

BASE DETAIL

**SECTION A-A
ARM DETAILS**

EQUIPMENT LIST			
I	QTY	DESCRIPTION	MATERIAL
001	1	CANTILEVER SHAFT 247 A/F TO 220 A/F x 8mm TH.	G40.21-300W
002	1	CANTILEVER ARM 220 A/F TO 150 A/F x "t"mm TH. \bar{r}	G40.21-300W
003	1	BASE PLATE 352 SQUARE x 38mm TH.	G40.21-300W
004	1	POLE FLANGE 400 x 325 x 32mm TH.	G40.21-300W
005	1	ARM FLANGE 400 x 325 x 32mm TH.	G40.21-300W
006	1	TOP PLATE 244 x 236 x 19mm TH.	G40.21-300W
007	2	SIDE PLATE 124 x 325 x 13mm TH.	G40.21-300W
008	1	GUSSET PLATE 237 x 95 x 13mm TH.	G40.21-300W
009	1	CONDUCTOR SUPPORT LOOP	G40.21-300W
010	1	HAND HOLE RING 127 x 305 x 9.5mm TH.	G40.21-300W
011	1	HAND HOLE RING 127 x 305 x 6.35mm TH.	G40.21-300W
012	1	BOLT 9.5 ϕ x 38mm LONG	S.S.
013	6	BOLT 25 ϕ x 127mm LONG, C/W 2 NUTS & 2 WASHERS	GR.5 GALV.

NOTES

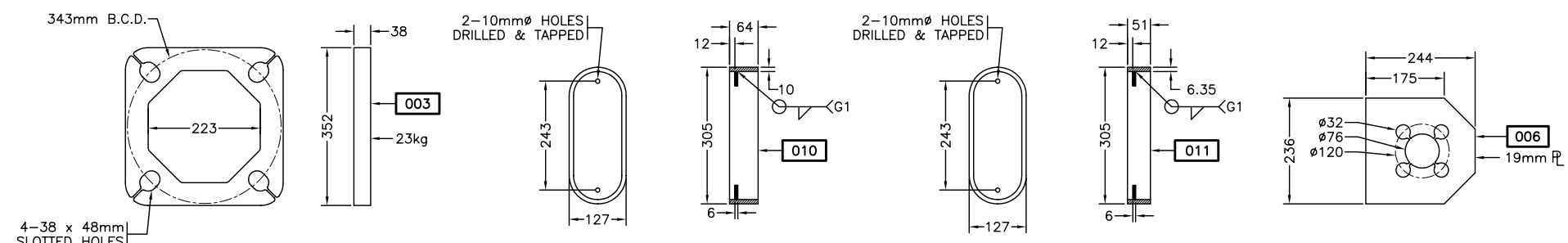
- ALL WELDING PER CSA W59 1984.
- ALL STEEL INCLUDING FASTENERS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO CSA G164M 1981.
- TORQUE BOLTS & NUTS USING THE TURN-OF-NUT TIGHTENING METHOD. BRING ALL BOLTS AND NUTS IN THE JOINT TO A "SNUG-TIGHT" CONDITION. "SNUG-TIGHT" IS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING A SPUD WRENCH. WHEN ALL BOLTS IN THE JOINT ARE "SNUG-TIGHT", EACH BOLT IN THE JOINT SHALL BE TIGHTENED ADDITIONALLY BY ROTATING THE BOLT OR NUT 1/3 TURN \pm 30 DEGREES.

DESIGN CRITERIA

- DESIGN STANDARD - AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
- LOCATION - SURREY, B.C.
- WIND PRESSURE - 450Pa FOR 30 YEAR RETURN PERIOD. WIND GUST EFFECT FACTOR OF 2.5
- ICE ACCRETION - 31mm THICKNESS or 0.304kN/m² (HEAVY)
- SEISMIC ZONE - 4 (AS PER N.B.C.)
- SEISMIC ZONAL VELOCITY RATIO - 0.2 (THE EQUIVALENT Q = 0.18 x TOTAL STRUCTURE DEAD LOAD ACTING AT C.G.)

BASE REACTION FORCES (UNFACTORED)

- (0.5m ARM WITH 1 - 4 HEAD SIGNAL, 1-3 HEAD SIGNAL AND 1 - 0.36m² S/N SIGN)
- | | |
|------------------------------|-------------------------------------|
| F _x SHEAR - 2kN | M _x OVERTURNING - 72kN/m |
| F _y AXIAL - 8.8kN | M _y TORSION - 38kN/m |
| F _z SHEAR - 10kN | M _z OVERTURNING - 35kN/m |

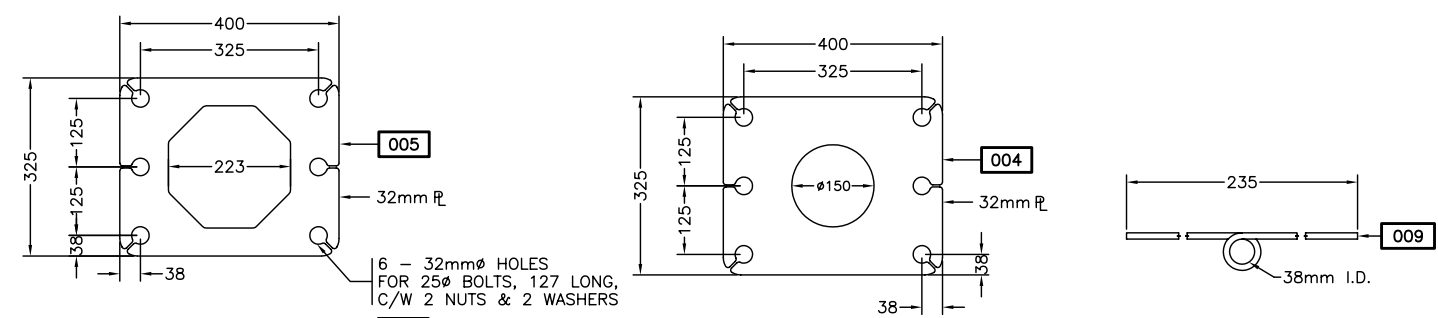


BASE PLATE

LOWER HAND HOLE AND COVER

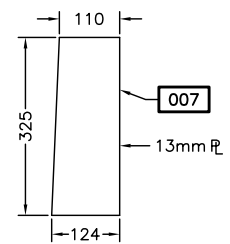
UPPER HAND HOLE AND COVER

TOP FLANGE

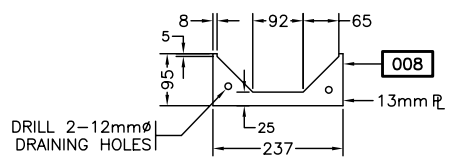


ARM FLANGES

CONDUCTOR SUPPORT



SIDE PLATE



BOTTOM PLATE

ARM LENGTH "L" (mm)	ARM PLATE THICKNESS "t" (mm)
5000	3.00
5500	
6000	
7000	
7500	4.76
8000	
8500	
9000	
9500	6.35
10000	
10500	
11000	

No.	Description	Date	TYPE S SHAFT, ARMS AND EXTENSIONS FLANGE AND DESIGN DETAILS
J			
I			
H			
G			
F			
E			
D			
C			
B			
A	NEW DRAWING	DEC03	GENERAL ASSEMBLY
REVISION			BRITISH COLUMBIA
			Ministry of Transportation and Highways
			Drawing No. MS321.2