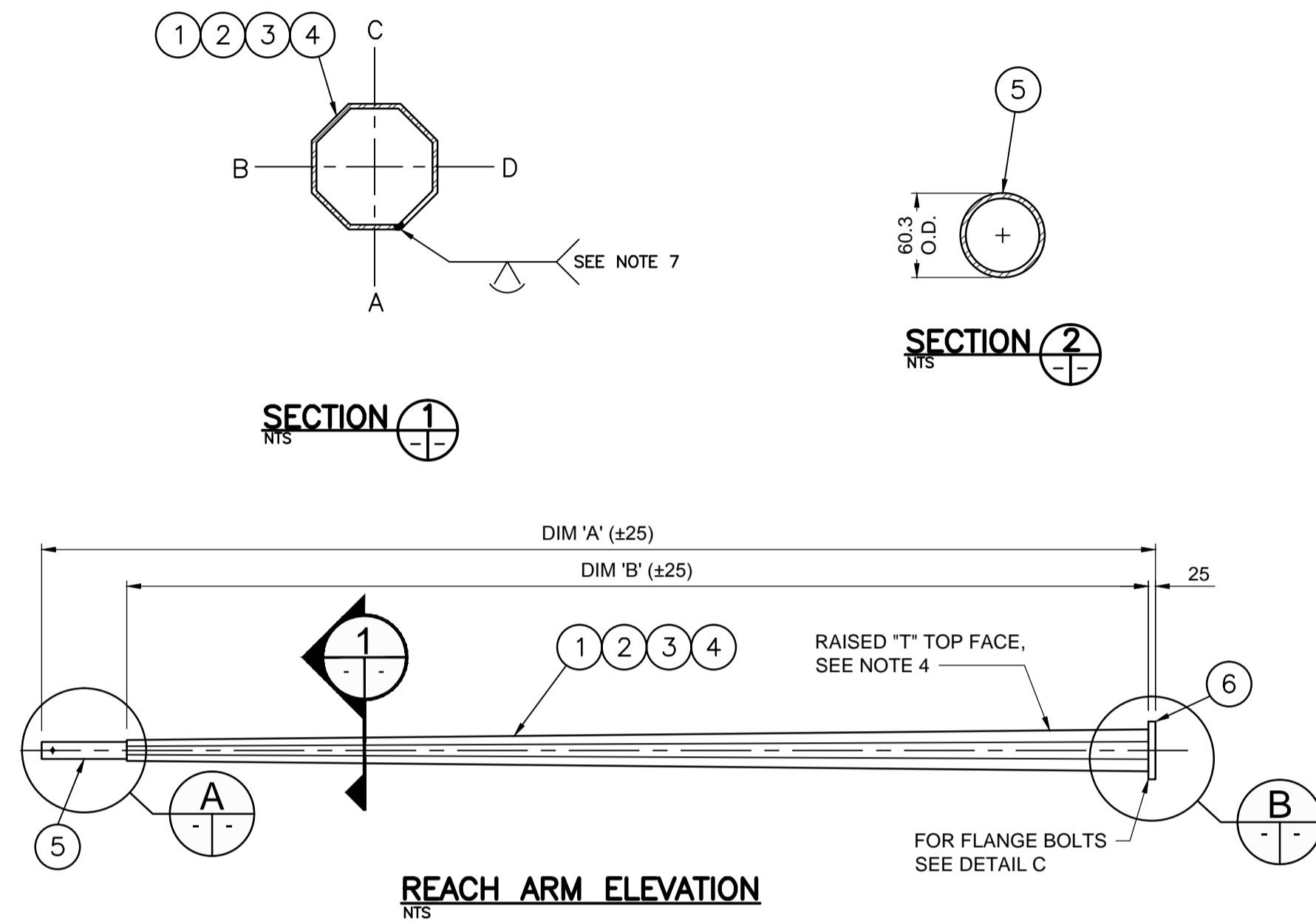
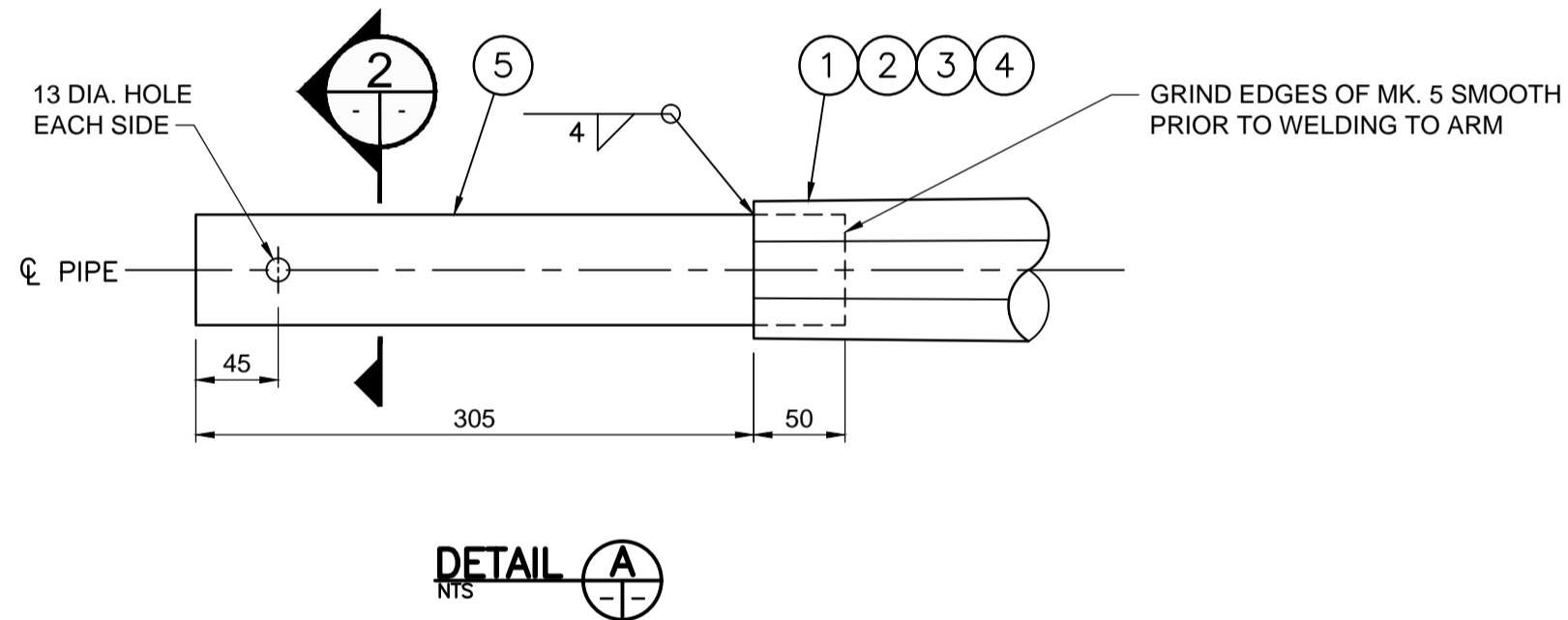


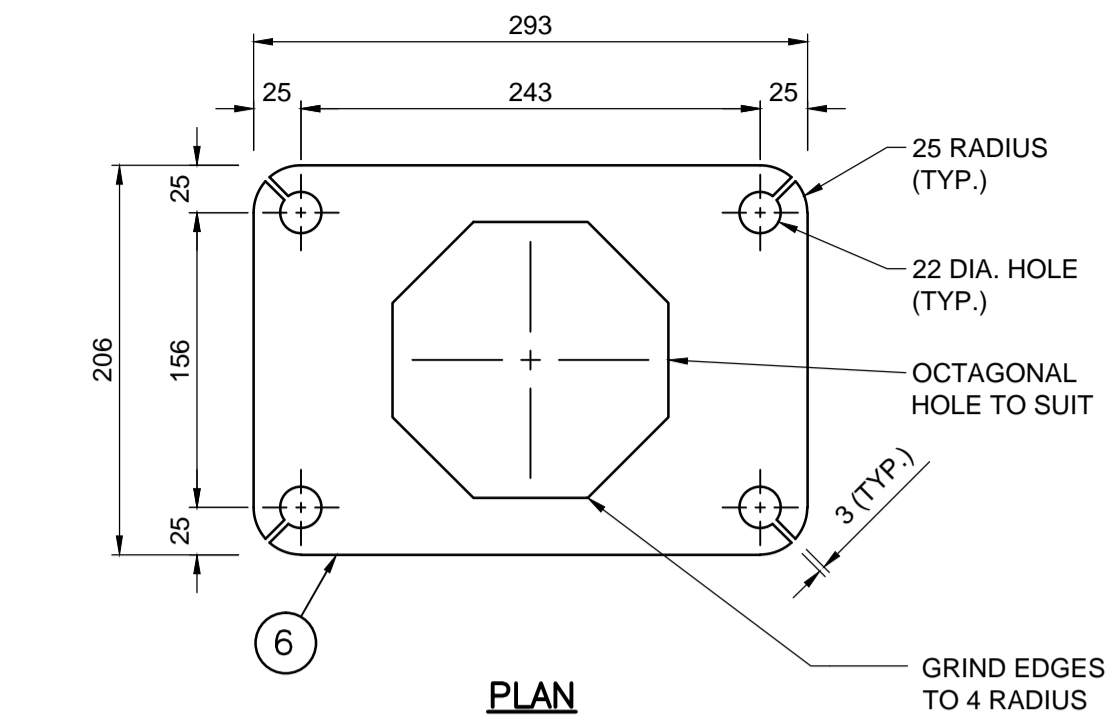
STRUCTURE TYPE CODE	DESCRIPTION	DIM. 'A'	DIM. 'B'
4	4' SIGNAL ARM	1415	1085
8	8' SIGNAL ARM	2633	2303
12	12' SIGNAL ARM	3853	3523
16	16' SIGNAL ARM	5072	4742



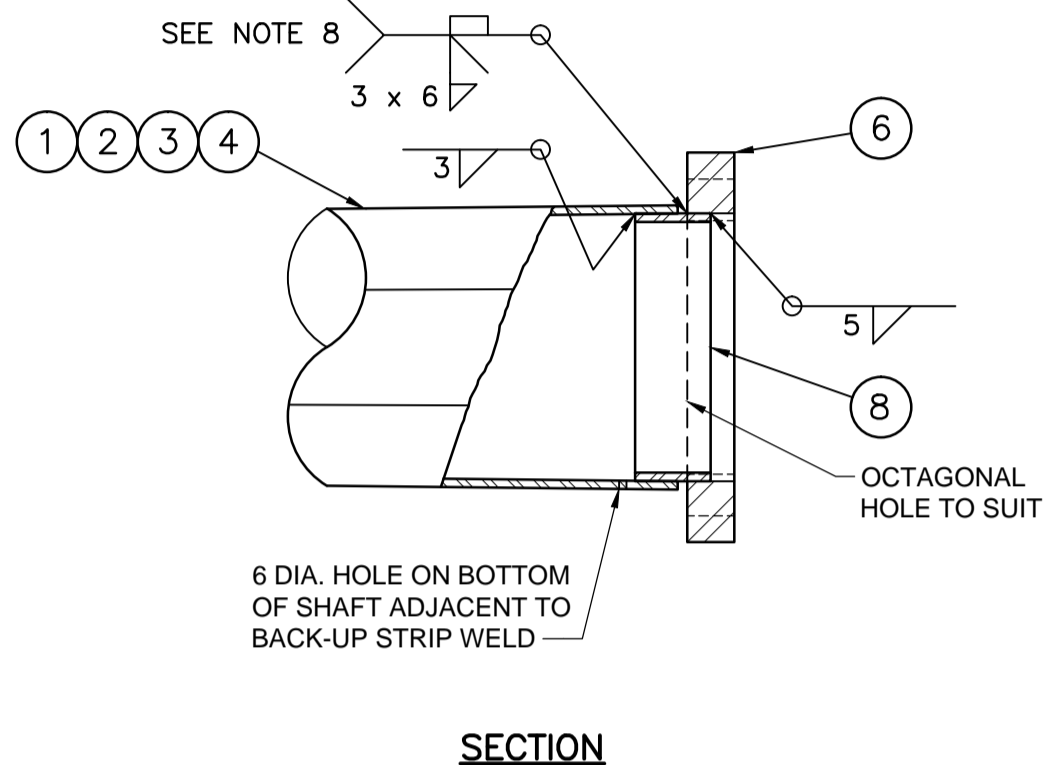
REACH ARM ELEVATION
NTS



DETAIL A
NTS

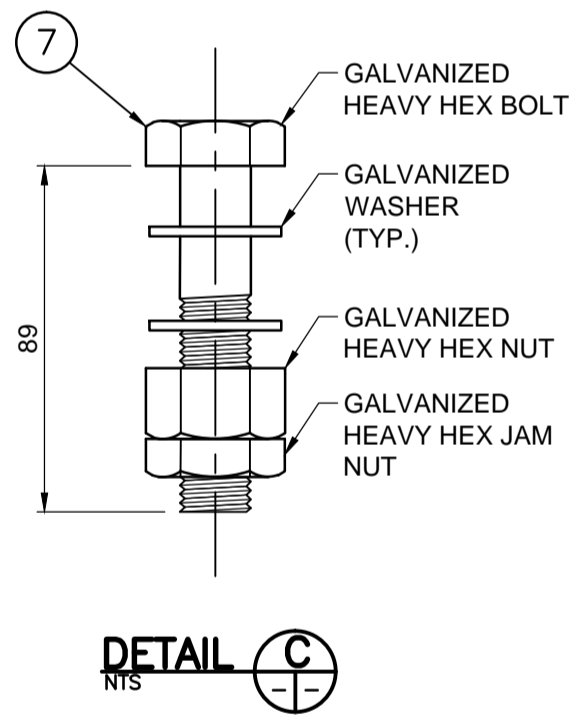


PLAN



SECTION

DETAIL B
NTS



DETAIL C
NTS

BILL OF MATERIALS

MK. NO.	QTY. REQ'D.	DESCRIPTION	SIZE	MATERIAL	REMARKS	LINE NO.
1.220 m (4') SIGNAL ARM - 4						
1	1	OCTAGONAL SECTION SHAFT	114 A/F - 73 A/F x 3.038	CSA G40.21 350W		2
5	1	PIPE TENON	60.3 O.D. x 3.91 x 355	ASTM A53 GR. B SCH. 40		3
6	1	FLANGE PLATE	25 x 206 x 293	CSA G40.21 300W		4
7	4	FLANGE BOLTS	19 (3/4") DIA. x 89	ASTM A325	SEE DETAIL C	5
8	1	BACK-UP STRIP PLATE	4.554 x 40	CSA G40.21 350W		6
2.438 m (8') SIGNAL ARM - 8						
2	1	OCTAGONAL SECTION SHAFT	114 A/F - 73 A/F x 3.038	CSA G40.21 350W		9
5	1	PIPE TENON	60.3 O.D. x 3.91 x 355	ASTM A53 GR. B SCH. 40		10
6	1	FLANGE PLATE	25 x 206 x 293	CSA G40.21 300W		11
7	4	FLANGE BOLTS	19 (3/4") DIA. x 89	ASTM A325	SEE DETAIL C	12
8	1	BACK-UP STRIP PLATE	4.554 x 40	CSA G40.21 350W		13
3.658 m (12') SIGNAL ARM - 12						
3	1	OCTAGONAL SECTION SHAFT	133 A/F - 73 A/F x 3.038	CSA G40.21 350W		16
5	1	PIPE TENON	60.3 O.D. x 3.91 x 355	ASTM A53 GR. B SCH. 40		17
6	1	FLANGE PLATE	25 x 206 x 293	CSA G40.21 300W		18
7	4	FLANGE BOLTS	19 (3/4") DIA. x 89	ASTM A325	SEE DETAIL C	19
8	1	BACK-UP STRIP PLATE	4.554 x 40	CSA G40.21 350W		20
4.877 m (16') SIGNAL ARM - 16						
4	1	OCTAGONAL SECTION SHAFT	146 A/F - 73 A/F x 3.038	CSA G40.21 350W		23
5	1	PIPE TENON	60.3 O.D. x 3.91 x 355	ASTM A53 GR. B SCH. 40		24
6	1	FLANGE PLATE	25 x 206 x 293	CSA G40.21 300W		25
7	4	FLANGE BOLTS	19 (3/4") DIA. x 89	ASTM A325	SEE DETAIL C	26
8	1	BACK-UP STRIP PLATE	4.554 x 40	CSA G40.21 350W		27
APPROXIMATE TOTAL MASS:						
						4' ARM - 20 kg
						8' ARM - 30 kg
						12' ARM - 40 kg
						16' ARM - 52 kg

- NOTES:**
- ALL MATERIALS, EXCEPT STAINLESS STEEL ITEMS, SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123-09 (PLUS LATEST REVISIONS) WITH NET RETENTION OF 610 g/m².
 - PROVIDE RAISED IDENTIFICATION NUMBER WITH WELDING ELECTRODE AS PER SPECIFICATION, STRUCTURE TYPE CODE INDICATED IN TABLE THIS DRAWING.
 - SHIP WITH BOLTS C/W NUTS AND WASHERS IN FLANGE.
 - PROVIDE RAISED 'T' ON TOP OF ARM NEAR FLANGE PLATE USING WELDING ELECTRODE.
 - GRIND ALL SHARP POINTS AND EDGES.
 - TO BE USED WITH LIGHT AND MEDIUM DUTY SHAFTS.
 - LONGITUDINAL SEAM WELD SHALL HAVE 60% MINIMUM PENETRATION EXCEPT WITHIN 150 mm OF FLANGE PLATE SHALL BE COMPLETE PENETRATION.
 - EXTERIOR WELD JOINING ARM SHAFT TO FLANGE PLATE SHALL BE AN UNEQUAL LEG COMPLETE PENETRATION WELD WITH THE LONG LEG OF THE WELD ALONG THE ARM, TERMINATING AT 30° FROM THE ARM'S SURFACE.

G:\CAD\138489\09-Structural\01-Contract\4' ARM.dwg

APEGM
Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date: OCT. 10, 2014

REDUCED DRAWING
N.T.S.

NO.	REVISIONS	DATE	BY	DATE
4	ISSUED BY DILLON CONSULTING	10/10/14	CDW	
3	REVISED BY DILLON CONSULTING	1/10/14	CDW	
2	REVISED BY DILLON CONSULTING	7/25/13	CDW	
1	ISSUED BY DILLON CONSULTING	1/14/13	CDW	

B.M. ELEV.	DESIGNED BY CDW
	DRAWN BY JGW
	CHECKED BY SSR
	APPROVED BY -
	HOR. SCALE NTS
	VERTICAL NTS
	DATE

DILLON CONSULTING

RELEASED FOR CONSTRUCTION

DATE

ENGINEER'S SEAL

PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
C.D.
WARD
OCT. 10, 2014
Member
24456

CONSULTANT PROJECT NUMBER
12-5954

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

Winnipeg

4', 8', 12', 16' TRAFFIC SIGNAL & PEDESTRIAN CORRIDOR ARMS

CITY DRAWING NUMBER
N/A

SHEET 8 OF 17

CONSULTANT DRAWING NUMBER
N/A