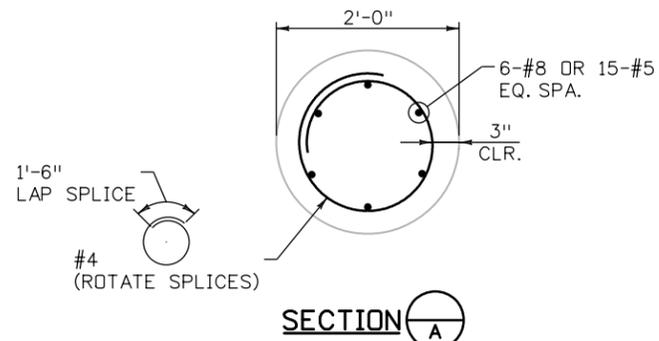


**DRILLED CAISSON FOUNDATION**



**DRILLED CAISSON NOTES**

1. CONCRETE FOR DRILLED CAISSONS SHALL BE CLASS BZ CONCRETE IN ACCORDANCE WITH SECTION 503 OF THE STANDARD SPECIFICATIONS.
2. DRILLED CAISSON CONCRETE SHALL REACH THE SEVEN DAY PREDICTED STRENGTH PRIOR TO INSTALLING THE LIGHT STANDARD.
3. DRILLED CAISSONS SHALL BE PLACED AGAINST UNDISTURBED EARTH. PRECAST CONCRETE FOUNDATIONS ARE NOT ALLOWED.
4. REINFORCING STEEL FOR FOUNDATIONS SHALL BE GRADE 60.
5. DRILLED CAISSON LENGTHS ARE BASED ON THE FOLLOWING:

SOIL PROPERTY	$\gamma$ (PCF)	$\phi$ ANGLE	C (PSF)	Kh (PCI)	$E_{50}$
COHESIONLESS	110	30°	--	25	--
COHESIVE	110	--	750	100	0.008
WEATHERED ROCK	130	--	4000	1000	0.006

THE CONTRACTOR SHALL OBTAIN SOIL SAMPLES PRIOR TO PLACING FOUNDATION CONCRETE TO VERIFY THAT AS-DESIGNED SOIL PROPERTIES ADEQUATELY MATCH THE IN-SITU SOIL PROPERTIES. THE CONTRACTOR SHALL FORWARD COPIES OF THE SOIL DATA TO THE ENGINEER PRIOR TO PLACING FOUNDATION CONCRETE.

6. THE DRILLED CAISSON LENGTH SHALL BE DETERMINED USING THE DRILLED CAISSON LENGTH TABLE AFTER THE LOCATION AND QUALITY OF BEDROCK HAS BEEN DETERMINED. THE CONTRACTOR SHALL SUBMIT THE PROPOSED LENGTH TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING CONCRETE. CONCRETE SHALL NOT BE PLACED WITHOUT APPROVAL FROM THE ENGINEER.
7. THE CONTRACTOR SHALL STOP CAISSON INSTALLATION AND CONTACT THE ENGINEER IF ANY OF THE FOLLOWING SOIL CONDITIONS ARE ENCOUNTERED DURING DRILLING:
  - (A) THE SOIL HAS A HIGH ORGANIC CONTENT OR CONSISTS OF SATURATED SILT AND CLAY
  - (B) THE SITE WILL NOT SUPPORT THE WEIGHT OF THE DRILLING RIG
  - (C) THE FOUNDATION SOILS ARE NOT HOMOGENOUS
  - (D) SHOT ROCK IS ENCOUNTERED
8. DRILLED CAISSONS HAVE BEEN DESIGNED FOR THE FOLLOWING SAFETY FACTORS:
  - SF = 3.0 FLEXURAL RESISTANCE
  - SF = 1.25 TORSIONAL RESISTANCE

**DRILLED CAISSON LENGTH TABLE**

$L_B$ (DEPTH TO BEDROCK)	$L_E$ (EMBEDMENT IN BEDROCK)	L (REQUIRED SHAFT LENGTH)
$\leq 4'-0"$	4'-0"	$(L_B + 4'-0")$
$> 4'-0"$	$(8'-0" - L_B)$	8'-0"

**NOTES**

1. FOR GENERAL NOTES, SEE SHEET 1 OF 4.
2. FOR ELECTRICAL AND CONDUIT DETAILS, SEE SHEETS 1, 2 AND 4 OF AND LIGHTING PLANS.
3. FOR DESIGN CRITERIA, SEE SHEET 1 OF 4.

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Print Date: 1/5/2012
File Name: 17137LightStandardDet03.dgn
Horiz. Scale: 1/2"=1'-0'      Vert. Scale: As Noted
Unit Information      Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



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**Region 1**      **CBR**

<b>As Constructed</b>
No Revisions:
Revised:
Void:

SPECIAL LIGHT STANDARD DETAILS DRILLED CAISSON STRUCTURAL DETAILS			
Designer:	DLR	Structure Numbers	
Detailer:	TTV		
Sheet Subset: Light Stds.	Subset Sheets:	3 of 4	

<b>Project No./Code</b>
IM 070A-008
17137
Sheet Number