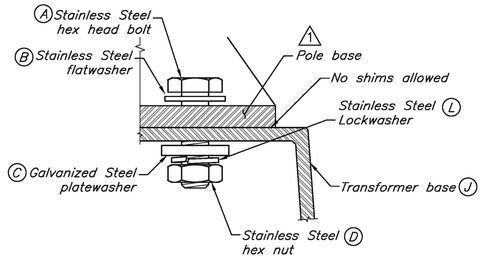
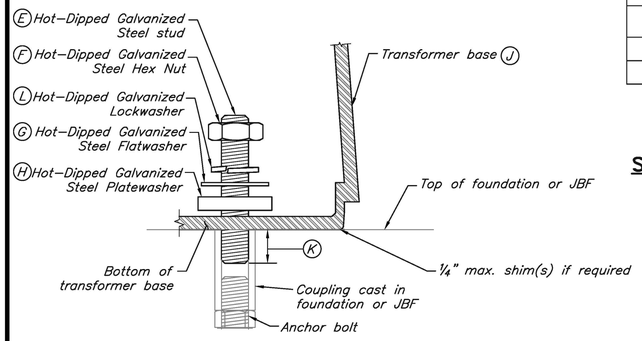
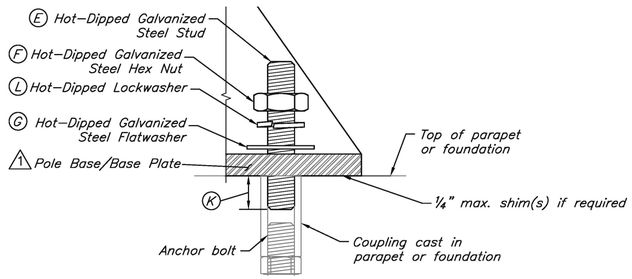


POLE TO TRANSFORMER BASE
(See Note 7)



TRANSFORMER BASE TO FOUNDATION
(See Note 7)



POLE TO PARAPET / FOUNDATION
(See Note 7)

TYPICAL BOLTING DETAILS

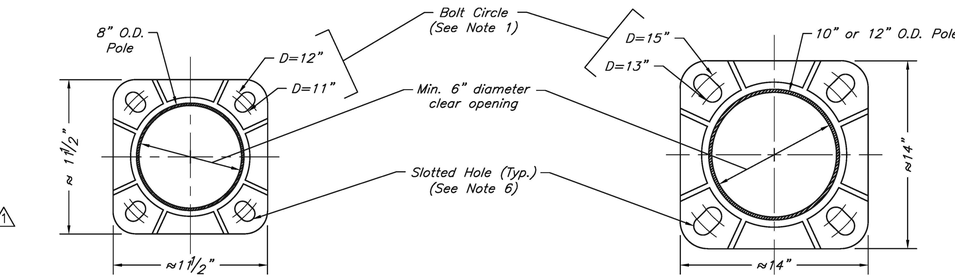
Scale: 3/8"= 1"
(Dimensions vary per type of pole. See Schedule 8.1 for actual dimensions)

Item	Dimension when using pole with 11"–12" Bolt Circle	Dimension when using pole with 13"–15" Bolt Circle
A	1"–8NC x 3¾" long	1¼"–7NC x 4" long
B	1⁹/₁₆" I.D. for 1" bolt	1¹³/₁₆" I.D. for 1¼" bolt
C	2¾" O.D. x ½" thk	2¾" O.D. x ½" thk
D	1"–8NC	1¼"–7NC
E	1"–8NC x 5½" long*	1¼"–7NC x 6" long*
F	1"–8NC	1¼"–7NC
G	1⁹/₁₆" I.D. for 1" bolt	1¹³/₁₆" I.D. for 1¼" bolt
H	2¾" O.D. x ½" thk	2¾"O.D. x ½" thk
J	Transformer Base TB–A	Transformer Base TB–B
K	¼" embedment(min)	½" embedment(min)
L	1⁹/₁₆" I.D. x ¼" thk.	1¹³/₁₆" I.D. x 5/16" thk.

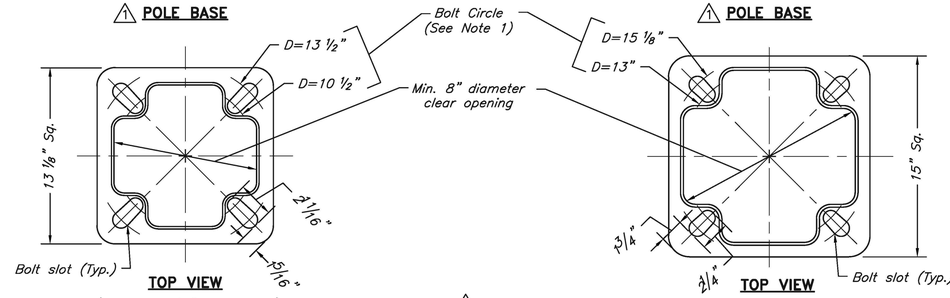
* or sized as required to allow sufficient room to install bolt covers on pole base plate 1

SCHEDULE 8.1 – DIMENSIONS FOR ANCHOR BOLT ASSEMBLY

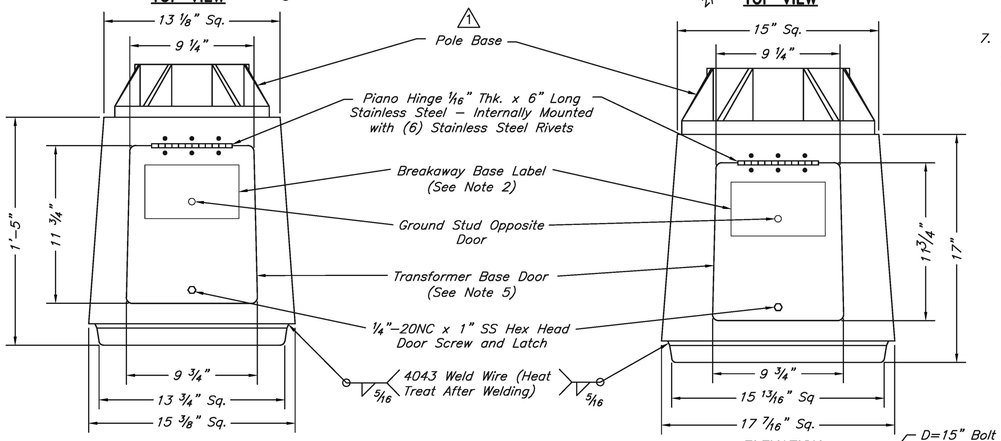
(See note 7)



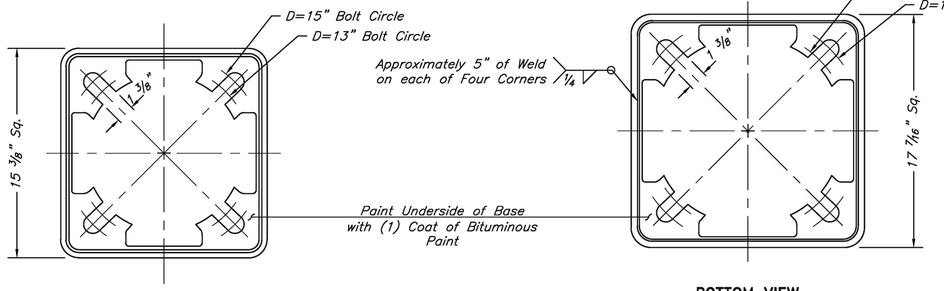
1 **POLE BASE** 1 **POLE BASE**



TOP VIEW **TOP VIEW**



ELEVATION **ELEVATION**



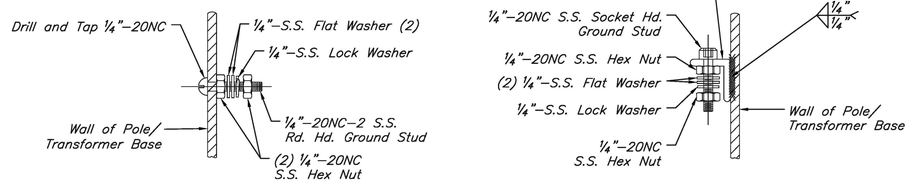
BOTTOM VIEW **BOTTOM VIEW**

TRANSFORMER BASE TB–A (TB1–17)

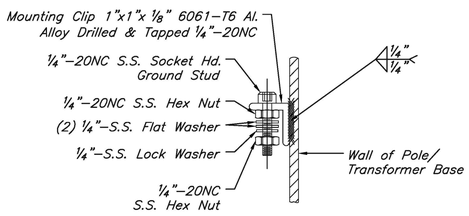
Scale: 3/16"= 1'–0"

TRANSFORMER BASE TB–B (TB3–17)

Scale: 3/16"= 1'–0"



DETAIL A



ALTERNATE DETAIL B

GROUND STUD DETAIL (OPPOSITE HANDHOLE/TRANSFORMER BASE)

Not To Scale

NOTES

1. Bolts connecting pole base to transformer base TB–A shall be installed on a 12" bolt circle. Bolts connecting pole base to transformer base TB–B shall be installed on a 15" bolt circle.
2. All transformer bases shall be certified by F.H.W.A as an approved breakaway roadside hardware device to the most current AASHTO standards. A label indicating this certification shall be affixed to the transformer base opposite the door opening.
3. Transformer bases shall be constructed of cast aluminum alloy 356–T6.
4. For Transformer Base:

   Contractor shall provide a grounding stud in every transformer base on the wall opposite the door. Grounding stud shall be installed as shown in Detail A or Detail B. Grounding in all transformer bases on each project shall be installed per the same method.

   For poles mounted without transformer base:

   1 Detail A and B shall also be used for installation of pole grounding stud in pole base mounted poles, where no transformer base is provided. Grounding shall be installed opposite handholes on these poles.
5. Transformer base door shall be manufactured of aluminum alloy 356–T6. Minimum thickness shall be 3/16".
6. Slotted holes in pole base shall be sized to accept 1" diameter anchor bolts for Transformer Base Type TB–A and 1 ¼" diameter anchor bolts for Type TB–B.
7. All stainless steel (S.S.) hardware shall be Type 304 in accorance with ASTM A193 grade B8. All steel hardware shall meet the following standards where applicable:

   –Galvanizing, Hot Dipped per ASTM A153
   –Hex Nuts per ASTM A563 Grade DH
   –Washers per ASTM F436

If you use this Standard Drawing:	
You also need	–
You may need	E–11, E–12

	BY	DATE
MADE	EMG	05/2013
TRACED	MDC	05/2013
CHECKED	EMG	05/2013
SUPERVISED	ALB	05/2013

0 ½ 1 2 3 4
ORIGINAL SIZE IN INCHES

APP.	NO.	DATE	REVISION
	1	3/2014	REVISED NOTES, CALLOUTS, AND SCHEDULE
	0	05/2013	ORIGINAL DRAWING

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
TRANSFORMER BASE AND POLE GROUNDING DETAILS

HNTB 9 ENTIN ROAD, SUITE 202, PARSIPPANY, NJ 07054 – COA# 24GA28000700
ANTHONY L. BARTELLO
New Jersey Professional Engineer License No. GE 45542

STANDARD DRAWING E–09

MASTER FILE: J:\NJTA\Standard Drawings\Drawings (Dwgs)\SD\NJTA–SD E–09.dwg LAST SAVED DATE: Mar 03, 2014 – 13:27 BY: MCraney
ACAD FILE NAME: NJTA–SD E–09.dwg Layout: E–09

CONTRACT NO. SHEET NO. OF