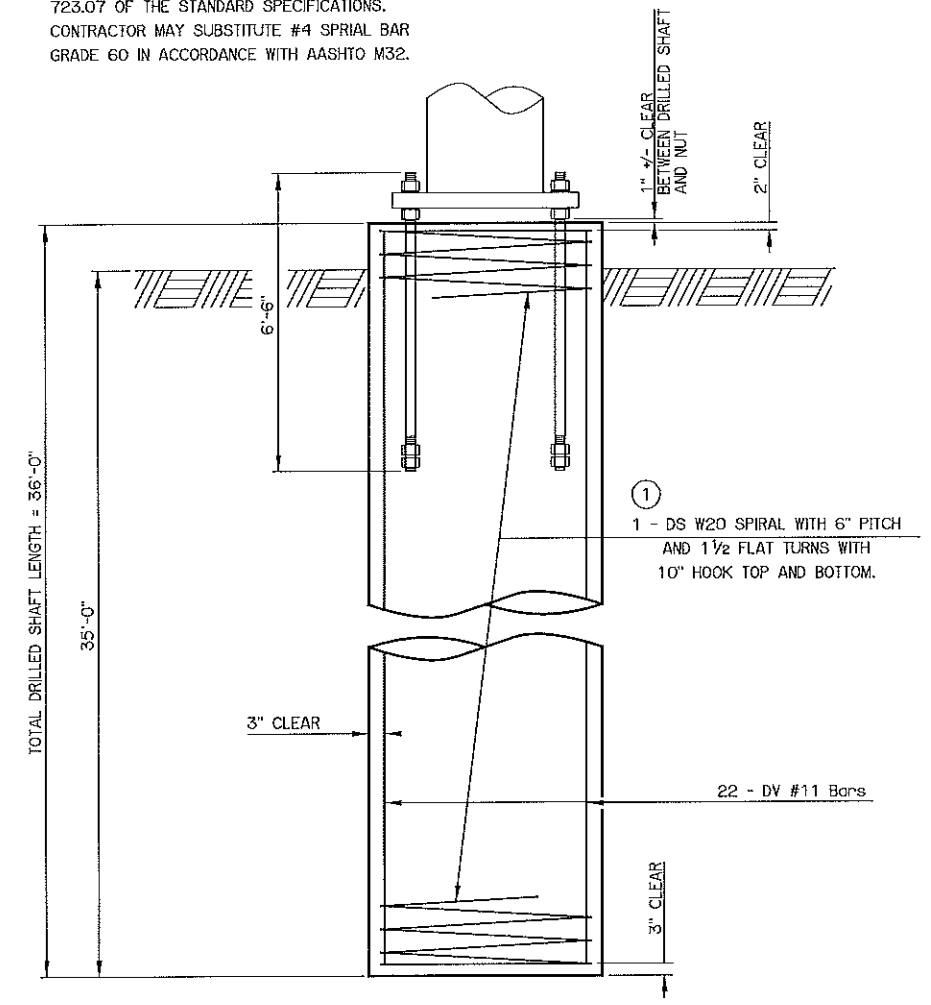


① USE W20 SPIRAL IN ACCORDANCE WITH 723.07 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY SUBSTITUTE #4 SPIRAL BAR GRADE 60 IN ACCORDANCE WITH AASHTO M32.



**DRILLED SHAFT NOTES:**

MATERIAL PROPERTIES  
 CLASS 'AA' CONCRETE = 4,000 PSI  
 REINFORCING STEEL = 60,000 PSI

THE DRILLED SHAFT FOR THE MONOTUBE SIGN STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING PROPERTIES:

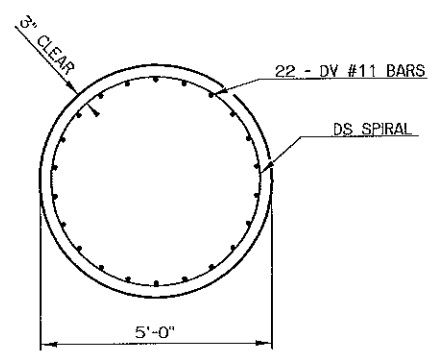
- COHESIVE SOIL  
 UNIT WEIGHT = 120 PCF  
 COHESION = 1000 PSF
- GRANULAR SOIL  
 UNIT WEIGHT = 120 PCF  
 INTERNAL FRICTION ANGLE = 28 DEGREES

IF SITE CONDITIONS ARE ENCOUNTERED THAT DIFFER FROM THOSE SPECIFIED ABOVE, THE ENGINEER SHALL BE CONTACTED. SUCH CONDITIONS ARE, BUT NOT LIMITED TO, AS FOLLOWS:

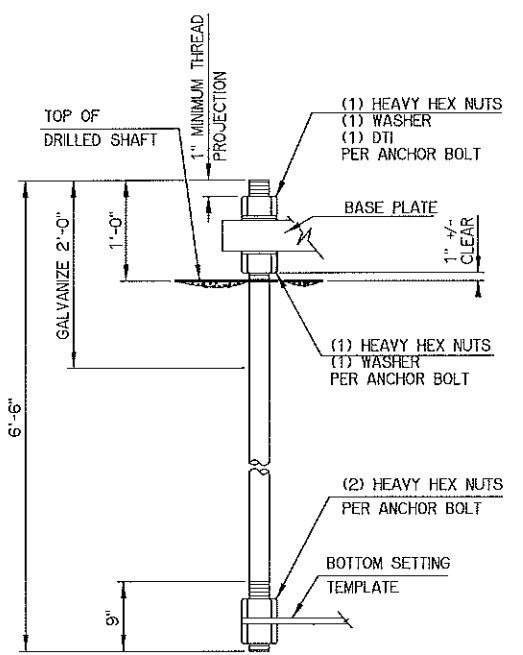
- SOIL HAS HIGH ORGANIC CONTENT OR CONSISTS OF SATURATED SILT AND CLAY.
- THE SITE WON'T SUPPORT THE WEIGHT OF THE DRILLING RIG.
- ROCK IS ENCOUNTERED.

DRILLED SHAFTS SHALL BE CONSTRUCTED ACCORDING TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND ASSOCIATED SPECIAL PROVISIONS. THE USE OF THE "DOUBLE CASING METHOD" IS NOT ALLOWED FOR THIS DESIGN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT THE LOCATION AND ELEVATION OF THE DRILLED SHAFT ARE AS REQUIRED IN THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE MONOTUBE SUPPLIER TO ENSURE THAT THE ORIENTATION OF THE ANCHOR BOLTS IN THE DRILLED SHAFT ALLOW FOR PROPER ALIGNMENT OF ALL BASE PLATES AND FLANGES UPON FINAL INSTALLATION.



TYPICAL SECTION THRU 60" DRILLED SHAFT



2 1/2"  $\phi$  ANCHOR BOLT DETAIL (F1554 GR. 55)

NOTE: FOR ADDITIONAL DRILLED SHAFT DETAILS, SEE "MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 3 OF 3)". FOR DRILLED SHAFT DETAILS IN THE MEDIAN, SEE "MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 2 OF 3)".

DRILLED SHAFT BAR LIST (INCLUDED IN CONTRACT UNIT PRICE OF DRILLED SHAFT)				
MARK	SIZE	NO.	FORM	LENGTH
PLAIN REINFORCING BARS				
DS	W20	1	BNT	1,052'-9"
DV	#11	22	STR	35'-7"

BASIS OF PAYMENT		
ITEM NO.	DESCRIPTION	UNIT
② 516(A)	DRILLED SHAFTS 60" DIAMETER	L.F.

② ALL COSTS OF CONCRETE AND REINFORCING IN DRILLED SHAFTS SHALL BE INCLUDED IN THE PRICE BID FOR "DRILLED SHAFTS 60" DIAMETER".

<b>MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 1 OF 3)</b>		Design	JG	JW
		Detail	JG	JW
		Check	JG	JW
		Spot Eng.	SUPERVISOR	ENGINEER
<b>STATE OF OKLAHOMA</b>		<b>DEPARTMENT OF TRANSPORTATION</b>		
JOB PRICE NO. 21899(04)		SHEET NO. M5		