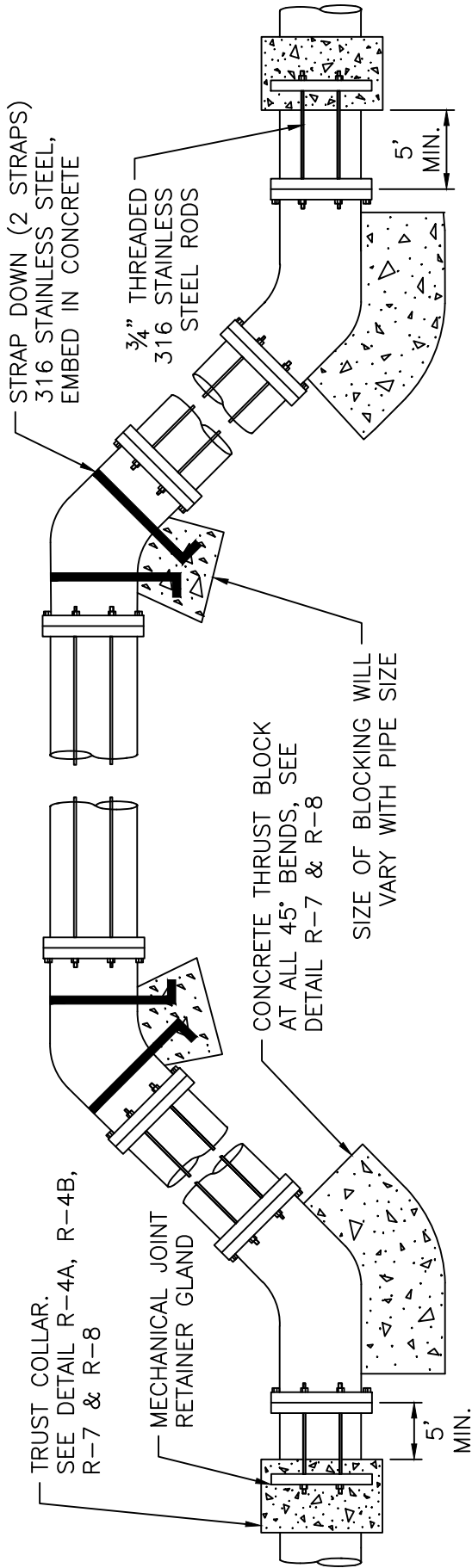


TOP OF GROUND



| ROD REQUIREMENTS | | STRAP REQUIREMENTS | |
|------------------|------------------------|----------------------|-------------|
| SIZE OF 45° BEND | STATIC TRUST IN POUNDS | NO. OF RODS REQUIRED | STRAP WIDTH |
| 6" | 4,328 | 2 | 1" |
| 8" | 7,694 | 4 | 1.5" |
| 12" | 17,312 | 4 | 2" |
| 16" | 30,779 | 8 | 2" |
| 24" | 69,252 | 8 | 4" |

| PIPE DIA | RESTRAINT REQUIREMENTS | | | |
|----------|------------------------|-----------|---------------|-----------------|
| | RODDING | RJ GLANDS | THRUST COLLAR | THRUST BLOCKING |
| <12" | X | X | X | |
| ≥12" | X | X | X | X |

"X" DENOTES REQUIRED RESTRAINT.

- NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" 316 STAINLESS STEEL.
 2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
 3. RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.
 4. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.
 5. 3' MINIMUM COVER MUST BE MAINTAINED.
 6. EXTERNAL RESTRAINT REQUIRED. INTEGRAL BELL RESTRAINT REQUIRES DIRECTOR'S APPROVAL.

CITY OF RALEIGH
STANDARD DETAIL

| | | |
|------------------------|------------------|--------------|
| REVISIONS | DATE: 01/18/2025 | NOT TO SCALE |
| STANDARD VERTICAL BEND | | |
| R-9 | | |