

REINFORCED CONCRETE PIER CONSTRUCTION NOTES

| CASING PIPE DIA. "D" (IN.) | "H" (FT.) | THICKNESS "A" (IN.) | PIER WIDTH "B" (FT.) | FOOTING LENGTH "C" (FT.) | FOOTING WIDTH "D" (FT.) |
|----------------------------------|--------------|------------------------|----------------------------|--------------------------------|-------------------------------|
| 6-12 | ≤ 6 | 12 | 2'-4" | 5'-6" | 3'-0" |
| | 8 | 12 | 2'-4" | 6'-3" | 3'-0" |
| | 10 | 12 | 2'-4" | 6'-8" | 3'-0" |
| | 12 | 12 | 2'-4" | 7'-2" | 3'-0" |
| 14-20 | ≤ 6 | 12 | 3'-0" | 8'-0" | 3'-0" |
| | 8 | 12 | 3'-0" | 9'-0" | 3'-0" |
| | 10 | 12 | 3'-0" | 9'-10" | 3'-0" |
| | 12 | 14 | 3'-0" | 10'-6" | 3'-0" |
| 22-28 | ≤ 6 | 14 | 3'-8" | 8'-9" | 4'-0" |
| | 8 | 14 | 3'-8" | 10'-0" | 4'-0" |
| | 10 | 14 | 3'-8" | 11'-0" | 4'-0" |
| | 12 | 14 | 3'-8" | 11'-10" | 4'-0" |
| 30-36 | ≤ 6 | 18 | 4'-4" | 9'-0" | 4'-0" |
| | 8 | 18 | 4'-4" | 10'-6" | 4'-0" |
| | 10 | 18 | 4'-4" | 11'-6" | 4'-0" |
| | 12 | 18 | 4'-4" | 12'-4" | 4'-0" |
| 38-48 | ≤ 6 | 18 | 5'-4" | 9'-6" | 5'-0" |
| | 8 | 18 | 5'-4" | 11'-0" | 5'-0" |
| | 10 | 18 | 5'-4" | 12'-0" | 5'-0" |
| | 12 | 18 | 5'-4" | 12'-10" | 5'-0" |
| 51-56 | ≤ 6 | 18 | 6'-4" | 9'-10" | 5'-0" |
| | 8 | 18 | 6'-4" | 11'-4" | 5'-0" |
| | 10 | 18 | 6'-4" | 12'-4" | 5'-0" |
| | 12 | 18 | 6'-4" | 13'-2" | 5'-0" |

NOTES:

1. SHALLOW FOUNDATION DESIGN SHOWN ON THIS DETAIL IS BASED ON THE FOLLOWING PARAMETERS:
ALLOWABLE SOIL BEARING CAPACITY = 2000 PSF
CONCRETE COMPRESSIVE STRENGTH = 4000 PSI
GRADE 60 REINFORCING STEEL
MAXIMUM STREAM VELOCITY = 10 FT/SEC
MAXIMUM SUPPORT HEIGHT (H) = 12'-0"
IF FIELD CONDITIONS REQUIRE ANY DEVIATION FROM THESE PARAMETERS, THE FOUNDATION DESIGN SHALL BE REVIEWED BY THE ENGINEER.

2. IF SUBGRADE AT LOCATION OF SUPPORTS IS DEEMED UNABLE TO WITHSTAND 2000 PSF BEARING PRESSURE, A PILE SUPPORTED FOUNDATION SHALL BE UTILIZED AS PER STD. DWG. 4.28.

3. IF BEDROCK IS ENCOUNTERED WHICH WILL PREVENT 3-FEET MINIMUM COVER OVER FOOTING, DOWELS SHALL BE DRILLED INTO BEDROCK PRIOR TO PLACING FOUNDATION. SEE STD. DWG. 4.31.

4. TWELVE-INCH AND FOURTEEN-INCH WIDE PIERS AND FOOTINGS SHALL BE REINFORCED WITH #5 BARS AT 12 INCHES OC IN EACH DIRECTION ON EACH FACE. EIGHTEEN-INCH WIDE PIERS AND FOOTINGS SHALL BE REINFORCED WITH #7 BARS AT 12 INCHES OC IN EACH DIRECTION ON EACH FACE.

5. EIGHTEEN-INCH WIDE PIERS SHALL REQUIRE TWO STRAPS OVER THE PIPE INSTEAD OF ONE (AS SHOWN) .

6. WHEN CONCRETE SUPPORTS ARE REQUIRED TO BE LOCATED WITHIN A STREAM AND ARE NOT COVERED WITH BACKFILL, SEE STD. DWG. 4.30 FOR MODIFICATIONS TO UPSTREAM FACE OF SUPPORT.

AERIAL PIPE CROSSING (SHEET 4 OF 8)

| REVISIONS | | |
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| NO | DATE | DESCRIPTION |
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CITY OF ROCKY MOUNT
DEPT. OF ENGINEERING

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|-------------------------|-------------------------|
| APPROVED - | STD. NO. 4.27 |
| DATE 04-22-04 | REVISION - |