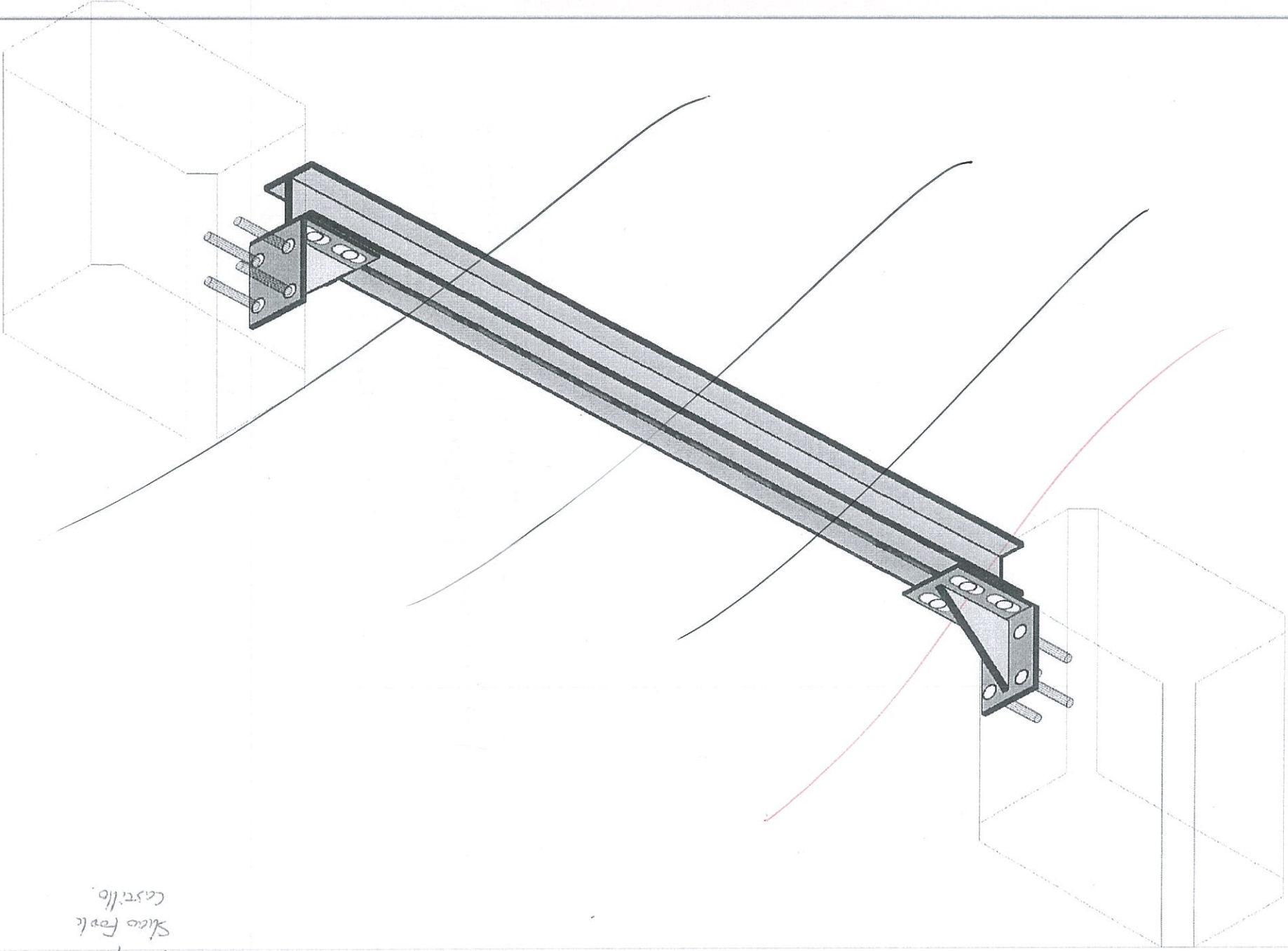


LPS 302

\* OPERATING PLATFORM [LPS 302]

\* WALKWAY | OPERATING PLATFORM [INSIDE LPS 302]

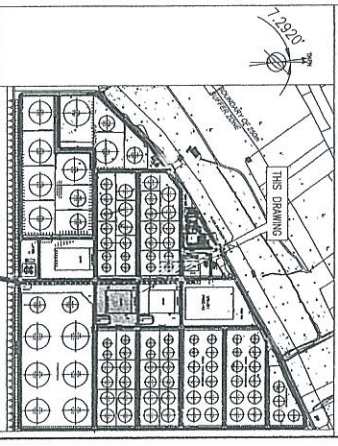
\* CRANE SUPPORT PLATFORM



16/Aug/13  
Steve Fook  
Castillo

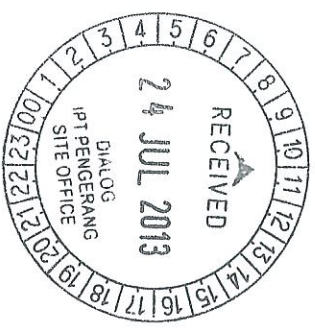
- OUTSIDE LPS 302

LOCATION PLAN



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. FOR STRUCTURE NOTICES REFER TO DWG NO DH0008-ENG-C-01-0001.
3. PENDING OVERALL MASTER PLAN REFER TO
4. DWG NO DH0008-ENG-G-0001.
5. ALL CONNECTIONS ARE BOLTED CONNECTIONS.
6. ALL THE STRUCTURAL MEMBERS HAVE TO BE HOT DIPPED GALVANIZED.



Independent Developer  
Petroleum Terminal at  
Pengerang, Johor  
Agreement

NO	DESCRIPTION	BY	CHK'D	APPR.	DATE
1	APPROVED FOR CONSTRUCTION	WKL/ZJ	WKL/ZJ	LKM	08.07.13
0	ISSUED FOR APPROVAL	WKL/ZJ	WKL/ZJ	LKM	07.06.13
A	ISSUED FOR REVIEW	WKL/ZJ	WKL/ZJ	LKM	31.05.13

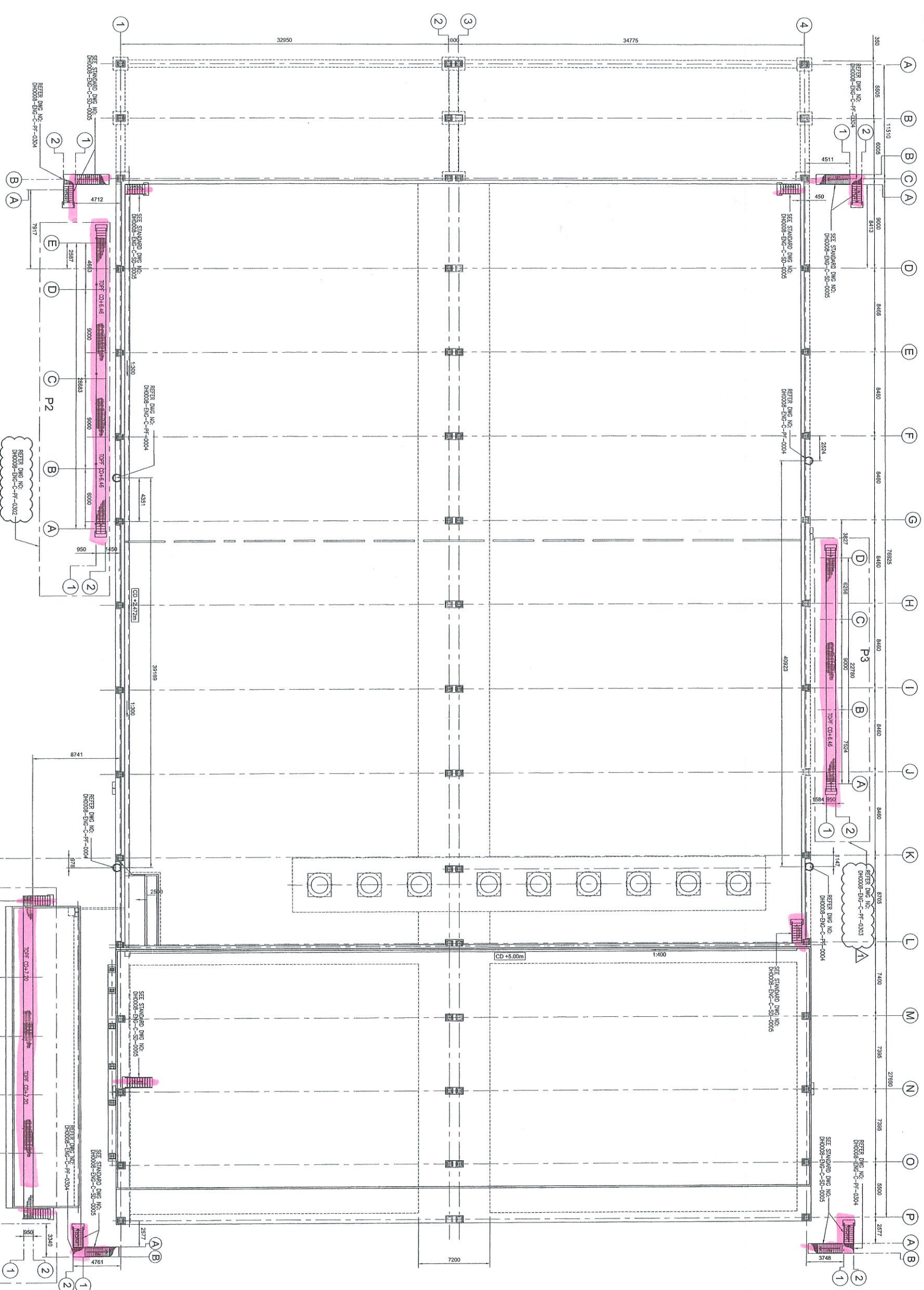
PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENERANG

PROJECT OWNER  
PENERANG INDEPENDENT TERMINALS SDN.BHD.

EPC CONTRACTOR :  
DIALOG E & C SDN. BHD. (19220-U)  
109, BLOCK G, PHILLO DAMANSARA 1,  
NO. 9, JALAN 16/11, 46350 PETALING JAYA, SELANGOR.

OPERATING PLATFORM FOR LPS 302

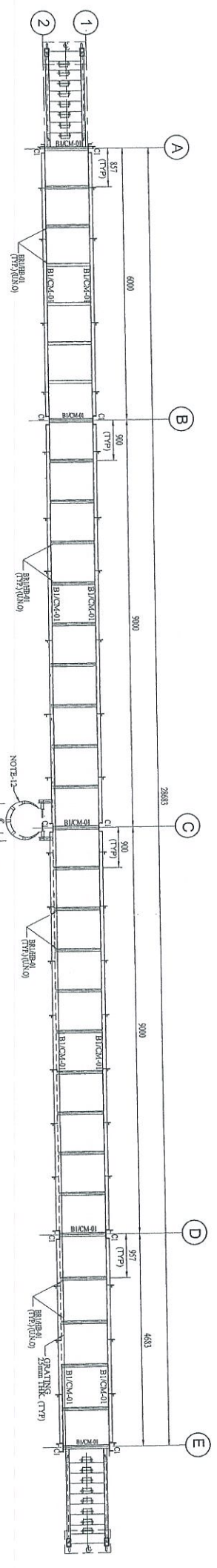
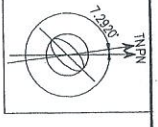
SCALE	AS SHOWN	CHECKED	WKL/ZJ
DRAWN	NO	APPROVED	LKM
DATE	MAY 2013	FILENAME	DH0008-ENG-C-PF-0300
DWG. NO	DH0008-ENG-C-PF-0300	SHT. NO.	1
		REV.	1 OF 1



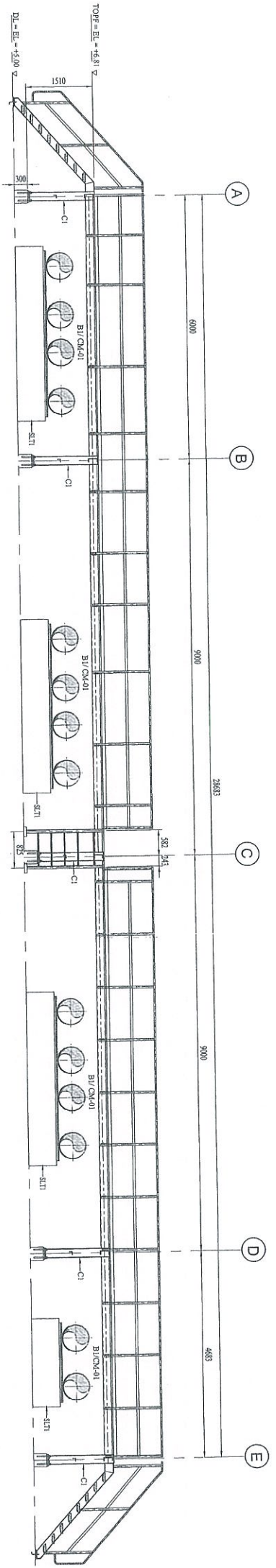
COPY 2.2

APPROVED FOR CONSTRUCTION

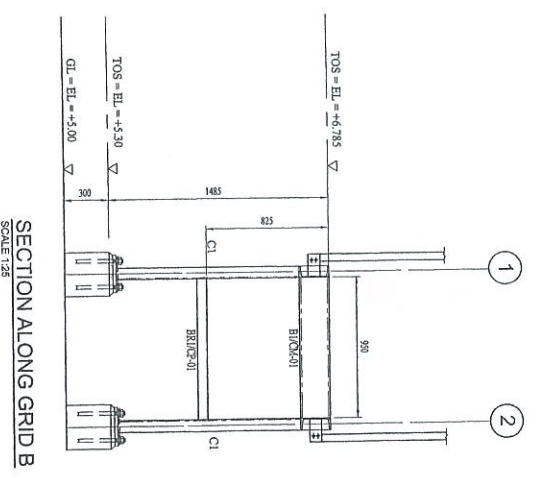




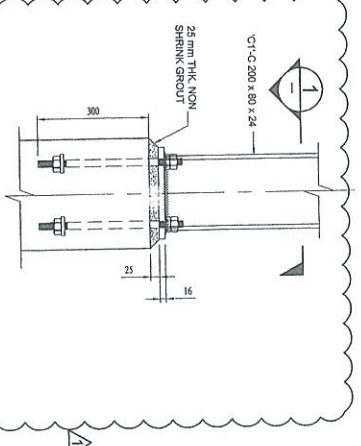
PLAN AT EL. +6.81  
SCALE 1:50



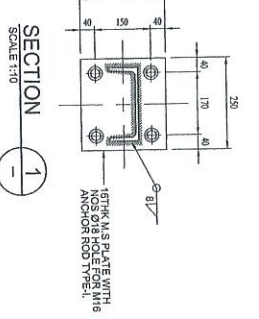
SECTION ALONG GRID P2  
SCALE 1:50



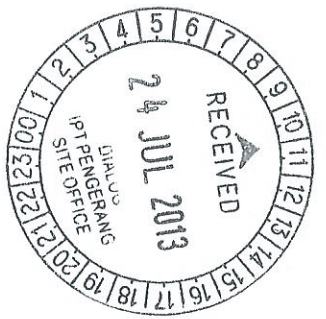
SECTION ALONG GRID B  
SCALE 1:25



TYPICAL BASE PLATE DETAIL  
SCALE 1:10



SECTION  
SCALE 1:10



APPROVED FOR CONSTRUCTION

COPY 2.3

Proj. No.	Disc No.	Scale	Date	Site
A	1	1:50	2013	1
B	2	1:50	2013	2
C	3	1:50	2013	3
D	4	1:50	2013	4

SCALE	1:50	CHECKED	WKL/ZJ
DRAWN	NO	APPROVED	LKM
DATE	MAY 2013	FILENAME	DH0008-ENG-C-PF-0302
DWG. NO.	DH0008-ENG-C-PF-0302	SHT. NO.	REV
		(1 OF 1)	1

**PROJECT OWNER :**  
PENGERANG INDEPENDENT TERMINALS SDN. BHD.

**EPCC CONTRACTOR :**  
DIALOG E & C SDN. BHD. (189250-U)  
109, BLOCK 6, PHILLO DAMANSARA 1,  
NO. 9, JALAN 16/11, 46350 PETALING JAYA, SELANGOR.

**PROJECT TITLE :**  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG

**DRAWING TITLE :**  
PLAN & SECTIONAL DETAILS OF  
CROSSOVER PLATFORM (P2) FOR  
LPS 302

**LEGENDS:**

MARKING	SIZE	NOTE
CI	C 200 x 80 x 24 KGM	COLUMN
B1	C 200 x 80 x 24 KGM	BEAM
S1T	L 65 x 68 x 4	TEE

**ABBREVIATION:**  
BY/CP-01 B1 = MEMBER SIZE & CP-01 = CONNECTION TYPE  
TOO = TOP OF GRATING  
PFL = FINISHED PLATFORM LEVEL  
CL = GROUND LEVEL  
FM = FILET WELD DIM 0.5

**NOTES:**

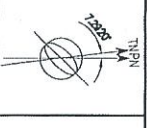
- ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS
- READ THIS DWG. IN CONJUNCTION WITH  
DWG. NO. DH0008-ENG-C-PF-0000  
FOR LOCATION, ORIENTATION AND OVERALL PLAN.
- FOR STRUCTURE NOTES, REFER TO DWG. NO.  
DH0008-ENG-C-SI-0001.
- PENGERANG OVERALL MASTER PLAN REFER  
DWG. NO. DH0008-ENG-P-6-0001.
- FOR STACKCASE & FOUNDATION DETAILS REFER  
DWG. NO. DH0008-ENG-C-PF-0037 & 0038.
- FOR STANDARD CONNECTION DETAILS REFER  
DWG. NO. DH0008-ENG-C-SI-0011 TO 0020.
- FOR STANDARD ANCHOR BOLT DETAILS REFER  
DWG. NO. DH0008-ENG-C-SI-0001.
- FOR STANDARD HANDRAIL DETAILS REFER  
DWG. NO. DH0008-ENG-C-SI-0003.
- ALL CONNECTIONS ARE BOLTED CONNECTIONS.
- ALL THE STRUCTURAL MEMBERS HAVE TO BE  
HOT DIPPED GALVANIZED.
- PIPE SLEEPER DETAIL REFER DWG. NO. DH0008-ENG-C-SI-0002
- FOR STANDARD CAGE LADDER DRAWING REFER DH0008-ENG-C-SI-0004
- FOR STANDARD STACKCASE DETAILS REFER DH0008-ENG-C-SI-0005
- FOR STANDARD FLOOR GRATING DETAILS REFER DH0008-ENG-C-SI-0007
- FOR STANDARD FORMING DETAILS REFER DWG. DH0008-ENG-C-PF-0038



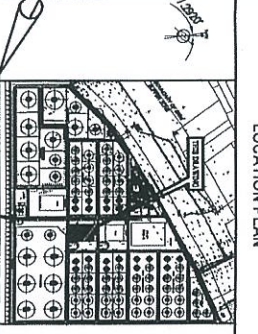
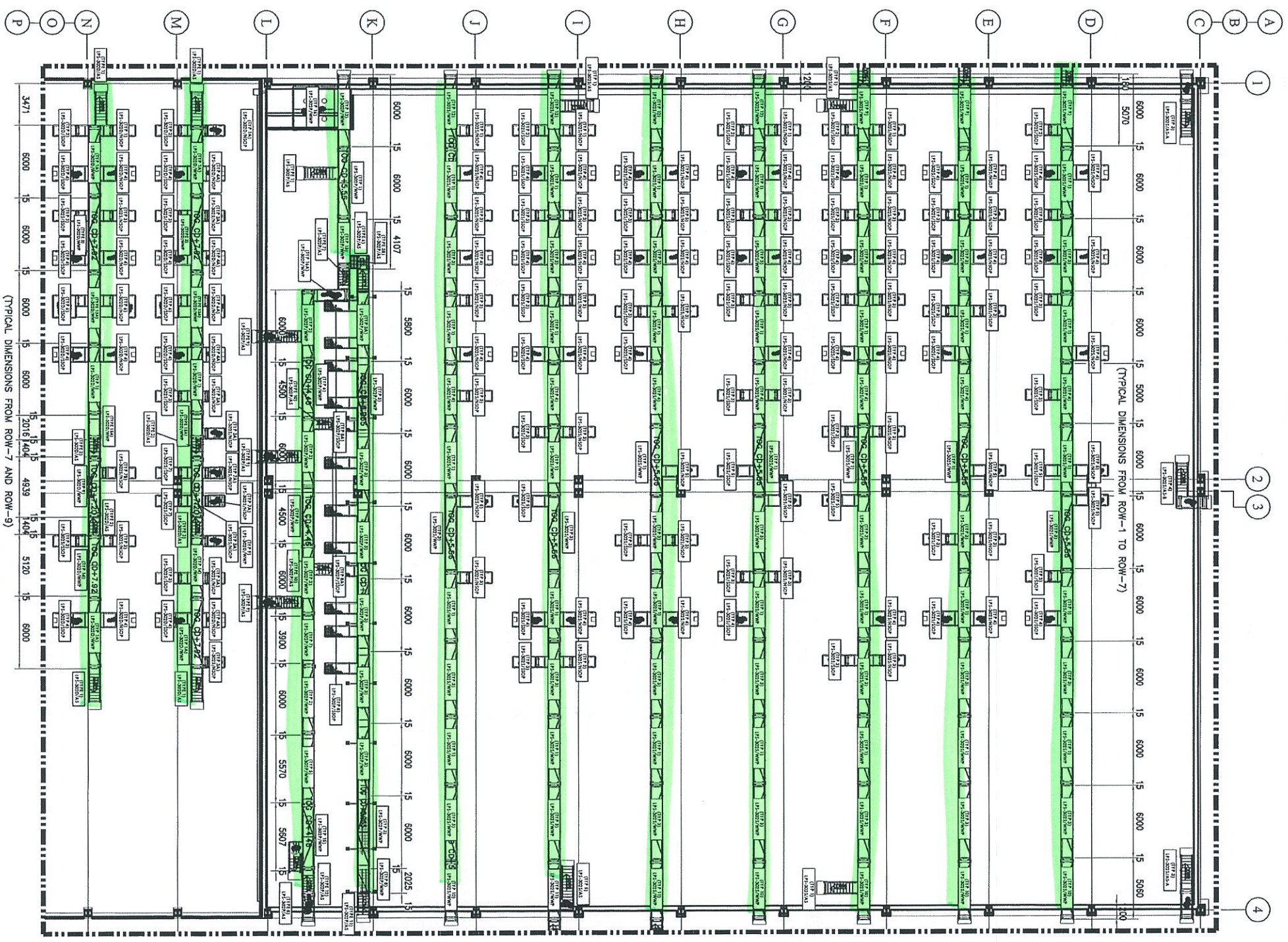








- INSIDE US 302



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE STATED.
  2. DIMENSION WITH ASTERISK (\*) TO BE CONFIRMED.
  3. NUMBERING SYSTEM :-  
3.1 (TYPE 5)  
PLATFORM TYPE
  - 3.2 LPS-302 S / WWP  
PIT NUMBER  
SUCTION DISCHARGED PUMP AREA  
WALK WAY PLATFORM NORTH SIDE OPER. PLATFORM SOUTH SIDE OPER. PLATFORM

PROJECT OWNER :  
**PENGERANG INDEPENDENT TERMINALS SDN. BHD.**

CONSULTANT :  
**DIALOG E & C SDN. BHD.** (18335-9)  
109, BLOK 4, PRIMA DAMANSARA 1,  
NO. 9, JALAN 15/11, 46350 PUNJUNG JAYA, SELANGOR.

DRAWING TITLE :  
**LPS-302  
SUCTION/DISCHARGE AND PUMP AREA  
PLATFORM LAYOUT**

SCALE : AS SHOWN  
DESIGNER : QRE  
DATE : 23/03/13

CHECKED : YPS  
APPROVED : UMI  
REVISION : -

PROJECT TITLE :  
**INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG**

REF. NO. :  
TITLE :  
ISSUED FOR APPROVAL :  
ISSUED FOR COMMENTS :  
REV. DESCRIPTION :  
BY :  
CHK :  
APP. :  
DATE :

DATE : 02/07/13  
DATE : 26/09/13

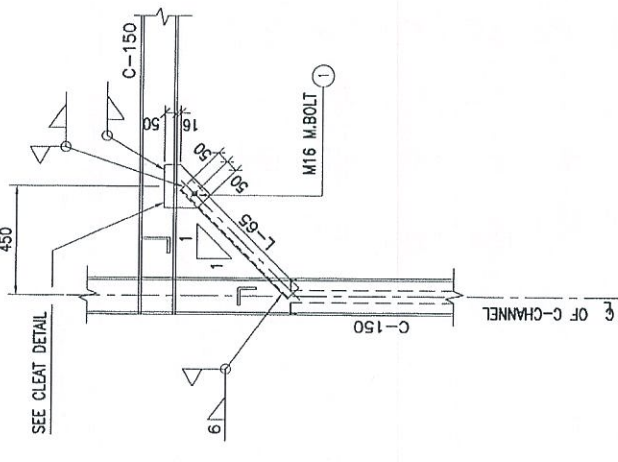
DWG. NO. :  
SHEET NO. :  
1 OF 1

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

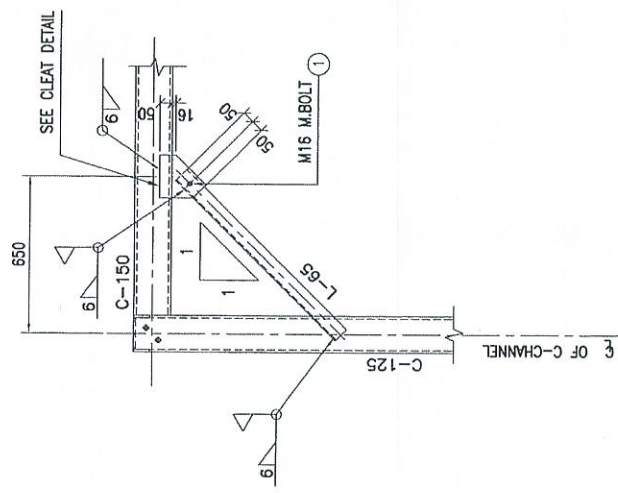
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG)
1	M-BOLT & NUT C/W 2x WASHER - M16x75L	GR. 8.8 HDG	6790	978.0
2	M-BOLT & NUT C/W 2x WASHER - M20x85L	GR. 8.8 HDG	1712	442.0
3	ANCHOR BOLT M20x140L	HILTI ANCHOR	498	180.0
4	ANCHOR BOLT M20x350L	HILTI ANCHOR	1052	509.0
5	BRACKET PLATE - 155 x 110 x 9t	A36 OR EQ.	552	664.9
5	BRACKET PLATE - 140 x 175 x 9t	A36 OR EQ.	66	114.2
TOTAL			66	2888.1

[HOLD]

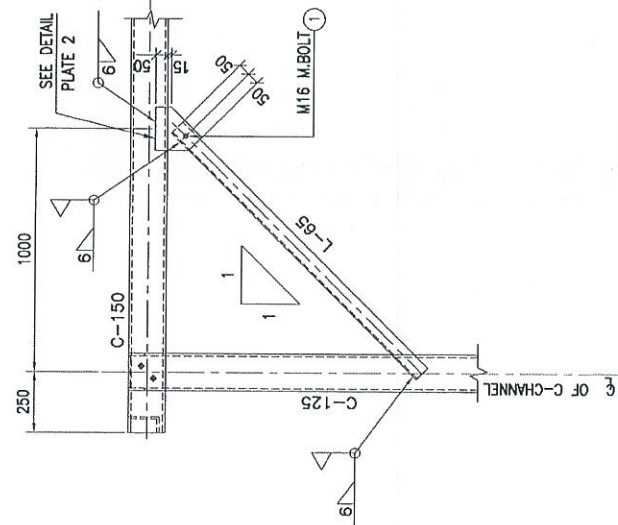
NOTE:  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.



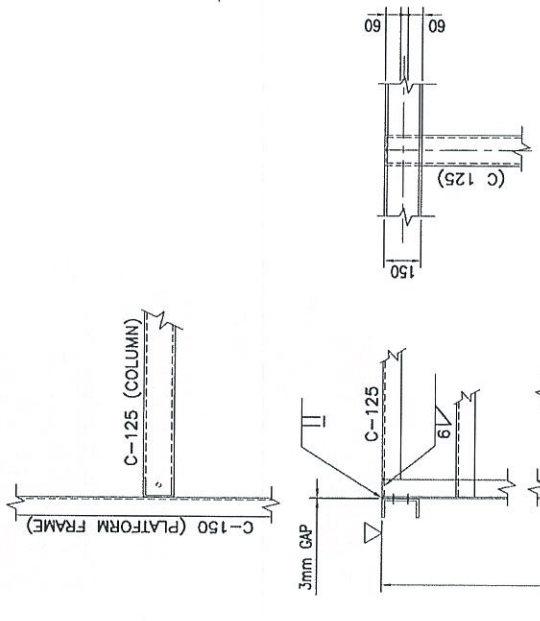
**DETAIL 6  
FOR OPERATING PLATFORM (TYP.)**  
(SCALE 1:15)



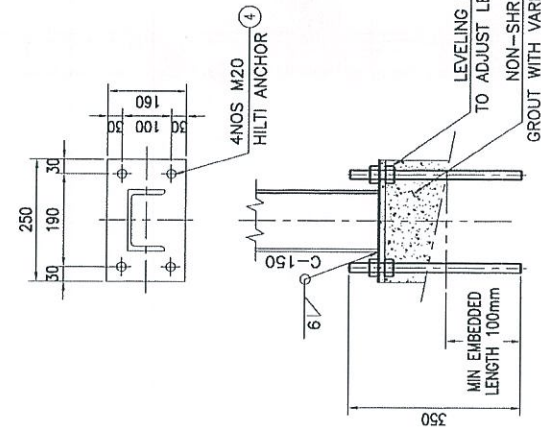
**DETAIL 5  
FOR WALKWAY PLATFORM (TYP.)**  
(SCALE 1:15)



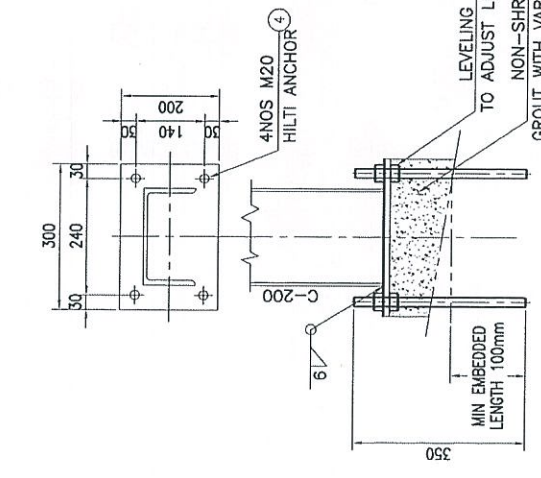
**DETAIL 4  
FOR WALKWAY PLATFORM (TYP.)**  
(SCALE 1:15)



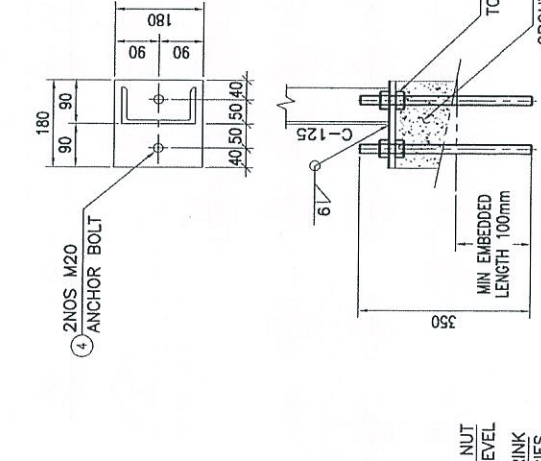
**DETAIL 1  
(FOR COLUMN TYPE 1)**  
(SCALE 1:15)



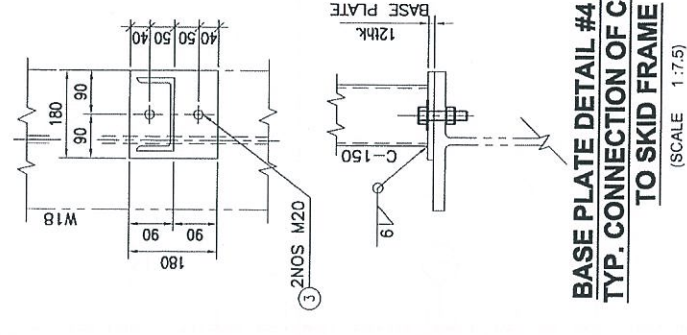
**BASE PLATE DETAIL #1  
(FOR C-150)**  
(SCALE 1:7.5)



**BASE PLATE DETAIL #2  
(FOR C-200)**  
(SCALE 1:7.5)



**BASE PLATE DETAIL #3  
(FOR C-125)**  
(SCALE 1:7.5)



**BASE PLATE DETAIL #4 (C-150)  
TYP. CONNECTION OF COLUMN  
TO SKID FRAME**  
(SCALE 1:7.5)

NO.	DESCRIPTION	DATE	BY	CHK	APPR.	DATE
1	DESIGNED FOR APPROVAL	15/07/13	...	...	...	...
2	CHECKED FOR COMPLIANCE	15/07/13	...	...	...	...
3	DESIGNED FOR CONSTRUCTION	15/07/13	...	...	...	...

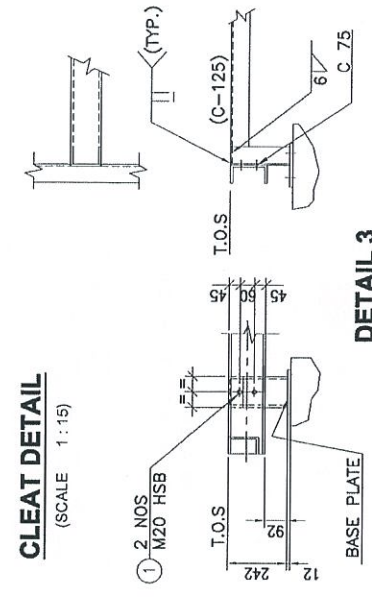
PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG

PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

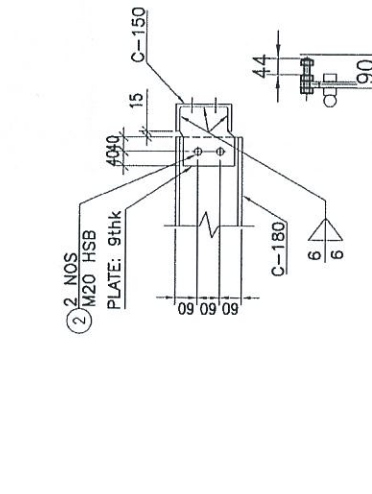
CONSULTANT :  
DIALOG E & C SDN. BHD. (10830-4)  
108, BLOK 8, PRILED JALAN KASIA 1,  
NO. 2, JALAN 16/11, 43300 PULAU TINGGI, SELANGOR.

DRAWING TITLE :  
TYPICAL DETAIL WALKWAY & OPERATING STRUCTURAL PLATFORM

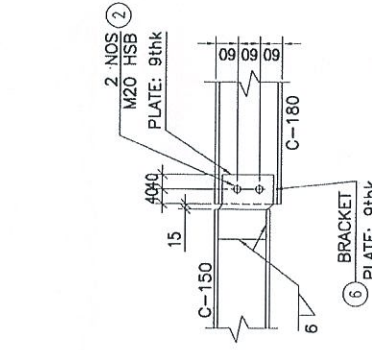
SCALE : AS SHOWN  
DRAWN : HMK  
DATE : 18/07/13  
FILE NAME : -  
DWG. NO. : DH0008-ENG-C-PF-0301  
SHT. NO. : 1 OF 3  
REV. : 0



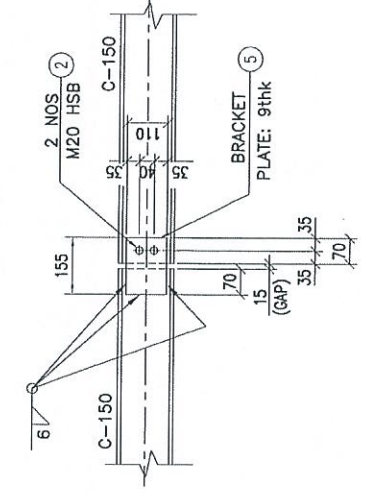
**CLEAT DETAIL**  
(SCALE 1:15)



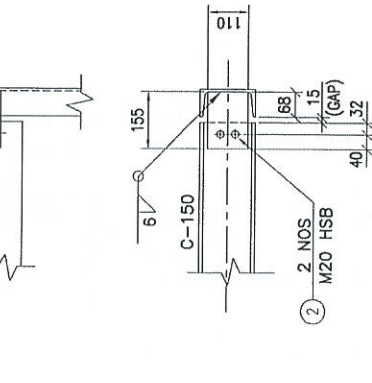
**DETAIL 3  
(FOR COLUMN TYPE 3)**  
(SCALE 1:15)



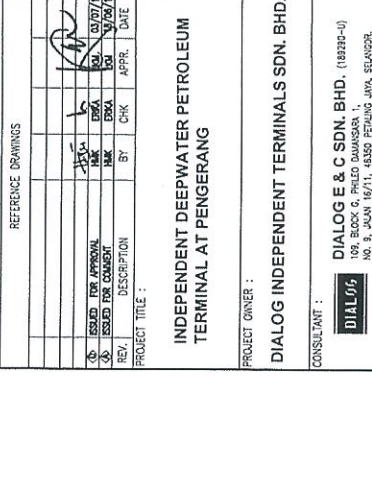
**CONNECTION DETAIL #1**  
(SCALE 1:10)



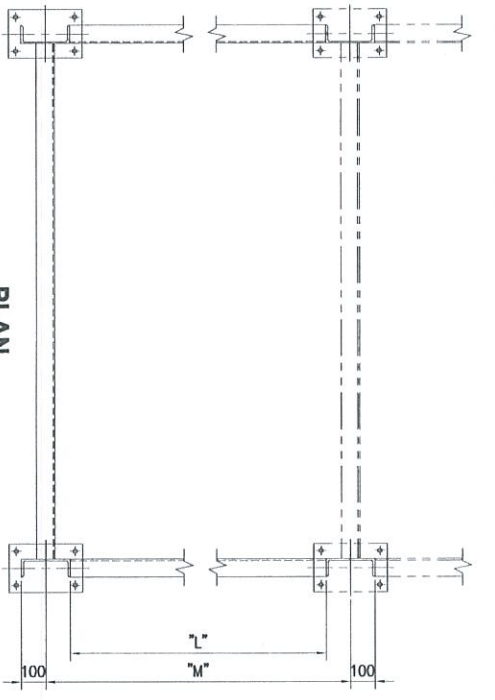
**CONNECTION DETAIL #2**  
(SCALE 1:10)



**CONNECTION DETAIL #3**  
(SCALE 1:10)



**CONNECTION DETAIL #4**  
(SCALE 1:10)



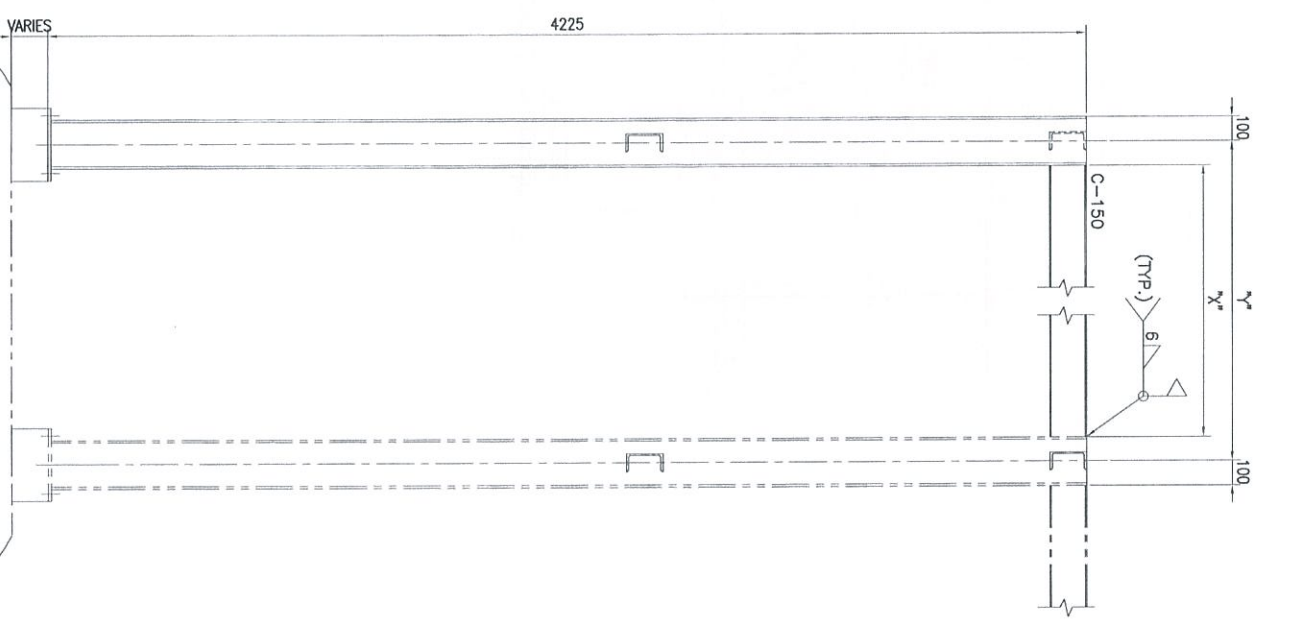
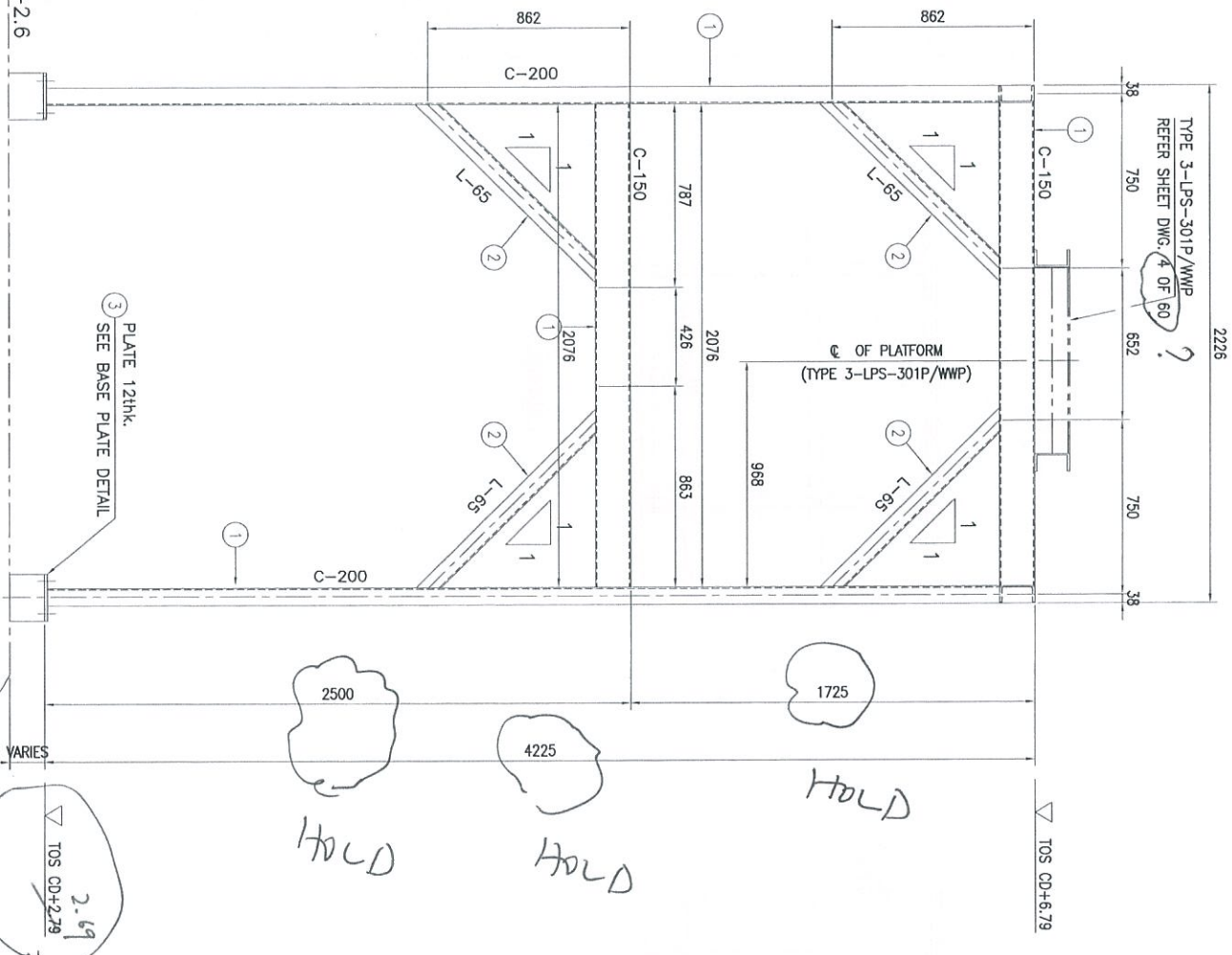
COLUMN A LONG GRID K

"M"	"L" (mm)	QTY.
TOTAL OF COLUMN = 11 pcs		
"M" (COLUMN TO COLUMN LENGTH)		
3563	3363	2
3727	3527	2
5000	4800	12
7000	6800	2
5070	4870	2
TOTAL REQ'D = 20		

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	C-CHANNEL (C-200 x 80 x 24.6kg/m)	A 36 OR EQ.	2	207.3
2	C-CHANNEL (C-150 x 75 x 6.5 x 18.6kg/m)	A 36 OR EQ.	3	256.4
3	ANGLE (L-65 x 65 x 61 x 5.91kg/m)	A 36 OR EQ.	1	7.8
3	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	12.32
TOTAL				4.8

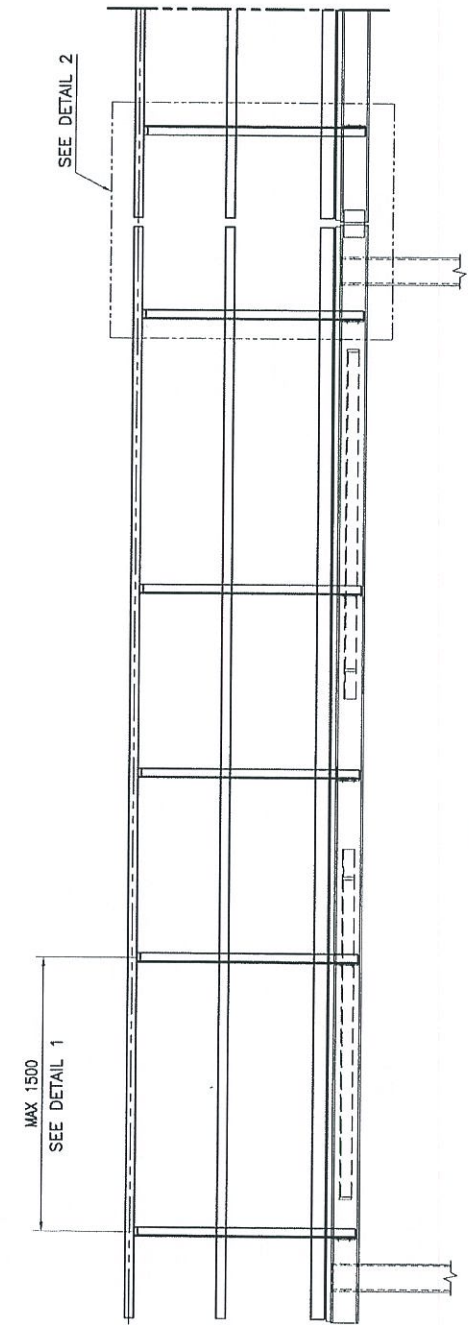
NOTE:  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.



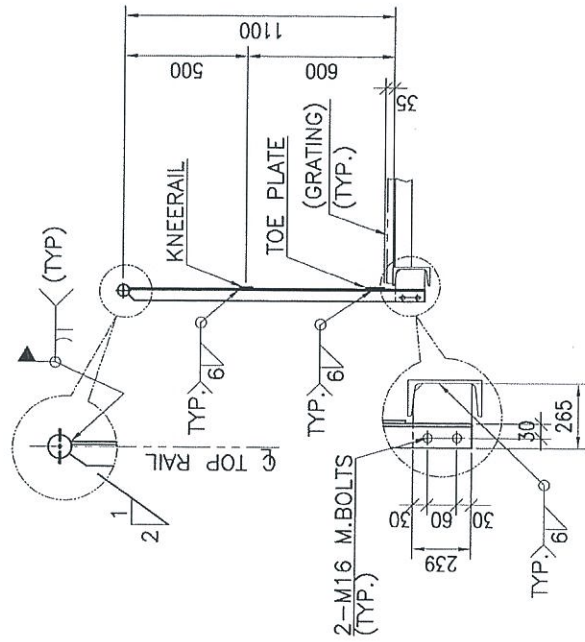
COLUMN DETAIL 1  
 FOR TYPE 3 (A LONG GRID K)  
 (SCALE 1:15)

PLATE 12thk.  
 SEE BASE PLATE DETAIL

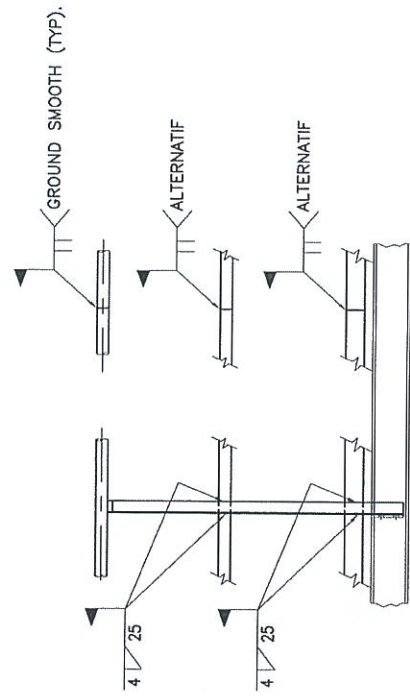
PROJECT OWNER :		DIALOG E & C SDN. BHD. (188294-D)	
PROJECT TITLE :		DIALOG INDEPENDENT TERMINALS SDN. BHD.	
CONSULTANT :		DIALOG E & C SDN. BHD. (188294-D) <small>NO. 9, JALAN 16/11, 4300 PENANG JAYA, SELANGOR</small>	
DRAWING TITLE :		LPS-302 TYPICAL DETAIL WAKUHAN & OPERATING STRUCTURAL PLATFORM	
SCALE :	AS SHOWN	CHECKED :	EMK
DRAWN :	EMK	APPROVED :	UMI
DATE :	19/03/13	REVISED :	
DWG. NO. :	DH0008-BMG-C-PF-0301	SFT. NO. :	2 OF 3



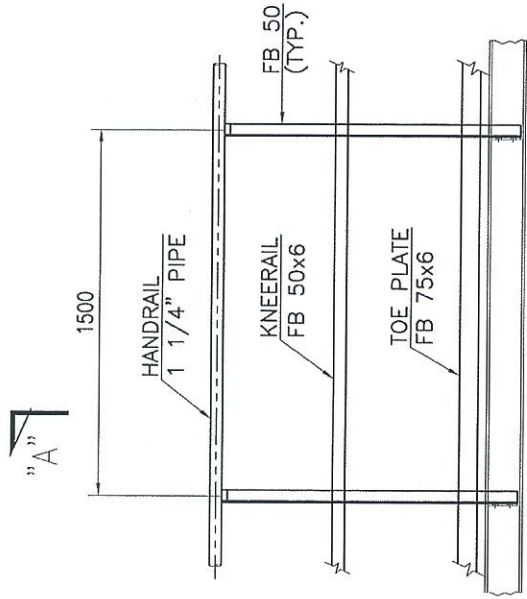
**NORMAL TYPE HANDRAIL**  
SCALE 1:20



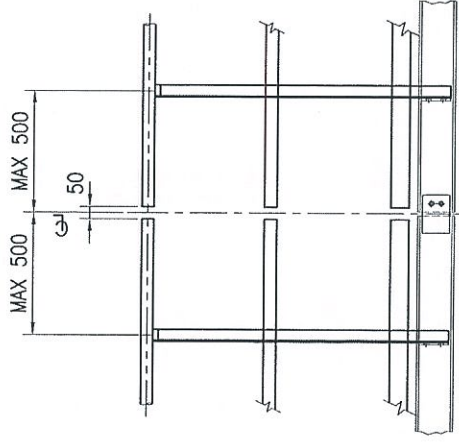
**SECTION "C" - "C"**  
SCALE 1:15



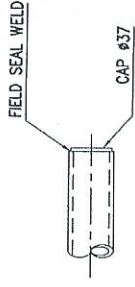
**TYP JOINT FOR HR**  
SCALE 1:15



**DETAIL 1**  
**TYP. HANDRAIL POST**  
(SCALE 1:15)



**DETAIL 2**  
SCALE 1:15

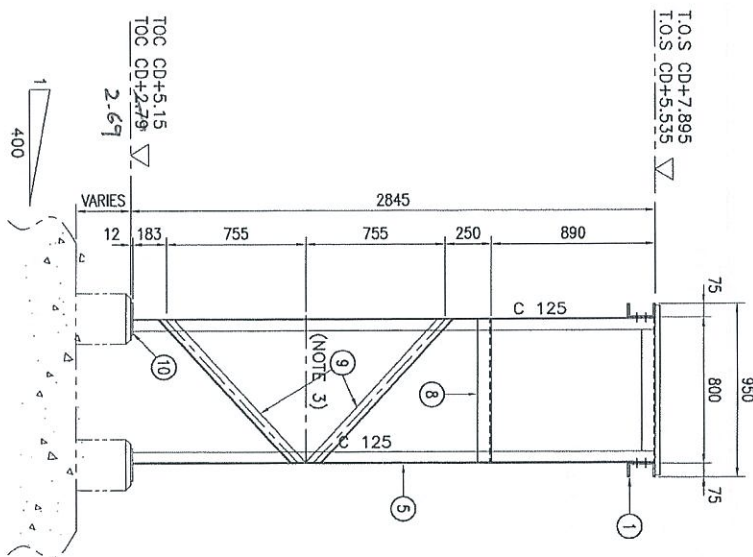
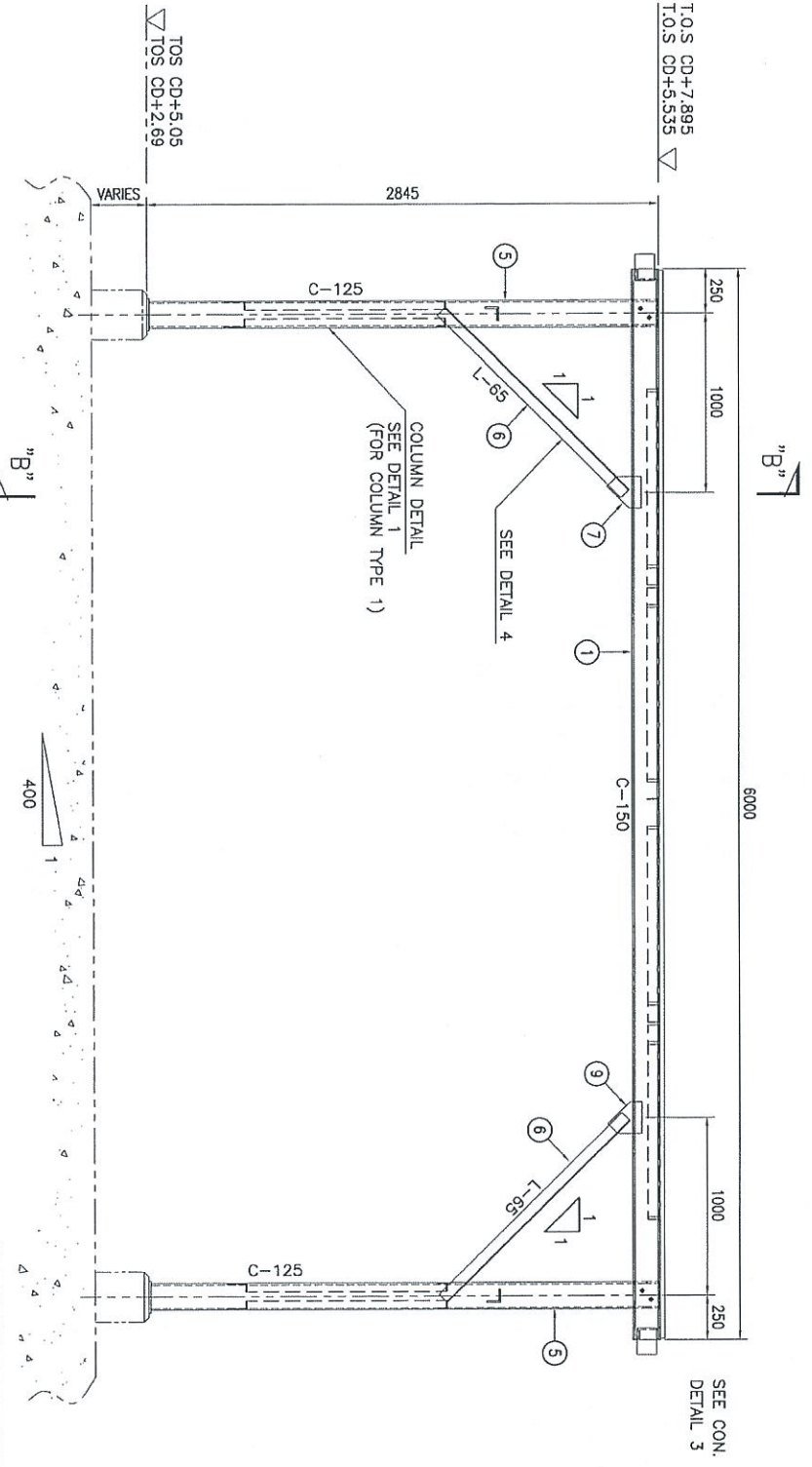
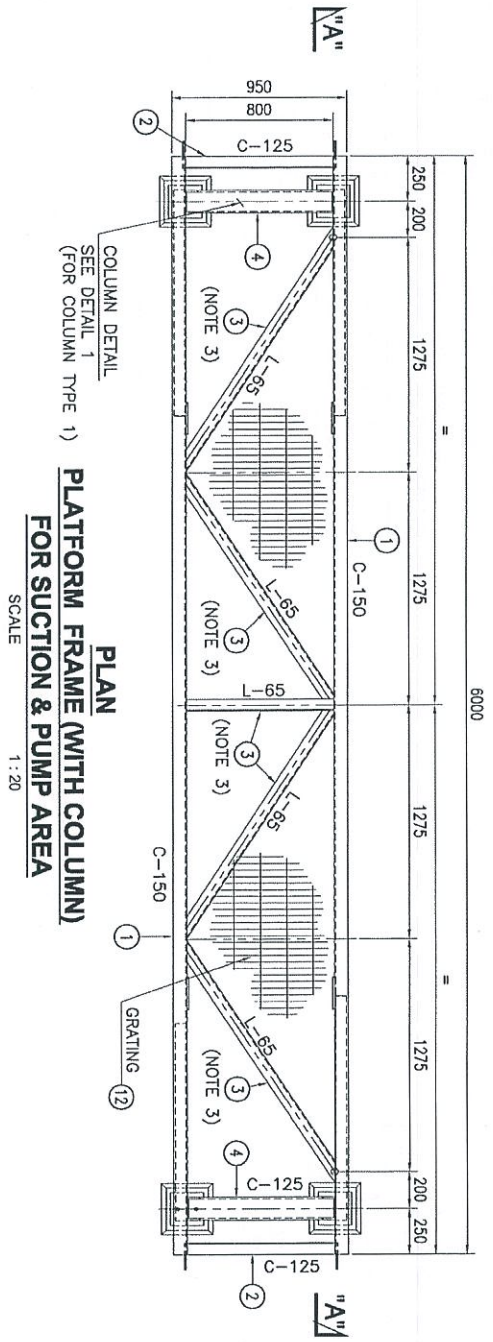


**NOTE :**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. UNLESS ALL MATERIALS OF HANDRAILING SHALL BE CUT AND ADJUSTED IN FIELD TO FIT POSTS AND BENDS WHICH SHALL BE SHOP FABRICATED AS SPECIFIED ON THIS DRAWING.
3. POSTS LOCATION SHALL BE DETERMINED BY FABRICATOR BASED ON THE REQUIREMENT ON THIS DRAWING.
4. ALL CUT CORNERS & SIDES TO BE GROUND SMOOTH.
5. DETAIL OF CAPE

PROJECT OWNER :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
PROJECT TITLE :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
CONSULTANT :		DIALOG E & C SDN. BHD. (19920-0)	
DRAWING TITLE :		TYPICAL DETAIL WALKWAY & OPERATING STRUCTURAL PLATFORM	
SCALE :		AS SHOWN	
DRAWN :		HMK	
CHECKED :		ERMA	
DATE :		18/03/13	
APPROVED :		DM	
FILE NAME :		-	
DWG. NO. :		DH0008-ENG-C-PF-0301	
SHT. NO. :		3 OF 3	
REV. :		0	

# WALKWAY PLATFORM - (TYPE-1)



WALKWAY PLATFORM (WITH COLUMN)	
DESCRIPTION	QTY.
TYPE 1-LPS-302S/WWP	35
TYPE 1-LPS-302P/WWP	1
TYPE 1-LPS-302D/WWP	2
TOTAL REQ'D = 38	

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	FRAME - C150 x 75 x 6.51 x 6000L	A 36 OR EQ.	2	223.2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	3	21.4
3	BRACING #2 - 165 x 65 x 61	A 36 OR EQ.	2	11.1
4	SUPPORT LEG - C125 x 65 x 61 x 2733L	A 36 OR EQ.	2	21.4
5	LEG - C125 x 75 x 91 x 2733L	A 36 OR EQ.	4	146.5
6	BRACING #3 - 165 x 65 x 61	A 36 OR EQ.	4	12.9
7	CLEAT - 91	A 36 OR EQ.	4	9.1
8	BRACING #4 - 165 x 65 x 61 x 800L	A 36 OR EQ.	2	1.4
9	BRACING #5 - 165 x 65 x 61	A 36 OR EQ.	4	4.9
10	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	4	12.32
11	FLOOR GRATING - 5980 x 930 x 251	A 36 OR EQ.	1	164.1
TOTAL				633

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

PROJECT OWNER : DIALOG INDEPENDENT TERMINALS SDN. BHD.  
PROJECT TITLE : WALKWAY PLATFORM WITH COLUMN (TYPE-1)

CONSULTANT : DIALOG E & C SDN. BHD. (1999-01)  
NO. 4, Jalan 1/111, Akas, Petaling Jaya, Selangor.

DRAWING TITLE : WALKWAY PLATFORM WITH COLUMN (TYPE-1)

SCALE : AS SHOWN  
DRAWN : HK  
CHECKED : BK  
DATE : 18/07/13

ISSUED FOR APPROVAL : 18/07/13  
ISSUED FOR COMMENT : 18/07/13

REV. NO. | DESCRIPTION | BY | DATE

1 | 0 | 18/07/13

2 | 0 | 18/07/13

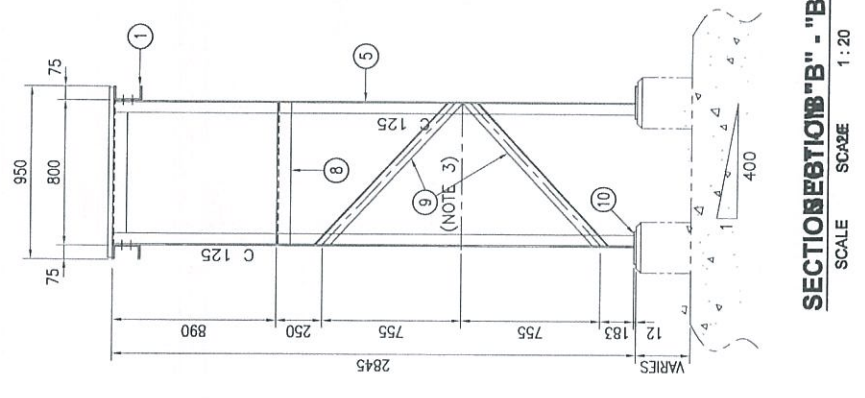
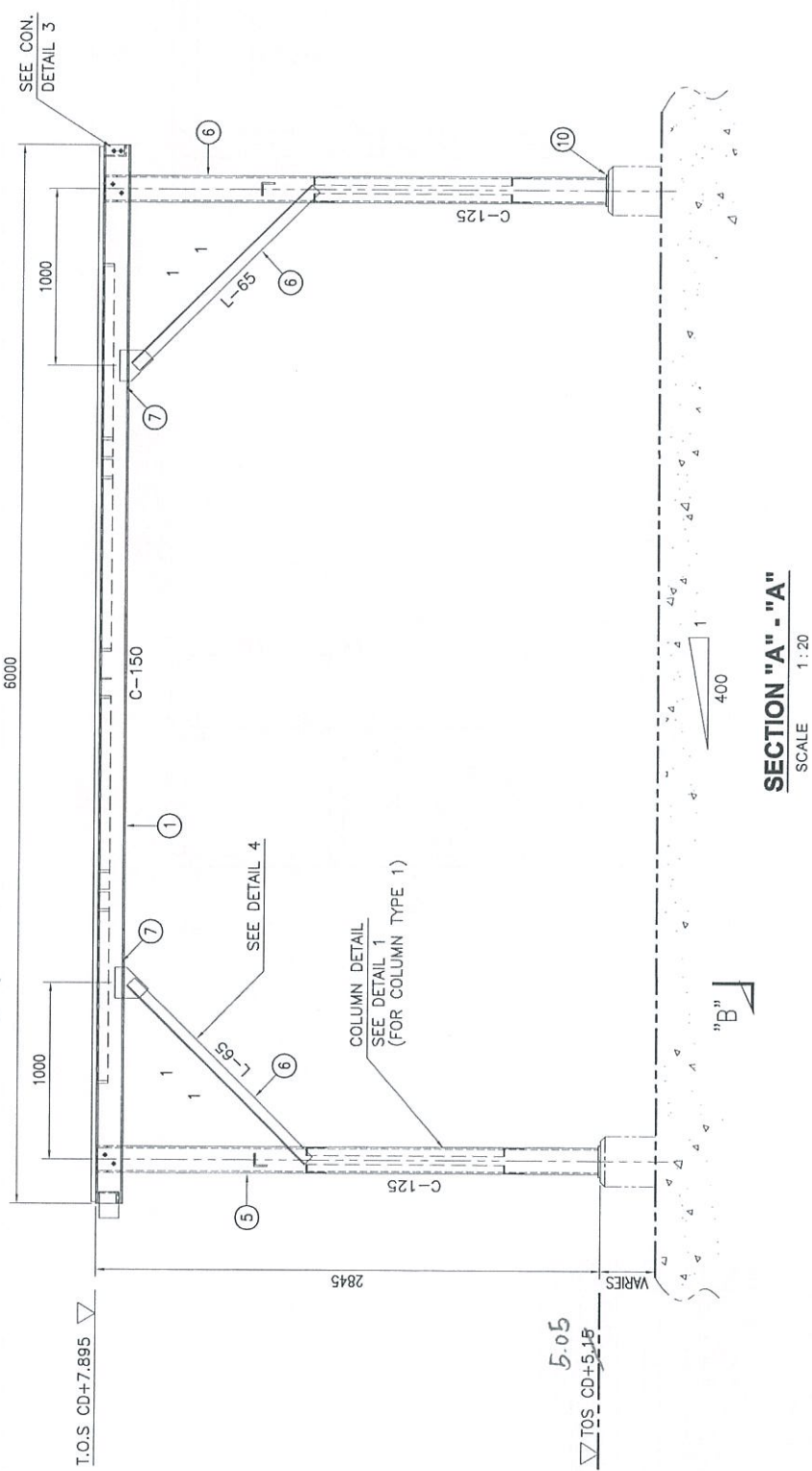
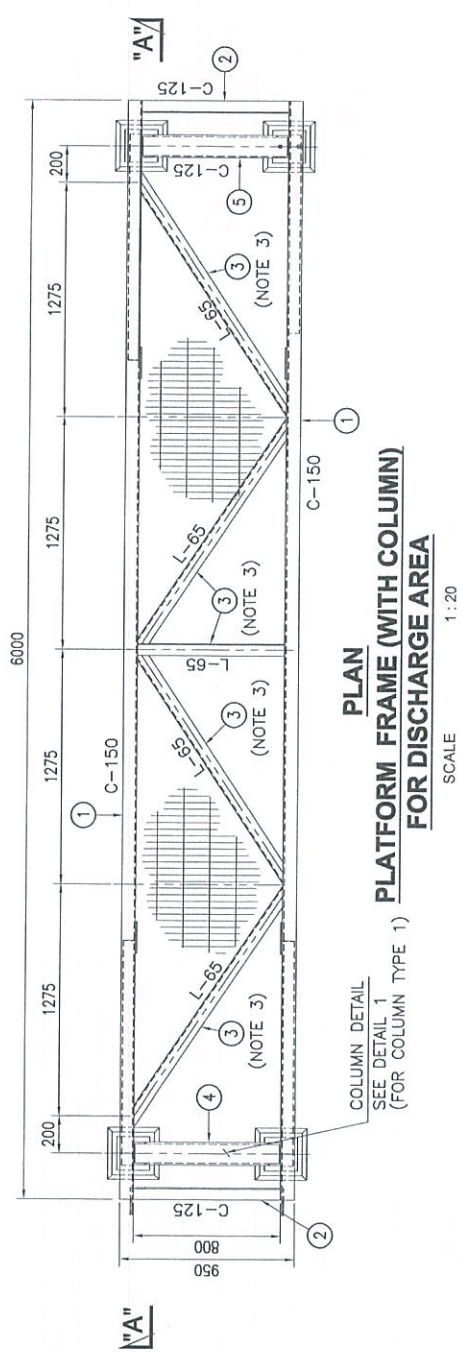
DWG. NO. : DPO008-BNG-C-PF-0302

1 of 2

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 6000L	A 36 OR EQ.	2	223.2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	3	21.4
3	BRACING #1 - L65 x 65 x 61	A 36 OR EQ.	1	11.1
4	SUPPORT LEG - C125 x 75 x 91 x 800L	A 36 OR EQ.	2	21.4
5	LEG - C125 x 65 x 61 x 2733L	A 36 OR EQ.	4	146.5
6	BRACING #2 - L65 x 65 x 61	A 36 OR EQ.	4	12.9
7	CLEAT - 91	A 36 OR EQ.	4	9.1
8	BRACING #3 - L65 x 65 x 61	A 36 OR EQ.	2	2.8
9	BRACING #4 - L75 x 75 x 61	A 36 OR EQ.	4	38.8
10	BASE PLATE - 180 x 180 x 12t	A 36 OR EQ.	4	12.32
11	FLOOR GRATING - 5980 x 930 x 25t	A 36 OR EQ.	1	164.1
	TOTAL			643.4

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT



WALKWAY PLATFORM (WITHOUT COLUMN)	QTY.
TYPE 1A-LPS-302D/WWP	6
TOTAL REQ'D = 6	

PROJECT OWNER :  
 INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG

CONSULTANT :  
 DIALOG E & C SDN. BHD. (18299-4)  
 108, BLOK C, PHASE 1, JALAN DUNIA 1, NO. 9, JALAN 19/11, 46200 PETANG JAYA, SELANGOR.

DRAWING TITLE :  
 LPS-302 WALKWAY PLATFORM WITH COLUMN (TYPE-1A)

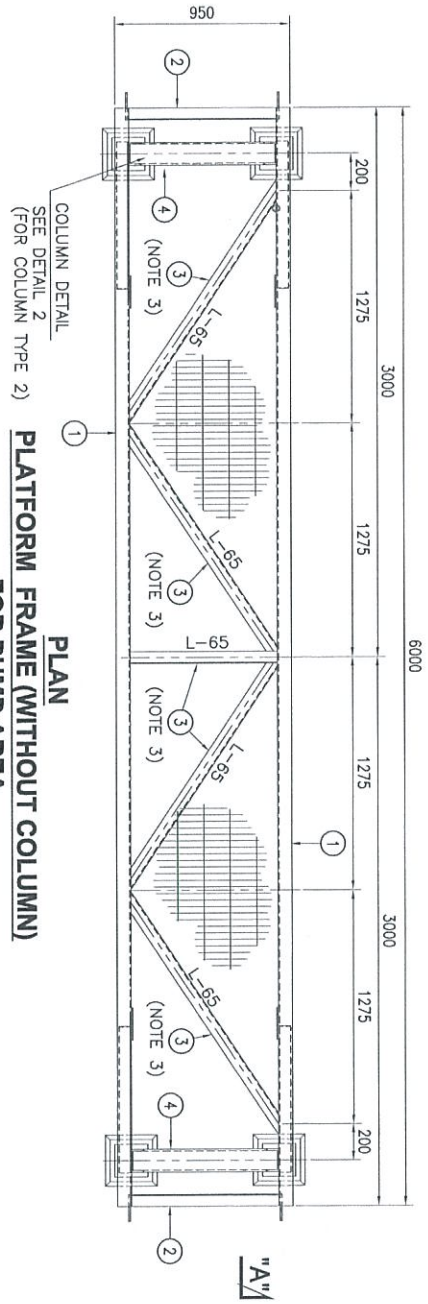
SCALE : AS SHOWN  
 DRAWN : PANI  
 DATE : 19/03/13

PROJECT NO. : DH0008-ENG-C-PF-0302

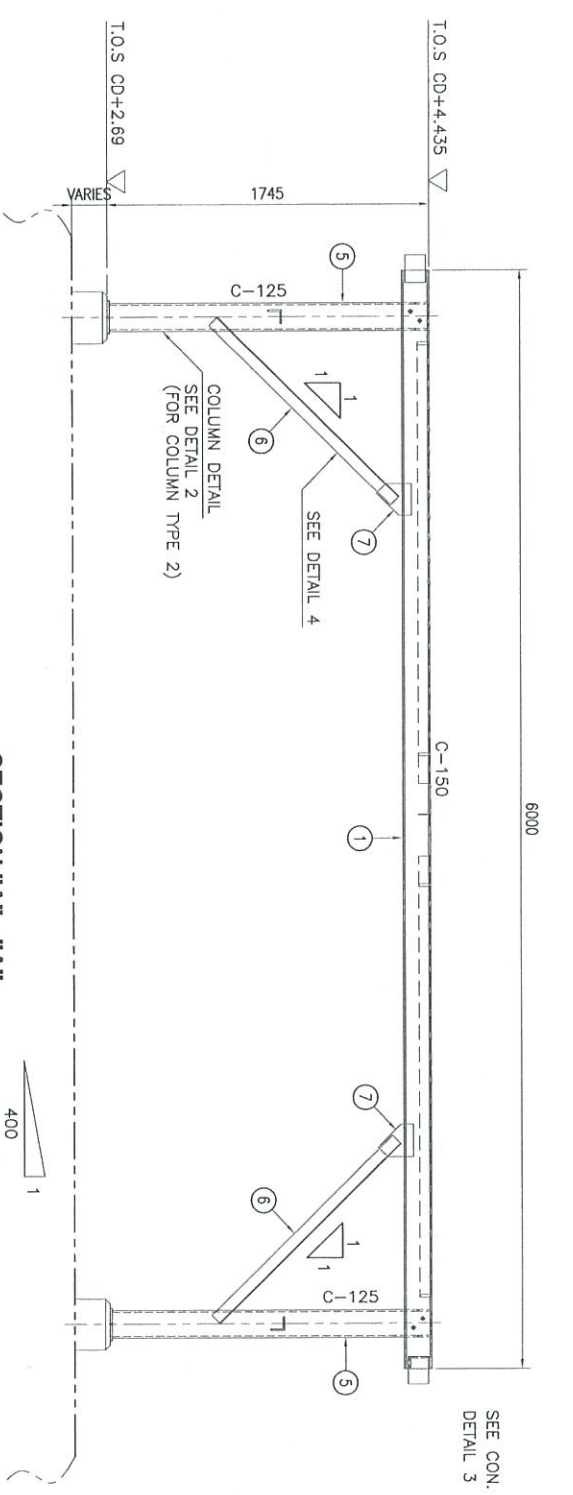
SHR. NO. : 2 OF 2

REV. : 0

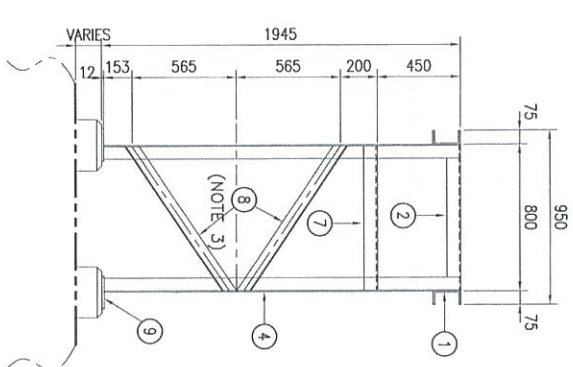
# WALKWAY PLATFORM - (TYPE-2)



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR PUMP AREA**  
 SCALE 1 : 20



**SECTION "A" - "A"**



**SECTION "B" - "B"**

DESCRIPTION	QTY.
WALKWAY PLATFORM (WITHOUT COLUMN)	
TYPE 2-LPS-302P/WWP	4
<b>TOTAL REQ'D = 4</b>	

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 6000L	A 36 OR EQ.	2	223.2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2	21.4
3	BRACING #1 - 1.65 x 65 x 61	A 36 OR EQ.	2	11.1
4	<b>SUPPORT LEGS - C125 x 75 x 91 x 800L</b>	A 36 OR EQ.	2	21.4
5	LEG - C125 x 65 x 61 x 2739L	A 36 OR EQ.	4	146.5
6	BRACING #3 - 1.65 x 65 x 61 x 1737L	A 36 OR EQ.	4	12.9
7	CLEAT - 91	<del>A 36 OR EQ.</del>	4	9.1
8	BRACING #4 - 1.65 x 65 x 61 x 1439L	A 36 OR EQ.	2	2.8
9	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	4	9.4
10	FLOOR GRATING - 5980 x 930 x 251	A 36 OR EQ.	1	164.1
	<b>TOTAL</b>			<b>619.2</b>

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

PROJECT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
 DIALOG E & C SDN. BHD. (19990-0)  
 101, JALAN 9, PUNTA DIAMONDA, 1,  
 NO. 9, JALAN 9/1/1, AKASO RESIDUAL JAYA, SELANGOR.

PROJECT TITLE :  
 INDEPENDENT DEEPWATER PETROLEUM  
 TERMINAL AT PENGERANG

DWG. NO. :  
 DPO008-BNG-C-PF-0303

DATE :  
 18/03/13

SCALE :  
 AS SHOWN

DESIGNED :  
 HAK

CHECKED :  
 HAK

ISSUED FOR APPROVAL :  
 HAK

ISSUED FOR CONSTRUCTION :  
 HAK

REV. :  
 1

DATE :  
 18/03/13

BY :  
 HAK

CHK :  
 HAK

APPR. :  
 HAK

DATE :  
 18/03/13

PROJECT TITLE :  
 WALKWAY PLATFORM WITH COLUMN (TYPE-2)

DWG. NO. :  
 DPO008-BNG-C-PF-0303

DATE :  
 18/03/13

SCALE :  
 AS SHOWN

DESIGNED :  
 HAK

CHECKED :  
 HAK

ISSUED FOR APPROVAL :  
 HAK

ISSUED FOR CONSTRUCTION :  
 HAK

REV. :  
 1

DATE :  
 18/03/13

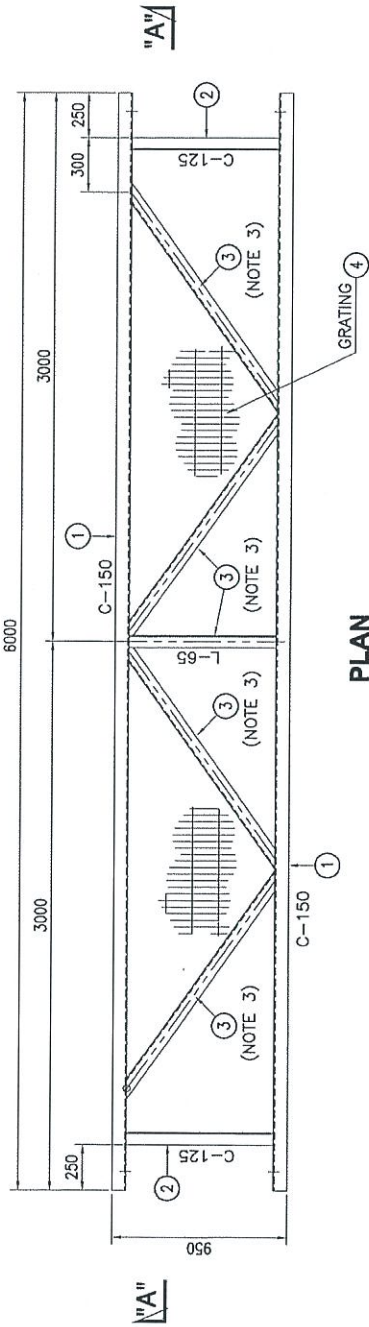
BY :  
 HAK

CHK :  
 HAK

APPR. :  
 HAK

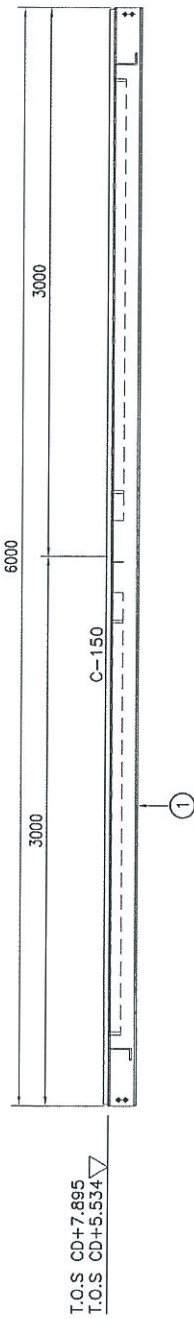
DATE :  
 18/03/13

# WALKWAY PLATFORM - (TYPE-3)



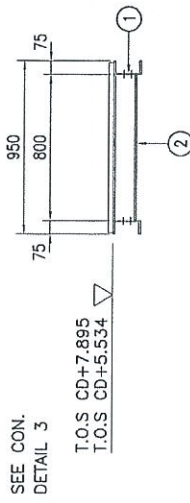
**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR SUCTION, PUMP & DISCHARGE AREA**

SCALE 1:20



**SECTION "A" - "A"**

SCALE 1:20



SEE CON.  
 DETAIL 3

T.O.S CD+7.895  
 T.O.S CD+5.534

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 3-LPS-302S/WWP	28
TYPE 3-LPS-302D/WWP	3
TYPE 3-LPS-302P/TAP	7
TOTAL REQ'D = 38	

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 6000L	A.36 OR EQ.	2	223.2
2	FRAME - C125 x 45 x 61 x 800L	A.36 OR EQ.	2	21.4
3	BRAACING - L65 x 65 x 61 x 800L	A.36 OR EQ.	1	11.1
4	FLOOR GRATING - 5980 x 930 x 25I	A.36 OR EQ.	1	164.1
TOTAL				419.5

**NOTE:**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

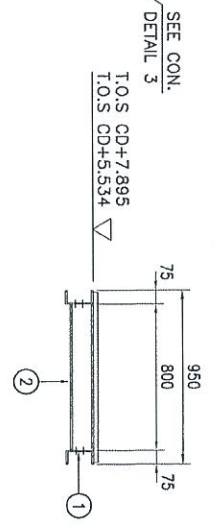
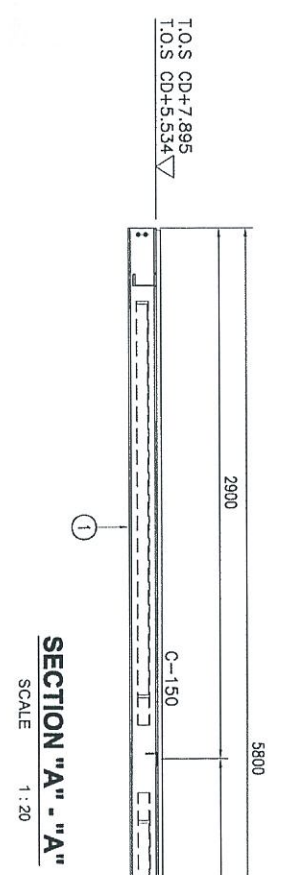
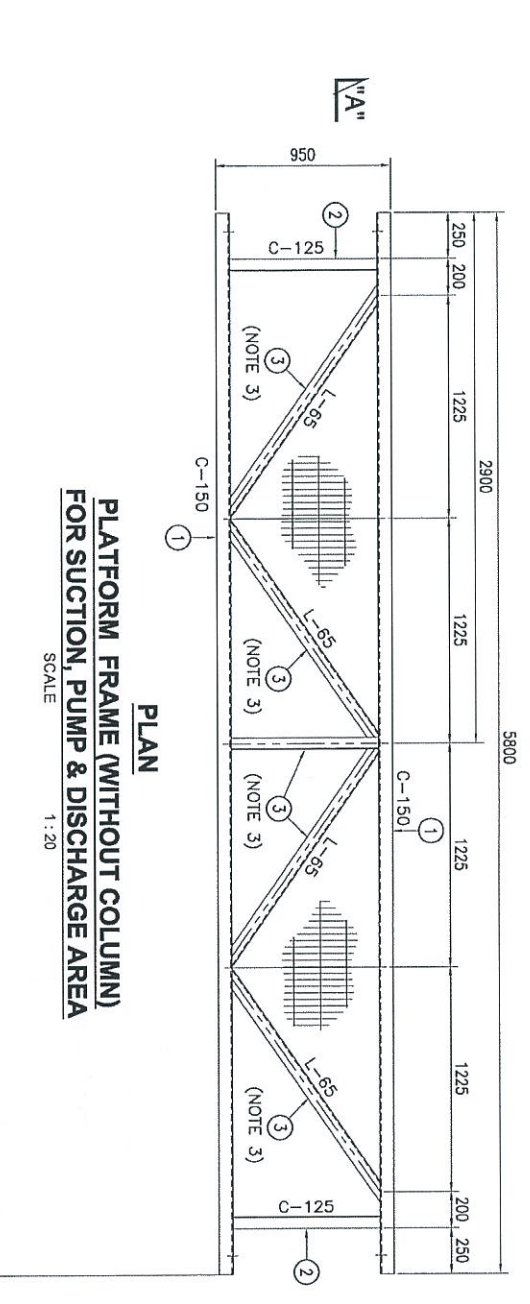
PROJECT NO.:	PRIME GENERAL ARRANGMENT AT LPS-302
DWG NO.:	MASTER PLAN FOR PROSE-1
REFERENCE DRAWINGS	
DESIGNED BY:	DATE:
CHECKED BY:	DATE:
APPROVED BY:	DATE:
PROJECT TITLE:	
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
PROJECT OWNER:	
DIALOG INDEPENDENT TERMINALS SDN. BHD.	
CONSULTANT:	
DIALOG E & C SDN. BHD. (19229-U) 109, BLOK C, PULAU DAMANSARA 1, NO. 8, JALAN 16/11, 46000 PETUNG JAYA, SELANGOR	
DRAWING TITLE:	
WALKWAY PLATFORM (WITHOUT COLUMN) (TYPE-3)	
SCALE:	CHECKED: ERKA
DRAWN: HMK	APPROVED: JUM
DATE: 18/03/13	FILENAME:
DWG. NO.: DH0008-ENG-C-PF-0304	SHEET NO. 1 OF 3



# WALKWAY PLATFORM - (TYPE-3)

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C-150 x 75 x 6.5t x 5800L	A 36 OR EQ.	2	186.0
2	FRAME - C-125 x 65 x 6t x 800L	A 36 OR EQ.	2	21.4
3	BRACING - L-65 x 65 x 6t x 800L	A 36 OR EQ.	1	11.1
4	FLOOR GRATING - 5780 x 930 x 25t	A 36 OR EQ.	1	158.6
TOTAL				382.3

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELDS TO BE IN ACCORDANCE WITH AWS D1.1.  
 3. CUT TO SIZE

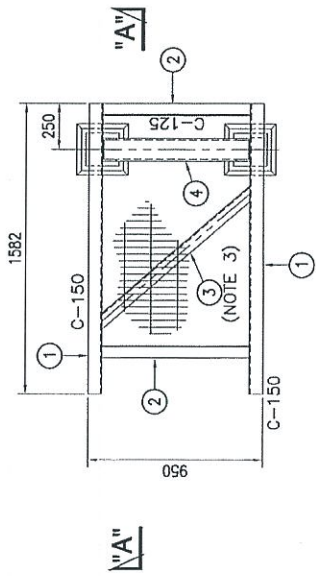


WALKWAY PLATFORM (WITHOUT COLUMN)	QTY.
DESCRIPTION	
TYPE 3A-LPS-302P/TAP	1
TOTAL REQ'D = 1	

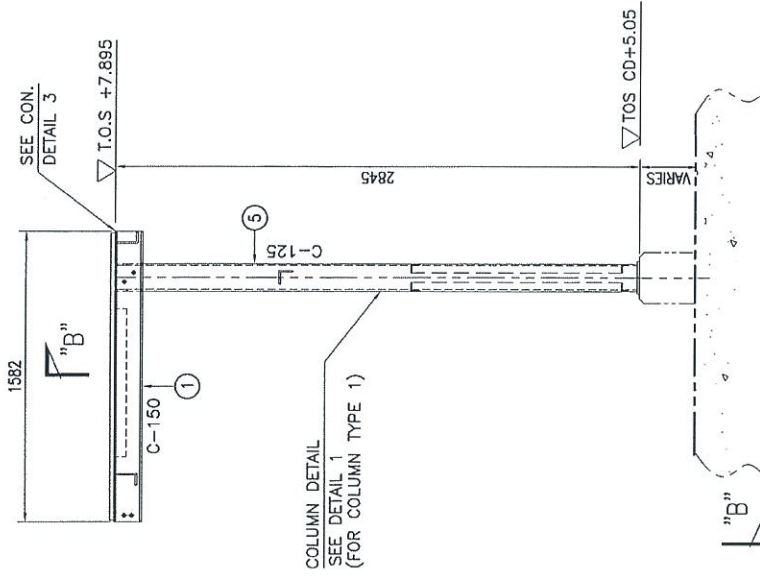
REVISIONS	REFERENCE DRAWINGS
NO.   DATE   BY   CHK.   DESCRIPTION 1   18/03/13   HMK   HMK   ISSUED FOR APPROVAL 2   18/03/13   HMK   HMK   ISSUED FOR CONSTRUCTION 3   18/03/13   HMK   HMK   ISSUED FOR CONSTRUCTION	TITLE: PUMP GENERAL ARRANGEMENT AT UPS-302 DRAWING NO.: DHD0008-ENG-C-PF-0304

**PROJECT OWNER:** DIALOG INDEPENDENT TERMINALS SDN. BHD.  
**CONSULTANT:** DIALOG E & C SDN. BHD. (18000-0)  
 100, Jalan 6, Phase Damansara 1, No. 8, Jalan 18/11, 47500 Petaling Jaya, Selangor.  
**DRAWING TITLE:** WALKWAY PLATFORM (WITHOUT COLUMN) (TYPE-3A)  
**SCALE:** AS SHOWN  
**DATE:** 18/03/13  
**CHK. NO.:** DHD0008-ENG-C-PF-0304

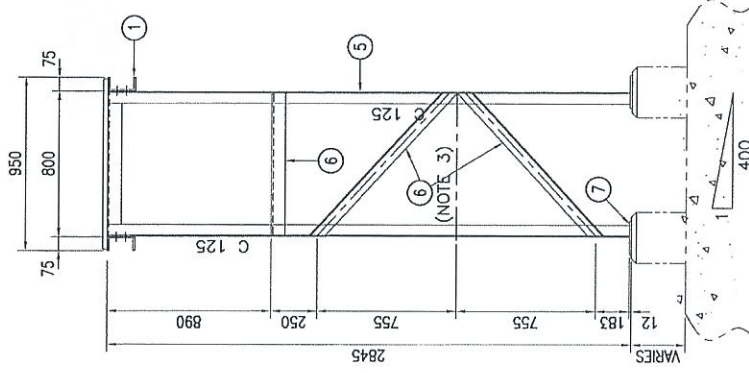
# WALKWAY PLATFORM - (TYPE-3B)



**PLAN**  
**PLATFORM FRAME (WITH COLUMN)**  
**FOR PUMP AREA**  
SCALE 1:20



**SECTION "B" - "B"**  
SCALE 1:20



**SECTION "B" - "B"**  
SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 1582L	A 36 OR EQ.	2	55.8
2	FRAME - C125 x 65 x 6.1 x 800L	A 36 OR EQ.	1	21.5
3	BRACING #1 - L65 x 65 x 6.1 x 1453L	A 36 OR EQ.	1	2.8
4	SUPPORT LEG - C125 x 75 x 9.1 x 800L	A 36 OR EQ.	1	5.3
5	LEG - C125 x 65 x 6.1 x 2733L	A 36 OR EQ.	2	73.2
6	BRACING #2 - L65 x 65 x 6.1 x 780L	A 36 OR EQ.	2	36.8
7	BASE PLATE - 180 x 180 x 12	A 36 OR EQ.	2	12.32
8	FLOOR GRATING - 1562 x 930 x 25	A 36 OR EQ.	1	42.9
	TOTAL			783.0

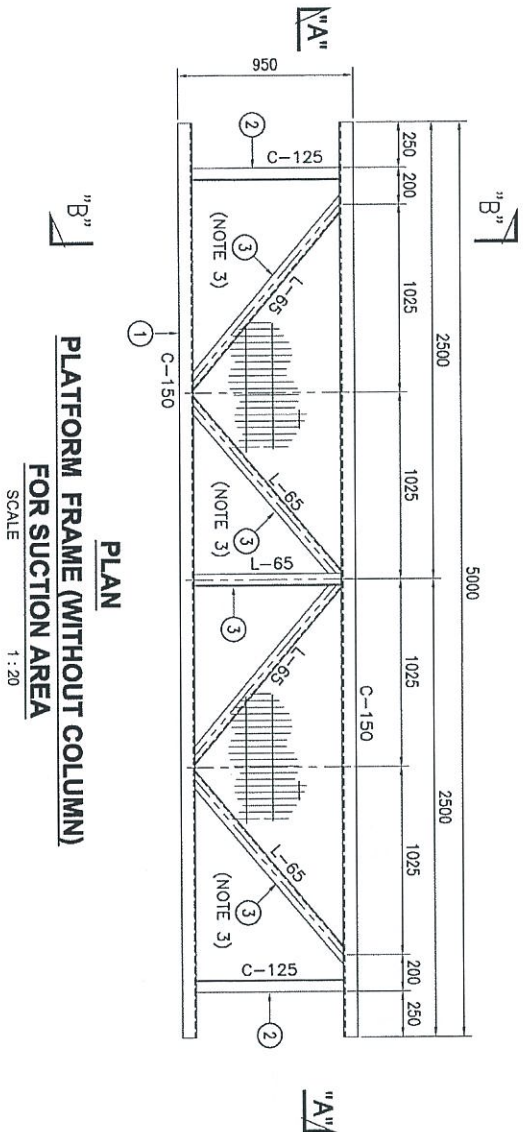
**NOTE:**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

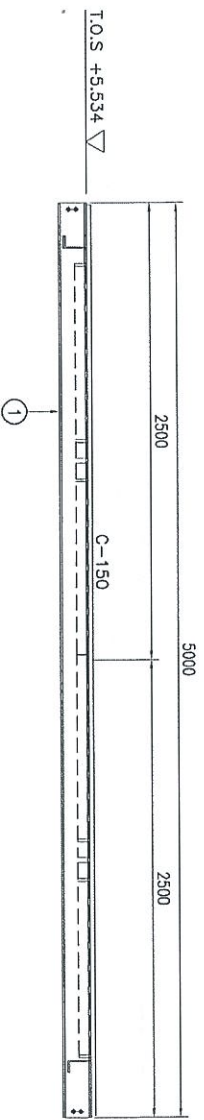
WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 3B-LPS-302P/TAP	1
TOTAL REQ'D = 1	

PROJECT NO. : 0000-00-00-000, SHE. 1-7	ISSUE NO. : 0000-00-00-000-001-001
PROJECT TITLE : REFERENCE DRAWINGS	
PROJECT NO. : 0000-00-00-000, SHE. 1-7	
ISSUE NO. : 0000-00-00-000-001-001	
DATE : 18/03/13	DATE : 18/03/13
BY : [Signature]	BY : [Signature]
CHECKED : [Signature]	CHECKED : [Signature]
DATE : 18/03/13	DATE : 18/03/13
PROJECT TITLE : REFERENCE DRAWINGS	PROJECT TITLE : REFERENCE DRAWINGS
PROJECT OWNER : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
PROJECT OWNER : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
CONSULTANT : DIALOG E & C SDN. BHD. (10299-0)	
CONSULTANT : DIALOG E & C SDN. BHD. (10299-0)	
DRAWING TITLE : WALKWAY PLATFORM (WITH COLUMN) (TYPE-3B)	
DRAWING TITLE : WALKWAY PLATFORM (WITH COLUMN) (TYPE-3B)	
SCALE : AS SHOWN	CHECKED : ERVA
DRAWN : HMK	APPROVED : LIM
DATE : 18/03/13	FILE NAME : -
DWG. NO. : DH0008-ENG-C-PF-0304	SHT. NO. REV. : (0)
	3 OF 3 0

# WALKWAY PLATFORM - (TYPE-4)

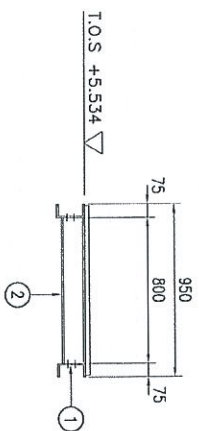


**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR SUCTION AREA**  
 SCALE 1:20



**SECTION "A" - "A"**  
 SCALE 1:20

SEE CON. DETAIL 3



BILL OF MATERIALS (ONE (1) SET OF PLATFORM)			
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET)
1	FRAME - C-150 x 75 x 6.51 x 5000L	A 36 OR EQ.	2
2	FRAME - C-125 x 65 x 61 x 800L	A 36 OR EQ.	2
3	BRACING - L65 x 65 x 61 x 800L	A 36 OR EQ.	1
4	BRACING #2 - L65 x 65 x 61	A 36 OR EQ.	2
5	FLOOR GRATING - 4980 x 930 x 25t	A 36 OR EQ.	1
TOTAL			382.3

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS:D1.1.  
 3. CUT TO SIZE

DESCRIPTION	QTY.
WALKWAY PLATFORM (WITHOUT COLUMN)	
TYPE 4-LPS-3025/WWP	7
TOTAL REQ'D =	7

PROJECT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
 DIALOG E & C SDN. BHD. (18282-0)

DRAWING TITLE :  
 WALKWAY PLATFORM (WITHOUT COLUMN)  
 (TYPE-4)

NO.	ISSUED FOR APPROVAL	CHK.	BY	DATE
1	ISSUED FOR APPROVAL	CHK.	BY	DATE
2	ISSUED FOR APPROVAL	CHK.	BY	DATE
3	ISSUED FOR APPROVAL	CHK.	BY	DATE

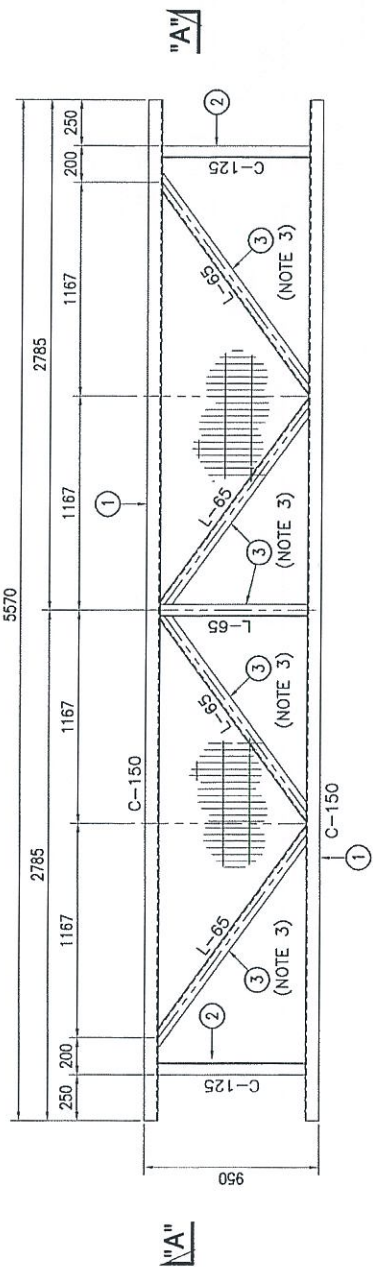
**BILL OF MATERIALS (ONE (1) SET OF PLATFORM)**

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 5570L	A 36 OR EQ.	2	186.0
2	FRAME - C125 x 65 x 6.1 x 800L	A 36 OR EQ.	2	21.4
3	BRACING - L65 x 65 x 6.1	A 36 OR EQ.	5	11.1
4	FLOOR GRATING - 5550 x 930 x 25#	A 36 OR EQ.	1	152.3
	TOTAL			341.1

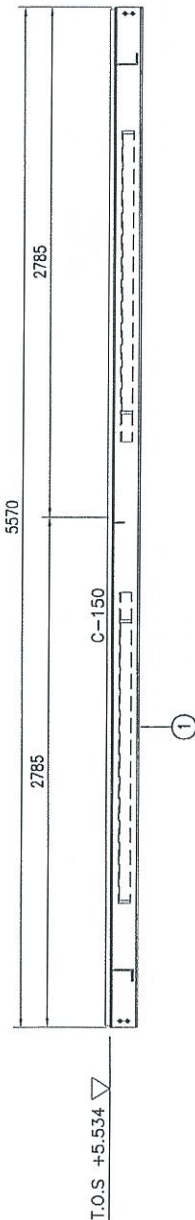
**NOTE:**

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS D1.1.
3. CUT TO SUIT

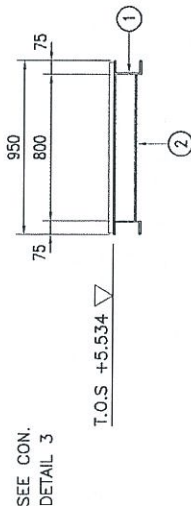
**WALKWAY PLATFORM - (TYPE-5)**



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR PUMP AREA**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20



SEE CON.  
DETAIL 3

DESCRIPTION	QTY.
WALKWAY PLATFORM (WITHOUT COLUMN)	
TYPE 5-LPS-302P/WWP	1
TOTAL REQ'D = 1	

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG

PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
DIALOG E & C SDN. BHD. (182290-0)  
109, BLOCK 6, PHELO DAMASKA 1,  
NO. 8, JALAN 18/11, 43000 PETANG AJAY, SELANGOR.

DRAWING TITLE :  
LPS-302-302  
WALKWAY PLATFORM (WITHOUT COLUMN) (TYPE-5)

SCALE : AS SHOWN  
DRAWN : RAK  
DATE : 18/03/13  
FILE NAME : -  
SHEET NO. : 01  
REV. : 0

DWG. NO. : DH0008-ENG-C-PF-0308

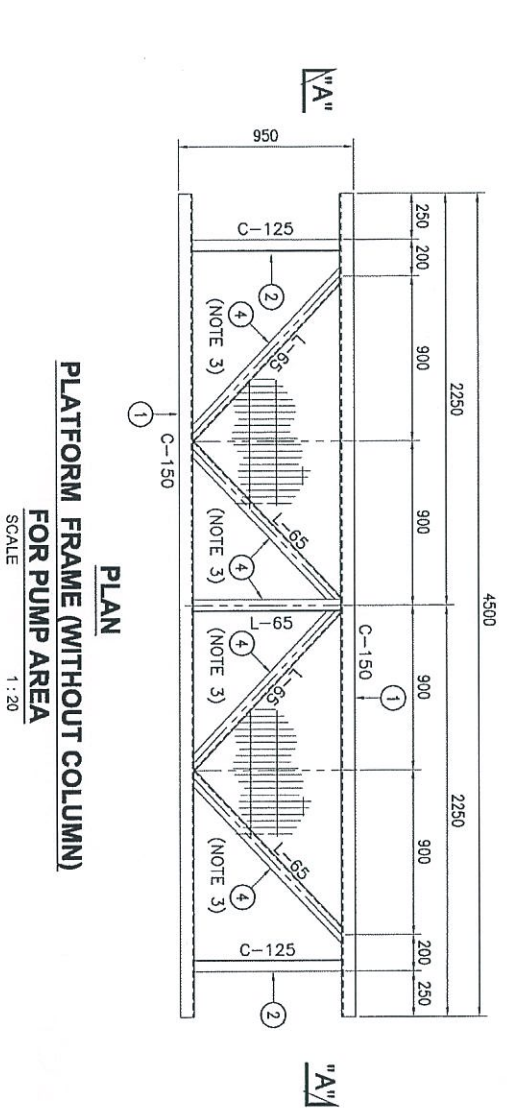
REFERENCE DRAWINGS

DATE: 18/03/13  
BY: [Signature]  
CHK: [Signature]  
APPR: [Signature]

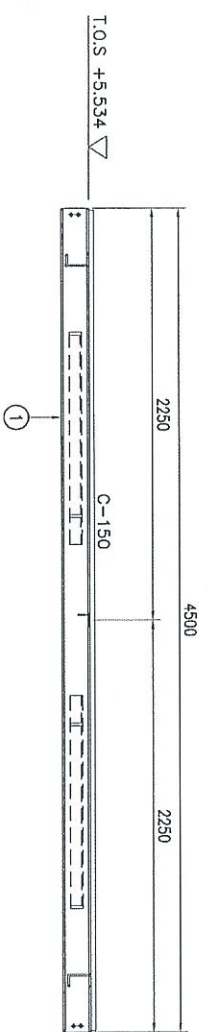
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)			
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET) WEIGHT (KG)
1	FRAME - C150 x 75 x 6.51 x 4500L	A 36 OR EQ.	2 167.4
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2 21.4
3	BRACING - L65 x 65 x 61	A 36 OR EQ.	2 11.1
4	FLOOR GRATING - 4480 x 930 x 25I	A 36 OR EQ.	1 122.9
TOTAL			363.7

NOTE:  
 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

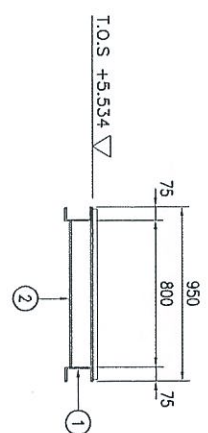
### WALKWAY PLATFORM - (TYPE-6)



PLAN  
 PLATFORM FRAME (WITHOUT COLUMN)  
 FOR PUMP AREA  
 SCALE 1:20



SECTION "A" - "A"  
 SCALE 1:20



DESCRIPTION	QTY.
WALKWAY PLATFORM (WITHOUT COLUMN)	
TYPE 6-LPS-302P/WWP	2
TOTAL REQ'D = 2	

NO.	ISSUED FOR APPROVAL	CHK.	BRN.	DATE
1	ISSUED FOR CONSTRUCTION	HK	BRN	18/09/13
2	ISSUED FOR CONSTRUCTION	HK	BRN	18/09/13

PROJECT TITLE :  
 INDEPENDENT DEEPWATER PETROLEUM  
 TERMINAL AT PENGERANG

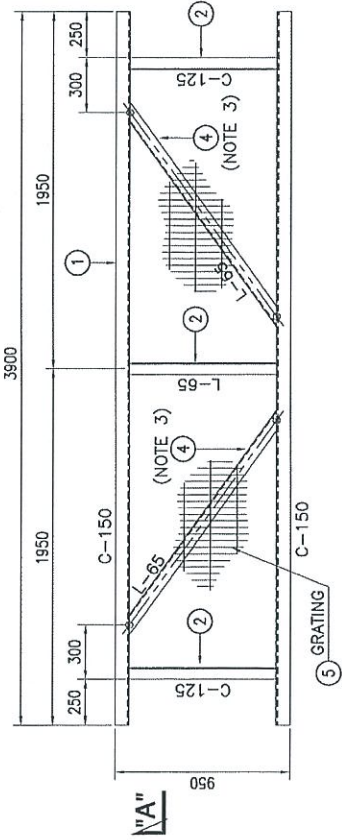
PRODUCT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
 DIALOG E & C SDN. BHD. (18229-0)  
 108, Jalan 9, Pusat Dagang,  
 No. 8, Jalan 9/11, 46000 Petaling Jaya, Selangor.

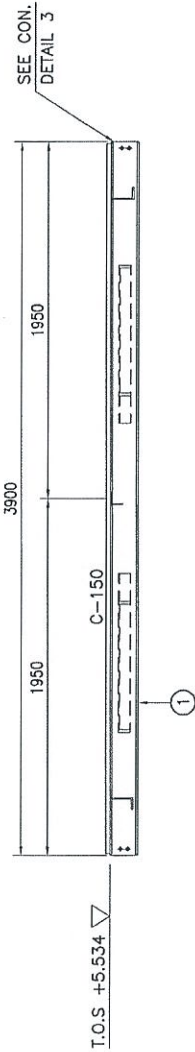
DWG. NO. :  
 DIALOG E & C SDN. BHD. (18229-0)  
 108, Jalan 9, Pusat Dagang,  
 No. 8, Jalan 9/11, 46000 Petaling Jaya, Selangor.

SCALE : AS SHOWN  
 DRAWN : HK  
 DATE : 18/09/13  
 DWG. NO. : DIALOG E & C SDN. BHD. (18229-0)  
 108, Jalan 9, Pusat Dagang,  
 No. 8, Jalan 9/11, 46000 Petaling Jaya, Selangor.

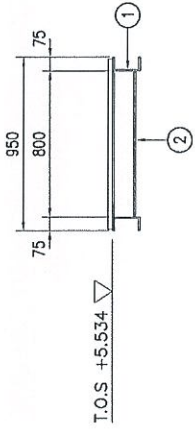
# WALKWAY PLATFORM - (TYPE-7)



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR PUMP AREA**  
 SCALE 1:20



**SECTION "A" - "A"**  
 SCALE 1:20



WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 7 - LPS-302P/TAP	1
<b>TOTAL REQ'D = 1</b>	

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHTS (1 SET)
1	FRAME - C150 x 75 x 6.51 x 3900L	A.36 OR EQ.	2	145.1
2	FRAME - C125 x 65 x 61 x 800L	A.36 OR EQ.	2	21.4
3	BRACING - L65 x 65 x 61	A.36 OR EQ.	3	11.1
4	FLOOR GRATING - 3880 x 930 x 251	A.36 OR EQ.	1	106.4
<b>TOTAL</b>				<b>341.4</b>

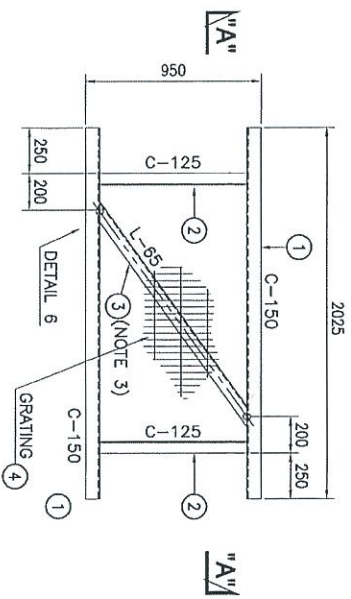
**NOTE:**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

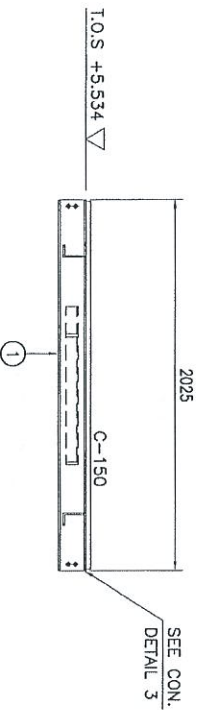
PIPING DESIGN, ARRANGEMENT AT LPS-302 MASTER PLAN FOR PAGES-1 Dwg No.	TITLE REFERENCE DRAWINGS DATE BY CHK APPR. DATE
PROJECT OWNER : DIALOG INDEPENDENT TERMINALS SDN. BHD.	PROJECT TITLE : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG
CONSULTANT : DIALOG E & C SDN. BHD. (18220-U) 109, BLOK 8, PHLO DAMANSARA 1, JALAN PUNJAYA, 47810 PETALING JAYA, SELANGOR	DRAWING TITLE : LPS-302-302 WALKWAY PLATFORM (WITHOUT COLUMN) (TYPE-7)
SCALE : AS SHOWN DRAWN : HMK DATE : 18/02/13 DWG. NO. : DH0008-ENG-C-PF-0308	CHECKED : ERVA APPROVED : LHM FILENAME : SHEET NO. REV. : 1 OF 1 0

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG) (1 SET)
1	FRAME - C150 x 75 x 6.51 x 2025L	A 36 OR EQ.	2	75.3
2	FRAME - C125 x 65 x 6.1 x 800L	A 36 OR EQ.	2	21.4
3	BRAKING - L65 x 65 x 6.1 x 800L	A 36 OR EQ.	1	2.5
4	FLOOR GRATING - 2005 x 930 x 25 <sup>1</sup>	A 36 OR EQ.	1	55.0
	TOTAL			155.4

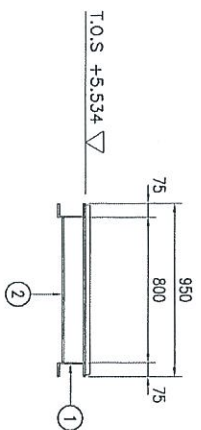
NOTE:  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR PUMP AREA**  
 SCALE 1 : 20



**SECTION "A-A" - "A-A"**  
 SCALE 1 : 20



WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 8-LPS-302P/WWP	1
TOTAL REQ'D =	1

PROJECT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
 DIALOG E & C SDN. BHD. (18222-9)  
 10A, BLOCK C, PHILIP DAMANSIA 11, JALAN DAMANSIA  
 NO. 8, TAMAN M/11, 46200 PETALING JAYA, SELANGOR

DRAWING TITLE :  
 LPS-302P 302  
 WALKWAY PLATFORM (WITHOUT COLUMN)  
 (TYPE-8)

SCALE : AS SHOWN  
 DRAWN : HMK  
 DATE : 18/02/13  
 DMS. NO. : DH0008-ENG-C-PF-0309

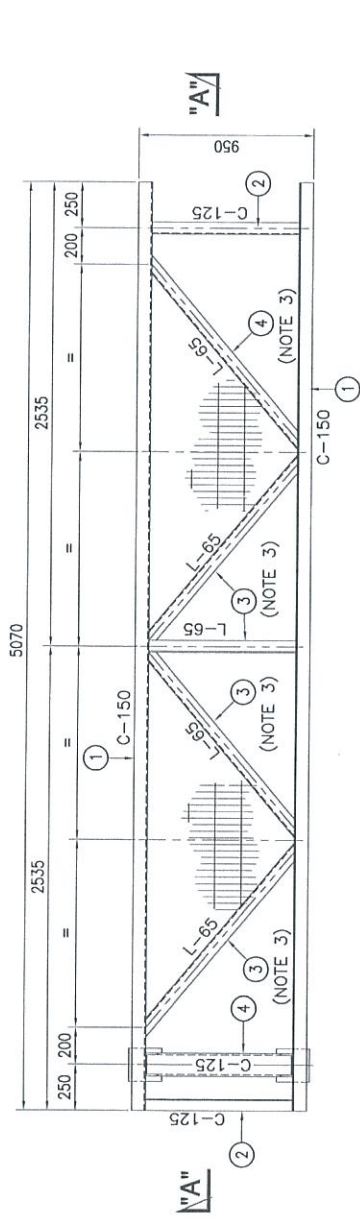
CHECKED : ERYA  
 APPROVED : LHM  
 FILENAME : -  
 SHEET NO. : 1 OF 1  
 REV. : 0

REVISIONS:

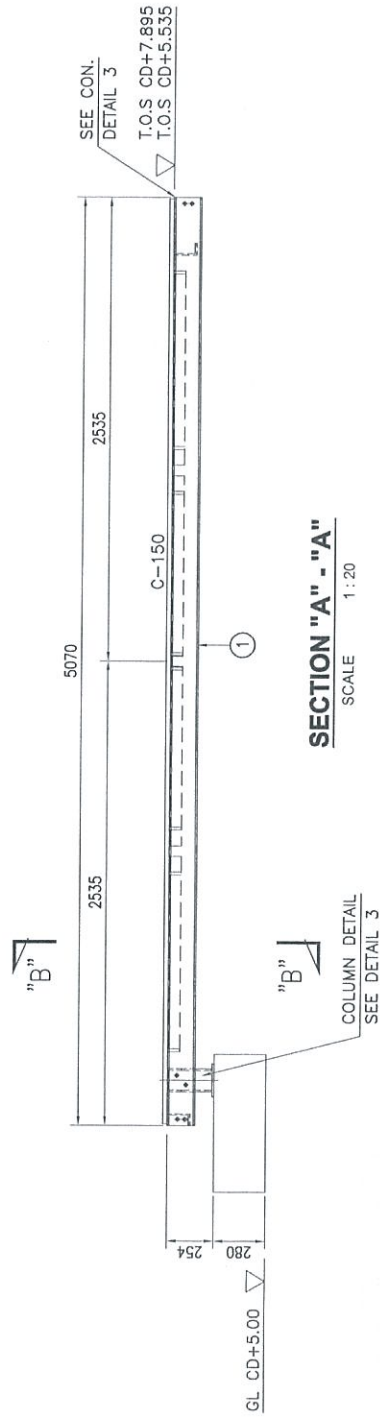
NO.	DESCRIPTION	BY	CHK	DATE
1	ISSUED FOR APPROVAL	HMK	ERVA	02/07/13
2	ISSUED FOR QUANTIFY	HMK	ERVA	02/07/13

REFERENCE DRAWINGS:  
 2008-04-27-04-002 SPC 1-1 PUMP GENERAL ARRANGEMENT AT LPS-302  
 2008-04-27-04-001 SPC 1-1 WELDED PUMP ROOM FOR PHASE-1

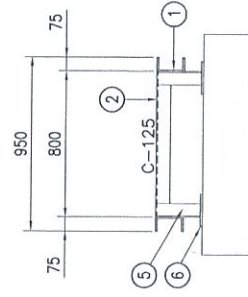
### WALKWAY PLATFORM - (TYPE-9)



**PLAN**  
**PLATFORM FRAME TYPE 10 (WITH COLUMN)**  
**FOR SUCTION AREA**  
 SCALE 1:20



**SECTION "A" - "A"**  
 SCALE 1:20



**SECTION "B" - "B"**  
 SCALE 1:20

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 9-LPS-302S/WWP	3
TOTAL REQ'D = 3	

### BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 5070L	A 36 OR EQ.	2	188.6
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	3	21.4
3	BRAKING - L65 x 65 x 61	A 36 OR EQ.	5	11.1
4	SUPPORT LEG - C125 x 75 x 91 x 800L	A 36 OR EQ.	2	10.7
5	LEG - C125 x 65 x 61 x 242L	A 36 OR EQ.	1	13.0
6	BASE PLATE - 180 x 180 x 121	A 283-C <del>A36</del> <del>40</del>	1	6.16
7	FLOOR GRATING - 5050 x 930 x 251	A 36 OR EQ.	1	138.5
	TOTAL			405.5

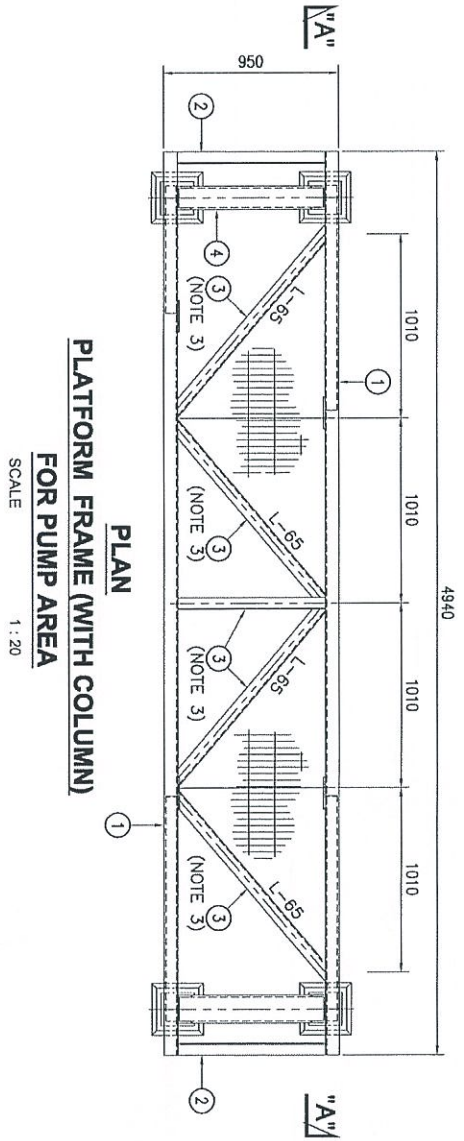
**NOTE :**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

PROJECT NO. : DHO008-ENG-C-PF-0310	DATE : 18/03/13	FILE NAME : -	REV. NO. : 1 OF 2
PROJECT TITLE : WALKWAY PLATFORM WITH COLUMN (TYPE-9)	PROJECT OWNER : DEEPWATER PETROLEUM TERMINAL AT Pengerang	CONSULTANT : DIALOG E & C SDN. BHD. (18292-0)	NO. 11, JALAN 18/7/11, 40300 Pengerang, JOH. SEHANGKAP.
DESIGNER : ESKA	CHECKED : ESKA	DATE : 18/03/13	FILE NAME : -
DRAWN : PAM	APPROVED : LAM	DATE : 18/03/13	FILE NAME : -
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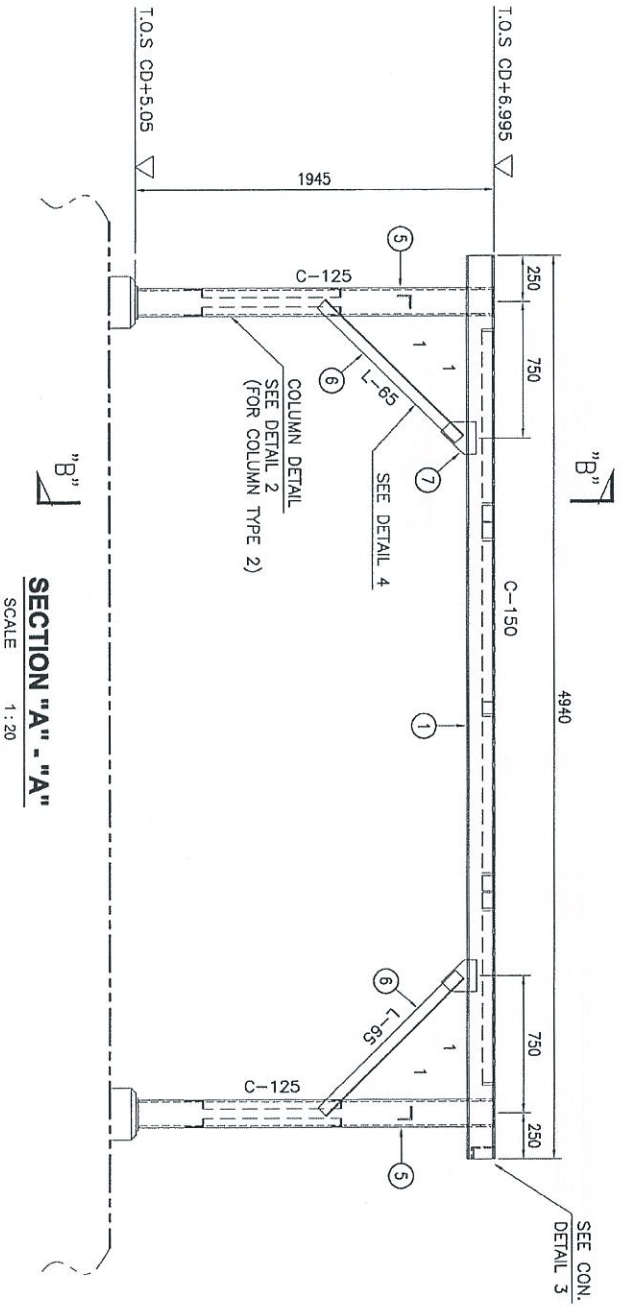


# WALKWAY PLATFORM - (TYPE-9A)



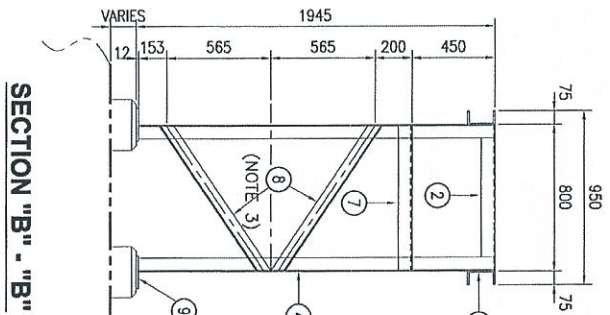
**PLATFORM FRAME (WITH COLUMN)  
FOR PUMP AREA**

SCALE 1:20



**SECTION "A" - "A"**

SCALE 1:20



**SECTION "B" - "B"**

SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)			
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET) TOTAL WEIGHT (1 SET)
1	FRAME - C150 X 75 X 6.51 X 4940L	A 36 OR EQ.	2 182.3
2	FRAME - C125 X 65 X 61 X 800L	A 36 OR EQ.	2 21.4
3	BRACING #1 - L65 X 65 X 61	A 36 OR EQ.	5 11.1
4	SUPPORT LEG - C125 X 75 X 91 X 800L	A 36 OR EQ.	2 21.4
5	LEG - C125 X 65 X 61 X 2733L	A 36 OR EQ.	4 98.9
6	BRACING #2 - L65 X 65 X 61 X 1737L	A 36 OR EQ.	4 12.9
7	CLEAT - 91	A 283C A36 or 28	4 9.1
8	BRACING #3 - L65 X 65 X 61 X 1453L	A 36 OR EQ.	2 2.8
9	BRACING #4 - L65 X 65 X 61	A 36 OR EQ.	4 11.3
11	BASE PLATE - 180 X 121	A 36 OR EQ.	4 9.4
10	FLOOR GRATING - 4920 X 930 X 25I	A 36 OR EQ.	1 135
TOTAL			501.9

**NOTE:**  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 9A-LPS-302P/WWP	2
TOTAL REQ'D = 2	

**PROJECT OWNER :**  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

**CONSULTANT :**  
DIALOG E & C SDN. BHD. (16299-01)  
191, BLOK C, PLOTT 2/10000, L. NO. 9, JALAN 1/1/11, 43000 PUNJANG, SELANGOR.

**SCALE :** AS SHOWN  
DRAWN : PWN  
DATE : 18/03/13  
DMS. NO. : DH0008-EM-C-PF-0310

**PROJECT TITLE :**  
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG

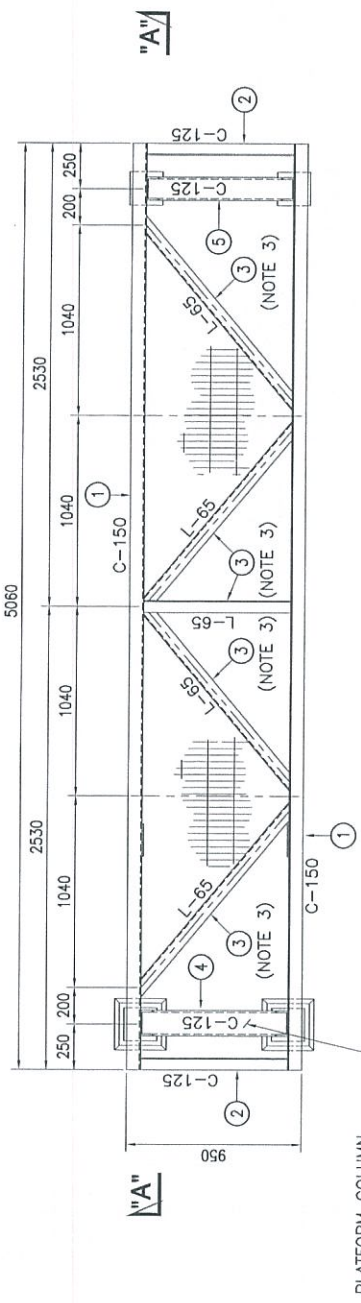
**REVISIONS :**

NO.	DESCRIPTION	BY	CHK	DATE
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2	ISSUED FOR QUANT	HAZ	BSA	18/03/13

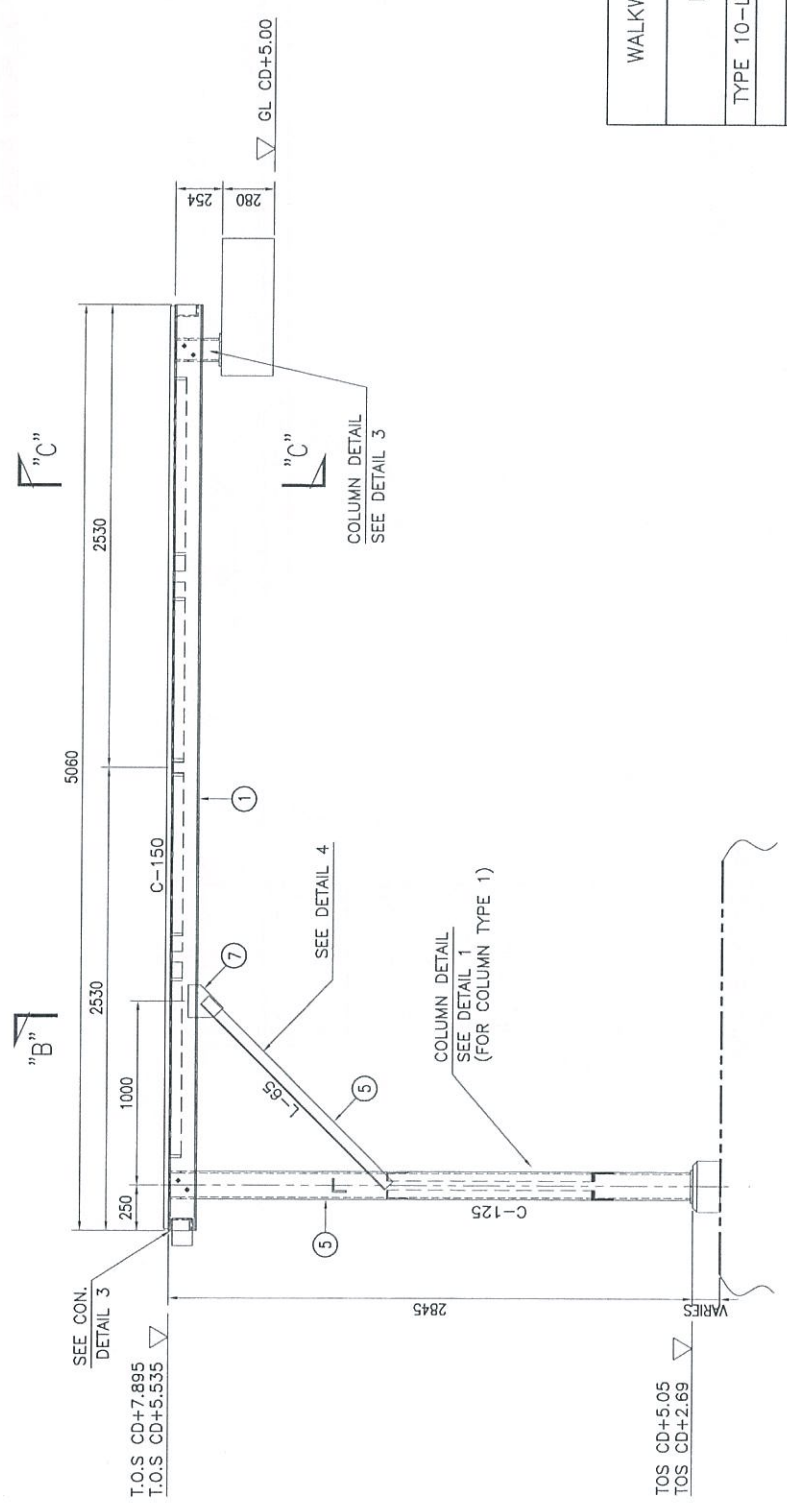
**APPROVED :** BSA  
DATE : 18/03/13

**SCALE :** AS SHOWN  
DRAWN : PWN  
DATE : 18/03/13  
DMS. NO. : DH0008-EM-C-PF-0310

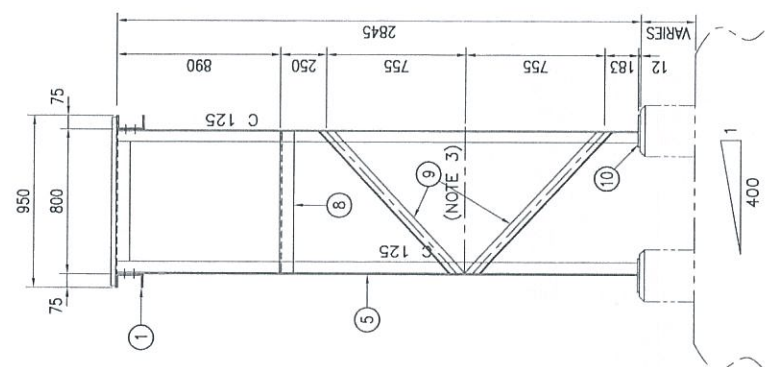
# WALKWAY PLATFORM - (TYPE-10)



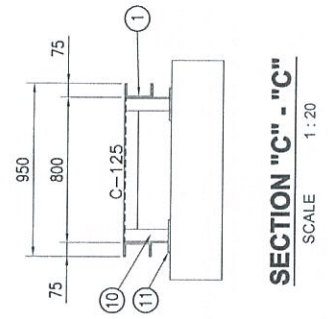
**PLAN  
PLATFORM FRAME (WITH COLUMN)  
FOR SUCTION AREA**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20



**SECTION "B" - "B"**  
SCALE 1:20



**SECTION "C" - "C"**  
SCALE 1:20

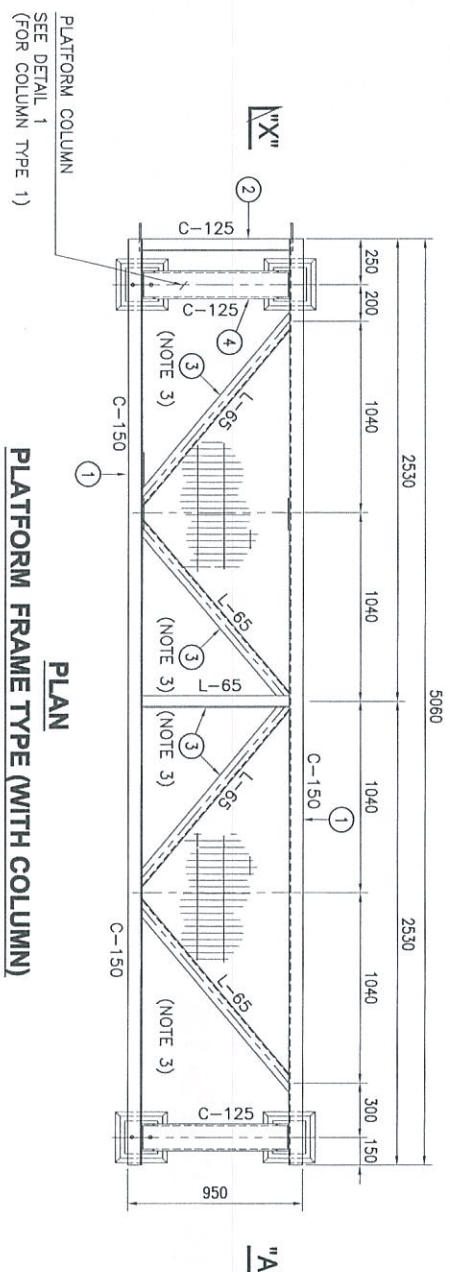
WALKWAY PLATFORM (WITH COLUMN)	
DESCRIPTION	QTY.
TYPE 10-LPS-302S/WWP	4
<b>TOTAL REQ'D = 4</b>	

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 5060L	A 36 OR EQ.	2	223.2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2	21.4
3	BRACING #1 - L65 x 65 x 61 x 800L	A 36 OR EQ.	5	11.3
4	SUPPORT LEG - C125 x 75 x 91 x 800L	A 36 OR EQ.	2	21.4
5	LEG #1 - C125 x 65 x 61 x 2730L	A 36 OR EQ.	2	146.5
6	BRACING #3 - L65 x 65 x 61	A 36 OR EQ.	4	12.9
7	CLEAT #1	A 26 or 28 (A 283)	4	9.1
8	BRACING #2 - L65 x 65 x 61	A 36 OR EQ.	1	2.8
9	BRACING #3 - L65 x 65 x 61	A 36 OR EQ.	4	6.3
10	LEG 2# - C125 x 65 x 61 x 242L	A 36 OR EQ.	2	6.5
11	BASE PLATE - 180 x 180 x 12t	A 36 OR EQ.	2	12.32
12	FLOOR GRATING - 5040 x 930 x 25t	A 36 OR EQ.	1	138.5
<b>TOTAL</b>				<b>624.4</b>

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

DIALOG E & C SDN. BHD. (102289-0) 100, BLOK 6, PULAU DAMANSARA 1, NO. 9, JALAN 19/11, 46300 PETALING JAYA, SELANGOR.	DRAWING NO. : DHO008-ENG-C-PF-0311 SHEET NO. : 1 OF 1
PROJECT TITLE : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	DATE : 19/03/13 FILE NAME : -
CONSULTANT : DIALOG E & C SDN. BHD. (102289-0) 100, BLOK 6, PULAU DAMANSARA 1, NO. 9, JALAN 19/11, 46300 PETALING JAYA, SELANGOR.	DRAWING TITLE : LPS-302 302 WALKWAY PLATFORM WITH COLUMN (TYPE-10)
SCALE : AS SHOWN DRAWN : HMK CHECKED : ERMA	APPROVED : LHM
DATE : 19/03/13 FILE NAME : -	REV. NO. : 0

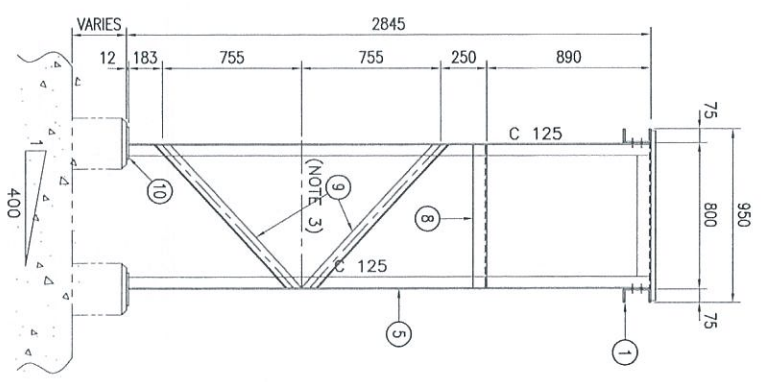
# WALKWAY PLATFORM - (TYPE-11)



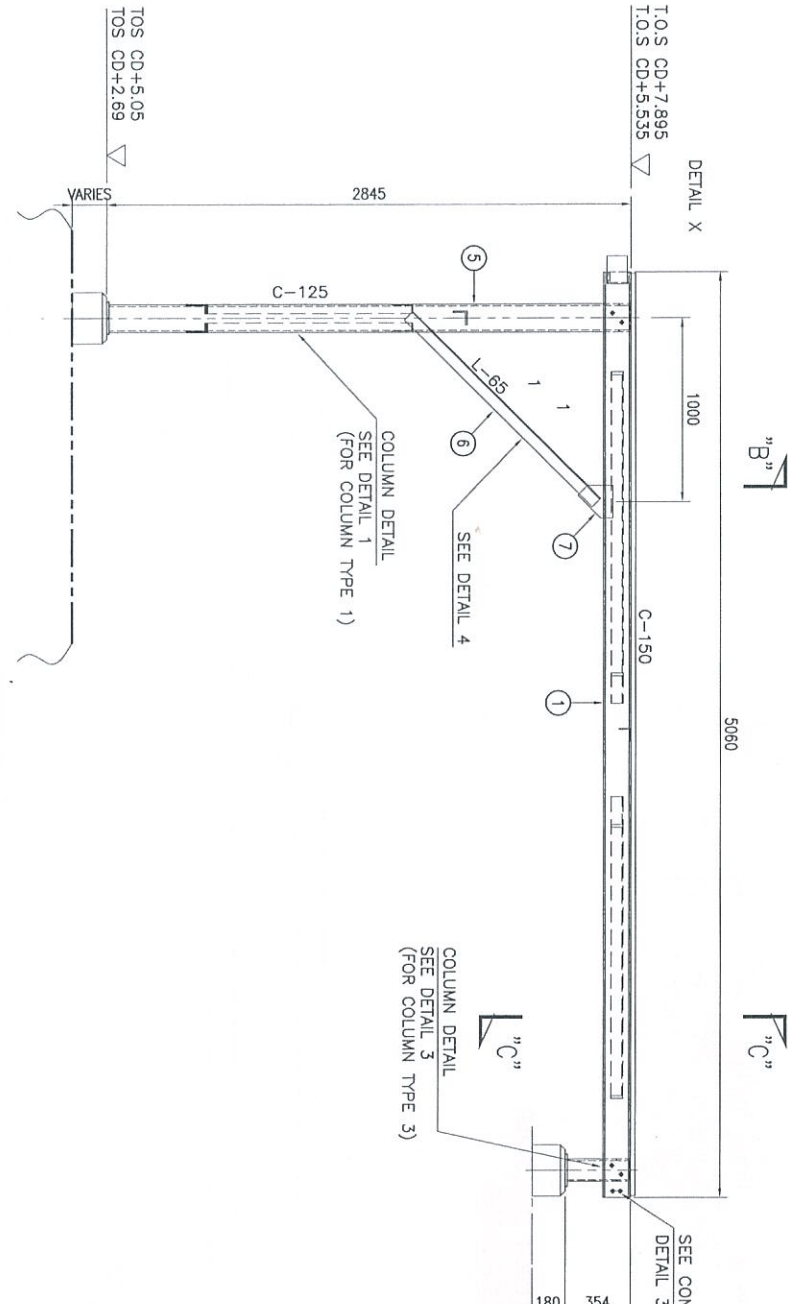
**PLAN**  
PLATFORM FRAME TYPE (WITH COLUMN)  
FOR SUCTION AREA  
SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)			
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET)
1	FRAME - C150 x 75 x 6.51 x 5060L	A 36 OR EQ.	2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	3
3	BRACING #1 - L65 x 65 x 61	A 36 OR EQ.	1
4	SUPPORT LEG - C125 x 75 x 61 x 800L	A 36 OR EQ.	2
5	LEG 1# - C125 x 65 x 61 x 2733L	A 36 OR EQ.	2
6	BRACING #2 - L65 x 65 x 61	A 36 OR EQ.	2
7	CLEAT - 91	A 283 C	2
8	BRACING #3 - L65 x 65 x 61	A 36 OR EQ.	1
9	BRACING #4 - L65 x 65 x 61	A 36 OR EQ.	2
10	LEG 2# - C125 x 65 x 61 x 242L	A 36 OR EQ.	2
11	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2
12	FLOOR GRATING - 5040 x 930 x 251	A 36 OR EQ.	1
TOTAL			624.4

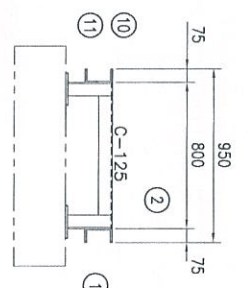
**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELDS TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SIZE



**SECTION "B" - "B"**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20



**SECTION "C" - "C"**  
SCALE 1:20

WALKWAY PLATFORM (WITH COLUMN)	
DESCRIPTION	QTY.
TYPE 11 - LPS-302S/WWP	2
TOTAL REQ'D = 2	

**PROJECT OWNER :**  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

**CONSULTANT :**  
DIALOG E & C SDN. BHD. (19930-0)  
101, BLOK 5, PHASE DAMANSARA, 1,  
NO. 9, JALAN 19/11, 4600 PETUNG JAYA, SELANGOR.

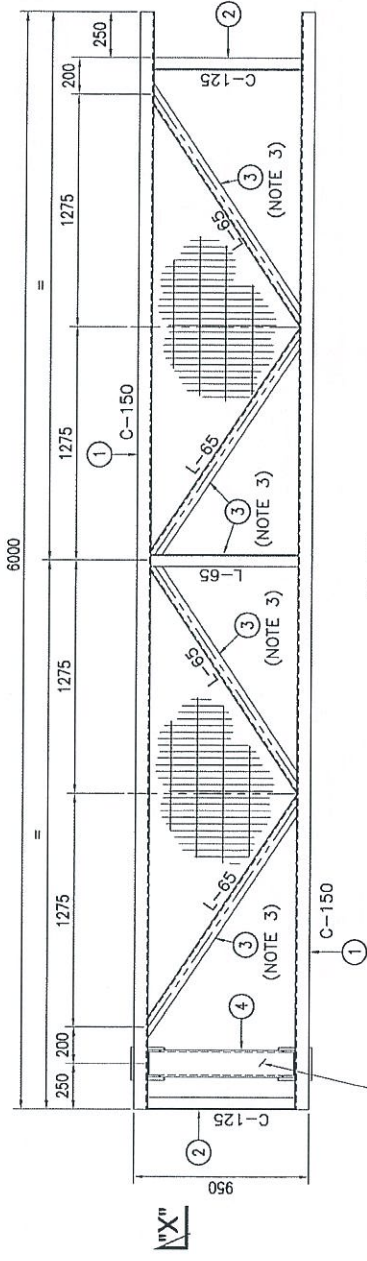
**PROJECT TITLE :**  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG

**SCALE :** AS SHOWN

**DATE :** 18/02/15

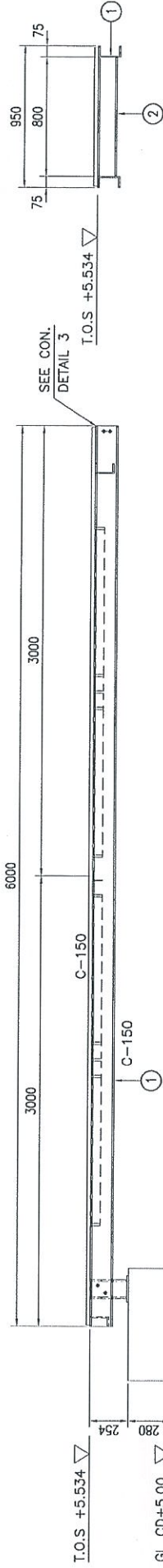
**DRG. NO. :** DH0008-ENG-C-PF-0312

# WALKWAY PLATFORM - (TYPE-12)



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR SUCTION & PUMP AREA**  
SCALE 1:20

PLATFORM COLUMN  
SEE DETAIL 3  
(FOR COLUMN TYPE 3)



**SECTION "X" - "X"**  
SCALE 1:20

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 12-LPS-302S/WWP	5
TYPE 12-LPS-302P/WWP	1
<b>TOTAL REQ'D = 5</b>	

**BILL OF MATERIALS (ONE (1) SET OF PLATFORM)**

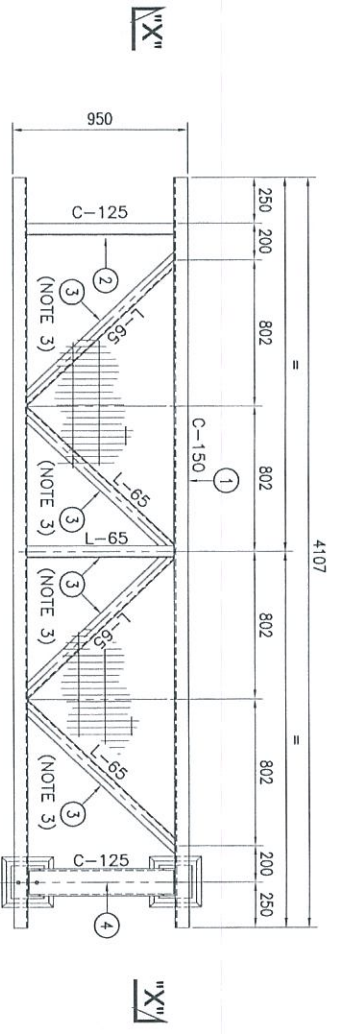
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 6000L	A 36 OR EQ.	2	223.2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2	32.2
3	BRACING #1 - L65 x 65 x 61	A 36 OR EQ.	5	11.1
4	<b>SUPPORT LEG - C125 x 65 x 91 x 800L</b>	A 36 OR EQ.	2	29.2
5	LEG - C125 x 65 x 61 x 2733L	A 36 OR EQ.	1	41.1
6	BASE PLATE- 180 x 180 x 121	(283) 186 x 186	2	3.2
7	FLOOR GRATING - 5980 x 930 x 25t	A 36 OR EQ.	1	164.1
<b>TOTAL</b>				<b>565.4</b>

**NOTE:**

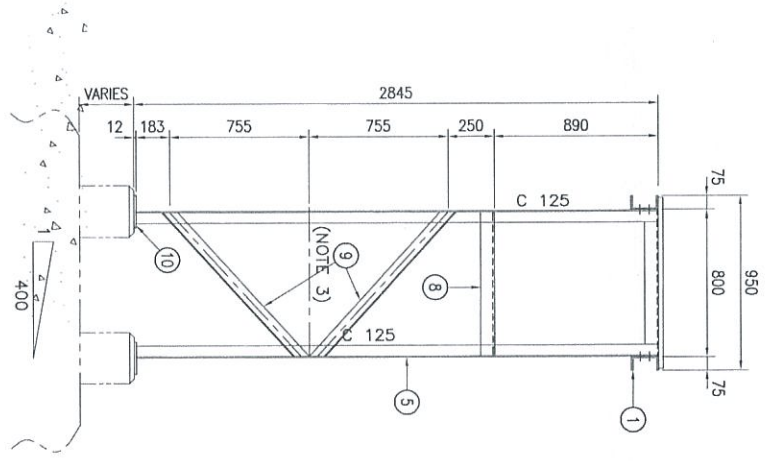
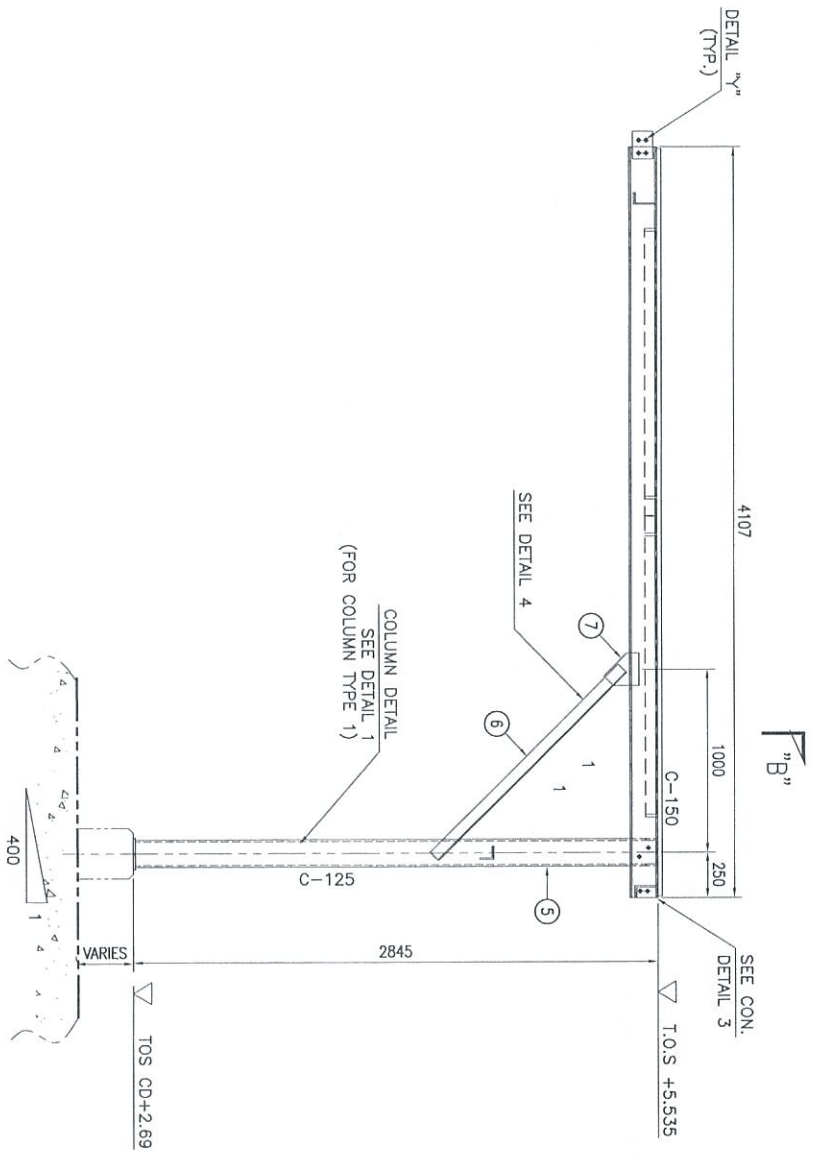
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS D1.1.
3. CUT TO SUIT

DRAWING NO: LPS-302, SHEET NO: 1 PROJECT TITLE: WALKWAY PLATFORM FOR SUCTION & PUMP AREA	
PROJECT OWNER: INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
PROJECT NO: 18/03/13	
DRAWING TITLE: WALKWAY PLATFORM WITH COLUMN (TYPE-12)	
CHECKED: ERKA	DATE: 18/03/13
APPROVED: LHM	FILENAME:
CONSULTANT: DIALOG E & C SDN. BHD. (18229-U) 109, BLOK 9, PHELO DAMANSARA 1, NO. 9, JALAN 10/11, 46300 PETUNG JAYA, SELANGOR.	
SHEET NO.: 01	TOTAL SHEETS: 01

## WALKWAY PLATFORM - (TYPE-13)



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR PUMP AREA**  
 SCALE 1:20



BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET)	TOTAL WEIGHT (kg) (1 SET)
1	FRAME - C150 x 75 x 6.51 x 4087L	A 36 OR EQ.	2	223.2
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	1	21.4
3	BRACING #1 - L65 x 65 x 61	A 36 OR EQ.	1	11.1
4	SUPPORT LEG - C125 x 75 x 91 x 800L	A 36 OR EQ.	2	21.4
5	LEG - C125 x 65 x 61 x 2739L	A 36 OR EQ.	2	146.5
6	BRACING #2 - L65 x 65 x 61	A 36 OR EQ.	2	12.9
7	CLEAT - 91	A 283.5	2	9.1
8	BRACING #3 - L65 x 65 x 61	A 36 OR EQ.	1	2.8
9	BRACING #4 - L65 x 65 x 61	A 36 OR EQ.	4	6.3
10	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	12.32
11	FLOOR GRATING - 4087 x 930 x 251	A 36 OR EQ.	1	112.1
TOTAL				624.4

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT.

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 13-LPS-302P/WWP	1
TOTAL REQ'D = 1	

PROJECT OWNER : DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT : DIALOG E. & C SDN. BHD. (19990-0)

PROJECT TITLE : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG

DWG NO. : 011007

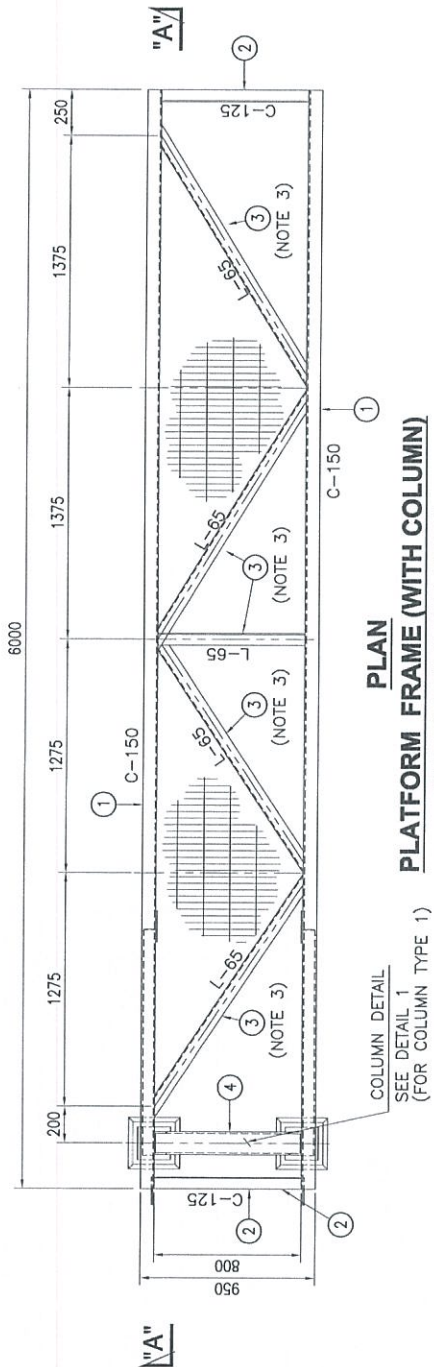
DATE : 18/03/13

SCALE : AS SHOWN

DWG. NO. : DPO0008-BNG-C-PF-0314

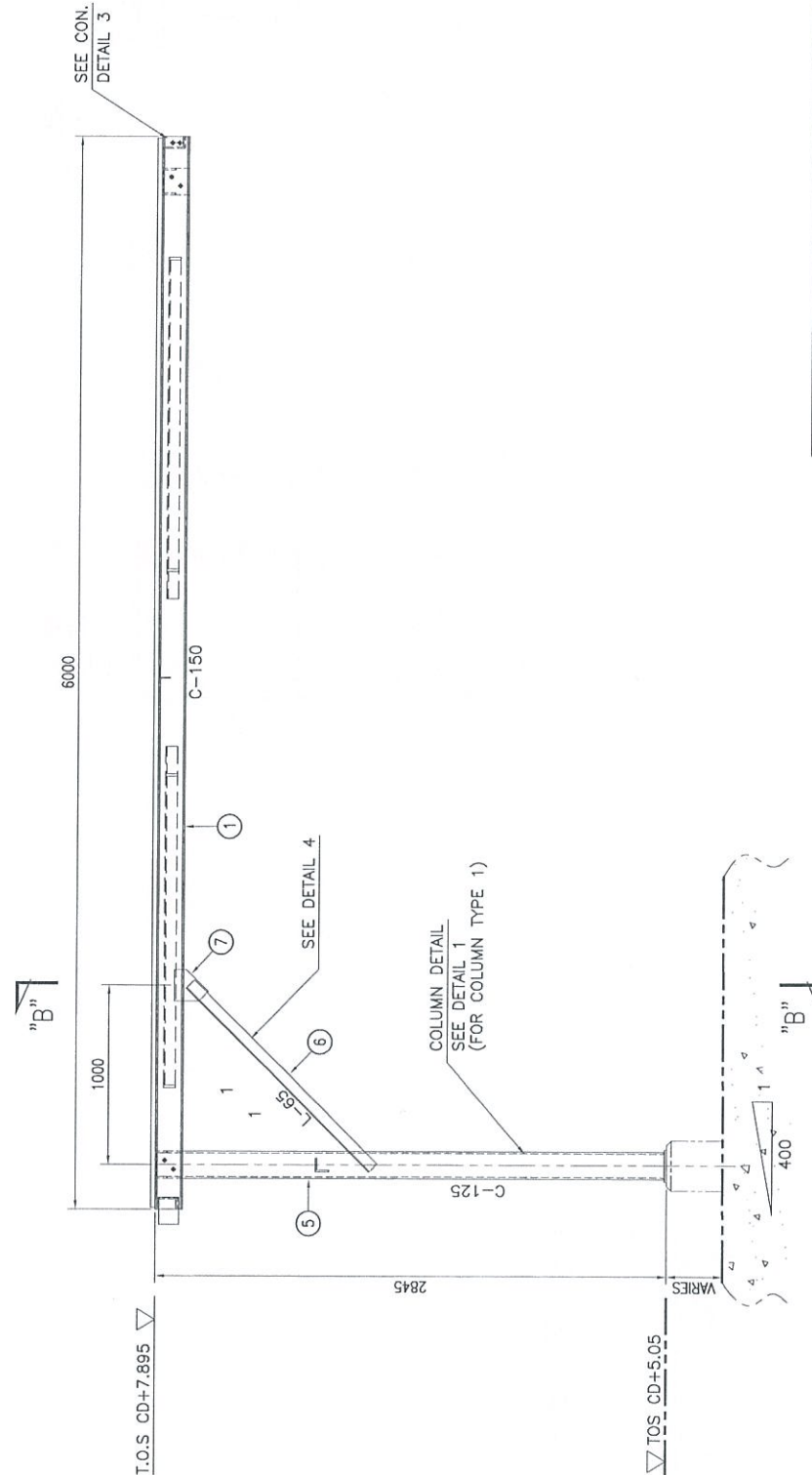
DESIGNED BY : JAS SHAW	CHECKED BY : ENKA
DRAWN BY : HANI	APPROVED BY : ENKA
DATE : 18/03/13	FILE NAME : -
DWG. NO. : DPO0008-BNG-C-PF-0314	SHT. NO. : 0

# WALKWAY PLATFORM - (TYPE-1A)



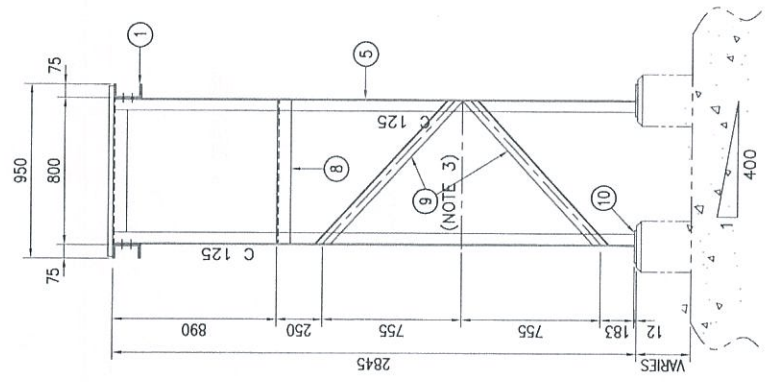
**PLAN**  
**PLATFORM FRAME (WITH COLUMN)**  
**FOR DISCHARGE AREA**

SCALE 1 : 20



**SECTION "A" - "A"**

SCALE 1 : 20



**SECTION "B" - "B"**

SCALE 1 : 20

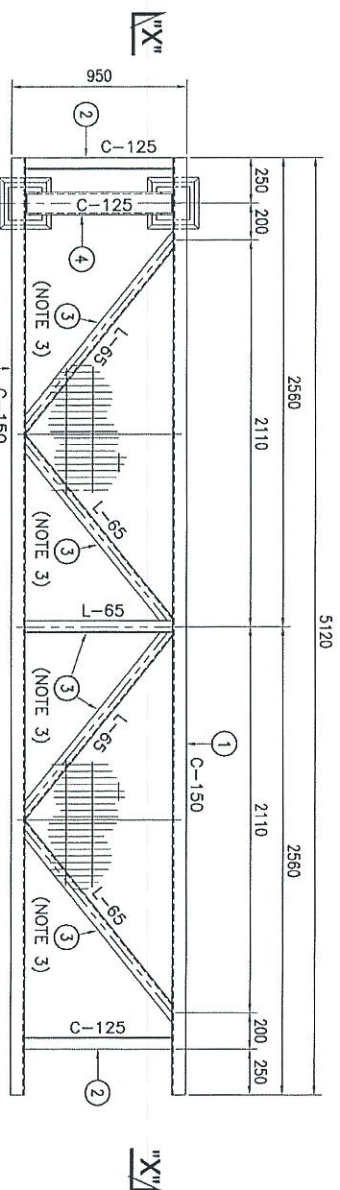
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (T SET)	TOTAL WEIGHT (KG. (T SET))
1	FRAME - C150 x 75 x 6.51 x 4940L	A 36 OR EQ.	2	182.3
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2	21.4
3	BRACING #1 - L65 x 65 x 61	A 36 OR EQ.	5	11.1
4	SUPPORT LEG - C125 x 75 x 91 x 800L	A 36 OR EQ.	2	21.4
5	LEG - C125 x 65 x 61 x 2733L	A 36 OR EQ.	4	98.9
6	BRACING #2 - L65 x 65 x 61 x 1737L	A 36 OR EQ.	4	12.9
7	CLEAT - 91	A26 or 28 (283C)	4	9.1
8	BRACING #3 - L65 x 65 x 61 x 1453L	A 36 OR EQ.	2	2.8
9	BRACING #4 - L65 x 65 x 61	A 36 OR EQ.	4	11.3
11	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	4	9.4
10	FLOOR GRATING - 4920 x 930 x 251	A 36 OR EQ.	1	135
	TOTAL			501.9

**NOTE:**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

PROJECT TITLE :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
PROJECT OWNER :		DIALOG INDEPENDENT TERMINALS SDN. BHD.	
CONSULTANT :		DIALOG E & C SDN. BHD. (16229F-0) 109, BLOCK 6, PHASE 1, 4530 PETALING JAYA, SELANGOR.	
DRAWING TITLE :		LPS-302 WALKWAY PLATFORM WITH COLUMN (TYPE-1A)	
SCALE :	AS SHOWN	CHECKED :	ERWA
DRAWN :	HMK	APPROVED :	UMM
DATE :	16/03/13	FILENAME :	-
DWG. NO. :	DH0008-ENG-C-PF-0314	SHEET NO. :	01
			1 OF 2

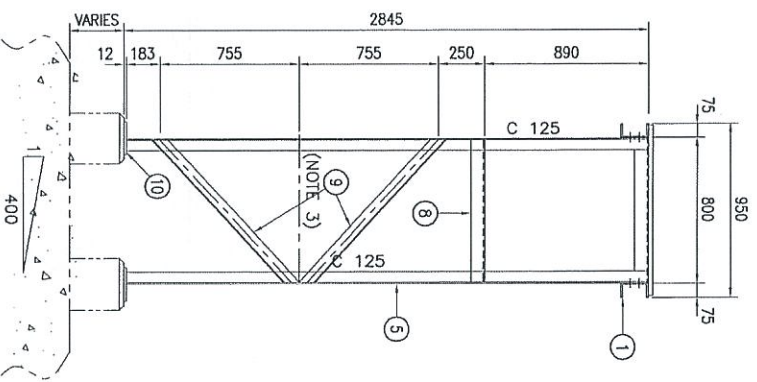
# WALKWAY PLATFORM - (TYPE-14)



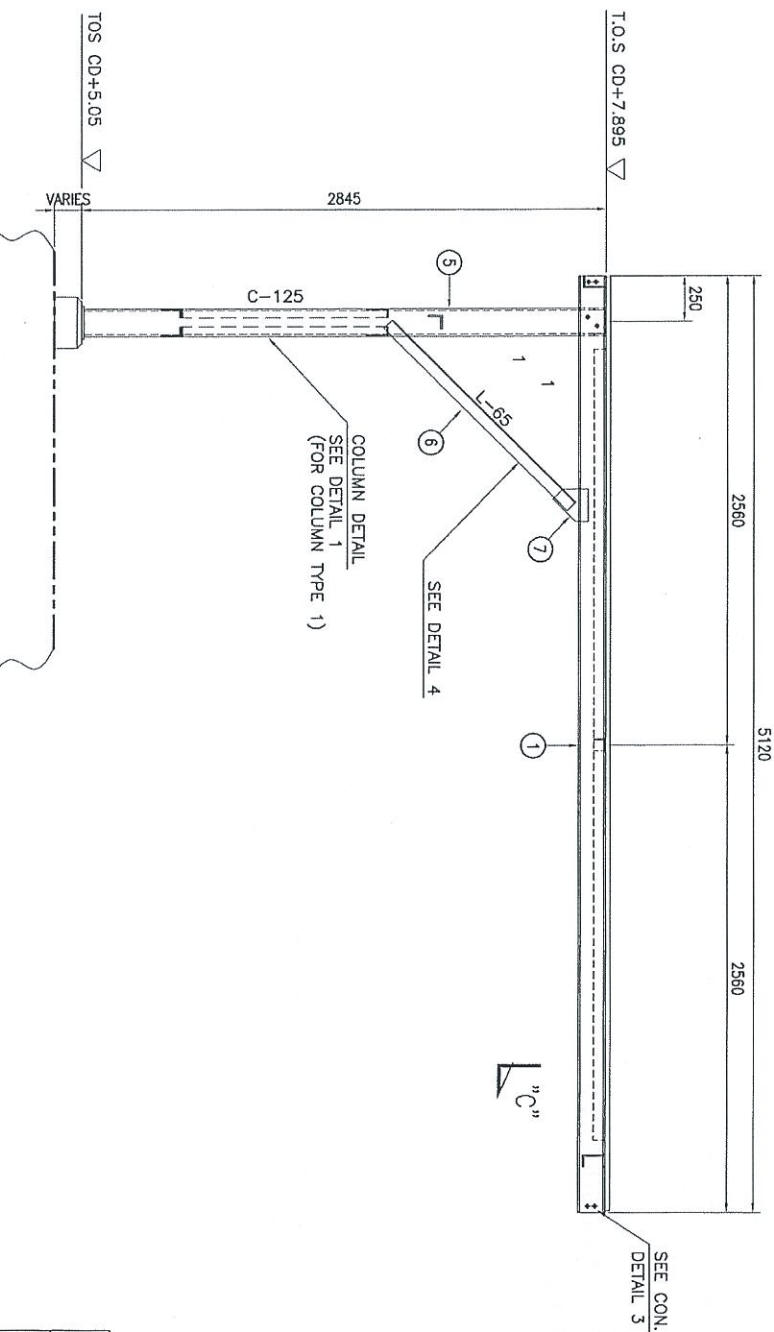
**PLAN**  
**PLATFORM FRAME (WITH COLUMN)**  
**FOR DISCHARGE AREA**  
 SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.51 x 5120L	A 36 OR EQ.	2	190.5
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2	21.4
3	BRACING #1 - 1.65 x 65 x 61	A 36 OR EQ.	1	2.8
4	SUPPORT LEG - C125 x 75 x 61 x 800L	A 36 OR EQ.	1	21.4
5	LEG #1 - C125 x 65 x 61 x 2733L	A 36 OR EQ.	2	146.5
6	BRACING #2 - 1.65 x 65 x 61 x 1737L	A 36 OR EQ.	2	12.9
7	CLEAT - 91	A 36 OR EQ.	2	9.1
8	BRACING #3 - 1.65 x 65 x 61 x 1453L	A 36 OR EQ.	1	2.8
9	BRACING #4 - 1.65 x 65 x 61 x	A 36 OR EQ.	2	6.3
10	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	12.32
11	FLOOR GRATING - 5100 x 930 x 251	A 36 OR EQ.	1	139.9
TOTAL				574.8

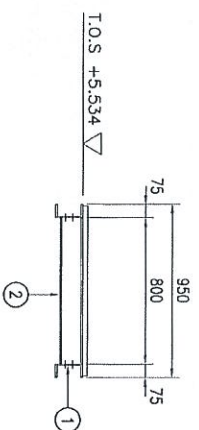
**NOTE:**  
 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SIZE



**SECTION "B" - "B"**  
 SCALE 1:20



**SECTION "A" - "A"**  
 SCALE 1:20



**SECTION "C" - "C"**  
 SCALE 1:20

WALKWAY PLATFORM (WITHOUT COLUMN)		
DESCRIPTION	QTY.	TOTAL REQ'D = 2
TYPE 14-LPS-302D/WWP	2	

PROJECT OWNER :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG	
CONSULTANT :		DIALOG E & C SDN. BHD. (199294-9)	
DRAWING NO. :		DH0008-ENR-C-PF-0315	
DATE :		18/05/13	
SCALE :		AS SHOWN	
DRAWN BY :		EAM	
CHECKED BY :		EAM	
DATE :		18/05/13	
REV. NO. :		0	
REV. DATE :			
REV. DESCRIPTION :			
REV. BY :			
REV. DATE :			
PROJECT TITLE :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG	
PROJECT OWNER :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG	
CONSULTANT :		DIALOG E & C SDN. BHD. (199294-9)	
DRAWING NO. :		DH0008-ENR-C-PF-0315	
DATE :		18/05/13	
SCALE :		AS SHOWN	
DRAWN BY :		EAM	
CHECKED BY :		EAM	
DATE :		18/05/13	
REV. NO. :		0	
REV. DATE :			
REV. DESCRIPTION :			
REV. BY :			
REV. DATE :			

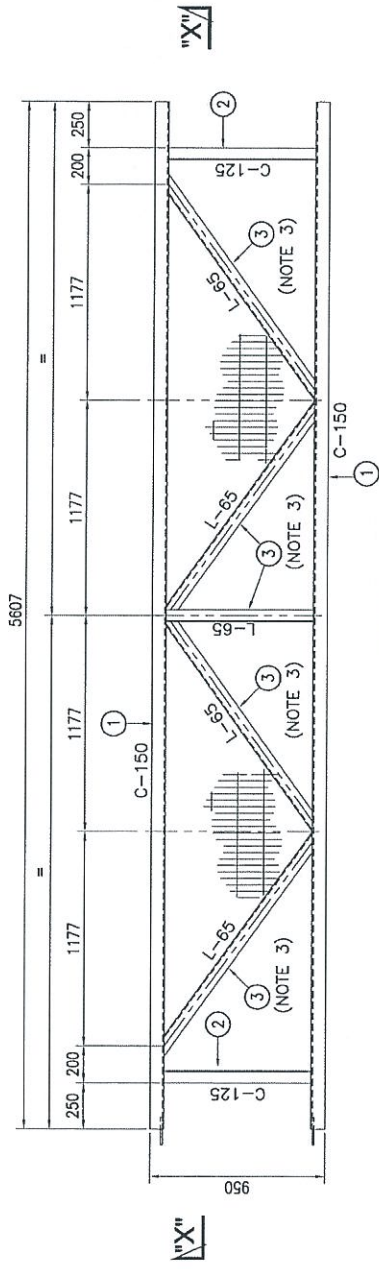
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (Kg.) (1 SET)
1	FRAME - C150 x 75 x 6.51 x 5607L	A 36 OR EQ.	2	208.6
2	FRAME - C125 x 65 x 61 x 800L	A 36 OR EQ.	2	32.2
3	BRACING - L65 x 65 x 61	A 36 OR EQ.	5	38.4
4	FLOOR GRATING - 5887 x 930 x 25†	A 36 OR EQ.	2	153.4
TOTAL				463.4

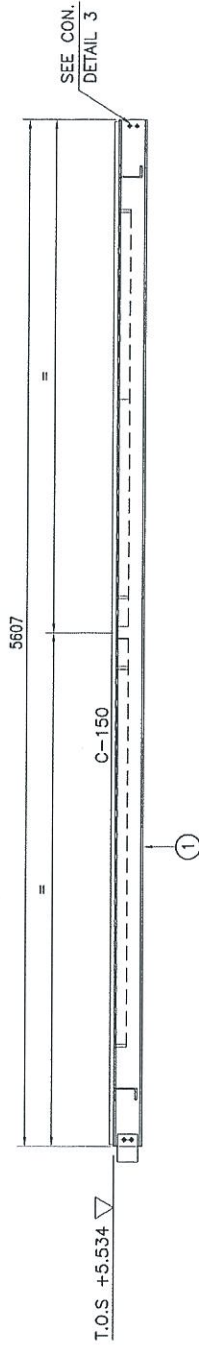
NOTE:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

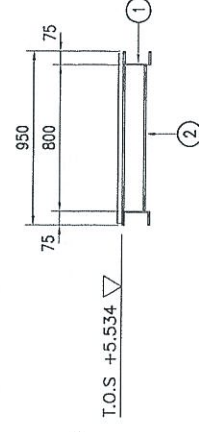
**WALKWAY PLATFORM - (TYPE-15)**



**PLAN**  
**PLATFORM FRAME (WITHOUT COLUMN)**  
**FOR PUMP AREA**  
SCALE 1:20



**SECTION "X" - "X"**  
SCALE 1:20



DESCRIPTION	QTY.
TYPE 15-LPS-302P/WWP	1
TOTAL REQ'D = 1	

WALKWAY PLATFORM (WITHOUT COLUMN)

PROJECT NO.:	PHM GENERAL ARRANGEMENT AT LPS-302
PROJECT NAME:	MOTOR PUMP FOR PHM-1
DATE:	16/02/13
SCALE:	AS SHOWN
CHECKED BY:	ERMA
APPROVED BY:	LM
DATE:	16/02/13
FILE NAME:	-
REV. NO.:	0
REV. 1:	1
REV. 2:	0

REFERENCE DRAWINGS

NO.	DESCRIPTION	BY	CHK	APPR.	DATE
1	...	...	...	...	...

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENERANG

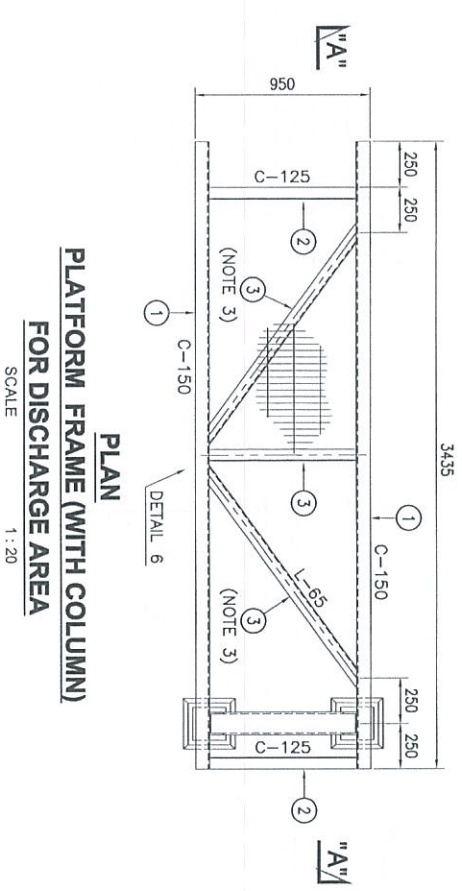
PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
DIALOG E & C SDN. BHD. (18229-4)  
100, BUKIT & PULAU DAMANSARA 1,  
NO. 4, JALAN 1/71, WISMA PELANGI SARA, SELANGOR.

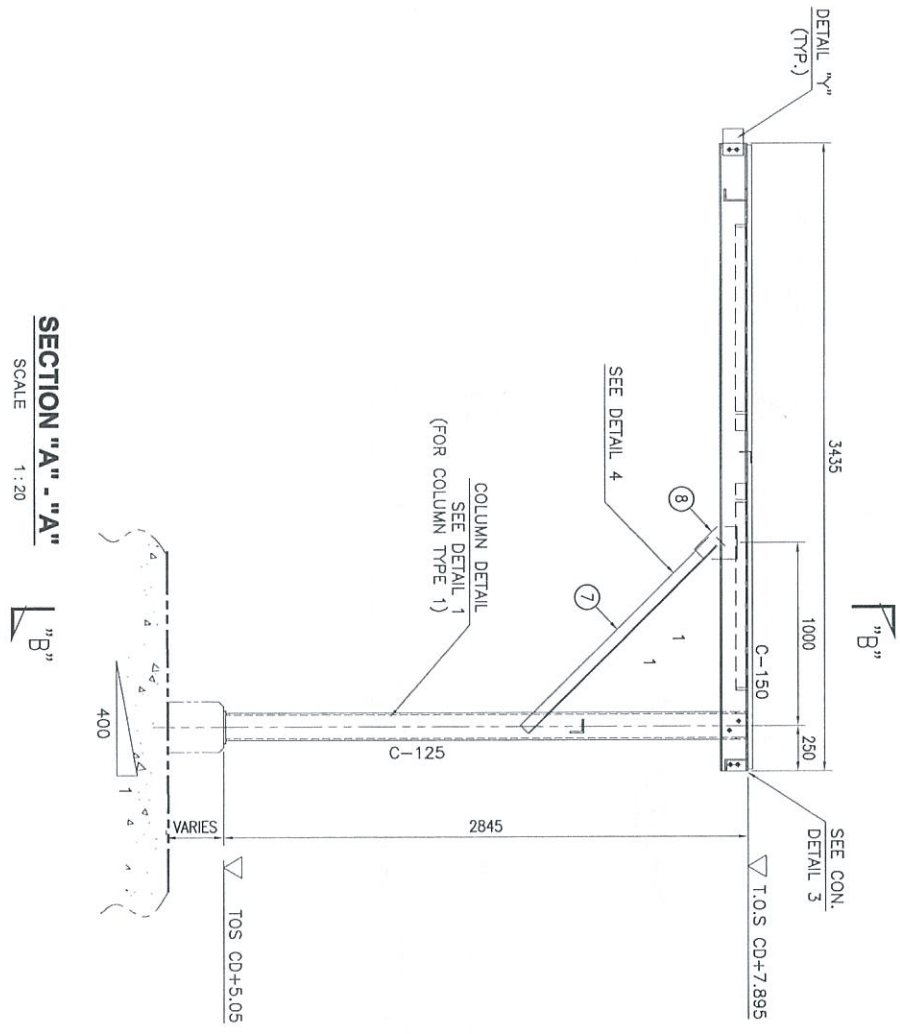
DRAWING TITLE :  
LPS-302  
WALKWAY PLATFORM WITH COLUMN  
(TYPE-15)



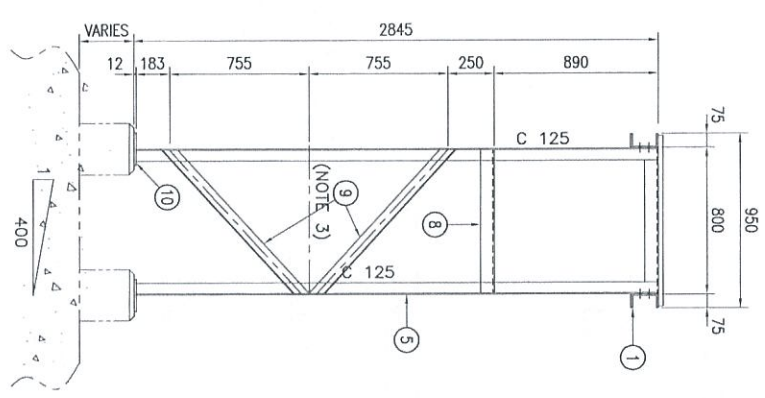
# WALKWAY PLATFORM - (TYPE-15A)



**PLAN**  
**PLATFORM FRAME (WITH COLUMN)**  
**FOR DISCHARGE AREA**  
SCALE 1:20



**SECTION "A-A" - "A"**  
SCALE 1:20



**SECTION "B-B" - "B"**  
SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (1 SET)
1	FRAME - C150 x 75 x 6.5f x 3435L	A 36 OR EQ.	2	127.8
2	FRAME - C125 x 65 x 6f x 800L	A 36 OR EQ.	2	21.4
3	BRACING #1 - L65 x 65 x 6f	A 36 OR EQ.	3	11.1
4	SUPPORT LEG - C125 x 65 x 6f x 2733L	A 36 OR EQ.	1	21.4
5	LEG 1# - C125 x 65 x 6f x 2733L	A 36 OR EQ.	2	146.5
6	BRACING #2 - L65 x 65 x 6f	A 36 OR EQ.	2	12.9
7	CLEAT - 9f	A 36 OR EQ.	2	9.1
8	BRACING #3 - L65 x 65 x 6f	A 36 OR EQ.	1	2.8
9	BRACING #4 - L65 x 65 x 6f	A 36 OR EQ.	2	6.3
10	BASE PLATE - 180 x 180 x 12f	A 36 OR EQ.	2	12.32
11	FLOOR GRATING - 3415 x 930 x 25f	A 36 OR EQ.	1	93.7
TOTAL				479.9

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 14B-LPS-302D/WWP	2
TOTAL REQ'D = 2	

PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
DIALOG E & C SDN. BHD. (18299-U)  
101, BLOCK 6, PHASE 5, KAWASAN 1,  
NO. 8, JALAN 18/11, 4300 PENANG JAYA, SELANGOR.

DRAWING TITLE :  
WALKWAY PLATFORM WITH COLUMN  
(TYPE-15A)

SCALE : AS SHOWN  
CHECKED : ENK  
DRAWN : PAN  
APPROVED : UMI  
DATE : 18/02/13  
REV. NO. : 0  
DHC NO. : DH0008-ENG-C-PF-0316

NO.	REVISION	DATE
1	ISSUED FOR APPROVAL	18/02/13
2	ISSUED FOR APPROVAL	18/02/13

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG

REFERENCE DRAWINGS

DATE : 18/02/13

SCALE : AS SHOWN

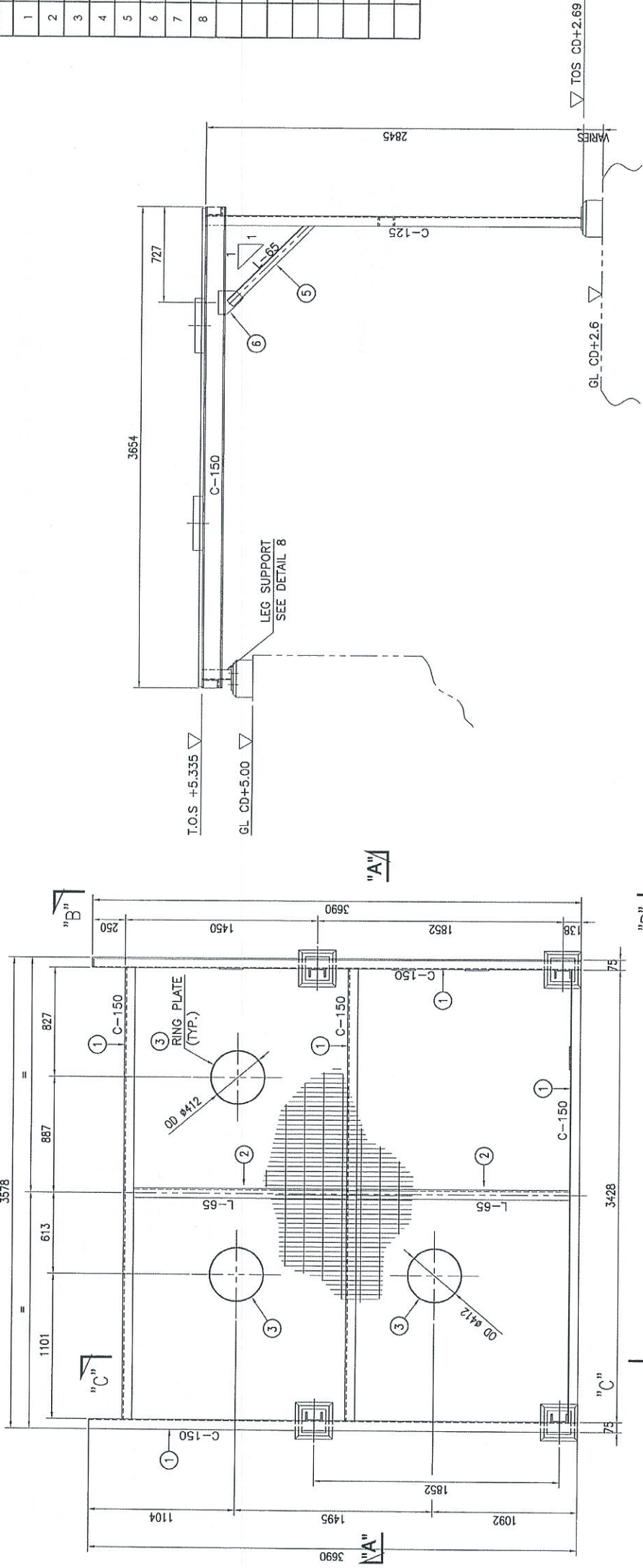
PROJECT NO. : DH0008-ENG-C-PF-0316

REV. NO. : 0

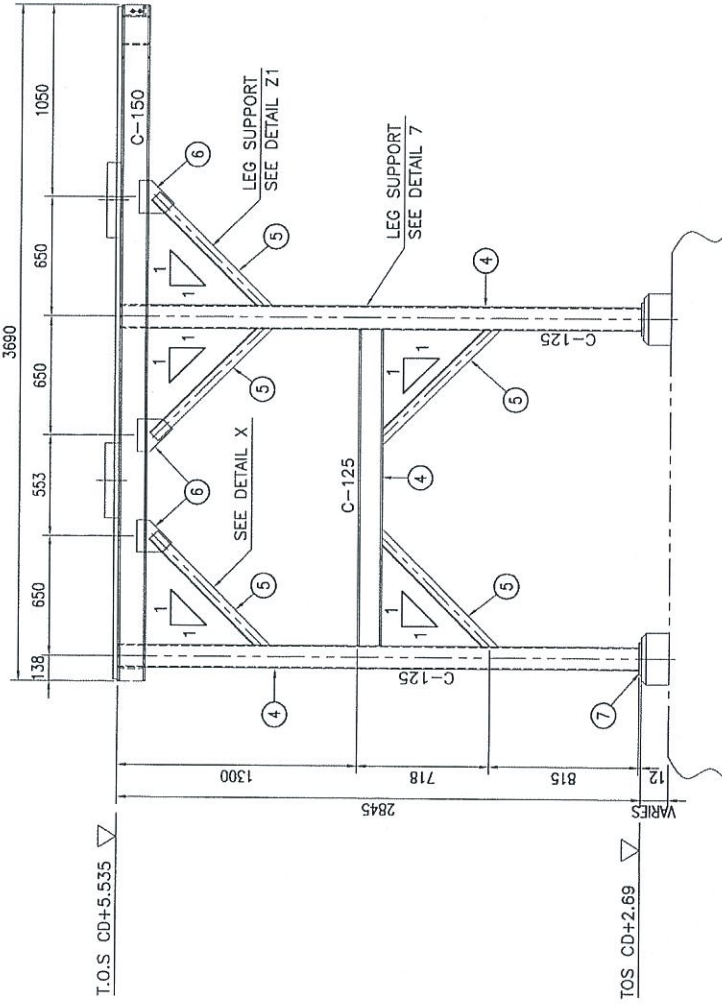
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	FRAME - C150 x 75 x 6.5t x 18.6kg/m	A 36 OR EQ.	3	328.6
2	FRAME - L65 x 65 x 6t x 13.4kg/m	A 36 OR EQ.	1	102.4
3	RING PLATE	A 36 OR EQ.	1	XX
4	LEG - L65 x 65 x 6t x 13.4kg/m	A 36 OR EQ.	2	102.9
5	BRACING - L65 x 65 x 6t x 13.4kg/m	A 36 OR EQ.	2	41.1
6	CLEAT - 91	A36 or <del>A283C</del>	4	68.7
7	BASE PLATE - 180 x 180 x 12t	A 36 OR EQ.	4	68.7
8	FLOOR GRATING - 1830 x 1757 x 25t	A 36 OR EQ.	4	94.9
	TOTAL			881.2

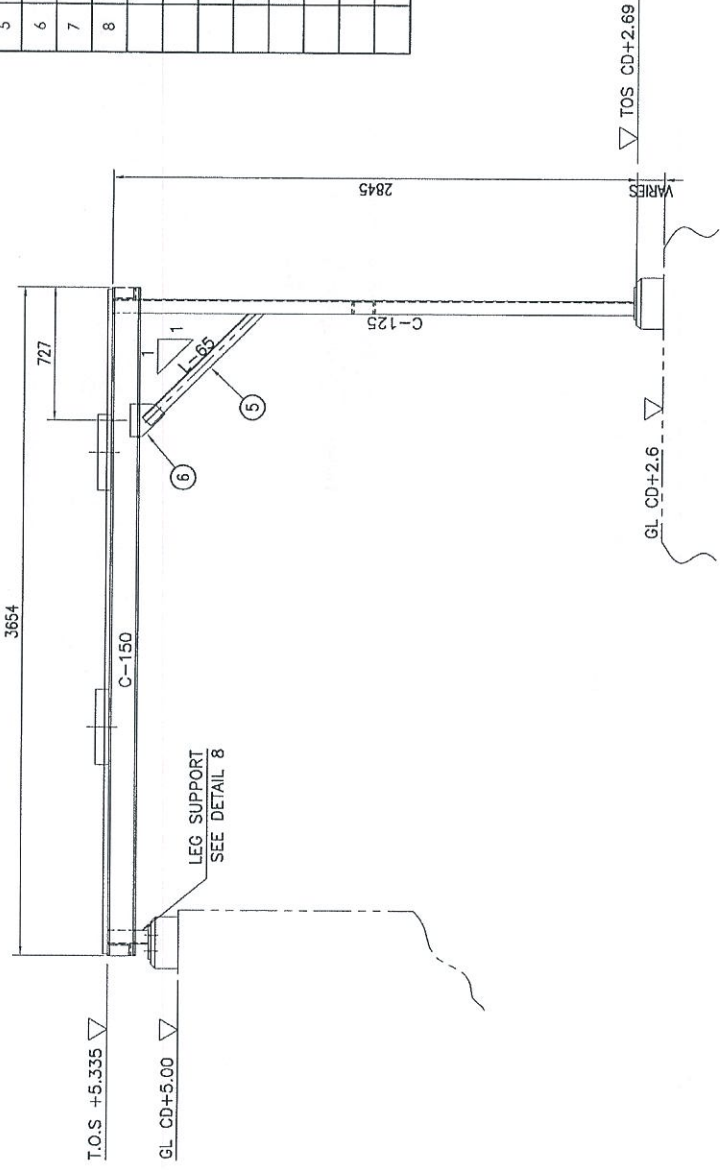
NOTE:  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT



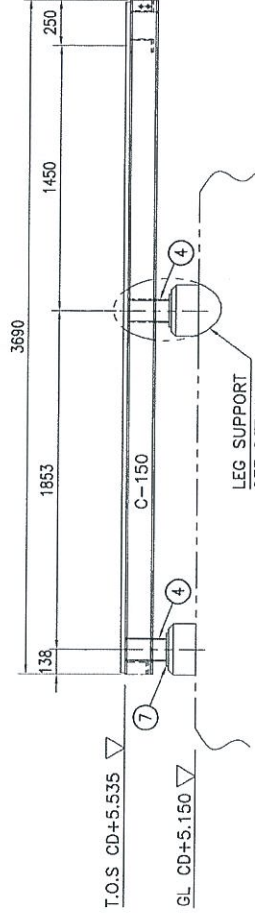
PLAN  
 PLATFORM FRAME (WITH COLUMN)  
 FOR PUMP AREA  
 SCALE 1:20



SECTION "B" - "B"  
 SCALE 1:20



SECTION "A" - "A"  
 SCALE 1:20

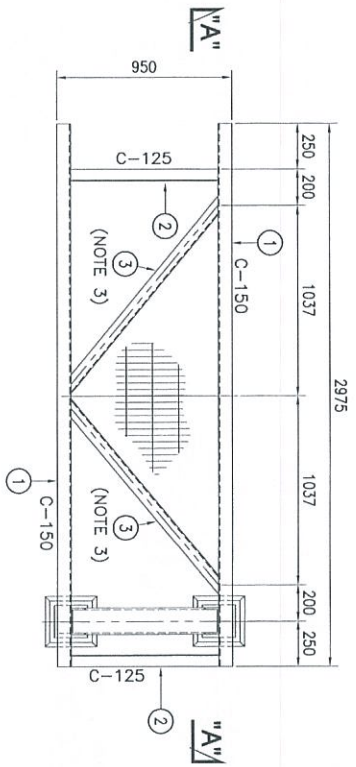


SECTION "C" - "C"  
 SCALE 1:20

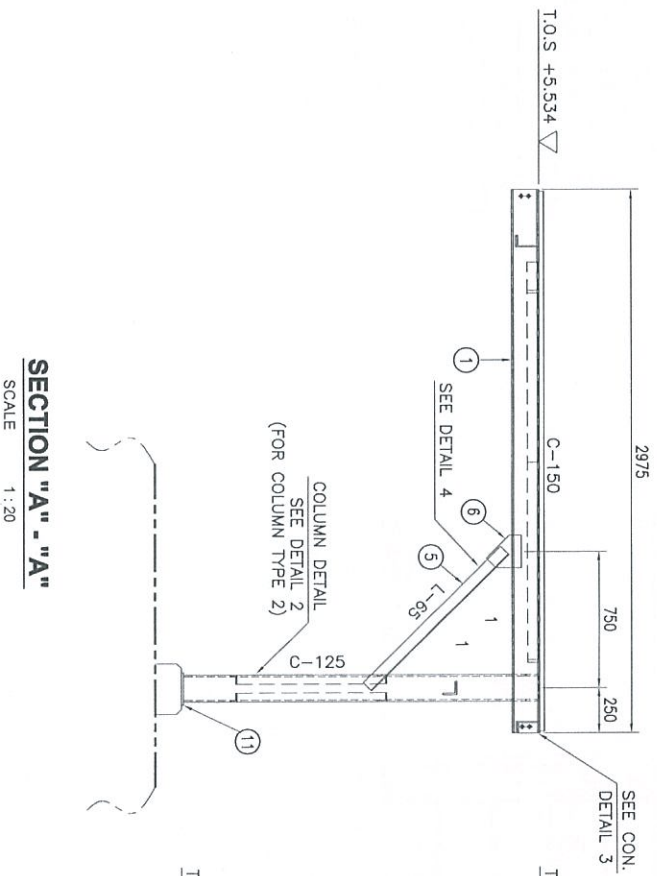
DESCRIPTION	QTY.
WALKWAY PLATFORM (WITHOUT COLUMN)	
TYPE 16-LPS-302P/WWP	1
TOTAL REQ'D =	1

PROJECT NO.	PROJ. NO.	PROJ. NAME	PROJ. LOCATION
00000-ENG-C-PF-0317	00000-ENG-C-PF-0317	WALKWAY PLATFORM WITH COLUMN (TYPE-16)	INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT Pengerang
DATE	BY	CHK	APPR.
19/05/13	HA	HA	HA
DWG. NO.	REV.	DESCRIPTION	DATE
00000-ENG-C-PF-0317	01	ISSUED FOR APPROVAL	19/05/13
	02	ISSUED FOR COMMENT	19/05/13
	03	ISSUED FOR APPROVAL	19/05/13
	04	ISSUED FOR APPROVAL	19/05/13
	05	ISSUED FOR APPROVAL	19/05/13
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	99	ISSUED FOR APPROVAL	19/05/13
	100	ISSUED FOR APPROVAL	19/05/13

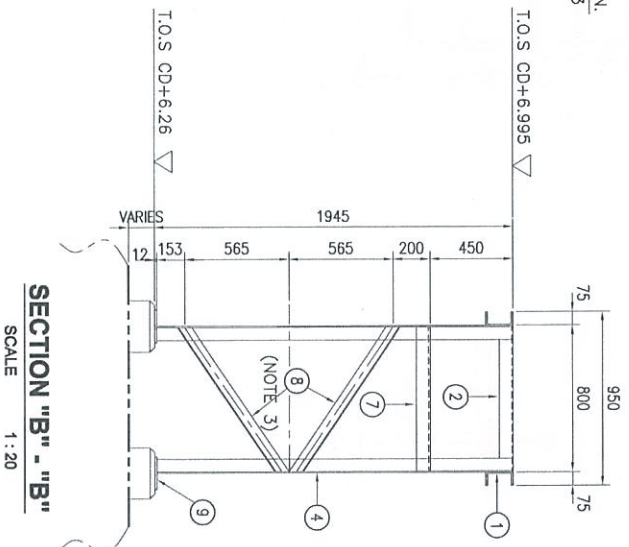
# WALKWAY PLATFORM - (TYPE-16A)



**PLAN**  
**PLATFORM FRAME (WITH COLUMN)**  
**FOR PUMP AREA**  
 SCALE 1:20



**SECTION "A" - "A"**  
 SCALE 1:20



**SECTION "B" - "B"**  
 SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	FRAME - C150 x 75 x 6.5t x 2975L	A 36 OR EQ.	2	110.8
2	FRAME - C125 x 65 x 6t x 800L	A 36 OR EQ.	2	21.4
3	BRACING #2 - L65 x 65 x 6t	A 36 OR EQ.	5	11.1
4	LEG 1# - C125 x 65 x 6t x 1845L	A 36 OR EQ.	2	44.1
5	BRACING #2 - L65 x 65 x 6t	A 36 OR EQ.	2	12.9
6	CLEAT - 9t	A 26 OR EQ.	2	9.1
7	BRACING #3 - L65 x 65 x 6t	A 36 OR EQ.	1	2.8
8	BRACING #4 - L65 x 65 x 6t	A 36 OR EQ.	1	3.2
9	BASE PLATE - 180 x 180 x 12t	A 36 OR EQ.	2	12.32
10	FLOOR GRATING - 2955 x 930 x 25t	A 36 OR EQ.	1	81.07
TOTAL				382.7

**NOTE:**  
 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

WALKWAY PLATFORM (WITHOUT COLUMN)	
DESCRIPTION	QTY.
TYPE 16A-LPS-30DP/WWP	1
TOTAL REQ'D = 1	

**PROJECT OWNER :**  
 INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG

**CONSULTANT :**  
 DIALOG E & C SDN. BHD. (199904-0)

**PROJECT TITLE :**  
 WALKWAY PLATFORM WITH COLUMN (TYPE-16A)

**SCALE :** AS SHOWN

**DATE :** 18/02/13

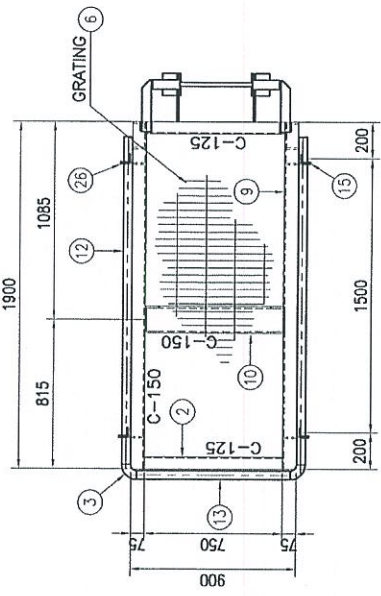
**DWG. NO. :** D100008-ENR-C-PF-03113

**REV. :** 2 of 2

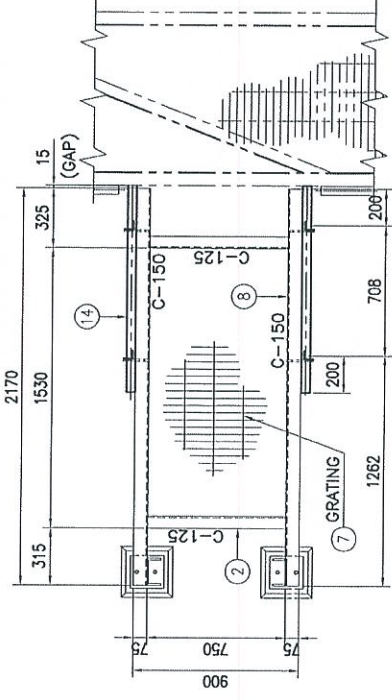
**APPROVALS:**

DESIGNED FOR APPROVAL	CHK	BY	DATE
ISSUED FOR CONSTRUCTION	CHK	BY	DATE
REV. DESCRIPTION	BY	CHK	DATE

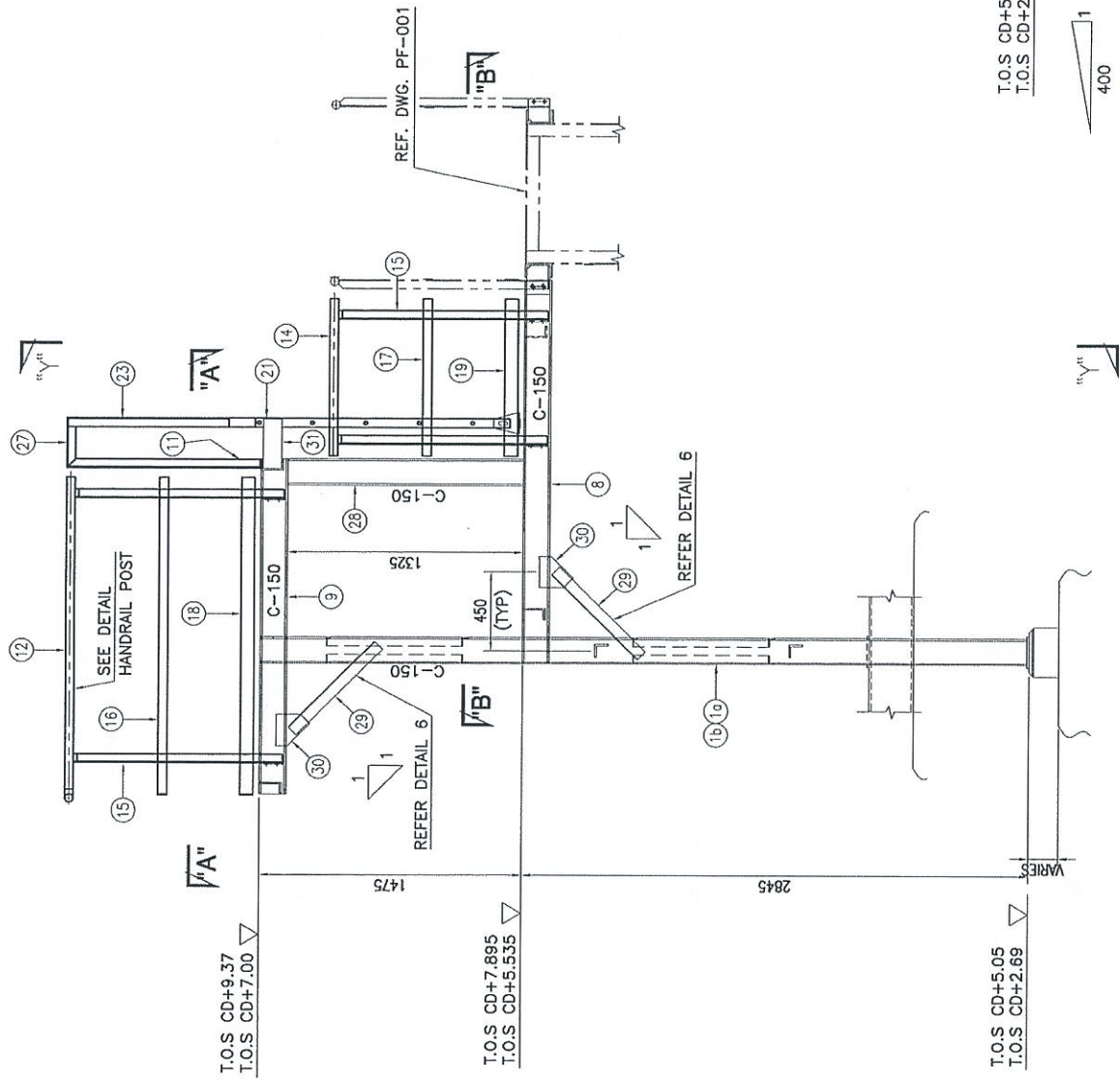
# OPERATING PLATFORM - (TYPE-1)



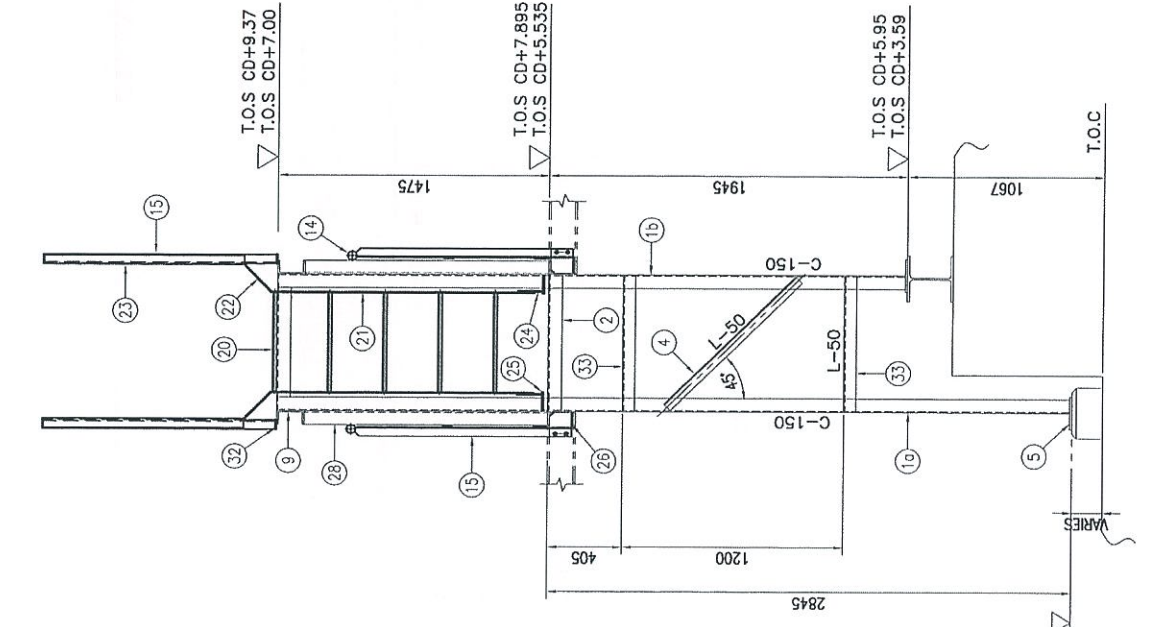
**SECTION "A" - "A"**  
OPERATING PLATFORM AT T.O.S CD+7.00/T.O.S CD+9.37  
SCALE 1:20



**SECTION "B" - "B"**  
OPERATING PLATFORM AT T.O.S CD+5.535/T.O.S CD+7.895  
SCALE 1:20



**ELEVATION**  
SCALE 1:20



**SECTION "Y" - "Y"**  
SCALE 1:20

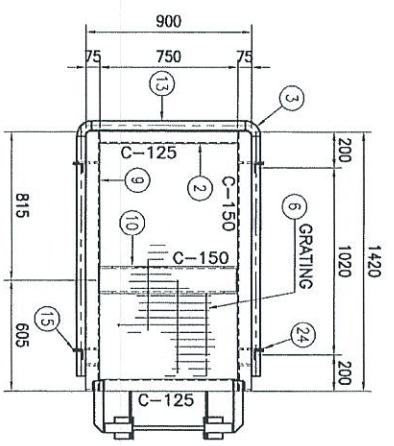
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1a	LEG - C150 x 75 x 91 x 4308L	A 36 OR EQ.	1	103.4
1b	LEG - C150 x 75 x 91 x 3408L	A 36 OR EQ.	1	81.8
2	SUPPORT - C125 x 65 x 61 x 750L	A 36 OR EQ.	4	40.2
3	90° SR ELBOW - Ø1 1/4 x SCH 40	SGP	2	3.8
4	BRACING - L50 x 50 x 61 x 990L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1880 x 880 x 251	A 36 OR EQ.	1	48.8
7	FLOOR GRATING - 1575 x 880 x 251	A 36 OR EQ.	1	40.9
8	FRAME - C150 x 75 x 6.51 x 2170L	A 36 OR EQ.	2	80.7
9	FRAME - C150 x 75 x 6.51 x 1900L	A 36 OR EQ.	2	70.7
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	STRINGER - L50 x 50 x 61 x 1085L	A 36 OR EQ.	2	9.6
12	HAND RAIL - Ø1 1/4 x SCH 40 x 1795L	SGP	2	12.2
13	HAND RAIL - Ø1 1/4 x SCH 40 x 835L	SGP	1	2.8
14	HAND RAIL - Ø1 1/4 x SCH 40 x 1120L	SGP	2	7.6
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	8	41.7
16	MID RAIL - FB50 x 61 x 1798L	A 36 OR EQ.	2	8.4
17	MID RAIL - FB50 x 61 x 885L	A 36 OR EQ.	2	4.2
18	TOE PLATE - FB75 x 61 x 1798L	A 36 OR EQ.	2	12.7
19	TOE PLATE - FB75 x 61 x 885L	A 36 OR EQ.	2	6.3
20	RUNG - RB Ø19 x 556L	A 36 OR EQ.	5	6.2
21	STRINGER - FB50 x 81 x 1431L	A 36 OR EQ.	2	9.0
22	STRINGER - FB50 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
24	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
25	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
26	CLEAT - 135 x 120 x 91	A 36 OR EQ.	8	9.0
27	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	2.5
28	SUPPORT - C150 x 75 x 6.51 x 1325L	A 36 OR EQ.	2	49.3
29	SUPPORT - L45 x 65 x 61 x 685L	A 36 OR EQ.	4	16.2
30	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	4	9.5
31	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
32	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
33	BRACING - L50 x 50 x 61 x 735L	A 36 OR EQ.	2	6.6
TOTAL				740.6

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANGPROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.  
CONSULTANT :  
DIALOG E & C SDN. BHD. (18299-4)  
109, BUKA 6, PULAU DAMANSARA 1, NO. 8, JALAN 16/11, 43300 PETALING JAYA, SELANGOR.DRAWING TITLE :  
NORTH/SOUTH SIDE OPERATING PLATFORM (TYPE-1)  
SCALE : AS SHOWN CHECKED : ERWA  
DRAWN : PAN APPROVED : LHM  
DATE : 18/03/13 FILENAME : (A)  
DWG. NO. : DH0008-ENG-C-PF-0318 SPT. NO. REC. : 1 of 2 0

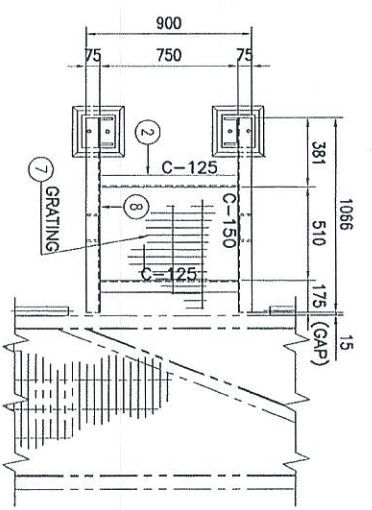
OPERATING PLATFORM	
DESCRIPTION	QTY.
TYPE 1 - LPS-302S/NSOP	4
TYPE 1 - LPS-302D/NSOP	1
TOTAL REQ'D = 5	

NOTE:  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

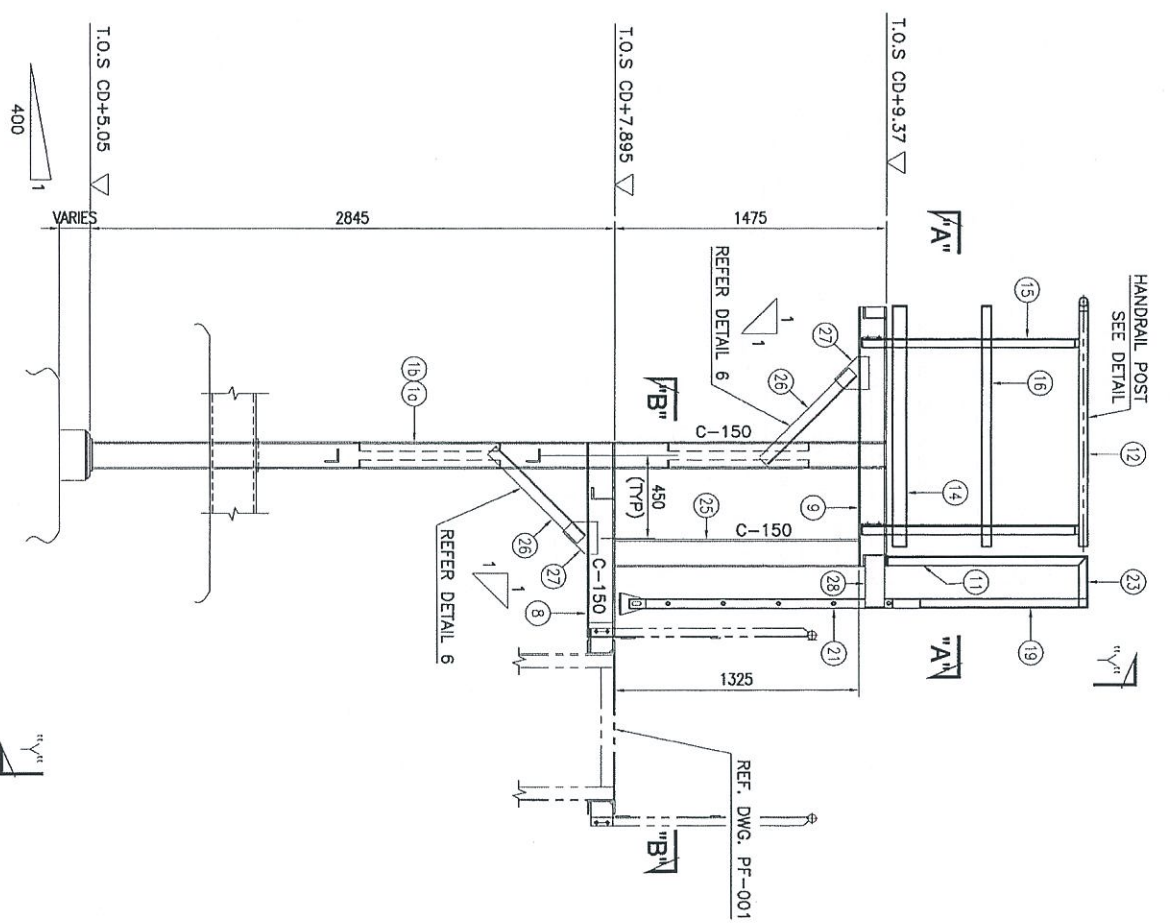
# OPERATING PLATFORM - (TYPE-1A)



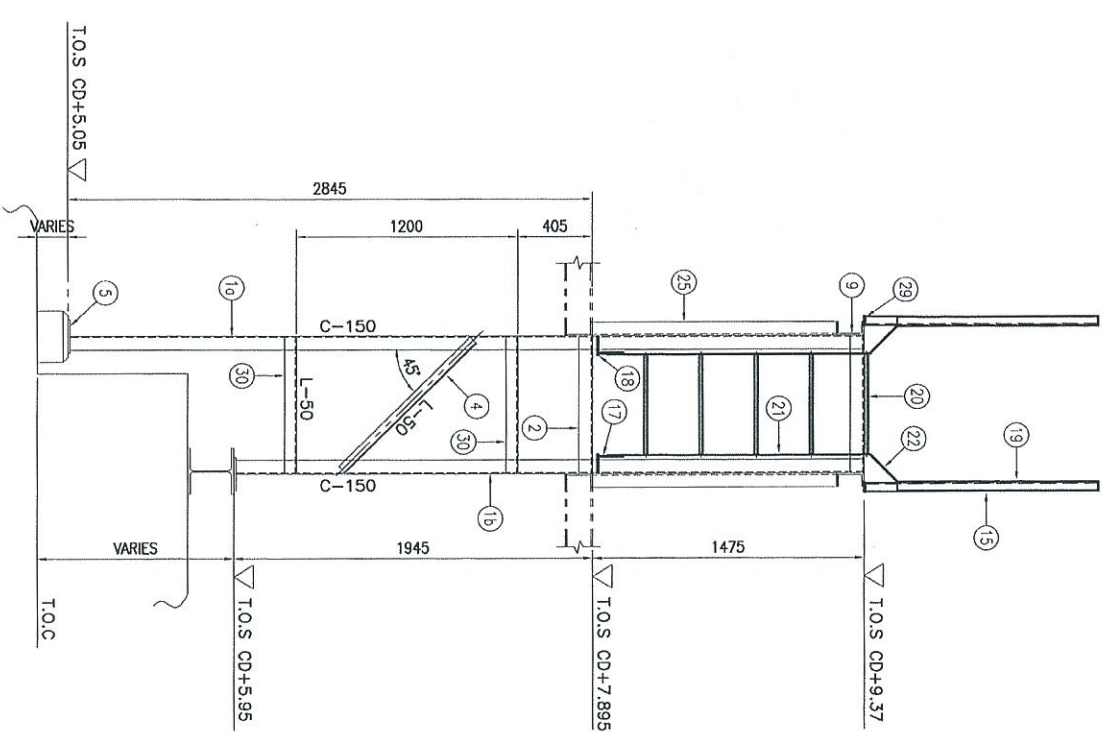
SECTION "A" - "A"  
OPERATING PLATFORM AT T.O.S CD+9.37  
SCALE 1:20



SECTION "B" - "B"  
OPERATING PLATFORM AT T.O.S CD+7.895  
SCALE 1:20



SECTION "A" - "A"  
OPERATING PLATFORM AT T.O.S CD+9.37  
SCALE 1:20



SECTION "Y" - "Y"  
OPERATING PLATFORM  
SCALE 1:20

## BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KGS.) (1 SET)
1a	LEG - C150 x 75 x 91 x 4308L	A 36 OR EQ.	1	103.4
1b	LEG - C150 x 75 x 91 x 3408L	A 36 OR EQ.	1	81.8
2	SUPPORT - C125 x 65 x 61 x 750L	A 36 OR EQ.	4	40.2
3	90° SR ELBOW - Ø1 1/2 x SCH 40	SGP	2	3.8
4	BRACING - L50 x 50 x 61 x 970L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1400 x 880 x 251	A 36 OR EQ.	1	36.3
7	FLOOR GRATING - 1046 x 880 x 251	A 36 OR EQ.	1	27.2
8	FRAME - C150 x 75 x 6.51 x 1066	A 36 OR EQ.	2	39.7
9	FRAME - C150 x 75 x 6.51 x 1900L	A 36 OR EQ.	2	70.7
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	STRINGER - L50 x 50 x 61 x 1085L	A 36 OR EQ.	2	9.6
12	HAND RAIL - Ø1 1/2 x SCH 40 x 1315L	SGP	2	8.9
13	HAND RAIL - Ø1 1/2 x SCH 40 x 835L	SGP	1	2.8
14	TOE PLATE - FB75 x 61 x 1318L	A 36 OR EQ.	2	9.3
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	4	20.9
16	MID RAIL - FB50 x 61 x 1318L	A 36 OR EQ.	2	6.2
17	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
18	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
19	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
20	RUNG - RB Ø19 x 556L	A 36 OR EQ.	5	6.2
21	STRINGER - FB50 x 81 x 1431L	A 36 OR EQ.	2	9.0
22	STRINGER - FB50 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	1.8
24	CLEAT - 135 x 120 x 91	A 36 OR EQ.	4	4.6
25	SUPPORT - C150 x 75 x 6.51 x 1329L	A 36 OR EQ.	2	49.3
26	SUPPORT - L55 x 65 x 61 x 689L	A 36 OR EQ.	4	16.2
27	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	4	9.5
28	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
29	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
30	BRACING - L50 x 50 x 61 x 735L	A 36 OR EQ.	2	6.6
TOTAL				600.6

NOTE:  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

OPERATING PLATFORM	QTY.
TYPE 1A-LPS-302D/NSOP	1
TOTAL REQ'D = 1	

PROJECT OWNER:  
**DIALOG INDEPENDENT TERMINALS SDN. BHD.**

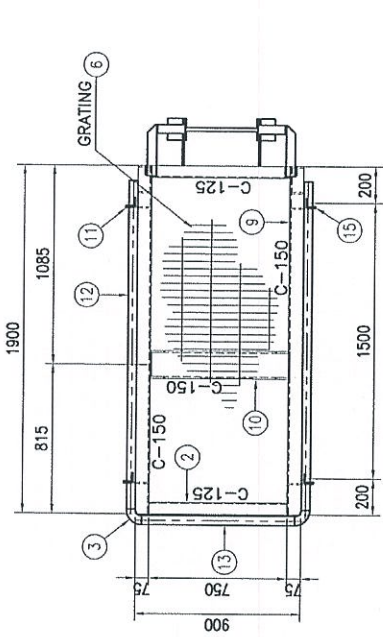
PROJECT TITLE:  
**INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG**

CONSULTANT:  
**DIALOG E & C SDN. BHD.** (18880-0)  
108, 8th Floor, Wisma Djarum, No. 11, Jalan Tugu, 40100 Kuala Lumpur, Malaysia

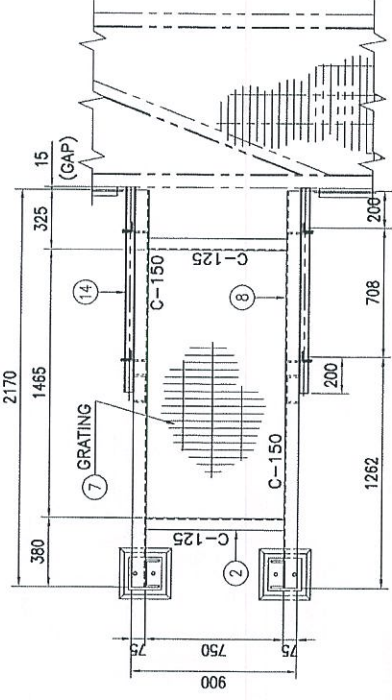
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SCALE: AS SHOWN  
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CHECKED: DMK  
APPROVED: DMK  
FILE NAME: -  
DWC NO: DPO008-ENG-C-PF-0318

DATE: 18/03/15  
SCALE: AS SHOWN  
DRAWN: PAM  
CHECKED: DMK  
APPROVED: DMK  
FILE NAME: -  
DWC NO: DPO008-ENG-C-PF-0318

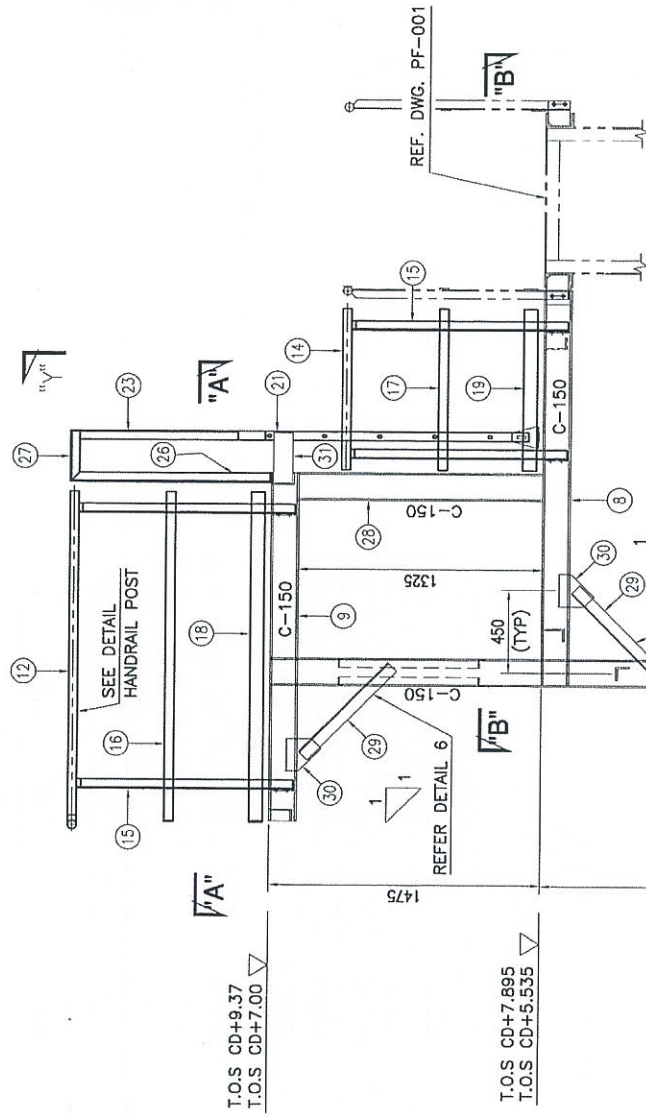
# OPERATING PLATFORM - (TYPE-2)



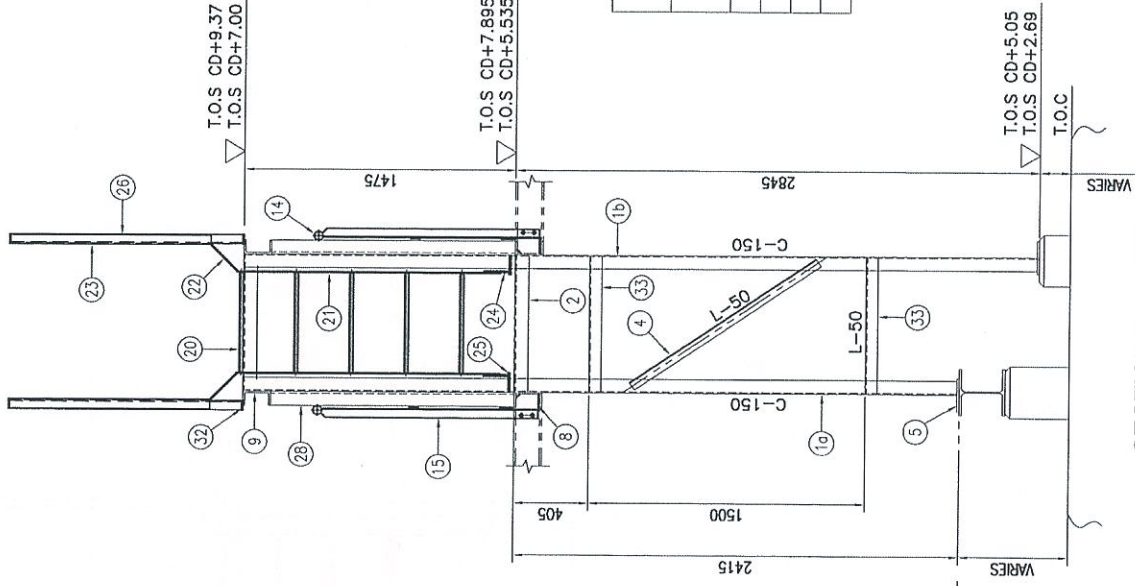
**SECTION "A" - "A"**  
OPERATING PLATFORM AT T.O.S CD+7.00/T.O.S CD+9.37  
SCALE 1:20



**SECTION "B" - "B"**  
OPERATING PLATFORM AT T.O.S CD+5.535/T.O.S CD+7.895  
SCALE 1:20



**ELEVATION**  
SCALE 1:20



**SECTION "Y" - "Y"**  
SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1a	LEG - C150 x 75 x 91 x 3878L	A 36 OR EQ.	1	93.1
1b	LEG - C150 x 75 x 91 x 4308L	A 36 OR EQ.	1	103.4
2	SUPPORT - C125 x 65 x 61 x 736L	A 36 OR EQ.	4	40.2
3	90° 3R ELBOW - Ø1½ x SCH 40	SGP	2	3.8
4	BRACING - L50 x 50 x 61 x 990L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1880 x 880 x 25F	A 36 OR EQ.	1	48.8
7	FLOOR GRATING - 1575 x 880 x 25F	A 36 OR EQ.	1	40.9
8	FRAME - C150 x 75 x 6.51 x 2170L	A 36 OR EQ.	2	80.7
9	FRAME - C150 x 75 x 6.51 x 1900L	A 36 OR EQ.	2	70.7
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	CLEAT - 135 x 120 x 91	A 36 OR EQ.	8	9.0
12	HAND RAIL - Ø1½ x SCH 40 x 1795L	SGP	2	12.2
13	HAND RAIL - Ø1½ x SCH 40 x 835L	SGP	1	2.8
14	HAND RAIL - Ø1½ x SCH 40 x 1120L	SGP	2	7.6
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	8	41.7
16	MID RAIL - FB50 x 61 x 1798L	A 36 OR EQ.	2	8.4
17	MID RAIL - FB50 x 61 x 885L	A 36 OR EQ.	2	4.2
18	TOE PLATE - FB75 x 61 x 1798L	A 36 OR EQ.	2	12.7
19	TOE PLATE - FB75 x 61 x 885L	A 36 OR EQ.	2	6.3
20	RUNG - RB Ø19 x 556L	A 36 OR EQ.	5	6.2
21	STRINGER - FB50 x 81 x 1431L	A 36 OR EQ.	2	9.0
22	STRINGER - FB50 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
24	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
25	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
26	STRINGER - L50 x 50 x 61 x 1085L	A 36 OR EQ.	2	6.8
27	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	2.5
28	SUPPORT - C150 x 75 x 6.51 x 1325L	A 36 OR EQ.	2	49.3
29	SUPPORT - L65 x 65 x 61 x 685L	A 36 OR EQ.	4	16.2
30	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	4	9.5
31	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
32	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
33	BRACING - L50 x 50 x 61 x 735L	A 36 OR EQ.	2	6.6
<b>TOTAL</b>				<b>749.1</b>

OPERATING PLATFORM	
DESCRIPTION	QTY.
TYPE 2-LPS-302S/SSOP	4
TYPE 2-LPS-302D/SSOP	2
<b>TOTAL REQ'D = 6</b>	

PROJECT OWNER : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG

CONSULTANT : DIALOG E & C SDN. BHD. (102289-U)

DRAWING TITLE : LPS-302 NORTH/SOUTH SIDE OPERATING PLATFORM (TYPE-2)

SCALE : AS SHOWN

CHECKED : ESKA

DRAWN : PAN

APPROVED : UM

DATE : 16/03/13

FORM : -

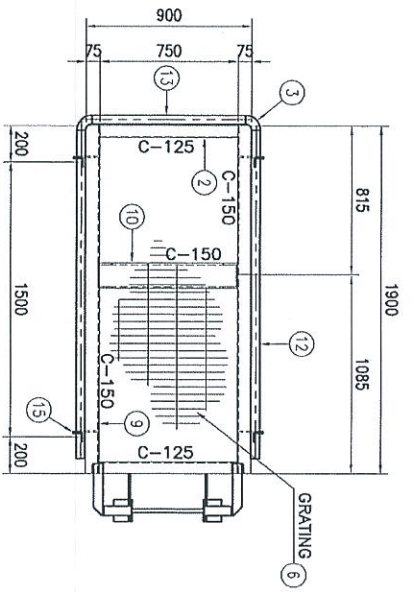
DWG. NO. : DHO008-ENG-C-PF-0319

SHEET NO. : 1 OF 1

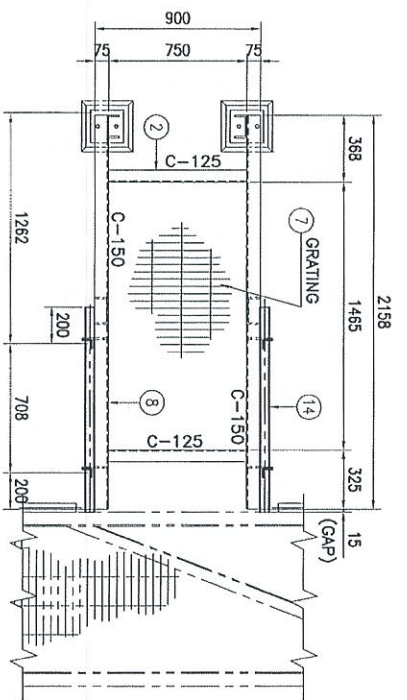
REV. : 0

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

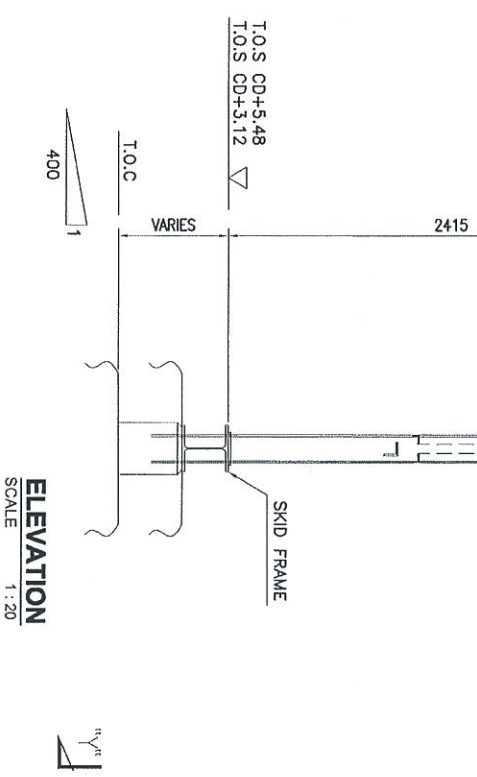
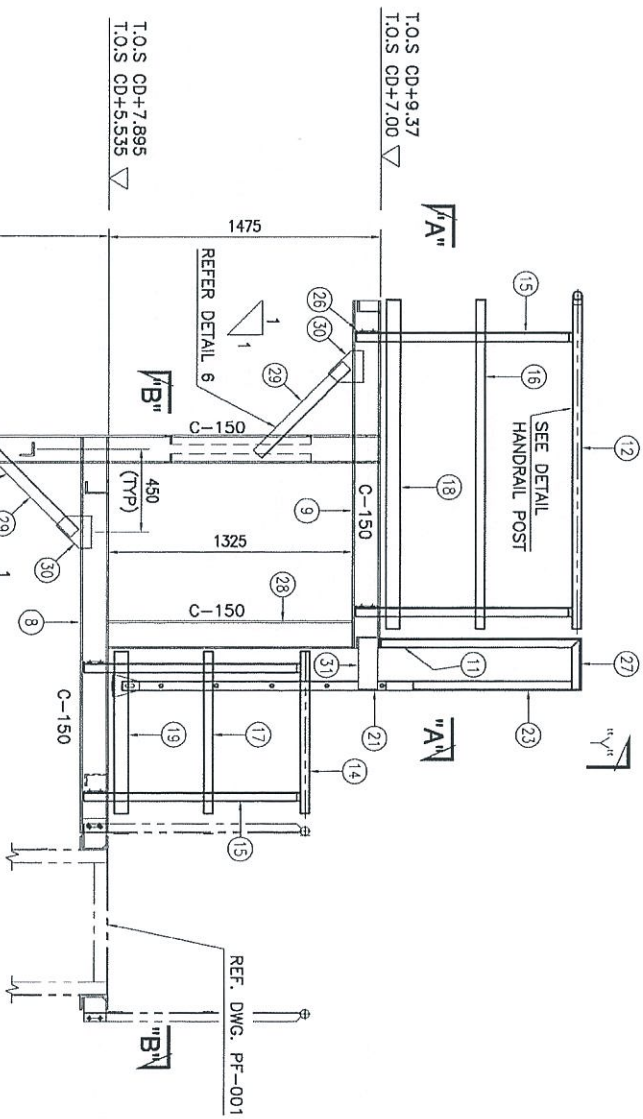
# OPERATING PLATFORM - (TYPE-3)



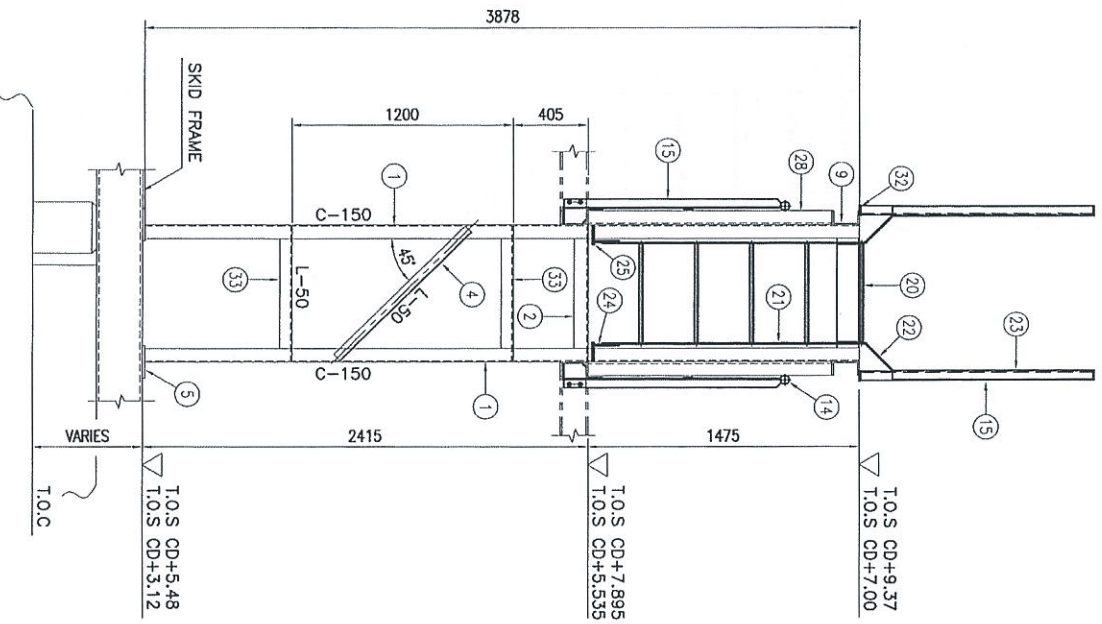
**SECTION "A" - "A"**  
OPERATING PLATFORM AT T.O.S CD+7.00/T.O.S CD+9.37  
SCALE 1:20



**SECTION "B" - "B"**  
OPERATING PLATFORM AT T.O.S CD+5.535/T.O.S CD+7.895  
SCALE 1:20



**ELEVATION**  
SCALE 1:20



**SECTION "Y" - "Y"**  
SCALE 1:20

## BILL OF MATERIALS (ONE (1) SET OF PLATFORM)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL QTY WEIGHTING (1 SET)
1	LEG - C150 x 75 x 81 x 3878L	A 36 OR EQ.	2	186.1
2	SUPPORT - C125 x 45 x 61 x 750L	A 36 OR EQ.	4	40.2
3	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
4	BRACING - L50 x 50 x 61 x 990L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1880 x 880 x 251	A 36 OR EQ.	1	48.8
7	FLOOR GRATING - 1575 x 880 x 251	A 36 OR EQ.	1	40.9
8	FRAME - C150 x 75 x 6.51 x 2158L	A 36 OR EQ.	2	80.3
9	FRAME - C150 x 75 x 6.51 x 1900L	A 36 OR EQ.	2	70.7
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	STRINGER - L50 x 50 x 61 x 1085L	A 36 OR EQ.	2	9.6
12	HAND RAIL - Ø1½ x SCH 40 x 1793L	SGP	2	12.2
13	HAND RAIL - Ø1½ x SCH 40 x 835L	SGP	1	2.8
14	HAND RAIL - Ø1½ x SCH 40 x 1120L	SGP	2	7.6
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	8	41.7
16	MID RAIL - FB50 x 61 x 1798L	A 36 OR EQ.	2	8.4
17	MID RAIL - FB50 x 61 x 885L	A 36 OR EQ.	2	4.2
18	TOE PLATE - FB75 x 61 x 1798L	A 36 OR EQ.	2	12.7
19	TOE PLATE - FB75 x 61 x 885L	A 36 OR EQ.	2	6.3
20	RUNG - R8 Ø19 x 556L	A 36 OR EQ.	5	6.2
21	STRINGER - FB50 x 81 x 1431L	A 36 OR EQ.	2	9.0
22	STRINGER - FB50 x 81 x 2111L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
24	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
25	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
26	CLEAT - 135 x 120 x 91	A 36 OR EQ.	8	9.0
27	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	2.5
28	SUPPORT - C150 x 75 x 6.51 x 1325L	A 36 OR EQ.	2	49.3
29	SUPPORT - L65 x 65 x 61 x 685L	A 36 OR EQ.	4	16.2
30	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	4	9.5
31	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
32	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
33	BRACING - L50 x 50 x 61 x 735L	A 36 OR EQ.	2	6.6
<b>TOTAL</b>				<b>741.1</b>

DESCRIPTION	QTY.
TYPE 3-LPS-302S/NSOP	22
TYPE 3-LPS-302S/SSOP	22
TYPE 3-LPS-302D/NSOP	2
TYPE 3-LPS-302D/SSOP	5
<b>TOTAL REQ'D = 51</b>	

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

**OPERATING PLATFORM**

PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
DIALOG E & C SDN. BHD. (19339-4)  
109, BLOCK 9, PUSAT DAMANSARA 1,  
NO. 8, JALAN 19/11, 45000 PETUNG JAYA, SELANGOR.

DRAWING TITLE :  
NORTH/SOUTH SIDE OPERATING PLATFORM  
(TYPE-3)

SCALE : AS SHOWN  
DRAWN : AS SHOWN  
DATE : 18/02/15  
DWC. NO. : DHO008-DWG-C-PF-0320

CHECKED : BMA  
APPROVED : BMA  
REV. :  
1 OF 2

PROJECT NO. :  
DRAWING NO. :  
DATE :  
SCALE :  
DRAWN :  
DATE :  
DWC. NO. :  
DHO008-DWG-C-PF-0320

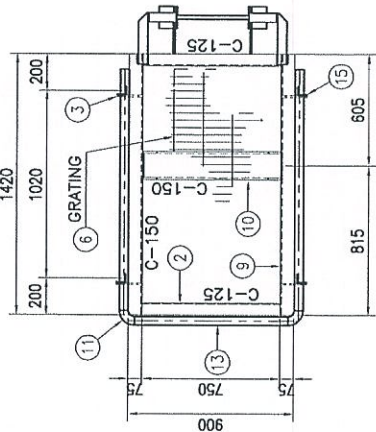
REFERENCE DRAWINGS  
DWC. NO. :  
DRAWING TITLE :  
DIALOG E & C SDN. BHD. (19339-4)  
109, BLOCK 9, PUSAT DAMANSARA 1,  
NO. 8, JALAN 19/11, 45000 PETUNG JAYA, SELANGOR.

ISSUED FOR APPROVAL  
DATE : 18/02/15  
BY : BMA  
CHECKED : BMA  
DATE : 18/02/15

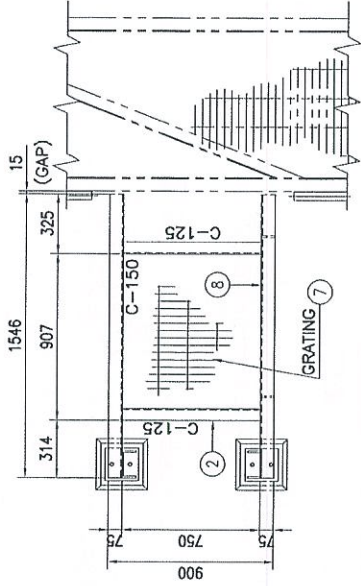
ISSUED FOR CONSTRUCTION  
DATE : 18/02/15  
BY : BMA  
CHECKED : BMA  
DATE : 18/02/15

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG

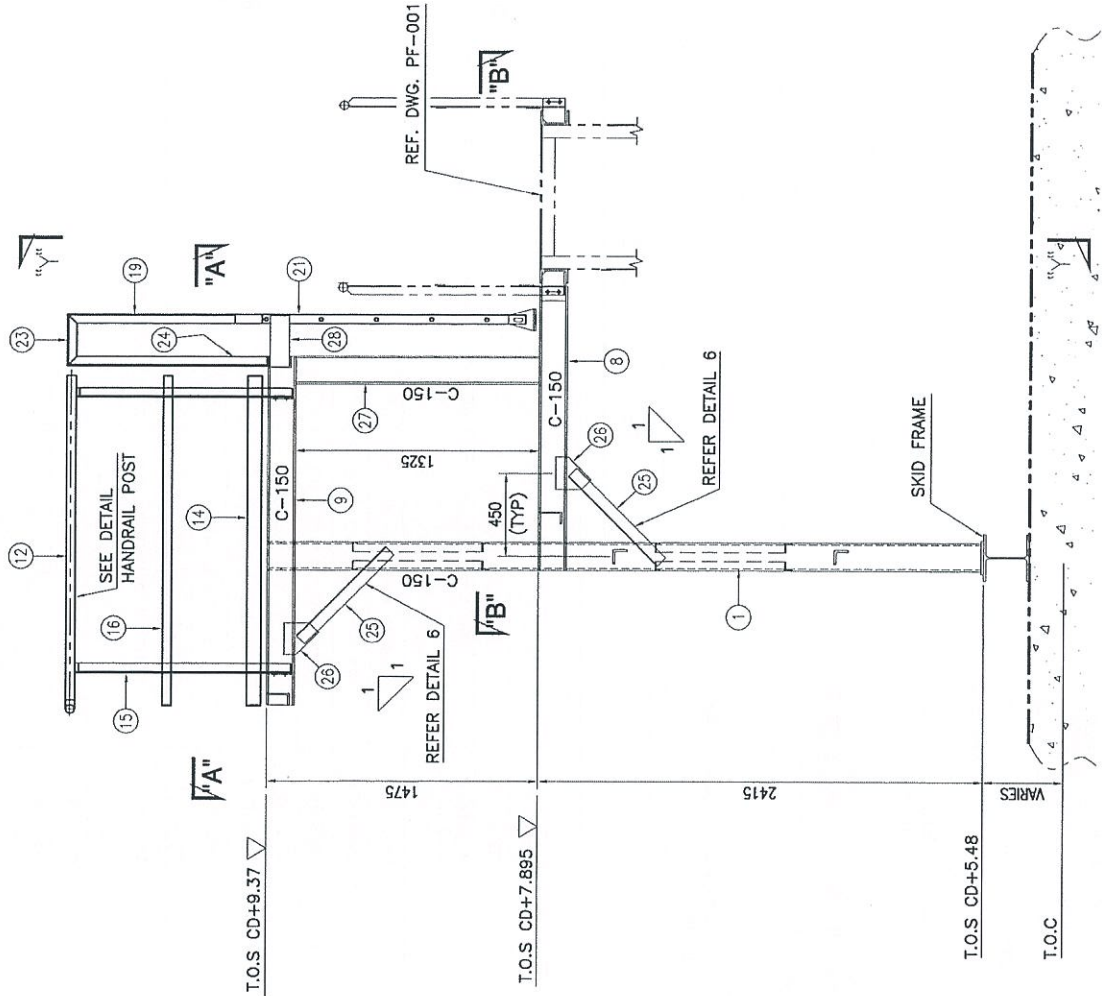
# OPERATING PLATFORM - (TYPE-3A)



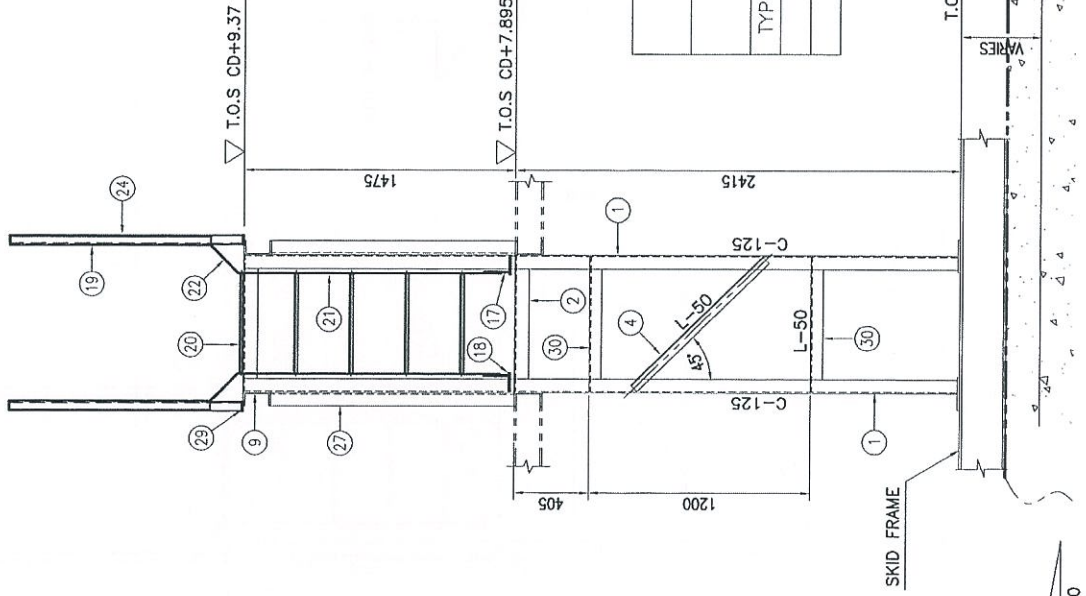
**SECTION "A" - "A"**  
OPERATING PLATFORM AT T.O.S CD+9.37  
SCALE 1:20



**SECTION "B" - "B"**  
OPERATING PLATFORM AT T.O.S CD+7.895  
SCALE 1:20



**ELEVATION**  
SCALE 1:20



**SECTION "Y" - "Y"**  
SCALE 1:20

OPERATING PLATFORM	
DESCRIPTION	QTY.
TYPE 3A-LPS-302D/NSOP	6
TOTAL REQ'D = 6	

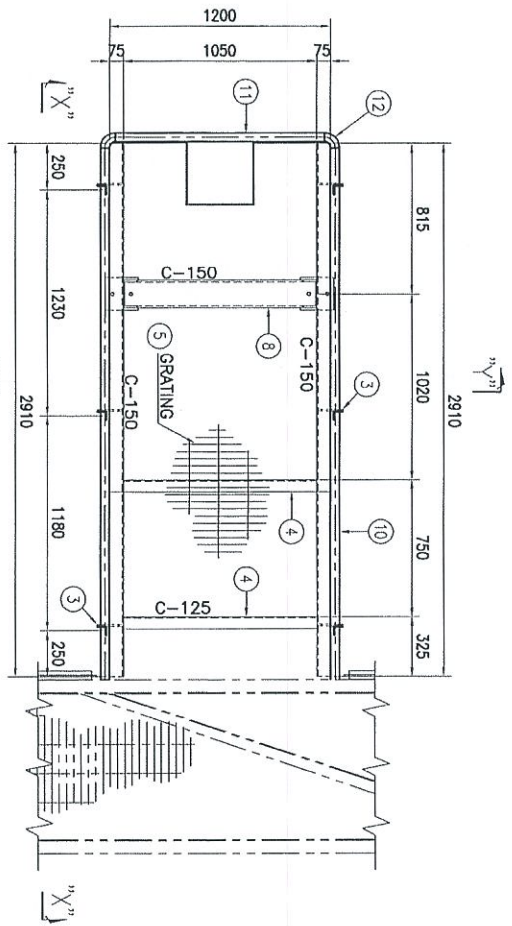
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG)
1	LEG - C150 x 75 x 91 x 3878L	A 36 OR EQ.	2	186.1
2	SUPPORT - C125 x 65 x 61 x 750L	A 36 OR EQ.	4	40.2
3	CLEAT - 135 x 120 x 91	A 36 OR EQ.	4	4.5
4	BRACING - L50 x 50 x 61 x 990L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1880 x 880 x 25F	A 36 OR EQ.	1	48.8
7	FLOOR GRATING - 1575 x 880 x 25F	A 36 OR EQ.	1	40.9
8	FRAME - C150 x 75 x 6.51 x 1546L	A 36 OR EQ.	2	57.5
9	FRAME - C150 x 75 x 6.51 x 1900L	A 36 OR EQ.	2	70.7
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	90° SR ELBOW - Ø1/2" x SCH 40	SGP	2	3.8
12	HAND RAIL - Ø1/2" x SCH 40 x 1793L	SGP	2	12.2
13	HAND RAIL - Ø1/2" x SCH 40 x 835L	SGP	1	2.8
14	TOE PLATE - FB75 x 61 x 1798L	A 36 OR EQ.	2	12.7
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	4	20.9
16	MID RAIL - FB50 x 61 x 1798L	A 36 OR EQ.	2	8.4
17	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
18	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
19	STRINGER - FB50 x 81 x 1092L	A 36 OR EQ.	2	6.9
20	RUNG - RB Ø19 x 556L	A 36 OR EQ.	5	6.2
21	STRINGER - FB50 x 81 x 1431L	A 36 OR EQ.	2	9.0
22	STRINGER - FB50 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - FB50 x 81 x 281L	A 36 OR EQ.	2	1.8
24	STRINGER - FB50 x 81 x 1085L	A 36 OR EQ.	2	6.8
25	SUPPORT - L65 x 65 x 61 x 685L	A 36 OR EQ.	4	16.2
26	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	4	9.5
27	SUPPORT - C150 x 75 x 6.51 x 1325L	A 36 OR EQ.	2	49.3
28	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
29	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
30	BRACING - L50 x 50 x 61 x 735L	A36 OR EQ.	2	6.6
TOTAL				668.6

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

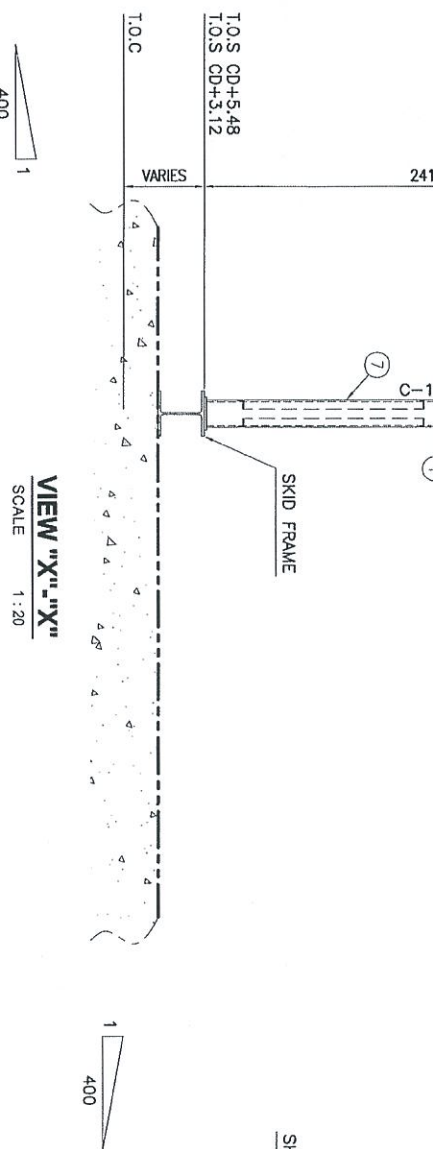
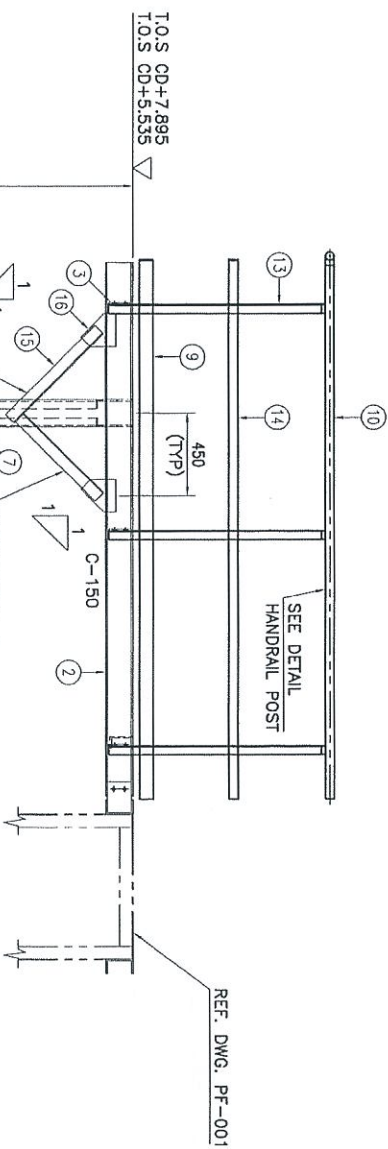
NOOR-00-24-001, DE 1-7	FINAL GENERAL DRAWING AT LPS-302				
NOOR-00-24-001-001-001	WATER FOOT PUMP FOR PHASE-1				
DWG NO.	TITLE				
REFERENCE DRAWINGS					
NO.	ISSUED FOR APPROVAL	DATE			
1	ISSUED FOR COMMENTS	DATE			
REV.	DESCRIPTION	BY	CHK	APPR.	DATE
PROJECT TITLE :					
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG					
PROJECT OWNER :					
DIALOG INDEPENDENT TERMINALS SDN. BHD.					
CONSULTANT :					
DIALOG E & C SDN. BHD. (19920-0)					
NO. 8, JALAN 14/11, 45500 PENANG JAYA, PENANG.					
DRAWING TITLE :					
LPS-302					
NORTH/SOUTH SIDE OPERATING PLATFORM (TYPE-3A)					
SCALE :	AS SHOWN	CHECKED :	EDWA		
DRAWN :	PMW	APPROVED :	UM		
DATE :	18/03/13	FILE NO. :			
DWG. NO. :	DH0008-ENG-C-PF-0320	SHT. NO. :	REV.		
		2 OF 2	0		



## OPERATING PLATFORM - (TYPE-4)



**PLAN VIEW**  
**OPERATING PLATFORM**  
**T.O.S CD + 5.35 / T.O.S CD + 7.895**  
SCALE 1:20



DESCRIPTION	QTY.
OPERATING PLATFORM	
TYPE 4-LPS-3025/NSOP	23
TYPE 4-LPS-3025/SSOP	21
TYPE 4-LPS-3020/NSOP	4
TYPE 4-LPS-3020/SSOP	8
TOTAL REQ'D =	56

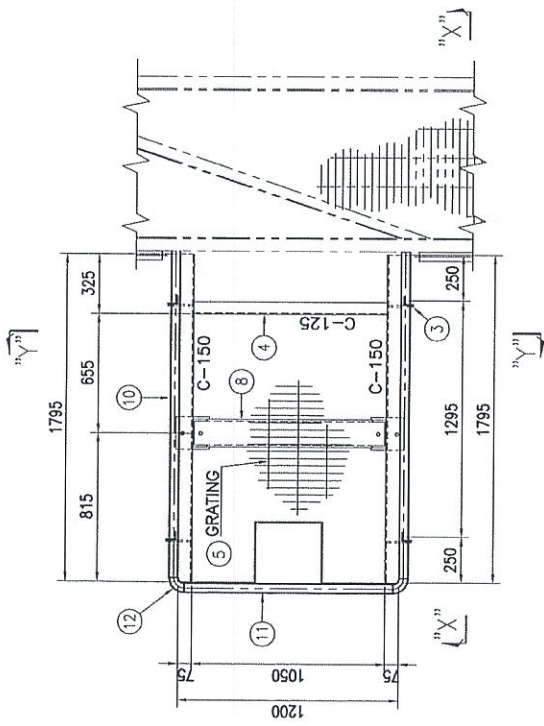
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (1 SET)
1	LEG - C150 x 75 x 91 x 2403L	A36 OR EQ.	2	115.3
2	FRAME - C150 x 75 x 6.51 x 2910L	A36 OR EQ.	2	108.3
3	CLEAT - 135 x 120 x 91	A36 OR EQ.	6	6.9
4	FRAME - C125 x 65 x 61 x 1050L	A36 OR EQ.	2	28.1
5	FLOOR GRATING - 1180 x 2890L x 251	A36 OR EQ.	1	100.6
6	BASE PLATE - 180 x 180 x 121	A36 OR EQ.	2	6.1
7	BRAKING - L50 x 50 x 61 x 1390L	A36 OR EQ.	4	24.6
8	SUPPORT - C150 x 75 x 6.51 x 1050L	A36 OR EQ.	1	19.5
9	TOE PLATE - FB75 x 61 x 2940L	A36 OR EQ.	2	20.8
10	HAND RAIL - Ø1½ x SCH 40 x 2900L	SGP	2	19.7
11	HAND RAIL - Ø1½ x SCH 40 x 1135L	SGP	1	3.8
12	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
13	STANCHION - L50 x 50 x 61 x 1176L	A36 OR EQ.	8	41.7
14	MID RAIL - FB50 x 61 x 2940L	A36 OR EQ.	2	13.8
15	SUPPORT - L65 x 65 x 61 x 685L	A36 OR EQ.	4	16.2
16	GUSSET PLATE - 177 x 189 x 91	A36 OR EQ.	4	9.5
TOTAL				538.7

**NOTE:**  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

PROJECT OWNER:		DIALOG INDEPENDENT TERMINALS SDN. BHD.	
CONSULTANT:		DIALOG E & C SDN. BHD. (181818-0)	
DRAWING TITLE:		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG	
PROJECT NO.:		DHP0009-ENG-C-PF-0321	
DRAWING NO.:		1 OF 2	

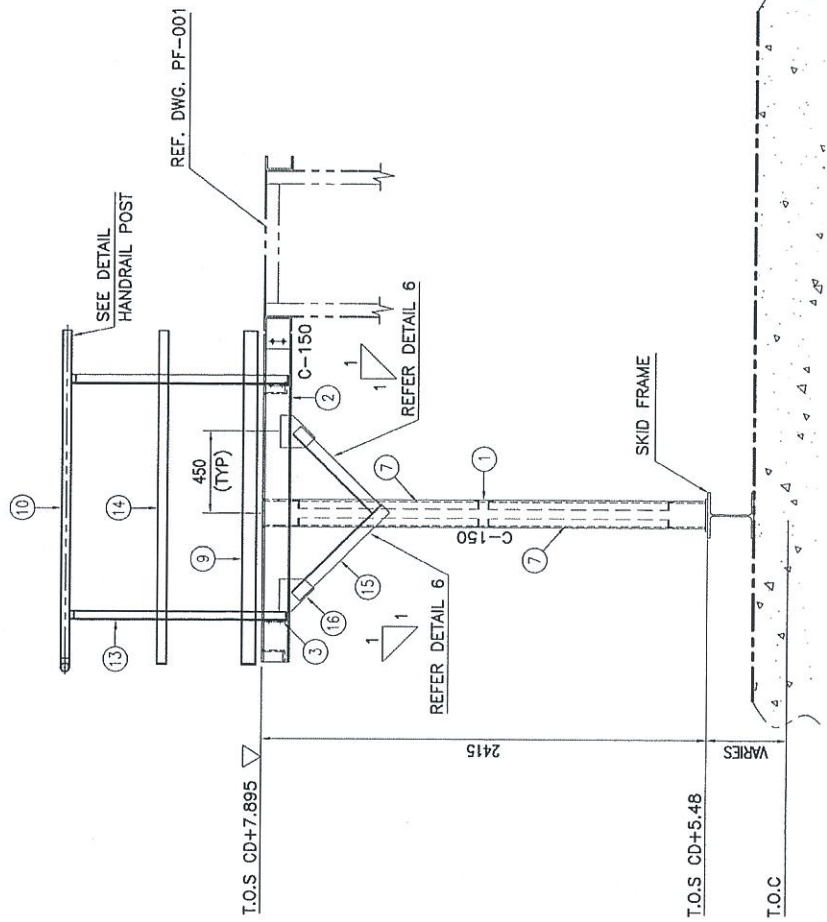
DATE:	18/03/13	DATE:	
SCALE:	AS SHOWN	SCALE:	
DRAWN BY:	PAU	CHECKED BY:	EMW
DATE:	18/03/13	DATE:	
DWG. NO.:	DHP0009-ENG-C-PF-0321	DWG. NO.:	

# OPERATING PLATFORM - (TYPE-4A)



**PLAN VIEW**  
**OPERATING PLATFORM AT T.O.S CD + 7.895**

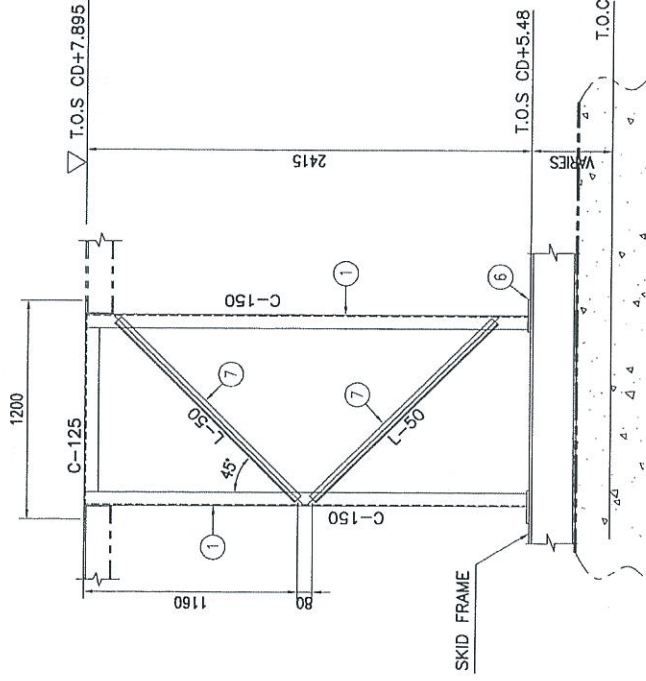
SCALE 1:20



**VIEW "X"-"X"**

SCALE 1:20

OPERATING PLATFORM		
DESCRIPTION	QTY.	QTY.
TYPE 4A-LPS-302D/NSOP	4	4
TOTAL REQ'D = 4		



**SECTION "Y"-"Y"**

SCALE 1:20

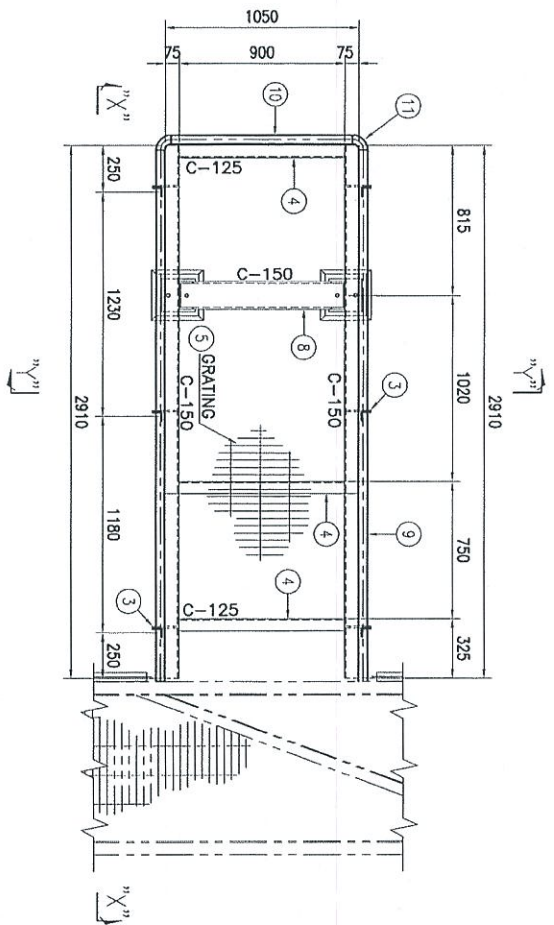
BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHTS (1 SET)
1	LEG - C150 x 75 x 91 x 2403L	A36 OR EQ.	2	115.3
2	FRAME - C150 x 75 x 6.51 x 1795L	A36 OR EQ.	2	86.2
3	CLEAT - 135 x 120 x 91	A36 OR EQ.	4	4.6
4	FRAME - C125 x 65 x 61 x 1050L	A36 OR EQ.	2	28.1
5	FLOOR GRATING - 1180 x 1175L x 251	A36 OR EQ.	1	40.9
6	BASE PLATE - 180 x 180 x 121	A36 OR EQ.	2	6.1
7	BRACING - L50 x 50 x 61 x 1390L	A36 OR EQ.	4	24.6
8	SUPPORT - C150 x 75 x 6.51 x 1050L	A36 OR EQ.	1	19.5
9	TOE PLATE - FB75 x 61 x 1845L	A36 OR EQ.	2	13.0
10	HAND RAIL - Ø1½ x SCH 40 x 1805L	SGP	2	12.2
11	HAND RAIL - Ø1½ x SCH 40 x 1135L	SGP	1	3.8
12	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
13	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	8	41.7
14	MID RAIL - FB50 x 61 x 1845L	A36 OR EQ.	2	8.6
15	SUPPORT - L65 x 65 x 61 x 685L	A 36 OR EQ.	4	16.2
16	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	4	9.5
<b>TOTAL</b>				<b>430.3</b>

**NOTE:**

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS D1.1.

PPMG-001-P-001, SHL 1-7 MASTER TOOL PLAN FOR PINGE-1 DWG NO.	PPMG GENERAL ARRANGEMENT AT LPS-302 MASTER TOOL PLAN FOR PINGE-1 TITLE	REFERENCE DRAWINGS	PROJECT TITLE : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG PROJECT OWNER : DIALOG INDEPENDENT TERMINALS SDN. BHD. CONSULTANT : DIALOG E & C SDN. BHD. (18780-0) 101, BLOK C, PHLO DAMANSARA 1, NO. 1, JALAN 16/11, 46200 PETUNG JAYA, SELANGOR. DRAWING TITLE : LPS-302 NORTH/SOUTH SIDE OPERATING PLATFORM (TYPE-4A)
DESIGNED FOR APPROVAL CHECKED FOR APPROVAL REV. DESCRIPTION PROJECT TITLE :	DRAWN : CHECKED : BY : DATE :	DATE : APPR. DATE :	SCALE : AS SHOWN DRAWN : PMAN DATE : 16/03/13 DWG. NO. : DH0008-ENG-C-PF-0321

# OPERATING PLATFORM - (TYPE-5)

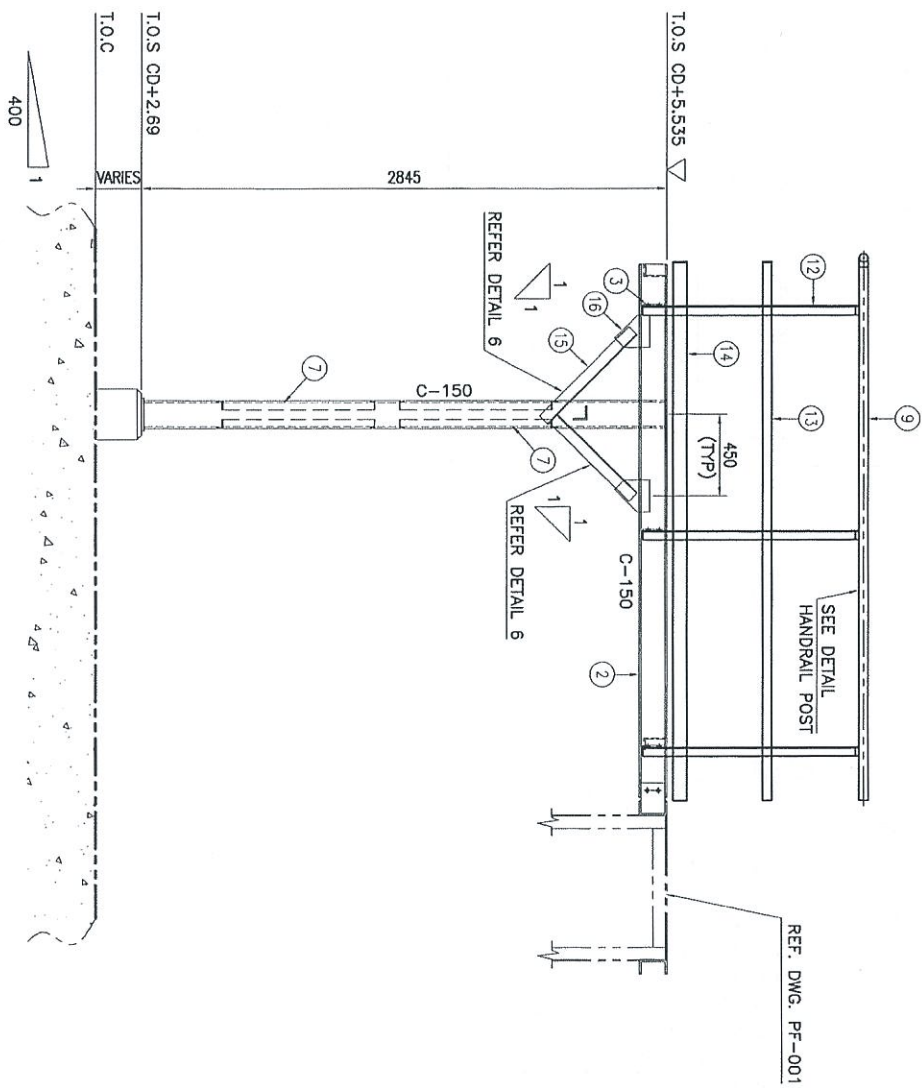


**PLAN VIEW**  
OPERATING PLATFORM AT T.O.S CD + 5.535  
SCALE 1:20

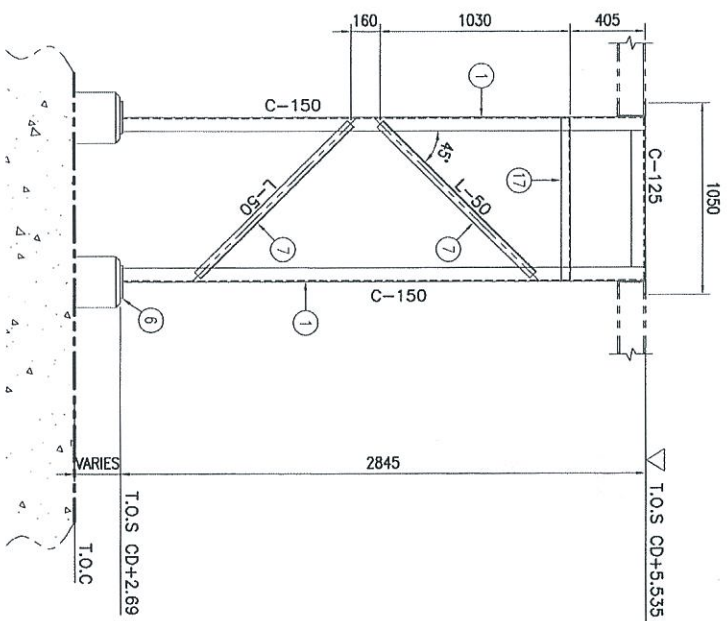
DESCRIPTION	QTY.
OPERATING PLATFORM	
TYPE 5-LPS-302S/NSOP	6
TYPE 5-LPS-302S/SSOP	4
<b>TOTAL REQ'D = 10</b>	

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (Kg. (1 SET))
1	LEG - C150 x 75 x 91 x 2833L	A36 OR EQ.	2	136.0
2	FRAME - C150 x 75 x 6.51 x 2910L	A36 OR EQ.	2	108.3
3	CLEAT - 135 x 120 x 91	A36 OR EQ.	6	6.9
4	FRAME - C125 x 65 x 61 x 900L	A36 OR EQ.	3	36.2
5	FLOOR GRATING - 1030 x 2890L x 25H	A36 OR EQ.	1	87.8
6	BASE PLATE - 180 x 180 x 121	A36 OR EQ.	2	6.1
7	BRA CING - L50 x 50 x 61 x 1170L	A36 OR EQ.	4	20.7
8	SUPPORT - C150 x 75 x 6.51 x 900L	A36 OR EQ.	1	16.7
9	HAND RAIL - Ø1½ x SCH 40 x 2900L	SGP	2	19.7
10	HAND RAIL - Ø1½ x SCH 40 x 1135L	SGP	1	3.8
11	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
12	STANCHION - L50 x 50 x 61 x 1176L	A36 OR EQ.	8	41.7
13	MID RAIL - F875 x 61 x 2940L	A36 OR EQ.	2	13.8
14	TOE PLATE - F875 x 61 x 2940L	A36 OR EQ.	2	20.8
15	SUPPORT - L65 x 65 x 61 x 885L	A36 OR EQ.	4	16.2
16	GUSSET PLATE - 177 x 189 x 91	A36 OR EQ.	4	9.5
17	BRA CING - L50 x 50 x 61 x 885L	A36 OR EQ.	1	3.9
<b>TOTAL</b>				<b>551.9</b>

**NOTE:**  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.



**VIEW "X" - "Y"**  
SCALE 1:20

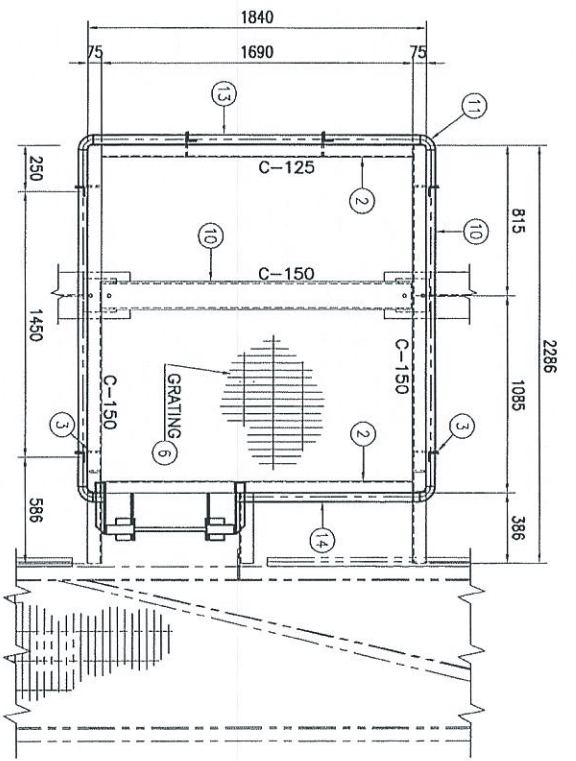


**SECTION "Y" - "Y"**  
SCALE 1:20

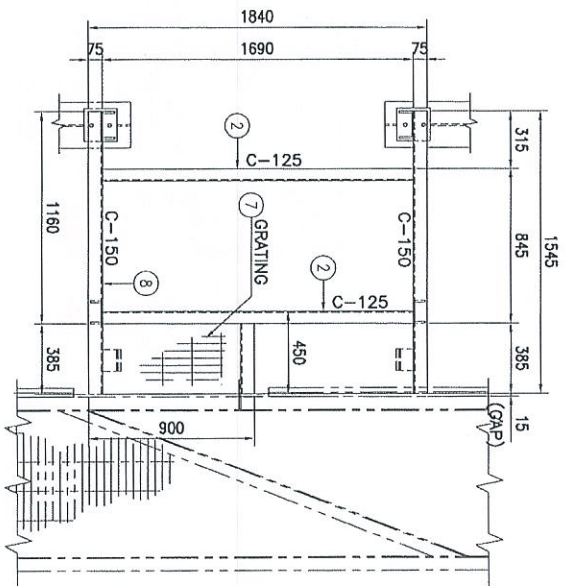
PROJECT OWNER :		DIALOG INDEPENDENT TERMINALS SDN. BHD.	
CONSULTANT :		DIALOG E & C SDN. BHD. (103399-0)	
DRAWING TITLE :		NORTH/SOUTH SIDE OPERATING PLATFORM (TYPE-5)	
SCALE :		AS SHOWN	
DRAWN :		RAN	
DATE :		18/03/15	
CHECKED :		BMA	
APPROVED :		BMA	
DATE :		18/03/15	
DWG. NO. :		DH0008-ENG-C-PF-0322	
SHEET NO. :		1 OF 1	
REV. :		0	



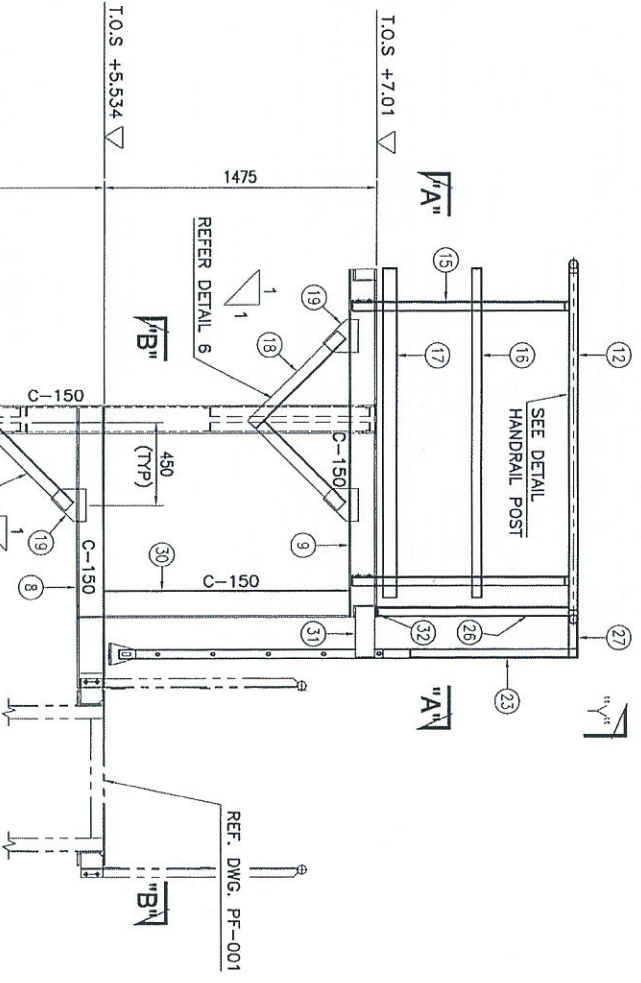
# OPERATING PLATFORM - (TYPE-6A)



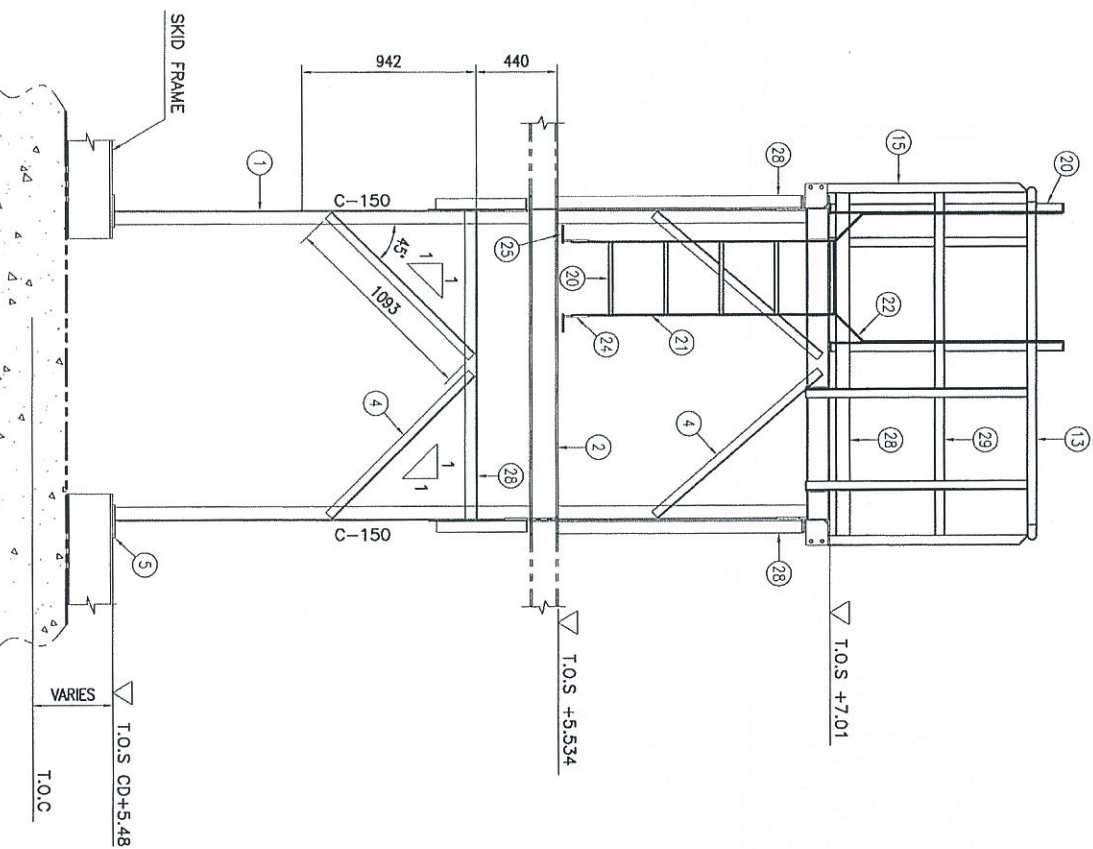
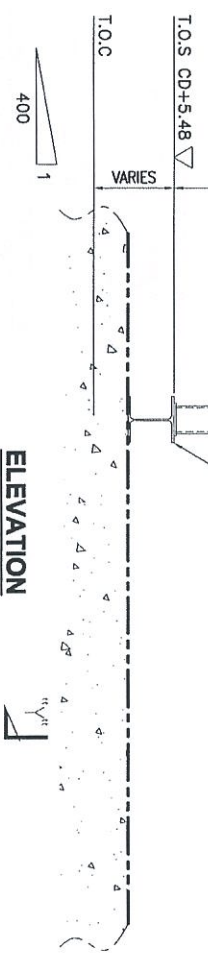
**SECTION "A" - "A"**  
PLATFORM & WALKWAY AT T.O.S CD + 5.534  
SCALE 1:20



**SECTION "B" - "B"**  
PLATFORM & WALKWAY AT T.O.S CD+7.01  
SCALE 1:20



OPERATING PLATFORM	
DESCRIPTION	QTY.
TYPE 6A-LPS-302D/NSOP	1
TOTAL REQ'D = 1	



**SECTION "Y" - "Y"**  
SCALE 1:20

NO.	DESCRIPTION	MATERIAL	TOTAL	
			QTY (1 SET)	WEIGHT (1 SET)
1	LEG - C150 x 75 x 91 x 3878L	A 36 OR EQ.	2	186.1
2	FRAME - C125 x 65 x 61 x 1690L	A 36 OR EQ.	5	113.2
3	CLEAT - 135 x 120 x 91	A 36 OR EQ.	10	11.25
4	BRACING - L50 x 50 x 61 x 1099L	A 36 OR EQ.	4	19.4
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1820 x 1880 x 251	A 36 OR EQ.	1	100.9
7	FLOOR GRATING - 430 x 880 x 251	A 36 OR EQ.	1	11.2
8	FRAME - C150 x 75 x 6.51 x 1545L	A 36 OR EQ.	2	57.5
9	FRAME - C150 x 75 x 6.51 x 1900L	A 36 OR EQ.	2	70.7
10	SUPPORT - C150x 75 x 6.51 x 1690L	A 36 OR EQ.	1	31.4
11	90° SR ELBOW - Ø1½ x SCH 40	SGP	6	11.4
12	HAND RAIL - Ø1½ x SCH 40 x 1841L	SGP	2	12.5
13	HAND RAIL - Ø1½ x SCH 40 x 1776L	SGP	1	6.0
14	HAND RAIL - Ø1½ x SCH 40 x 999L	SGP	1	3.4
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	6	31.3
16	MID RAIL - F850 x 61 x 1798L	A 36 OR EQ.	2	8.4
17	TOE PLATE - F875 x 61 x 1798L	A 36 OR EQ.	2	12.7
18	SUPPORT - L55 x 65 x 61 x 685L	A 36 OR EQ.	6	24.3
19	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	6	14.25
20	RING - R8 Ø19 x 556L	A 36 OR EQ.	5	6.2
21	STRINGER - F850 x 81 x 1431L	A 36 OR EQ.	2	9.0
22	STRINGER - F850 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
24	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
25	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
26	STRINGER - L50 x 50 x 61 x 1083L	A 36 OR EQ.	2	6.8
27	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	2.5
28	TOE PLATE - F875 x 61 x 1872L	A 36 OR EQ.	1	6.6
29	MID RAIL - F850 x 61 x 1872L	A 36 OR EQ.	1	4.4
30	SUPPORT - C150 x 75 x 6.51 x 1325L	A 36 OR EQ.	2	49.3
31	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
32	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
TOTAL				835.7

**NOTE:**  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

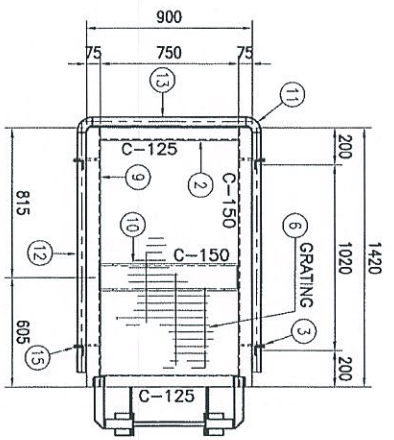
NO.	REVISION	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL		
2	ISSUED FOR CONSTRUCTION		
3	ISSUED FOR CONSTRUCTION		

PROJECT OWNER:  
DIALOG INDEPENDENT TERMINALS SDN. BHD.  
CONSULTANT:  
DIALOG E & C SDN. BHD. (18309-9)  
109, BLOK G, PULAU DUMAIKIN 1,  
NO. 9, JALAN 9/11, 45200 PULAU JAYA, SELANGOR.

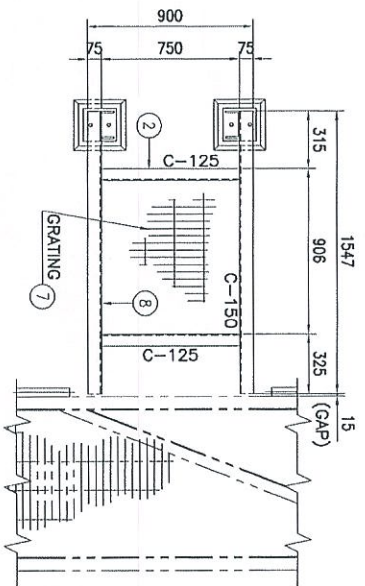
SCALE	DRAWN	CHECKED	DATE	FILENAME	SHT. NO.	REV.
AS SHOWN	RAM	EMK	18/03/13	-	1	2



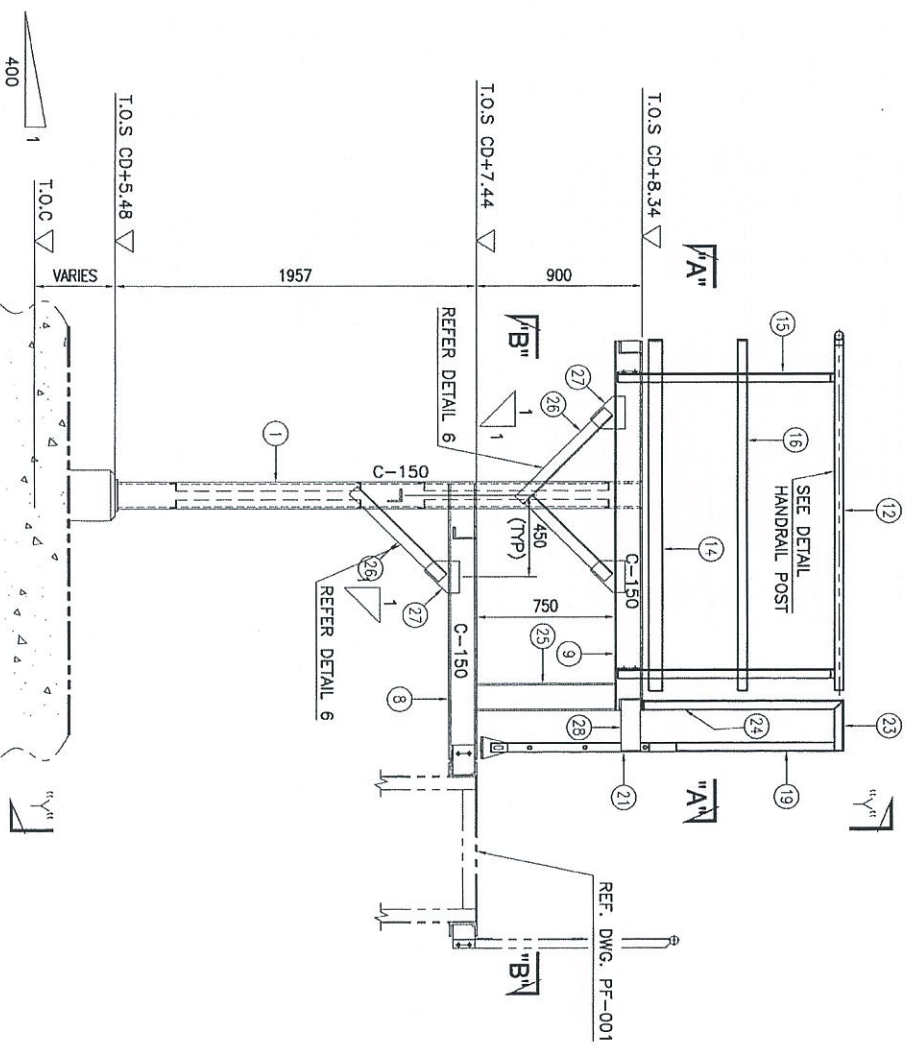
# OPERATING PLATFORM - (TYPE-7A)



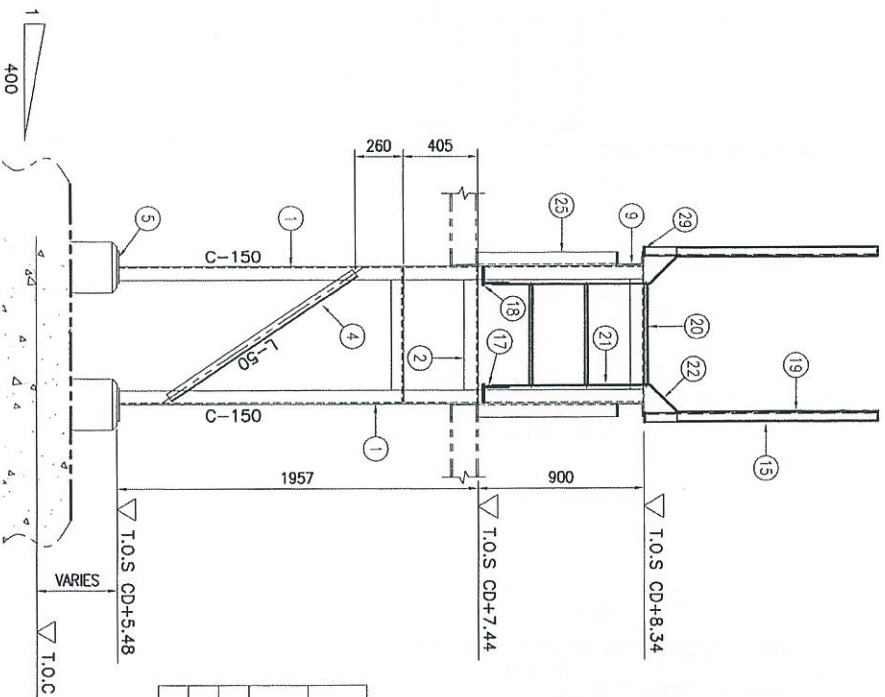
**SECTION "A" - "A"**  
**OPERATING PLATFORM AT T.O.S CD+8.34**  
SCALE 1:20



**SECTION "B" - "B"**  
**OPERATING PLATFORM AT T.O.S CD+7.44**  
SCALE 1:20



**ELEVATION**  
**SCALE 1:20**



**SECTION "Y" - "Y"**  
**SCALE 1:20**

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (1 SET)
1	LEG - C150 x 75 x 91 x 2845L	A 36 OR EQ.	2	136.6
2	SUPPORT - C125 x 65 x 61 x 750L	A 36 OR EQ.	4	40.2
3	CLEAT - 135 x 120 x 91	A 36 OR EQ.	4	4.5
4	BRACING - L50 x 50 x 61 x 990L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 1400 x 880 x 251	A 36 OR EQ.	1	36.3
7	FLOOR GRATING - 1211 x 880 x 251	A 36 OR EQ.	1	31.4
8	FRAME - C150 x 75 x 6.51 x 1547L	A 36 OR EQ.	2	57.5
9	FRAME - C150 x 75 x 6.51 x 1540L	A 36 OR EQ.	2	57.3
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
12	HAND RAIL - Ø1½ x SCH 40 x 1445L	SGP	2	9.8
13	HAND RAIL - Ø1½ x SCH 40 x 835L	SGP	1	2.8
14	TOE PLATE - F875 x 61 x 1920L	A 36 OR EQ.	2	13.6
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	4	20.8
16	MID RAIL - F850 x 61 x 1920L	A 36 OR EQ.	2	9.0
17	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
18	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
19	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
20	RUNG - R8 Ø19 x 556L	A 36 OR EQ.	3	3.7
21	STRINGER - F850 x 81 x 856L	A 36 OR EQ.	2	5.4
22	STRINGER - F850 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	1.8
24	STRINGER - L50 x 50 x 61 x 1095L	A 36 OR EQ.	2	9.6
25	SUPPORT - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	2	28.0
26	SUPPORT - L65 x 65 x 61 x 685L	A 36 OR EQ.	6	24.3
27	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	6	14.25
28	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
29	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
30	BRACING - L50 x 50 x 61 x 735L	A 36 OR EQ.	1	3.3
TOTAL				570.5

**NOTE:**  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS D1.1.

OPERATING PLATFORM	QTY.
TYPE 7A-LPS-302D/NSOP	2
TOTAL REQ'D =	2

NO.	REVISION	DATE	BY	CHK	APP	DATE
1	ISSUED FOR APPROVAL	16/05/13	AW	AW		
2	ISSUED FOR APPROVAL	16/05/13	AW	AW		
3	ISSUED FOR APPROVAL	16/05/13	AW	AW		

**PROJECT OWNER:**  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

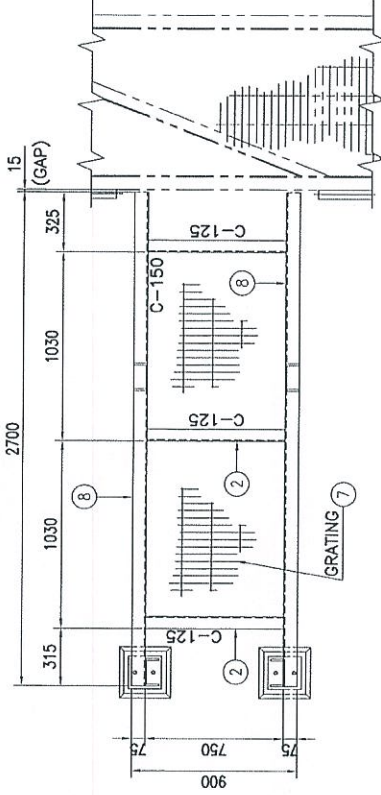
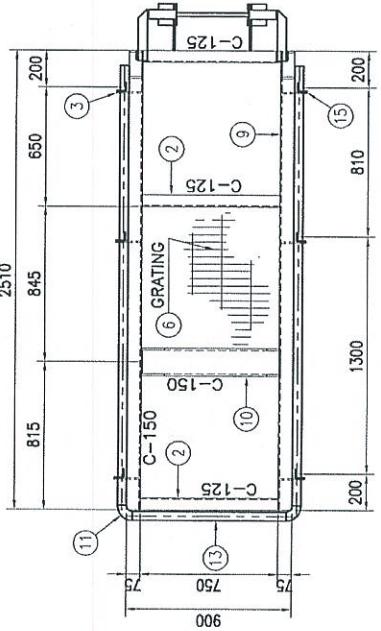
**CONSULTANT:**  
DIALOG E & C SDN. BHD. (18839-U)  
109, BLOCK 6, PULAU DUAWASKA 1,  
NO. 8, JALAN 16/11, 4300 PENANG JAYA, SELANGOR.

**DRAWING TITLE:**  
LPS-302  
NORTH/SOUTH SIDE OPERATING PLATFORM  
(TYPE-7A)

**SCALE:** AS SHOWN  
**DATE:** 16/05/13  
**DWG. NO.:** DH0008-ENG-C-PF-0324

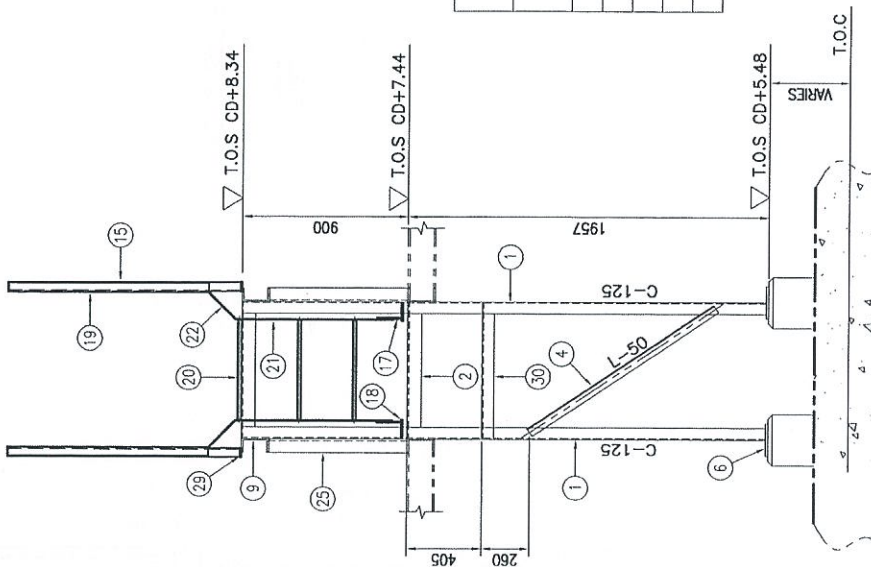
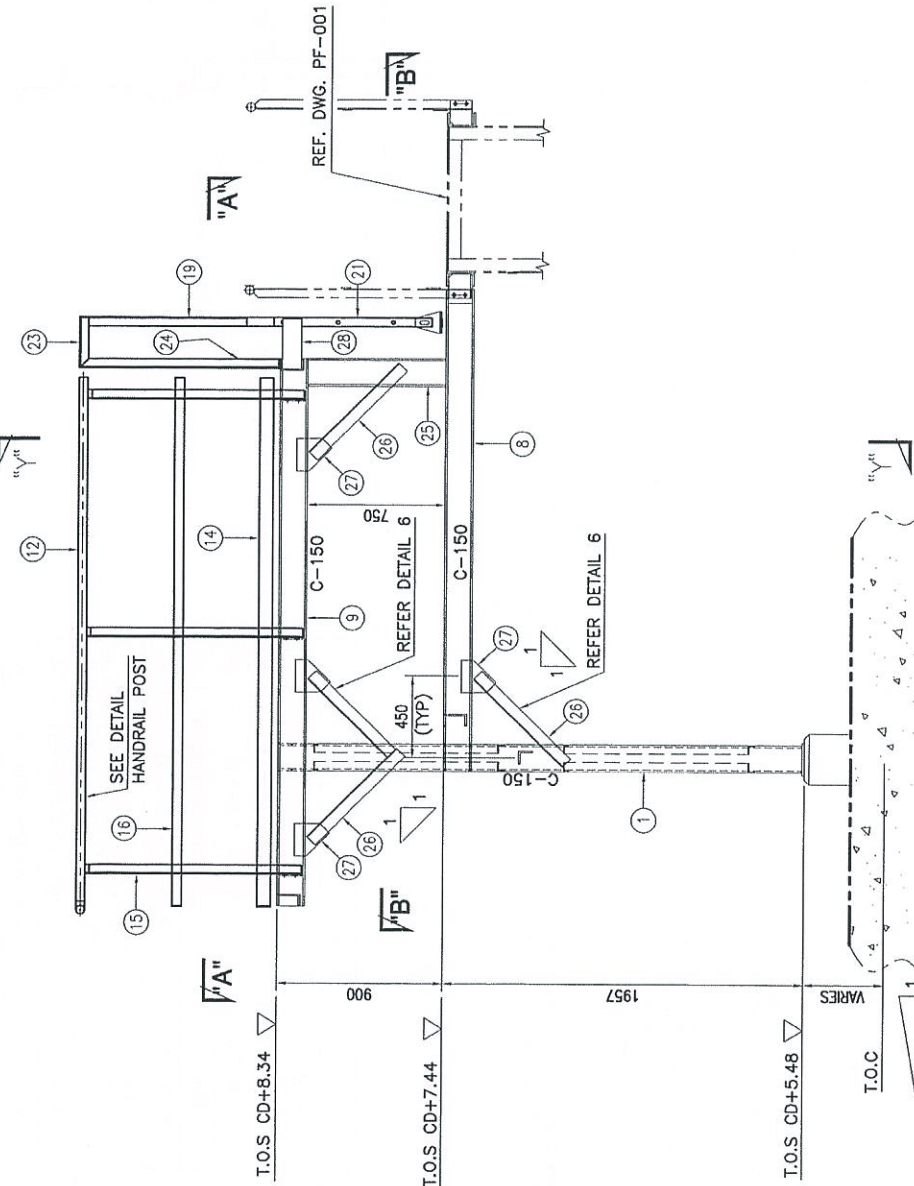
NO.	REVISION	DATE	BY	CHK	APP	DATE
1	ISSUED FOR APPROVAL	16/05/13	AW	AW		
2	ISSUED FOR APPROVAL	16/05/13	AW	AW		
3	ISSUED FOR APPROVAL	16/05/13	AW	AW		

# OPERATING PLATFORM - (TYPE-7B)



SECTION "A" - "A"  
OPERATING PLATFORM AT T.O.S CD+8.34  
SCALE 1:20

SECTION "B" - "B"  
OPERATING PLATFORM AT T.O.S CD+7.44  
SCALE 1:20



BILL OF MATERIALS (ONE (1)) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG)
1	LEG - C150 x 75 x 91 x 2845L	A 36 OR EQ.	2	136.6
2	SUPPORT - C125 x 65 x 61 x 750L	A 36 OR EQ.	6	60.3
3	CLEAT - 135 x 120 x 91	A 36 OR EQ.	4	4.5
4	BRACING - L50 x 50 x 61 x 990L	A 36 OR EQ.	4	17.5
5	BASE PLATE - 180 x 180 x 121	A 36 OR EQ.	2	6.1
6	FLOOR GRATING - 2490 x 880 x 251	A 36 OR EQ.	1	64.6
7	FLOOR GRATING - 2366 x 880 x 251	A 36 OR EQ.	1	61.4
8	FRAME - C150 x 75 x 6.51 x 2700L	A 36 OR EQ.	2	100.4
9	FRAME - C150 x 75 x 6.51 x 2510L	A 36 OR EQ.	2	93.4
10	FRAME - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	1	14.0
11	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
12	HAND RAIL - Ø1½ x SCH 40 x 2403L	SGP	2	16.3
13	HAND RAIL - Ø1½ x SCH 40 x 835L	SGP	1	2.8
14	TOE PLATE - FB75 x 61 x 2888L	A 36 OR EQ.	2	20.4
15	STANCHION - L50 x 50 x 61 x 1176L	A 36 OR EQ.	6	31.2
16	MID RAIL - FB50 x 61 x 2888L	A 36 OR EQ.	2	13.6
17	CLEAT - 100 x 120 x 91	A 36 OR EQ.	2	1.7
18	CLEAT - 120 x 135 x 91	A 36 OR EQ.	2	2.3
19	STRINGER - L50 x 50 x 61 x 1092L	A 36 OR EQ.	2	9.7
20	RUNG - RB Ø19 x 556L	A 36 OR EQ.	3	3.7
21	STRINGER - FB50 x 81 x 856L	A 36 OR EQ.	2	5.4
22	STRINGER - FB50 x 81 x 211L	A 36 OR EQ.	2	1.3
23	STRINGER - L50 x 50 x 61 x 281L	A 36 OR EQ.	2	1.8
24	STRINGER - L50 x 50 x 61 x 1085L	A 36 OR EQ.	2	9.6
25	SUPPORT - C150 x 75 x 6.51 x 750L	A 36 OR EQ.	2	28.0
26	SUPPORT - L65 x 65 x 61 x 685L	A 36 OR EQ.	8	32.4
27	GUSSET PLATE - 177 x 189 x 91	A 36 OR EQ.	8	19.0
28	CLEAT - 275 x 100 x 81	A 36 OR EQ.	2	3.5
29	PAD PLATE - 55 x 55 x 91	A 36 OR EQ.	2	0.4
30	BRACING - L50 x 50 x 61 x 735L	A 36 OR EQ.	1	3.3
<b>TOTAL</b>				<b>769.0</b>

NOTE:  
 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.

OPERATING PLATFORM		QTY.
DESCRIPTION	TYPE 7B-LPS-302D/NSOP	1
TOTAL REQ'D =		1

REFERENCE DRAWINGS

10000-000-00-000-001	10000-000-00-000-001	10000-000-00-000-001
10000-000-00-000-001	10000-000-00-000-001	10000-000-00-000-001
10000-000-00-000-001	10000-000-00-000-001	10000-000-00-000-001
10000-000-00-000-001	10000-000-00-000-001	10000-000-00-000-001

PROJECT TITLE :  
 INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG

PROJECT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

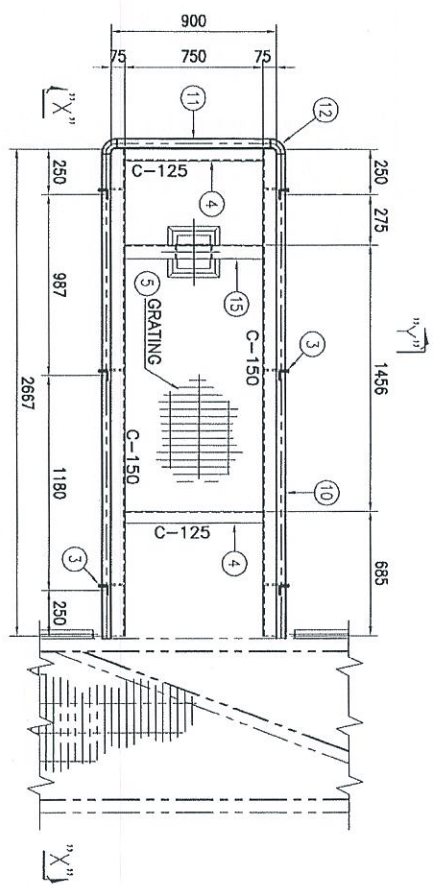
CONSULTANT :  
 DIALOG E & C SDN. BHD. (100309-0) 100, BANGS, PJ. PANDAN, DAMANSARA 1, NO. 8, JALAN 16/11, 43300 PETANG JAYA, SELANGOR.

DRAWING TITLE :  
 LPS-302 NORTH/SOUTH SIDE OPERATING PLATFORM (TYPE-7B)

SCALE : AS SHOWN	CHECKED : ERKA
DRAWN : PAM	APPROVED : LOM
DATE : 19/05/13	FILENAME : -
DWG. NO. : DH0008-ENG-C-PF-0324	SHT. NO. REV. : 3 OF 3 0



# OPERATING PLATFORM - (TYPE-8)

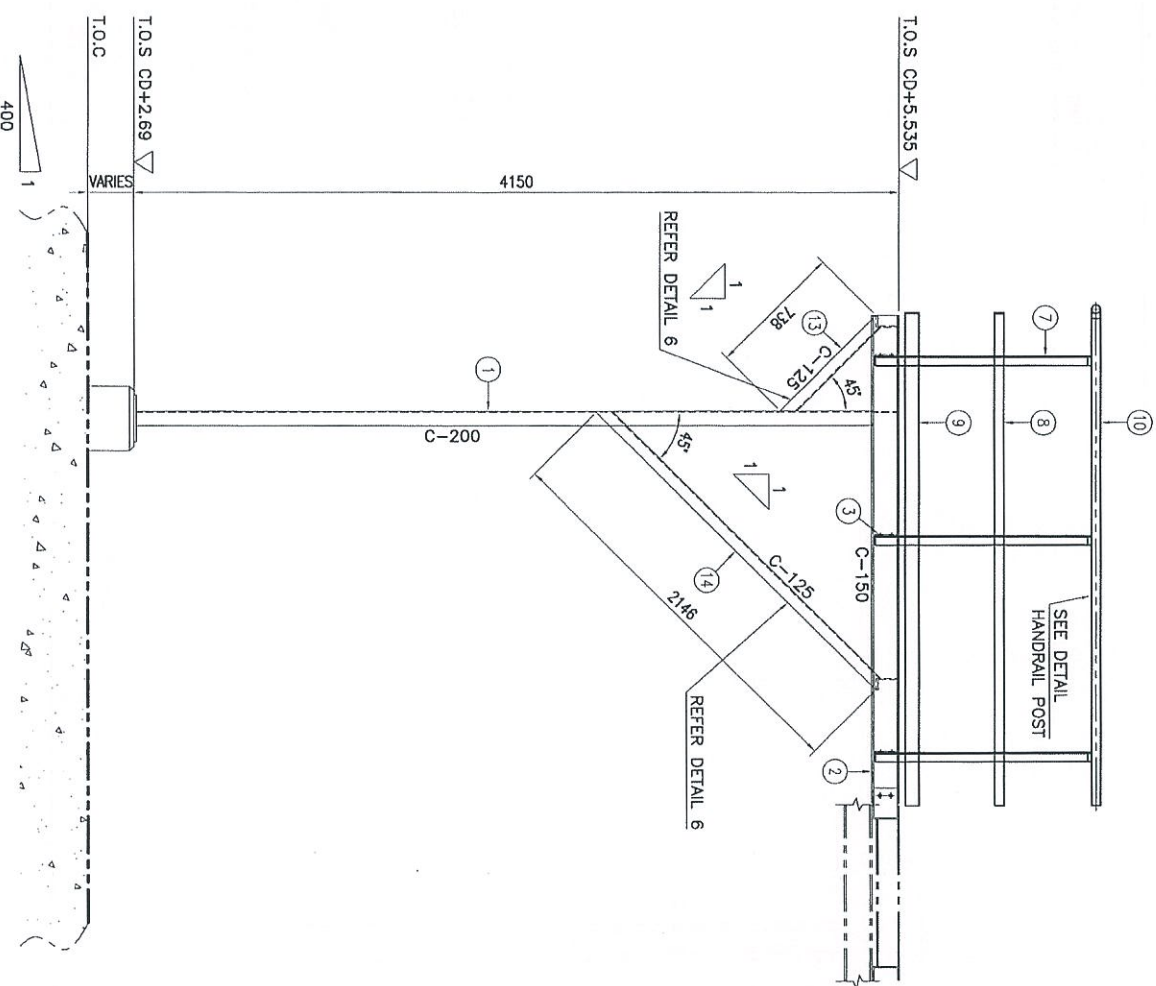


**PLAN VIEW**  
**OPERATING PLATFORM AT T.O.S CD + 5.535**  
SCALE 1:20

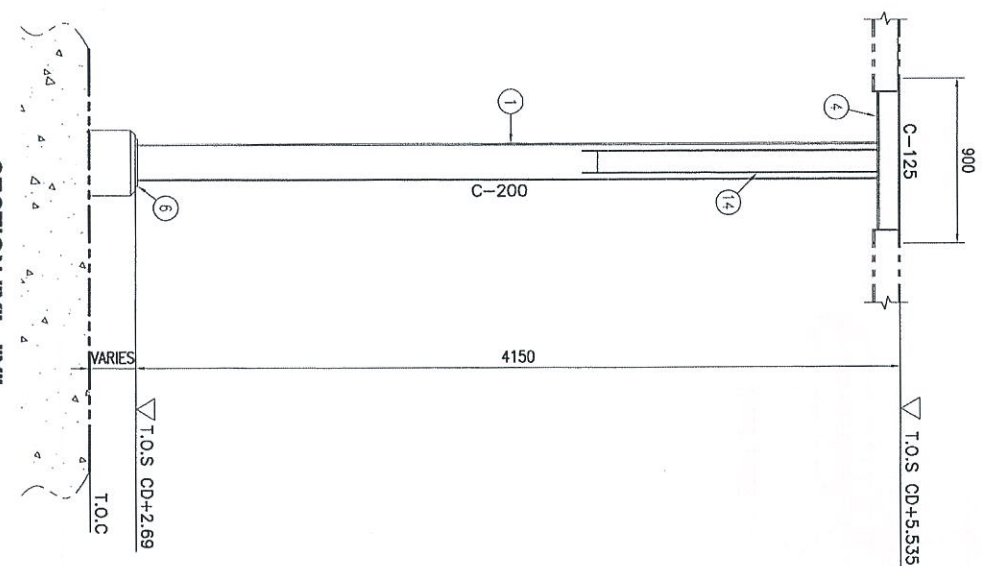
DESCRIPTION	QTY.
OPERATING PLATFORM	
TYPE 8-LPS-302P/SSOP	10
<b>TOTAL REQ'D = 10</b>	

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (1 SET)
1	LEG - C200 x 80 x 7.51 x 4138	A36 OR EQ.	1	101.8
2	FRAME - C150 x 75 x 6.51 x 2667L	A36 OR EQ.	2	99.2
3	CLEAT - 135 x 120 x 91	A36 OR EQ.	6	6.9
4	FRAME - C125 x 65 x 61 x 750L	A36 OR EQ.	2	20.1
5	FLOOR GRATING - 2647 x 880L x 251	A36 OR EQ.	1	68.7
6	BASE PLATE - 255 x 235 x 121	A36 OR EQ.	1	6.1
7	STANCHION - 150 x 50 x 61 x 1176L	A36 OR EQ.	6	31.3
8	MID RAIL - F850 x 61 x 2700L	A36 OR EQ.	2	12.7
9	TOE PLATE - F875 x 61 x 2700L	A36 OR EQ.	2	19.1
10	HAND RAIL - Ø1½ x SCH 40 x 2658L	SGP	2	18.0
11	HAND RAIL - Ø1½ x SCH 40 x 835L	SGP	1	2.8
12	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
13	SUPPORT - C125 x 65 x 61 x 738L	A36 OR EQ.	1	9.9
14	SUPPORT - C125 x 65 x 61 x 2146L	A36 OR EQ.	1	28.8
15	FRAME - C150 x 75 x 6.51 x 750L	A36 OR EQ.	1	14.0
<b>TOTAL</b>				<b>443.2</b>

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.



**VIEW "X"- "Y"**  
SCALE 1:20



**SECTION "Y"- "Y"**  
SCALE 1:20

**PROJECT OWNER :**  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

**CONSULTANT :**  
DIALOG E & C SDN. BHD. (18888-0)  
109, BLOK G, PUSAT DAMANSARA 1,  
NO. 8, JALAN 19/11, 43000 PENJANG, JAYA, SELANGOR.

**DRAWING TITLE :**  
LPS-302  
NORTH/SOUTH SIDE OPERATING PLATFORM  
(TYPE-8)

**SCALE :** AS SHOWN  
**DATE :** 18/03/15  
**DWG. NO. :** DHO008-ENG-C-PF-0325

**PROJECT TITLE :**  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENERANG

**REFERENCE DRAWINGS**

NO.	ISSUED FOR APPROVAL	BY	CHK	DATE
1	ISSUED FOR APPROVAL	BY	CHK	DATE

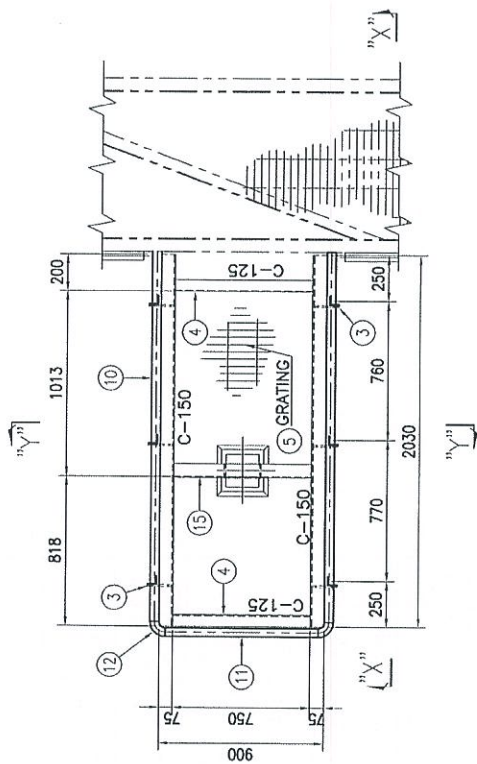
**PROJECT NO. :** DHO008-ENG-C-PF-0325

**SCALE :** AS SHOWN

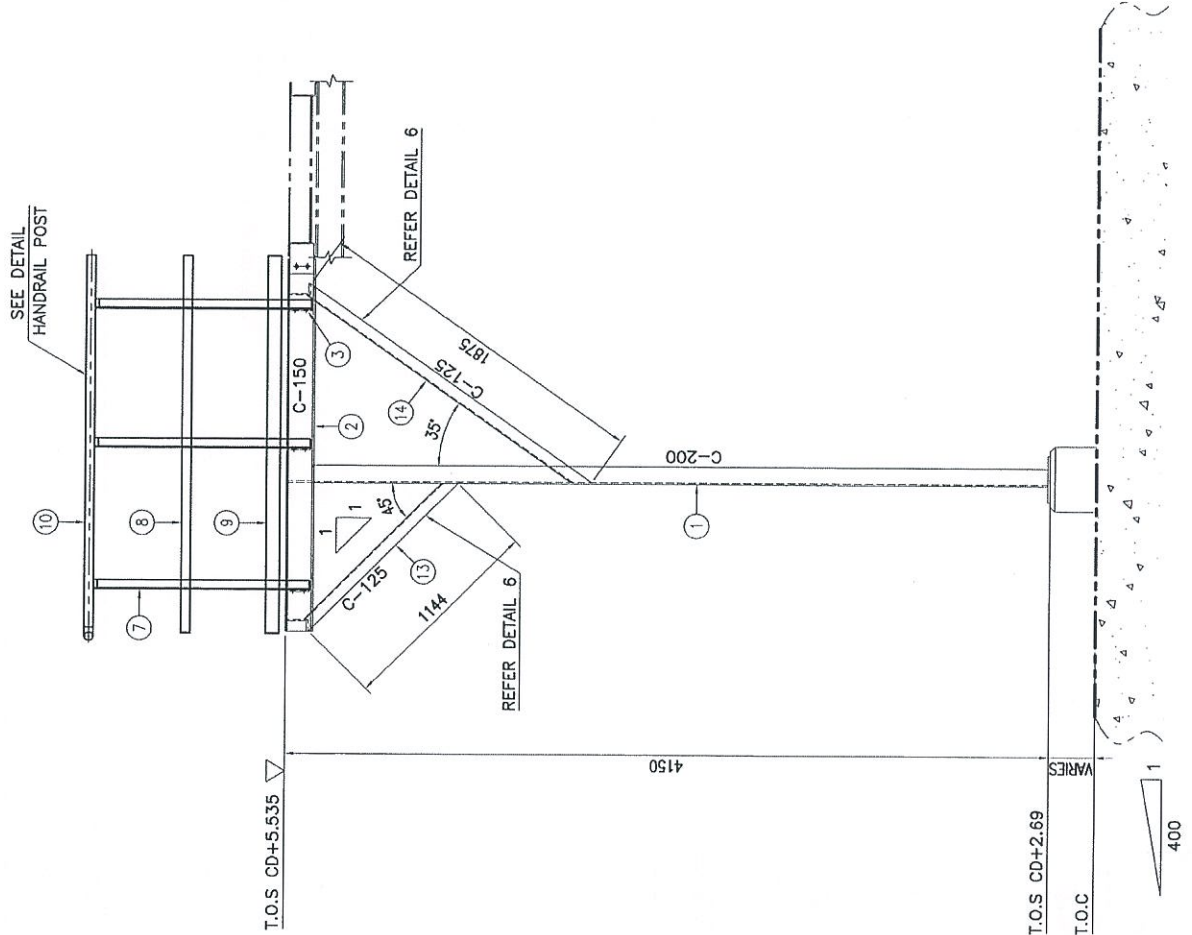
**DATE :** 18/03/15

**DWG. NO. :** DHO008-ENG-C-PF-0325

# OPERATING PLATFORM - (TYPE-8A)

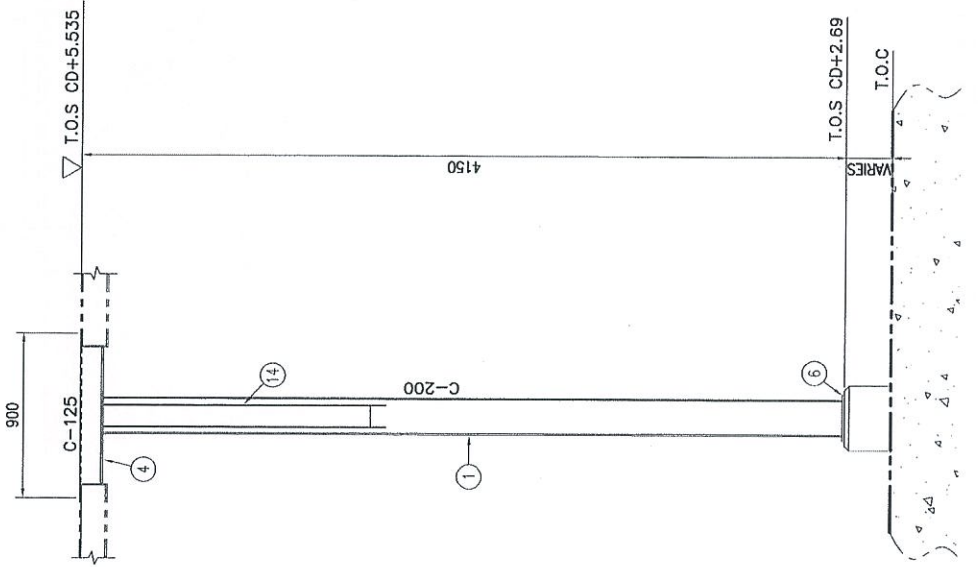


**PLAN VIEW**  
**OPERATING PLATFORM AT T.O.S CD + 5.535**  
 SCALE 1:20



**VIEW "X"-"X"**  
 SCALE 1:20

OPERATING PLATFORM	
DESCRIPTION	QTY.
TYPE 8A-LPS-302P/SSOP	2
TOTAL REQ'D = 2	



**SECTION "Y"-"Y"**  
 SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF PLATFORM)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	LEG - C200 x 80 x 7.5f x 4138	A36 OR EQ.	1	101.8
2	FRAME - C150 x 75 x 6.5f x 2030L	A36 OR EQ.	2	75.5
3	CLEAT - 135 x 120 x 9f	A36 OR EQ.	6	6.9
4	FRAME - C125 x 65 x 6f x 750L	A36 OR EQ.	2	20.1
5	FLOOR GRATING - 2010 x 880L x 25f	A36 OR EQ.	1	52.2
6	BASE PLATE - 255 x 255 x 12f	A36 OR EQ.	1	6.1
7	STANCHION - L50 x 50 x 6f x 1176L	A36 OR EQ.	6	31.3
8	MID RAIL - FB50 x 6f x 2060L	A36 OR EQ.	2	9.7
9	TOE PLATE - FB75 x 6f x 2060L	A36 OR EQ.	2	14.6
10	HAND RAIL - Ø1½ x SCH 40 x 2658L	SGP	2	18.0
11	HAND RAIL - Ø1½ x SCH 40 x 835L	SGP	1	2.8
12	90° SR ELBOW - Ø1½ x SCH 40	SGP	2	3.8
13	SUPPORT - C125 x 65 x 6f x 1144L	A36 OR EQ.	1	15.3
14	SUPPORT - C125 x 65 x 6f x 1530L	A36 OR EQ.	1	20.5
15	FRAME - C150 x 75 x 6.5f x 750L	A36 OR EQ.	1	14.0
TOTAL				392.6

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS D1.1.

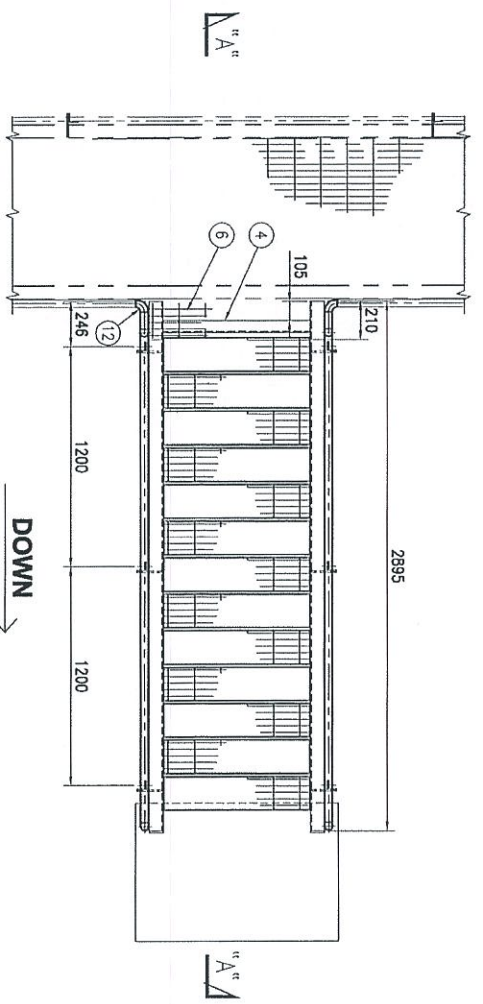
PROJECT OWNER :  
 INDEPENDENT DEEPWATER PETROLEUM  
 TERMINAL AT PENERANG

PROJECT TITLE :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

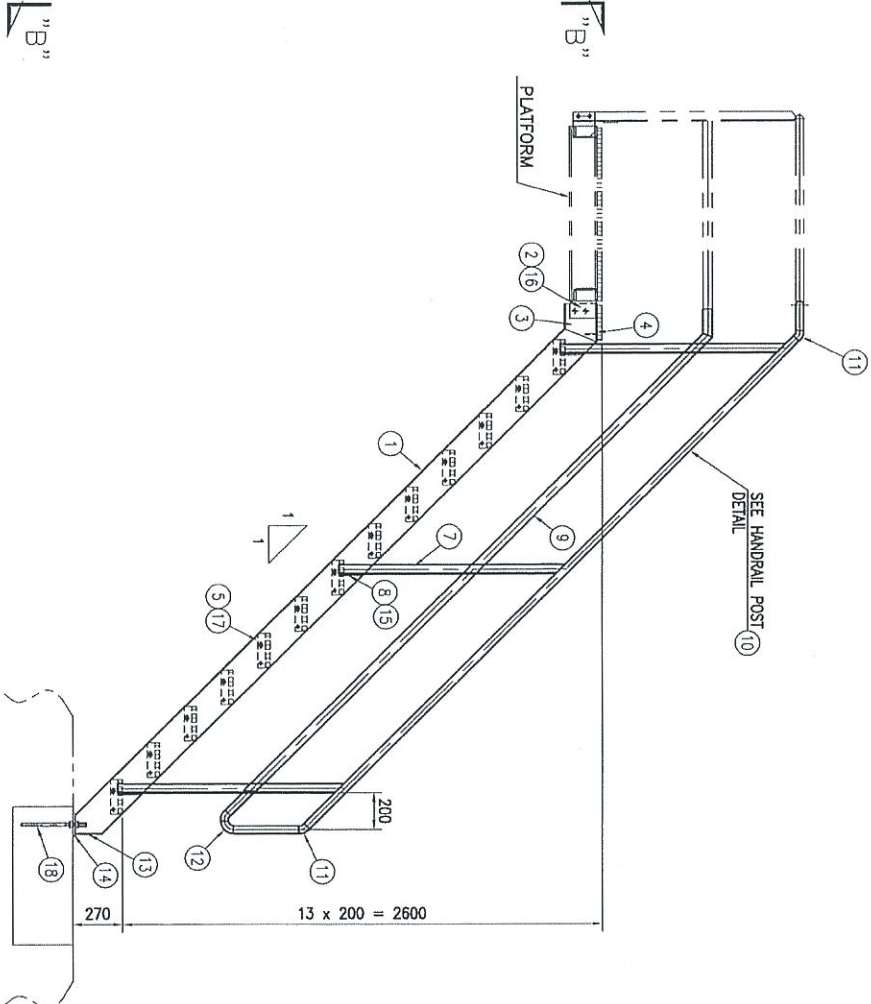
CONSULTANT :  
 DIALOG E & C SDN. BHD. (14230-U)  
 109, BLOCK C, PHASE DAMANSARA 1, JALAN  
 DIALOG, NO. 8, JALAN 16/171, 68000 PETROS JAYA, SELANGOR.

DRAWING TITLE :  
 LPS-302  
 NORTH/SOUTH SIDE OPERATING PLATFORM  
 (TYPE-8A)

SCALE : AS SHOWN  
 CHECKED : ERKA  
 DRAWN : PAN  
 APPROVED : LAM  
 DATE : 18/07/13  
 FILENAME :  
 DWG. NO. : DH0008-ENG-C-PF-0325  
 SHEET NO. : 1 OF 2  
 REV. : 0



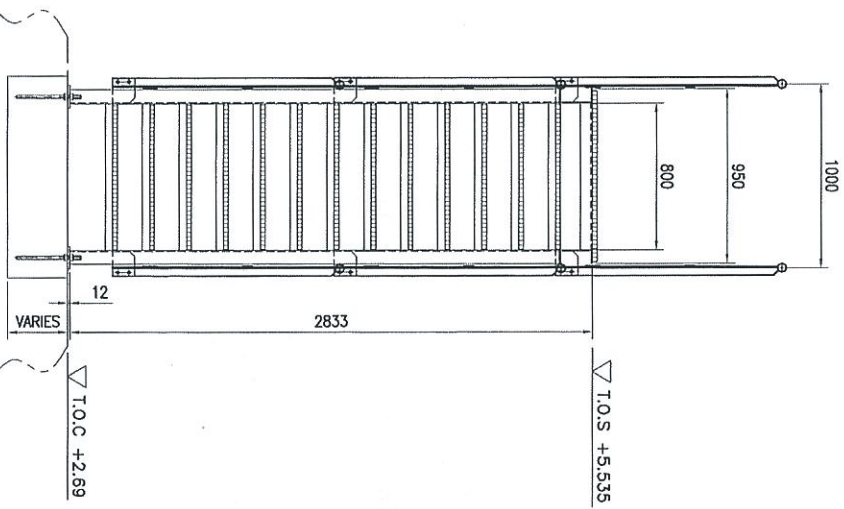
**PLAN VIEW**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20

**SECTION "B" - "B"**  
SCALE 1:20

**STAIRWAY DETAIL (TYPE 1A)**  
SCALE 1:20



DESCRIPTION	QTY.
TYPE 1-LPS-302S/AS	3
TYPE 1-LPS-302P/AS	1
<b>TOTAL REQ'D =</b>	<b>4</b>

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)				
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET)	TOTAL WEIGHT (KG.)
1	STRINGER - C180 x 75 x 71 x 3835L	A36 OR EQ.	2	164.1
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	2	3.5
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	4.7
5	STAIR GRATING - 230 x 800 x 25t	A 36 OR EQ.	13	70.6
6	FLOOR GRATING - 190x 930 x 25t	A36 OR EQ.	1	5.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	6	32.7
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	6	6.8
9	MID RAIL- F8 50 x 61 x 7000L	A36 OR EQ.	1 LOT	16.5
10	HANDRAIL PIPE 1-1/4" SCH 40 x 9090L	SGP	1 LOT	30.7
11	ELBOW 45° 1-1/4"	SGP	6	0.9
12	ELBOW 90° LR 1-1/4"	SGP	4	1.0
13	END PLATE - 150 x 75 x 101	A36 OR EQ.	2	1.8
14	BASE PLATE - 125 x 125 x 121	A36 OR EQ.	2	2.5
15	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.B8 HDG	12	-
16	BOLT & NUT C/W 2X WASHER M20 x 84L	GR.B8 HDG	4	-
17	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.B8 HDG	52	-
18	ANCHOR BOLT M20 x 350L	HILT ANCHOR	4	-
<b>TOTAL</b>				<b>350.0</b>

**NOTE:**  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
DIALOG E & C SDN. BHD. (199299-09)  
106, BLOK 9, PHELO DAMANSARA 1,  
NO. 8, JALAN 19/111, 46200 PUCHONG JAYA, SELANGOR.

DRAWING TITLE :  
LPS-302  
STAIRWAY DETAIL  
(TYPE-1A)

CHECKED : BCKA  
DRAWN : ZUL  
DATE : 06/03/13  
APPROVED : LAM  
REV. :  
DESCR. BY CHK. DATE

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENERANG

PROJECT NO. :  
DHO0008-ENG-C-PF-0326

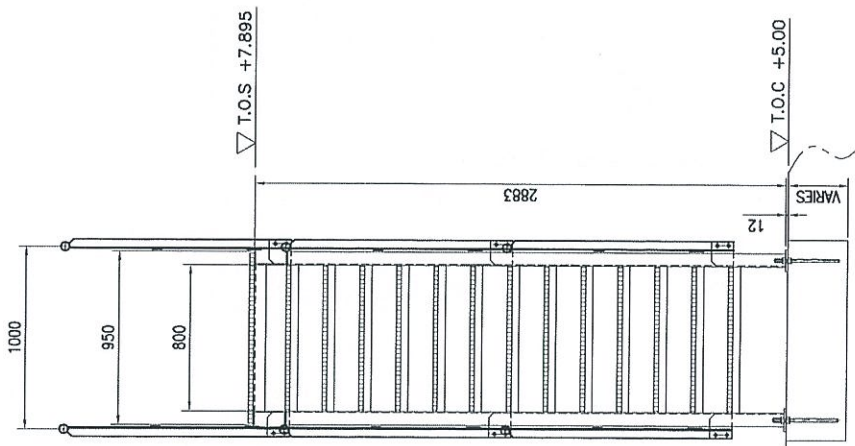
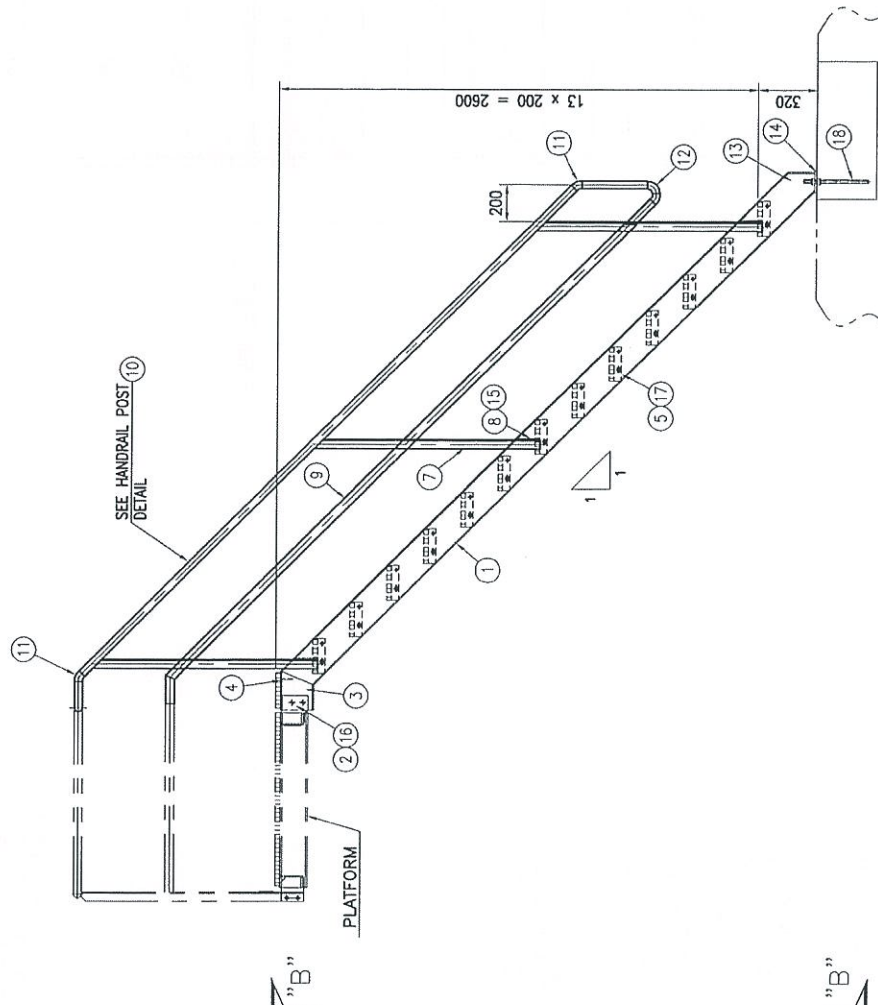
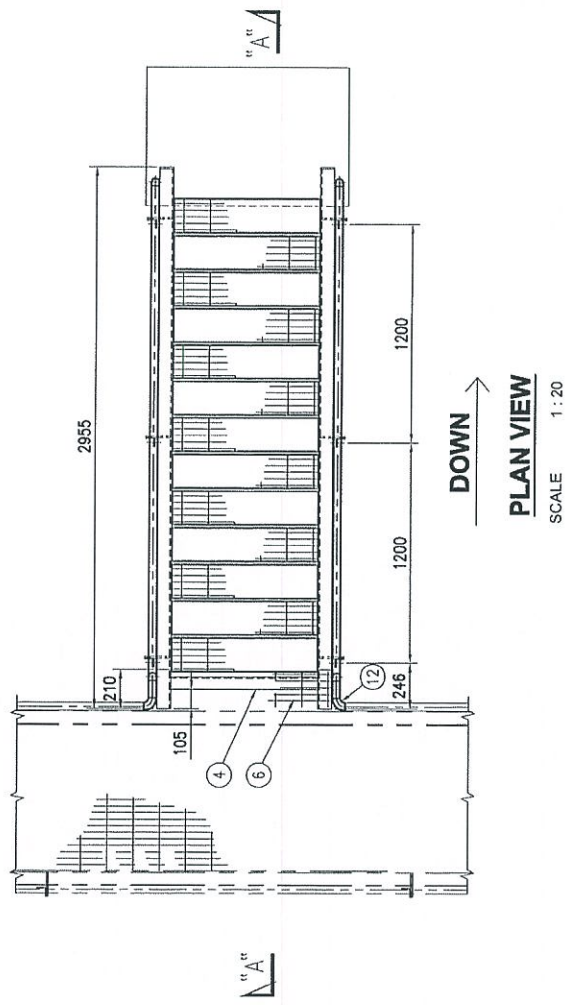
SHEET NO. : 0  
REV. : 1 OF 2

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	STRINGER - C180 x 75 x 71 x 3905L	A36 OR EQ.	2	167.1
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	2	3.5
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	4.7
5	STAIR GRATING - 230 x 800 x 25f	A 36 OR EQ.	13	70.6
6	FLOOR GRATING - 190x930 x 25f	A36 OR EQ.	1	5.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	6	32.7
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	6	6.8
9	MID RAIL- FB 50 x 61 x 7000L	A36 OR EQ.	1 LOT	16.5
10	HANDRAIL PIPE 1-1/4" SCH.40 x 9090L	SGP	1 LOT	30.7
11	ELBOW 45° 1-1/4"	SGP	6	0.9
12	ELBOW 90° LR 1-1/4"	SGP	4	1.0
13	END PLATE - 150 x 75 x 10f	A36 OR EQ.	2	1.8
14	BASE PLATE - 125 x 125 x 12f	A36 OR EQ.	2	2.5
15	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	12	-
16	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4	-
17	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	52	-
18	ANCHOR BOLT M20 x 350L	HILTI ANCHOR	4	-
TOTAL				353.0

NOTE:  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

STAIRCASE	
DESCRIPTION	QTY.
TYPE 1-LPS-302D/AS	4
TOTAL REQ'D = 4	



SECTION "A" - "A"  
SCALE 1:20

STAIRCASE DETAIL (TYPE 1)  
SCALE 1:20

SECTION "B" - "B"  
SCALE 1:20

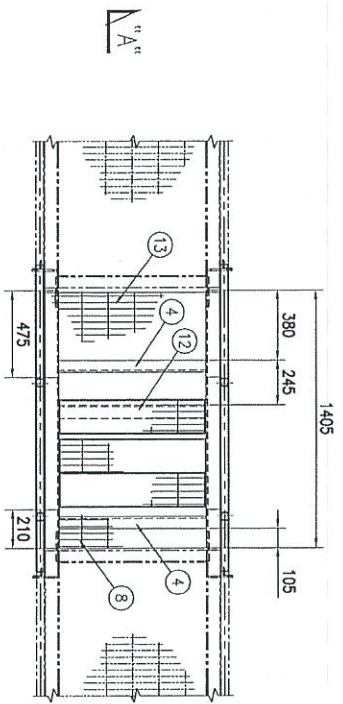
PROJECT OWNER :  
INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG

CONSULTANT :  
DIALOG E & C SDN. BHD. (199299-U)  
101, BLOK G  
NO. 8, JALAN 16/11, 43300 PETALING JAYA, SELANGOR.

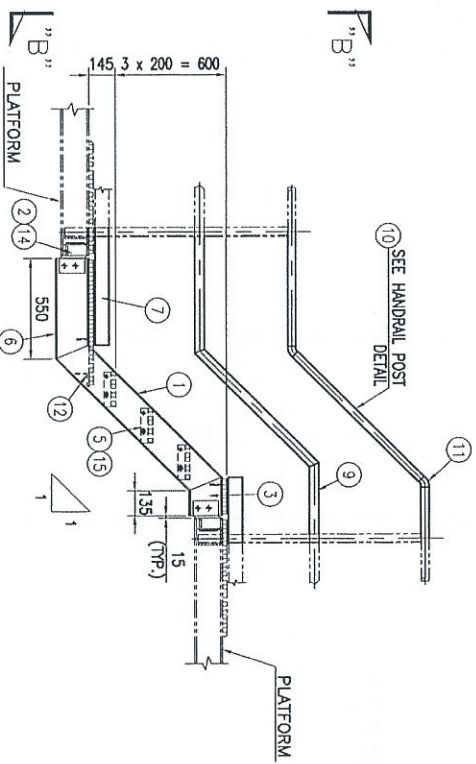
DRAWING TITLE :  
LPS-302 STAIRWAY DETAIL (TYPE-1B)

SCALE : AS SHOWN  
DRAWN : ZAL  
DATE : 09/03/13  
DWG. NO. : DH0008-ENG-C-PF-0326

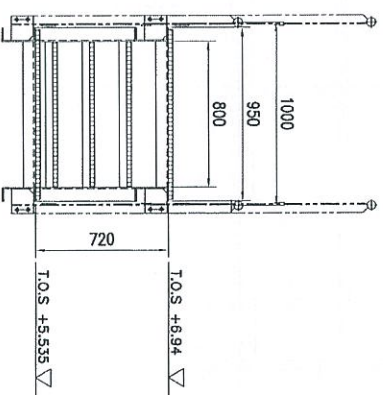
PROJECT NO. :  
SHEET NO. : 2 OF 2



PLAN VIEW  
SCALE 1:20



SECTION "A" - "A"  
SCALE 1:20



SECTION "B" - "B"  
SCALE 1:20

STAIRWAY DETAIL (TYPE 2)  
SCALE 1:20

DESCRIPTION	QTY.
TYPE 2-LPS-302D/AS	4
TOTAL REQ'D =	4

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)			
NO.	DESCRIPTION	MATERIAL	TOTAL WEIGHT (1 SET)
1	STRINGER - C180 x 75 x 71 x 1100L	A36 OR EQ.	47.1
2	CLEAT - PLATE 165 x 150 x 9T	A36 OR EQ.	7.0
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	9.0
4	SUPPORT - L65 x 65 x 9T x 800L	A36 OR EQ.	13.7
5	STAIR GRATING - 230 x 800 x 25I	A36 OR EQ.	16.3
6	SUPPORT - C180 x 75 x 71 x 550L	A36 OR EQ.	11.8
7	TOE PLATE - FB 75 x 61 x 705	A36 OR EQ.	5.0
8	FLOOR GRATING - 930 x 190 x 25I	A36 OR EQ.	4.4
9	MID RAIL - FB 50 x 61 x 2025L	A36 OR EQ.	13.4
10	HANDRAIL PIPE 1-1/4" SCH.40 x 1975	SGP	18.3
11	ELBOW 45° 1-1/4"	SGP	0.6
12	SUPPORT - L75 x 75 x 9T x 800L	A36 OR EQ.	5.5
13	FLOOR GRATING - 930 x 680 x 25I	A36 OR EQ.	18.7
14	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8 HDG	12
15	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8 HDG	4
TOTAL			170.8

NOTE:  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

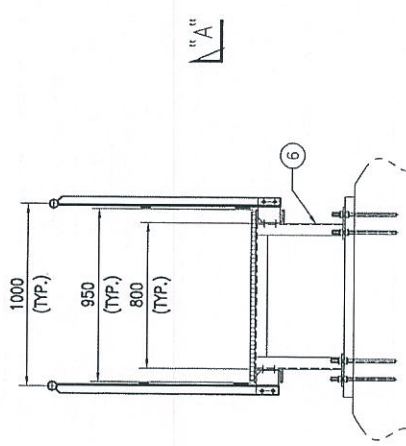
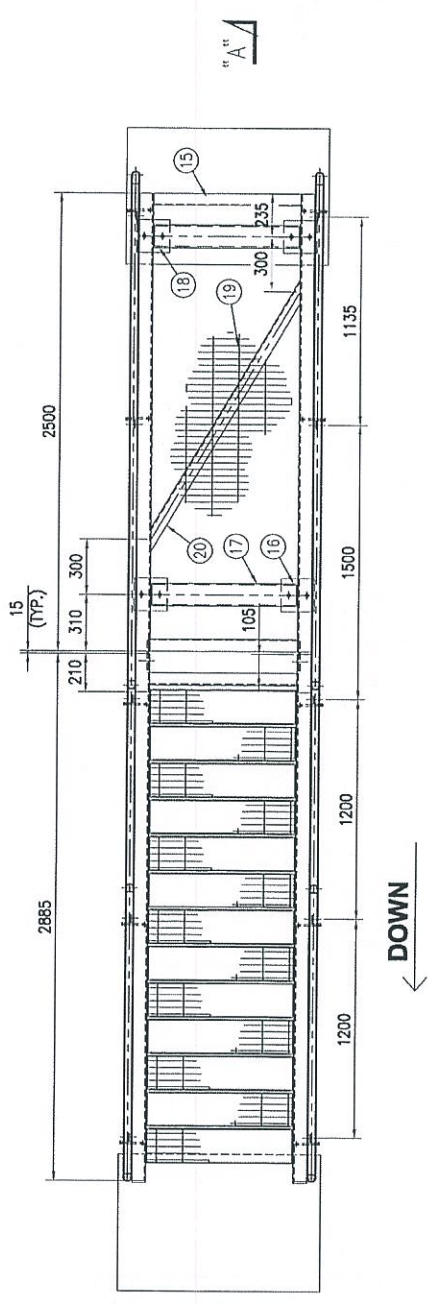
REV.	DESCRIPTION	BY	CHK	DATE
01	ISSUED FOR APPROVAL	ZUL	BWA	06/07/13
02	ISSUED FOR CONSTRUCTION	ZUL	BWA	06/07/13

PROJECT OWNER:  
DIALOG INDEPENDENT TERMINALS SDN. BHD.  
CONSULTANT:  
DIALOG E & C SDN. BHD. (199238-0)  
106, BLOK 5, FIELD DAMBANGAN 1,  
NO. 8, JALAN 19/71, 6800 PERLIS, PERLIS, MALAYSIA

DRAWING TITLE:  
LPS-302  
STAIRWAY DETAIL  
(TYPE-2)  
SCALE: AS SHOWN  
CHECKED: BWA  
DRAWN: ZUL  
APPROVED: LMI  
DATE: 06/07/13  
FILENAME: -  
DWC NO.: DH0008-ENG-C-PF-0327  
SHEET NO. 0  
REV. 1 OF 1

25	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	20	-
26	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4	-
27	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	52	-
28	ANCHOR BOLT M20 x 350L	HILTI ANCHOR	8	-
	TOTAL			681.6

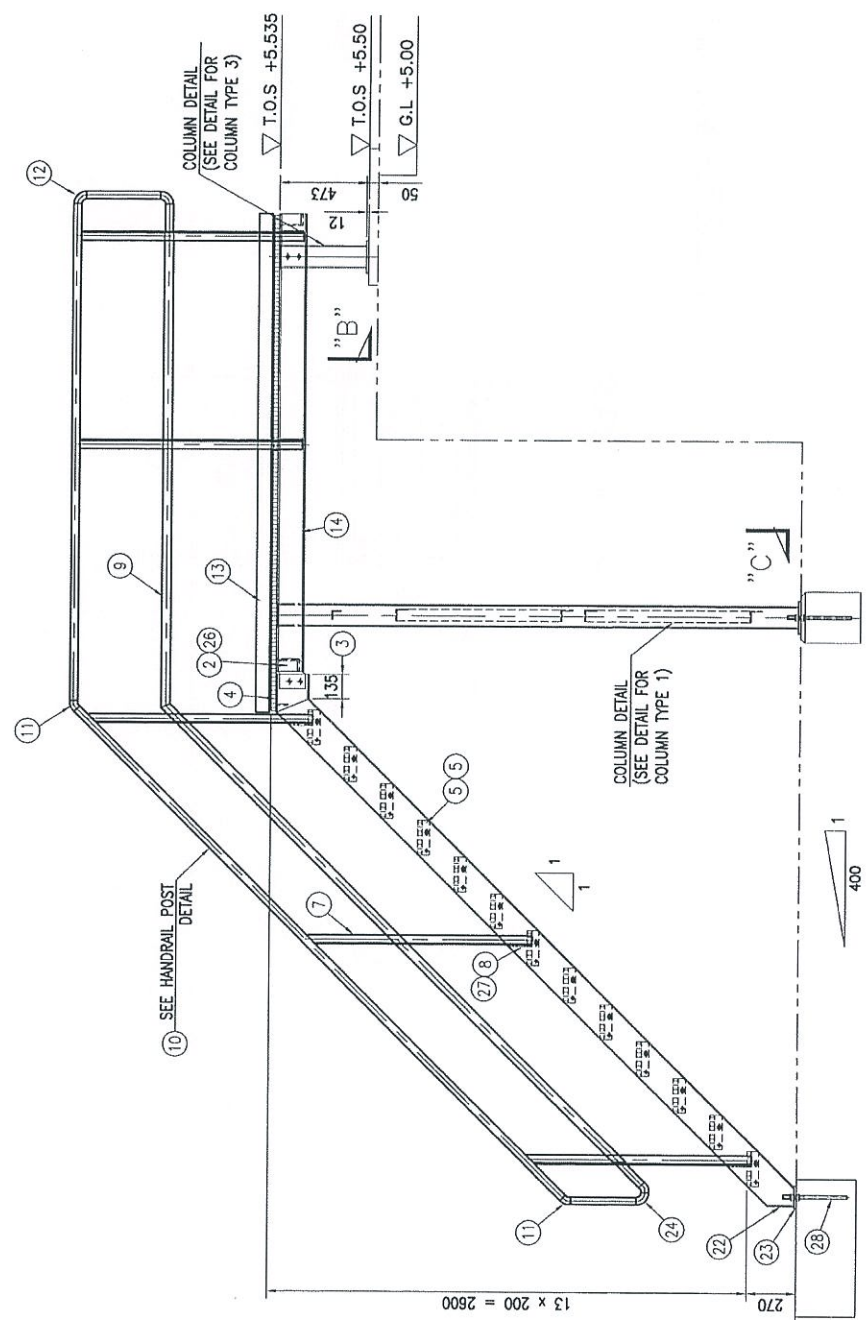
BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)				
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	STRINGER - C180 x 75 x 71 x 3833L	A36 OR EQ.	2	164.0
2	CLEAT - PLATE 165 x 150 x 9f	A36 OR EQ.	2	3.5
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	4.7
5	STAIR GRATING - 230 x 800 x 25f	A 36 OR EQ.	13	70.6
6	BASE PLATE - 180 x 180 x 12f	A36 OR EQ.	4	12.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	10	54.5
8	CLEAT - PLATE 133 x 120 x 9f	A36 OR EQ.	10	11.3
9	MID RAIL - FB 50 x 61 x 12240L	A36 OR EQ.	1 LOT	28.9
10	HANDRAIL PIPE 1-1/4" SCH.40 x 15460L	SGP	1 LOT	52.3
11	ELBOW 45° 1-1/4"	SGP	6	0.9
12	ELBOW 90° LR 1-1/4"	SGP	6	1.4
13	TOE PLATE - FB 75 x 61 x 5450L	A36 OR EQ.	1 LOT	19.2
14	FRAME - C150 x 75 x 6.51 x 2500L	A36 OR EQ.	2	93.0
15	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2	21.4
16	SUPPORT LEG - C125 x 65 x 61 x 2833L	A36 OR EQ.	2	75.9
17	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2	21.4
18	SUPPORT LEG - C125 x 65 x 61 x 473L	A36 OR EQ.	2	12.7
19	FLOOR GRATING - 2705 x 930x 25f	A 36 OR EQ.	1	74.2
20	BRACING #1 - L65 x 65 x 61 x 1574L	A36 OR EQ.	1	9.3
21	SUPPORT - L75 x 75 x 91 x 788L	A36 OR EQ.	1	5.4
22	BRACING #2 - L65 x 65 x 61 x 1202L	A36 OR EQ.	4	28.4
23	END PLATE - 150 x 75 x 10f	A36 OR EQ.	2	1.8
24	BASE PLATE - 125 x 125 x 12f	A36 OR EQ.	2	2.9



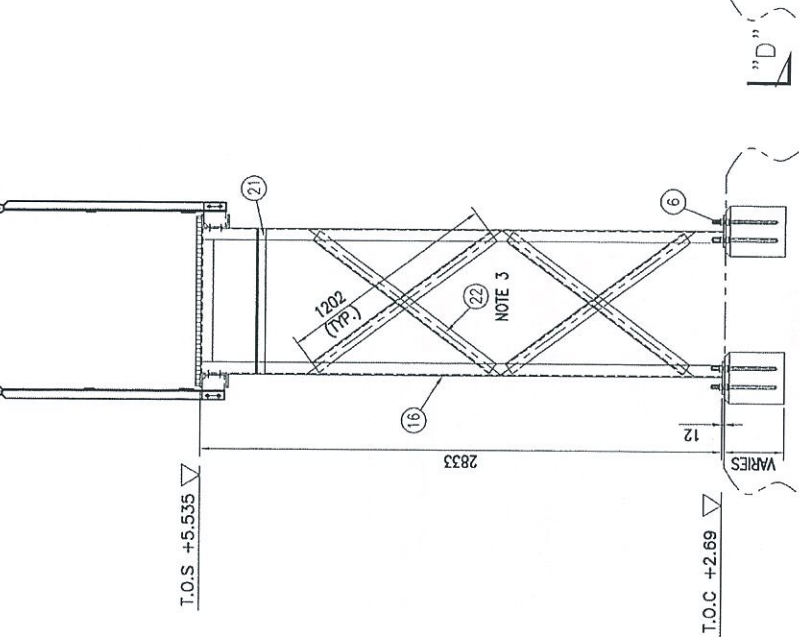
**SECTION "B" - "B"**  
SCALE 1:20



**SECTION "C" - "C"**  
SCALE 1:20

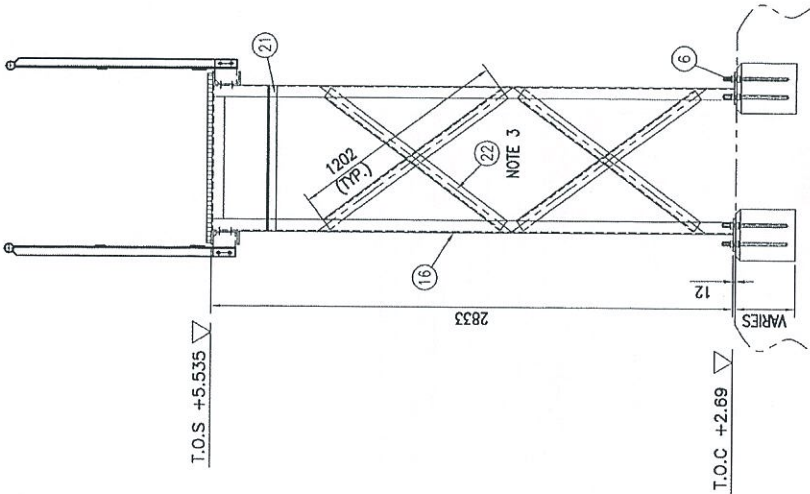
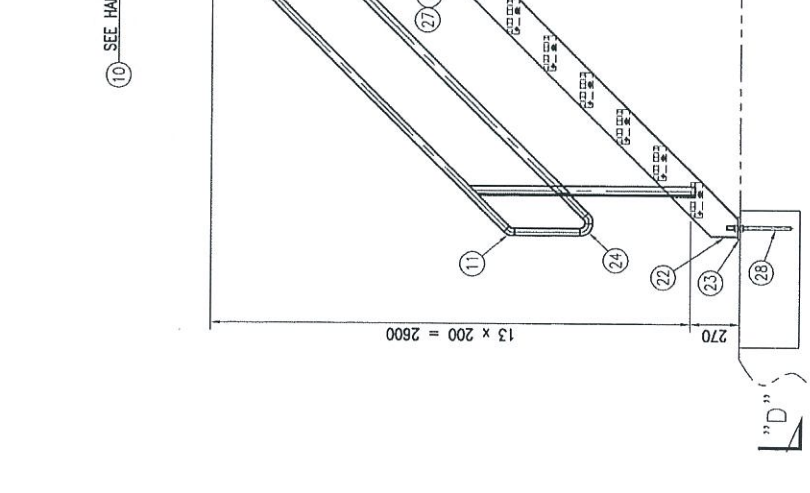
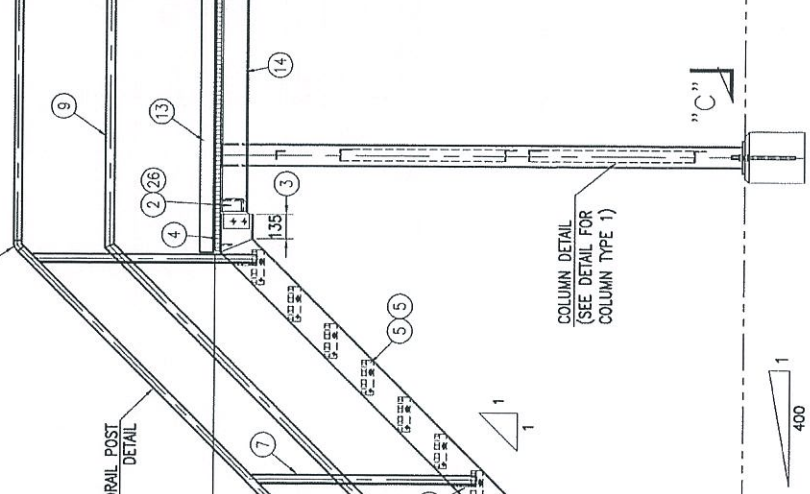
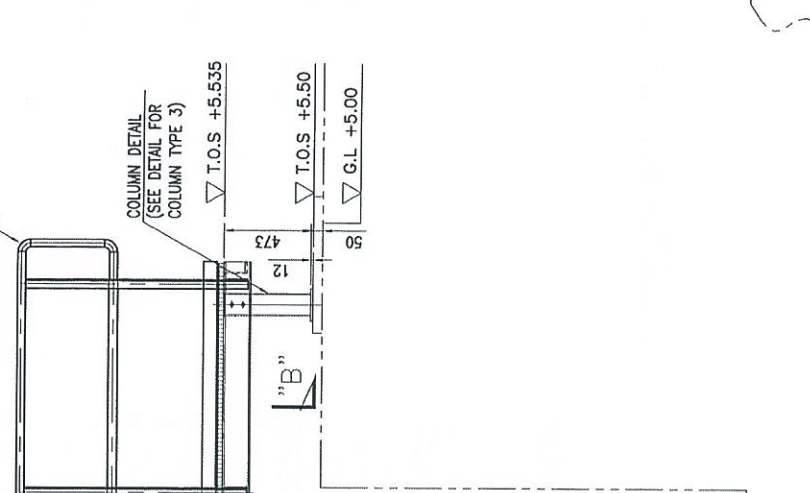
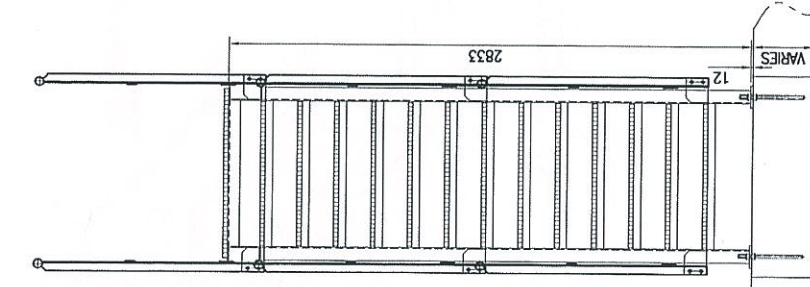


**SECTION "A" - "A"**  
SCALE 1:20



**SECTION "D" - "D"**  
SCALE 1:20

STAIRWAY		QTY.
DESCRIPTION		
TYPE 3-LPS-302S/AS-A		2
TOTAL REQ'D =		2



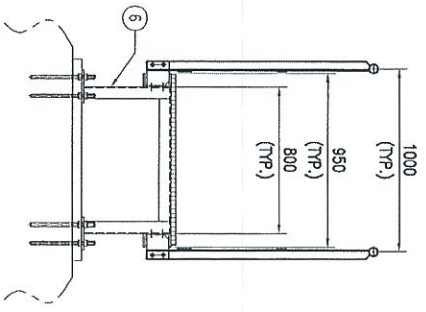
**NOTE:**

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.
3. CUT TO SUIT

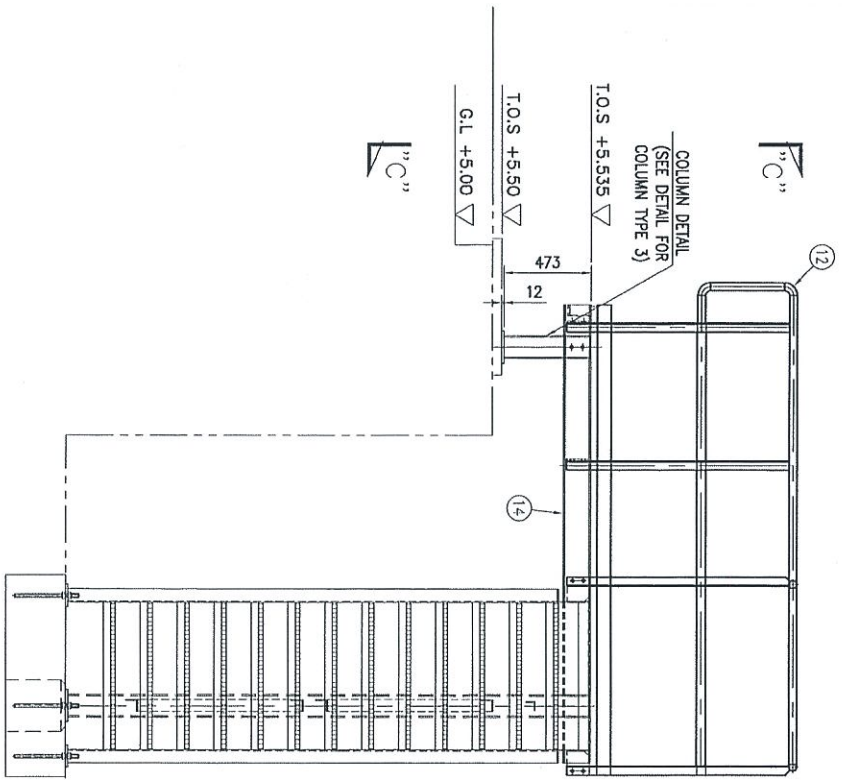
PROJECT NO. : LPS-302	PROJECT TITLE : STAIRWAY DETAIL (TYPE-3)
DATE : 09/03/13	FILE NAME : -
SCALE : AS SHOWN	CHECKED : EBA
DRAWN : ZAL	APPROVED : LHM
DATE : 09/03/13	FILENAME : -
DWG. NO. : DH0008-ENG-C-PF-0328	SHT. NO. REV. : 1 OF 1 0

PROJECT OWNER : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG	
PROJECT CONSULTANT : DIALOG E & C SDN. BHD. (1983F-U)	
CONSULTANT : DIALOG E & C SDN. BHD. (1983F-U)	
DRAWING TITLE : STAIRWAY DETAIL (TYPE-3)	
SCALE : AS SHOWN	
CHECKED : EBA	
DRAWN : ZAL	
APPROVED : LHM	
DATE : 09/03/13	
FILENAME : -	
DWG. NO. : DH0008-ENG-C-PF-0328	
SHT. NO. REV. : 1 OF 1 0	

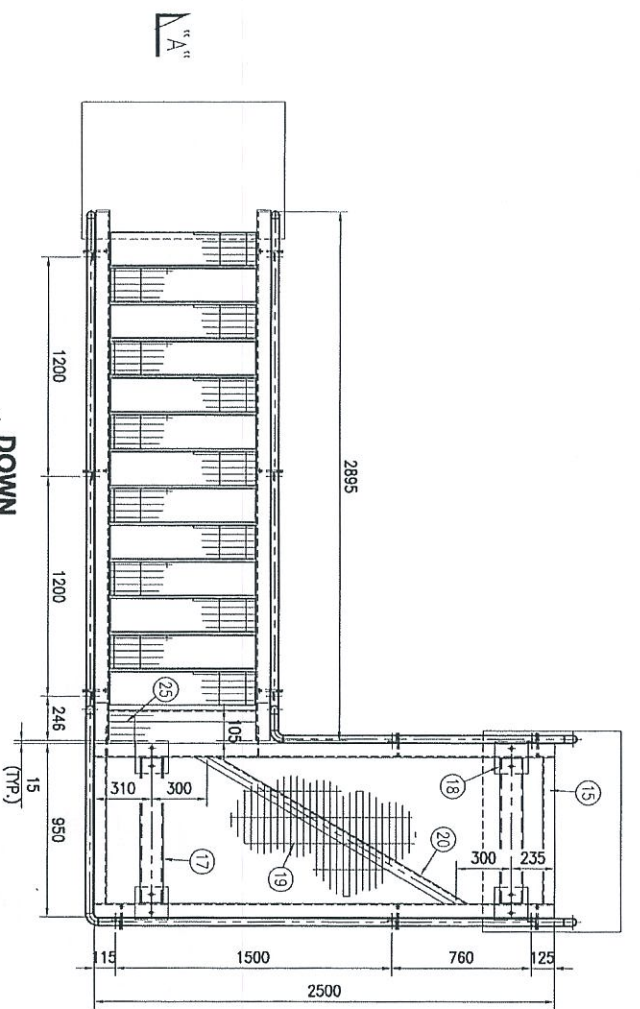
48



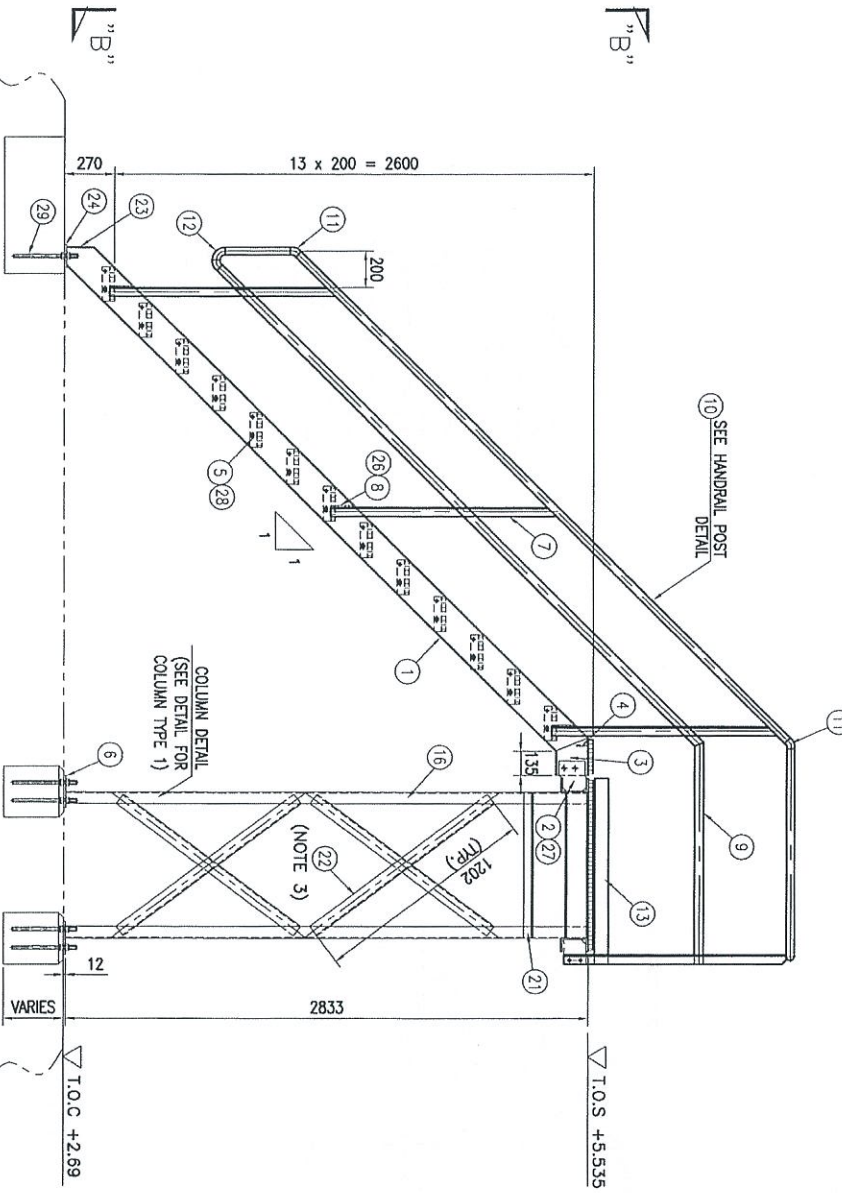
SECTION "C" - "C"  
SCALE 1:20



SECTION "B" - "B"  
SCALE 1:20



PLAN VIEW  
SCALE 1:20



SECTION "A" - "A"  
SCALE 1:20

STAIRWAY DETAIL (TYPE 5)  
SCALE 1:20

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)			
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET)
1	STRINGER - C180 x 75 x 71 x 3839L	A36 OR EQ.	2
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	2
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1
5	STAIR GRATING - 230 x 800 x 251	A 36 OR EQ.	13
6	BASE PLATE - 180 x 180 x 121	A36 OR EQ.	4
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	12
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	12
9	MID RAIL - FB 50 x 61 x 11673L	A36 OR EQ.	1 LOT
10	HANDRAIL PIPE 1-1/4" SCH.40 X 11985L	SGP	1 LOT
11	ELBOW 45° 1-1/4"	SGP	6
12	ELBOW 90° LR 1-1/4"	SGP	6
13	TOE PLATE - F9 75 x 61 x 5000L	A36 OR EQ.	1 LOT
14	FRAME - C150 x 75 x 6.51 x 2300L	A36 OR EQ.	2
15	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2
16	SUPPORT LEG - C125 x 65 x 61 x 2833L	A36 OR EQ.	2
17	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2
18	SUPPORT LEG - C125 x 65 x 61 x 473L	A36 OR EQ.	2
19	FLOOR GRATING - 2480 x 930 x 251	A 36 OR EQ.	1
20	BRAICING #1 - L65 x 65 x 61 x 1574L	A36 OR EQ.	1
21	SUPPORT - L75 x 75 x 91 x 788L	A36 OR EQ.	1
22	BRAICING #2 - L65 x 65 x 61 x 1202L	A36 OR EQ.	4
23	END PLATE - 150 x 75 x 101	A36 OR EQ.	2
24	BASE PLATE - 125 x 125 x 121	A36 OR EQ.	2
25	FLOOR GRATING - 190 x 930 x 251	A 36 OR EQ.	1
26	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	24
27	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4
28	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	52
29	ANCHOR BOLT M20 x 350L	HILT ANCHOR	12
	TOTAL		772.3

NOTE:  
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

STAIRWAY	
DESCRIPTION	QTY.
TYPE 4-LPS-302S/AS-B	1
TOTAL REQ'D =	1

PROJECT OWNER : DIALOG INDEPENDENT TERMINALS SDN. BHD.  
CONSULTANT : DIALOG E & C SDN. BHD. (198798-4)  
DRAWING TITLE : STAIRWAY DETAIL (TYPE-4)  
SCALE : AS SHOWN  
DATE : 09/03/13  
Dwg. No. : DH0008-ENG-C-PF-0329

REV.	DESCRIPTION	BY	CHK	DATE
1	ISSUED FOR APPROVAL	ZL	BEA	09/03/13
2	ISSUED FOR COMMENTS	ZL	BEA	10/03/13
3	REVISED FOR COMMENTS	ZL	BEA	10/03/13
4	ISSUED FOR APPROVAL	ZL	BEA	10/03/13

PROJECT TITLE : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG

DRWING TITLE :	SCALE :	CHECKED :	SFT. NO.
LPS-302 STAIRWAY DETAIL (TYPE-4)	AS SHOWN	BEA	1 of 1
DATE :	APPROVED :	REV.	REV.
09/03/13	LM	0	0

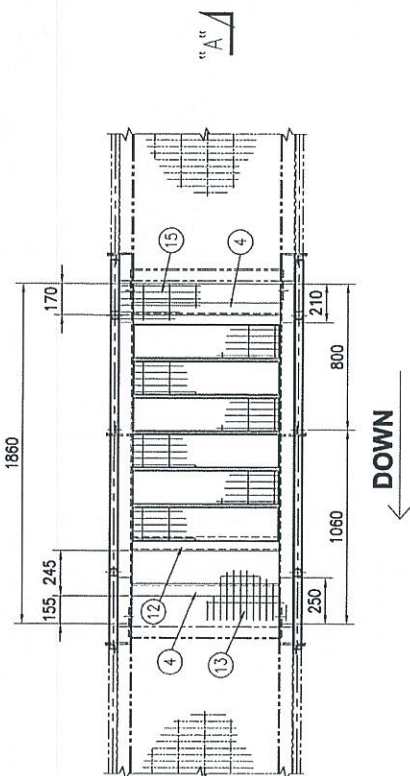
BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. (1 SET))
1	STRINGER - C180 x 75 x 71 x 2055L	A36 OR EQ.	2	88.0
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	4	7.0
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	2	9.5
5	STAIR GRATING - 230 x 800 x 251	A36 OR EQ.	6	32.6
6	SUPPORT - C180 x 75 x 71 x 325L	A36 OR EQ.	2	14.0
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	2	10.9
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	2	2.3
9	MID RAIL - FB 50 x 61 x 5480L	A36 OR EQ.	1 LOT	13.0
10	HANDRAIL PIPE 1-1/4" SCH.40 x 5410	SGP	1 LOT	18.3
11	ELBOW 45° 1-1/4"	SGP	4	0.6
12	SUPPORT - L75 x 75 x 91 x 800L	A36 OR EQ.	1	5.5
13	FLOOR GRATING - 930 x 455 x 251	A36 OR EQ.	1	11.0
14	TOE PLATE - FB 75 x 61 x 2010L	A36 OR EQ.	1 LOT	4.7
15	FLOOR GRATING - 930 x 190 x 251	A36 OR EQ.	1	4.4
16	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	4	-
17	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4	-
18	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	24	-
TOTAL				230.8

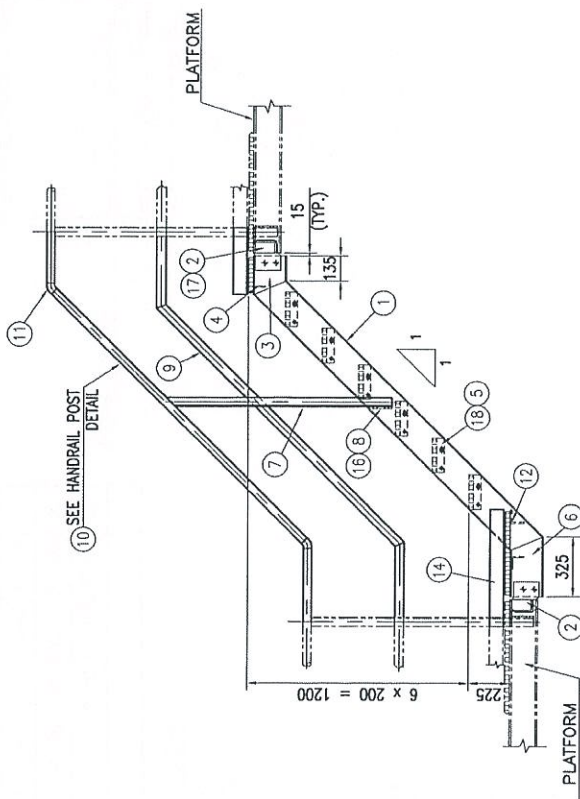
NOTE:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. ALL WELD TO BE IN ACCORDANCE WITH AWS D1.1.
3. CUT TO SUIT

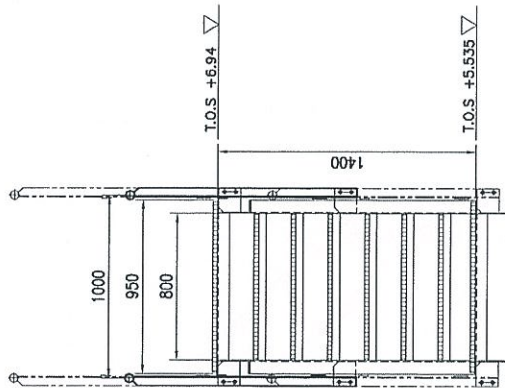
STAIRWAY	
DESCRIPTION	QTY.
TYPE 6-LPS-302P/AS	1
TOTAL REQ'D = 1	



PLAN VIEW  
SCALE 1:20



SECTION "A" - "A"  
SCALE 1:20

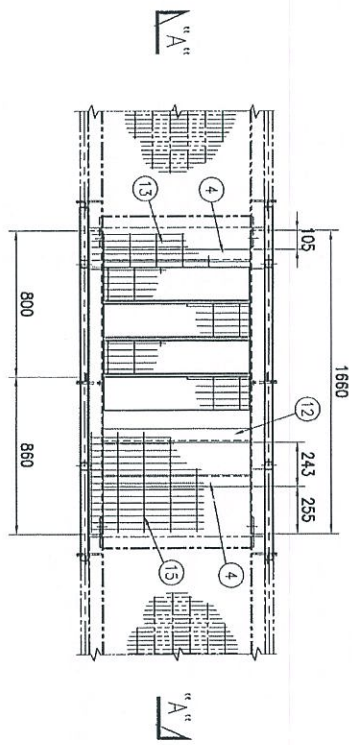


SECTION "B" - "B"  
SCALE 1:20

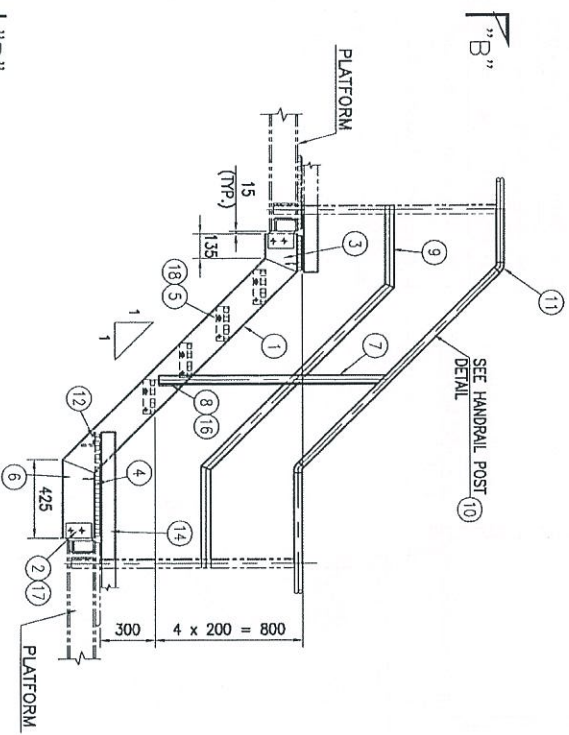
STAIRWAY DETAIL (TYPE 6)  
SCALE 1:20

PROJECT NO. : LPS-302	PROJECT TITLE : INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG
CLIENT : DIALOG & C SDN. BHD.	CONSULTANT : DIALOG & C SDN. BHD.
DESIGNER : ZUL	CHECKED : ERICA
DATE : 08/03/13	APPROVED : LIM
DWG. NO. : DH0008-ENG-C-PF-0330	SHEET NO. : 1 OF 1

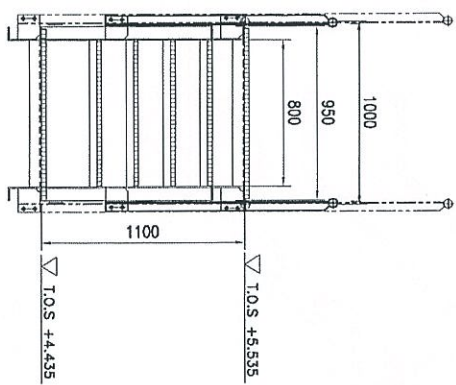




**PLAN VIEW**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20



**SECTION "B" - "B"**  
SCALE 1:20

**STAIRWAY DETAIL (TYPE 7)**  
SCALE 1:20

DESCRIPTION	QTY.
TYPE 7-LPS-302P/AS	1
<b>TOTAL REQ'D = 1</b>	

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)				
NO.	DESCRIPTION	MATERIAL	TOTAL QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	STRINGER - C180 x 75 x 71 x 1630L	A36 OR EQ.	2	69.8
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	4	7.0
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	2	9.5
5	STAIR GRATING - 230 x 800 x 251	A36 OR EQ.	5	34.2
6	SUPPORT - C180 x 75 x 71 x 425L	A36 OR EQ.	2	18.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	2	10.9
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	2	2.3
9	MID RAIL - FB 50 x 61 x 4900L	A36 OR EQ.	1 LOT	11.6
10	HANDRAIL PIPE 1-1/4" SCH.40 x 4750L	SGP	1 LOT	16.2
11	ELBOW 45° 1-1/4"	SGP	4	0.6
12	SUPPORT - L75 x 75 x 91 x 800L	A36 OR EQ.	2	11.0
13	FLOOR GRATING - 190 x 930 x 251	A36 OR EQ.	1	5.2
14	TOE PLATE - FB 75 x 61 x 2220L	A36 OR EQ.	1 LOT	7.8
15	FLOOR GRATING - 555 x 930 x 251	A36 OR EQ.	1	13.4
16	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	4	-
17	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4	-
18	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	24	-
	<b>TOTAL</b>			<b>226.7</b>

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

NO.	ISSUED FOR APPROVAL	DATE	BY	CHK	DATE
1	ISSUED FOR APPROVAL	08/02/13	ZAL	BNK	08/02/13
2	ISSUED FOR COMMENTS	08/02/13	ZAL	BNK	08/02/13
3	ISSUED FOR APPROVAL	08/02/13	ZAL	BNK	08/02/13

PROJECT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.  
 CONSULTANT :  
 DIALOG E & C SDN. BHD. (199299-0)  
 101, BLOK 6, PLOTO DAMANSARA 1,  
 NO. 8, JALAN 19/11, 45300 PENJANG JAYA, SELANGOR.  
 DRAWING TITLE :  
 LPS-302  
 STAIRWAY DETAIL  
 (TYPE-7)

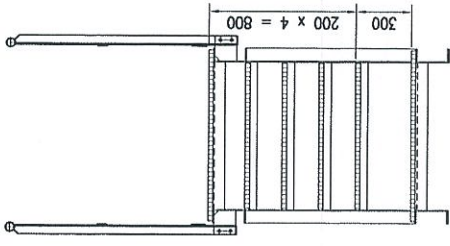
SCALE :	CHECKED :	ENVA
AS SHOWN	ZAL	BNK
DATE :	APPROVED :	DATE :
08/02/13	ZAL	08/02/13
DWG. NO. :	SHT. NO. :	REG. :
DH0008-BNG-C-PF-0331	1 OF 1	0

**BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)**

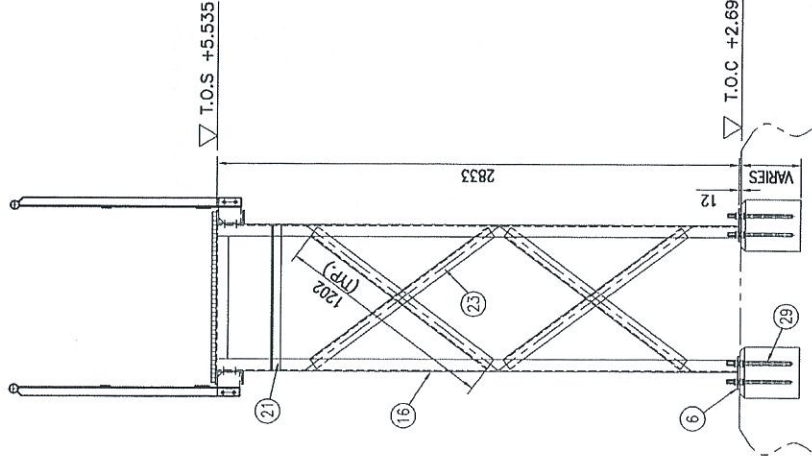
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	STRINGER - C180 x 75 x 71 x 1630L	A36 OR EQ.	2	34.9
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	4	7.0
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	4.7
5	STAIR GRATING - 230 x 800 x 25t	A 36 OR EQ.	4	21.7
6	BASE PLATE - 180 x 180 x 12t	A36 OR EQ.	4	12.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	8	28.4
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	8	9.0
9	MID RAIL - FB 50 x 61 x 887.5L	A36 OR EQ.	2	20.9
10	HANDRAIL PIPE 1-1/4" SCH.40 x 10130L	SGP	2	34.2
11	ELBOW 45° 1-1/4"	SGP	4	0.6
12	ELBOW 90° LR 1-1/4"	SGP	6	1.4
13	TOE PLATE - FB 75 x 61 x 5240L	A36 OR EQ.	2	18.5
14	FRAME - C150 x 75 x 6.5t x 2395L	A36 OR EQ.	2	89.1
15	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2	21.4
16	SUPPORT LEG - C125 x 65 x 61 x 2833L	A36 OR EQ.	2	75.9
17	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2	21.4
18	SUPPORT LEG - C125 x 65 x 61 x 473L	A36 OR EQ.	2	12.7
19	FLOOR GRATING - 2600 x 930x 25t	A 36 OR EQ.	1	71.3
20	FLOOR GRATING - 535 x 930 x 25t	A 36 OR EQ.	1	14.7
21	SUPPORT - L75 x 75 x 91 x 788L	A36 OR EQ.	1	5.4
22	BRAACING #2 - L65 x 65 x 61 x 1488L	A36 OR EQ.	1	8.8
23	BRAACING #1 - L65 x 65 x 61 x 1202L	A36 OR EQ.	4	28.4
24	SUPPORT - C180 x 75 x 71 x 425L	A36 OR EQ.	2	18.2
25	SUPPORT - L75 x 75 x 91 x 800L	A36 OR EQ.	1	8.0
26	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	16	-
27	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	8	-
28	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	16	-
29	ANCHOR BOLT M20 x 350L	HILTI ANCHOR	8	-
TOTAL				577.8

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

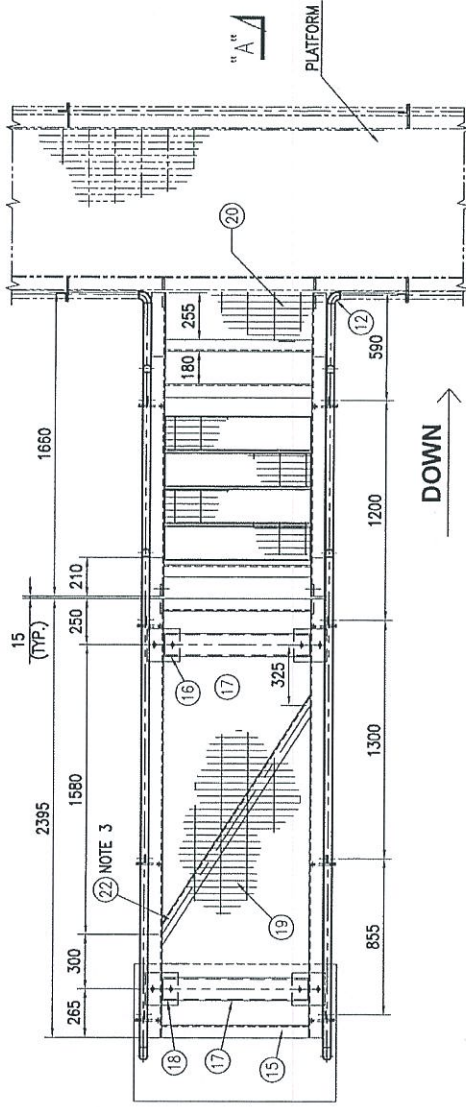
NO. OF SETS	1	REVISED	0
DATE	09/03/13	BY	ZAL
PROJECT TITLE	INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG		
PROJECT OWNER	DIALOG INDEPENDENT TERMINALS SDN. BHD.		
CONSULTANT	DIALOG E & C SDN. BHD. (18789-U)		
DRAWING TITLE	LPS-302 STAIRWAY DETAIL (TYPE-9)		
SCALE	AS SHOWN	CHECKED	ERCA
DRAWN	ZAL	APPROVED	DM
DATE	09/03/13	FILENAME	-
DWG. NO.	DH0008-ENG-C-PF-0332		
SHT. NO.	1	OF	1
REV.	0		



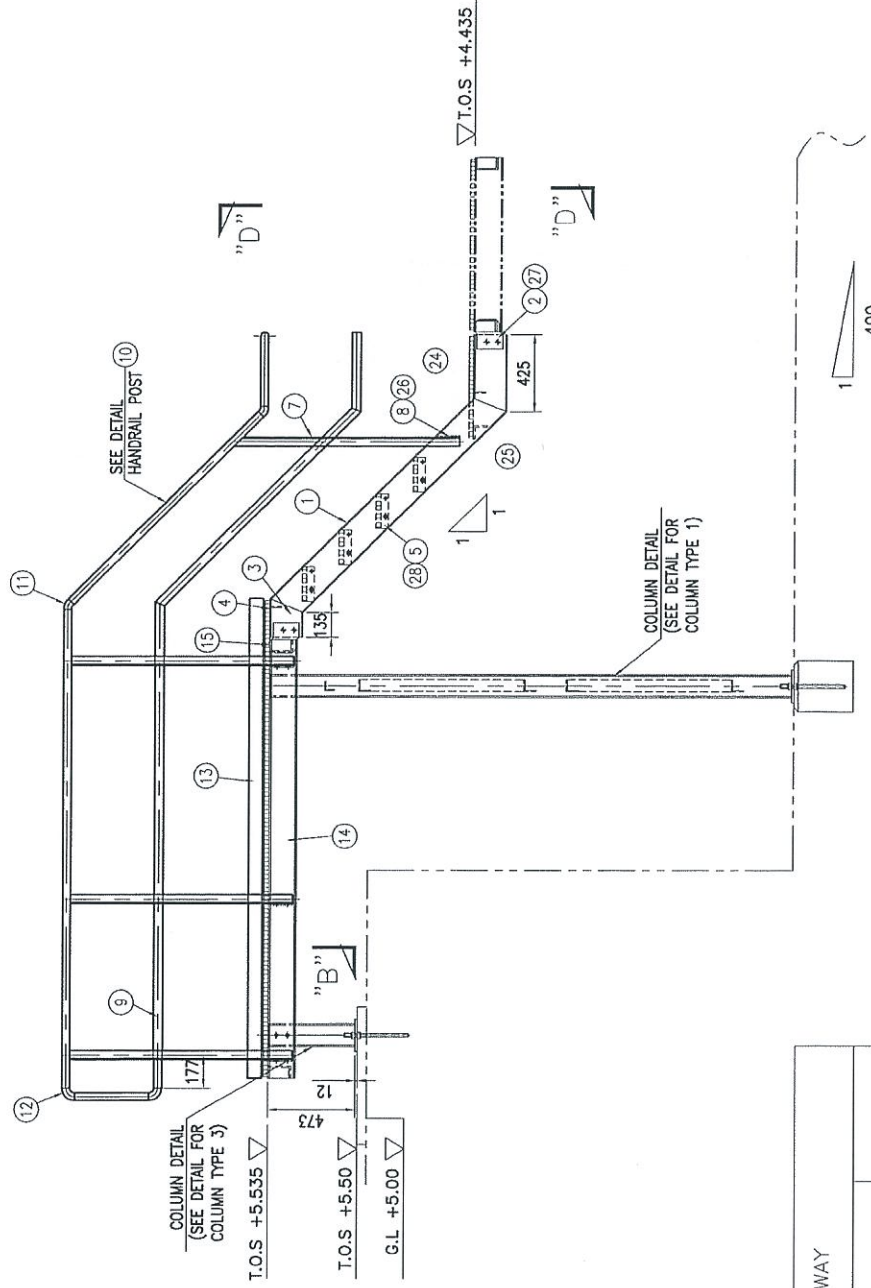
**SECTION "D" - "D"**  
SCALE 1 : 20



**SECTION "C" - "C"**  
SCALE 1 : 20



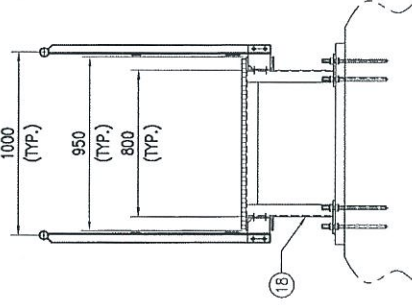
**PLAN VIEW**  
SCALE 1 : 20

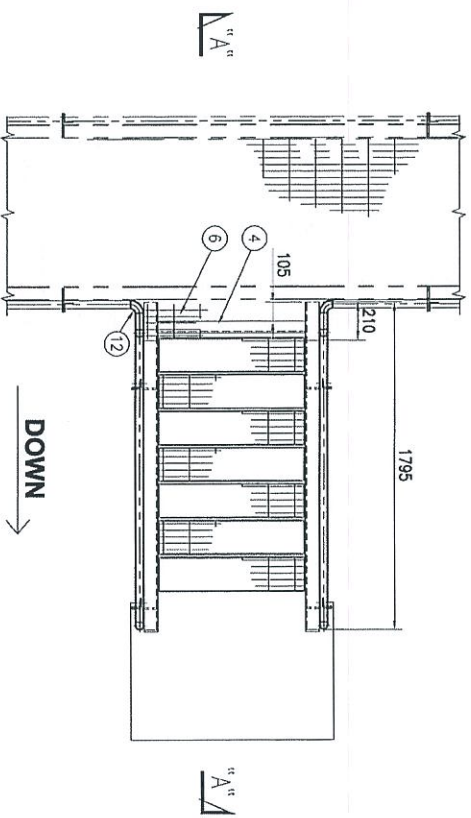


**STAIRWAY DETAIL (TYPE 9)**  
SCALE 1 : 20

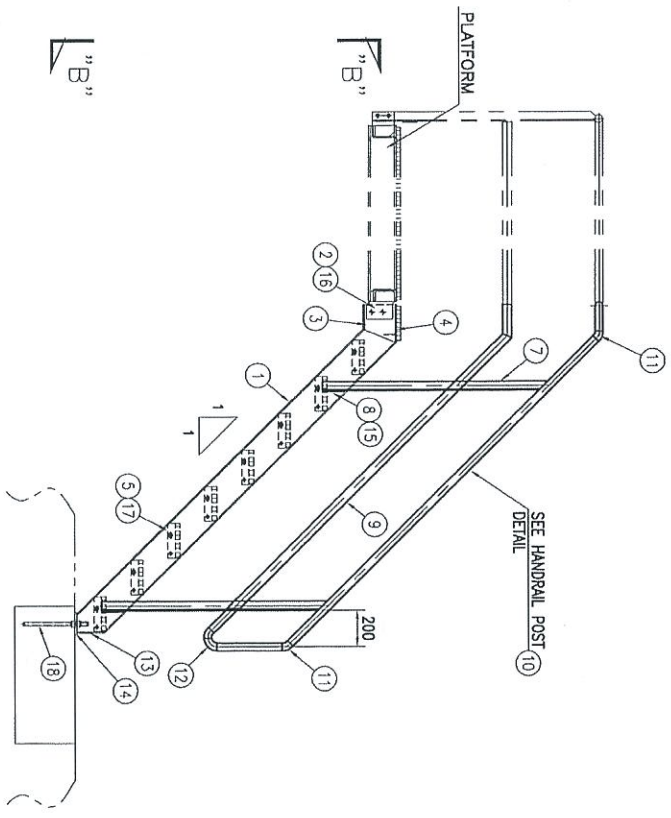
STAIRWAY	DESCRIPTION	QTY.
	TYPE 9 - LPS-302D/AS	3
TOTAL REQ'D =		3

**SECTION "B" - "B"**  
SCALE 1 : 20

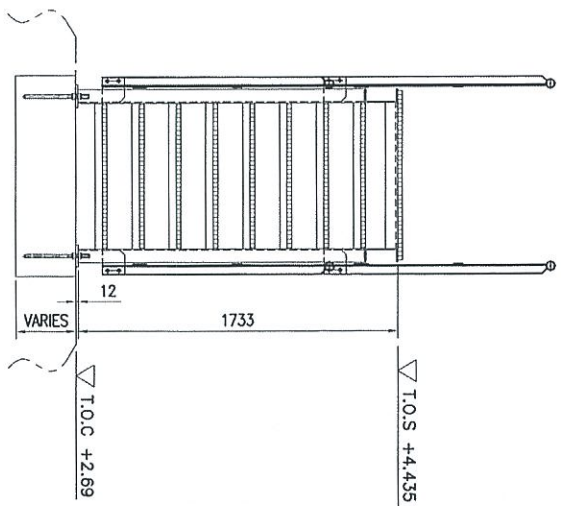




PLAN VIEW  
SCALE 1:20



SECTION "A" - "A"  
SCALE 1:20



SECTION "B" - "B"  
SCALE 1:20

STAIRWAY DETAIL (TYPE 10)  
SCALE 1:20

DESCRIPTION	QTY.
TYPE 10-LPS-302P/AS	2
TOTAL REQ'D =	2

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)			
NO.	DESCRIPTION	MATERIAL	TOTAL WEIGHT (KG. (1 SET))
1	STRINGER - C180 X 75 X 71 X 2280L	A36 OR EQ.	97.6
2	CLEAT - PLATE 165 X 150 X 91	A36 OR EQ.	3.5
3	SUPPORT - C180 X 75 X 71 X 210L	A36 OR EQ.	9.0
4	SUPPORT - L65 X 65 X 61 X 800L	A36 OR EQ.	4.7
5	STAIR GRATING - 230 X 800 X 25I	A36 OR EQ.	43.4
6	FLOOR GRATING - 190 X 930 X 25I	A36 OR EQ.	5.2
7	STANCHION - L50 X 50 X 61 X 1230L	A36 OR EQ.	1.9
8	CLEAT - PLATE 133 X 120 X 91	A36 OR EQ.	2.3
9	MID RAIL - FB 50 X 61 X 4590L	A36 OR EQ.	8.6
10	HANDRAIL PIPE 1-1/4" SCH.40 X 3135L	SGP	21.8
11	ELBOW 45° 1-1/4"	SGP	0.9
12	ELBOW 90° LR 1-1/4"	SGP	1.0
13	END PLATE - 150 X 75 X 101	A36 OR EQ.	1.8
14	BASE PLATE - 125 X 125 X 121	A36 OR EQ.	2.9
15	BOLT & NUT C/W 2X WASHER M16 X 75L	GR.8.8 HDG	8
16	BOLT & NUT C/W 2X WASHER M20 X 85L	GR.8.8 HDG	4
17	BOLT & NUT C/W 2X WASHER M12 X 40L	GR.8.8 HDG	32
18	ANCHOR BOLT M20 X 350L	HILLI ANCHOR	4
TOTAL			223.2

NOTE:  
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
3. CUT TO SUIT

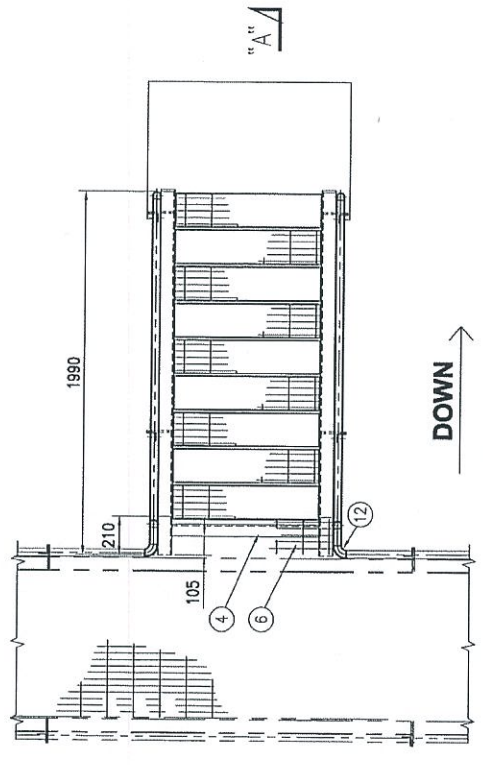
PROJECT OWNER :		DIALOG INDEPENDENT TERMINALS SDN. BHD.	
CONSULTANT :		DIALOG E & C SDN. BHD. (199719-0)	
DRAWING TITLE :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG	
PROJECT TITLE :		INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG	
DRAWING NO. :		DH0008-BW-C-PR-0333	
SCALE :		1:20	
DATE :		08/02/13	
DRAWN BY :		ZAL	
CHECKED BY :		EBOA	
APPROVED BY :		LIM	
DATE :		08/02/13	
REV. NO. :		0	

**BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)**

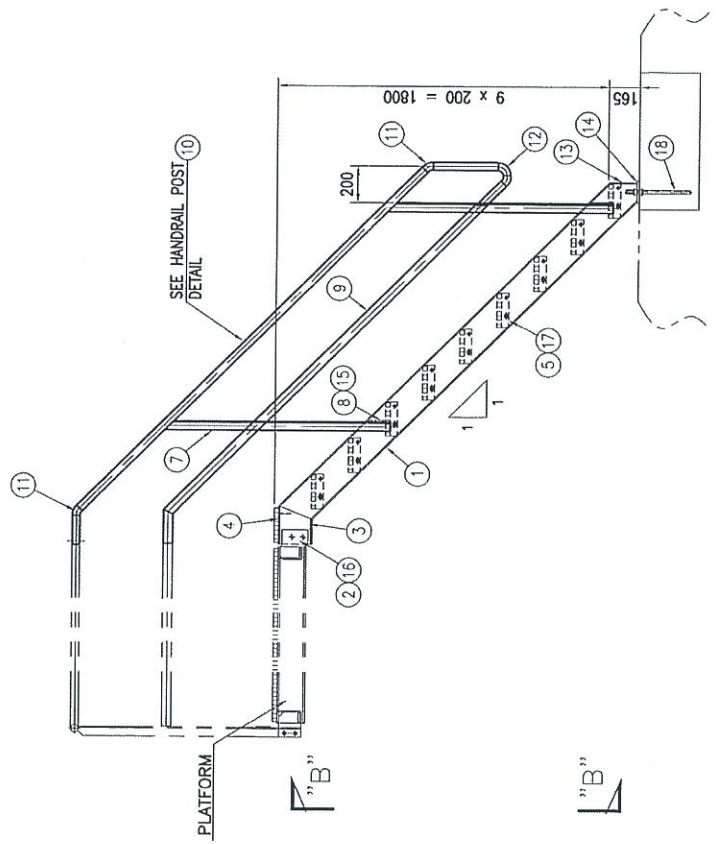
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	STRINGER - C180 x 75 x 71 x 2555L	A36 OR EQ.	2	109.4
2	CLEAT - PLATE 165 x 150 x 9f	A36 OR EQ.	2	3.5
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	4.7
5	STAIR GRATING - 230 x 800 x 25f	A 36 OR EQ.	9	48.8
6	FLOOR GRATING - 190 x 930 x 25f	A36 OR EQ.	1	5.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	4	21.8
8	CLEAT - PLATE 133 x 120 x 9f	A36 OR EQ.	4	4.5
9	MID RAIL - FB 50 x 61 x 5150L	A36 OR EQ.	1 LOT	12.2
10	HANDBAIL PIPE 1-1/4" SCH.40 x 6830L	SGP	1 LOT	23.1
11	ELBOW 45° 1-1/4"	SGP	6	0.9
12	ELBOW 90° LR 1-1/4"	SGP	2	0.5
13	END PLATE - 150 x 75 x 10f	A36 OR EQ.	2	1.8
14	BASE PLATE - 125 x 125 x 12f	A36 OR EQ.	2	2.5
15	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	8	-
16	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4	-
17	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	32	-
18	ANCHOR BOLT M20 x 350L	HILTI ANCHOR	4	-
	TOTAL			247.9

**NOTE:**  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS.D1.1.  
 3. CUT TO SUIT

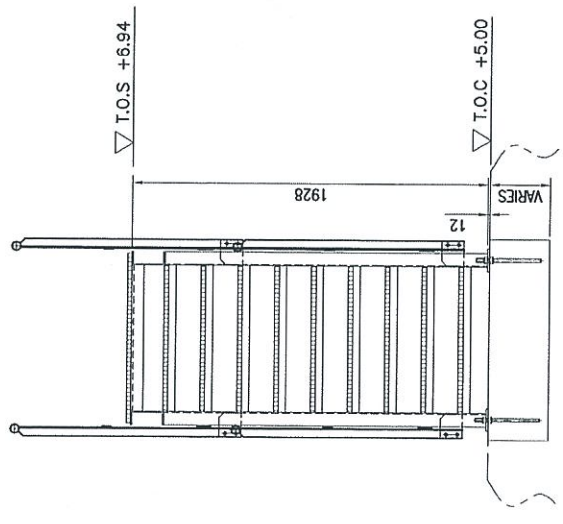
STAIRWAY	
DESCRIPTION	QTY.
TYPE 11-LPS-302P/AS	1
TOTAL REQ'D = 1	



**PLAN VIEW**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20



**SECTION "B" - "B"**  
SCALE 1:20

**STAIRWAY DETAIL (TYPE 11)**  
SCALE 1:20

PROJECT NO. : **PPWS GENERAL ARRANGMENT AT LPS-302**  
 DRAWING NO. : **MASTER PLAN FOR PHASE-1**  
 TITLE : **REFERENCE DRAWINGS**

DATE : **09/03/13**  
 DRAWN BY : **ZAL**  
 CHECKED BY : **AS SHOWN**  
 APPROVED BY : **UM**

PROJECT TITLE : **INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENERANG**

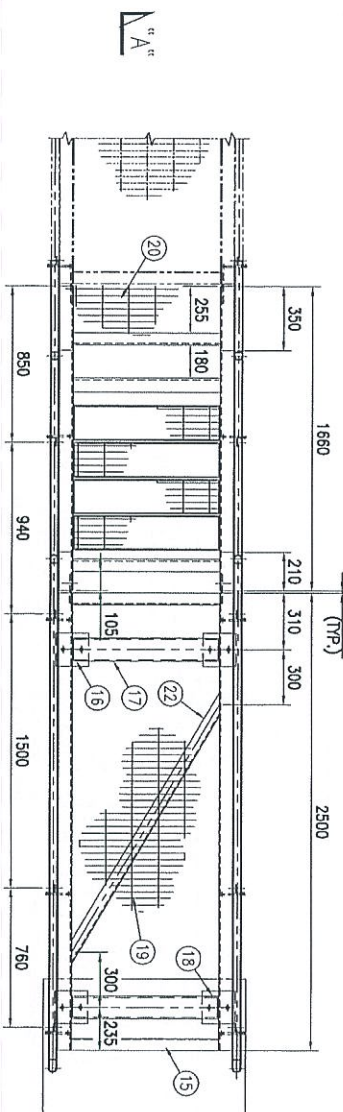
PROJECT OWNER : **DIALOG INDEPENDENT TERMINALS SDN. BHD.**

CONSULTANT : **DIALOG E & C SDN. BHD. (19922P-0)**  
 101, BLOCK 6, PHASE 10, BANGSARAN 1,  
 NO. 9, JALAN 16/71, 45550 PETALING JAYA, SELANGOR.

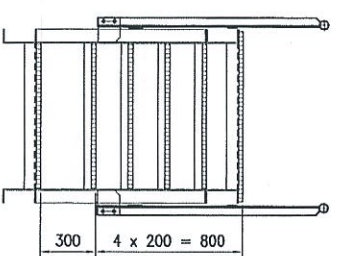
DRAWING TITLE : **LPS-302 STAIRWAY DETAIL (TYPE-11)**

SCALE : **AS SHOWN** CHECKED : **ERDA**  
 DRAWN : **ZAL** APPROVED : **UM**  
 DATE : **09/03/13** FILENAME : **-**

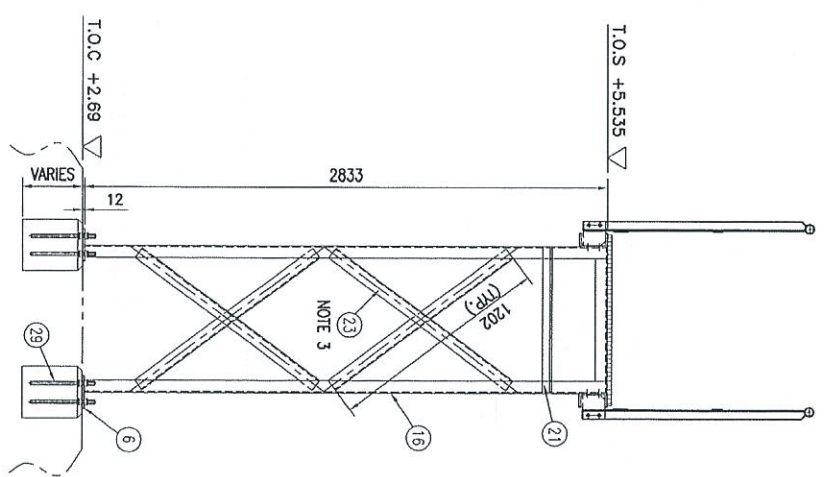
DWG. NO. : **DH0008-ENG-C-PF-0334** SHEET NO. : **0** OF **1**



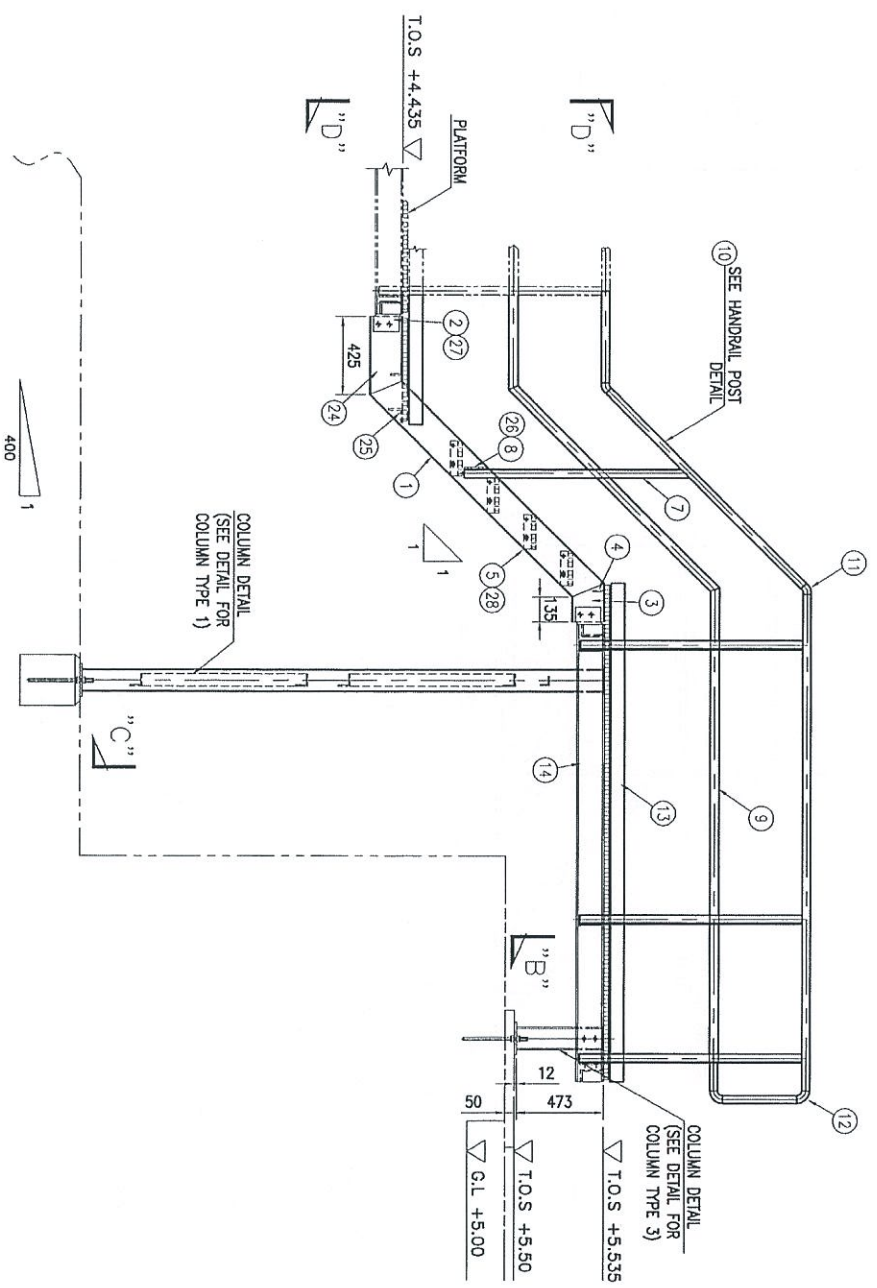
**PLAN VIEW**  
SCALE 1:20



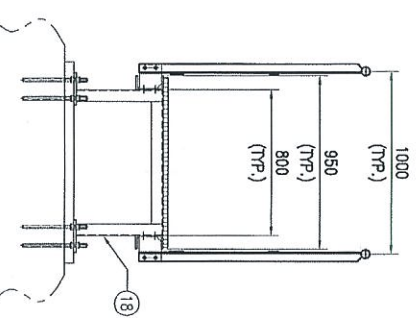
**SECTION "D" - "D"**  
SCALE 1:20



**SECTION "C" - "C"**  
SCALE 1:20



**SECTION "A" - "A"**  
SCALE 1:20



**SECTION "B" - "B"**  
SCALE 1:20

DESCRIPTION	QTY.
STAIRWAY	1
TYPE 12-LPS-302P/AS	1
TOTAL REQ'D =	1

NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG. 1 SET)
1	STRINGER - C180 x 75 x 71 x 1630L	A36 OR EQ.	2	34.9
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	4	7.0
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	6.8
5	STAIR GRATING - 230 x 800 x 251	A 36 OR EQ.	4	21.7
6	BASE PLATE - 180 x 180 x 121	A36 OR EQ.	4	12.2
7	STANCHION - L50 x 50 x 61 x 1230L	A36 OR EQ.	8	43.6
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	8	9.0
9	MID RAIL - FB 50 x 61 x 9560L	A36 OR EQ.	1 LOT	22.4
10	HANDRAIL PIPE 1-1/4" SCH.40 x 10860L	SGP	1 LOT	36.7
11	ELBOW 45° 1-1/4"	SGP	4	0.6
12	ELBOW 90° LR 1-1/4"	SGP	4	1.0
13	TOE PLATE - FB 75 x 61 x 5450L	A36 OR EQ.	2	19.2
14	FRAME - C150 x 75 x 651 x 2500L	A36 OR EQ.	2	93.0
15	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2	21.4
16	SUPPORT LEG - C125 x 65 x 61 x 2833L	A36 OR EQ.	2	75.9
17	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	2	21.4
18	SUPPORT LEG - C125 x 65 x 61 x 473L	A36 OR EQ.	2	12.7
19	FLOOR GRATING - 2705 x 930x 251	A 36 OR EQ.	1	74.2
20	FLOOR GRATING - 555 x 930 x 251	A 36 OR EQ.	1	15.2
21	SUPPORT - L75 x 75 x 91 x 788L	A36 OR EQ.	1	5.4
22	BRA CING #1 - L65 x 65 x 61 x 1574L	A36 OR EQ.	1	9.3
23	BRA CING #2 - L65 x 65 x 61 x 1202L	A36 OR EQ.	4	28.4
24	SUPPORT - C180 x 75 x 71 x 425L	A36 OR EQ.	2	18.2
25	SUPPORT - L75 x 75 x 91 x 800L	A36 OR EQ.	1	8.0
26	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.3.8 HDG	12	-
27	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.3.8 HDG	8	-
28	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.3.8 HDG	16	-
29	ANCHOR BOLT M20 x 350L	HILLT ANCHOR	8	-
	TOTAL			607.2

**NOTE:**  
 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

**STAIRWAY DETAIL (TYPE 12)**

SCALE 1:20

PROJECT OWNER :  
DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
DIALOG E & C SDN. BHD. (19920-4)  
101, Block 5, Field Station, 11, Jln. 9, Jln. 11/11, 4300 Seremban, SEREMBAN.

DRAWING TITLE :  
LPS-302  
STAIRWAY DETAIL  
(TYPE-12)

SCALE : AS SHOWN

CHECKED : BMA  
DESIGNED : ZKL  
DATE : 09/03/13  
DRAWN : ZKL  
REV. NO. : 0

PROJECT NO. : DHO008-ENG-C-PI-0335

DATE : 09/03/13

SCALE : AS SHOWN

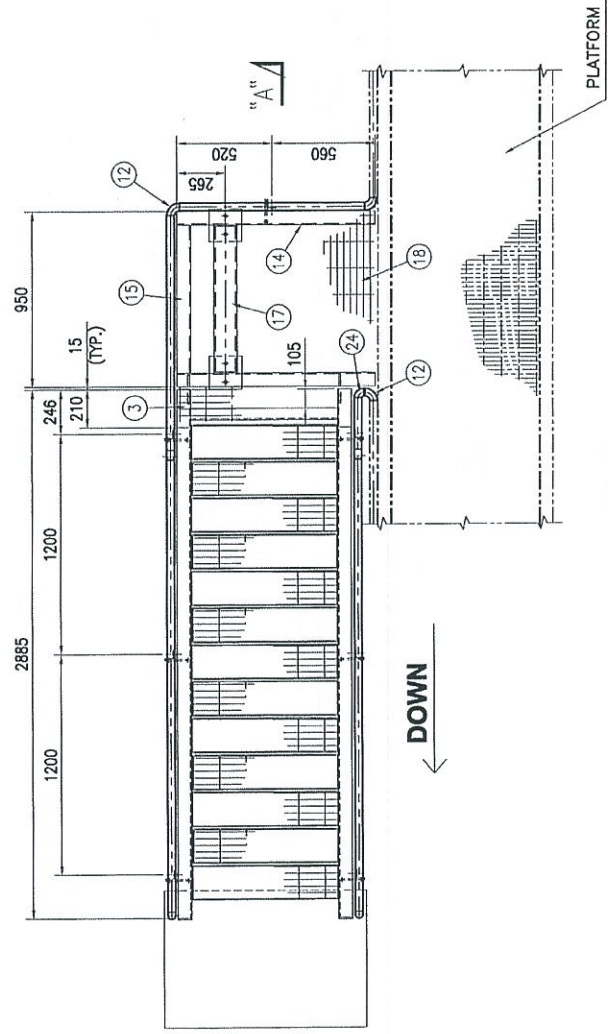
CHECKED : BMA  
DESIGNED : ZKL  
DATE : 09/03/13  
DRAWN : ZKL  
REV. NO. : 0

BILL OF MATERIALS (ONE (1) SET OF STAIRWAY)

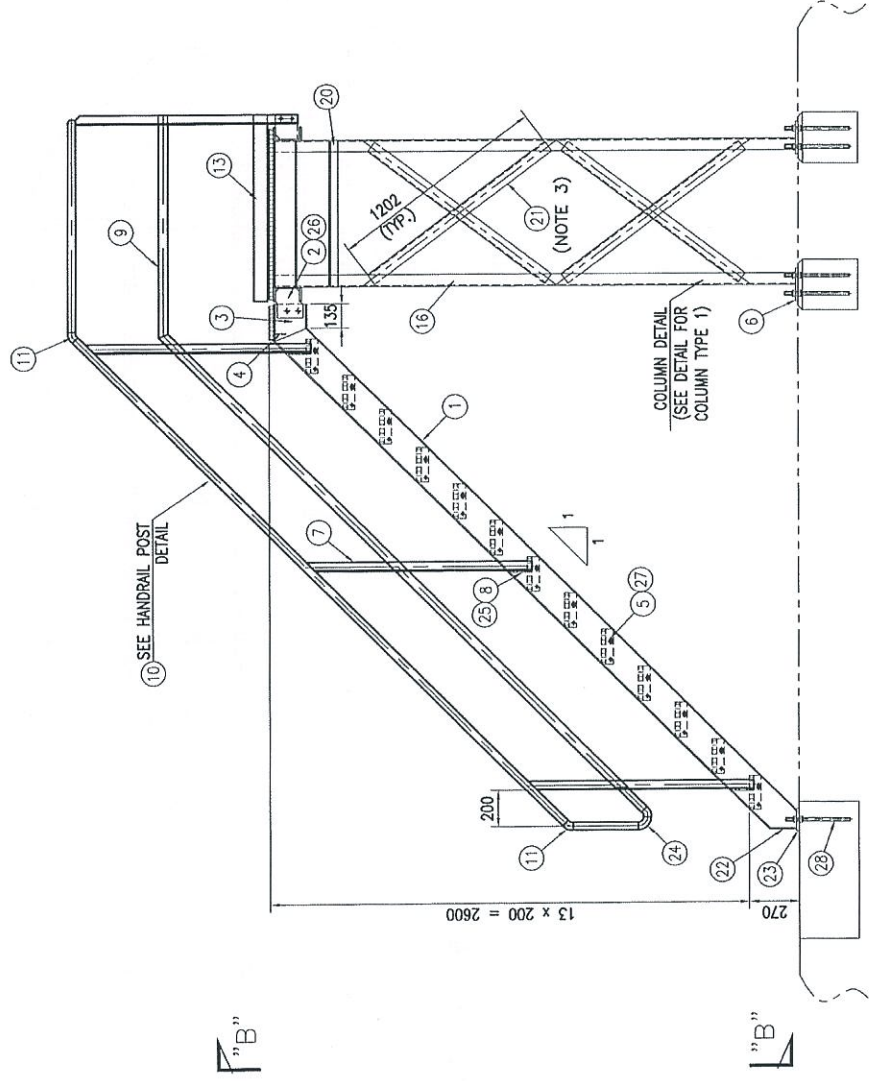
NO.	DESCRIPTION	MATERIAL	QTY (1 SET)	TOTAL WEIGHT (KG.) (1 SET)
1	STRINGER - C180 x 75 x 71 x 3835L	A36 OR EQ.	2	164.1
2	CLEAT - PLATE 165 x 150 x 91	A36 OR EQ.	2	3.5
3	SUPPORT - C180 x 75 x 71 x 210L	A36 OR EQ.	2	9.0
4	SUPPORT - L65 x 65 x 61 x 800L	A36 OR EQ.	1	6.8
5	STAIR GRATING - 230 x 800 x 251	A36 OR EQ.	13	70.6
6	BASE PLATE - 180 x 180 x 121	A36 OR EQ.	2	6.1
7	STANCHION - L60 x 50 x 61 x 1230L	A36 OR EQ.	7	38.1
8	CLEAT - PLATE 133 x 120 x 91	A36 OR EQ.	7	7.9
9	MID RAIL - FB 50 x 61 x 9440L	A36 OR EQ.	1 LOT	22.3
10	HANDRAIL PIPE 1-1/4" SCH-40 x 10169L	SGP	1 LOT	34.4
11	ELBOW 45° 1-1/4"	SGP	6	0.9
12	ELBOW 90° LR 1-1/4"	SGP	5	1.2
13	TOE PLATE - FB 75 x 61 x 2030L	A36 OR EQ.	1 LOT	7.2
14	FRAME - C150 x 75 x 6.51 x 1080L	A36 OR EQ.	2	20.1
15	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	1	10.7
16	SUPPORT LEG - C125 x 65 x 61 x 2833L	A36 OR EQ.	2	75.9
17	FRAME - C125 x 65 x 61 x 800L	A36 OR EQ.	1	10.7
18	FLOOR GRATING - 1060 x 930 x 251	A36 OR EQ.	1	29.1
19	FLOOR GRATING - 190 x 930 x 251	A36 OR EQ.	1	5.2
20	SUPPORT - L75 x 75 x 91 x 788L	A36 OR EQ.	1	5.4
21	BRACING - L65 x 65 x 61 x 1202L	A36 OR EQ.	4	28.4
22	END PLATE - 150 x 75 x 101	A36 OR EQ.	2	1.8
23	REINFORCEMENT PAD - 125 x 125 x 121	A36 OR EQ.	2	2.9
24	ELBOW 90° SR 1-1/4"	SGP	1	0.16
25	BOLT & NUT C/W 2X WASHER M16 x 75L	GR.8.8 HDG	14	-
26	BOLT & NUT C/W 2X WASHER M20 x 85L	GR.8.8 HDG	4	-
27	BOLT & NUT C/W 2X WASHER M12 x 40L	GR.8.8 HDG	52	-
28	ANCHOR BOLT M20 x 350L	HILTI ANCHOR	8	-
TOTAL				562.5

NOTE:  
 1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.  
 2. ALL WELD TO BE IN ACCORDANCE WITH AWS-D1.1.  
 3. CUT TO SUIT

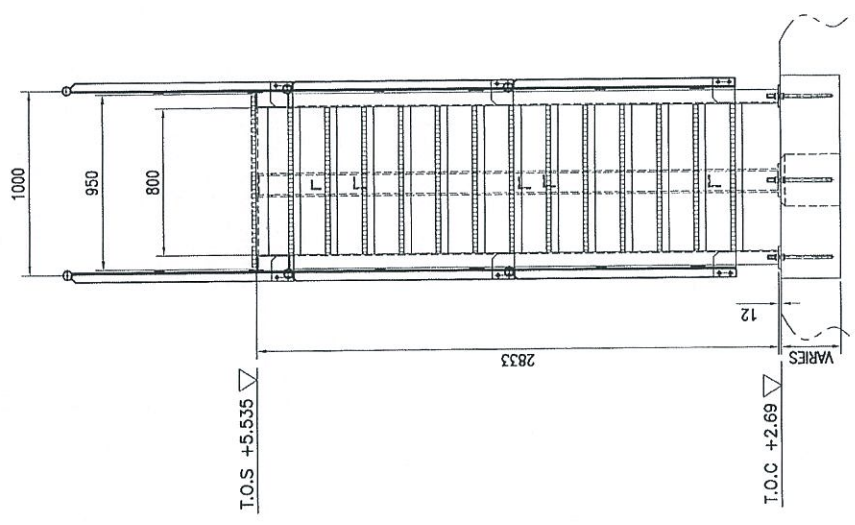
PROJECT NO. : DIALOG-06-PF-01-0302, SHT. 1-7	PROJECT GENERAL ARRANGEMENT AT LPS-302
PROJECT NAME : DIALOG-06-PF-01-0302-Rev.3	WATER PLANT FOR PHASE-1
DATE : 09/03/13	DATE : 09/03/13
BY : [Signature]	BY : [Signature]
CHECKED : [Signature]	CHECKED : [Signature]
APPROVED : [Signature]	APPROVED : [Signature]
DATE : 09/03/13	DATE : 09/03/13
FILE NAME : [Blank]	FILE NAME : [Blank]
SHT. NO. : 1	REV. : 0
REV. : 0	REV. : 0



PLAN VIEW  
SCALE 1:20



SECTION "A" - "A"  
SCALE 1:20



SECTION "B" - "B"  
SCALE 1:20

PLATFORM WITH STAIRWAY	QTY.
DESCRIPTION	1
TYPE 13-LPS-302P/AS	1
TOTAL REQ'D = 1	

STAIRWAY DETAIL (TYPE 13)  
SCALE 1:20

STAIRWAY DETAIL (TYPE 13)  
SCALE 1:20

SECTION "A" - "A"  
SCALE 1:20

SECTION "B" - "B"  
SCALE 1:20

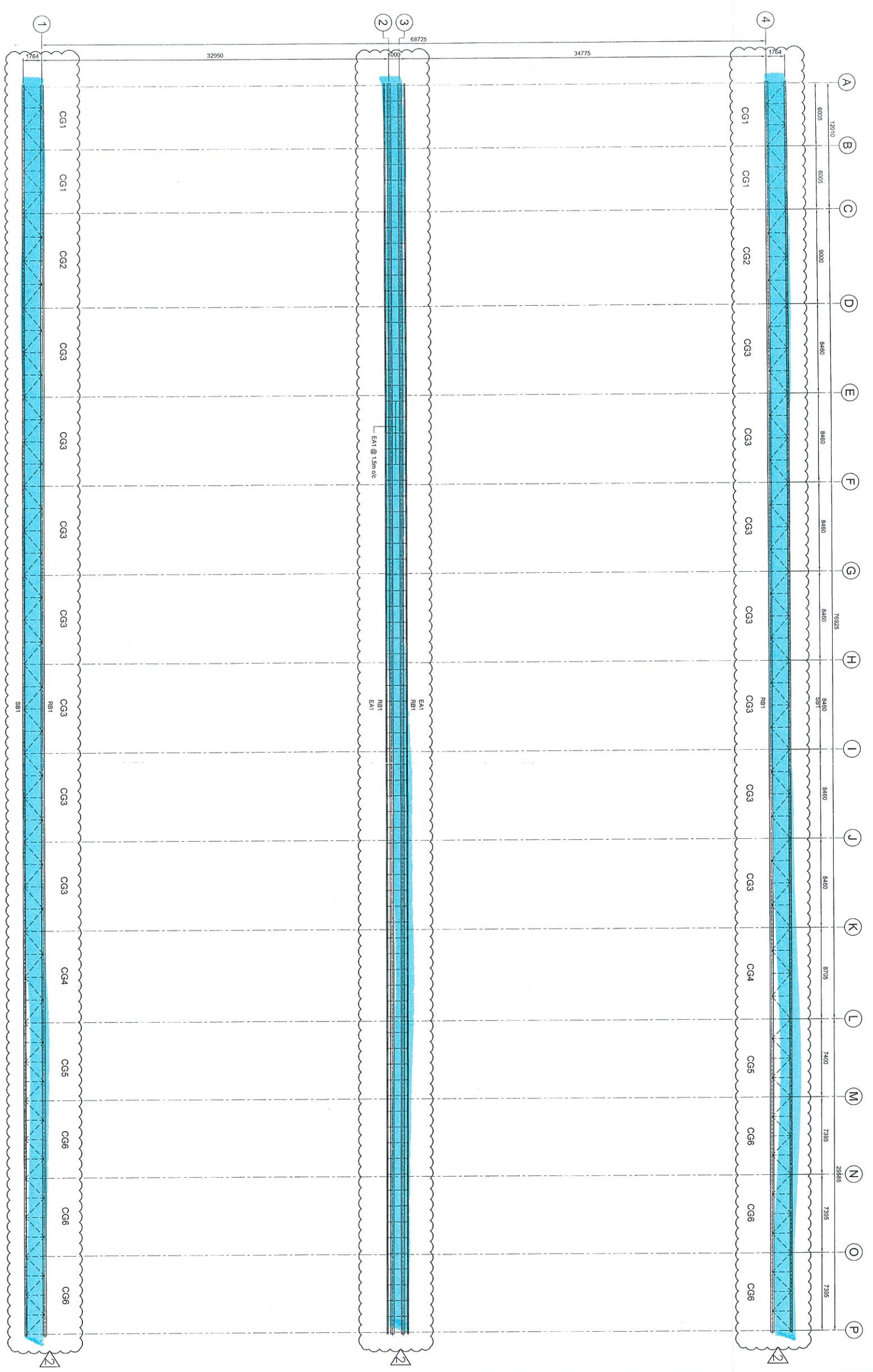
PROJECT OWNER :  
 DIALOG INDEPENDENT TERMINALS SDN. BHD.

CONSULTANT :  
 DIALOG E & C SDN. BHD. (19932-0)  
 109, BLOK G, PULAU DAMANSARA 1,  
 NO. 9, JALAN 15/11, 46350 PETALING JAYA, SELANGOR.

DRAWING TITLE :  
 LPS-302  
 STAIRWAY DETAIL  
 (TYPE-13)

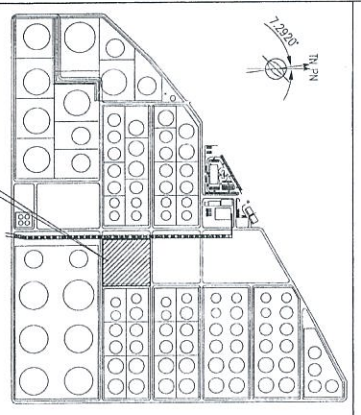
SCALE : AS SHOWN  
 CHECKED : ERICA  
 DRAWN : ZAL  
 APPROVED : LAM  
 DATE : 09/03/13  
 FILENAME :  
 DWG. NO. : DIALOG-06-PF-01-0302-Rev.3

- CRANE SUPPORT PLATFORM - LPS 302



RUNWAY BEAM LAYOUT (T.O.S. = EL+9.825m)  
SCALE 1:200

KEY PLAN



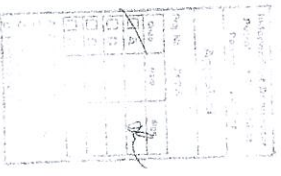
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETER AND LEVELS ARE IN METERS.
2. FOR STRUCTURE NOTES REFER DRAWING : DH0008-ENG-C-01-0001.
3. PROVIDING GENERAL MASTER PLAN REFER DRAWING : DH0008-ENG-P-0-0001.
4. FOR CRANE SUPPORT ORIGNAL LAYOUT REFER DRAWING : DH0008-ENG-C-P-0207 AND DH0008-ENG-C-P-0209.
5. FOR DETAILS REFER DRAWING : DH0008-ENG-C-P-0208.

ABBREVIATIONS:  
1) T.O.S DENOTES TOP OF STEEL.

LEGENDS:

TYPE	MARK	SIZE	REMARKS
COL/UM	C1	300x300x1200 mm UC	1 - SECTION
RUNWAY BEAM	RB1	570x200x140 mm UC	1 - SECTION
STEEL BEAM	SB1	200x200x90 mm UC	1 - SECTION
STEEL BEAM	SB2	200x100x70 mm UB	1 - SECTION
STEEL BEAM	SB3	200x100x70 mm UB	1 - SECTION
STEEL BEAM	SB4	100x100x10 mm THK	EQUAL ANGLE



NO.	ISSUED FOR CONSTRUCTION	DATE	BY	CHK'D	APPR.	DATE
1	ISSUED FOR CONSTRUCTION	08.01.13				
0	ISSUED FOR APPROVAL	27.08.12				
B	RESUB FOR REVIEW	10.05.12				
A	ISSUED FOR REVIEW	08.03.12				

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG

PROJECT OWNER :  
PENERANG INDEPENDENT TERMINALS SDN.BHD.

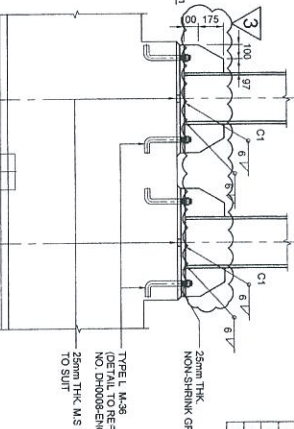
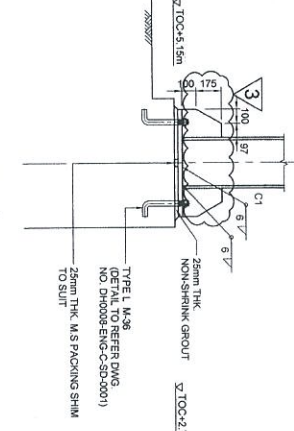
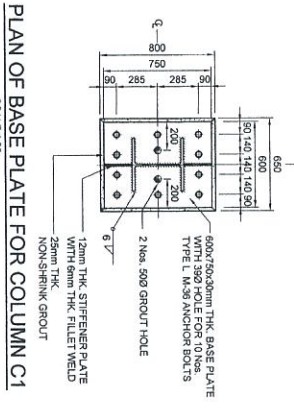
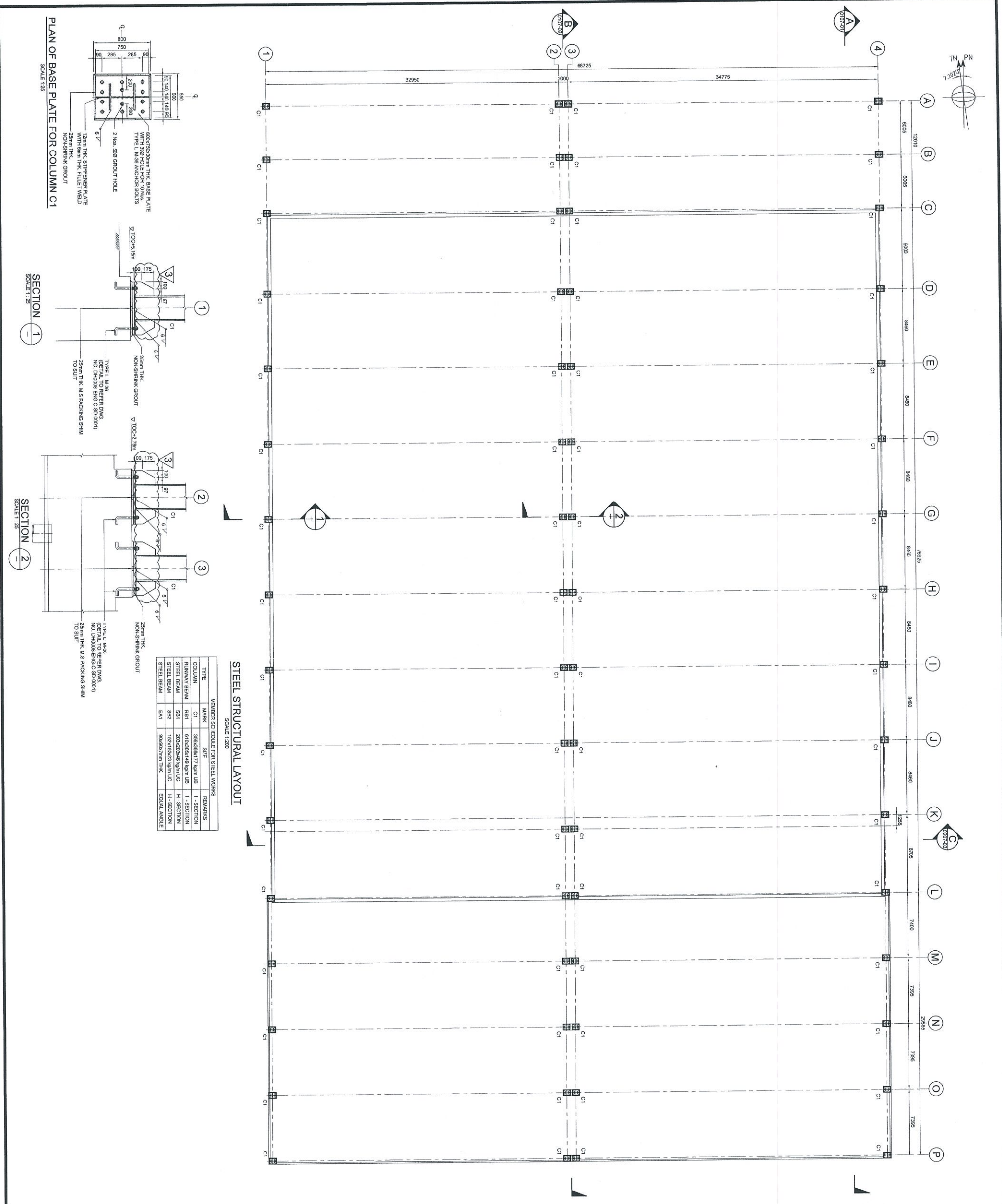
EPC CONTRACTOR :  
DIALOG E & C SDN. BHD. (18299-U)  
109, BLOCK G, PILED DAMANSARA 1,  
NO. 9, JALAN 16/11, 46350 PETALING JAYA, SELANGOR

LPS 302  
CRANE RUNWAY LAYOUT

SCALE	CHECKED	DATE	APPROVED	FILENAME	SHT. NO.	REV.
1 : 200	MKL/ZJ		LKM	DH0008-ENG-C-P-0209	1 OF 1	2

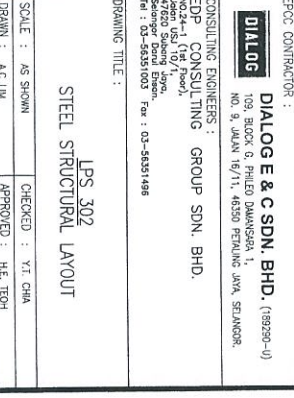






STEEL STRUCTURAL LAYOUT  
SCALE: 1:200

MEMBER SCHEDULE FOR STEEL WORKS			
TYPE	MARK	SIZE	REMARKS
COLUMN	C1	356x366x177x14	1 - SECTION
RUNWAY BEAM	RB1	610x204x49x14	H - SECTION
STEEL BEAM	SB1	203x203x46x14	H - SECTION
STEEL BEAM	SB2	125x125x23x14	H - SECTION
STEEL BEAM	EB1	100x100x11mm THK	EQUAL ANGLE



STEEL STRUCTURAL LAYOUT  
SCALE: 1:200

MEMBER SCHEDULE FOR STEEL WORKS			
TYPE	MARK	SIZE	REMARKS
COLUMN	C1	356x366x177x14	1 - SECTION
RUNWAY BEAM	RB1	610x204x49x14	H - SECTION
STEEL BEAM	SB1	203x203x46x14	H - SECTION
STEEL BEAM	SB2	125x125x23x14	H - SECTION
STEEL BEAM	EB1	100x100x11mm THK	EQUAL ANGLE

DI ATAS LOT PTD 4836, PTD 4837 DAN PTD 4838  
MUKIM PENGERANG, DAERAH KOTA TINGGI, JOHOR.

PROJECT OWNER :  
**PENGERANG INDEPENDENT TERMINALS SDN. BHD.**

EPCC CONTRACTOR :  
**DIALOG E & C SDN. BHD.** (18329-1)  
108, BLOK 8, PHASE 8, DAMANSARA UTARA,  
NO. 9, JALAN 19/11, 46200 PETALING JAYA, SELANGOR.

CONSULTING ENGINEERS :  
**LPS 302 CONSULTING GROUP SDN. BHD.**  
107, JALAN USJ 10/1,  
SUNWAY 3, 47630 SUBANG, SELANGOR.  
Tel : 03-55251003 Fax : 03-55251498

SCALE : AS SHOWN  
DRAWN : A.C. LIM  
DATE : MARCH 2012  
DWG. NO. : DH-0008-ENG-C-IP-0206

CHECKED : YI CHIA  
APPROVED : H.E. TOH  
FILENAME : DH008-ENG-C-IP-0206-3  
SHEET NO. / REV. : 1 OF 1 / 3

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
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D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

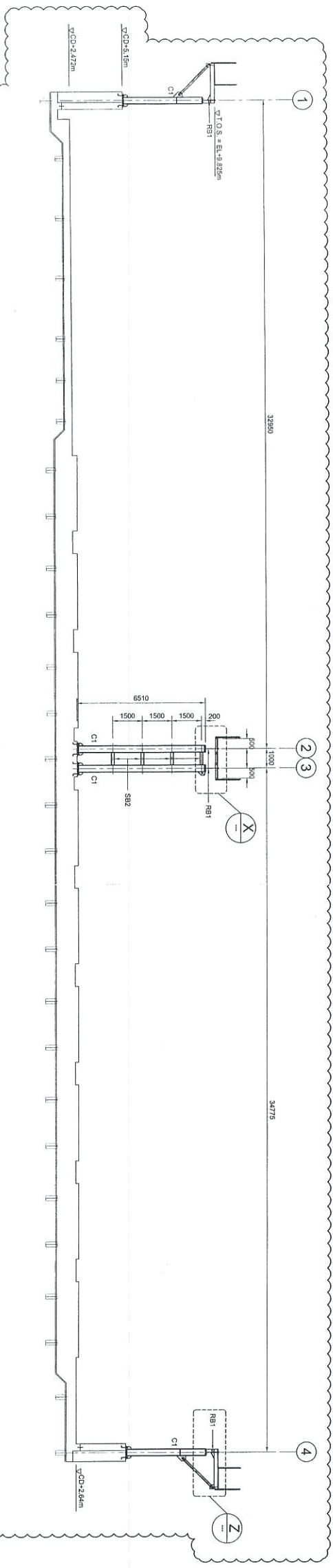
PROJECT TITLE :  
**CADANGAN MEMBINA TERMINAL PETROLIUM MARIN LAUT  
BERBAS INDEPENDENT DEEPWATER PETROLIUM TERMINAL  
YANG MENGANJUNGI :-  
A) 105 UNIT TANGKI TERMINAL  
B) 1 UNIT KEMUDAHAN MARIN  
C) BANGUNAN PELABAT 2 TINGKAT  
D) PERANGKAP ELETRIK  
E) PERANGKAP PERANGKAP  
F) KEMUDAHAN KEMUDAHAN SOKONGAN LAIN**

REVISIONS:  
1. APPROVED FOR CONSTRUCTION  
2. APPROVED FOR CONSTRUCTION  
3. RESERVE FOR REVIEW  
4. ISSUE FOR REVIEW  
5. ISSUE FOR REVIEW

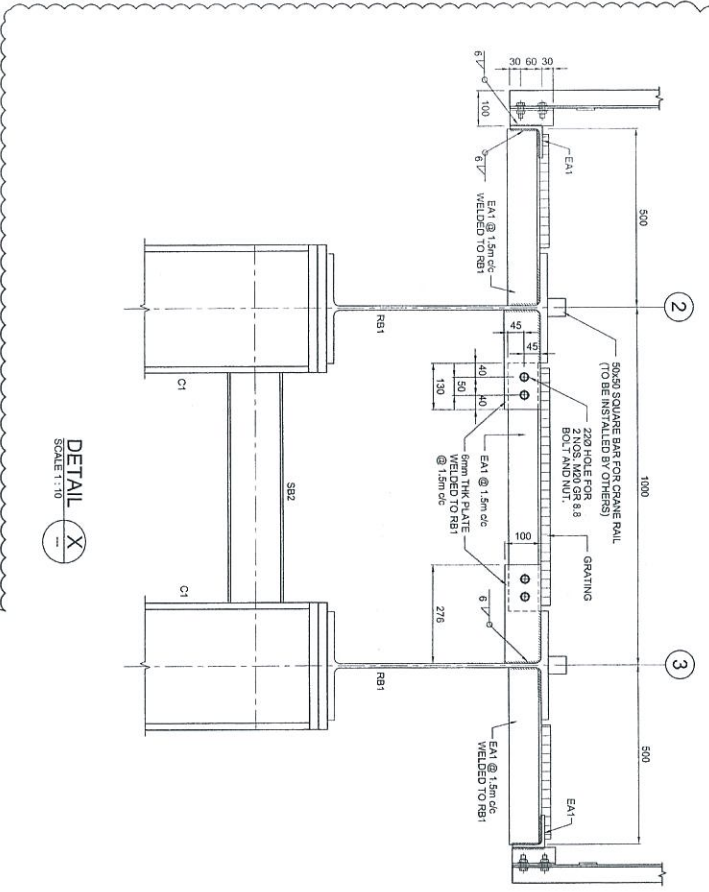


NOTES:  
1) STRUCTURAL NOTES SHALL REFER TO DWG. NO. DH0008-ENG-C-01-0001  
SHEET 1 OF 7 TO SHEET 7 OF 7.

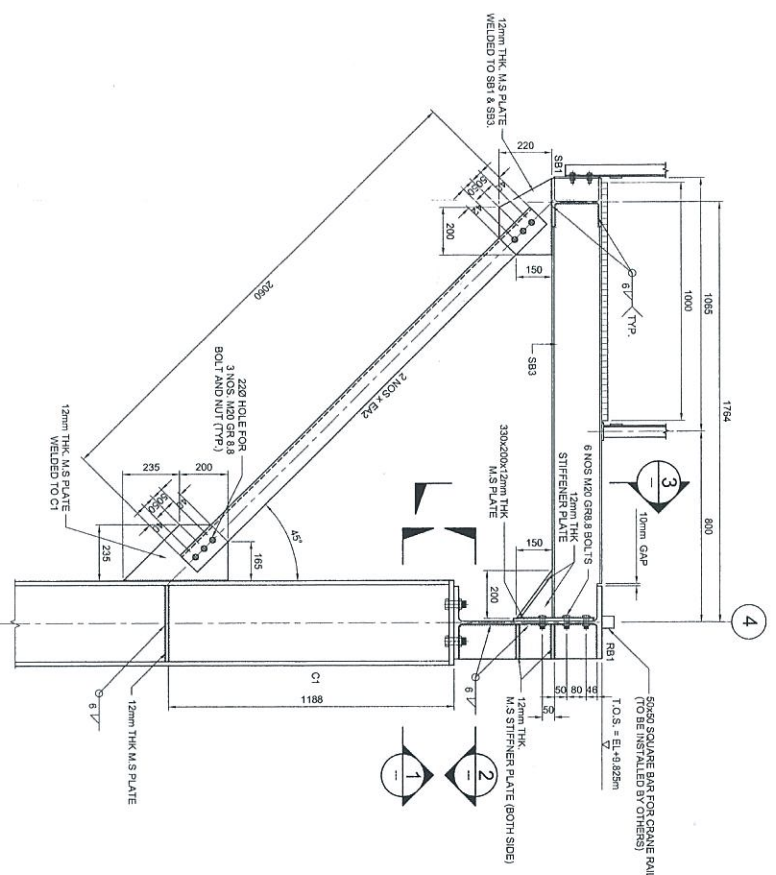




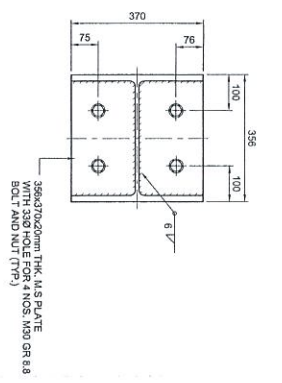
SECTION C  
SCALE 1:25



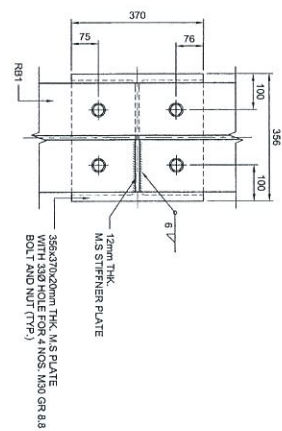
DETAIL X  
SCALE 1:10



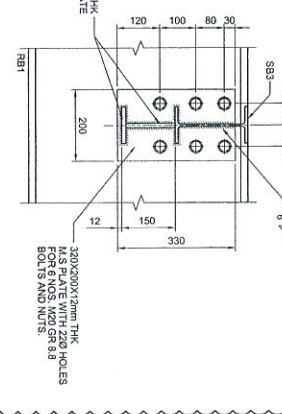
SECTION Z  
SCALE 1:15



SECTION 1  
SCALE 1:10



SECTION 2  
SCALE 1:10



SECTION 3  
SCALE 1:10

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETER AND LENGTH ARE IN METERS.
- FOR STRUCTURE NOTES REFER DIMKNO : DH0008-DWG-C-01-0001.
- FOR CRANE OVERALL LAYOUT REFER DIMKNO : DH0008-DWG-P-03-0001.
- FOR CRANE SUPPORT OVERALL LAYOUT REFER DIMKNO : DH0008-DWG-C-P-0207 AND DH0008-DWG-C-P-0208.
- FOR STAINLESS ANCHOR BOLTS DETAILS REFER DIMKNO : DH0008-DWG-C-S0-0001.
- FOR STANDARD CONNECTIONS REFER DIMKNO : DH0008-DWG-C-S0-0011 TO 0020.
- FOR STANDARD GRATING DETAILS REFER DIMKNO : DH0008-DWG-C-S0-0002.
- FOR STEEL HANDRAIL DETAIL REFER DIMKNO : DH0008-DWG-C-S0-0003.

ABBREVIATIONS:

87/04-01 : 81 = MEMBER SIZE & CM-01 = CONNECTION TYPE

LEGENDS:

TYPE	MARK	SIZE	REMARKS
COLUMN	C1	384x384x129 ipm UB	I - SECTION
RUNWAY BEAM	RB1	610x206x148 ipm UB	I - SECTION
STEEL BEAM	SB2	203x203x48 ipm UC	I - SECTION
STEEL BEAM	SB3	152x152x23 ipm UB	H - SECTION
STEEL BEAM	SB4	203x102x22 ipm UB	I - SECTION
STEEL BEAM	E1	90x60x6mm THK	EQUAL ANGLE
STEEL BEAM	E2	100x100x10mm THK	EQUAL ANGLE



PROJECT TITLE :  
**INDEPENDENT DEEPWATER PETROLEUM TERMINAL AT PENGERANG**

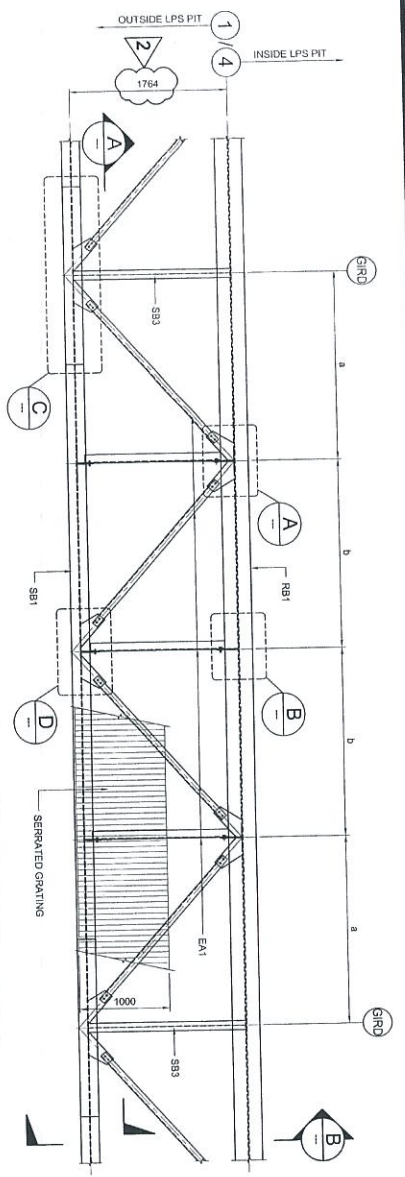
PROJECT OWNER :  
**PENGERANG INDEPENDENT TERMINALS SDN.BHD.**

EPCC CONTRACTOR :  
**DIALOG E & C SDN. BHD. (197296-0)**  
109, BLOCK 6, PULAU DUMANSARA 1,  
NO. 9, JALAN 19/11, 46350 FELDANG JAYA, SELANGOR

STEEL STRUCTURE DETAILS

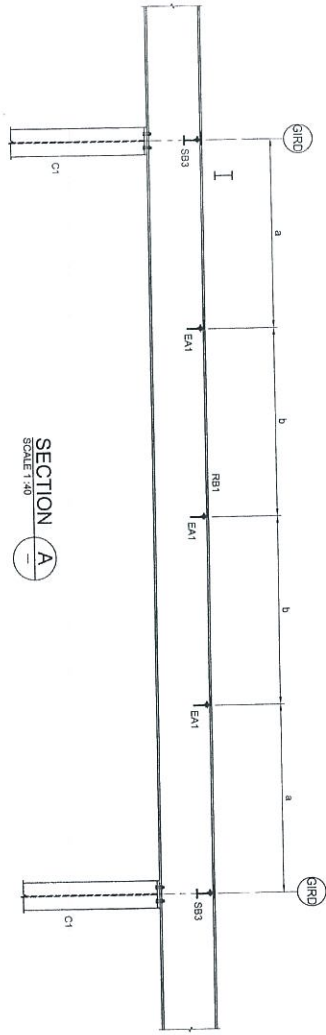
SCALE	DRAWN	DATE	CHECKED	APPROVED	FILE NAME	SHT. NO.	REV.
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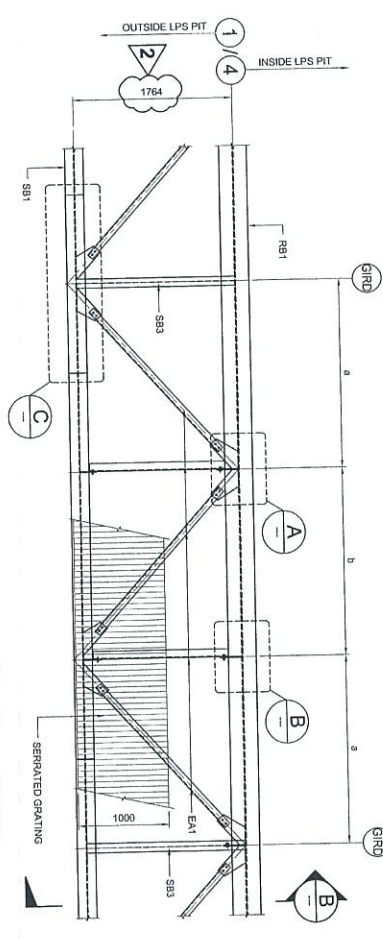


DETAIL OF CRANE GIRDER CG2, CG3, CG4, CG5 AND CG6 (PLAN - T.O.S.=+EL9.825)

GIRDER NO	a	b
CG2	2250	2250
CG3	2115	2115
CG4	2150	2202.5
CG5	1850	1850
CG6	1850	1847.5

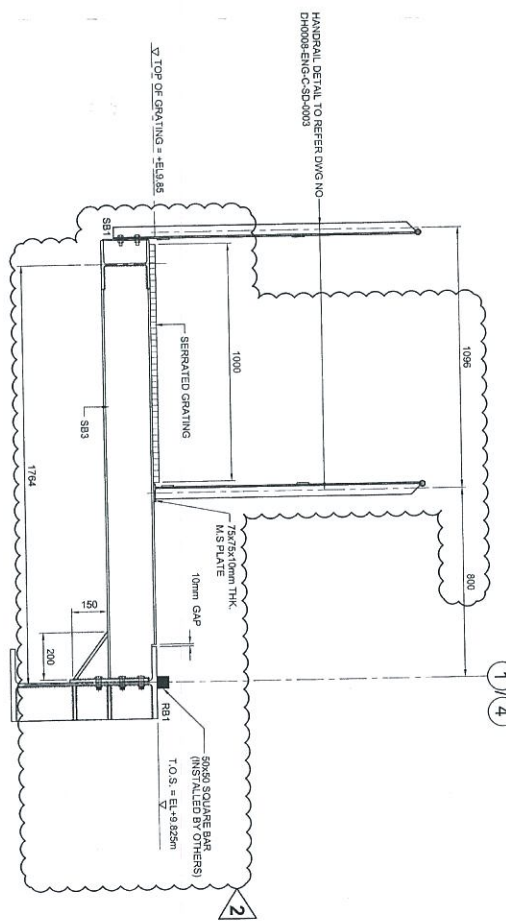


SECTION A-A  
SCALE 1:40

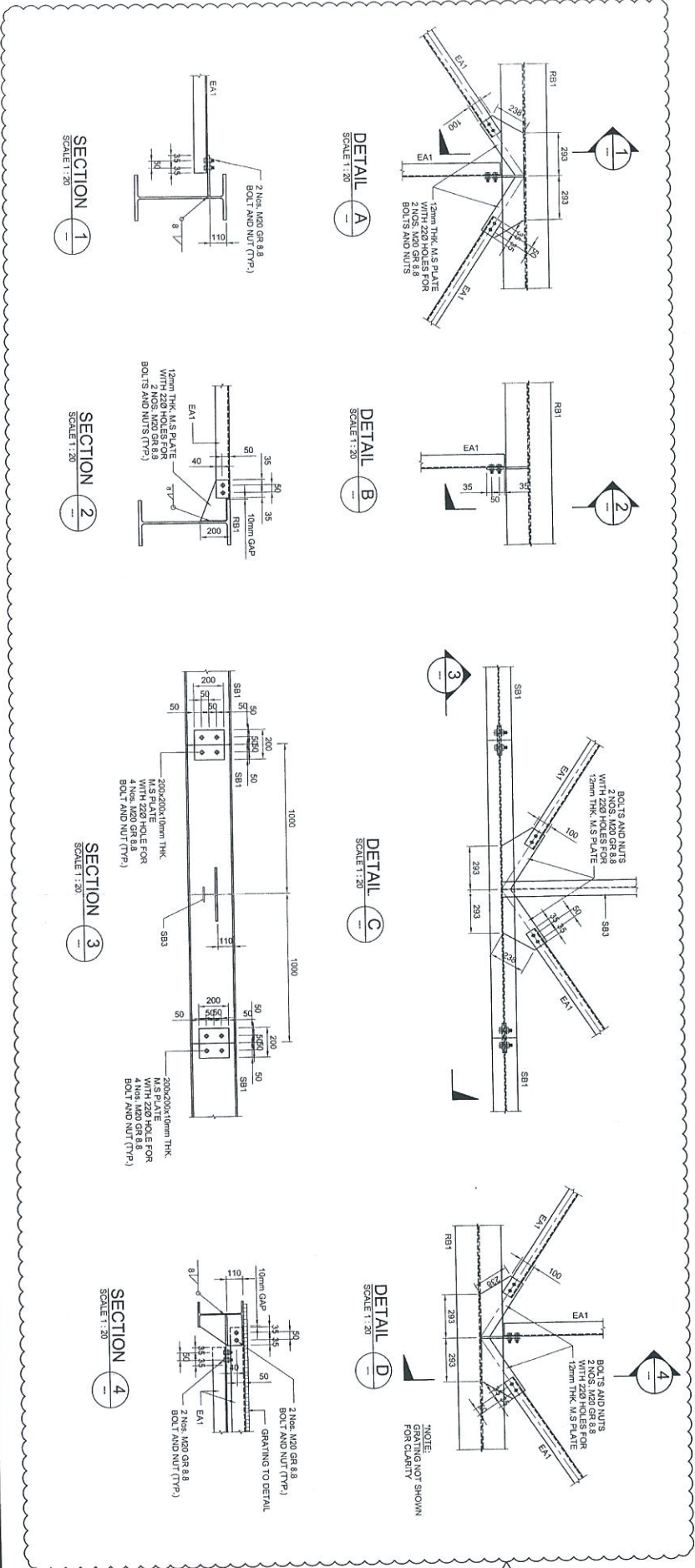


DETAIL OF CRANE GIRDER CG1 (PLAN - T.O.S.=+EL9.825)

GIRDER NO	a	b
CG1	2000	2005



SECTION B-B  
SCALE 1:15



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS.
2. FOR STRUCTURE NOTES REFER DWG NO : DH008-ENG-C-01-0001.
3. PROGRAMING DETAIL REFER PLAN REFER DWG NO : DH008-ENG-C-01-0001.
4. FOR COARCE SUPPORT OVERALL LENGTH REFER DWG NO : DH008-ENG-C-01-0007 AND DH008-ENG-C-01-0009.
5. FOR STANDARD ANCHOR BOLTS DETAILS REFER DWG NO : DH008-ENG-C-01-0001.
6. FOR STANDARD CONNECTIONS REFER DWG NO : DH008-ENG-C-01-0011 TO 0020.
7. FOR STANDARD BRACING DETAILS REFER DWG NO : DH008-ENG-C-01-0007.
8. FOR STEEL WAREHOUSE DETAIL REFER DWG NO : DH008-ENG-C-01-0003.

ABBREVIATIONS:

B1/CM-01 : B1 = MEMBER SIZE & CM-01 = CONNECTION TYPE.

LEGENDS:

MEMBER SCHEDULE FOR STEEL WORKS	TYPE	MARK	SIZE	REMARKS
COLUMN	CI	350x350x73	mm UB	1 - SECTION
BEAM	SB1	670x254x49	mm UB	1 - SECTION
STEEL BEAM	SB2	203x133x46	mm UC	1 - SECTION
STEEL BEAM	SB3	150x152x23	mm UB	1 - SECTION
STEEL BEAM	EA2	900x60mm	THK	EQUAL ANGLE
STEEL BEAM	EA2	100x100x10mm	THK	EQUAL ANGLE

NO	ISSUED FOR CONSTRUCTION	DATE	BY	CHK'D	APPR.	DATE
1	ISSUED FOR CONSTRUCTION	04.07.13	WKL/ZL	WKL		15.03.13
2	ISSUED FOR APPROVAL	27.08.12	WKL/ZL	WKL		04.07.13
3	ISSUED FOR REVIEW	06.03.12	WKL/ZL	WKL		06.03.12

PROJECT TITLE :  
INDEPENDENT DEEPWATER PETROLEUM  
TERMINAL AT PENGERANG

PROJECT OWNER :  
PENGERANG INDEPENDENT TERMINALS SDN.BHD.

EPCC CONTRACTOR :  
DIALOG E & C SDN. BHD. (18929-U)  
109, BLOCK 2, PHELO DAMANSARA 1,  
NO. 9, JALAN 16/71, 46350 PETALING JAYA, SELANGOR

DRAWING TITLE :  
LPS 302  
STEEL STRUCTURE DETAILS

SCALE	CHECKED	DATE	APPROVED	DATE	FILE NAME	REV.
AS SHOWN	WKL/ZL	12.12.12	WKL	12.12.12	DH008-ENG-C-LP-0210	1
						2

