

**GENERAL NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE NOTED.
2. SEE GENERAL NOTES & STANDARD DRAWINGS FOR STEEL STRUCTURES :  
 - DWG. NO. 4KA-TQ-XVTB1-0022 : STANDARD DRAWING GENERAL NOTES FOR STEEL STRUCTURES.  
 - DWG. NO. 4KA-TQ-XVTB1-0022 : STANDARD DRAWING WELDING FOR STEEL STRUCTURES.
3. NDT REQUIREMENT SHALL BE AS FOLLOWING :  
 A. 25% UT FOR FULL PENETRATION WELD  
 B. 10% MT FOR ALL FILLED WELD

**MARKING SYSTEM :**

ALL ASSEMBLY SHALL BE MARKED AS BELOW :

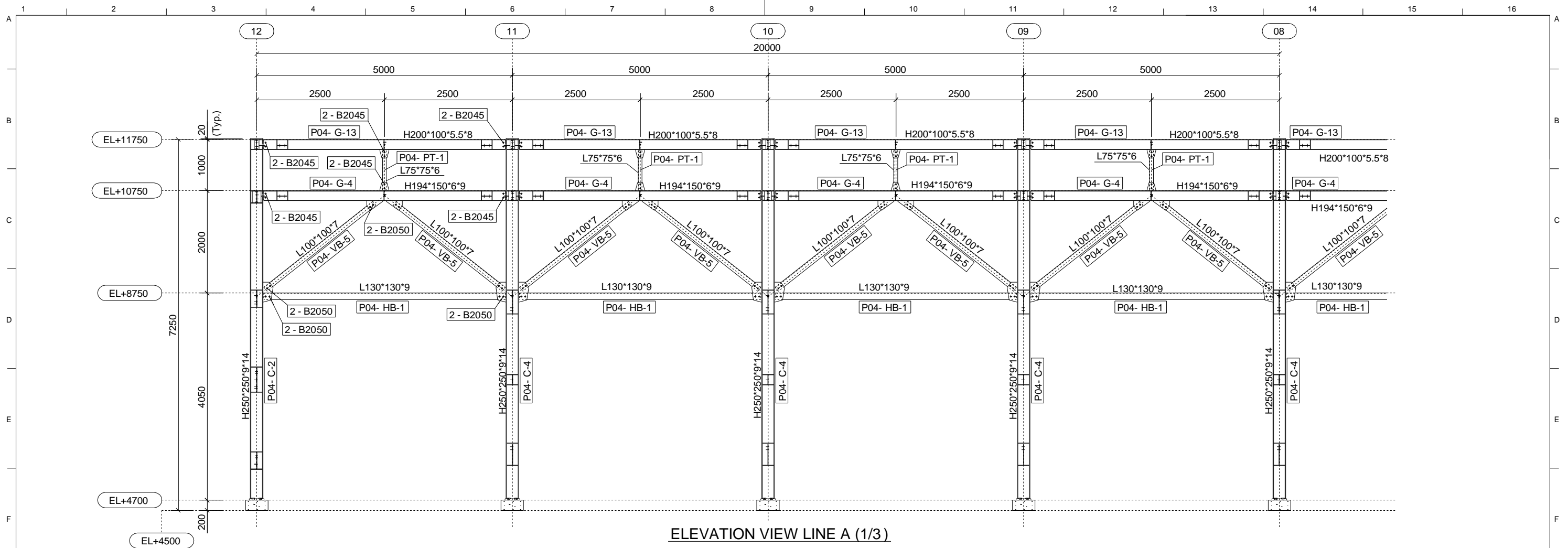
ITEM - ASSEMBLY NAME - SERIAL NO.

ASSEMBLY NAME ABBREVIATION	
C	COLUMN
G	GIRDER
B	BEAM
HB	HORIZONTAL BRACE
VB	VERTICAL BRACE
PT	POST

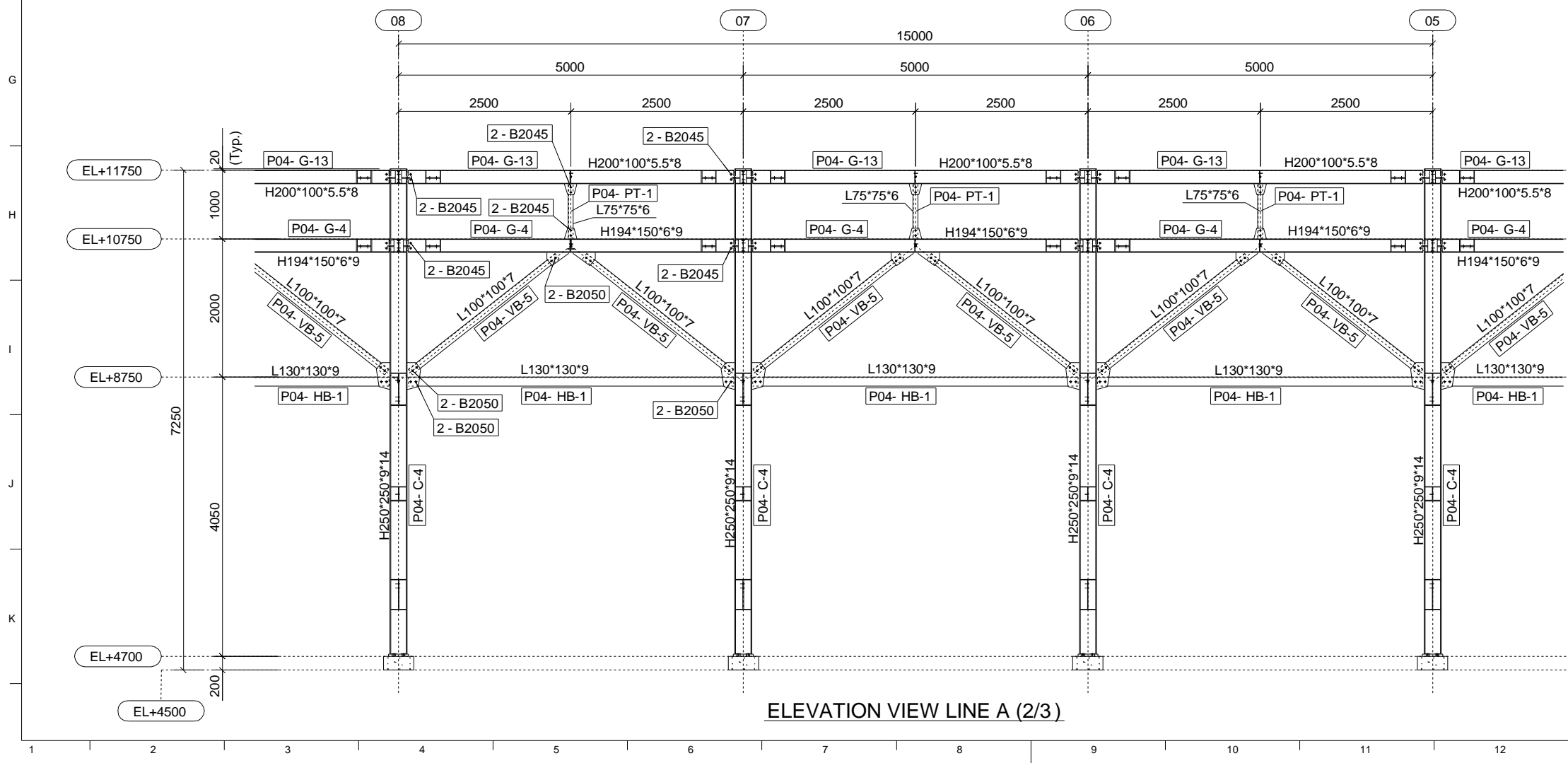
**BASIC DRAWING**

- DWG. NO. 4KA-TQ-XVTB1-0022 : FRAMING PLAN & ELEVATION PIPE RACK - 04
- DWG. NO. 4KA-TQ-XVTB1-0022 : CONNECTION DETAILS PIPE RACK - 04

0	14.OCT.2015	ISSUE FOR APPROVAL	N.T.T	N.V.N	D.D.K	-
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
TITLE: <b>THAI BINH 1 THERMAL POWER PLANT PIPE RACK : PRA-04 ISOMETRIC VIEW</b>						
DRAWING NO.		<b>TB1-PRA-04-E0001</b>		REV.	<b>0</b>	
SCALE :			1:130		DATE : 14.OCT.2015	
<b>VHE Viet Han Engineering Co., Ltd.</b> Engineering Haiphong, Vietnam						

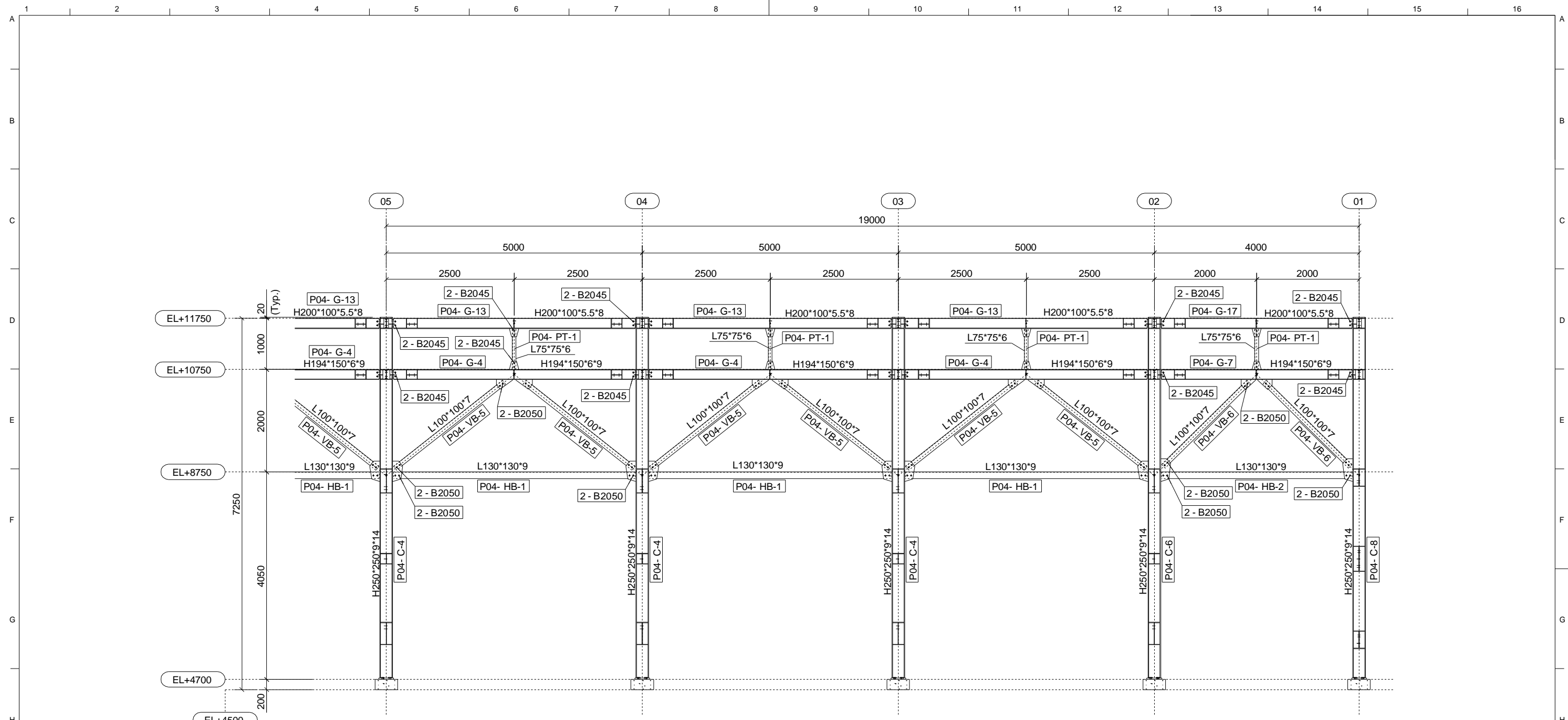


ELEVATION VIEW LINE A (1/3)



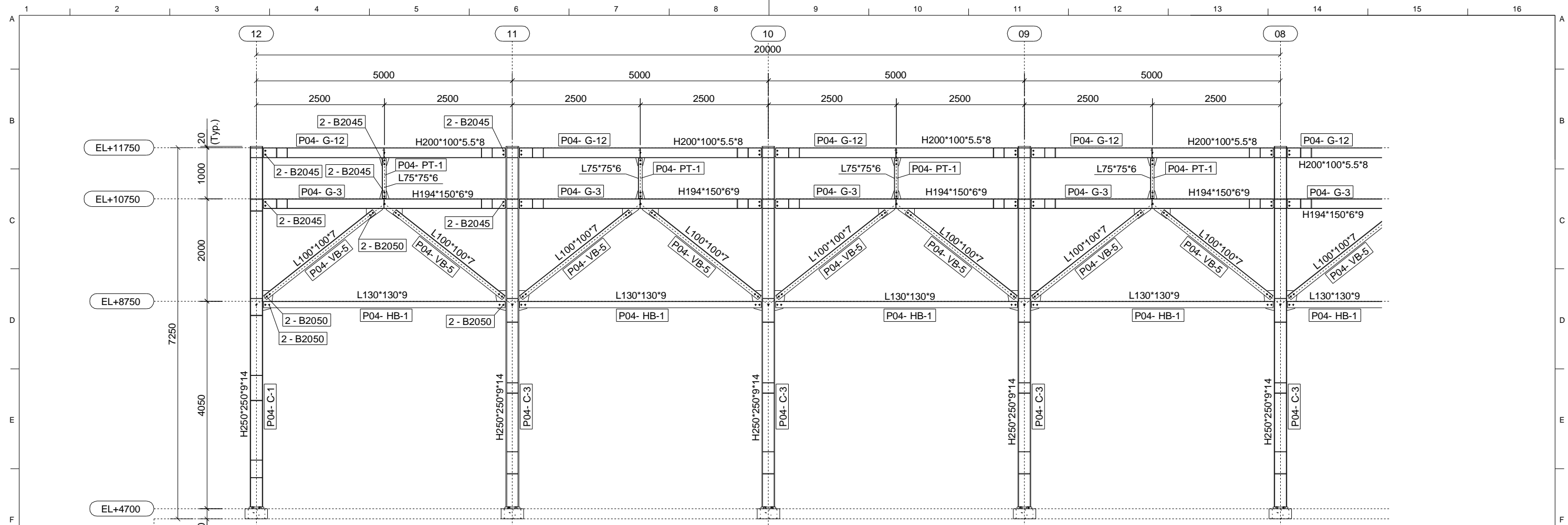
ELEVATION VIEW LINE A (2/3)

0	14.OCT.2015	ISSUE FOR APPROVAL	N.T.T	N.V.N	D.D.K	-
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
TITLE:						
<b>THAI BINH 1 THERMAL POWER PLANT</b> <b>PIPE RACK : PRA-04</b> <b>ELEVATION VIEW LINE A (1/2)</b>						
DRAWING NO.		TB1-PRA-04-E0002		REV.		0
SCALE: 1:75			DATE: 14.OCT.2015			
<b>VHE Viet Han Engineering Co., Ltd.</b> Engineering Haiphong, Vietnam						

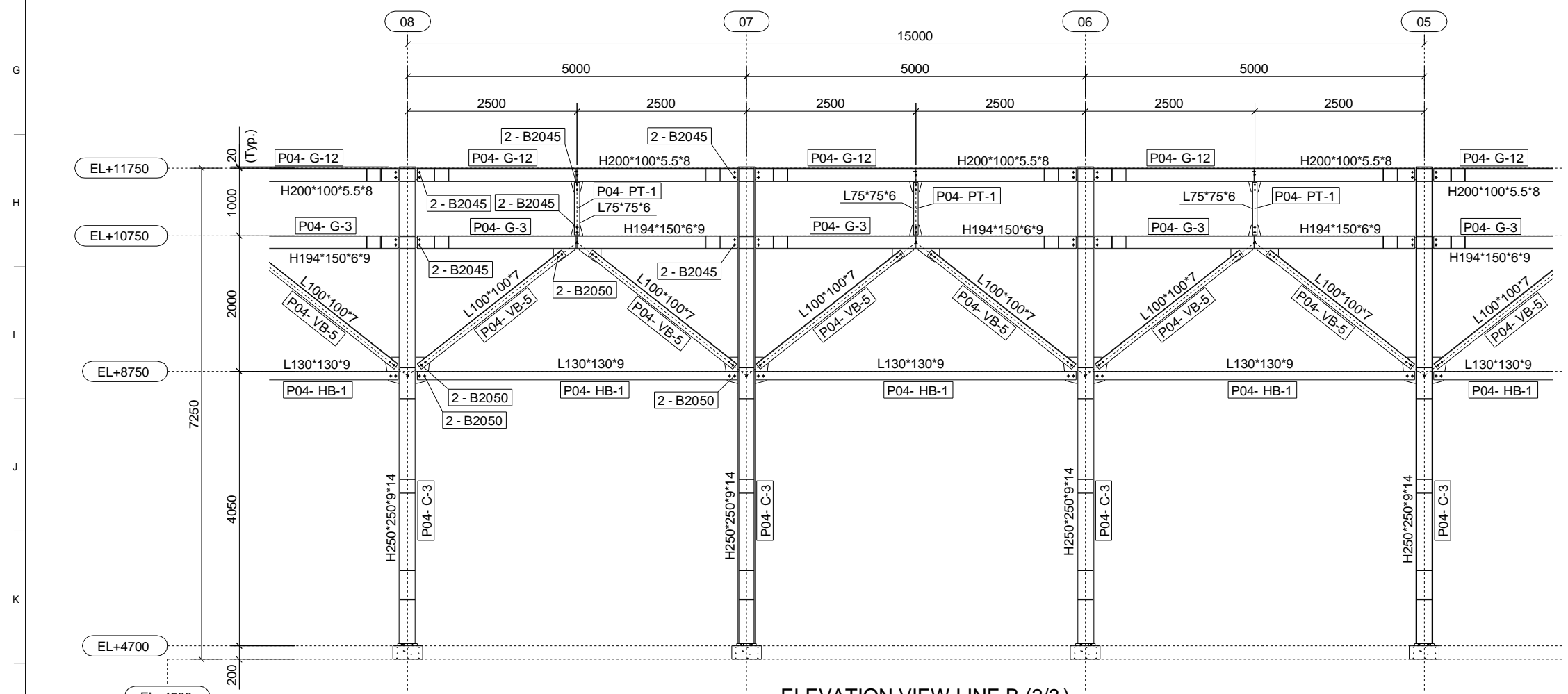


ELEVATION VIEW LINE A (3/3)

0	14.OCT.2015	ISSUE FOR APPROVAL	N.T.T	N.V.N	D.D.K	-
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
TITLE:						
<b>THAI BINH 1 THERMAL POWER PLANT</b> <b>PIPE RACK : PRA-04</b> <b>ELEVATION VIEW LINE A (2/2)</b>						
DRAWING NO.		TB1-PRA-04-E0003		REV.	0	
SCALE : 1:75			DATE : 14.OCT.2015			
<b>VHE Viet Han Engineering Co., Ltd.</b> <b>Engineering Haiphong, Vietnam</b>						



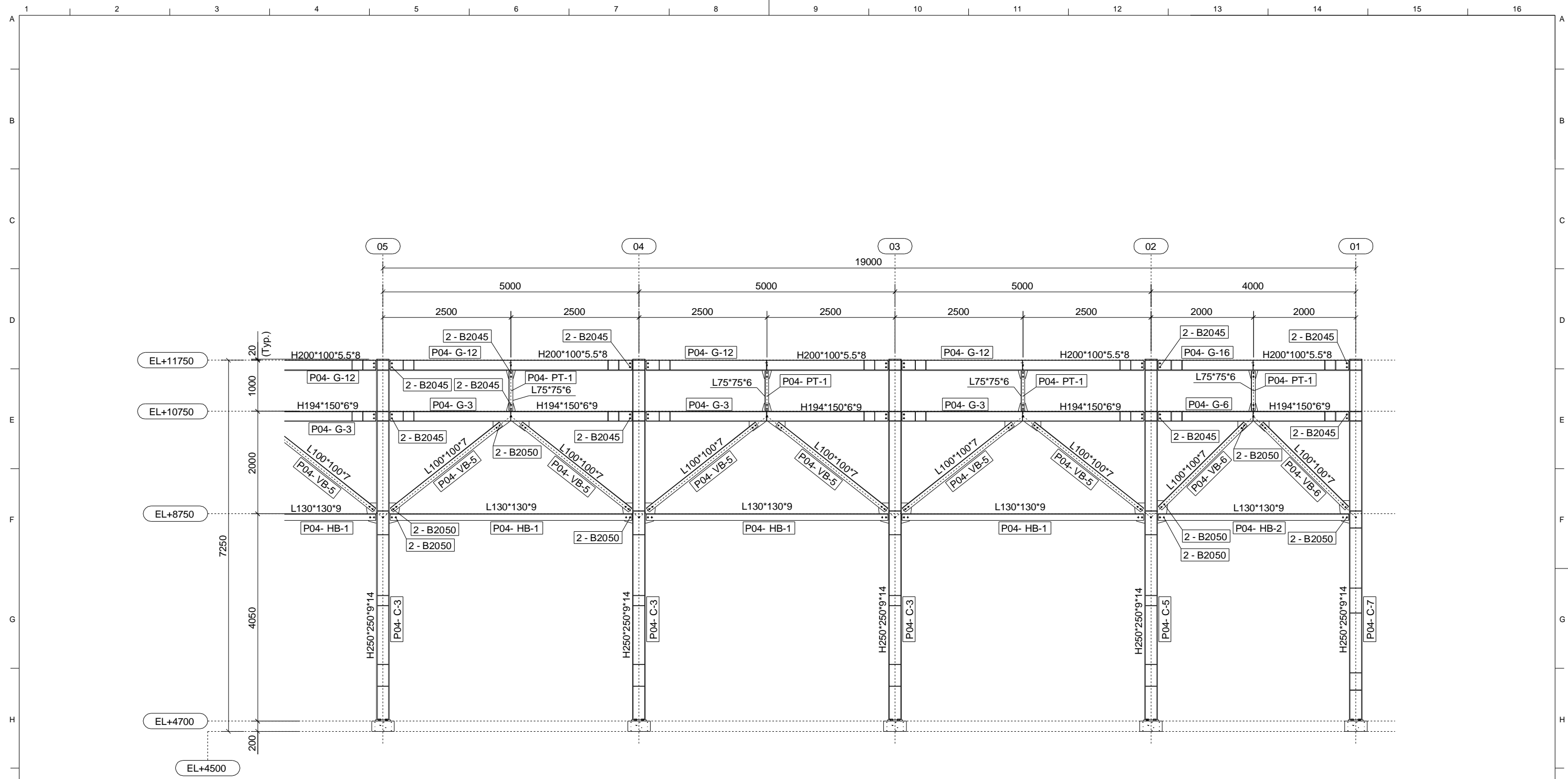
ELEVATION VIEW LINE B (1/3)



ELEVATION VIEW LINE B (2/3)

0	14.OCT.2015	ISSUE FOR APPROVAL	N.T.T	N.V.N	D.D.K	-
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
TITLE:						
<b>THAI BINH 1 THERMAL POWER PLANT</b> <b>PIPE RACK : PRA-04</b> <b>ELEVATION VIEW LINE B (1/2)</b>						
DRAWING NO.		TB1-PRA-04-E0004		REV.		0
SCALE: 1:75			DATE: 14.OCT.2015			
<b>VHE Viet Han Engineering Co., Ltd.</b> Engineering Haiphong, Vietnam						

Tekla structures

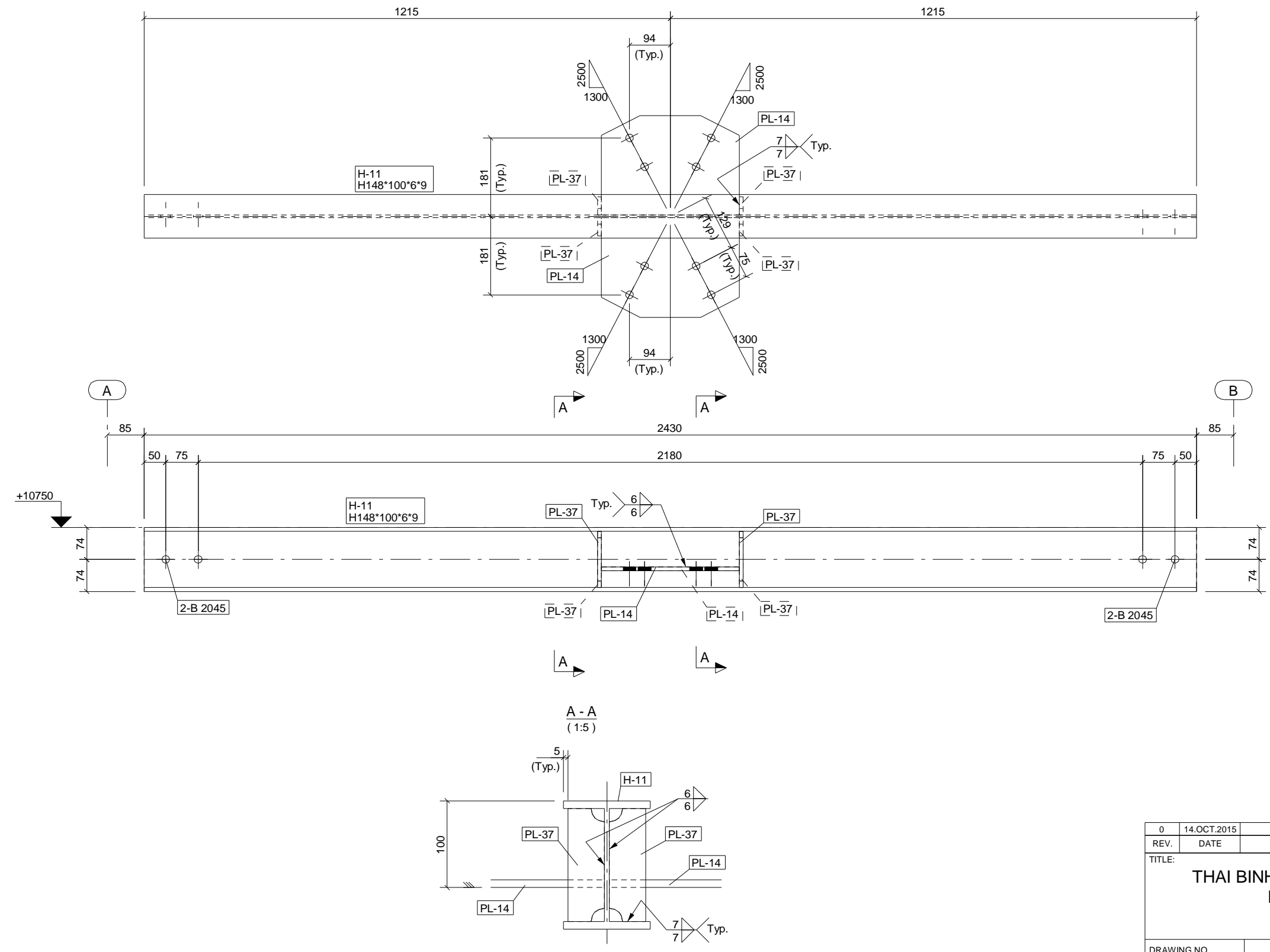


ELEVATION VIEW LINE B (3/3)

0	14.OCT.2015	ISSUE FOR APPROVAL	N.T.T	N.V.N	D.D.K	-
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
TITLE:						
THAI BINH 1 THERMAL POWER PLANT PIPE RACK : PRA-04 ELEVATION VIEW LINE B (2/2)						
DRAWING NO.		TB1-PRA-04-E0005		REV.	0	
SCALE :			1:75		DATE : 14.OCT.2015	
<b>VHE Viet Han Engineering Co., Ltd.</b> Engineering Haiphong, Vietnam						

NO.	DESCRIPTION	MATL	SIZE	Q'TY	WEIGHT (kg)		REMARK
					UNIT	TOTAL	
ASSEMBLY: P04-B-3							
H-11	H-BEAM	SS400	H148*100*6*9-2430L	1	50.3	50.3	
PL-14	PLATE	SS400	PL9*230*318	2	4.9	9.8	
PL-37	PLATE	SS400	PL9*42*130	4	0.4	1.4	
B2045	H.S.B.N.W	S10T	M20*45L	4	0.2	0.8	
TOTAL WEIGHT:					62.3		(kg)

**NOTE :**  
 1. ALL HOLES SHALL BE Ø22 UNLESS OTHERWISE NOTED.  
 2. ABBREVIATION :  
 BS = BOTH SIDES; NS = NEAR SIDE; FS = FAR SIDE.



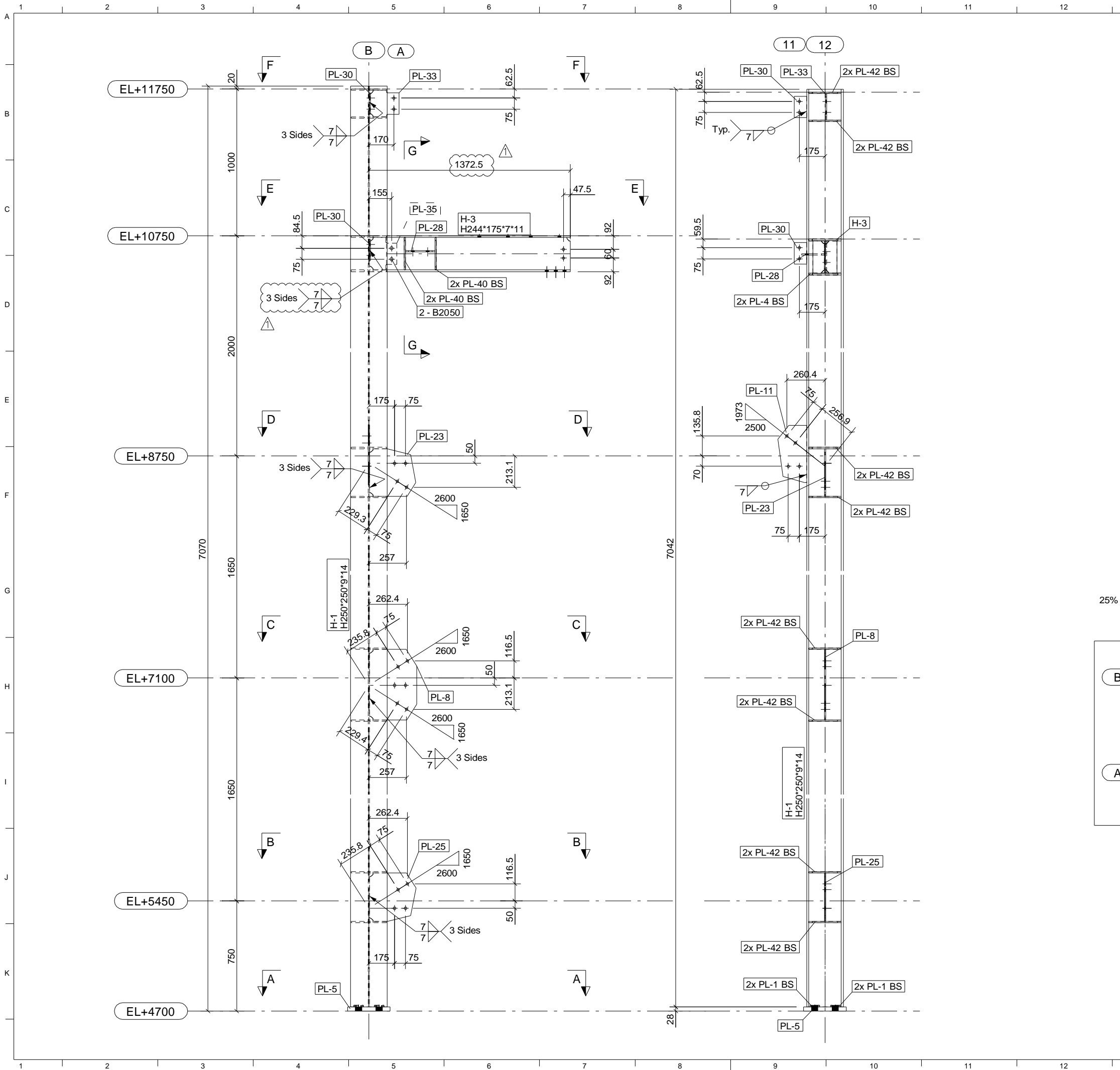
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
0	14.OCT.2015	FOR INFORMATION	N.T.T	N.V.N	D.D.K	-

TITLE:  
**THAI BINH 1 THERMAL POWER PLANT  
 PIPE RACK : PRA-04  
 ASSEMBLY : P04-B-3**

DRAWING NO. **TB1-AS- P04-B-3** REV. **0**

SCALE: 1:10 DATE: 14.OCT.2015

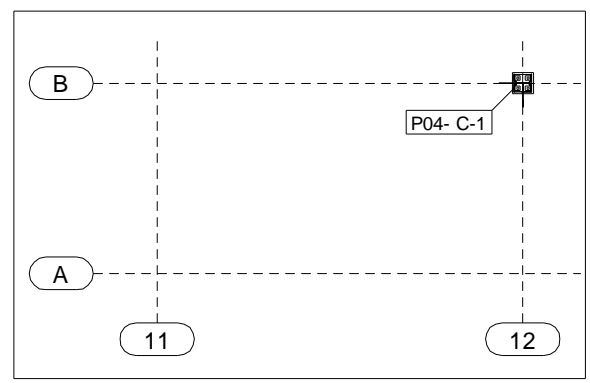
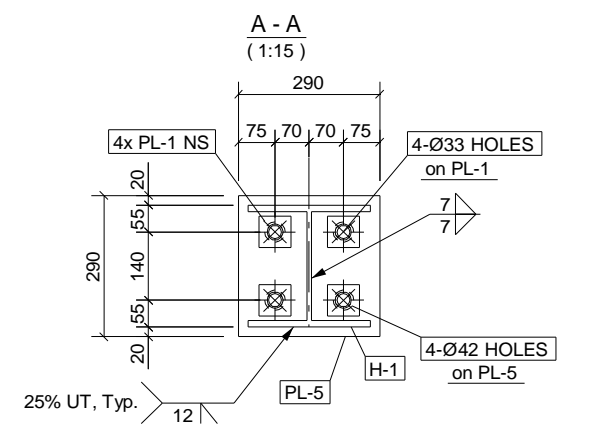
**VHE Viet Han Engineering Co., Ltd.**  
 Engineering Haiphong, Vietnam



NO.	DESCRIPTION	MATL	SIZE	Q'TY	WEIGHT (kg)		REMARK
					UNIT	TOTAL	
ASSEMBLY: P04-C-1							
H-1	H-BEAM	SS400	H250*250*9*14-7042L	1	505.4	505.4	
H-3	H-BEAM	SS400	H244*175*7*11-1253L	1	54.6	54.6	
PL-1	PLATE	SS400	PL12*65*65	4	0.3	1.3	Loose part
PL-4	PLATE	SS400	PL12*116*222	4	2.3	9.3	
PL-5	PLATE	SS400	PL28*290*290	1	18.5	18.5	
PL-8	PLATE	SS400	PL9*321*480	1	10.3	10.3	
PL-11	PLATE	SS400	PL9*197*389	1	4.5	4.5	
PL-23	PLATE	SS400	PL9*314*324	1	6.4	6.4	
PL-25	PLATE	SS400	PL9*317*330	1	6.5	6.5	
PL-28	PLATE	SS400	PL9*157*200	1	2.2	2.2	
PL-30	PLATE	SS400	PL9*85*145	2	0.9	1.7	
PL-33	PLATE	SS400	PL9*182*201	1	2.3	2.3	
PL-35	PLATE	SS400	PL9*186*220	1	2.4	2.4	
PL-40	PLATE	SS400	PL9*79*222	4	1.2	4.8	
PL-42	PLATE	SS400	PL9*116*222	16	1.7	27.9	
B2050	H.S.B.N.W	S10T	M20*50L	2	0.2	0.4	
TOTAL WEIGHT:						658.5	(kg)

**NOTE :**

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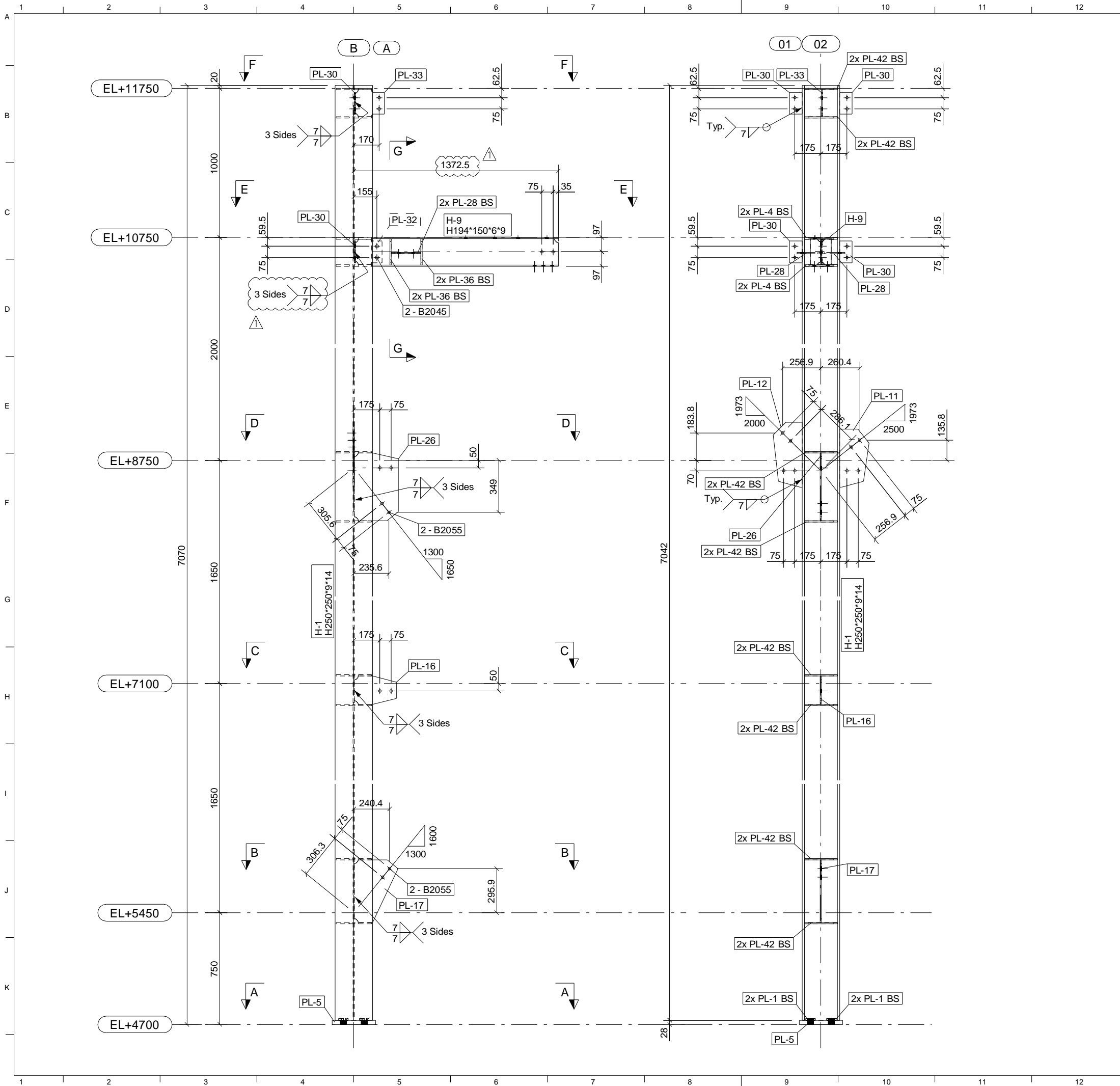


KEY PLAN						
REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
1	02.DEC.2015	REVISED AS CLOUD MARK	N.T.T	N.V.N	D.D.K	-
0	14.OCT.2015	FOR INFORMATION	N.T.T	N.V.N	D.D.K	-

TITLE:  
**THAI BINH 1 THERMAL POWER PLANT  
PIPE RACK : PRA-04  
ASSEMBLY : P04-C-1**

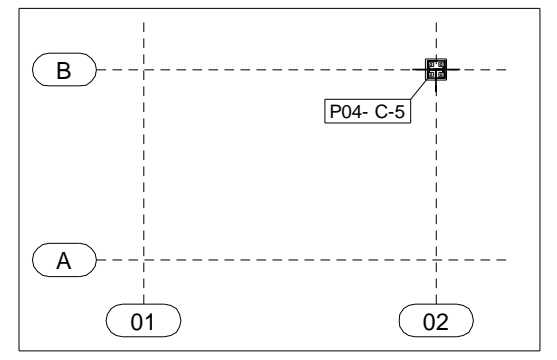
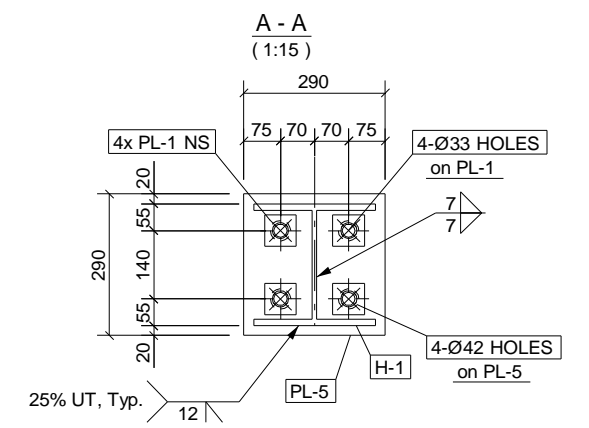
DRAWING NO.	TB1-AS- P04-C-1(1_2)	REV.	1
SCALE :	1:25	DATE :	02.DEC.2015

**VHE Viet Han Engineering Co., Ltd.**  
Engineering Haiphong, Vietnam



NO.	DESCRIPTION	MATL	SIZE	Q'TY	WEIGHT (kg)		REMARK	
					UNIT	TOTAL		
ASSEMBLY: P04-C-5					1	643.2	643.2	
H-1	H-BEAM	SS400	H250*250*9*14-7042L	1	505.4	505.4		
H-9	H-BEAM	SS400	H194*150*6*9-1253L	1	37.5	37.5		
PL-1	PLATE	SS400	PL12*65*65	4	0.3	1.3	Loose part	
PL-4	PLATE	SS400	PL12*116*222	4	2.3	9.3		
PL-5	PLATE	SS400	PL28*290*290	1	18.5	18.5		
PL-11	PLATE	SS400	PL9*197*389	1	4.5	4.5		
PL-12	PLATE	SS400	PL9*195*435	1	5.1	5.1		
PL-16	PLATE	SS400	PL9*190*281	1	3.2	3.2		
PL-17	PLATE	SS400	PL9*293*420	1	6.3	6.3		
PL-26	PLATE	SS400	PL9*294*454	1	9.0	9.0		
PL-28	PLATE	SS400	PL9*157*200	2	2.2	4.4		
PL-30	PLATE	SS400	PL9*85*145	4	0.9	3.5		
PL-32	PLATE	SS400	PL9*170*186	1	2.0	2.0		
PL-33	PLATE	SS400	PL9*182*201	1	2.3	2.3		
PL-36	PLATE	SS400	PL9*67*176	4	0.8	3.2		
PL-42	PLATE	SS400	PL9*116*222	16	1.7	27.9		
B2045	H.S.B.N.W	S10T	M20*45L	2	0.2	0.4		
B2055	H.S.B.N.W	S10T	M20*55L	4	0.2	0.9		
TOTAL WEIGHT:						644.5	(kg)	

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**KEY PLAN**

REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
1	02.DEC.2015	REVISED AS CLOUD MARK	N.T.T	N.V.N	D.D.K	-
0	14.OCT.2015	FOR INFORMATION	N.T.T	N.V.N	D.D.K	-

TITLE:  
**THAI BINH 1 THERMAL POWER PLANT  
 PIPE RACK : PRA-04  
 ASSEMBLY : P04-C-5**

DRAWING NO. **TB1-AS- P04-C-5(1\_2)** REV. **1**

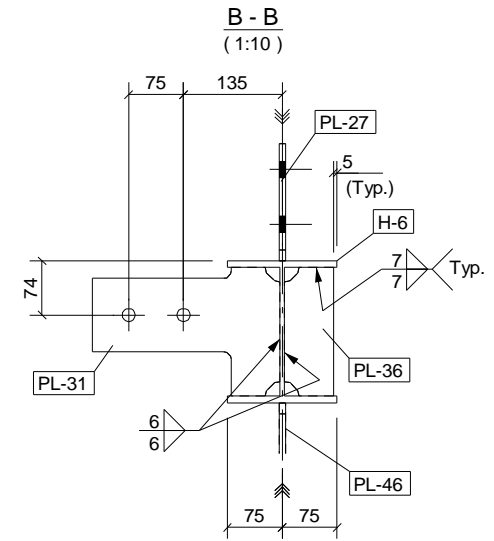
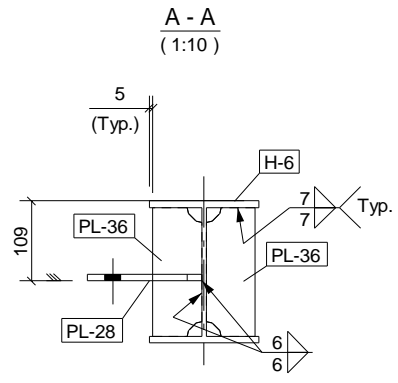
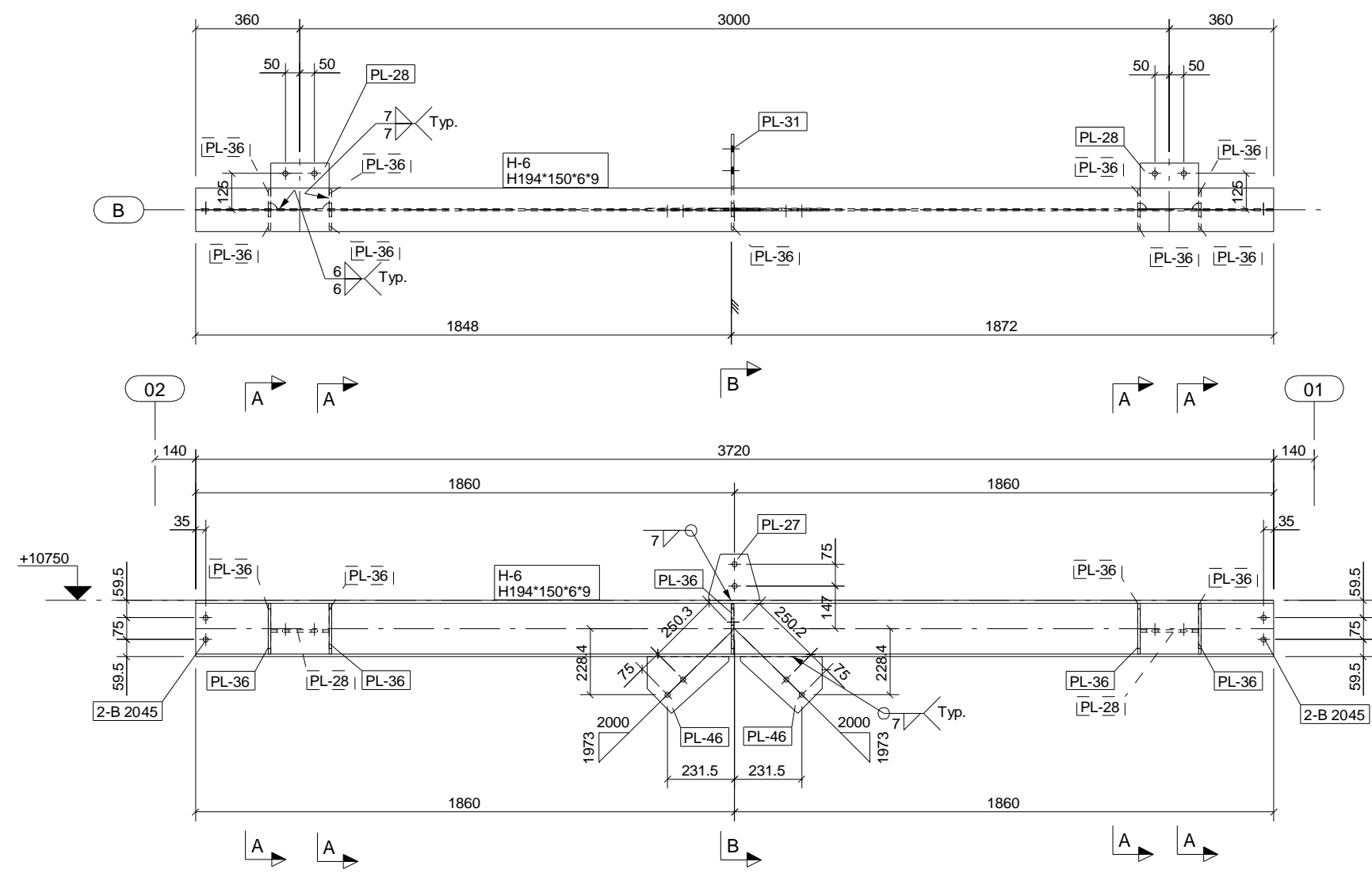
SCALE: 1:25 DATE: 02.DEC.2015

**VHE Viet Han Engineering Co., Ltd.**  
 Engineering Haiphong, Vietnam



NO.	DESCRIPTION	MATL	SIZE	Q'TY	WEIGHT (kg)		REMARK
					UNIT	TOTAL	
ASSEMBLY: P04-G-6							
H-6	H-BEAM	SS400	H194*150*6*9-3720L	1	111.3	111.3	
PL-27	PLATE	SS400	PL9*160*175	1	1.6	1.6	
PL-28	PLATE	SS400	PL9*157*200	2	2.2	4.4	
PL-31	PLATE	SS400	PL9*176*257	1	2.1	2.1	
PL-36	PLATE	SS400	PL9*67*176	9	0.8	7.1	
PL-46	PLATE	SS400	PL9*195*282	2	2.4	4.8	
B2045	H.S.B.N.W	S10T	M20*45L	4	0.2	0.8	
TOTAL WEIGHT:						132.0	(kg)

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BS = BOTH SIDES; NS = NEAR SIDE; FS = FAR SIDE.



REV.	DATE	DESCRIPTION	DRAWN	CHECK	REVIEW	APP.
0	14.OCT.2015	FOR INFORMATION	N.T.T	N.V.N	D.D.K	-

TITLE:  
**THAI BINH 1 THERMAL POWER PLANT  
PIPE RACK : PRA-04  
ASSEMBLY : P04-G-6**

DRAWING NO. **TB1-AS- P04-G-6**      REV. **0**

SCALE : 1:20      DATE : 14.OCT.2015

**VHE Viet Han Engineering Co., Ltd.**  
Engineering Haiphong, Vietnam