





- **DESCRIPTION:**
- TRANSITION COUPLING (IF REQUIRED).
- ROD BEND TO THRUST BLOCK.
- CONCRETE THRUST WALL BLOCKING.
- TRENCH LIMITS.
- EXISTING PIPE.
- STORM PIPE.
- NEW DUCTILE IRON PIPE, WITH LENGTH CENTERED UNDER STORM DRAIN PIPE.
- 11.25° OR 22.5° RJ BENDS ROTATE AS REQUIRED.
- WEDGE ACTION RESTRAINT GLANDS.
- CONCRETE THRUST WALL BLOCKING WITH ANCHOR RING. SEE NOTE C.
- 11. STIRRUPS (TYPICAL) SPACING 6" MINIMUM, 12" MAXIMUM.
- BEARING AREA.
- #4 BAR (TYPICAL).
- BACKFILL WITH WASHED STONE (#57) BETWEEN TWO PIPES.

- A. FITTINGS SHALL BE RESTRAINED USING WEDGE ACTION RESTRAINT, STAINLESS STEEL TIE RODS, OR RESTRAINED JOINT PIPE, AS APPROVED BY ENGINEER.
- B. BEARING AREAS (A X B) DETERMINED BY ACTUAL SOIL CONDITIONS. SHOULD BE BASED ON 200 PSI TEST PRESSURE. SEE CHART BELOW.
- C. DO NOT USE ANCHOR RING ON PVC, CIP, OR AC PIPE. ANCHOR RING NOT REQUIRED IF THE TOP BEND IS RODDED.

RESULTANT THRUST AT FITTINGS AT 200 PSI WATER PRESSURE.

TOTAL POUNDS,

| NOM. PIPE DIAMETER | 11.25° BEND | 22.5° BEND |
|--------------------|-------------|------------|
| 6 INCH | 1466 | 2918 |
| 8 INCH | 2522 | 5020 |
| 10 INCH | 3793 | 7552 |
| 12 INCH | 5364 | 10680 |
| | | |

THE FOLLOWING OFTEN-USED SOIL VALUES FOR THE DEPTHS OF 4' ARE LISTED ONLY AS A GUIDE*. THE ENGINEER SHOULD SELECT THESE BEARING VALUES FOR EACH SOIL TYPE AND DEPTH OF COVER ENCOUNTERED ON THE SPECIFIC PIPELINE PROJECT. APPROPRIATE SAFETY FACTORS SHOULD BE APPLIED TO COVER FUTURE CHANGES IN PIPE DEPTH, SOIL BEARING CAPACITIES, ETC.

| SOIL | BEARING LOAD (LBS/SQ.FT.) | |
|------------|---------------------------|--|
| MUCK | 0 | |
| SOFT CLAY | 1,000 | *NO RESPONSIBILITY CAN BE ASSUMED FOR |
| SILT | 1,500 | THE ACCURACY OF THE DATA IN THIS TABLE |
| SANDY SILT | 3,000 | DUE TO THE WIDE VARIATION OF BEARING |
| SAND | 4,000 | LOAD CAPABILITIES FOR EACH SOIL TYPE. |
| SANDY CLAY | 6,000 | |
| HARD CLAY | 9,000 | |

NO SCALE VERSION 1.0 DATE 04/2024

> DETAIL 10.9.2