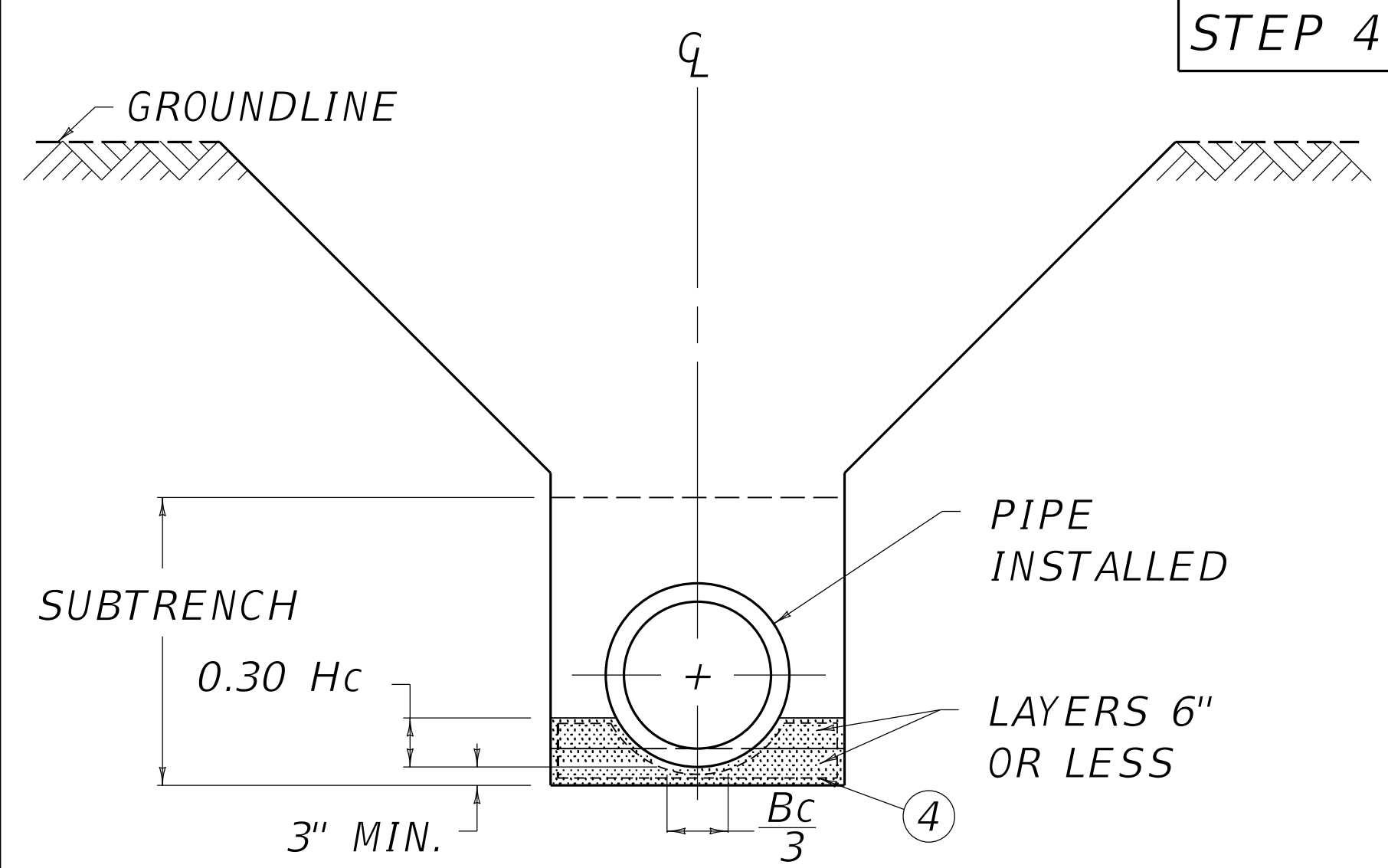
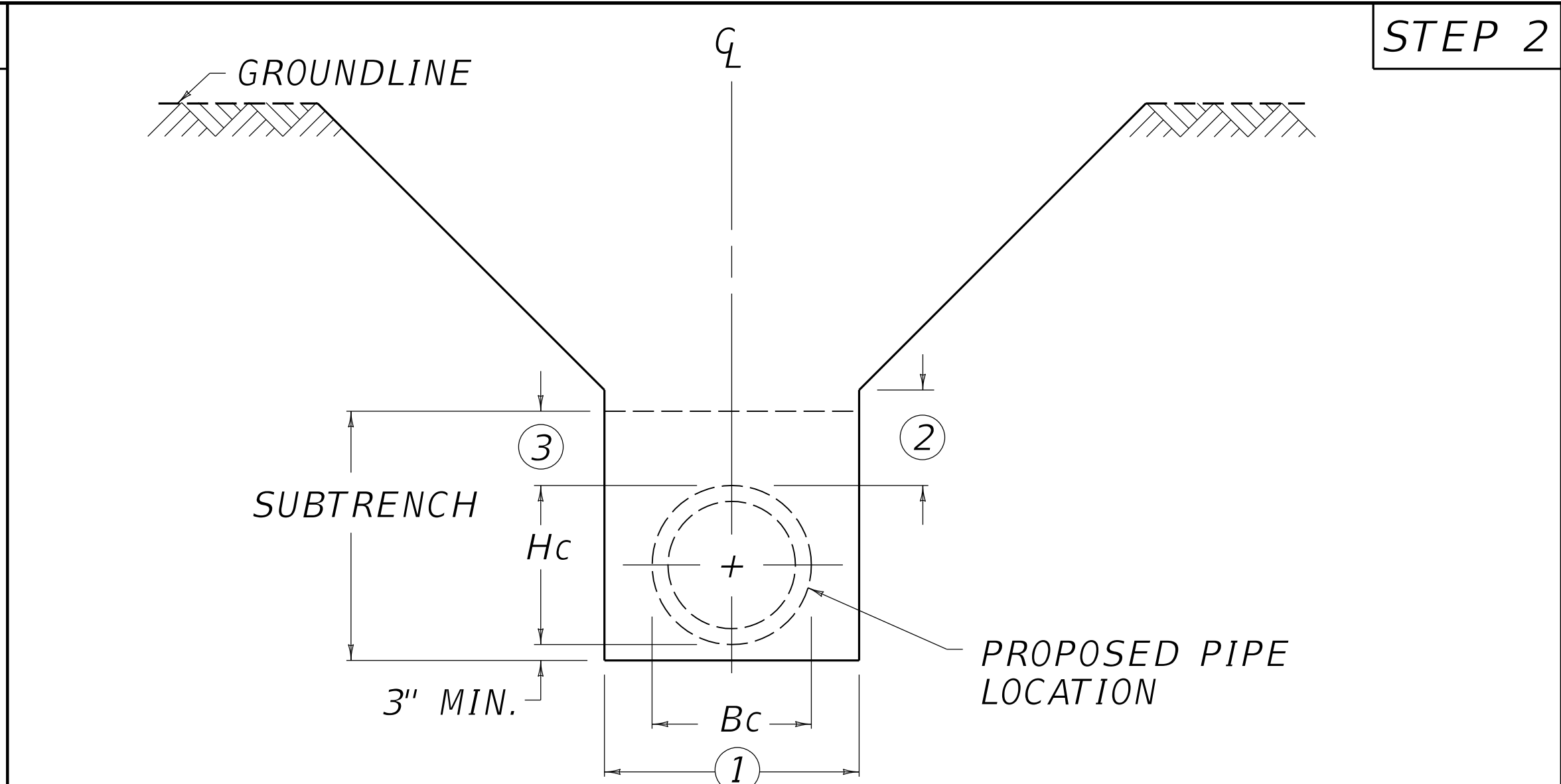


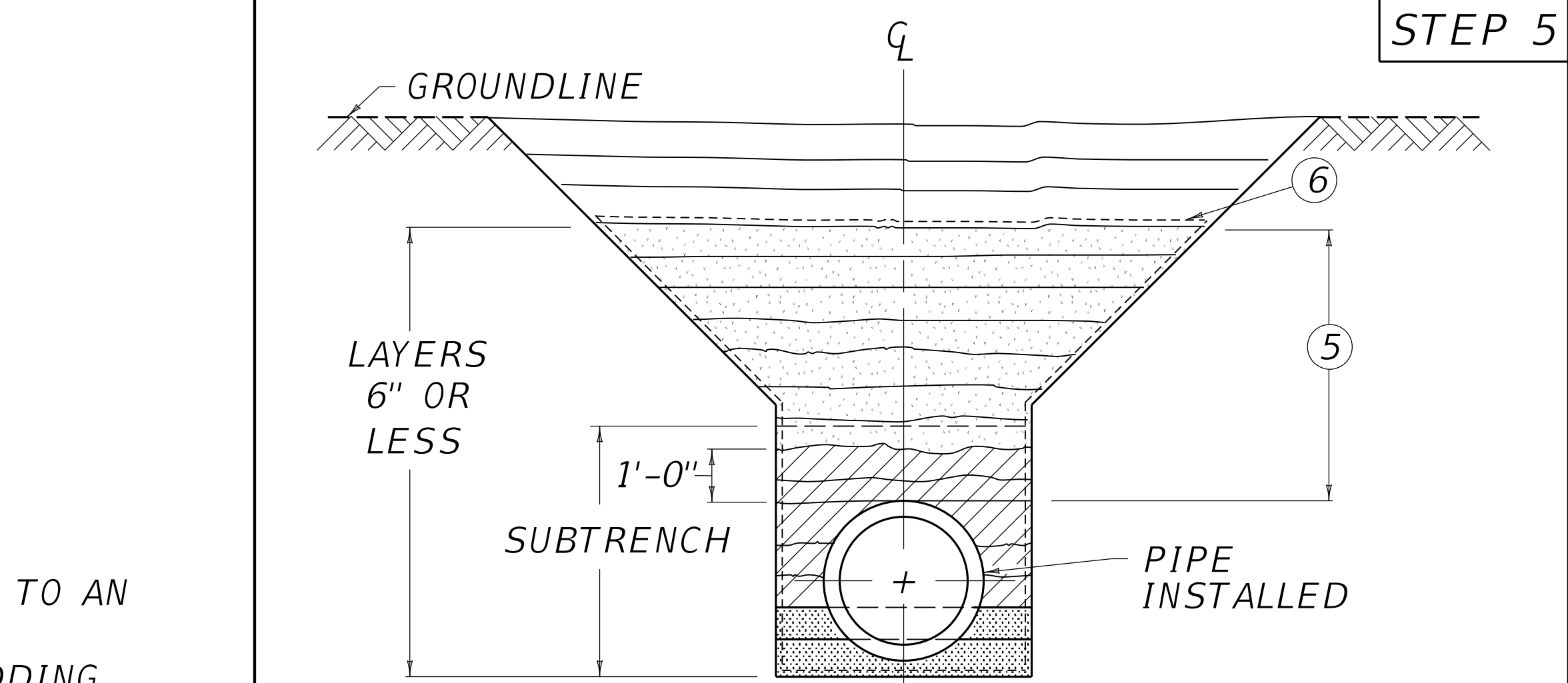
- a. TRENCH CONDITION IS WHEN GROUNDLINE ELEVATION IS GREATER THAN H_c ABOVE TOP OF PROPOSED PIPE.
- b. GROUNDLINE MAY BE (a) EXISTING OR ORIGINAL
(b) EXCAVATED SURFACE OR
(c) EMBANKMENT SURFACE.



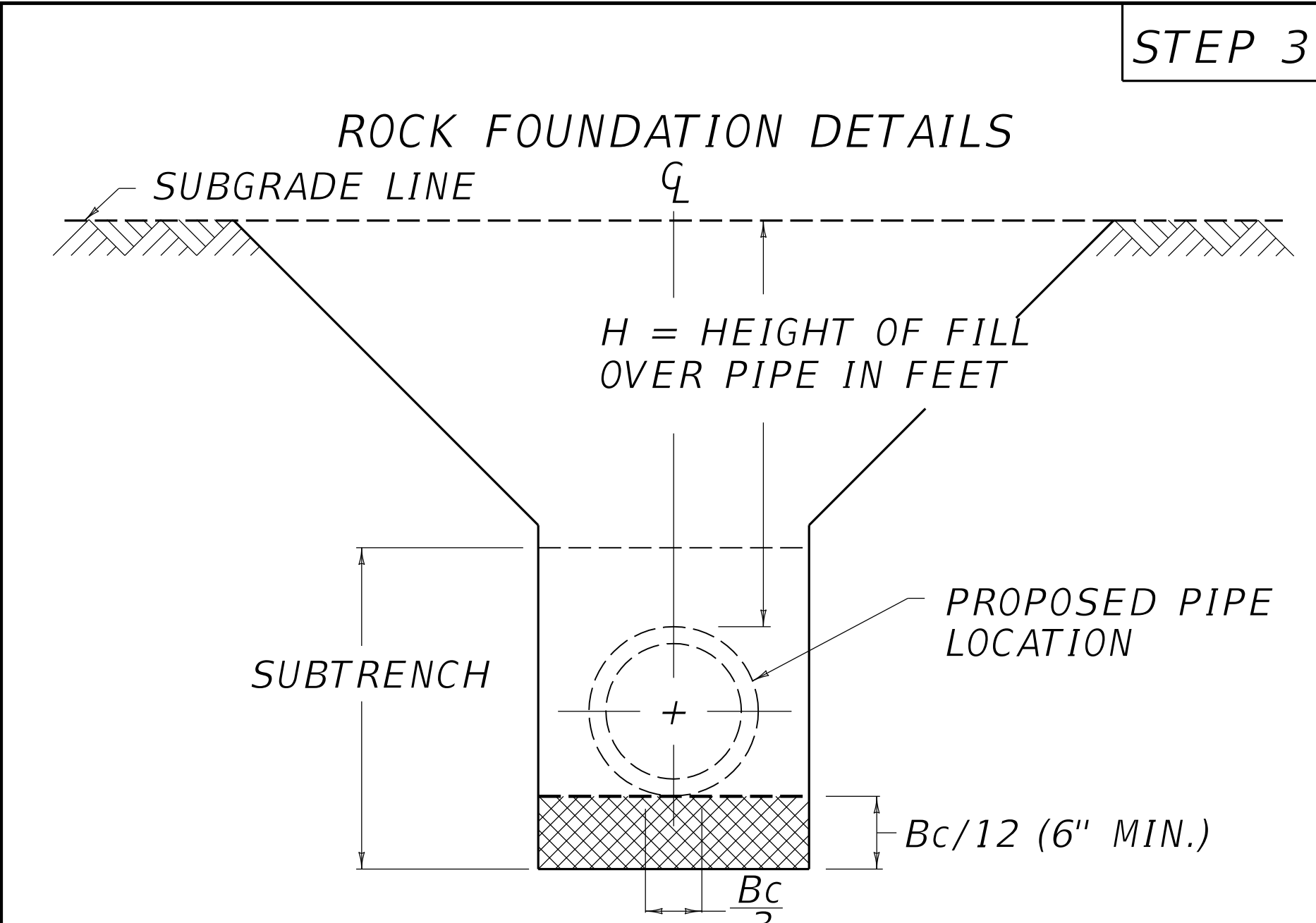
- a. UNCOMPACTED 4" BEDDING IN SUBTRENCH. FOR TYPE 1 INSTALLATION COMPACT BEDDING IN LAYERS 6" OR LESS TO AN ELEVATION 0.30 H_c . LEAVE CENTER THIRD OF OUTSIDE PIPE DIA. ($B_c/3$) BEDDING UNCOMPACTED.
- b. EXCAVATE A GROOVE IN THE BEDDING TO CONFORM TO THE OUTSIDE OF THE PIPE. AFTER EXCAVATION OF THE GROOVE, A MINIMUM 3" OF BEDDING SHOULD REMAIN BELOW THE OUTSIDE INVERT OF THE PIPE. THE CRADLE SHALL BE GAGED FOR SHAPE AND SLOPE BY STRIKING OR DRAWING A TEMPLATE THROUGH THE GROOVE IMMEDIATELY BEFORE PLACING EACH SECTION OF PIPE.
- c. INSTALL PIPE AT CORRECT ALIGNMENT AND ELEVATION. RECOMPACT ANY LOOSE BEDDING DISTURBED DURING INSTALLATION.
- ④ WRAP BEDDING MATERIAL IN GEOTEXTILE FABRIC WHEN THE STANDARD SPECIFICATIONS SPECIFIES.



- a. EXCAVATE SUBTRENCH TO WIDTH AND DEPTH SHOWN.
- b. TRENCH WALLS MAY BE CONSTRUCTED VERTICAL. FOR ILLUSTRATION PURPOSES THE DETAIL DEPICTS A SLOPING WALL TRENCH. WHICHEVER METHOD IS USED, THE TRENCH WALLS SHALL REMAIN SYMMETRICAL ABOUT THE CENTERLINE OF THE PIPE.
- ① $B_c + 24"$ FOR PIPE 36" DIA. OR LESS.
 $B_c + 48"$ FOR PIPE GREATER THAN 36" DIA.
- ② SLOPING OF TRENCH WALLS MAY BEGIN AT ANY ELEVATION GREATER THAN 1'-0" ABOVE TOP OF PIPE. THE SUBTRENCH SHALL ALWAYS BE REQUIRED.
- ③ 1'-0" MINIMUM TO H_c MAXIMUM.



- ⑤ 4'-0" REQUIRED FOR CONSTRUCTION LOADING.
- a. COMPACT REQUIRED BACKFILL MATERIAL IN LAYERS OF 6" OR LESS TO 1'-0" ABOVE TOP OF PIPE.
- b. IN A UNIFORM SYMMETRICAL MANNER COMPACT REQUIRED BACKFILL MATERIAL TO ELEVATION ⑤ ABOVE TOP OF PIPE IN LAYERS OF 6" OR LESS.
- c. PROCEED WITH TRENCH BACKFILL IN A SYMMETRICAL MANNER IN LAYERS OF 1'-0" OR LESS TO THE ORIGINAL GROUND AS DEFINED IN STEP 1.
- ⑥ WRAP BEDDING MATERIAL IN GEOTEXTILE FABRIC WHEN THE STANDARD SPECIFICATIONS SPECIFIES.

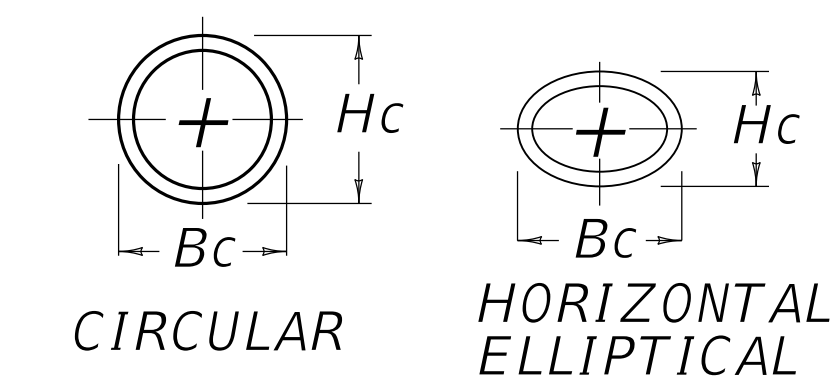


- a. IF ROCK FOUNDATION IS NOT ENCOUNTERED, GO DIRECTLY TO "STEP 4".
- b. IF ROCK FOUNDATION IS ENCOUNTERED, EXCAVATE TRENCH DEPTH USING FORMULA GIVEN. THIS DEPTH SHALL BE A MIN. OF 6" AND SHALL NOT EXCEED 24".
- c. BACKFILL WITH COMPACTED BEDDING MATERIAL IN LAYERS OF 6" OR LESS LEAVING $B_c/3$ UNCOMPACTED IN THE FINAL LAYER.

MAX. COVER HEIGHT		
CLASS	TYPE 1	TYPE 4
III	25'	9'
IV	38'	15'
V	57'	23'

2' OF COVER OR LESS	
CLASS	PIPE DIA.
V	12"-15"-18"
IV	21"-24"
III	27" & LARGER

- ~ NOTES ~
1. 10' MAXIMUM COVER HEIGHT FOR HORIZONTAL ELLIPTICAL CLASS HE III PIPE.
2. COVER HEIGHTS EXCEEDING THOSE SHOWN IN TABLES REQUIRE SPECIAL DESIGNS.
3. FOR TYPE 4 INSTALLATION PLACE EMBANKMENT MATERIAL ACCORDING TO SECTION 701.03.06A OF CURRENT SPEC. BOOK.
4. FOR TYPE 1 INSTALLATION, WHEN THE TOP OF THE PIPE IS NOT WITHIN ONE PIPE DIAMETER OF THE SUBGRADE, INSTALL ACCORDING TO SECTION 701.03.06A OF THE CURRENT SPEC. BOOK. USE WITH CUR. STD. DWG. RDI-021



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

PIPES

PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE

STANDARD DRAWING NUMBER
RDI-026-01

DRAINAGE

REVISION DATE: 12/01/2015
REVISION NUMBER: 0

SUBMITTED: 12-01-2015
DATE: 12-01-2015
DIVISION DIRECTOR: [Signature]
STATE HIGHWAY ENGINEER: [Signature]