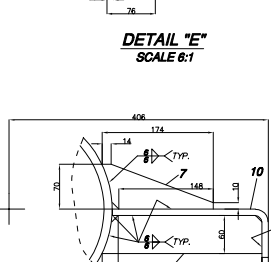
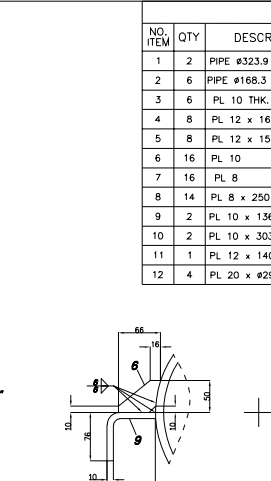
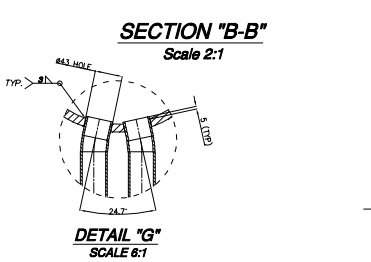
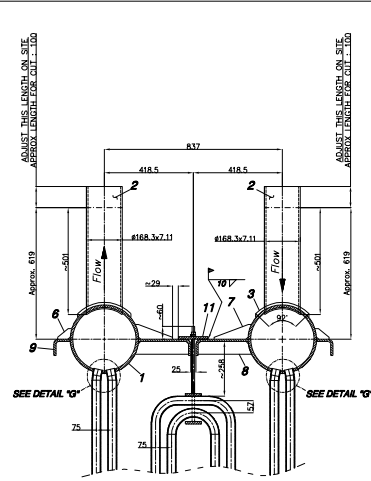
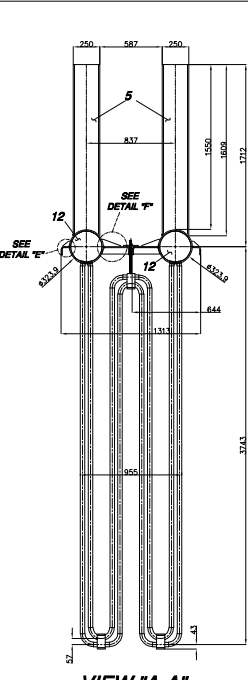
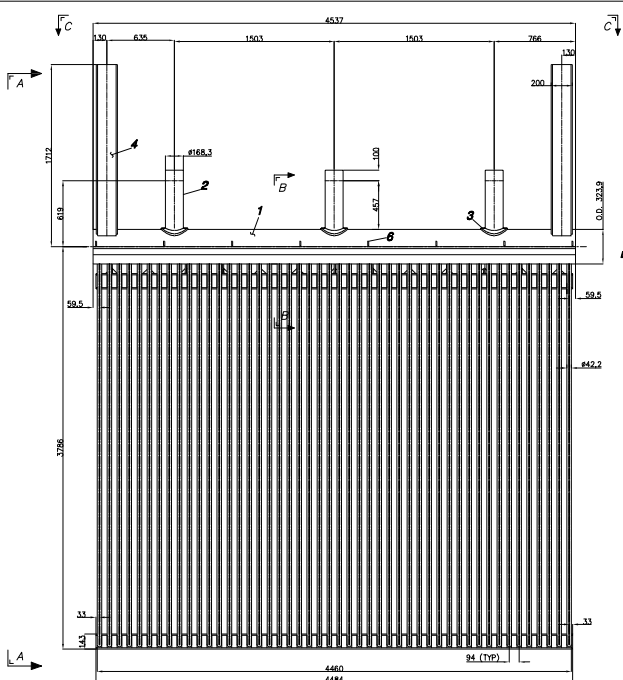
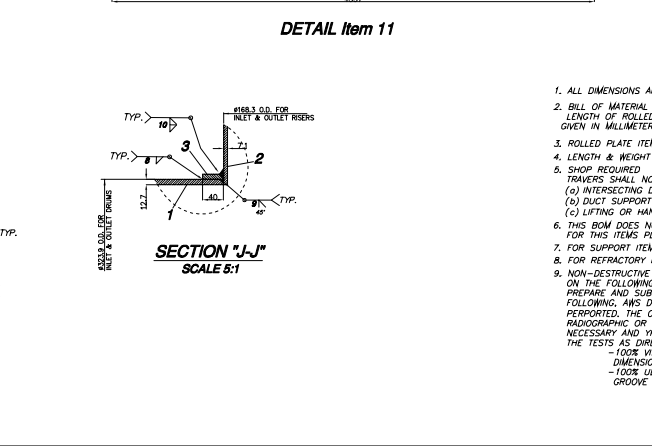
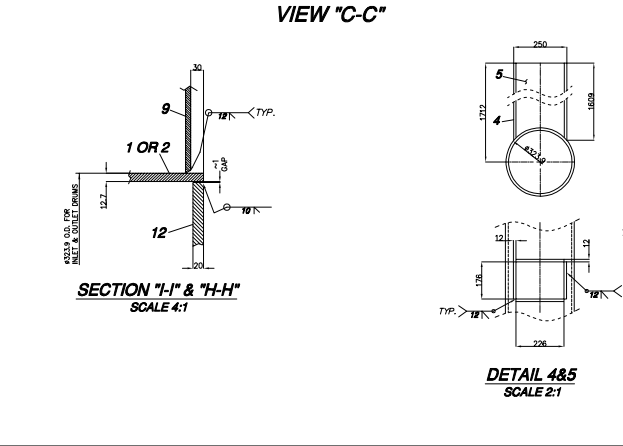
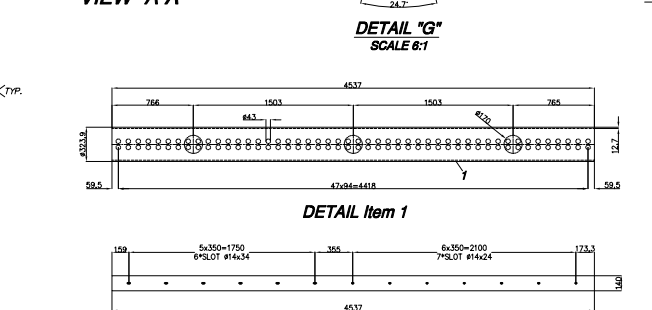
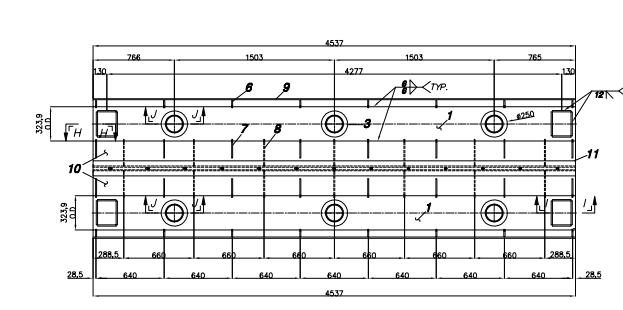
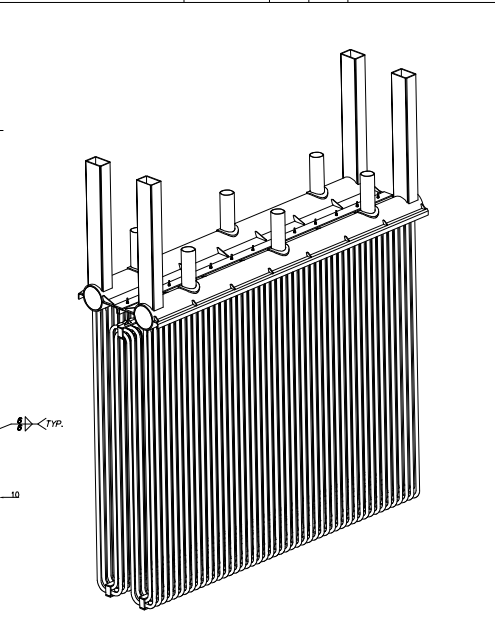


Natural Gas



BILL OF MATERIAL						
NO. ITEM	QTY	DESCRIPTION	MATERIAL	WEIGHT (kg)		REMARKS
				UNIT	TOTAL	
1	2	PIPE #323.9 O.D. x 12.7 THK. x 4537	SA 312W-304H	456.7	911.4	
2	6	PIPE #168.3 O.D. x 7.11 THK. x 501 (+100) LG	SA 312W-304H	17.5	105	
3	6	PL 10 THK. x #170 I.D. x #250 O.D.	SA 240-304H	2.4	14.4	
4	8	PL 12 x 1609 x 176	SA 240-304H	27	216	
5	8	PL 12 x 1596 x 226	SA 240-304H	33	264	
6	16	PL 10	SA 240-304H	0.6	5.2	
7	16	PL 8	SA 240-304H	1	16	
8	14	PL 8 x 250 x 60	SA 240-304H	1	14	
9	2	PL 10 x 136 x 4537	SA 240-304H	50	100	
10	2	PL 10 x 303 x 4537	SA 240-304H	111	222	
11	1	PL 12 x 140 x 4537	SA 240-304H	55	220	
12	4	PL 20 x #296 O.D.	SA 240-304H	10.8	43.2	



1. ALL DIMENSIONS ARE IN MILLIMETER
2. BILL OF MATERIAL: ROLLED STRUCTURAL SHAPE GIVEN IN METRIC. LENGTH OF ROLLED SHAPES AND ALL PLATE DIMENSIONS ARE GIVEN IN MILLIMETERS. ALL WEIGHTS ARE IN KILOGRAMS.
3. ROLLED PLATE ITEM 1&2 IS BILLED TO ITS FINAL SIZE REQUIREMENTS
4. LENGTH & WEIGHT FOR ITEM (3) IN B.O.M TABLE IS BEFORE CUTTING.
5. SHOP REQUIRED WELDED DUCT SEAMS, BOTH LONGITUDINAL AND TRANSVERSE SHALL NOT BE LOCATED IN THE VICINITY OF:
 - (a) INTERSECTING DUCTS OR THEIR REINFORCEMENT PLATES.
 - (b) DUCT SUPPORT LEGS.
 - (c) LIFTING OR HANGER LUGS.
6. THIS BOM DOES NOT INCLUDE MATERIALS FOR PIPE AND THEIR GUIDES. FOR THIS ITEMS PLEASE SEE SHEET NO.2
7. FOR SUPPORT ITEMS PLEASE SEE SHEET NO.3
8. FOR REFRACTORY ITEM PLEASE REFER TO SHEET NO.4
9. NON-DESTRUCTIVE TESTING OF WELD SHALL BE PERFORMED BASED ON THE FOLLOWING MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL PREPARE AND SUBMIT INSPECTION FOR NON-DESTRUCTIVE TESTING. FOLLOWING, AWS D1.1 GUIDELINES FOR MINIMUM INFORMATION TO BE PERFORMED. THE OWNER/ENGINEER RESERVES THE RIGHT TO DEMAND RADIOGRAPHIC OR OTHER TESTS OF WELDS WHENEVER CONSIDERS NECESSARY AND THE FABRICATOR SHALL BE PREPARED TO CARRY OUT THE TESTS AS DIRECTED BY THE ENGINEER.
 - 100% VISUAL INSPECTION AND MEASUREMENT OF EXTERNAL DIMENSIONS BY APPROPRIATE GAUGES FOR ALL WELDS.
 - 100% ULTRASONIC INSPECTION FOR FULL PENETRATION GROOVE WELDED JOINTS.

Rev.	DATE	REVISION DETAILS	DRAWN	CHK.	APP.
A1	1403.07.22	ISSUED FOR APPROVAL	S.Ahmadi	S.Bestami	M.Rahmani
A0	1403.06.08	ISSUED FOR APPROVAL	S.Ahmadi	S.Bestami	M.Rahmani

VENDOR:

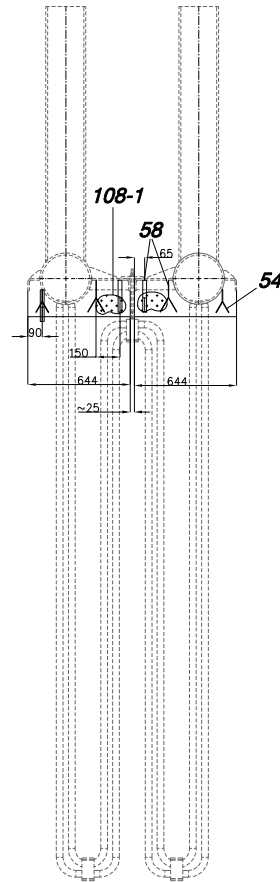
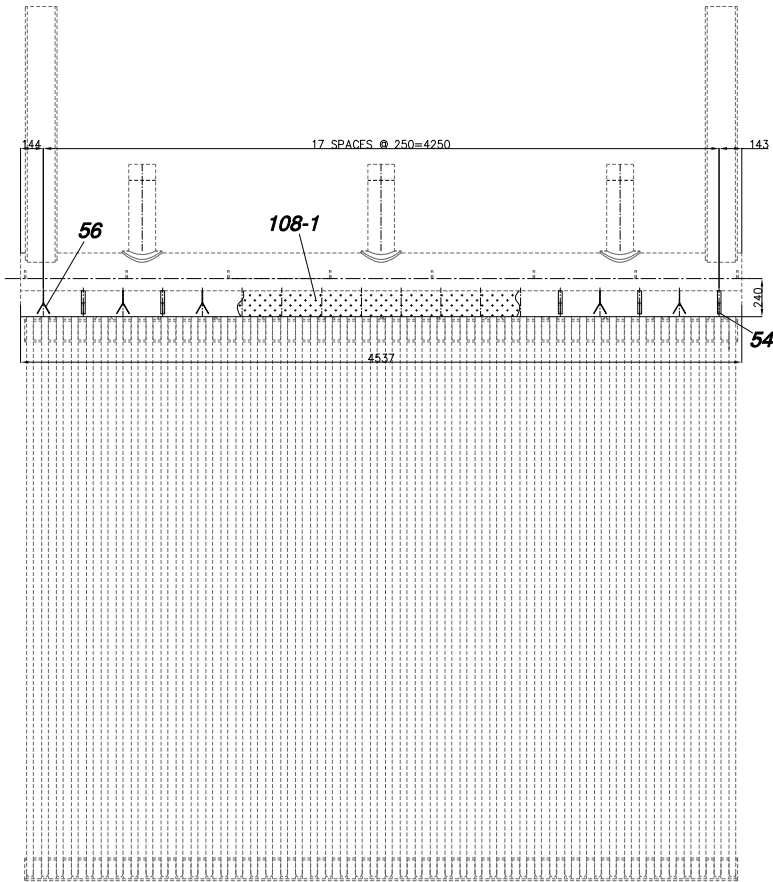
CLIENT: Golgohar Iron & Steel Development Company

DRAWING TITLE: Natural Gas Bundle

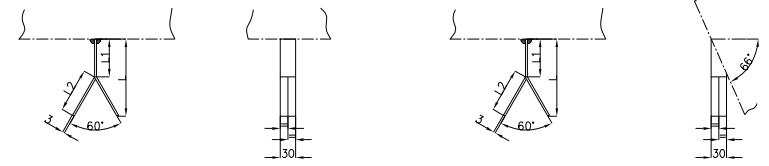
WEB SITE:	DWG No.:	E-mail:	Sheet:
GISD-LMPS-NGB-03-01	NGB-03-01	ngb@ghs.com	1 OF 4

DWG No.:	S/N	Project	Dsp.	Serial	Size	Rev.	Scale:
GISD-LMPS-NGB-03-01						A 4	AS SHOWN

BILL OF MATERIAL						
NO. ITEM	QTY	DESCRIPTION	MATERIAL	WEIGHT (kg)		REMARKS
				UNIT	TOTAL	
NATURAL GAS BUNDLE ANCHOR DETAILS						
54	18	Y ANCHOR 3 x 25 x 130	310 S.S	0.1	1.8	
56	18	Y ANCHOR 3 x 25 x 130	310 S.S	0.1	1.8	
58	72	Y ANCHOR 3 x 25 x 130	310 S.S	0.1	7.2	
NATURAL GAS BUNDLE WIRE						
69	1	WIRE ϕ 1.2 mm x 40 m		0.4	0.4	
NATURAL GAS BUNDLE CASTABLE						
108-1	1	LIGHT WEIGHT INSULATING CASTABLE (LOW IRON)		1.3 m ³	1.3 m ³	

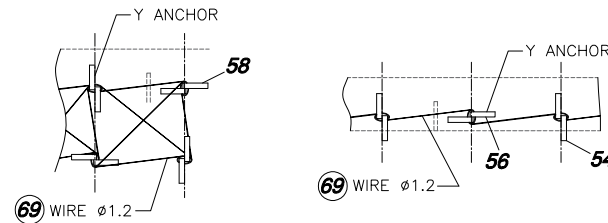
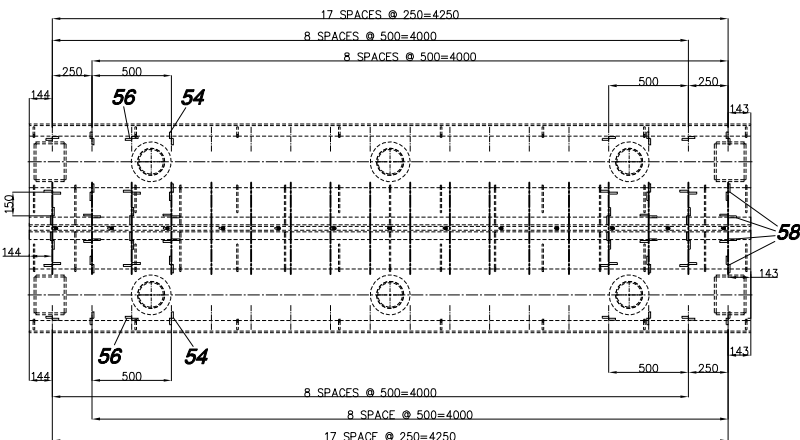


108-1  LIGHT WEIGHT INSULATING CASTABLE (LOW IRON)



MARK	L	L1	L2
58	201	110	103
54	144	75	80

MARK	L	L1	L2
56	169	100	80




SHEMATIC WIRING

- 1 . ALL DIMENSIONS ARE IN MILLIMETER.
- 2 . FOR MANUFACTURING USE DRAWING OF SHEET 1, 2 AND 4 ALL TOGETHER.

AI 1403.07.22	ISSUED FOR APPROVAL	S.Ahmadi	S.Bastami	M.Rahmani
A0 1403.06.06	ISSUED FOR APPROVAL	S.Ahmadi	S.Bastami	M.Rahmani
Rev.	DATE	REVISION DETAILS	DRAWN	CHK.

VENDOR:
-

CLIENT:
Golgohar Iron & Steel Development Company 

DRAWING TITLE:
Natural Gas Bundle

WEBSITE:	DWG No. : GISD-LMPS-NGB-03-01	E-molt:	Sheet:
DWG No. :	S/N	Project	4 OF 4
GISD-LMPS-NGB-03-01	Dsp.	Serial	Scale:
	Size	Rev.	AS SHOWN
		A 4	