

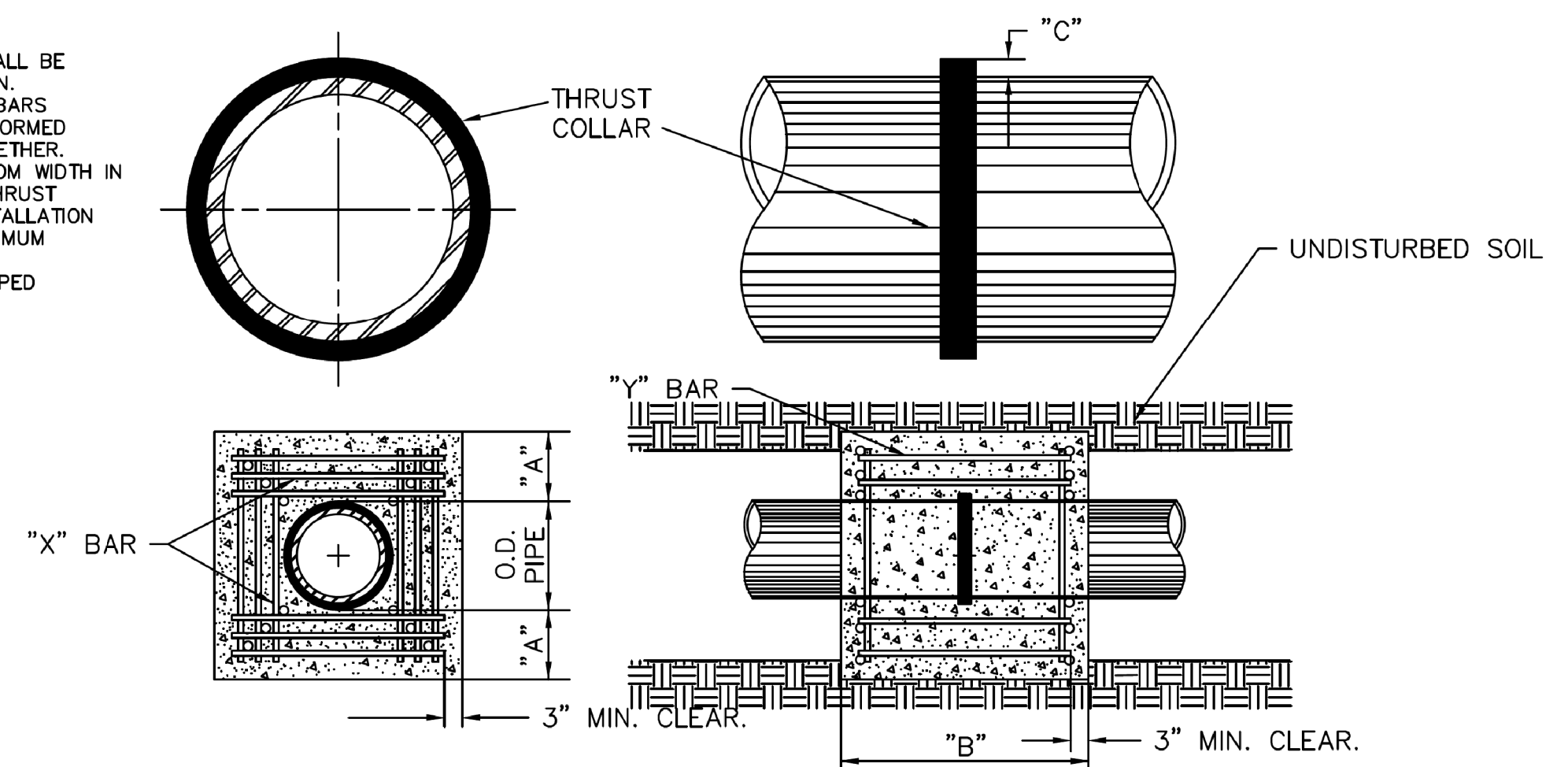
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# GENERAL WATER DETAILS

|   |                    |
|---|--------------------|
| PROJECT REFERENCE NO.<br>R-5020B  | SHEET NO.<br>UC-3B |
| DESIGNED BY: DK   |                    |
| DRAWN BY: AP  |                    |
| CHECKED BY: MM  |                    |
| APPROVED BY:  |                    |
| REVISED:  | 9/3/2020           |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION<br>UTILITIES ENGINEERING SEC.<br>PHONE: (919) 707-6690<br>FAX: (919) 250-4151 |                    |
| UTILITY CONSTRUCTION PLANS ONLY<br>   |                    |

**UTILITY CONSTRUCTION**  
**DOCUMENT NOT CONSIDERED FINAL**  
**UNLESS ALL SIGNATURES COMPLETED**

- NOTES:
1. CONCRETE SHALL BE 2500 P.S.I. MIN.
  2. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
  3. TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK(S) INSTALLATION SHALL BE MINIMUM WIDTH.
  4. BACKFILL TAMPED IN 6" LAYERS.



**REINFORCING REQUIREMENTS**

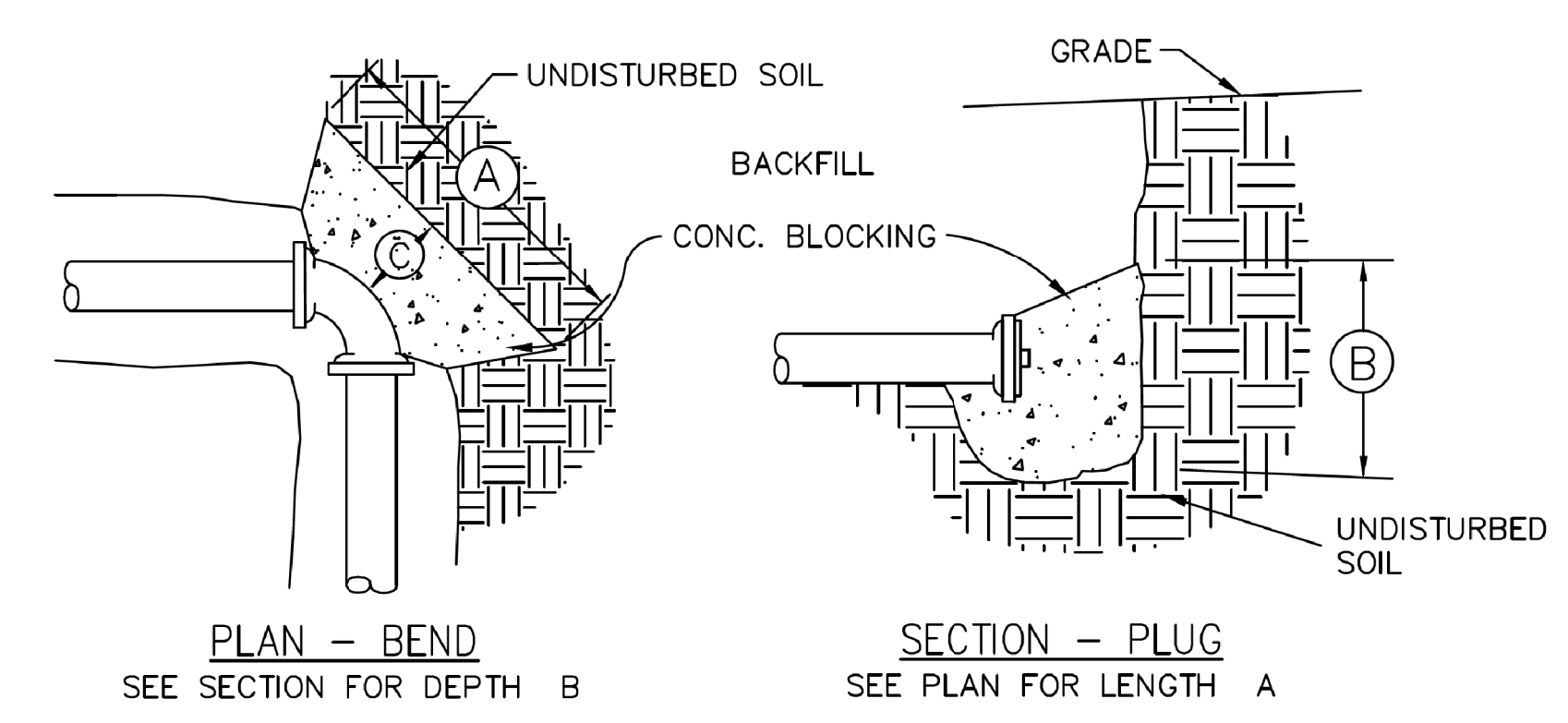
| REINFORCING BAR SCHEDULE |            |                 |               |                |            |
|--------------------------|------------|-----------------|---------------|----------------|------------|
| I.D. PIPE                | REBAR SIZE | "X" BAR LENGTH  | "X" BAR WGT.  | "Y" BAR LENGTH | NO. REQD.  |
| 6"-36"                   | #5         | 2'-2"+O.D. PIPE | 1.043 LBS./FT | 1'-1"          | X-24, Y-12 |
| 48"                      | #6         | 3'-0"+O.D. PIPE | 1.502 LBS./FT | 1'-3"          | X-24, Y-12 |

| REINFORCING BAR SCHEDULE |       |       |                                     |
|--------------------------|-------|-------|-------------------------------------|
| I.D. PIPE                | "A"   | "B"   | "C" - 6"-16", 20"-24", 30"-36", 48" |
| 6"-36"                   | 1'-4" | 1'-7" | 2" 3" 4"                            |
| 48"                      | 1'-8" | 1'-9" | 6"                                  |

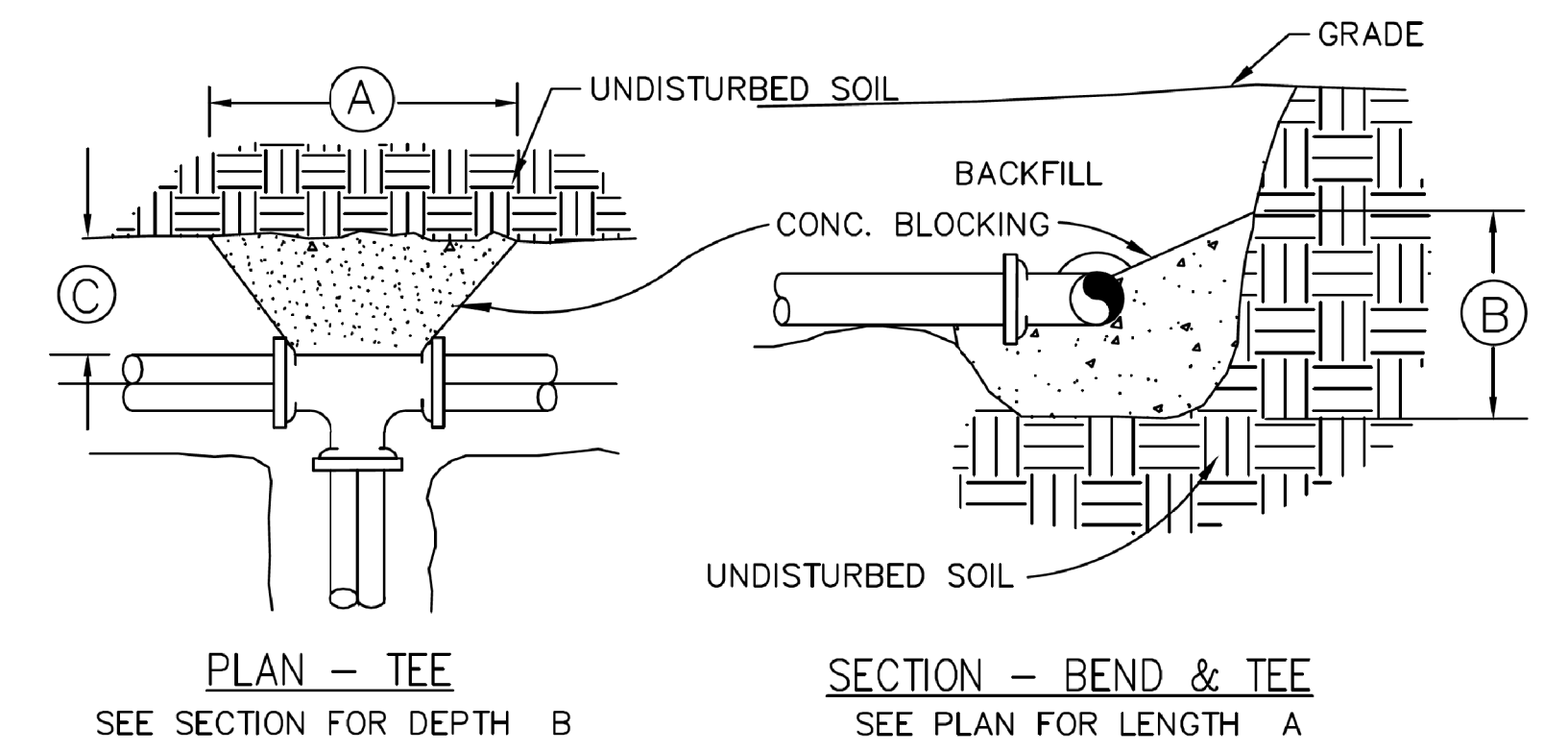
**THRUST COLLAR FOR WATER MAINS**  
**DETAIL W-13**

| BLOCKING DIMENSIONS |         |         |         |
|---------------------|---------|---------|---------|
| PIPE SIZE           | (A)     | (B)     | (C)     |
| UP TO 10"           | 4' - 0" | 2' - 6" | 1' - 6" |
| 12" TO 16"          | 5' - 0" | 4' - 0" | 2' - 0" |
| 18" TO 24"          | 8' - 0" | 6' - 0" | 3' - 0" |



**NOTES:**

1. 2500 P.S.I. CONC.
2. REMOVE LOOSE EARTH AND POUR AGAINST UNDISTURBED SOIL.
3. BACKFILL TO EXISTING/FINISH GRADE AFTER CONCRETE HAS CURED FOR 24 HOURS.
4. CONCRETE SHALL NOT COVER FLANGES, BOLTS, MEGA-LUGS, RODS, ETC.



**THRUST BLOCKS**  
**DETAIL W-12**

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