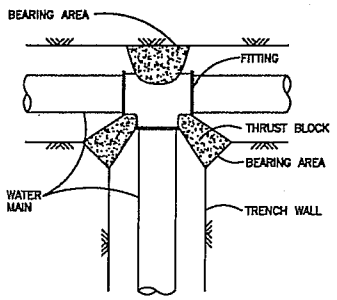
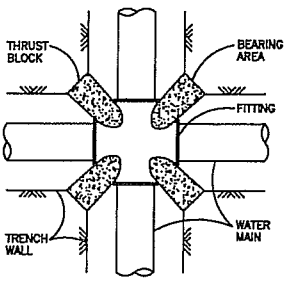
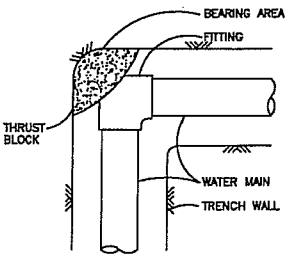


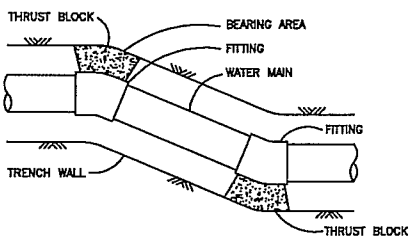

TEE



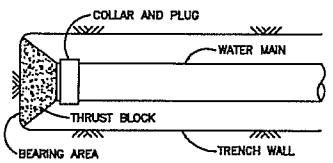

CROSS



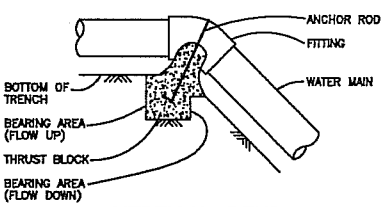

HORIZONTAL 90° BEND



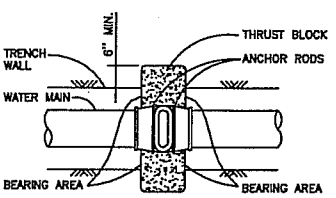

HORIZONTAL BEND



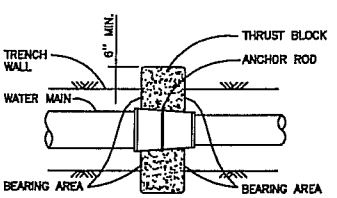

PLUG



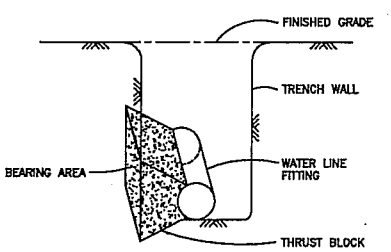

VERTICAL BEND



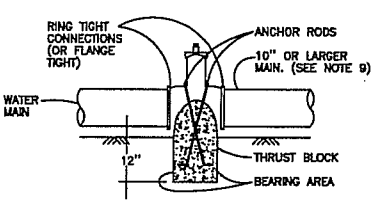

PLAN




PLAN

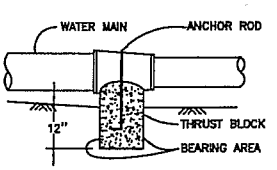



TYPICAL FITTING SECTION




ELEVATION

VALVES




ELEVATION

REDUCERS

| MINIMUM BEARING AREAS REQUIRED (SQ.FT) | | | | | | |
|---|---|---|---|---|---|---|
| 90° BEND | TEE* | 90° BEND | 45° BEND | 22 1/2° BEND | 11 1/8° BEND | VALVE |
| 4"&6" | 3 | 5 | 3 | 1 | 1 | 0 |
| 8" | 5 | 8 | 4 | 2 | 1 | 0 |
| 10" | 8 | 12 | 7 | 4 | 2 | 4 |
| 12" | 12 | 17 | 9 | 5 | 2 | 9 |

* INCLUDES CROSSES, PLUGS, REDUCERS AND HYDRANTS.

## NOTES:

1. ALL ANCHORS AND THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL.
2. THRUST BLOCK BEARING AREAS ARE BASED UPON A DESIGN WATER PRESSURE OF 150 P.S.I.; AND A SOIL BEARING STRENGTH OF 2000 P.S.I.
3. FOR LOOSE SAND, INCREASE BEARING AREA LISTED BY A FACTOR OF FOUR (4).
4. THE RATIO OF BEARING AREA WIDTH TO HEIGHT SHALL NOT EXCEED 1-1/2 TO 1.
5. CONCRETE SHALL BE CLASS 2, MINIMUM 2000 P.S.I. STRENGTH.
6. ANCHOR RODS TO BE NO. 4 REBAR, WITH 3" END BEND, EMBEDDED A MIN. OF 8" INTO THRUST BLOCK.
7. PLACE 30 LB. FELT BETWEEN ALL FITTINGS AND THRUST BLOCKS.
8. THE CITY ENGINEER SHALL COMPUTE THE REQUIRED BEARING AREAS FOR CASES NOT COVERED HEREIN.
9. THRUST BLOCKS FOR VALVES ARE REQUIRED ONLY WHEN THE WATER MAIN AND VALVE IS EQUAL TO OR GREATER THAN 10" IN DIAMETER.
10. RESTRAINED JOINTS MAY BE APPROVED BY CIT ENGINEER IN LIEU OF CERTAIN THRUST BLOCKS.

# CITY OF CLOVIS

## CONCRETE THRUST BLOCKS

DWG NO. W-15

REF. STD. SPECIFICATIONS SECTION 66

APPROVED BY:

CITY ENGINEER

DATE: 6/29/09

| NO. | REVISED | BY | APPROVALS |
|---|---|---|---|
| | 02-26-09 | BGJ | CM JNC |
| | | | DRU MMJ |
| | | | PUD |

SCALE: NTS

DRAWN BY: JA

SHEET 1 OF 1