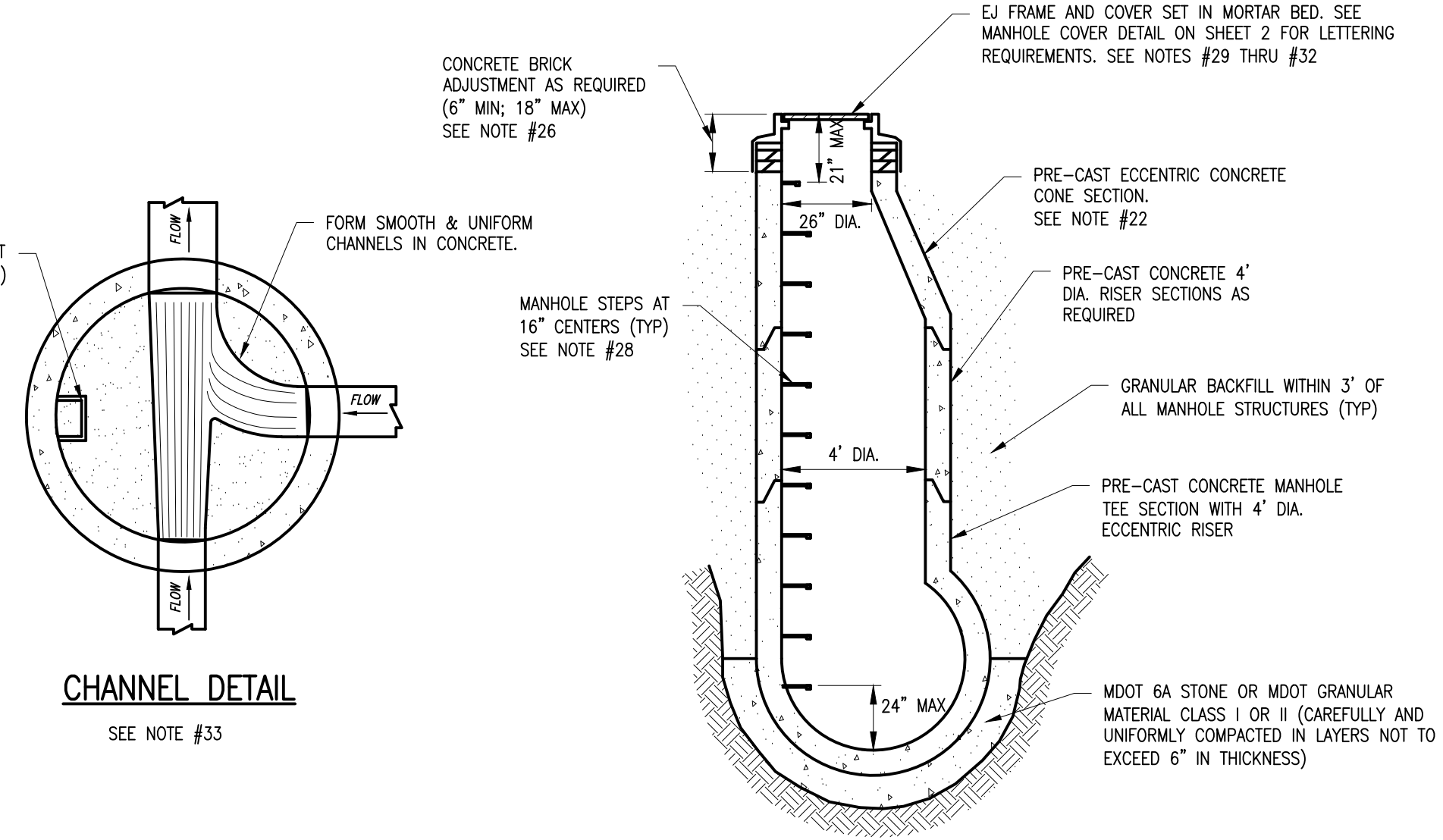
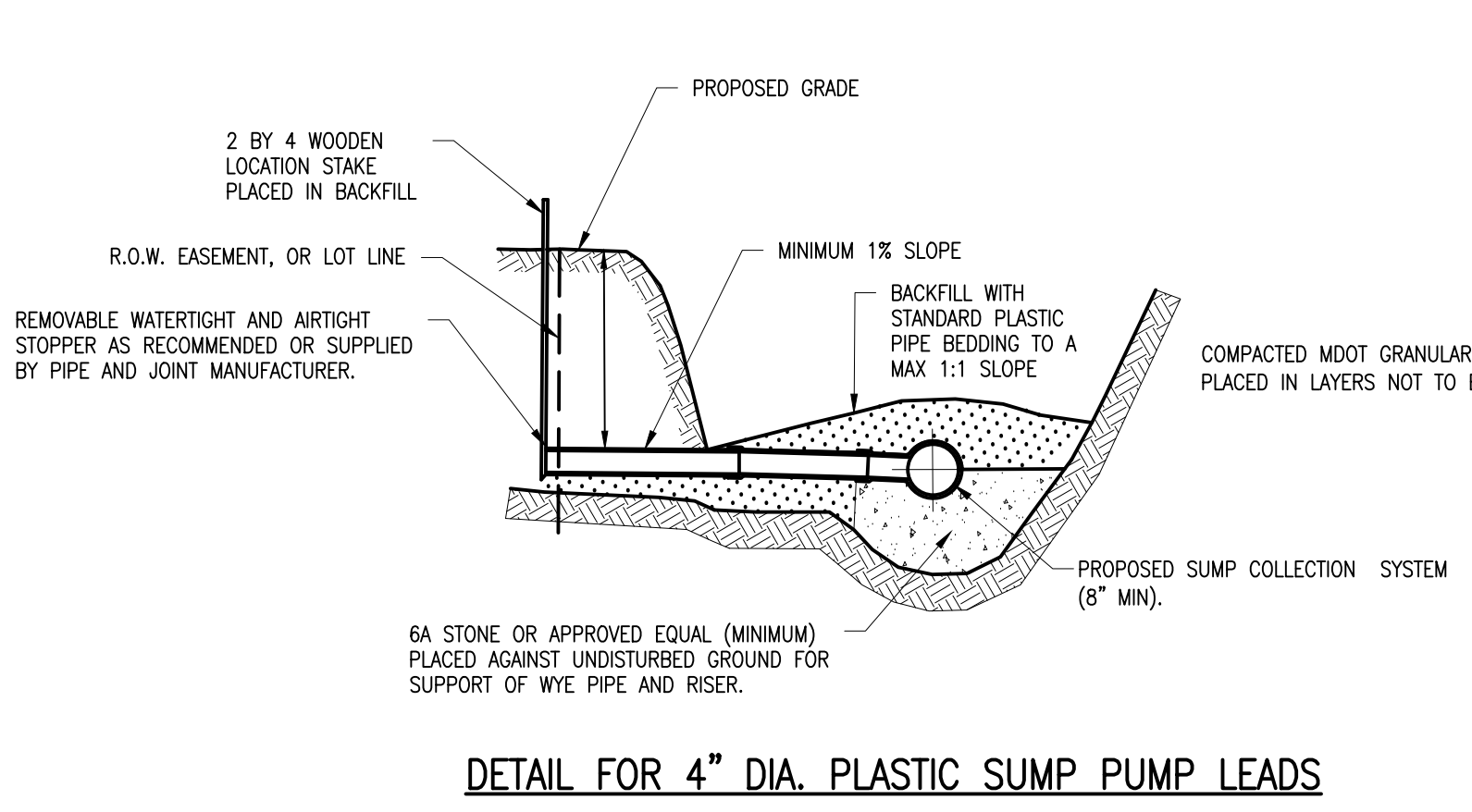


**STANDARD MANHOLE DETAIL**  
 SEE NOTE #21

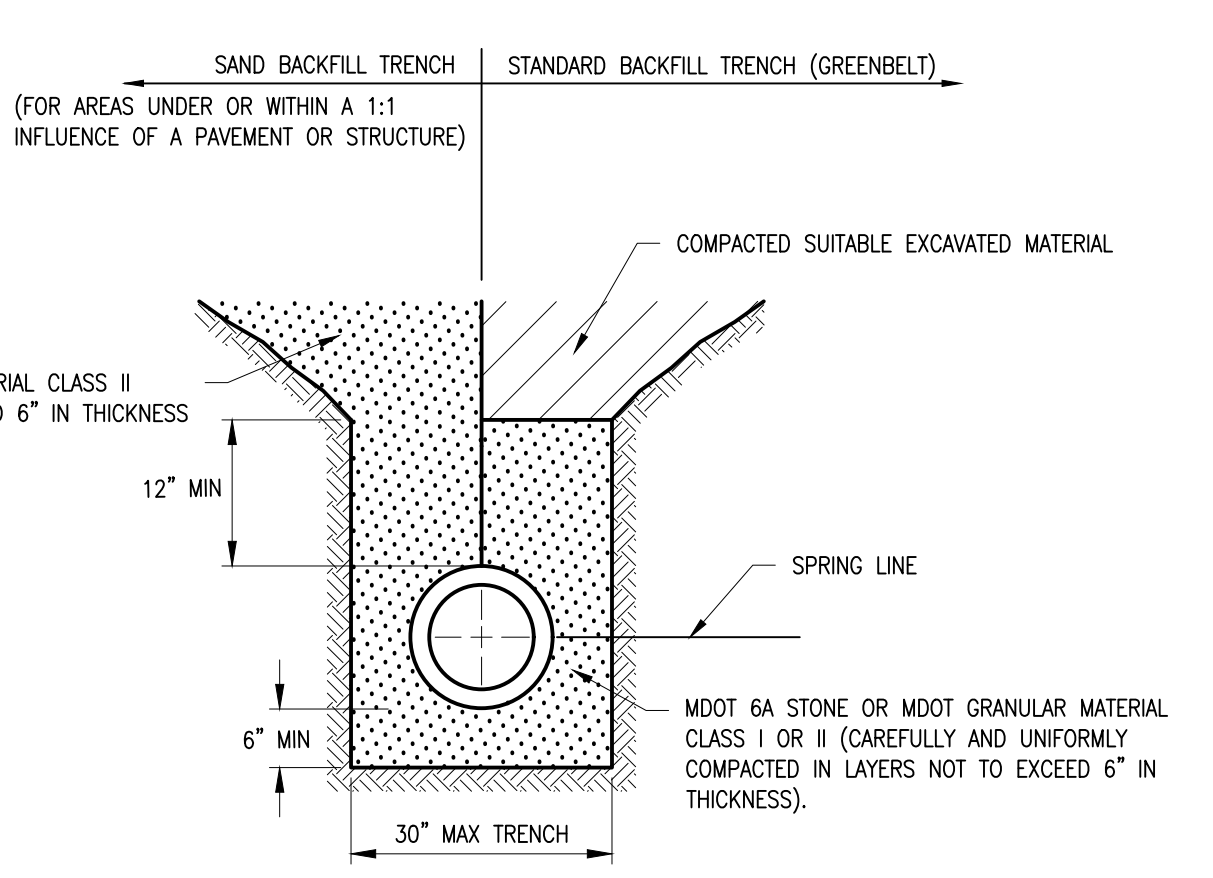
NOTE:  
 STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE SEWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



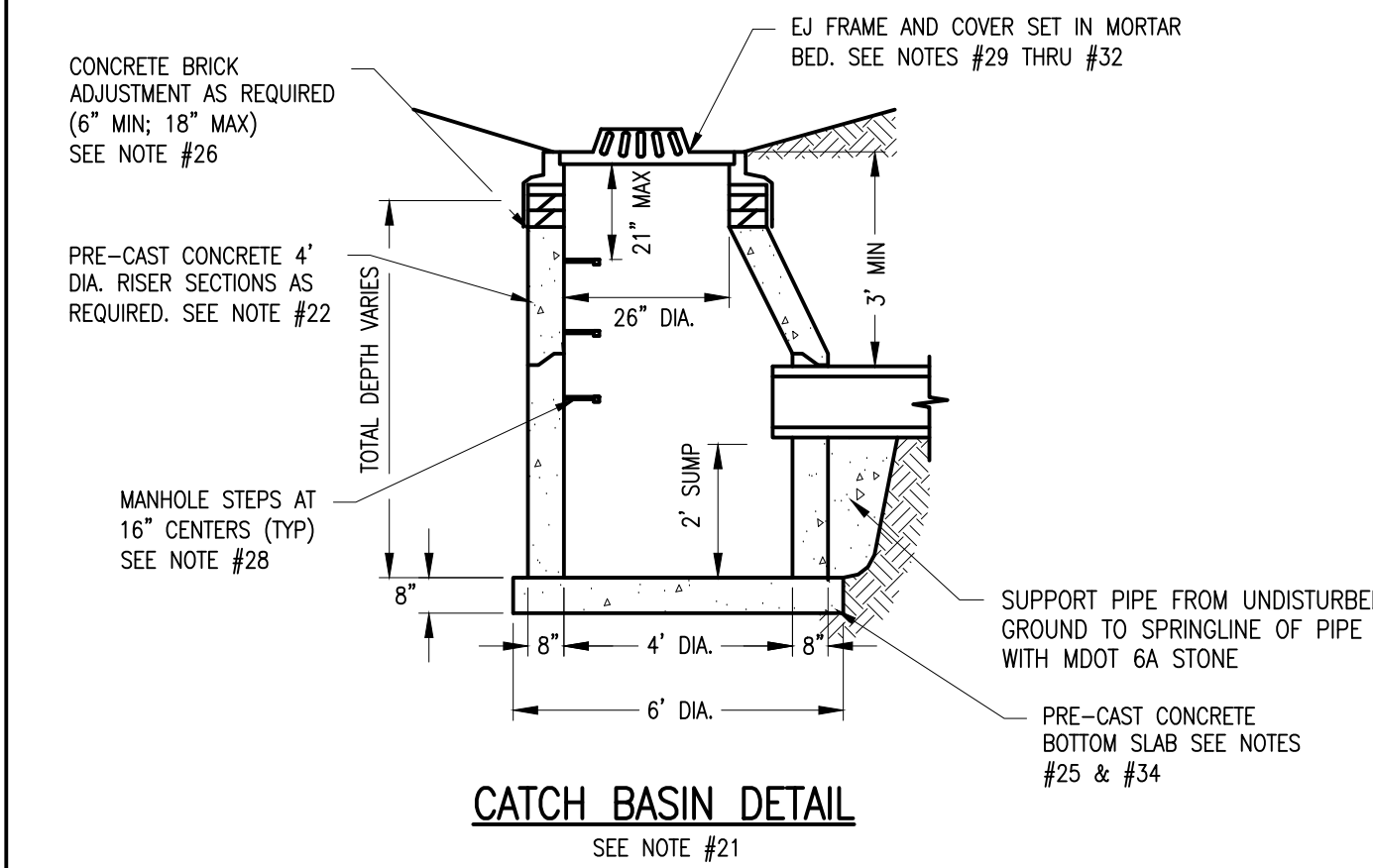
**TEE MANHOLE DETAIL**  
 SEE NOTE #21



**DETAIL FOR 4\"/>**

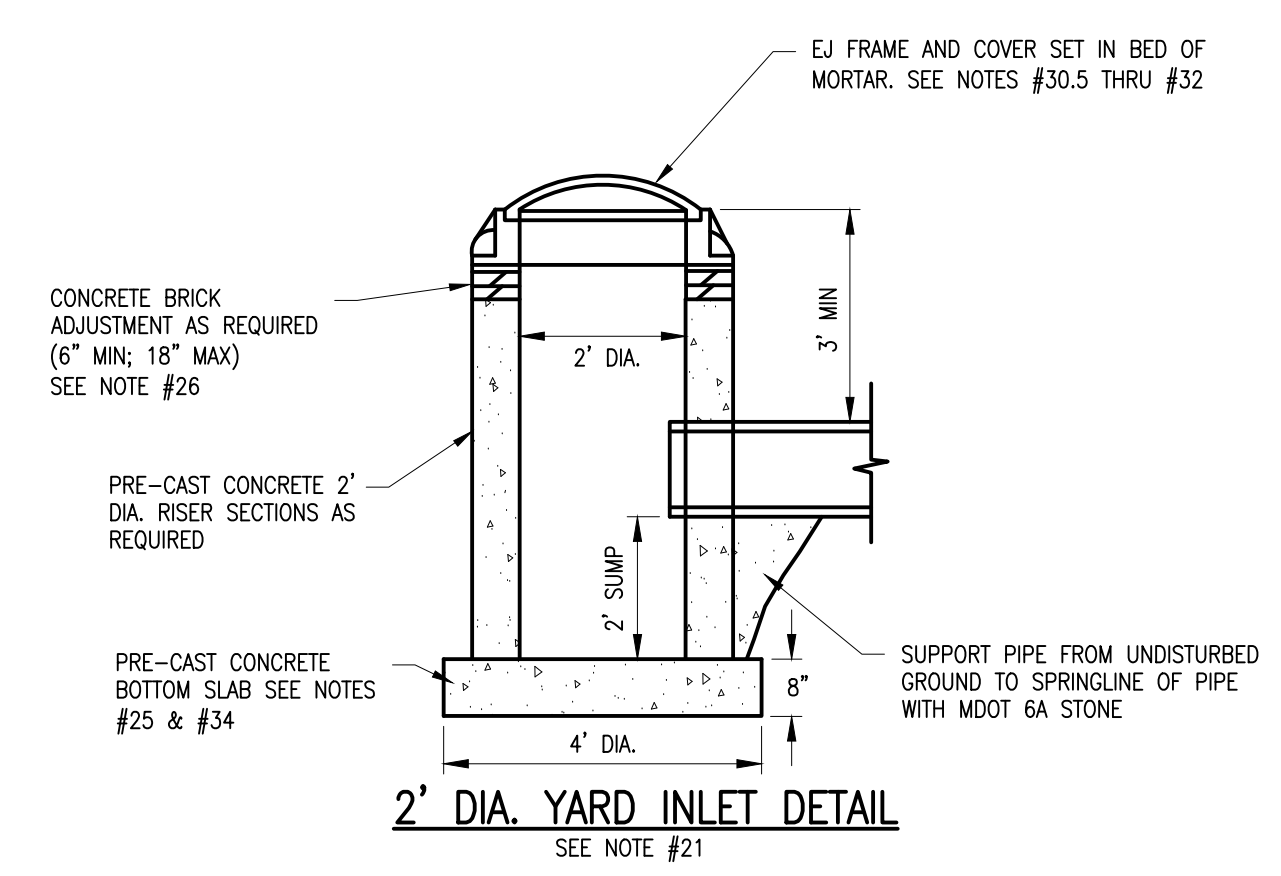


**BEDDING AND TRENCH BACKFILL DETAIL FOR 12\"/>**

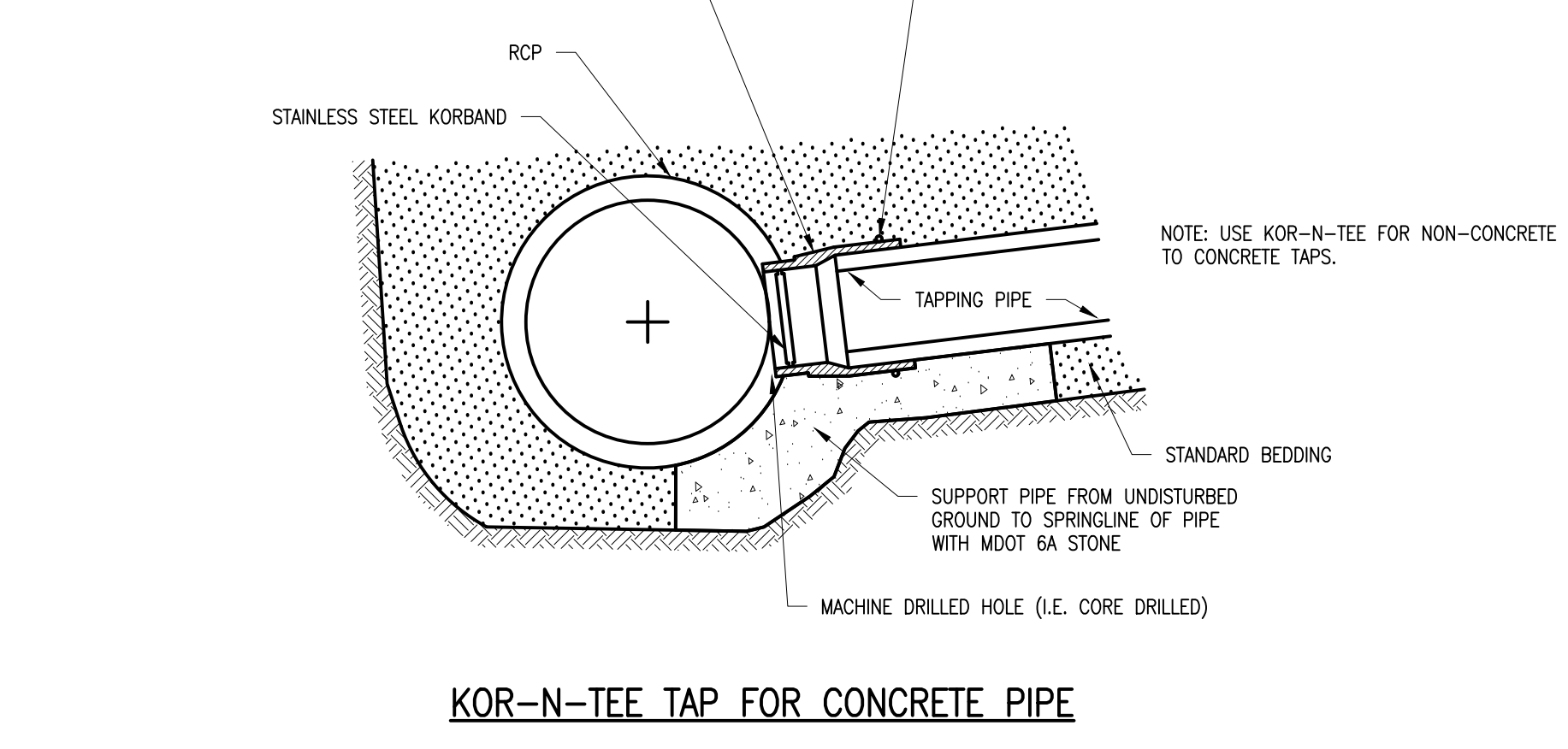


**CATCH BASIN DETAIL**  
 SEE NOTE #21

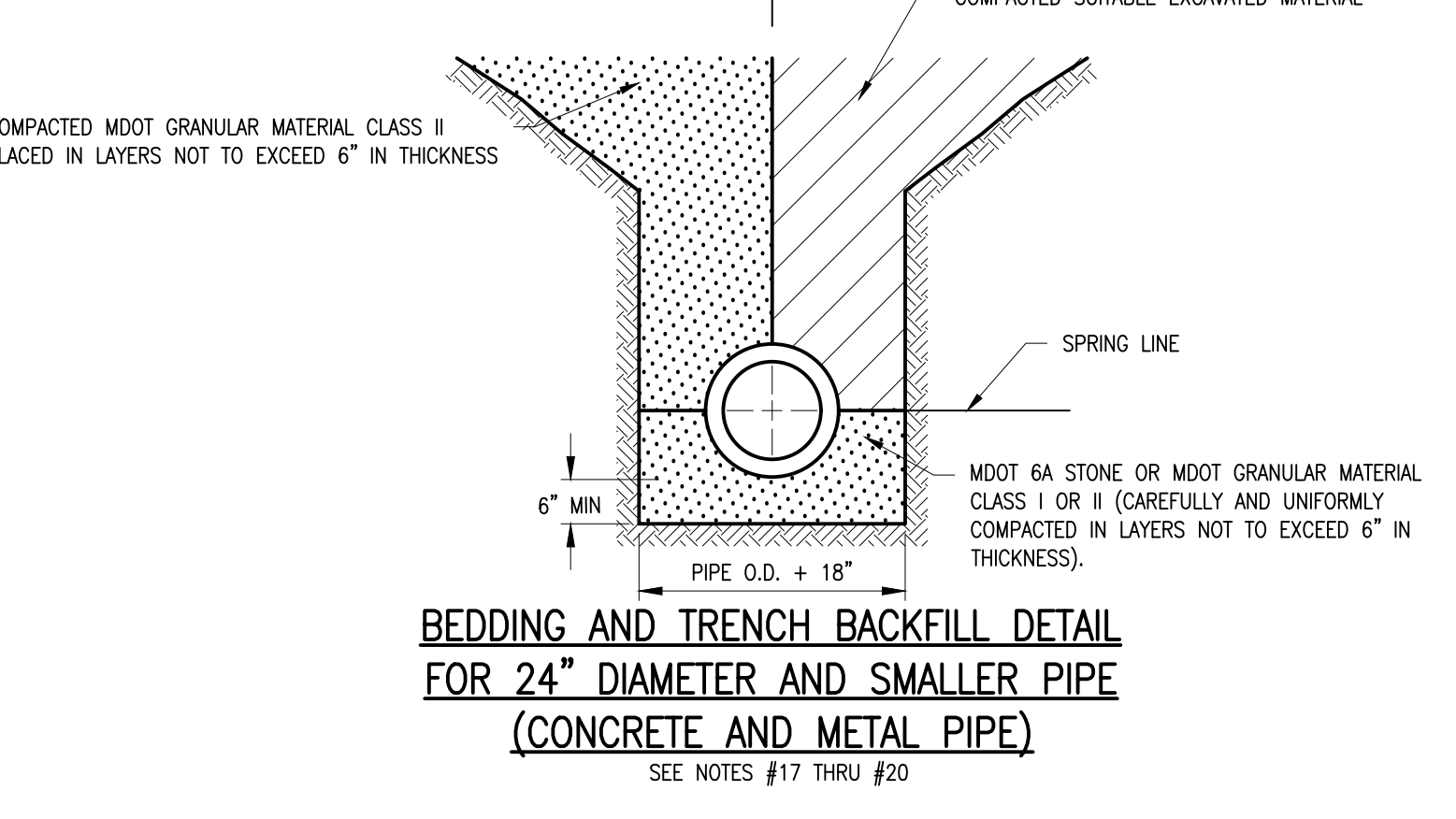
NOTE:  
 STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE SEWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



**2\"/>**



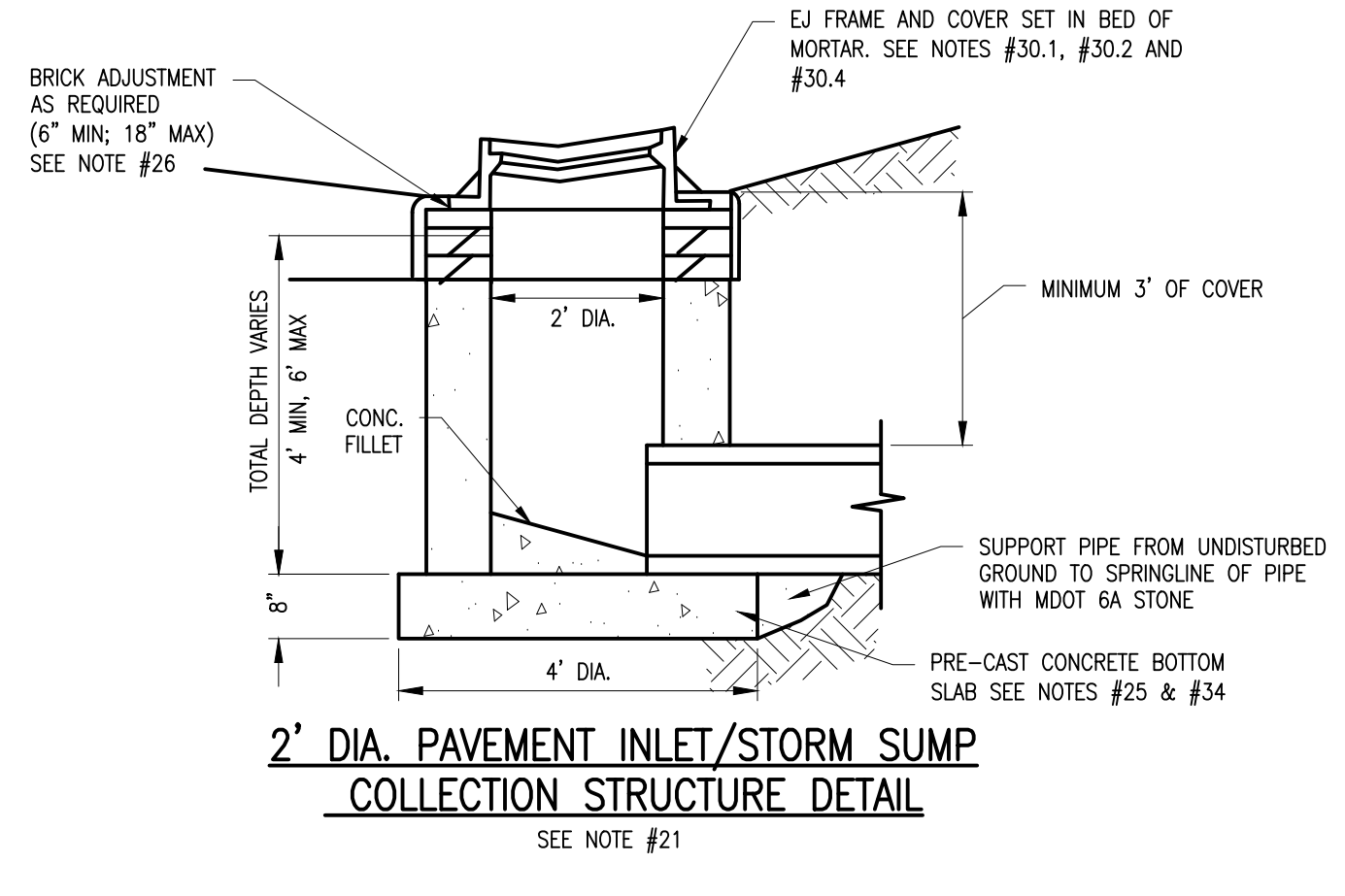
**KOR-N-TEE TAP FOR CONCRETE PIPE**



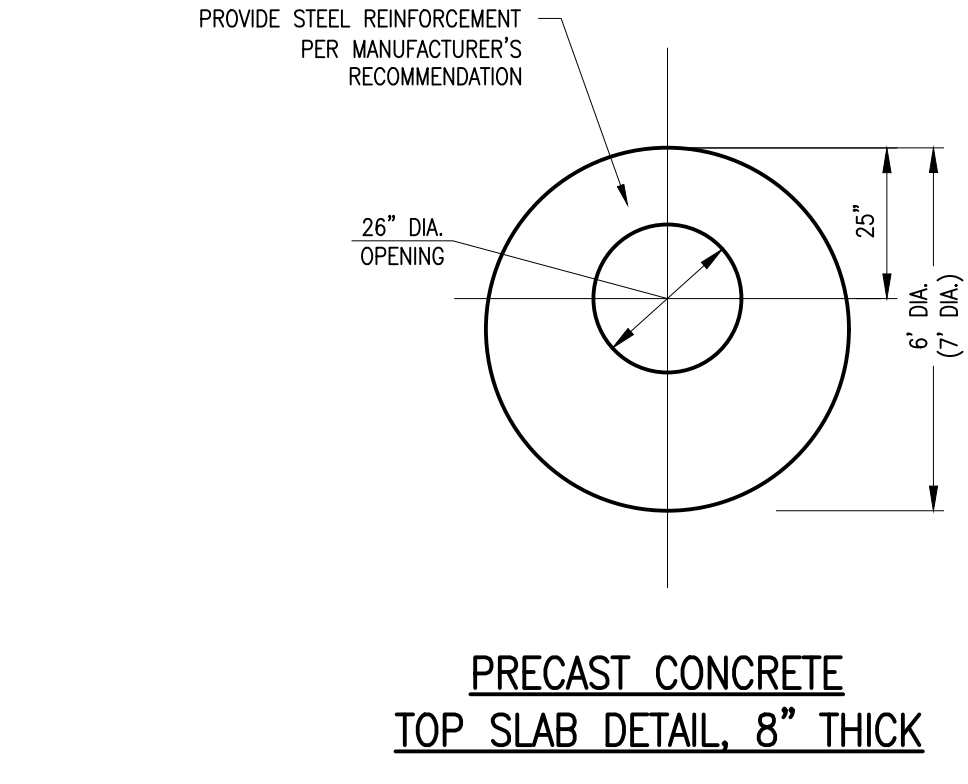
**BEDDING AND TRENCH BACKFILL DETAIL FOR 24\"/>**

INSIDE DIAMETER	MAXIMUM PIPE SIZE FOR STRAIGHT THRU INSTALLATION	MAXIMUM PIPE SIZE FOR RIGHT ANGLE INSTALLATION
4' - 0"	24"	18"
5' - 0"	36"	24"
6' - 0"	42"	36"
8' - 0"	60"	42"

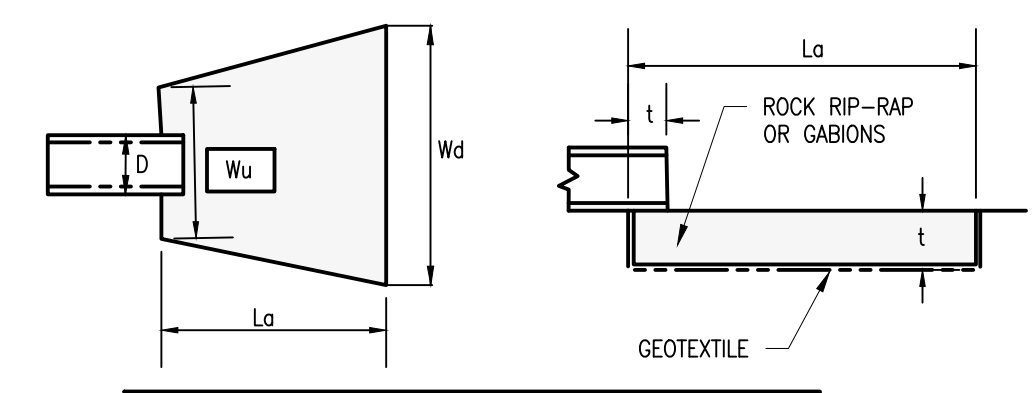
**MANHOLE SIZING CHART**  
 SEE NOTES #27



**2\"/>**



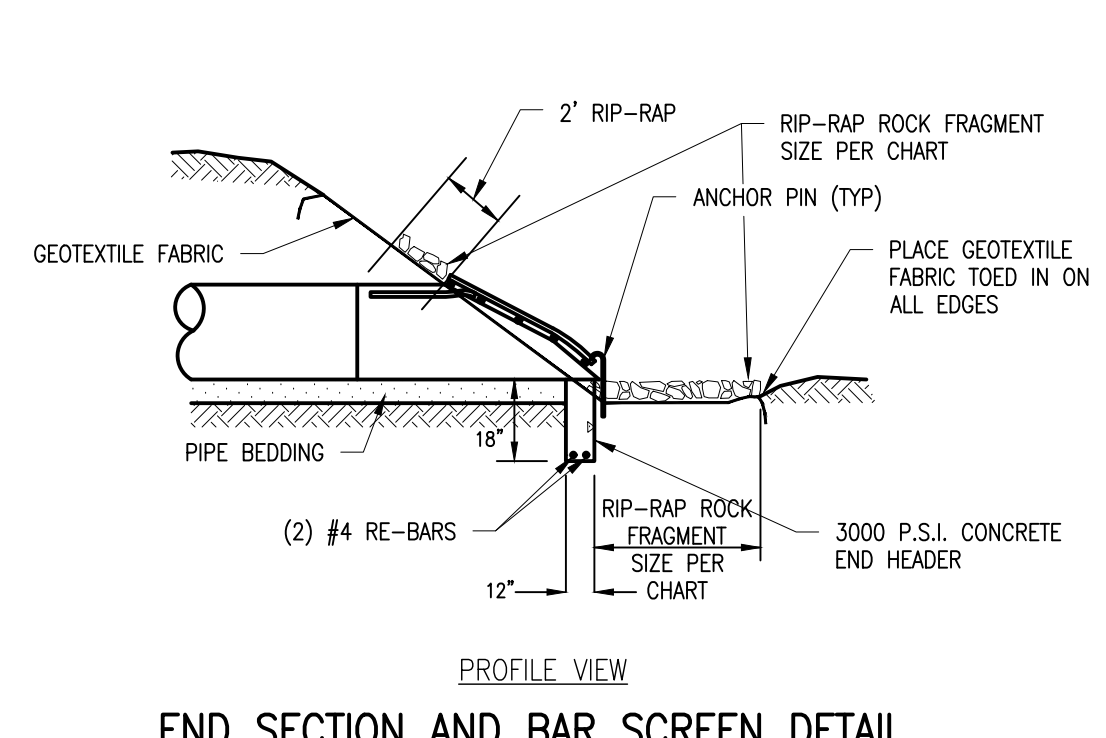
**PRECAST CONCRETE TOP SLAB DETAIL, 8\"/>**



**TYPICAL DETAIL FOR ROCK OUTLET PROTECTION BELOW A CULVERT**

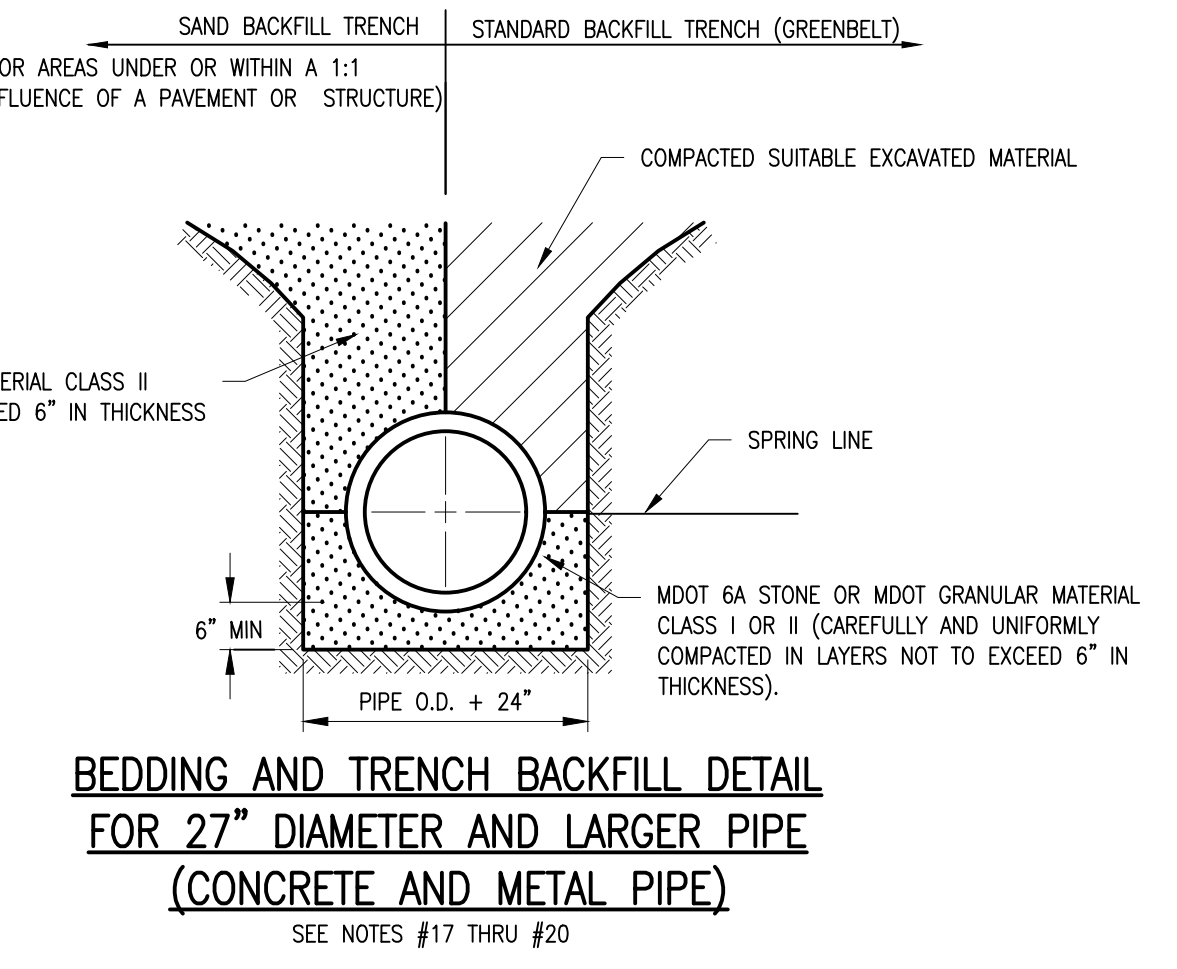
Culvert Size D <sub>c</sub> (inches)	Rock Size d <sub>r</sub> (inches)	Apron Length L <sub>a</sub> (feet)	Upstream Width W <sub>u</sub> (feet)	Downstream Width W <sub>d</sub> (feet)	Thickness T (inches)	Quantity (tons)
12	6	12	3	13	18	15
18	9	16	4.5	18	24	20
24	12	20	6	22	30	25
30	15	24	7.5	26	36	30
36	18	28	9	30	42	35
42	21	32	10.5	34	48	40
48	24	36	12	38	54	45

**ROCK OUTLET PROTECTION APRON DIMENSIONS**

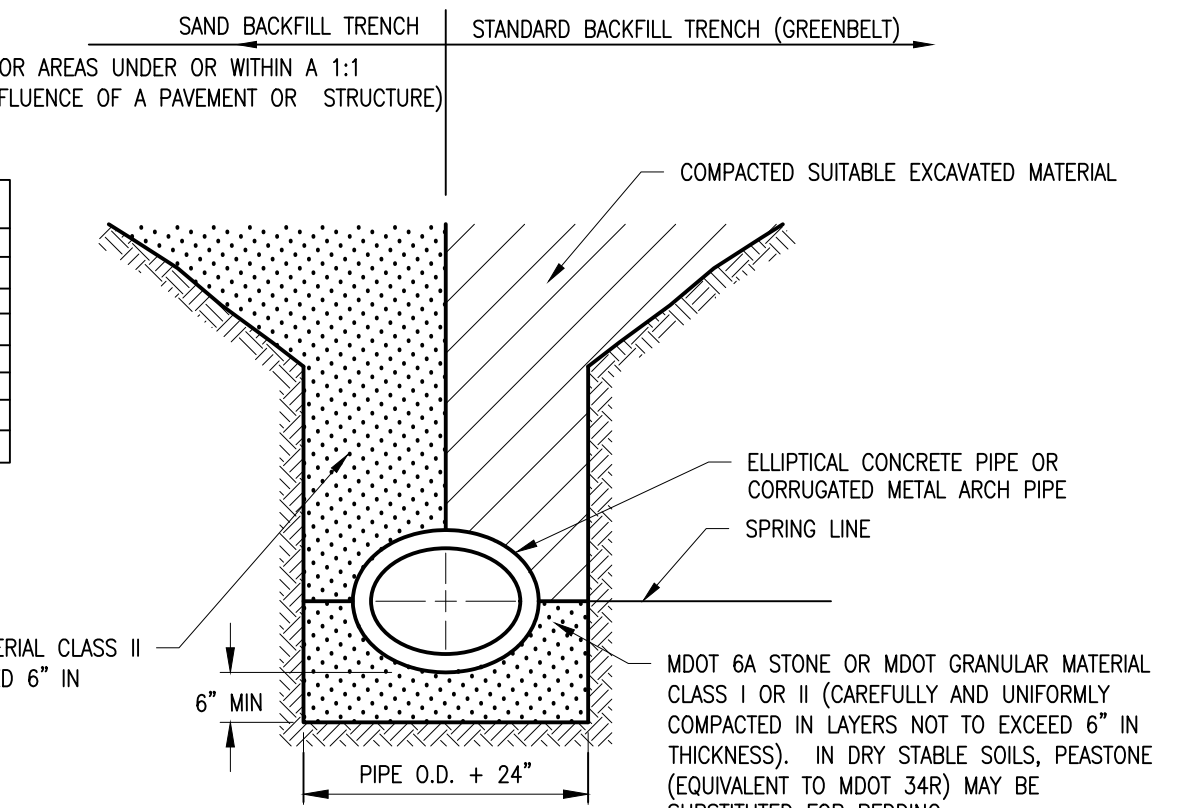


**END SECTION AND BAR SCREEN DETAIL**

NOTES:  
 A. BAR GRATE SCREEN SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IS COMPLETE.  
 B. RIP-RAP MAY NOT CONTAIN ANY BROKEN CONCRETE.



**BEDDING AND TRENCH BACKFILL DETAIL FOR 27\"/>**



**BEDDING AND TRENCH BACKFILL DETAIL FOR ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL ARCH PIPE**  
 SEE NOTES #17 THRU #20

