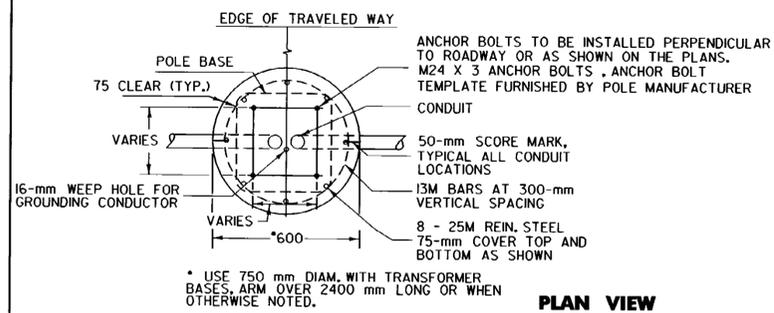
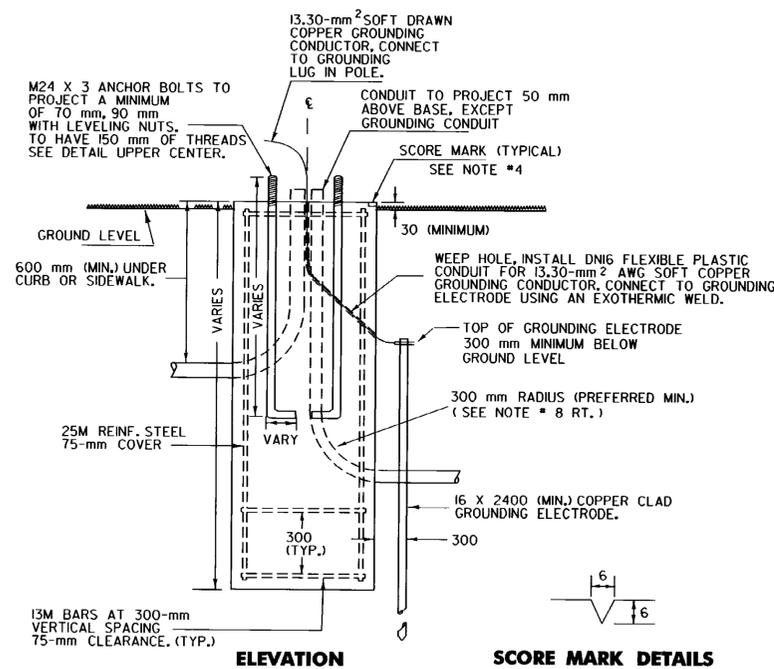


CONCRETE BASE

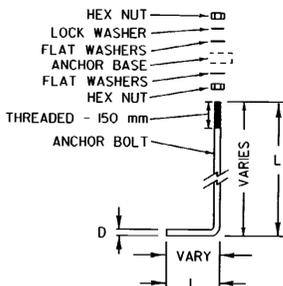


NOTE: SEE CHART AT RIGHT AND NOTE BELOW CHART FOR OTHER ANCHOR BOLT DIMENSIONS.



NOTES:

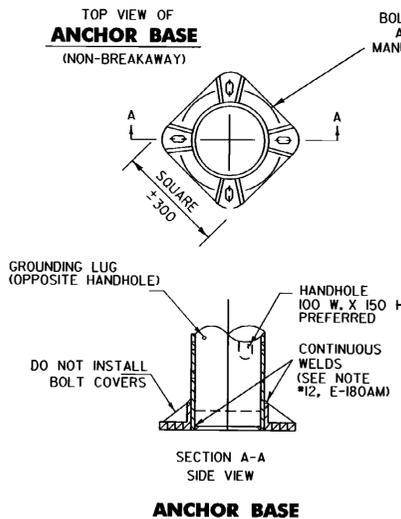
THERE ARE FOUR BASIC SIZES FOR CONCRETE BASES. 600 X 1200 TO BE USED WITH POLE TOP MOUNTED LUMINAIRES WITH A MOUNTING HEIGHT OF LESS THAN 6 m. A CONCRETE BASE SIZE OF 600 X 1800 FOR POLES WITH LESS THAN 12-m MOUNTING HEIGHT AND ARMS UP TO 2.4 m IN LENGTH. THIRD, A BASE SIZE OF 750 X 1800 FOR POLES WITH LESS THAN 12-m MOUNTING HEIGHT AND ARMS LESS THAN 3 m IN LENGTH WHICH WILL BE INSTALLED ON A TRANSFORMER BASE. FOURTH, A BASE SIZE 750 X 2400 FOR A 12-m OR GREATER MOUNTING HEIGHT, A 3-m OR GREATER ARM LENGTH WITH OR WITHOUT TRANSFORMER BASE.



ALL ANCHOR BOLTS TO BE STAINLESS STEEL

MOUNTING HEIGHT	NO. OF ARMS	ANCHOR BASE		SLIP BASE	
		BOLT	L I	BOLT	L I
9.0 m	1	M24 X 3	900 100	M30 X 3.5	1050 150
	2	M24 X 3	900 100	M30 X 3.5	1050 150
10.5 m	1	M24 X 3	900 100	M30 X 3.5	1050 150
	2	M24 X 3	900 100	M30 X 3.5	1050 150
12.0 m	1	M24 X 3	900 100	M30 X 3.5	1050 150
	2	M24 X 3	900 100	M30 X 3.5	1050 150

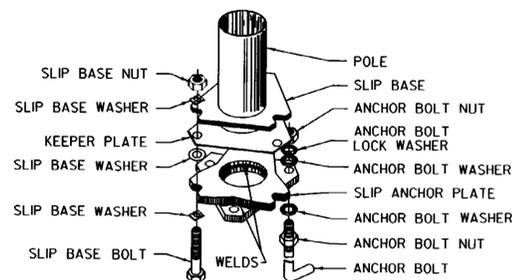
NOTE: FOR MOUNTING HEIGHTS LESS THAN 9 m, USE THE ANCHOR BOLT DIMENSIONS AS RECOMMENDED BY THE POLE MANUFACTURER, LENGTH, HOOK, DIAMETER AND BOLT PROJECTION.



NOTES:
1) DIMENSIONS SHOWN FOR ANCHOR BASE AND TRANSFORMER BASE MAY VARY SLIGHTLY WITH DIFFERENT MANUFACTURERS.
2) ANCHOR BOLT TEMPLATE FURNISHED BY POLE MANUFACTURER.

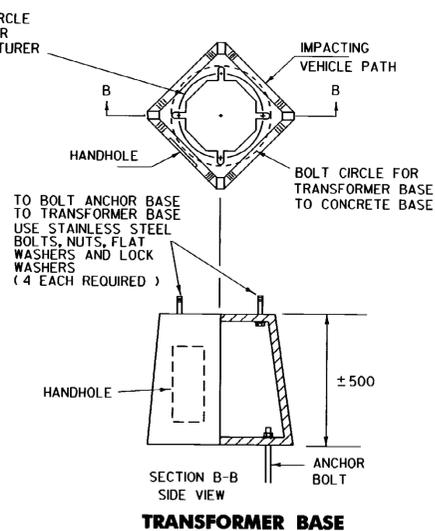
VARIOUS BREAKAWAY OPTIONS

TYPE SHALL BE SPECIFIED ON PROJECT PLANS



SLIP BASE ASSEMBLY (BREAKAWAY)

TOP VIEW OF TRANSFORMER BASE (RECOMMENDED BREAKAWAY FEATURE)



3) FOR BREAKAWAY DESIGN A TRANSFORMER BASE, BREAKAWAY COUPLINGS, SLIP BASE OR OTHER APPROVED METHOD SHALL BE INSTALLED BETWEEN THE ANCHOR BASE AND THE CONCRETE BASE.

CONCRETE BASE AND GENERAL NOTES

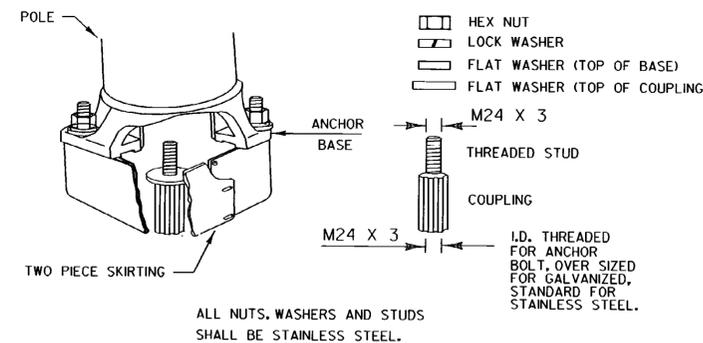
1. ALL CONCRETE BASES TO BE CONCRETE, CLASS B, AND SHALL HAVE A SMOOTH LEVEL TOP SURFACE FINISHED WITH A 15-mm RADIUS EDGING TOOL.
2. ALL REINFORCING STEEL TO CONFORM TO THE REQUIREMENTS FOR "REINFORCING STEEL."
3. TEMPLATE FOR ANCHOR BOLTS, STAINLESS STEEL ANCHOR BOLTS, NUTS AND WASHERS TO BE OBTAINED BY CONTRACTOR PRIOR TO CONSTRUCTION OF BASES.
4. SCORE TOP OF CONCRETE BASE TO SHOW LOCATION OF CONDUIT(S).
5. CONDUIT SIZE - AS SHOWN ON THE PLANS.
6. ALL EXPOSED METAL HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL.
7. IF THE ELECTRICAL CONDUIT IN THE CONCRETE BASE IS GALVANIZED STEEL, GROUNDING BUSHINGS SHALL BE USED.
8. THE MINIMUM RADIUS FOR RIGID METALLIC OR NON-METALLIC ELECTRICAL CONDUIT SHALL BE SIX TIMES THE INSIDE DIAMETER OF THE CONDUIT.
9. SEE STANDARD SHEET E-173M FOR PULL BOX DETAIL.
10. ANY BREAKAWAY FEATURE WHICH HAS BEEN APPROVED FOR USE ON FEDERAL AID HIGHWAY PROJECTS AND MEET THE AASHTO REQUIREMENTS FOR BREAKAWAY FEATURES MAY BE USED UNLESS A SPECIFIC TYPE IS STATED ON THE PLANS.

GUARDRAIL DEFLECTION CHART PER AASHTO - ROADSIDE DESIGN GUIDE 1988

TYPE	GR POST SPACING	DEFLECTION
THREE CABLE W/STEEL POSTS	5.0 m	3.5 m
W-BEAM	W/WEAK POST	3.8 m
	W/STRONG POST	1.9 m
BOX BEAM	1.83 m	1.5 m
THREE BEAM	W/WEAK POST	3.8 m
	W/STRONG POST	1.9 m

THIS CHART LISTS THE THEORETICAL DEFLECTION DISTANCE UPON IMPACT OF VARIOUS GUARDRAIL WITH DIFFERENT TYPES AND SPACINGS OF POSTS.

STAINLESS STEEL BREAKAWAY SUPPORT COUPLINGS



OTHER STDS. E-173M E-181M
REQUIRED: E-180AM

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS

JUNE 13, 1997 - ORIGINAL APPROVAL DATE

APPROVED

[Signature]
DIRECTOR OF ENGINEERING
[Signature]
DIRECTOR OF CONSTRUCTION AND MAINTENANCE

STREET LIGHTING DETAILS



Metric STANDARD E-180BM