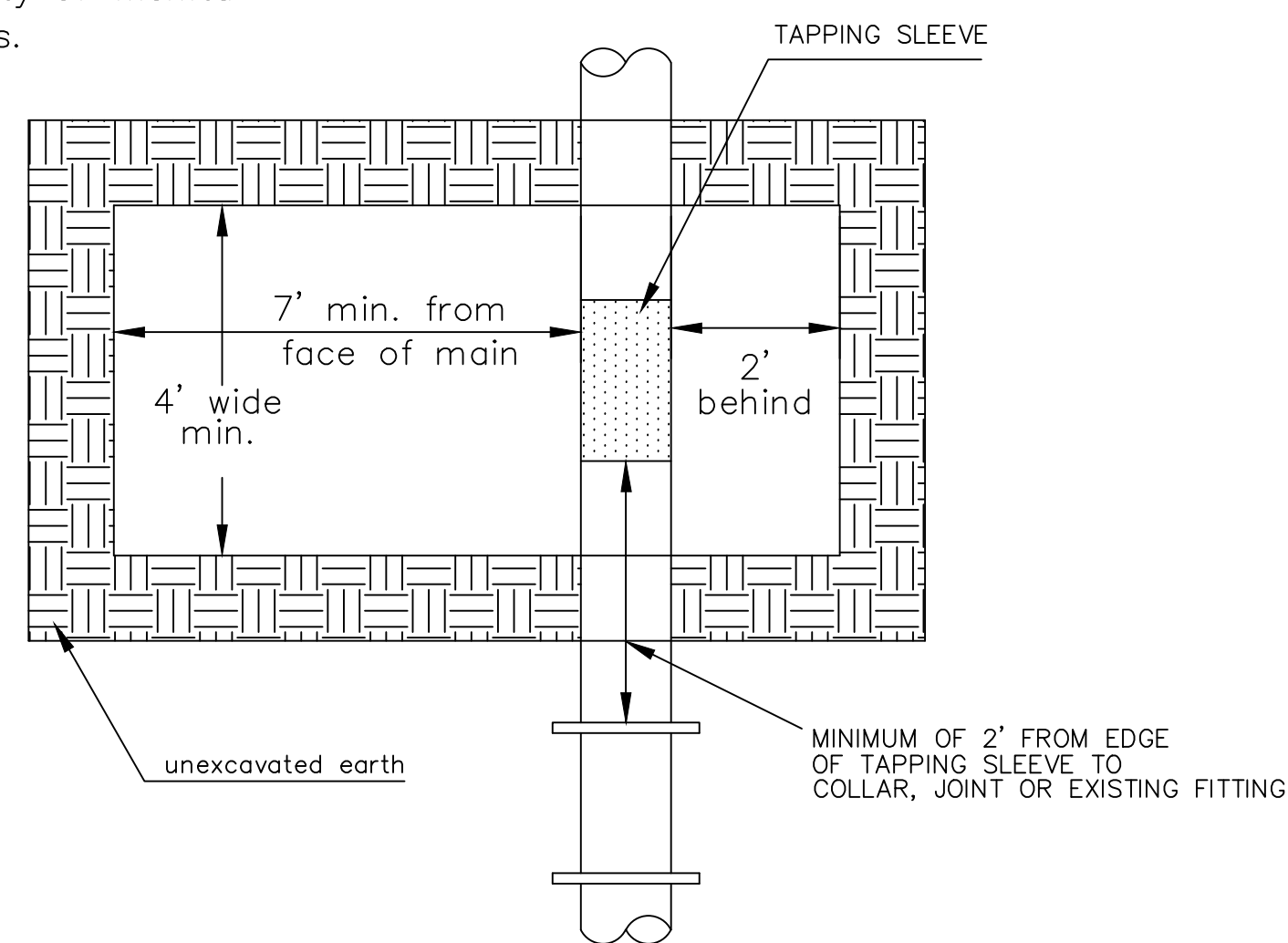
TRENCH COMPACTION IN ROAD RIGHT-OF-WAY

SIDE VIEW

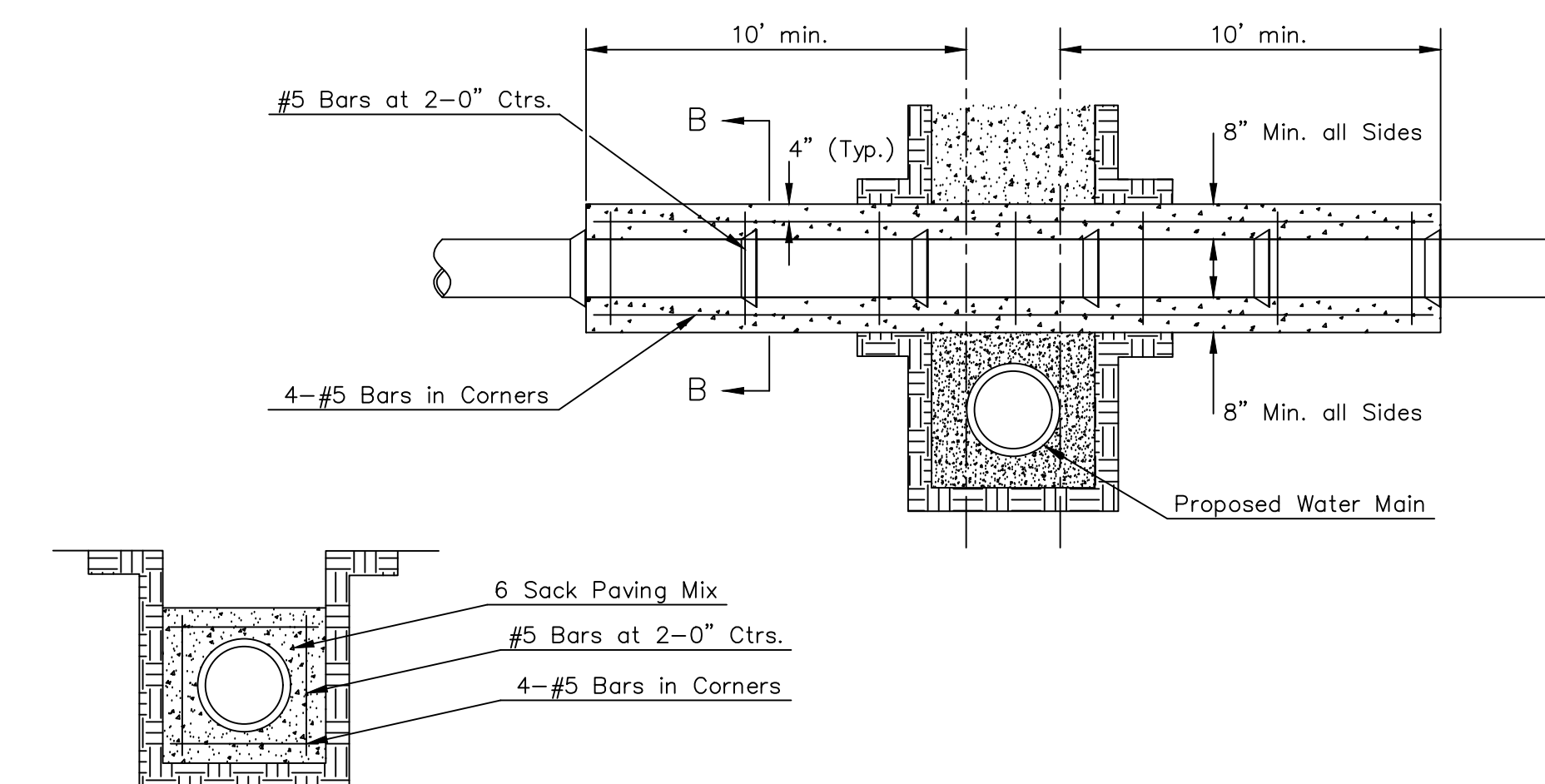


TOP VIEW

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



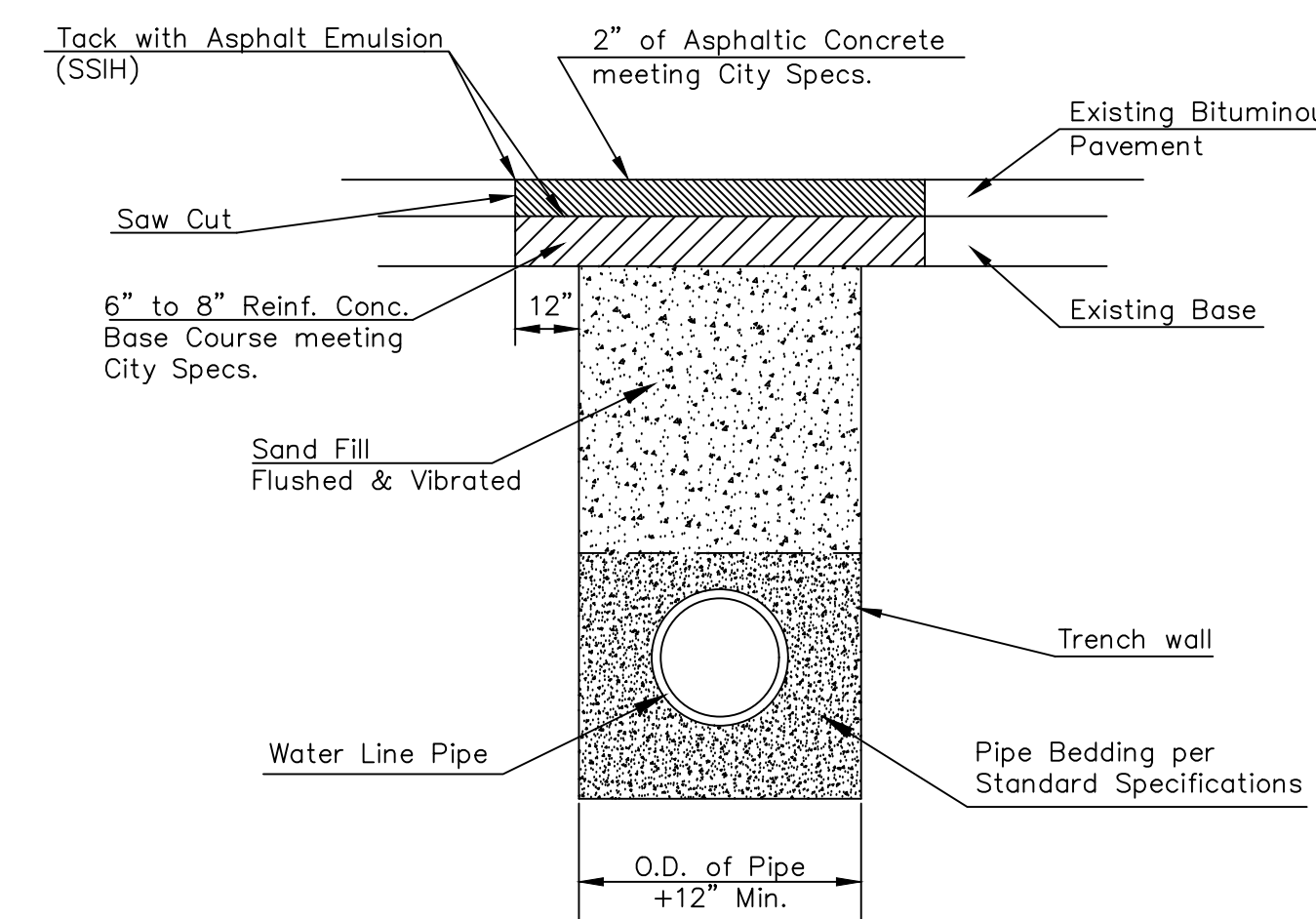
EXCAVATION FOR WET TAP



SECTION B-B

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

REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

REVISED: JULY 2015



|  |                      |                  |
|--|----------------------|------------------|
| MISCELLANEOUS WATER DETAILS  |                      |                  |
| CITY ENGINEER<br>GARY JANZEN, P.E..  |                      |                  |
| PROJECT NUMBER<br>448-90758  | OCA NUMBER<br>636435 | DATE<br>04/2014  |
| CITY ENGINEER'S OFFICE<br>CITY HALL - SEVENTH FLOOR<br>455 NORTH MAIN STREET<br>WICHITA, KANSAS 67202-1620<br>(316) 268-4501 |                      | SHEET<br>6 of 11 |