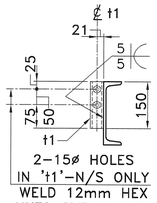
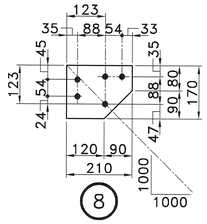


1 AS SHOWN
2 OPP. HAND
WELDED ASS'Y
SCALE 1:10

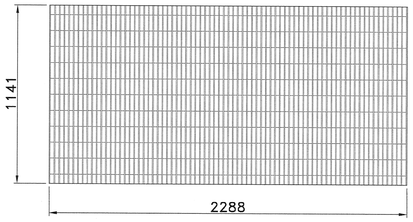


S6 - AS SHOWN
S7 - OPP HAND

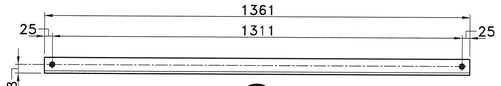
SCALE 1:10



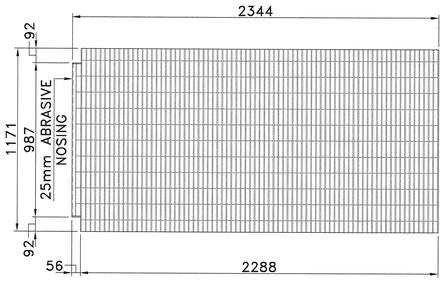
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SCALE 1:10



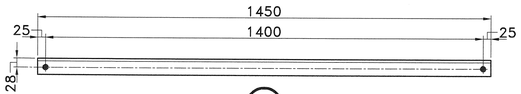
22
SCALE 1:20



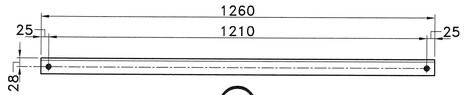
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SCALE 1:10



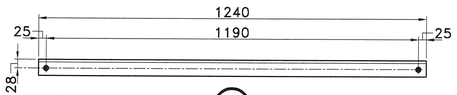
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SCALE 1:20



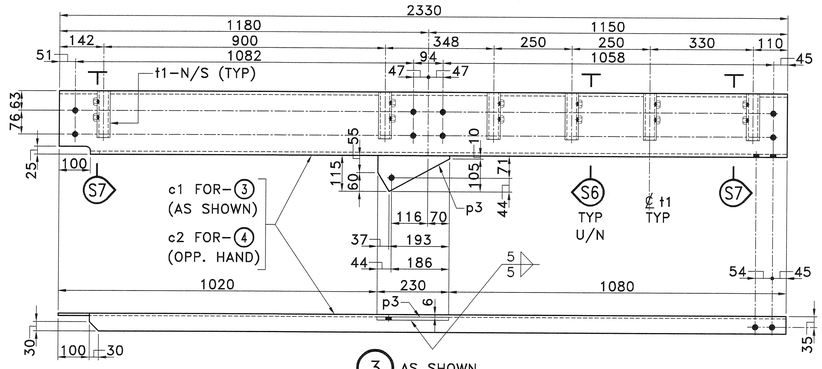
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SCALE 1:10



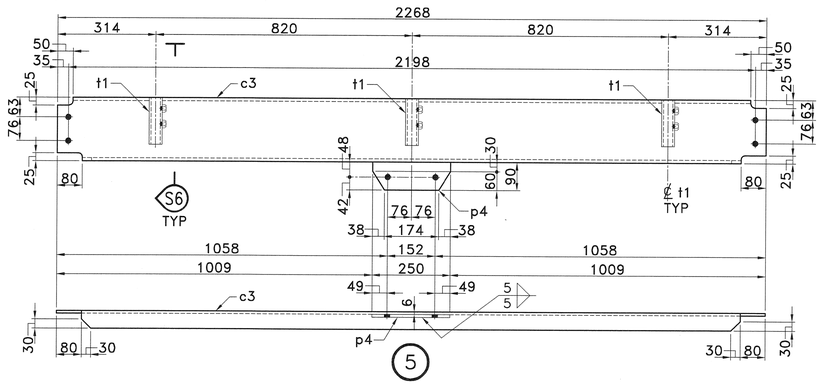
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SCALE 1:10



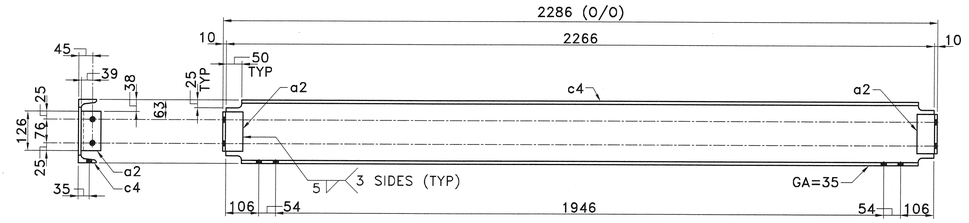
12
SCALE 1:10



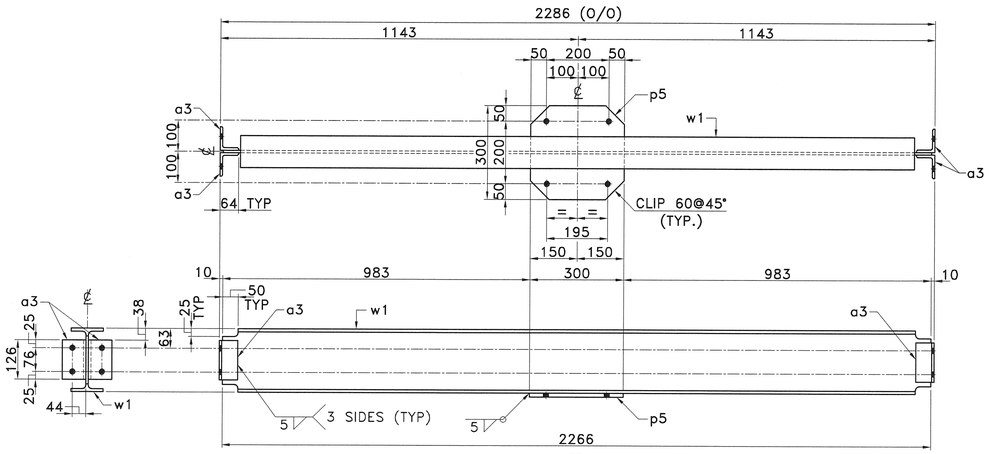
3 AS SHOWN
4 OPP. HAND
WELDED ASS'Y
SCALE 1:10



5
WELDED ASS'Y
SCALE 1:10



6
WELDED ASS'Y
SCALE 1:10



7
WELDED ASS'Y
SCALE 1:10

BILL OF MATERIAL

MARK	No. REQ'D	DESCRIPTION	REMARKS	WT. kgs
①	1	1-a1-L76 X 76 X 7.9 X 940 LG. 1-p1-PL 10 X 210 X 210 LG. 1-p2-PL 10 X 105 X 110 LG.	WELDED ASS'Y	12.8
②	1	OPP. HAND TO ①	WELDED ASS'Y	12.8
③	1	1-c1-C200 X 17 X 2330 LG. 1-p3-PL 10 X 115 X 230 LG. 6-t1-NPS 1¼ SCH. 40 STD PIPE X 150 LG. C/W 12-HEX. NUTS FOR M12 X 1.75 SCREWS	WELDED ASS'Y	44.7
④	1	1-c2-C200 X 17 X 2330 LG. (OPP. HAND TO 'c1') 1-p3-PL 10 X 115 X 230 LG. 6-t1-NPS 1¼ SCH. 40 STD PIPE X 150 LG. C/W 12-HEX. NUTS FOR M12 X 1.75 SCREWS	WELDED ASS'Y (OPP. HAND TO ③)	44.7
⑤	1	1-c3-C200 X 17 X 2268 LG. 1-p4-PL 10 X 90 X 250 LG. 3-t1-NPS 1¼ SCH. 40 STD PIPE X 150 LG. C/W 6-HEX. NUTS FOR M12 X 1.75 SCREWS	WELDED ASS'Y	41.9
⑥	1	1-c3-C200 X 17 X 2266 LG. 2-a2-L64 X 64 X 6.4 X 126 LG.	WELDED ASS'Y	40.0
⑦	1	1-w1-W200 X 19 X 2266 LG. 4-a3-L76 X 64 X 6.4 X 126 LG. 1-p5-PL 10 X 300 X 300 LG.	WELDED ASS'Y	53.5
⑧	2	PL 10 X 170 X 210 LG.		5.6
⑨	2	L51 X 51 X 6.4 X 1361 LG.		12.9
⑩	2	L51 X 51 X 6.4 X 1450 LG.		13.8
⑪	2	L51 X 51 X 6.4 X 1260 LG.		12.0
⑫	2	L51 X 51 X 6.4 X 1240 LG.		11.8
	4	HILTI ANCHOR HSL M20 W/MIN. EMBEDMENT 130mm		
	12	⅝"ø BOLTS X 2" LG. C/W HEX. NUTS		
	32	⅝"ø BOLTS X 1¾" LG. C/W HEX. NUTS		
	36	LOCK WASHERS FOR ⅝"ø BOLTS		
	8	BEV. WASHERS FOR ⅝"ø BOLTS		
	26	M12x1.75 BOLTS X 25LG. (NO NUTS)		
		EST. WT. OF STEEL INCL. 3.5 % GALV.		= 317 kg

ALL BOLTS SHALL BE SUPPLIED BY STEEL MANUFACTURER
BOM FOR REFERENCE ONLY

GENERAL NOTES:

REFER TO DWG. F1731664-200-S005

REFERENCE DRAWINGS:

1. 115/ 13.8kV STATION
   STEEL KEY PLAN & LIST
   STRUCTURE F1731664-200-S001
2. 115/13.8kV STATION
   ELEVATIONS
   ELECTRICAL ARRANGEMENT F1731664-300-EA009
3. 115/13.8kV STATION
   MAIN GROUNDING GRID
   PLAN & DETAILS
   ELECTRICAL ARRANGEMENT F1731664-300-EA014

THIS DRAWING MUST BE READ IN CONJUNCTION WITH:
- F1731664-200-S010
- F1731664-200-S012

LEGEND:

T.O.C.: TOP OF CONCRETE
T.O.S.: TOP OF STEEL
L.L.V.: LONG LEG VERTICAL
INSUL.: INSULATOR

PROFESSIONALS:

N°	DATE	TRANSMISSION	BY ENG
00	2018/09/27	RELEASED FOR CONSTRUCTION	SYW

THE S.M. GROUP INTERNATIONAL INC.
6205B Airport rd, Suite 205, Mississauga (Ontario) L4V 1E3
Tel. : 905 677.9009 / Fax. : 905 677.9014
www.groupesm.com

STAMP:

LICENSED PROFESSIONAL ENGINEER
S.Y. WANG
100139367
2018/09/27
PROVINCE OF ONTARIO

CLIENT:

PROJECT:

MCMASTER UNIVERSITY-NF91

TITLE:
115/13.8kV AREA
STEEL STAIRS & PLATF. AT FRONT DR FOR E-HOUSE BLDG (1.0m ABOVE GRADE)
STEEL DETAILS, STRUCTURE

PREPARED BY: S.Y. WANG	DATE: 2018/09/27
DRAWN BY: D. LECONTE-CHEVALIER	SCALE: AS SHOWN
VERIFIED BY: Z.WANG	DISCIPLINE: STRUCTURE
APPROVED BY: S.Y.WANG	CAD FILE NAME: F1731664-200-S011.dwg

PROJECT No:	LOT:	DWG. #	REV:	PAGE:
F1731664	200	S011	00	