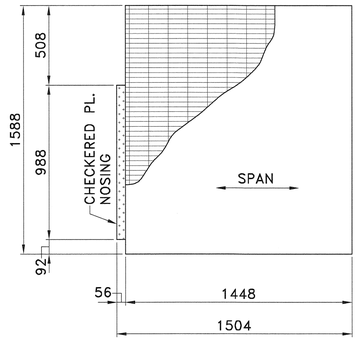
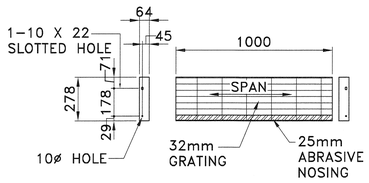
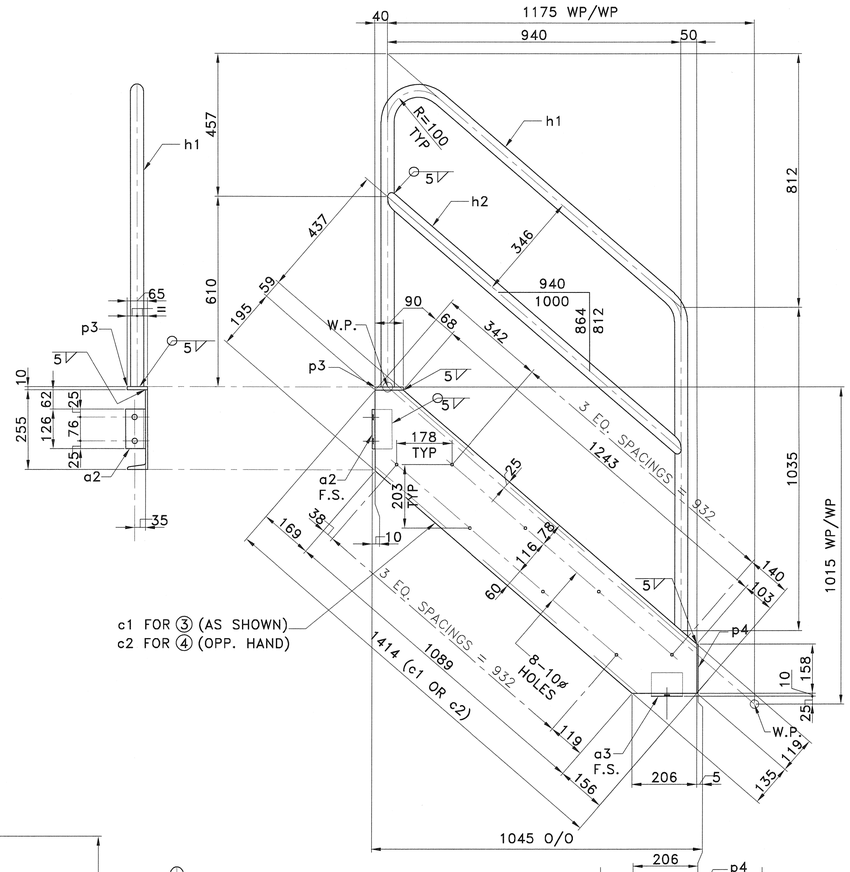


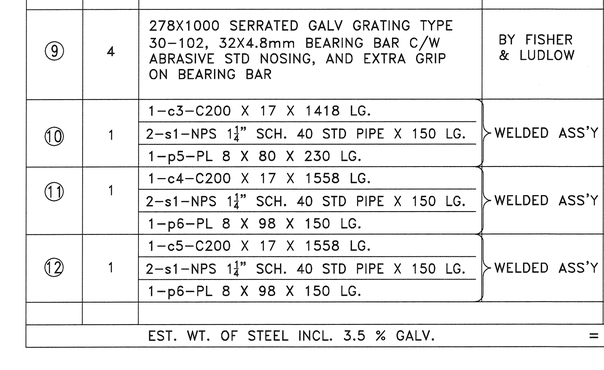
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SCALE: 1:20



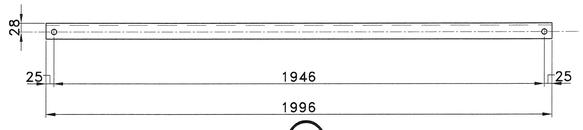
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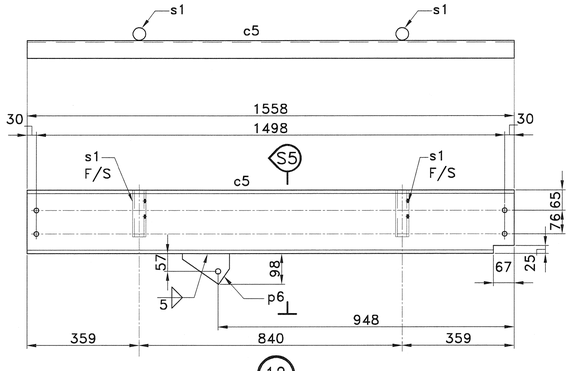
(4) WELDED ASS'Y
SCALE: 1:10



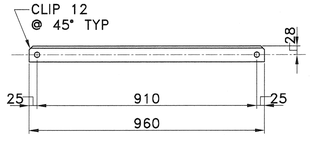
(3) WELDED ASS'Y
SCALE: 1:10



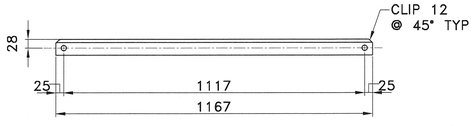
(5)
SCALE: 1:10



(12)
SCALE: 1:10



(6)
SCALE: 1:10



(7)
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 946 LG. 1-p1-PL 12 X 210 X 210 LG. 1-p2-PL 10 X 68 X 104 LG.	WELDED ASS'Y	13.2
②	1	1-a1-L76 X 76 X 7.9 X 946 LG. 1-p1-PL 12 X 210 X 210 LG.	WELDED ASS'Y	12.7
③	1	1-c1-C250 X 23 X 1414 LG. 1-a2-L64 X 64 X 6.4 X 126 LG. 1-a3-L76 X 76 X 6.4 X 100 LG. 1-p3-PL 10 X 65 X 94 LG. 1-p4-PL 5 X 65 X 161 LG. 1-ha1-NPS 1¼" SCH. 40 STD PIPE X 4560 LG. 1-h2-NPS 1¼" SCH. 40 STD PIPE X 1242 LG.	WELDED ASS'Y	71.3
④	1	1-c2-C250 X 23 X 1414 LG. (OPP. HAND TO c1) 1-a2-L64 X 64 X 6.4 X 126 LG. 1-a3-L76 X 76 X 6.4 X 100 LG. 1-p3-PL 10 X 65 X 94 LG. 1-p4-PL 5 X 65 X 158 LG. 1-h1-NPS 1¼" SCH. 40 STD PIPE X 3200 LG. 1-h2-NPS 1¼" SCH. 40 STD PIPE X 1242 LG.	WELDED ASS'Y OPP' HAND TO (3)	50.0
⑤	1	L51 X 51 X 6.4 X 1996 LG.		9.5
⑥	2	L51 X 51 X 6.4 X 960 LG.		9.1
⑦	2	L51 X 51 X 6.4 X 1167 LG.		11.1
⑧	1	1504X1588 SERRATED GALV GRATING TYPE 30-102, 32X4.8mm BEARING BAR C/W ABRASIVE STD NOSING, END PLATES AND EXTRA GRIP ON BEARING BAR	BY FISHER & LUDLOW	103.4
⑨	4	278X1000 SERRATED GALV GRATING TYPE 30-102, 32X4.8mm BEARING BAR C/W ABRASIVE STD NOSING, AND EXTRA GRIP ON BEARING BAR	BY FISHER & LUDLOW	48.1
⑩	1	1-c3-C200 X 17 X 1418 LG. 2-s1-NPS 1¼" SCH. 40 STD PIPE X 150 LG. 1-p5-PL 8 X 80 X 230 LG.	WELDED ASS'Y	26.3
⑪	1	1-c4-C200 X 17 X 1558 LG. 2-s1-NPS 1¼" SCH. 40 STD PIPE X 150 LG. 1-p6-PL 8 X 98 X 150 LG.	WELDED ASS'Y	28.7
⑫	1	1-c5-C200 X 17 X 1558 LG. 2-s1-NPS 1¼" SCH. 40 STD PIPE X 150 LG. 1-p6-PL 8 X 98 X 150 LG.	WELDED ASS'Y	28.7
		EST. WT. OF STEEL INCL. 3.5 % GALV.		= 429 kg

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-S007
- F1731664-200-S009

LEGEND:

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

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 PERSONAL 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 SYW	CAD FILE NAME : F1731664-200-S008.dwg

PROJECT No:	LOT:	DWG. #	REV:	PAGE :
F1731664	200	S008	00	

A1