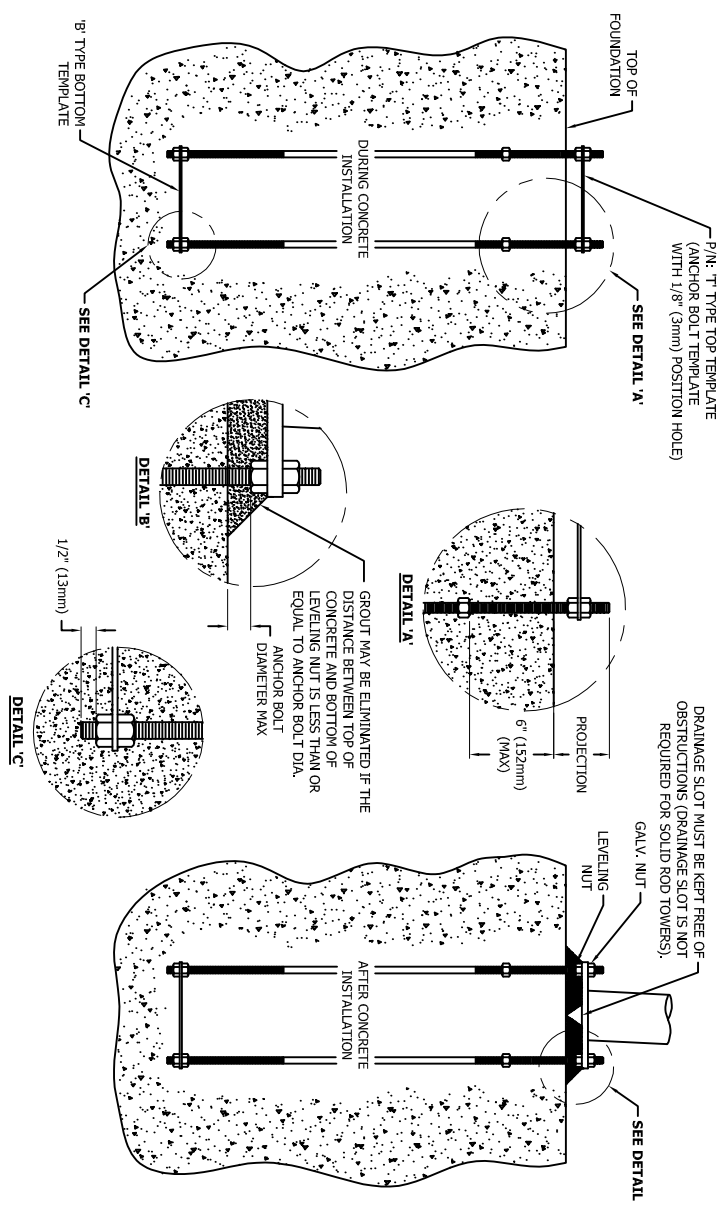


FILE NO.

REVISIONS		DWN	CHK	APP
REV#	DESCRIPTION			
4	THESE DIMENSIONS TO SHOW PROJECTION	CEJ	JDM	HA
DATE: 01/20/14				



ANCHOR BOLT INSTALLATION TOLERANCES

1. FACE SPREAD DIMENSION CENTER-TO-CENTER OF ANCHOR BOLT CIRCLES - PLUS OR MINUS 1/16" (2mm) OR 1/16"(2mm) PER 20 FT. (6m) OF FACE SPREAD.
2. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS - 1/2" (13mm).
3. CONCRETE DIMENSIONS - PLUS OR MINUS 1" (25mm).
4. DEPTH OF FOUNDATION - PLUS 3" (76mm) OR MINUS 0".
5. REINFORCING STEEL PLACEMENT - PER A.C.I. 301.
6. PROJECTION OF EMBEDMENTS OUT OF PLUMB - 1.0 DEGREE.
7. VERTICAL EMBEDMENTS OUT OF PLUMB - 1/2 DEGREE.
8. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTRELINE OF FOUNDATION - 1/24 OF PIER DIAMETER UP TO A MAXIMUM OF 2" (50mm).
10. ANCHOR BOLT SPACING - 1/16" (2mm).
11. ANCHOR BOLT CIRCLE ORIENTATION - 1/4 DEGREE.
12. ANCHOR BOLT CIRCLE DIAMETER - PLUS OR MINUS 1/16" (2mm).

!!! WARNING !!!

AFTER ANCHOR BOLTS ARE INSTALLED AND CONCRETE HAS TAKEN ITS INITIAL SET, ANCHOR BOLTS MUST NOT BE MOVED, BENT OR REALIGNED IN ANY MANNER.


ANCHOR BOLT TIGHTENING NOTES

1. NUTS, THREADS AND ALL NUT CONTACT SURFACES MUST BE CLEANED AND LUBRICATED AFTER CONCRETE INSTALLATION AND IMMEDIATELY BEFORE INSTALLATION OF LEVELING AND TOP NUTS. NUTS MUST BE FREE TO MOVE THROUGHOUT THE ENTIRE LENGTH OF THE ANCHOR BOLT.
2. AFTER LEVELING THE LEVELING NUTS AND SETTING THE BASE PLATE, TOP NUTS MUST BE INSTALLED IN AN INCREMENTAL STAR TIGHTENING SEQUENCE BY TIGHTENING THE LEVELING NUTS IN A SIMILAR PATTERN TO A SNUG TIGHT CONDITION. SNUG TIGHT IS DEFINED BY THE TIGHTNESS OBTAINED WITH THE EFFORT OF ONE PERSON WITH A 12 INCH NOMINAL LENGTH WRENCH.
3. AFTER ALL TOP AND LEVELING NUTS ARE TIGHTENED TO A SNUG TIGHT CONDITION, TOP NUTS SHALL BE FURTHER TIGHTENED IN AN INCREMENTAL STAR PATTERN WITH THE LEVELING NUTS SECURED TO RESULT IN A 1/3 TOP NUT ROTATION FOR ANCHOR BOLTS 1-1/2 INCHES OR LESS IN DIAMETER, OR A 1/6 TOP NUT ROTATION FOR ANCHOR BOLTS GREATER THAN 1-1/2 INCHES IN DIAMETER.

NOTES

1. ALL ANCHOR BOLTS MUST MEET OR EXCEED REQUIREMENTS OF A.S.T.M. F1554-52, S5 GRADE 105.
2. GROUT TO BE 5000 PSI MIN. ULTIMATE STRENGTH/7 DAY NON-SHRINKING AND NON-METALLIC.
3. SPECIAL CARE MUST BE TAKEN WHEN LIFTING ANCHOR BOLT CLUSTER. IN ORDER TO PREVENT ANCHOR BOLT DISTORTION.
4. ANCHOR BOLT ASSEMBLY MUST BE ADEQUATELY SUPPORTED AND RESTRAINED TO PREVENT MOVEMENT OF THE CLUSTER DURING CONCRETE INSTALLATION.
5. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY THAT THE CORRECT ANCHOR BOLT TEMPLATE AND FOUNDATION SHOWN ON RESPECTIVE SITE DRAWINGS ARE BEING USED.
6. IT IS THE RESPONSIBILITY OF THE FOUNDATION DESIGN ENGINEER TO INSURE THAT THE ANCHORAGES PROVIDED ARE COMPATIBLE WITH THE PROPOSED FOUNDATION DESIGNS AND THAT THE CAPACITIES OF THE ANCHORAGES ARE NOT LIMITED BY THE STRENGTH OF THE FOUNDATIONS.

!!! WARNING !!!
 PRIOR TO PLACING CONCRETE:
 CHECK THAT THE TEMPLATE ANCHOR BOLT CIRCLE MATCHES THE ANCHOR BOLT CIRCLE SHOWN ON THE STRUCTURE DRAWING. CALL ROHN (309)-566-3000 FOR ANY DISCREPANCY.



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ANCHOR BOLT LAYOUTS
 FOR 5/8", 3/4", 7/8", & 1" ANCHOR BOLTS

DWN: MF	CHKD: KTL	DATE: 09/07/05
ENGR: HA	SHEET #: 1 OF 1	
PRL ENGR:	PRL MNGR:	

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