

NOTES:

- BOLTS LENGTHS ARE NOMINAL ONLY AND WILL VARY WITH POLE CLASS.
- REFER TO JOB SPECIFICATION FOR DETAILS AS TO WHICH OF ITEMS NAMED "AGS", "DAMPER", "ARMOUR ROD" & "CLAMPS SUSP" SHALL BE USED.

\* ONLY IF REQUIRED  
 \*\* USE BRACKETED FIGURE FOR 138 kV

◆ QUANTITY DEPENDS OF THE POLE HEIGHT

HARDWARE:

- HEXAGONAL BOLTS AND NUTS ARE ACCORDING TO ASTM A394.
- PLAIN WASHERS ARE ACCORDING TO ANSI STANDARD B18.22.1/B18.22M.
- LOCKWASHERS ARE ACCORDING TO ANSI/ASME B18.21.1 HELICAL TYPE, REGULAR SERIES

ITEM #	CODE #	UNIT	DESCRIPTION	RAVEN	PIGEON	PENGUIN	PARTRIDGE	LINNET	HAWK	GROSBEAK	DRAKE
1009	11923	EA	CROSS BRACE KIT - L 102x102x7.9	1	1	1	1	1	1		
1010	11924	EA	CROSS BRACE KIT - L 102x102x9.5							1	1
1111	12944	EA	CROSS ARM KIT - HSS 152x152x4.8	1	1	1	1	1	1		
1112	12945	EA	CROSS ARM KIT - HSS 178x178x6.4							1	1
2001	20330	EA	AGS UNIT FOR 3/0 ACSR PIGEON C/W SOCKET EYE		3						
2002	20352	EA	AGS UNIT FOR ACSR PARTRIDGE C/W SOCKET EYE				3				
2003	20353	EA	AGS UNIT FOR ACSR LINNET C/W SOCKET EYE					3			
2004	20354	EA	AGS UNIT - HAWK - C/W SOCKET TONGUE						3		
2006	20356	EA	AGS UNIT - GROSBEAK - C/W SOCKET TONGUE							3	
2007	20357	EA	AGS UNIT - DRAKE C/W SOCKET EYE								3
2048	11312	EA	BOLT - MACHINE - 5/8" x12" - WITH NUT - GALV. - FOR CLASS 3 OR 4 POLE	4	4	4	4	4	4	4	4
2049	11314	EA	BOLT - MACHINE - 5/8" x14" - WITH NUT - GALV. - FOR CLASS 1 OR 2 POLE	4	4	4	4	4	4	4	4
2060	11414	EA	BOLT - MACHINE - 3/4" x14" - WITH NUT - GALV. - FOR CLASS 3 OR 4 POLE	6	6	6	6	6	6	6	6
2061	11416	EA	BOLT - MACHINE - 3/4" x16" - WITH NUT - GALV. - FOR CLASS 1 OR 2 POLE	6	6	6	6	6	6	6	6
2061	11416	EA	BOLT - MACHINE - 3/4" x16" - WITH NUT - GALV. - FOR CLASS 3 OR 4 POLE	4	4	4	4	4	4	4	4
2062	11418	EA	BOLT - MACHINE - 3/4" x18" - WITH NUT - GALV. - FOR CLASS 1 OR 2 POLE	4	4	4	4	4	4	4	4
2070	11460	EA	BOLT - MACHINE - 7/8" x20" - WITH NUT - GALV. - FOR CLASS 3 OR 4 POLE	2	2	2	2	2	2		
2071	11462	EA	BOLT - MACHINE - 7/8" x22" - WITH NUT - GALV. - FOR CLASS 1 OR 2 POLE	2	2	2	2	2	2		
2071	11462	EA	BOLT - MACHINE - 7/8" x22" - WITH NUT - GALV. - FOR CLASS 3 OR 4 POLE							2	2
2072	11464	EA	BOLT - MACHINE - 7/8" x24" - WITH NUT - GALV. - FOR CLASS 1 OR 2 POLE							2	2
2132	20236	EA	BRACKET - SHIELD WIRE - CLAMP TOP	2	2	2	2	2	2	2	2
2167	20250	EA	CLAMP - GROUND ROD - 3/4" - GALV.	2	2	2	2	2	2	2	2
2175	20106	EA	SUSPENSION CLAMP - ALUMINIUM - RAVEN & PENGUIN C/W SOCKET EYE	3		3					
2228	21530	EA	DAMPER-STOCKBRIDGE- PIGEON & PENGUIN		6	6					
2229	21550	EA	DAMPER-STOCKBRIDGE- PARTRIDGE				6				
2230	21580	EA	DAMPER-STOCKBRIDGE- LINNET & HAWK					6	6		
2231	21586	EA	DAMPER-STOCKBRIDGE- GROSBEAK							6	
2232	21595	EA	DAMPER-STOCKBRIDGE- DRAKE								6
2302	13204	EA	FITTING - BALL EYE - 15000# - TYPE B	3	3	3	3	3	3	3	3
2331	13294	EA	GRID GAIN - 5" x 6" - 15/16"	2	2	2	2	2	2	2	2
2454	15034	EA	NUT - LOCK - 3/4" - GALV. - SQUARE	10	10	10	10	10	10	10	10
2456	15058	EA	NUT - LOCK - 5/8" - GALV. SQUARE	4	4	4	4	4	4	4	4
2457	15060	EA	NUT - LOCK - 7/8" - GALV. - SQUARE	2	2	2	2	2	2	2	2
2458	14910	EA	NUT - SQUARE - 5/8" - GALV.	2	2	2	2	2	2	2	2
2482	15670	EA	PLATE POLE MOUNT UPLIFT FOR H STRUCTURE	2	2	2	2	2	2	2	2
2552	17812	EA	LAG SCREW - 1/2" x4 1/2" - GALV.	4	4	4	4	4	4	4	4
2602	18503	10 LBS.	STAPLE - FISHHOOK TYPE - 2" - GALV.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
2630	11524	EA	BOLT - U - 5/8" x14" - GALV. WITH 4 NUTS - WITHOUT WASHER							3	3
2642	11520	EA	BOLT - U - 5/8" x10" - GALV. WITH 4 NUTS - WITHOUT WASHER	3	3	3	3	3	3		
2655	19396	EA	WASHER - CURVED - 3" x 3" - 13/16" HOLE	10	10	10	10	10	10	10	10
2656	19397	EA	WASHER - CURVED - 4" x 4" - 1" HOLE	10	10	10	10	10	10	10	10
2669	19327	EA	WASHER - LOCK - 5/8" - DOUBLE COIL SPRING	4	4	4	4	4	4	4	4
2670	19328	EA	WASHER - LOCK - 3/4" - DOUBLE COIL SPRING	10	10	10	10	10	10	10	10
2671	19329	EA	WASHER - LOCK - 7/8" - DOUBLE COIL SPRING	2	2	2	2	2	2	2	2
2673	19333	EA	WASHER - ROUND - 1 3/4" O.D. - 11/16" HOLE	4	4	4	4	4	4	4	4
2676	19340	EA	WASHER SQUARE - 2" x 2" - 11/16" HOLE	6	6	6	6	6	6	6	6
2677	19342	EA	WASHER - SQUARE - 2 1/4" x 2 1/4" - 13/16" HOLE	2	2	2	2	2	2	2	2
2682	19394	EA	WASHER - CURVED - 2 1/4" x 2 1/4" - 11/16" HOLE	4	4	4	4	4	4	4	4
2683	19346	EA	WASHER SQUARE - 4" x 4" - 15/16" HOLE	2	2	2	2	2	2	2	2
3502	22218	EA	INSULATORS - SUSP. 70 kN - BALL & SOCKET	15(21)**	15(21)**	15(21)**	15(21)**	15(21)**	15(21)**	15(21)**	15(21)**
6026	39107	EA	CONCRETE PAD - .7m O.D. x .25m THK.	2*	2*	2*	2*	2*	2*	2*	2*
6027	39112	EA	CONCRETE PAD - 1.22m O.D. x .25m THK.	2*	2*	2*	2*	2*	2*	2*	2*
6227	21001	EA	COUPLING - SECTIONAL GROUND ROD - GALV. - 3/4" ROD	2	2	2	2	2	2	2	2
6231	26021	EA	ROD - GROUND SECTIONAL - GALV. - 3/4" x10'	4	4	4	4	4	4	4	4
6233	28304	METER	WIRE COPPER - #4/7 - STRANDED	38	38	38	38	38	38	38	38
6244	51206	EA	CONNECTOR - COPPER - YC4C4 CRIMPIT	8	8	8	8	8	8	8	8
7101	25716	SET	ARMOUR ROD - PREFORMED FOR 5/16" GUY STEEL	2	2	2	2	2	2	2	2
7102	25810	EA	ARMOUR-ROD RAVEN 47" PREFORM GALV. STEEL	3							
7114	25940	EA	ARMOUR ROD - PENGUIN			3					
7210	50927	EA	CONNECTOR - KEARNY - ALUMINIUM CRIMPIT	2	2	2	2	2	2	2	2
9153	17902	EA	SEAL - CRIMP - GALV. - 2" STRAPPING - 4.5" LONG.	4	4	4	4	4	4	4	4
9155	10325	EA	STRAPPING STEEL - 2" WIDE x .050" THICK	2	2	2	2	2	2	2	2

APPROVED FOR CONSTRUCTION

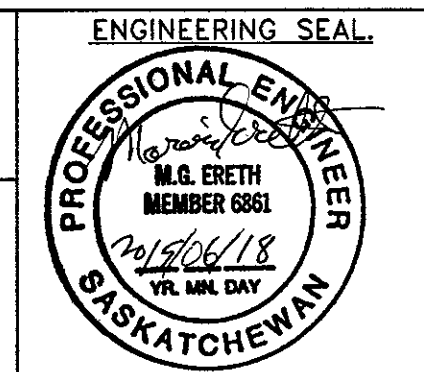
AutoCAD

**D** DESIGNED BY J.LI  
 DRAWN BY E.GOTANA  
 APPR'D BY M.ERETH  
 SEALED BY M.ERETH  
 DATE (Y-M-D) 2015-06-16

**C** DESIGNED BY J.LI  
 DRAWN BY A.GATZKE  
 APPR'D BY M.ERETH  
 SEALED BY M.ERETH  
 DATE (Y-M-D) 2014-08-25

**B** DESIGNED BY J. MENARD (CIMA+)  
 DRAWN BY J. SAVOIE  
 APPR'D BY K. OLECHNOWICZ  
 SEALED BY K. OLECHNOWICZ  
 DATE (Y-M-D) 2014-08-25

**A** DESIGNED BY J. MENARD (CIMA+)  
 DRAWN BY J. SAVOIE  
 APPR'D BY K. OLECHNOWICZ  
 SEALED BY K. OLECHNOWICZ  
 DATE (Y-M-D) 2014-08-12



**DRAFTING DEPT.**  
 DRAWN BY J. SAVOIE  
 CHECKED BY  
 DATE (Y-M-D) 2013-11-22

**DESIGN DEPT.**  
 DESIGNED BY J. MENARD (CIMA+)  
 CHECKED BY K. OLECHNOWICZ  
 APPROVED BY K. OLECHNOWICZ  
 SEALED BY K. OLECHNOWICZ  
 DATE (Y-M-D) 2013-11-22

**SaskPower** INTERNAL USE ONLY  
 72/138 kV  
 STEEL CROSSARM AND CROSS BRACE  
 TANGENT STRUCTURE (0°-2°)  
 MATERIAL LIST  
 ASSEMBLY

AUTOCAD SOURCE FILENAME:  
 D14\_902\_2SW\_03.DWG  
 PLOT DATE: 2015-06-17 PAPER: C  
 PLOT TIME: 9:16 AM  
 PLOTTED BY: JLI  
 SCALE: 1:50 (U.O.S.)  
 DRAWING No.  
**D14**  
**902-2SW**  
 SHEET 3 OF 15 REV. D