

EEC Engineering Network Co., Ltd.



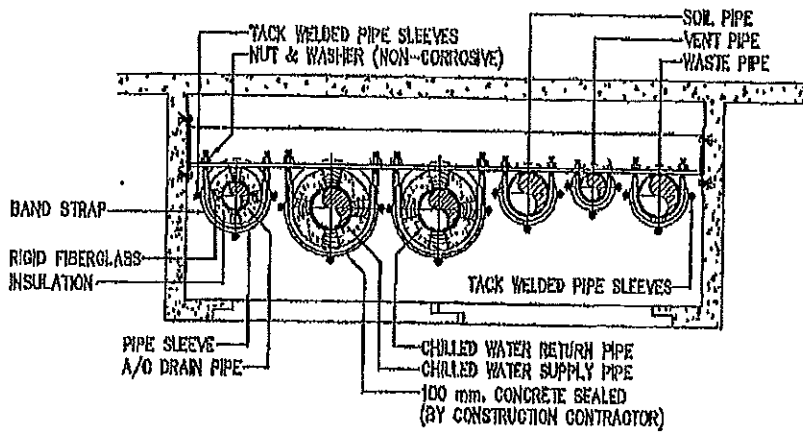
PIPE CONNECTION BETWEEN CAST-IRON PIPE  
AND PVC PIPE

CAD FILE : TDSPPI2D

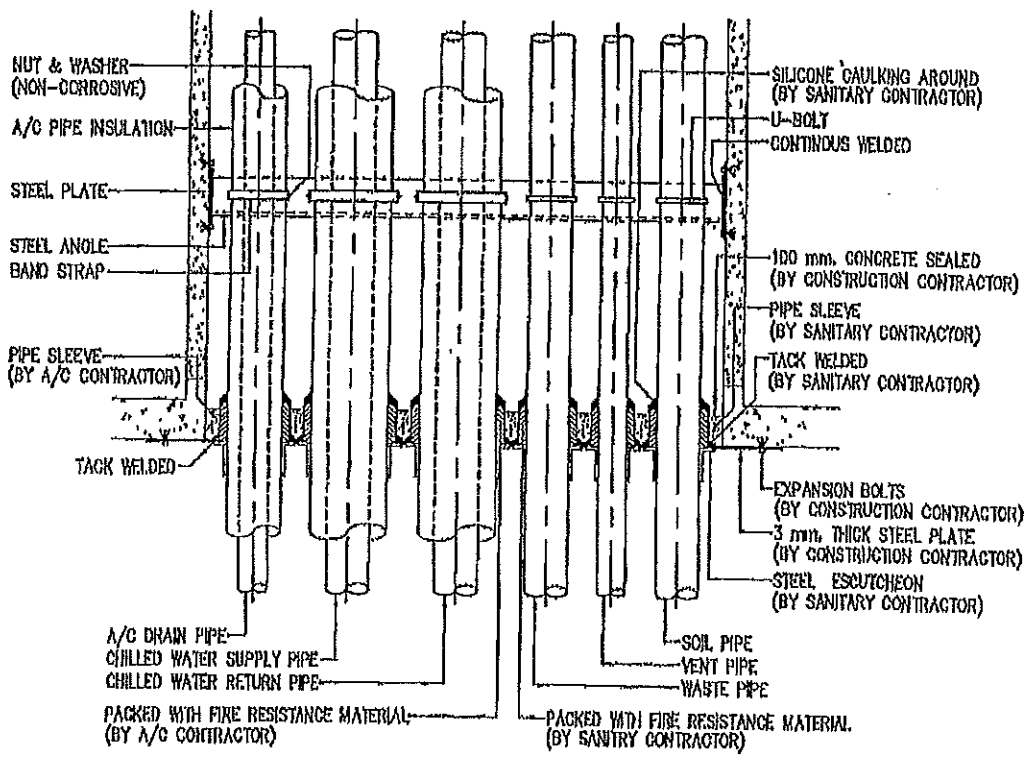
REV:      DATE:

CHECKED BY:

SHEET NO.      48



PIPE SHAFT (PLAN)



PIPE SHAFT (SECTION)

EEC Engineering Network Co., Ltd.



EEC ENGINEERING NETWORK

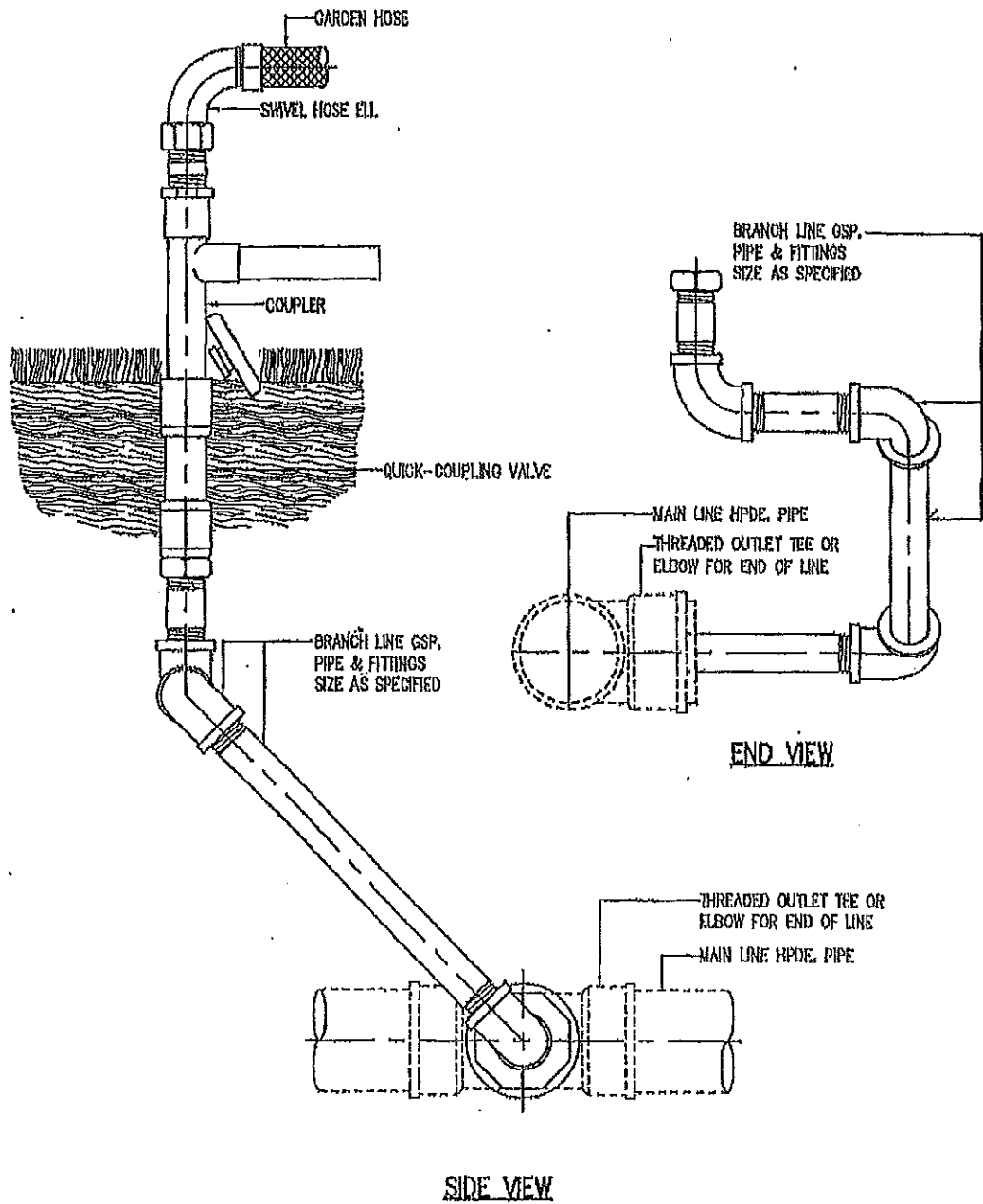
FIRE BARRIER INSTALLATION IN PIPE SHAFT

CAD FILE: TDSPP130

REV: DATE:

CHECKED BY:

SHEET NO. 49



EEC Engineering Network Co., Ltd.



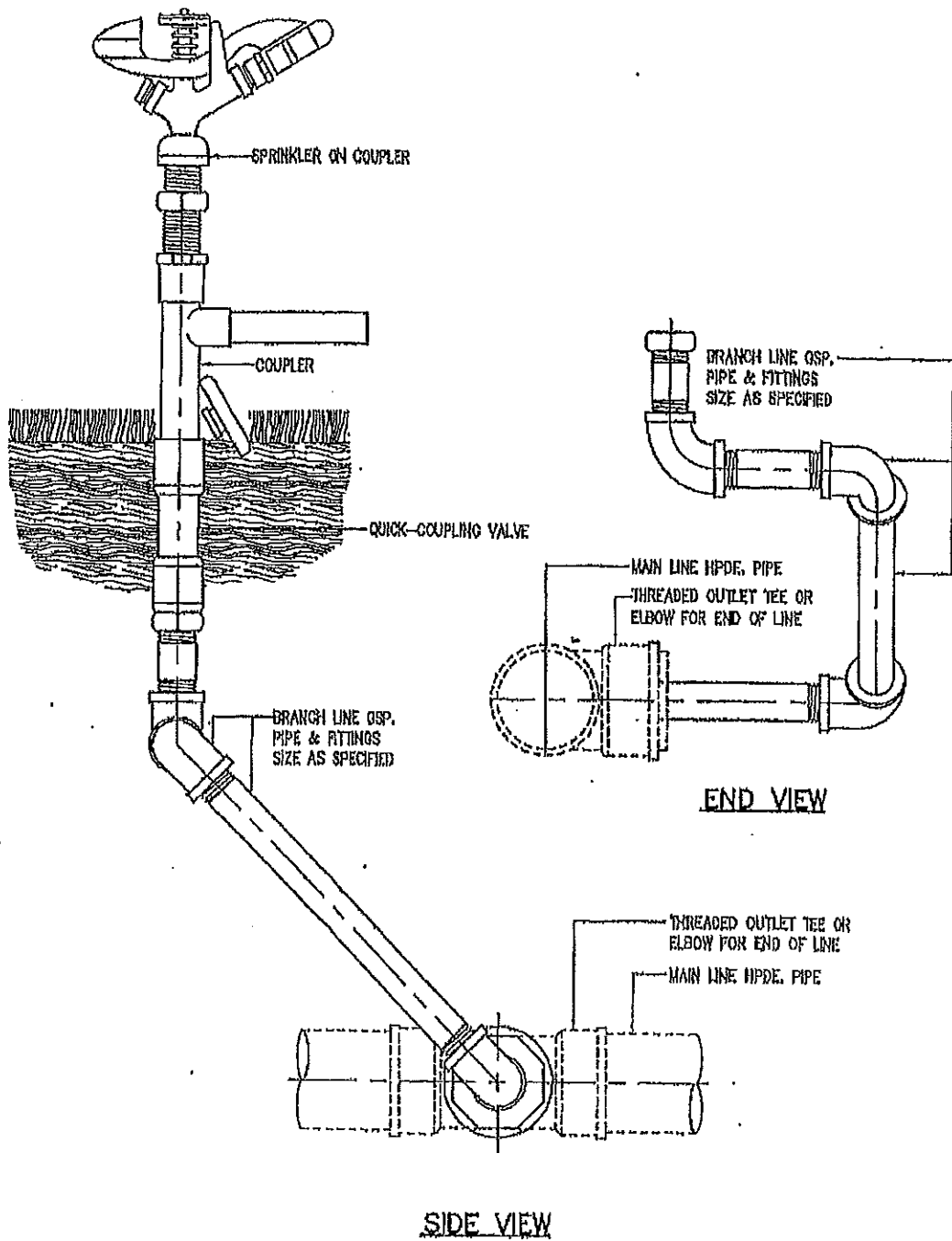
TYPICAL EXAMPLE OF QUICK-COUPLING  
ON SWING JOINT RISER

OAD FILE: TDSPP13B

REV:      DATE:

CHECKED BY:

SHEET NO.      50



EEC Engineering Network Co., Ltd.



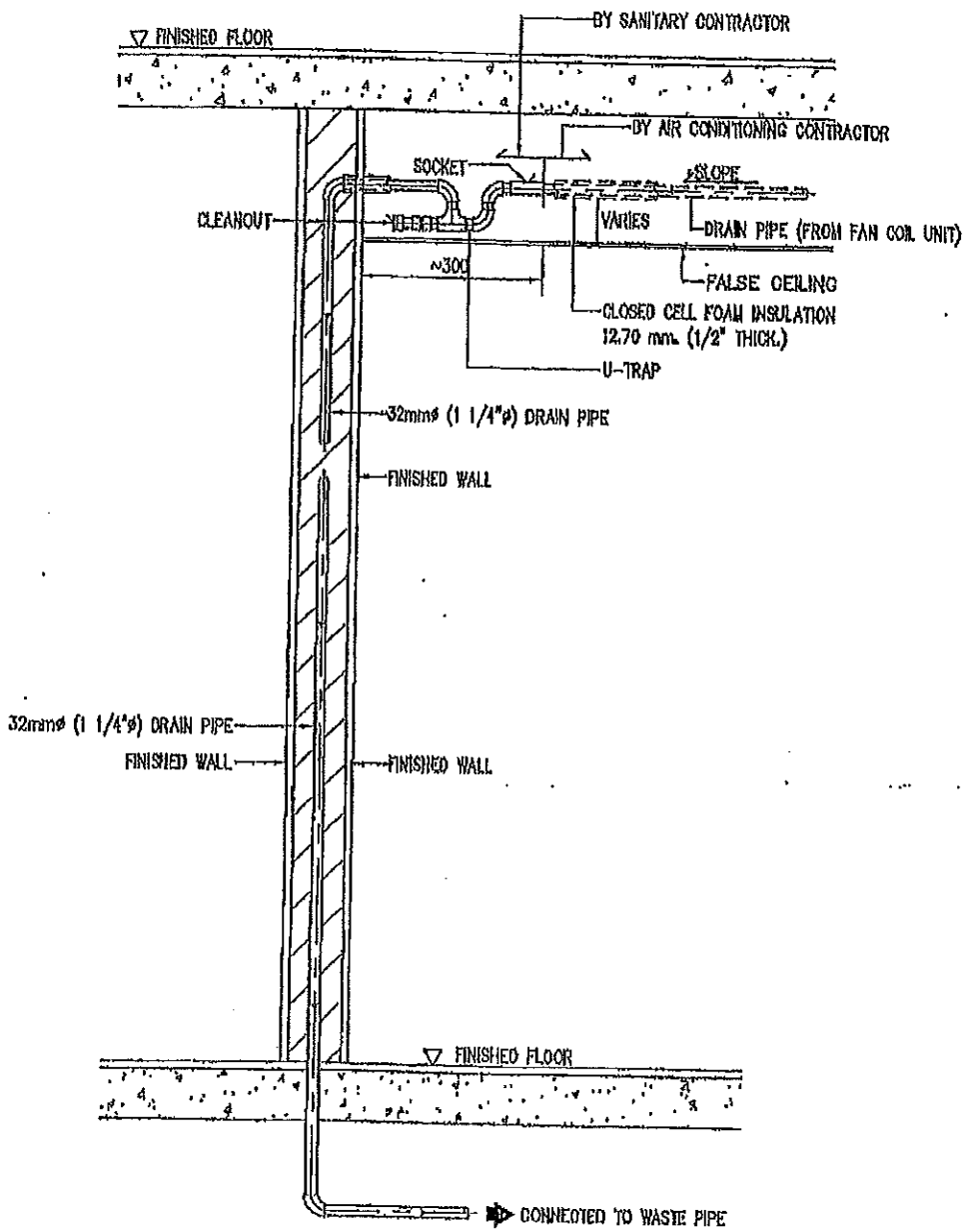
TYPICAL EXAMPLE OF QUICK-COUPLING  
ROTARY SPRINKLER ON SWING JOINT RISER

CAD FILE: TDSPP130

REV: DATE:

CHECKED BY:

SHEET NO. 51



NOTE : SOCKET SHALL BE PROVIDED BY SANITARY CONTRACTOR.

EEC Engineering Network Co., Ltd.



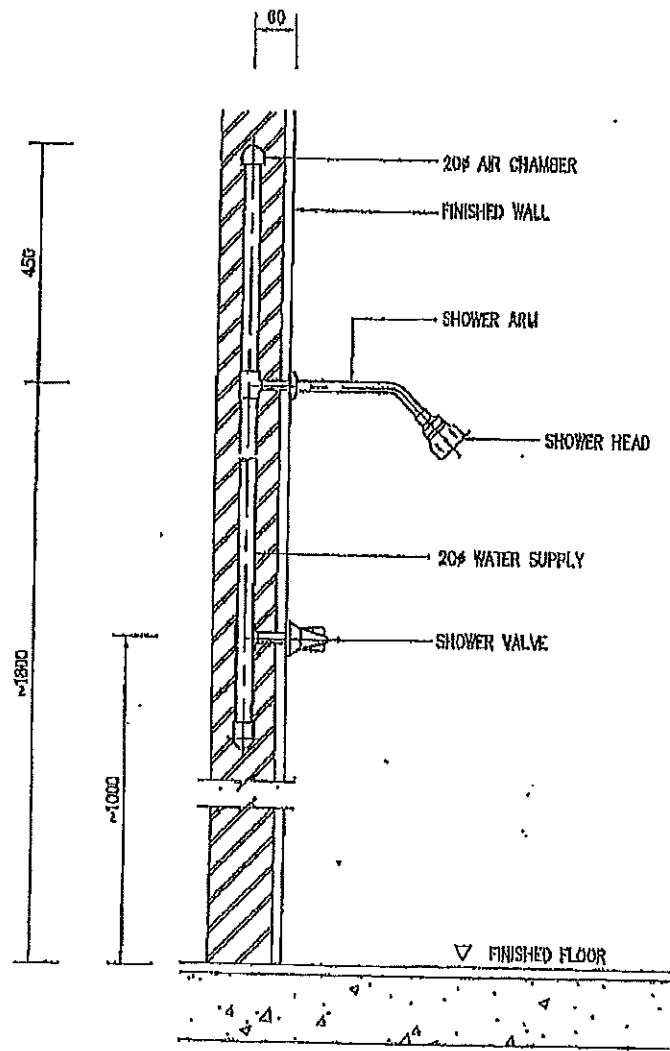
FCU, DRAIN PIPE CONNECTION (ELEVATION)

CAD FILE : TDSPP140

REV :      DATE :

CHECKED BY :

SHEET NO.      52



- NOTE: 1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.  
 2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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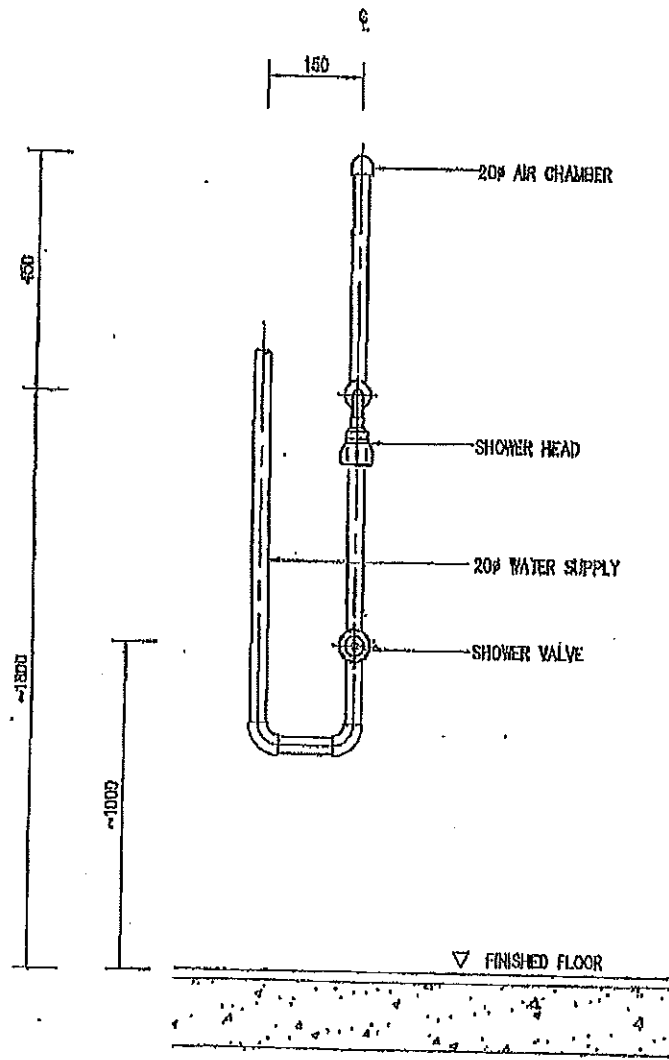
SHOWER (ELEVATION)

CAD FILE: 103SH02E

REV:      DATE:

CHECKED BY:

SHEET NO.      53



EEC Engineering Network Co., Ltd.



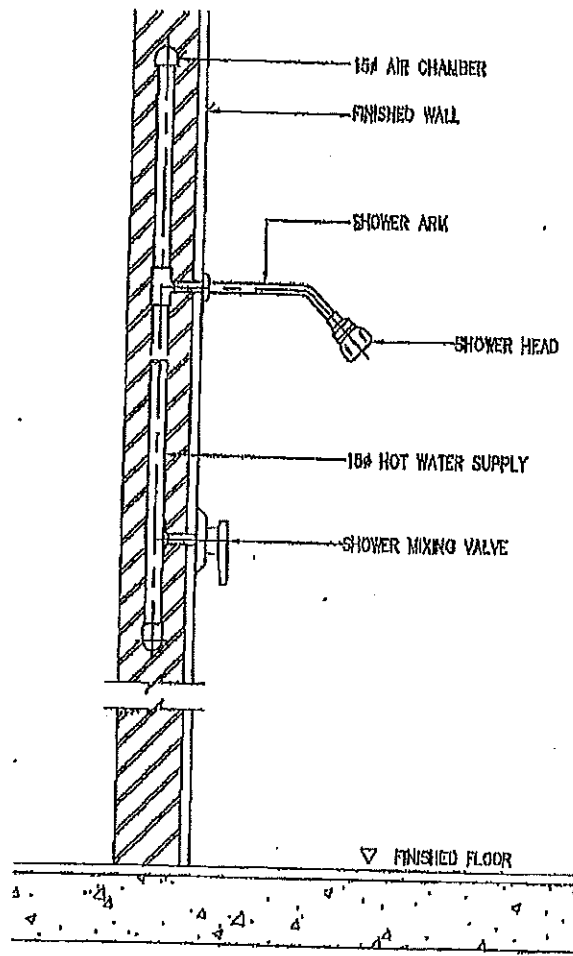
SHOWER (FRONT VIEW)

GAD FILE: TDSSH02F

REV: DATE:

CHECKED BY:

SHEET NO. 54



NOTE 1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.  
 2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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SHOWER (ELEVATION)

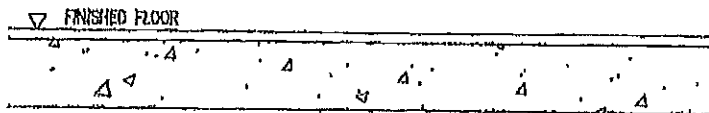
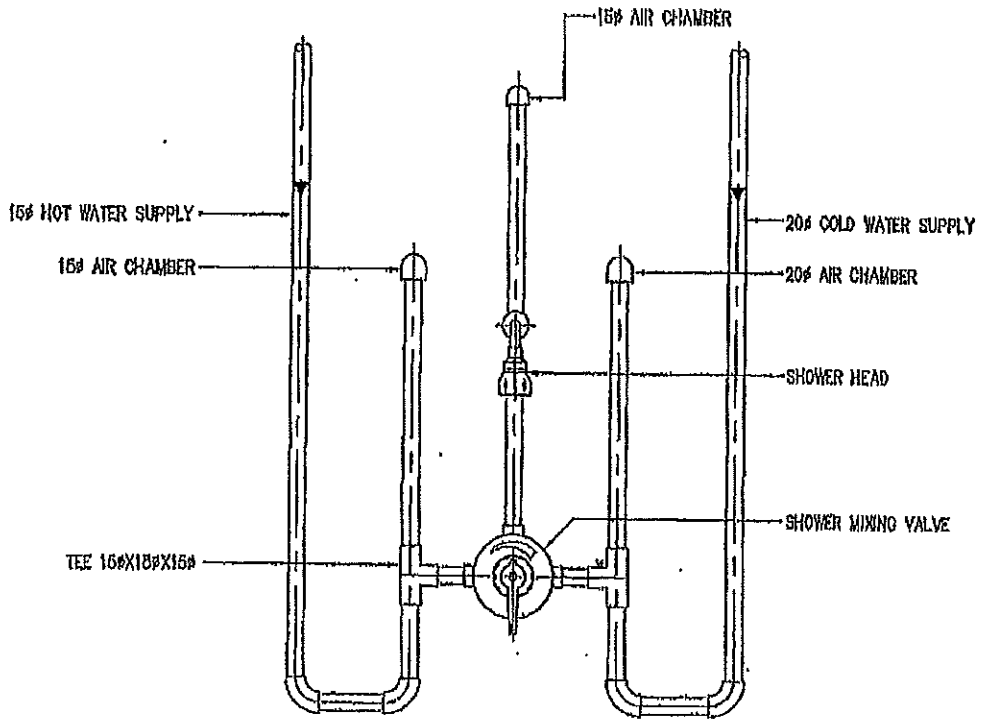
CAD FILE: TOSSH02E

REV:      DATE:

CHECKED BY:

SHEET NO.      55





EEC Engineering Network Co., Ltd.



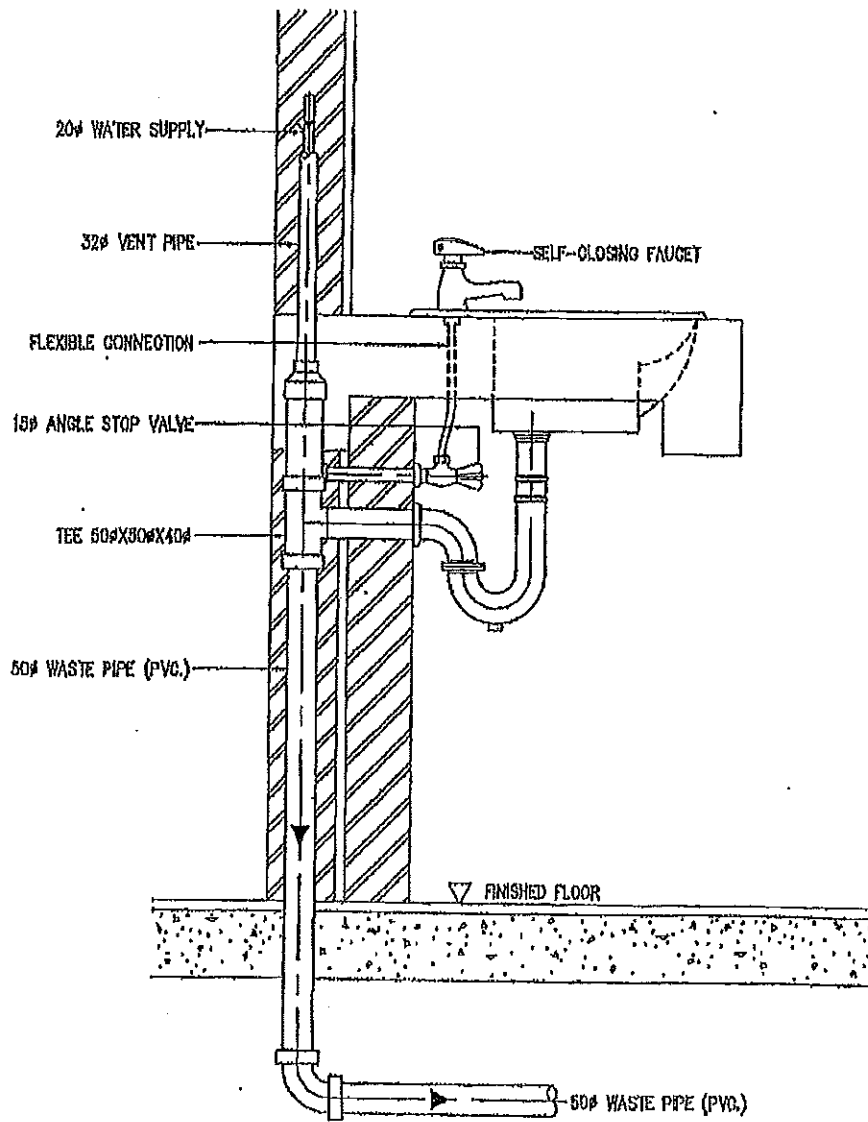
SHOWER (FRONT VIEW)

QAD FILE: TDSSH03F

REV: DATE:

CHECKED BY:

SHEET NO. 56



LAVATORY WITH SELF-CLOSING FAUCET

- NOTE:** 1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.  
 2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

EEC Engineering Network Co., Ltd.



EEC ENGINEERING NETWORK

LAVATORY (ELEVATION)

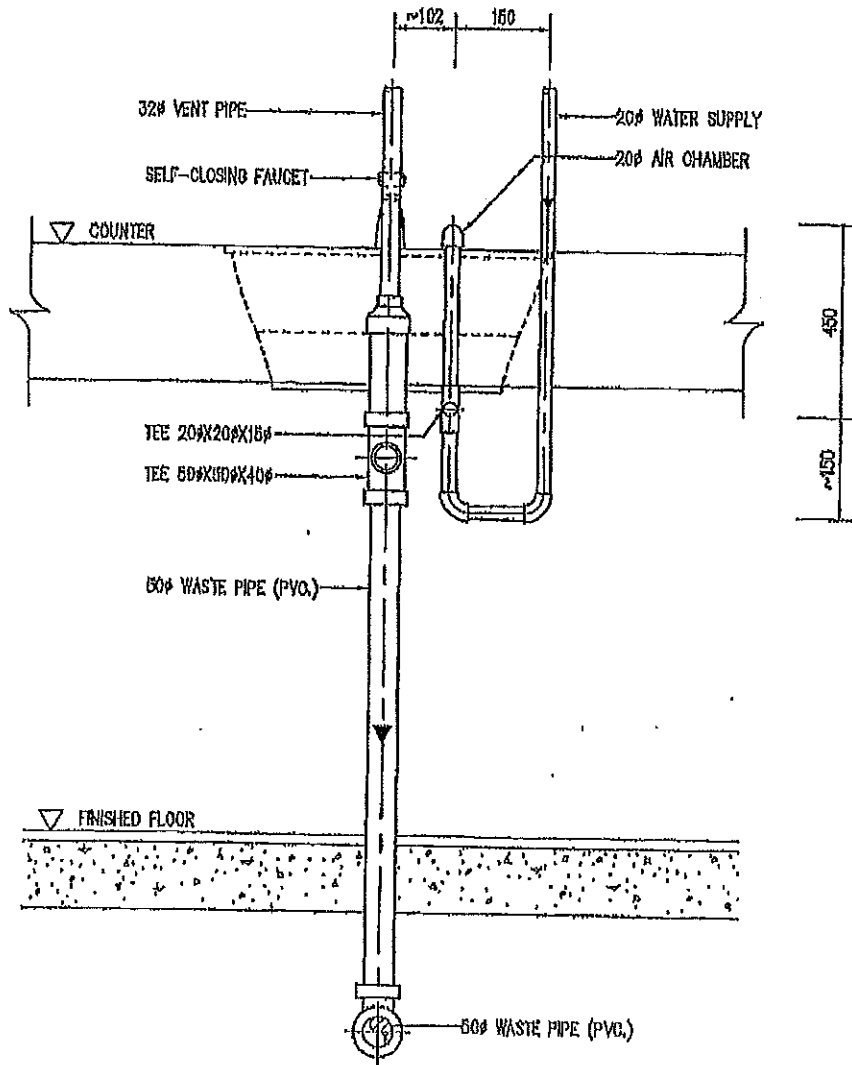
CAD FILE: TDSLVD4E

REV: DATE:

CHECKED BY:

SHEET NO.

57



LAVATORY WITH SELF-CLOSING FAUCET

EEC Engineering Network Co., Ltd.



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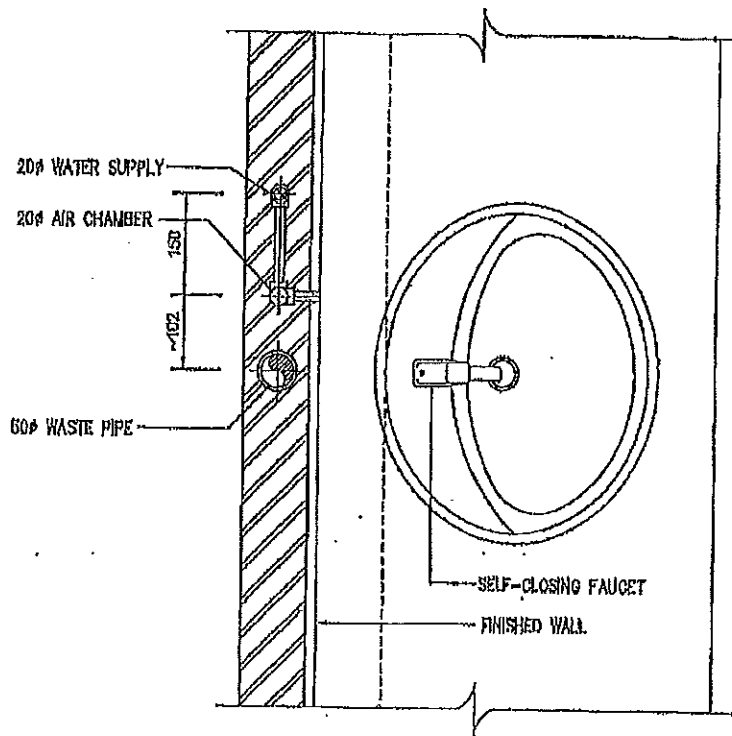
LAVATORY (FRONT VIEW)

CAD FILE: 7051.V04F

REV: DATE:

CHECKED BY:

SHEET NO. 58



LAVATORY WITH SELF-CLOSING FAUCET

EEC Engineering Network Co., Ltd.



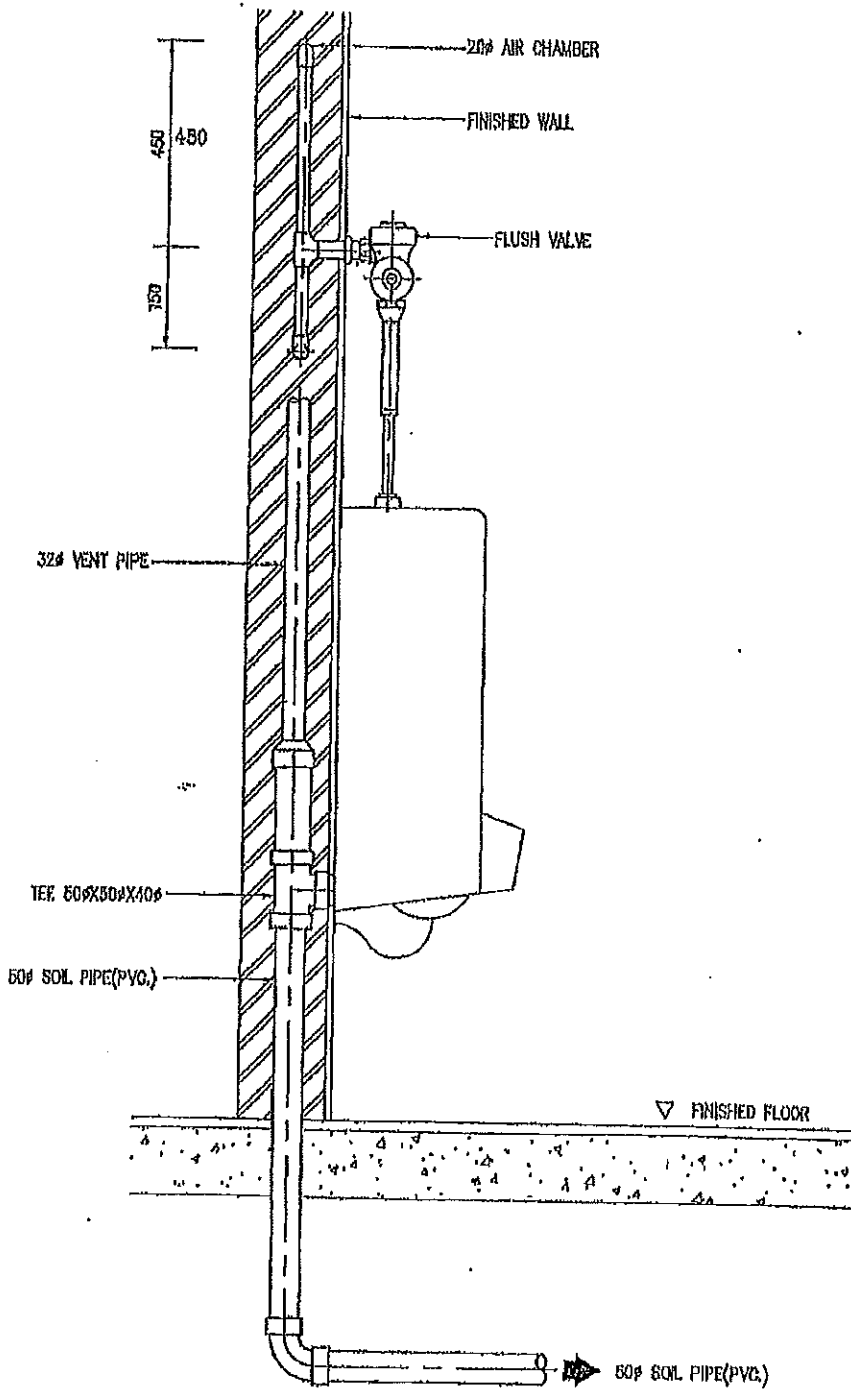
LAVATORY (TOP VIEW)

OAD FILE: TDSL04T

REV: DATE:

CHECKED BY:

SHEET NO. 59



**NOTE 1**

1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATE.
2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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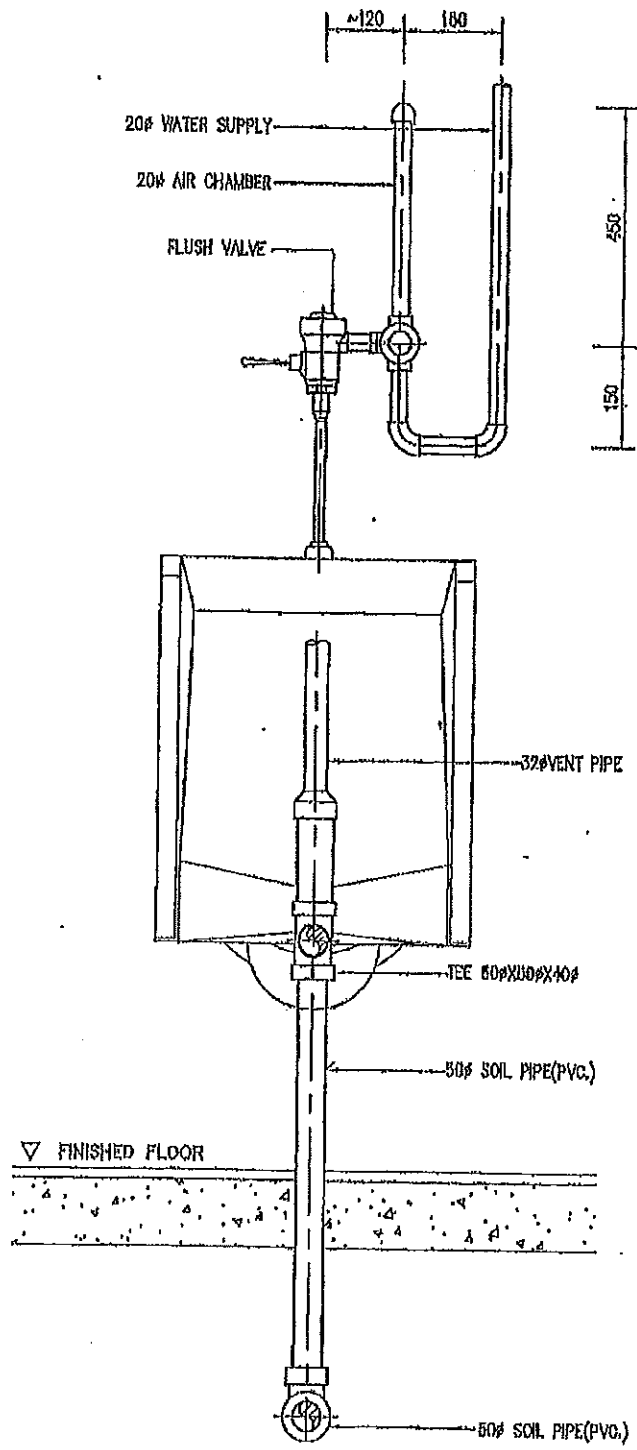
URINAL FLUSH VALVE (ELEVATION)

CAD FILE: TDSUR08E

REV:      DATE:

CHECKED BY:

SHEET NO.      60



EEC Engineering Network Co., Ltd.



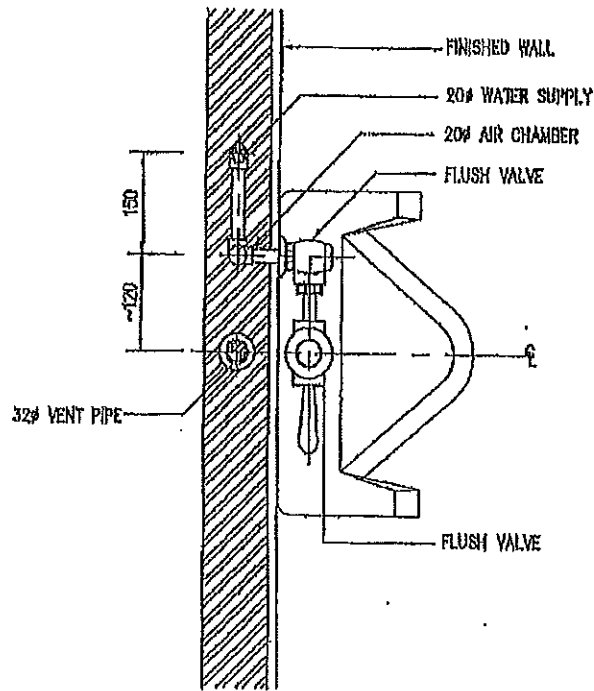
URINAL FLUSH VALVE (FRONT VIEW)

CAD FILE: TDSUR01F

REV: DATE:

CHECKED BY:

SHEET NO. 61



**NOTE :**

1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.
2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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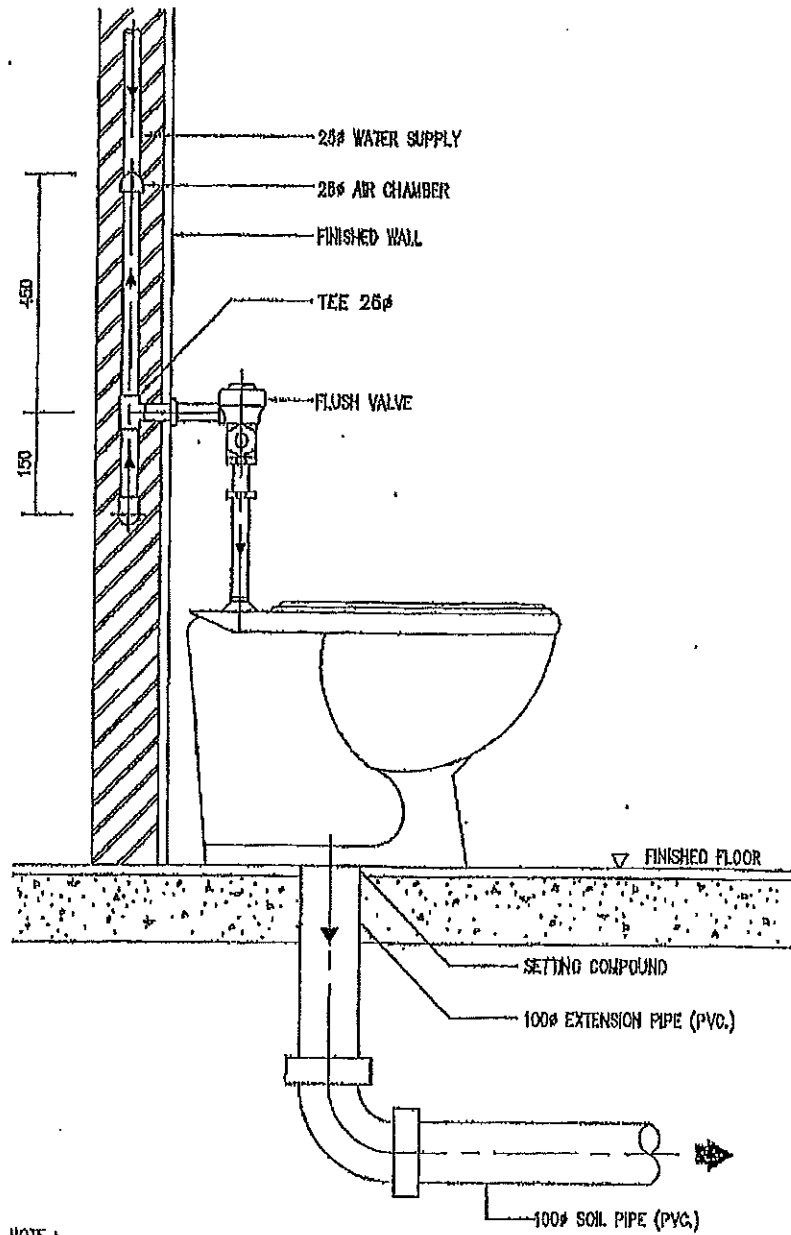
URINAL FLUSH VALVE (TOP VIEW)

CAD FILE : TDSUR00T

REV :      DATE :

CHECKED BY :

SHEET NO.      62



**NOTE :**

1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.
2. CHROME-PLATED ESCHTOCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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WATER CLOSET FLUSH VALVE (ELEVATION)

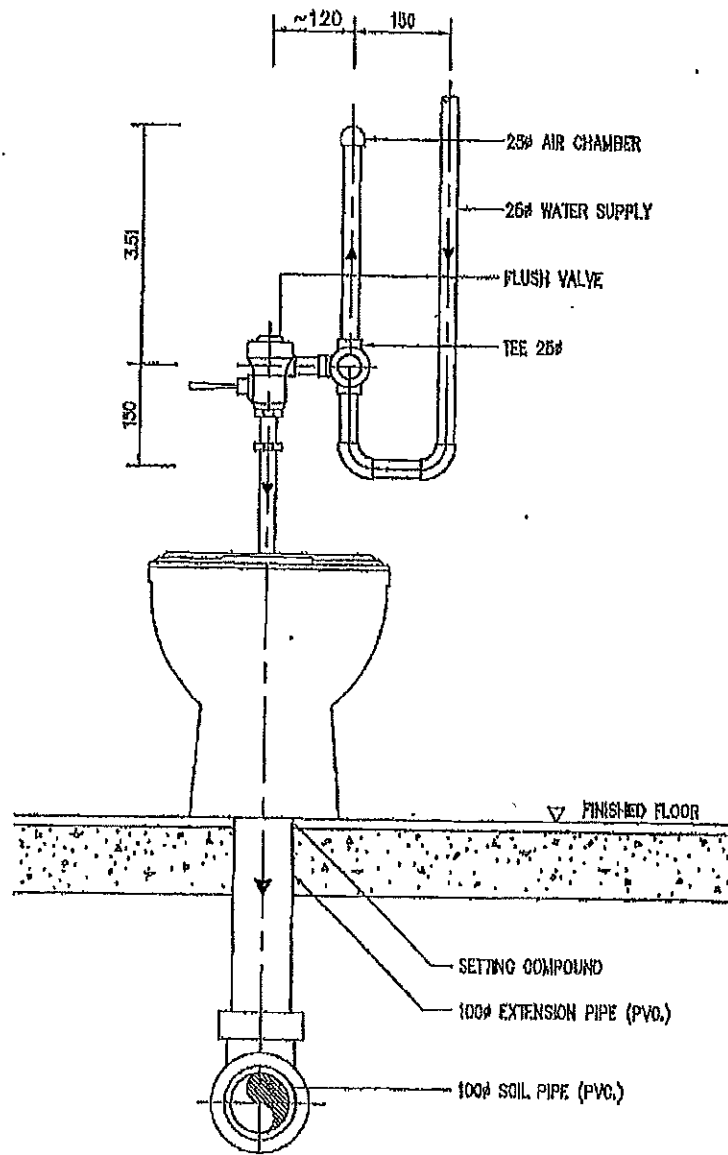
CAD FILE: TDSWGOBE

REV:      DATE:

CHECKED BY:

SHEET NO.      63





EEC Engineering Network Co., Ltd.



WATER CLOSET FLUSH VALVE (FRONT VIEW)

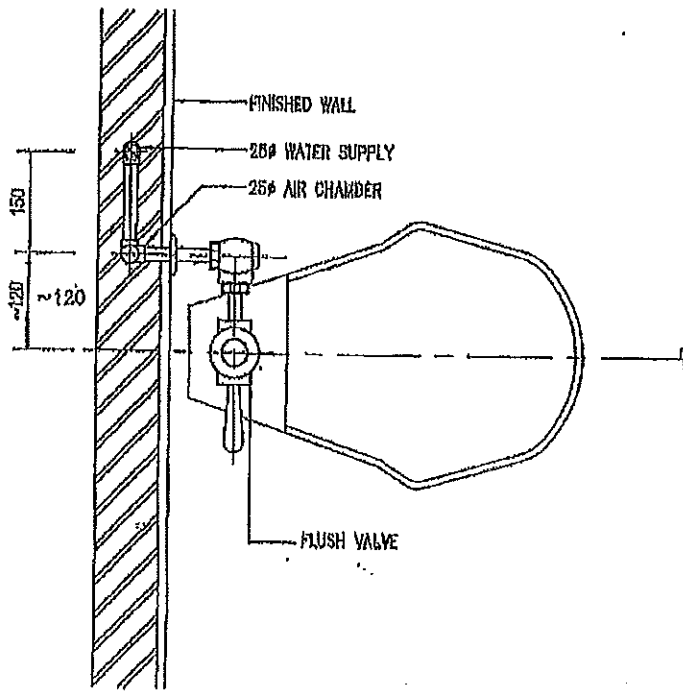
QAD FILE: TDSWGORF

REV: DATE:

CHECKED BY:

SHEET NO.

64



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WATER CLOSET FLUSH VALVE (TOP VIEW)

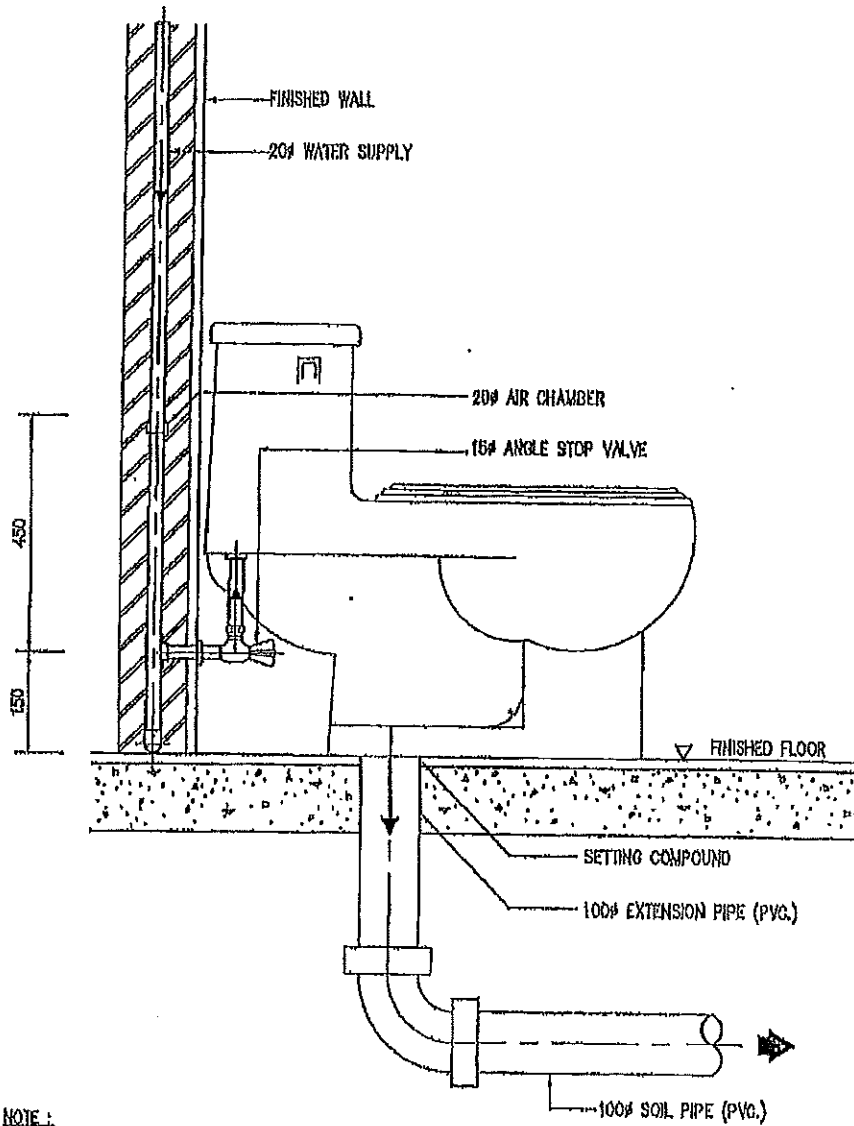
CAD FILE: TDSV/C00T

REV:      DATE:

CHECKED BY:

SHEET NO.

65



**NOTE :**

1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.
2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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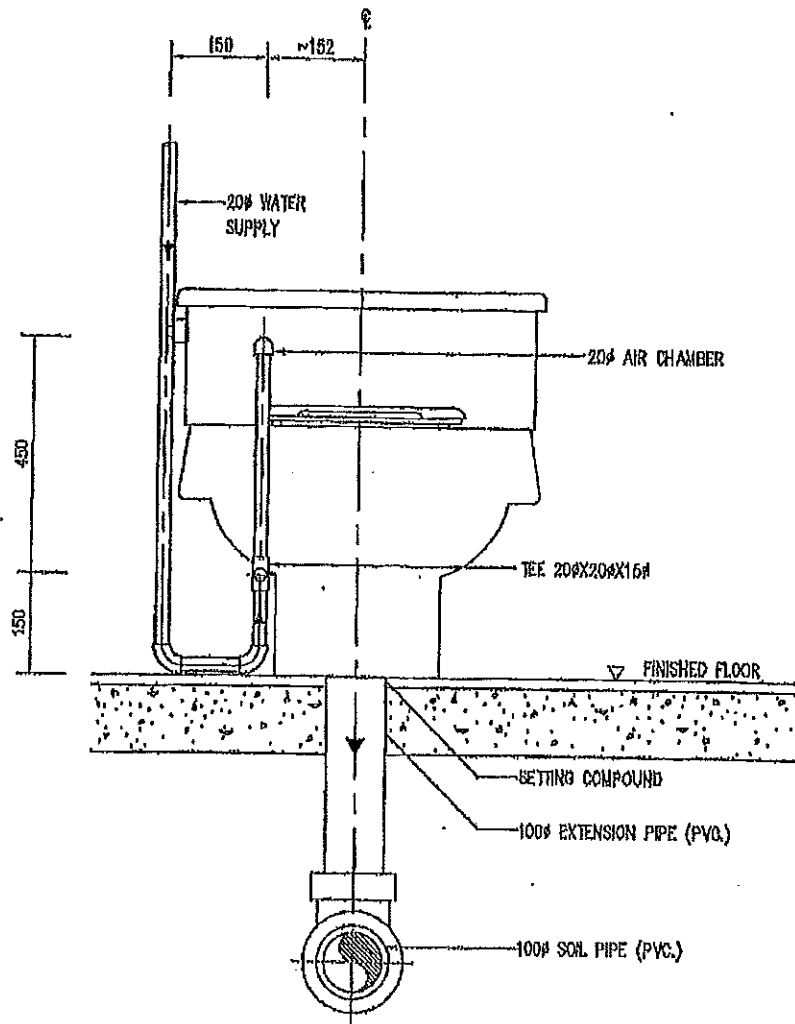
WATER CLOSET LOW TANK (ELEVATION)

CAD FILE: TDSWC12E

REV:      DATE:

CHECKED BY:

SHEET NO.      66



**NOTE :**

1. ALL EXPOSED PIPES AND FITINGS SHALL BE CHROME-PLATED.
2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

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WATER CLOSET LOW TANK (FRONT VIEW)

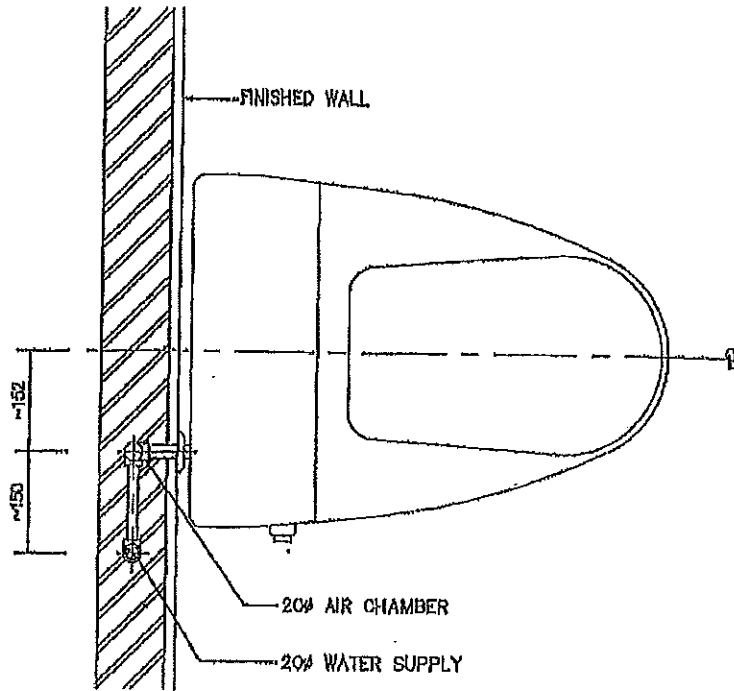
CAD FILE : TOSWG12F

REV :      DATE :

CHECKED BY :

SHEET NO.

67



**NOTE :**

1. ALL EXPOSED PIPES AND FITTINGS SHALL BE CHROME-PLATED.
2. CHROME-PLATED ESCUTCHEON SHALL BE INSTALLED AT EVERY PIPES THAT PASS THROUGH WALL.

EEC Engineering Network Co., Ltd.



ENGINEERING NETWORK

WATER CLOSET LOW TANK (TOP VIEW)

DAO FILE : JDSW0121

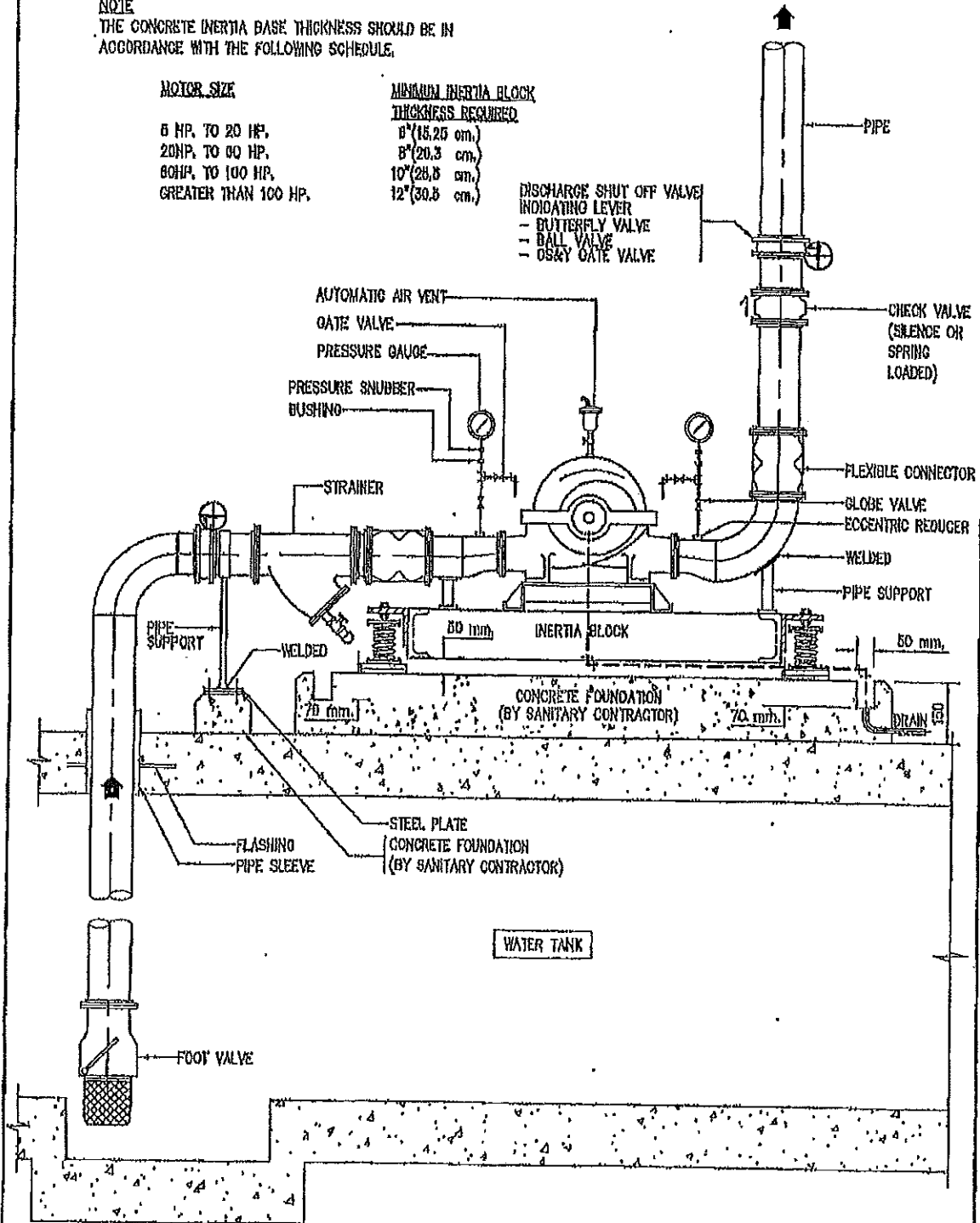
REV :      DATE :

CHECKED BY :

SHEET NO.      68

**NOTE**  
THE CONCRETE INERTIA BASE THICKNESS SHOULD BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE.

MOTOR SIZE	MINIMUM INERTIA BLOCK THICKNESS REQUIRED
5 HP. TO 20 HP.	8" (20.3 cm.)
20HP. TO 40 HP.	8" (20.3 cm.)
60HP. TO 100 HP.	10" (25.5 cm.)
GREATER THAN 100 HP.	12" (30.5 cm.)



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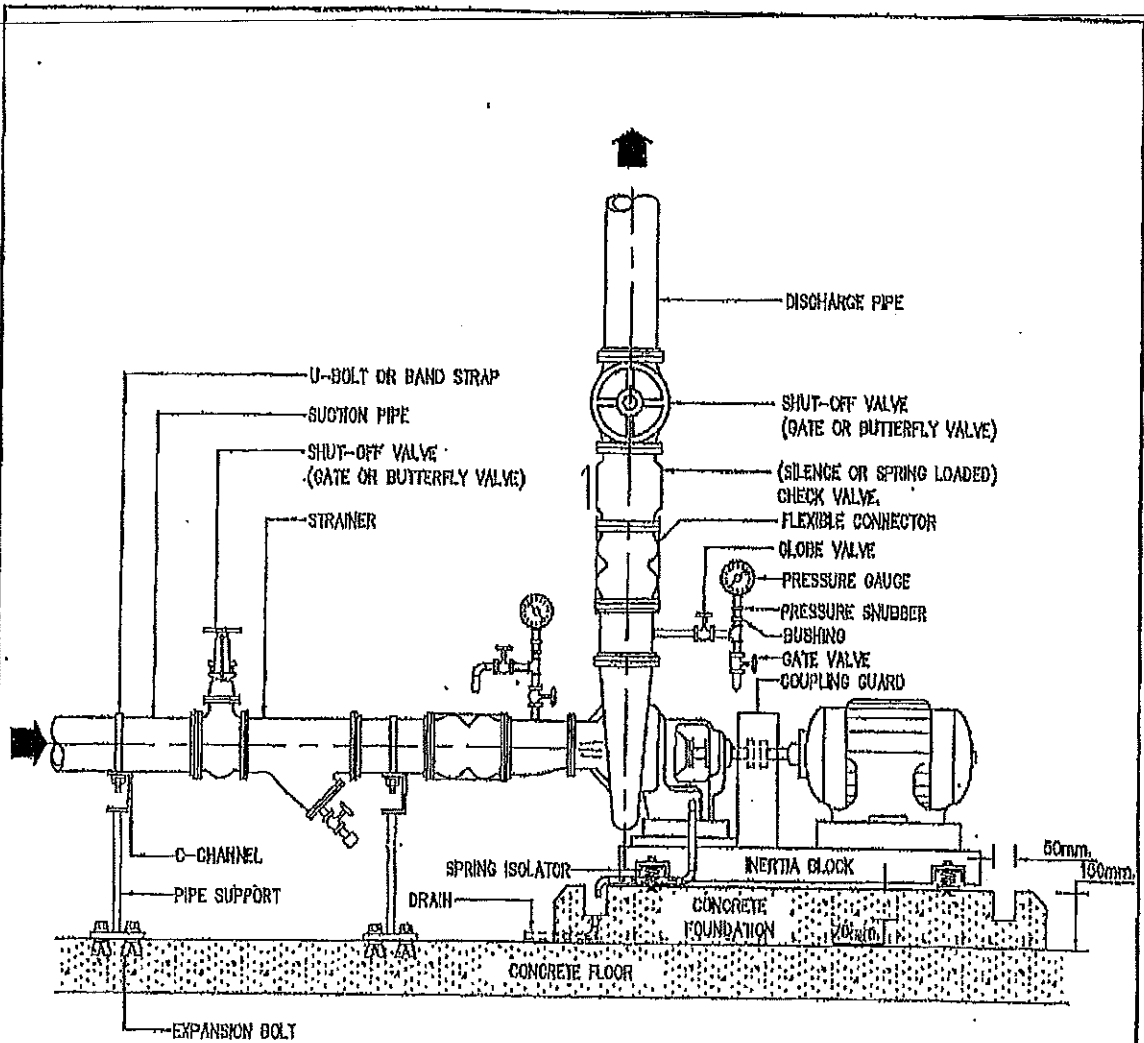
CENTRIFUGAL PUMP

QAD FILE: J05EQ003

REV: DATE:

CHECKED BY:

SHEET NO. 69



NOTE  
 THE CONCRETE INERTIA BASE THICKNESS SHOULD BE  
 IN ACCORDANCE WITH THE FOLLOWING SCHEDULE.

MOTOR SIZE	MINIMUM INERTIA BLOCK THICKNESS REQUIRED
8HP TO 20HP.	6" (15.25cm.)
20HP TO 60HP.	8" (20.3cm.)
60HP TO 100HP.	10" (25.5cm.)
GREATER THAN 100HP.	12" (30.5cm.)

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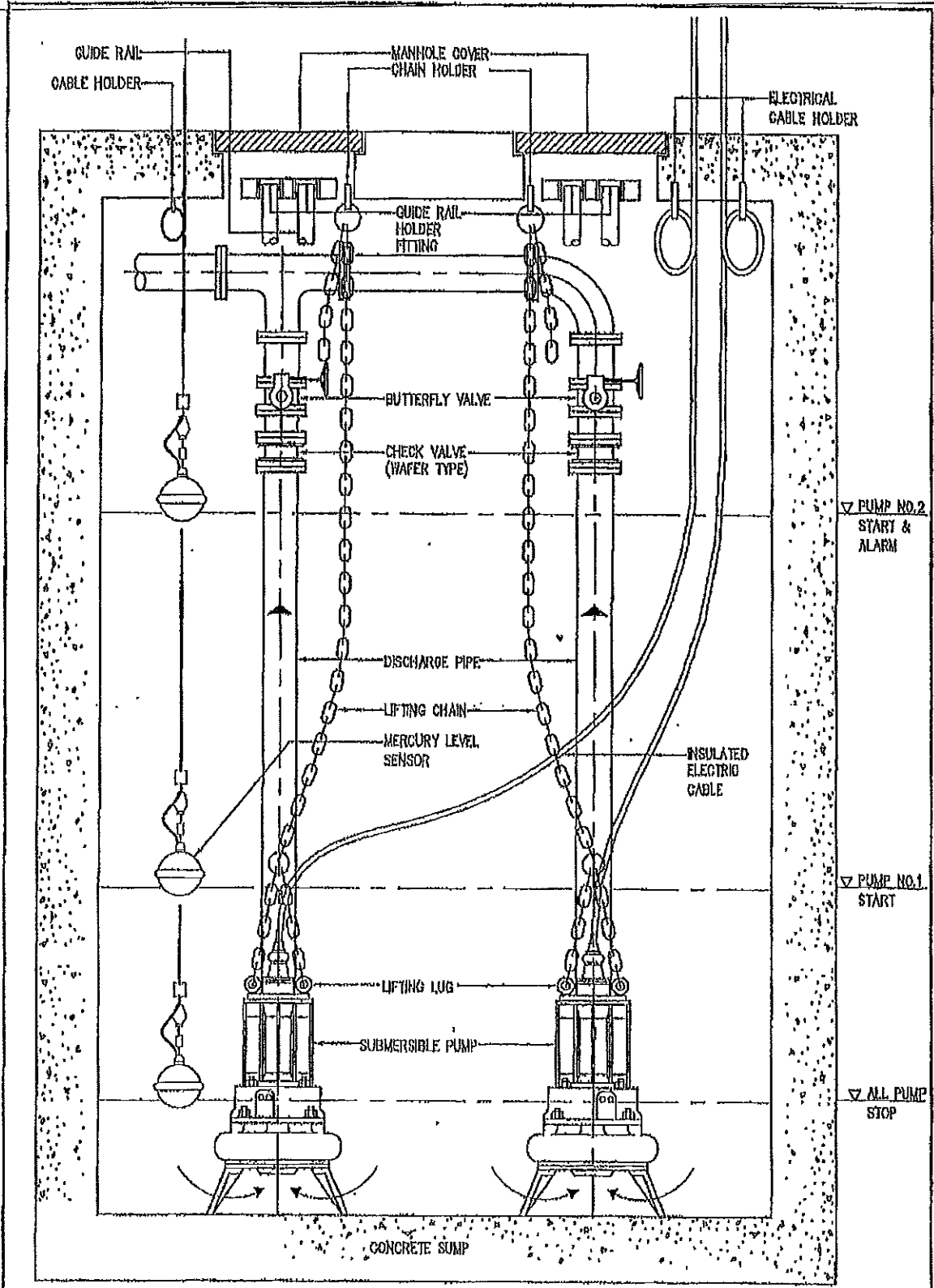
END - SUCTION CENTRIFUGAL PUMP

CAD FILE: TDSE008

REV: DATE:

CHECKED BY:

SHEET NO. 70



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EEC ENGINEERING NETWORK

SUBMERSIBLE PUMPS INSTALLATION  
IN SUMP PUMP

OAD FILE: T0SEQ017

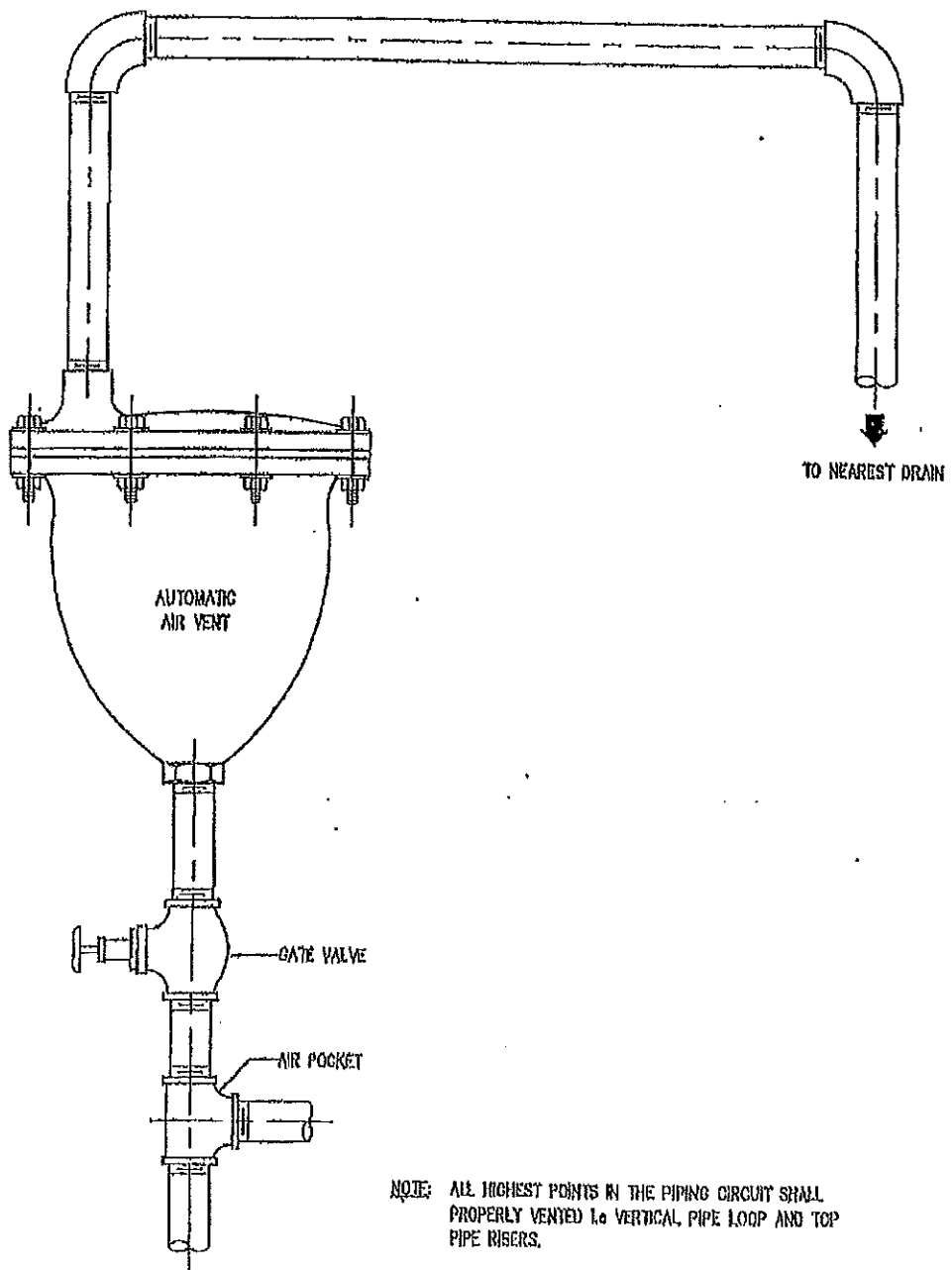
REV:      DATE:

CHECKED BY:

SHEET NO.

31





NOTE: ALL HIGHEST POINTS IN THE PIPING CIRCUIT SHALL PROPERLY VENTED TO VERTICAL PIPE LOOP AND TOP PIPE RISERS.

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AUTOMATIC AIR VENT

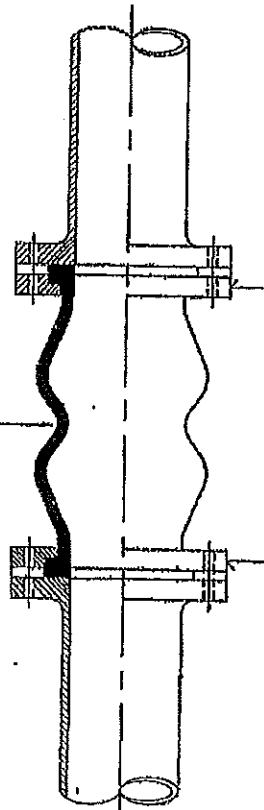
CAD FILE: TDSEQ020

REV:      DATE:

CHECKED BY:

SHEET NO.      72

NEOPRENE DOUBLE SPHERE BODY



FLANGED END CONNECTION

EEC Engineering Network Co., Ltd.



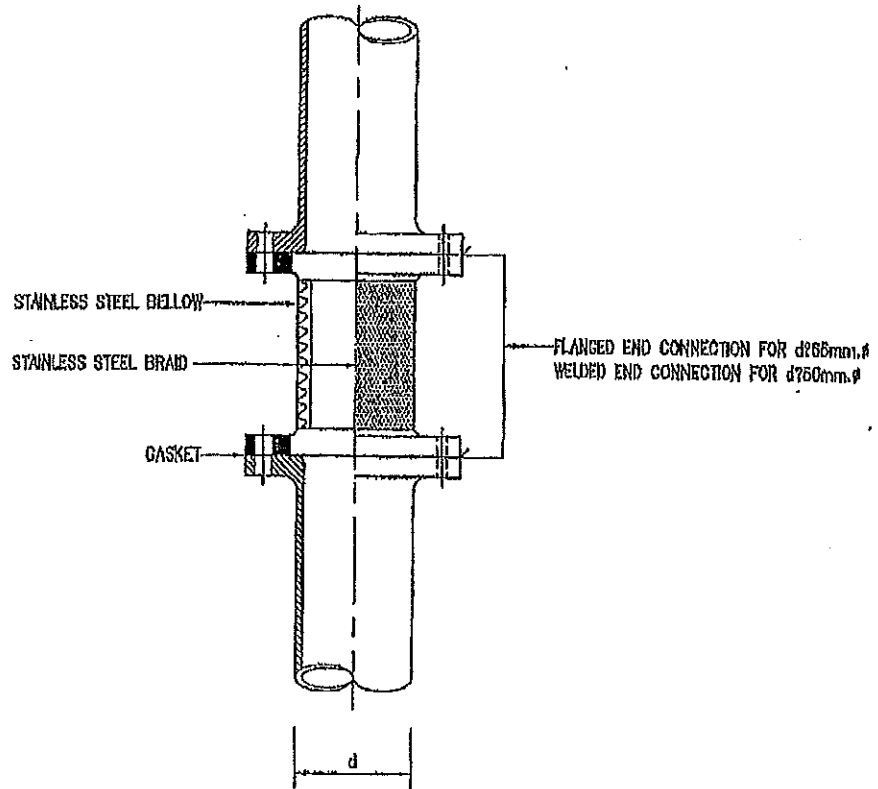
FLEXIBLE JOINT TYPE

CAD FILE : TDSEQ022

REV:      DATE:

CHECKED BY :

SHEET NO.      43



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FLEXIBLE JOINT TYPE

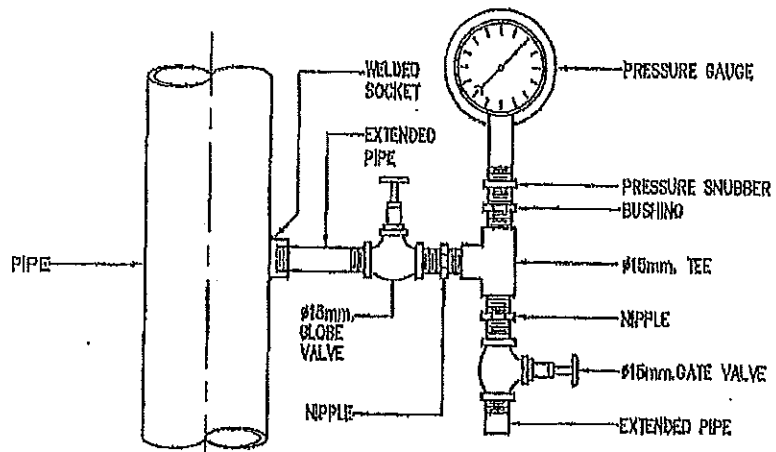
CAD FILE: TDSEQ023

REV: DATE:

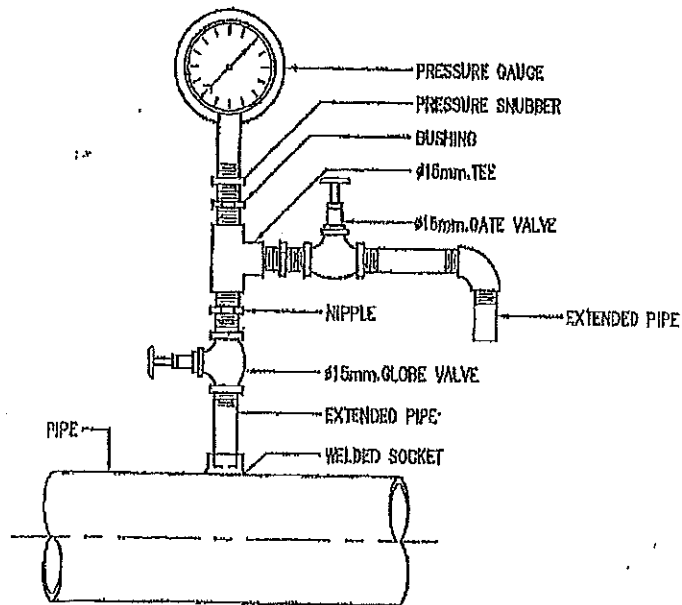
CHECKED BY:

SHEET NO.

74



PRESSURE GAUGE FOR VERTICAL PIPE



PRESSURE GAUGE FOR HORIZONTAL PIPE

EEC Engineering Network Co., Ltd.



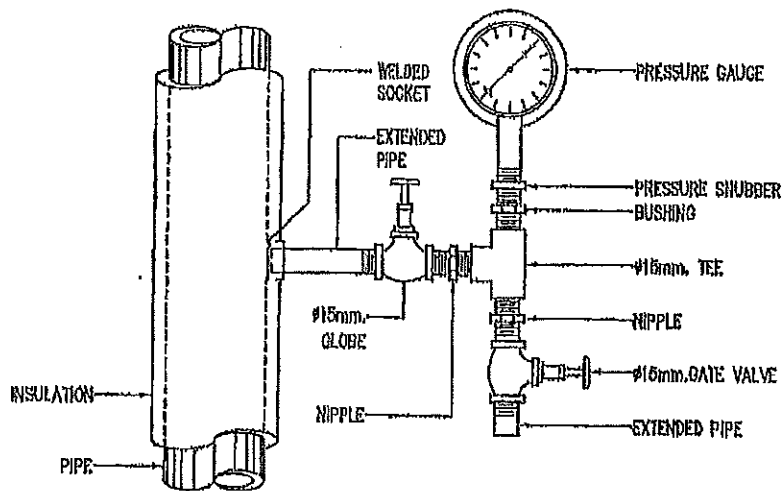
PRESSURE GAUGE FOR VERTICAL  
AND HORIZONTAL PIPE

CAD FILE : TDSEQ02A

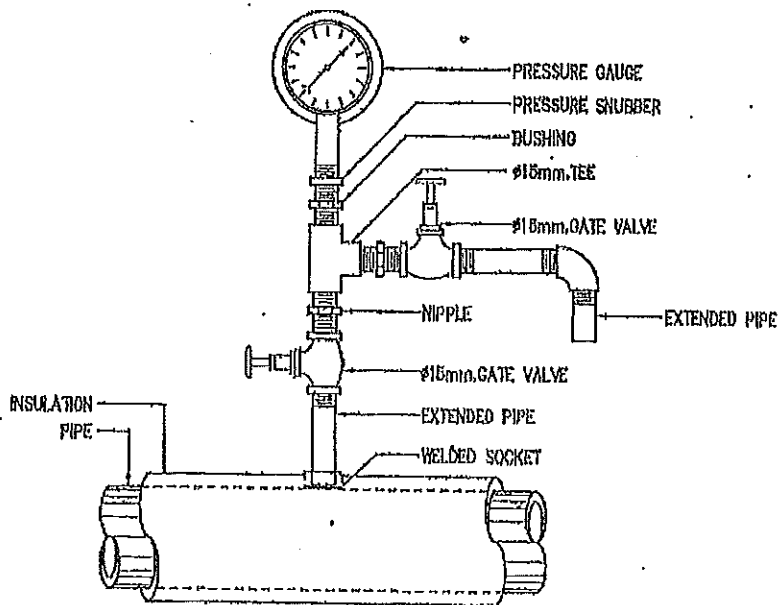
REV : DATE :

CHECKED BY :

SHEET NO. 75



PRESSURE GAUGE FOR VERTICAL PIPE



PRESSURE GAUGE FOR HORIZONTAL PIPE

EEC Engineering Network Co., Ltd.



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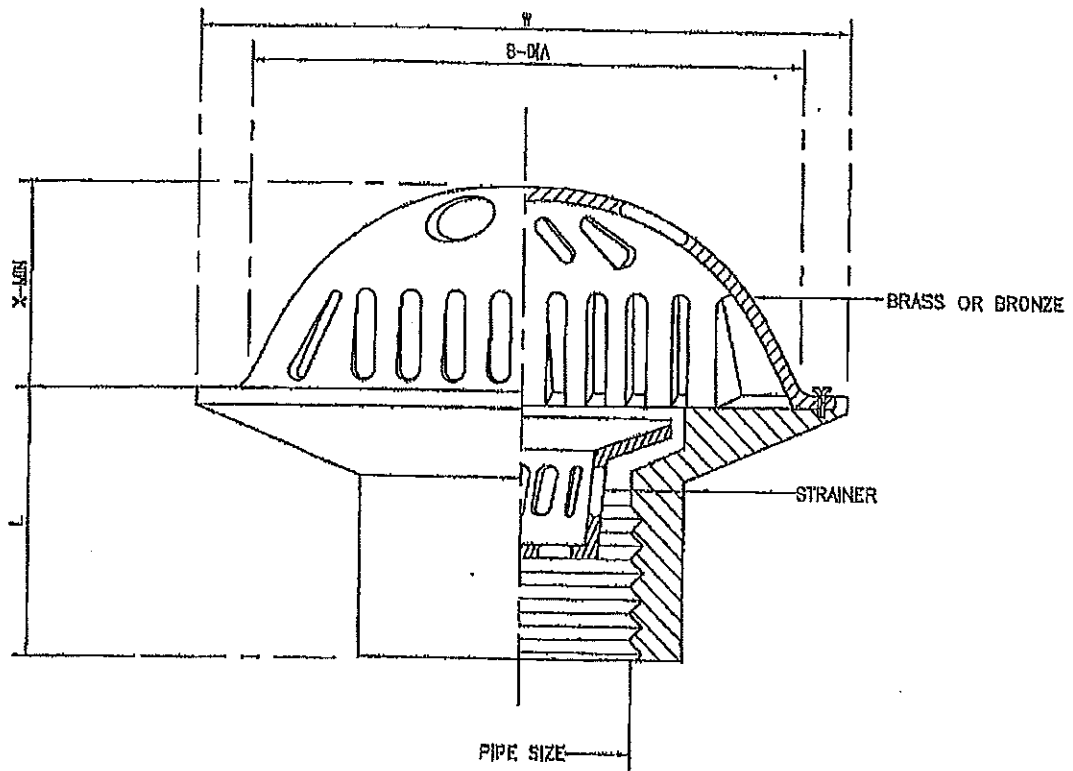
PRESSURE GAUGE FOR VERTICAL  
AND HORIZONTAL PIPE

CAD FILE: TD3EQ029

REV: DATE:

CHECKED BY:

SHEET NO. 76



PIPE SIZE	B	W	L	X	FREE AREA
in.	mm.	mm.	mm.	mm.	cm. <sup>2</sup>
1 1/2	40	100	124	45	87
2	50	100	124	45	87
2 1/2	65	100	124	45	87
3	80	100	124	45	87

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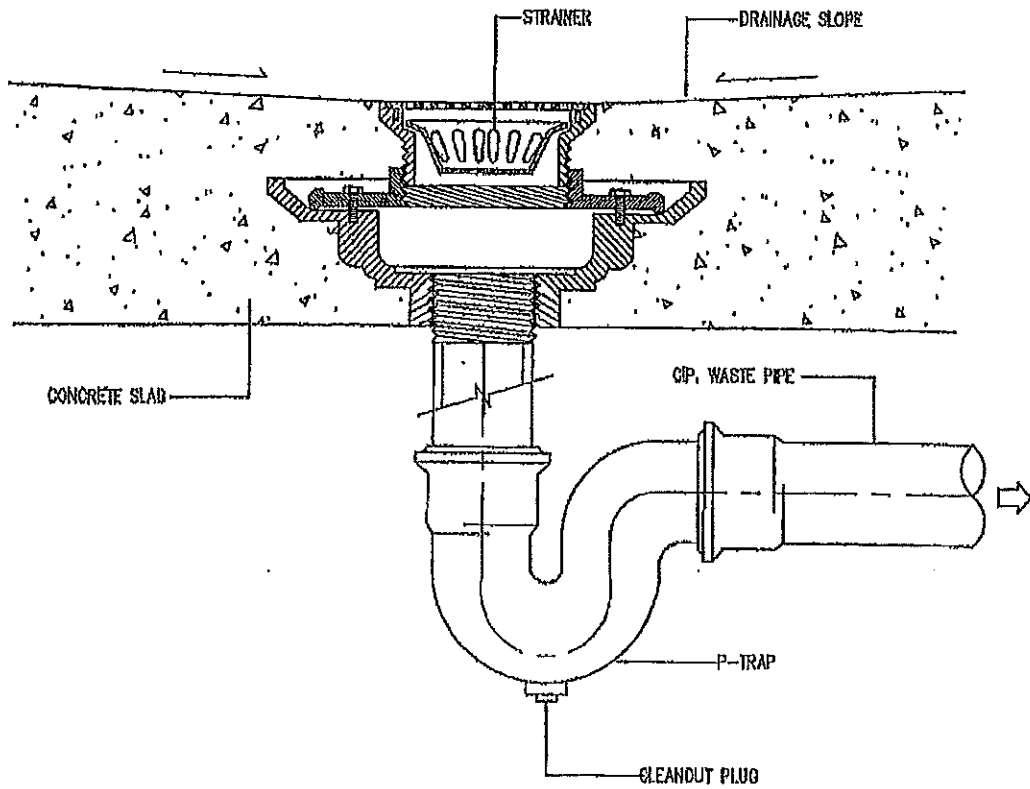
PLANTING AREA DRAIN WITH STRAINER

CAD FILE : TDSEQ030

REV : DATE :

CHECKED BY :

SHEET NO. 77



EEC Engineering Network Co., Ltd.

CAD FILE: TDSEQ031

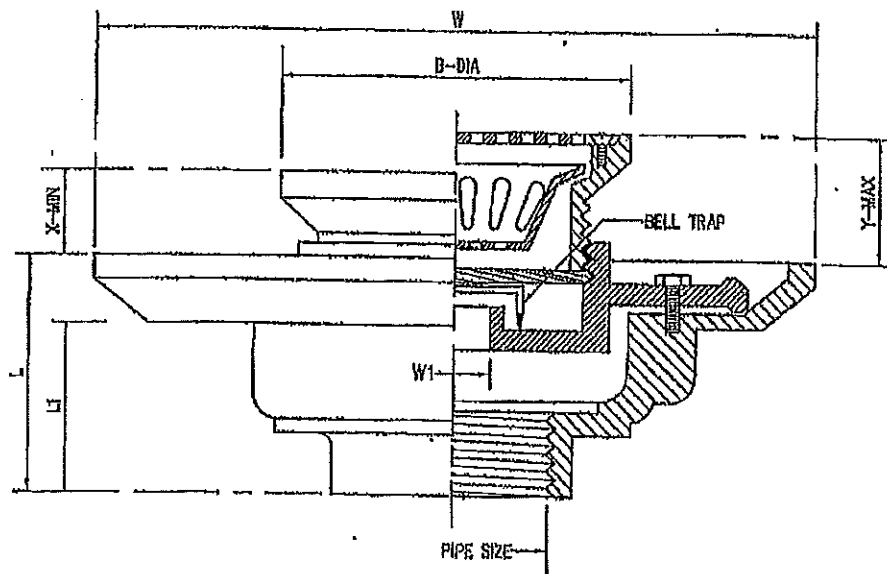


FLOOR DRAIN WITH STRAINER INSTALLATION

REV:      DATE:

CHECKED BY:

SHEET NO.      78



PIPE SIZE		B	W	W1	L	L1	ADJUSTMENT	
in.	in.	mm.	mm.	mm.	mm.	mm.	X	Y
							mm.	mm.
1 1/2	40	121	229.5	45	79	64	52.5	73
2	80	121	229.5	45	79	64	52.5	73
2 1/2	85	121	229.5	45	79	64	52.5	73
3	100	121	229.5	45	79	64	52.5	73
4	100	180	275	97	78	57	55	78
5	125	180	275	97	78	57	55	78
6	150	180	275	97	78	57	55	78

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FLOOR DRAIN WITH STRAINER AND BELL TRAP

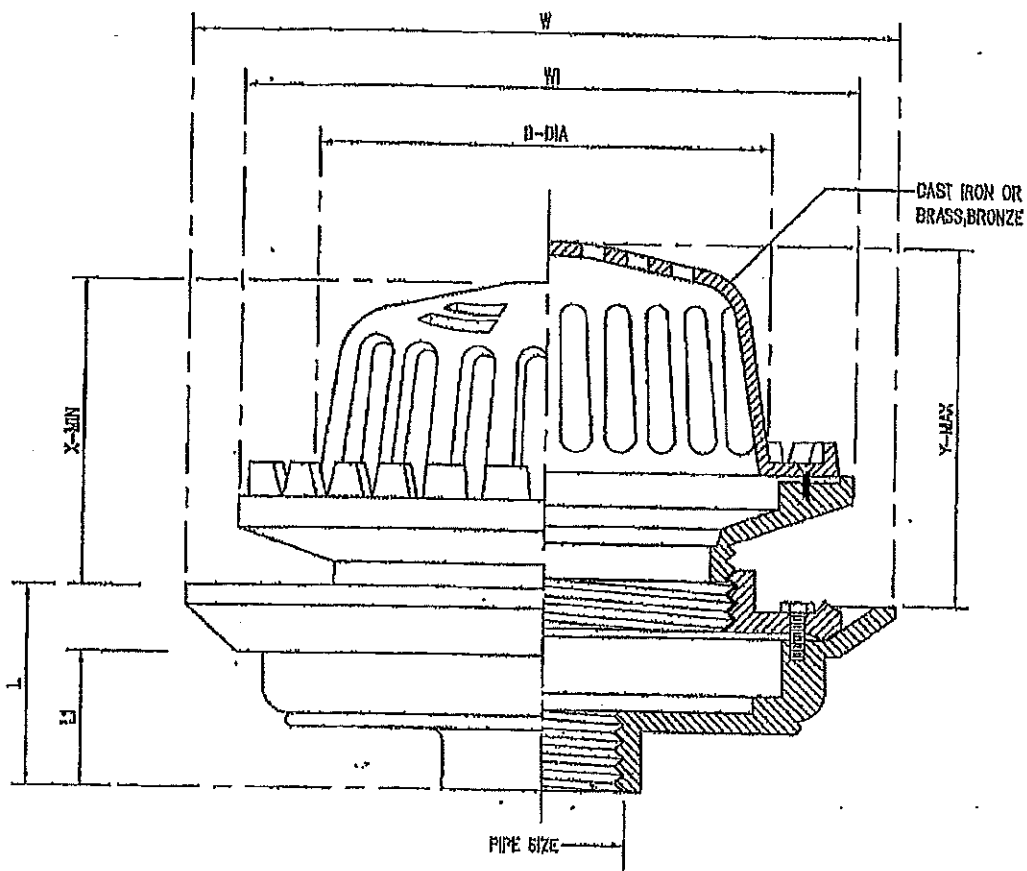
CAD FILE: TDSEQ033

REV: DATE:

CHECKED BY:

SHEET NO. 79





PIPE SIZE		B	W	W1	L	L1	ADJUSTMENT	
In.	mm.	mm.	mm.	mm.	mm.	mm.	X	Y
							mm.	mm.
2	50	190	274	248	72	55	115	145
2 1/2	65	190	274	248	72	55	115	145
3	80	190	274	248	72	55	115	145
4	100	190	274	248	72	55	115	145
6	125	235	340	300	105	80	155	235
8	150	235	340	300	105	80	155	235

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EEC ENGINEERING NETWORK

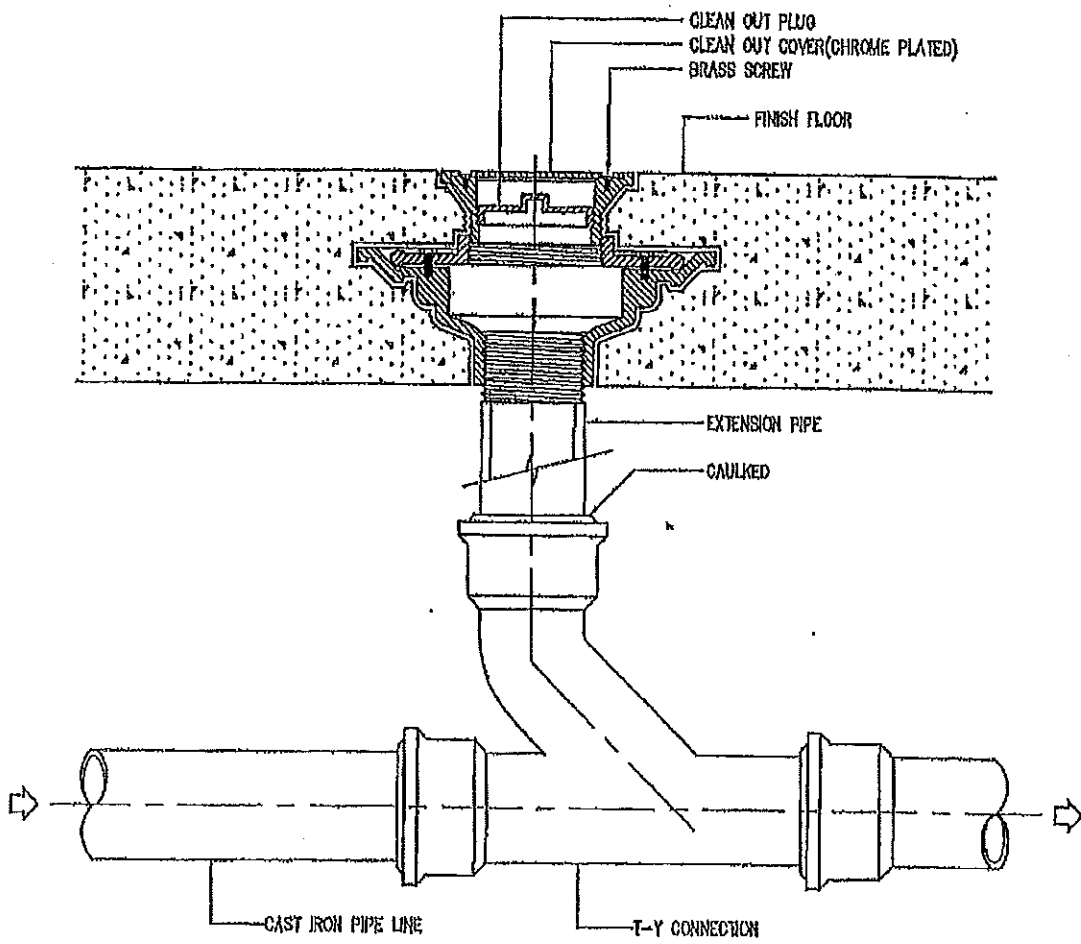
ROOF DRAIN

OAD FILE: TDSE0030

REV: DATE:

CHECKED BY:

SHEET NO. 80



EEC Engineering Network Co., Ltd.



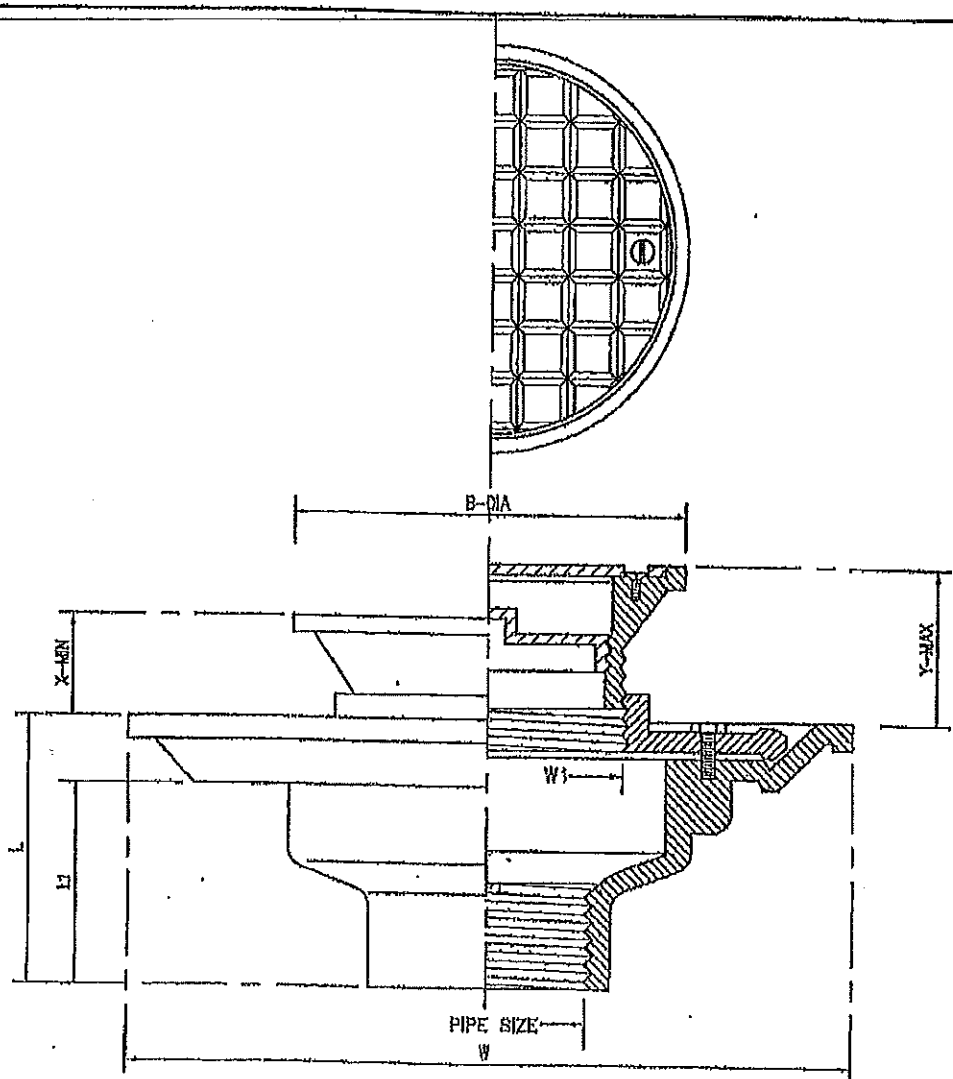
FLOOR CLEANOUT

OAD FILE: YDSE0043

REV:      DATE:

CHECKED BY:

SHEET NO.      81



PIPE SIZE		B	W	W1	L	LI	ADJUSTMENT	
in.	mm.	mm.	mm.	mm.	mm.	mm.	X	Y
1 1/2	40	90	160	82	74	58	22	49
2	50	96	160	82	74	58	22	49
2 1/2	65	130.5	227	97	87	70	27	60
3	80	130.5	227	97	87	70	27	60
4	100	130.5	227	97	87	72	27	60
5	125	220	270	80	80	60	60	60
6	150	220	270	80	80	60	60	60

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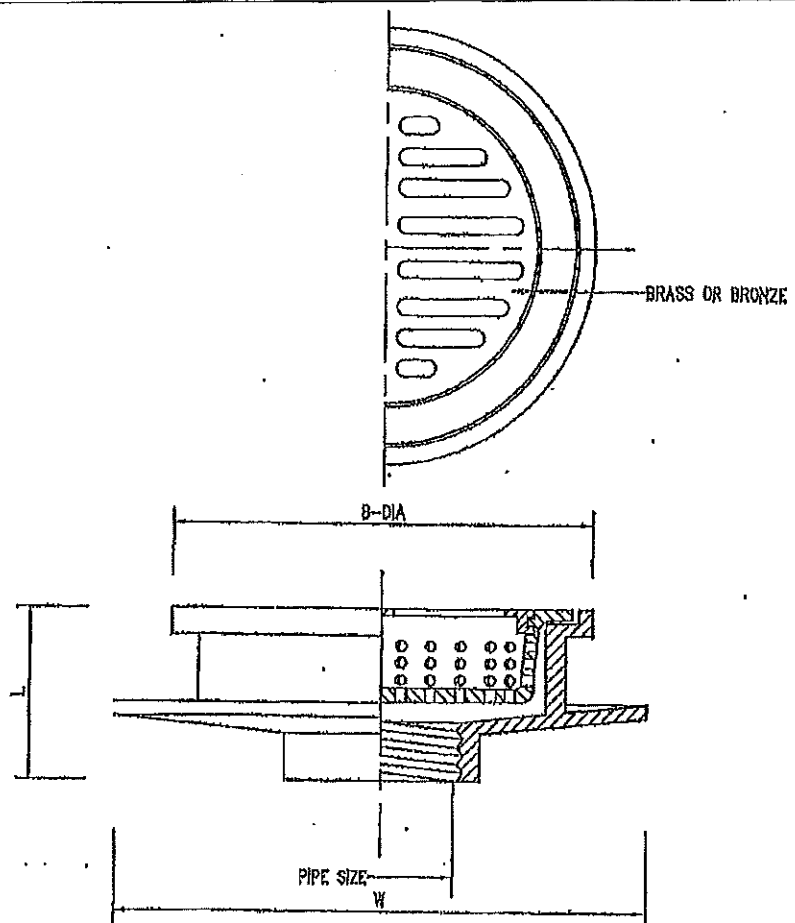
FLOOR CLEANOUT

CAD FILE: J0SEQ045

REV: DATE:

CHECKED BY:

SHEET NO. 82



PIPE SIZE		B	W	L
in.	mm.	mm.	mm.	mm.
1 1/2	40	230	318	107
2	50	230	318	107
2 1/2	65	230	318	107
3	80	230	318	107
4	100	230	318	107
5	125	230	318	107
6	150	230	318	107

EEC Engineering Network Co., Ltd.



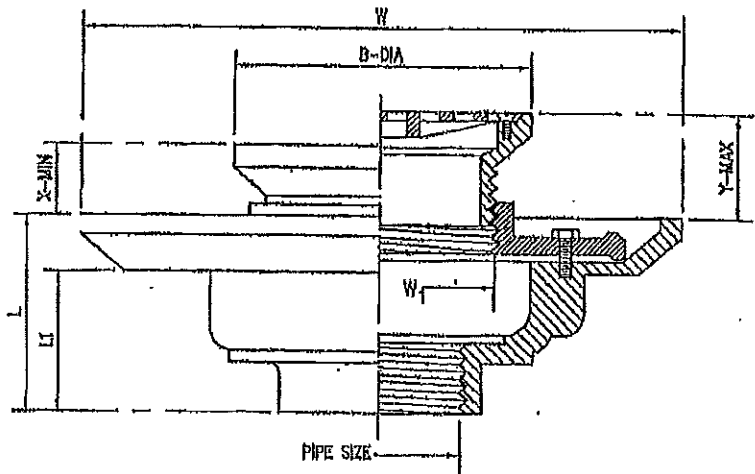
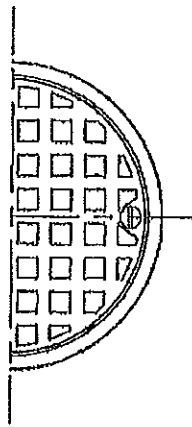
FLOOR DRAIN FOR GARBAGE ROOM

CAD FILE: TDSE040

REV: DATE:

CHECKED BY:

SHEET NO. 83



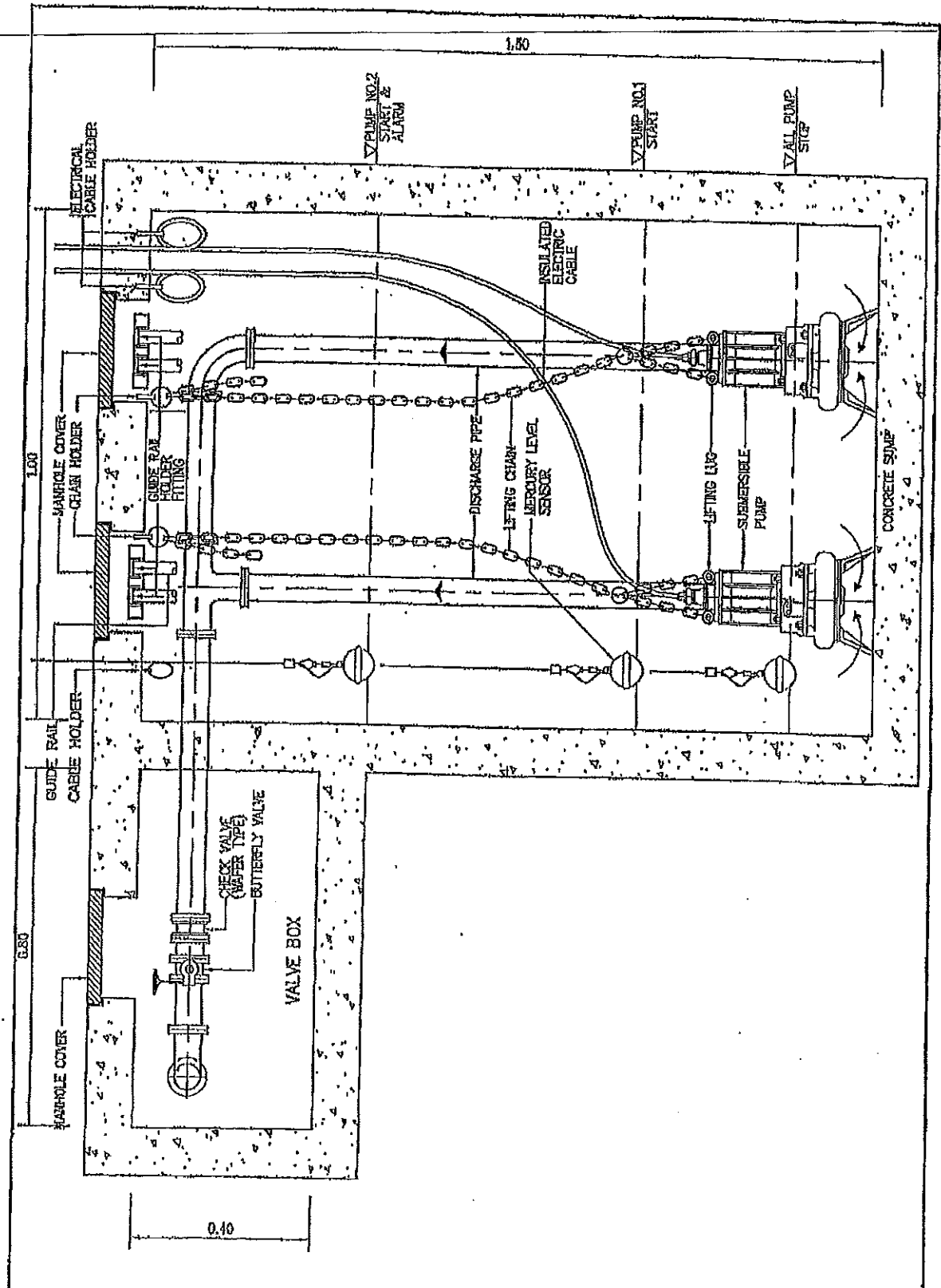
PIPE SIZE	B	W	W 1	L	L 1	ADJUSTMENT		
						X	Y	
1 1/2	40	141	220	91	77	84	18	51
2	50	141	220	91	77	84	18	51
2 1/2	65	141	220	91	77	84	18	51
3	80	141	220	91	77	84	18	51
4	100	199	274	169	78	52	15	49

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PARKING AREA DRAIN

CAD FILE: TDSEQ050	
REV:	DATE:
CHECKED BY:	
SHEET NO.	84



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SUBMERSIBLE PUMPS INSTALLATION  
IN SUMP PUMP

CAD FILE: TDSEQ053

REV: DATE:

CHECKED BY:

SHEET NO. -

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# PANEL BOARD SCHEDULE

## โครงการ

อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมือง

จังหวัดนครราชสีมา

งานวิศวกรรมระบบสุขาภิบาล

## PANEL BOARD FOR ELETRICAL SYSTEM

โครงการ อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมืองจังหวัดนครราชสีมา

### CONTENTS

Panel board no.	Sheet no.
A-1ESP1	1
A-1ESP2	2
A-1ESP3	3
A-1ESP4	4
A-1SCB1	5
B-1ESP1	6
B-1ESP3	7
B-1SP1	8

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PROJECT : อาคารภาควิชาศึกษาศาสตร์และนันทนาการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา

DATE : 20-Aug-15

LOCATION :  
TYPE : WALL - MOUNTED

PANEL BOARD NO. : A-1ESP1

TB NO. : 0

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE		CONDUITOR FACEWAY
			R	S	T				CB TO STARTER	STARTER TO MOTOR	
1	A-1CBP-01 (1)	11	23.60	23.60	23.60	Y-A	3P 50A	4-16/6G	6-6/6G	Ø20 mm. IMC	
2	A-1CBP-01 (2)	11	23.60	23.60	23.60	Y-A	3P 50A	4-16/6G	6-6/6G	Ø20 mm. IMC	
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

CONNECTED TO : 3P 80A MAIN CIRCUIT BREAKER  
 Cu BUSBAR : 100 A, 3Ø 4W, 415/240 VAC, 50Hz  
 100 % NEUTRAL  
 100 % GROUND

TOTAL CURRENT : 0.00 AMP  
 MAX CURRENT : 23.60 AMP  
 1.25 TOTAL CURRENT : 0.00 AMP  
 2MAX+REMAIN CURRENT : 23.60 AMP  
 MAX CURRENT : 23.60 AMP

ACCESSORIES :  
 - DIGITAL POWER METER  
 3 x 5A FUSE  
 X x (0-500V) VOLT METER  
 3 x PILOT LAMP  
 80 A/5A CT

1x(0-80 A)AMP METER  
 KW METER  
 KW METER  
 SAFETY SWITCH  
 SELECTOR SWITCH

REV. :- REV. DATE :

PROJECT : ภาตการศึกษานักศึกษา และระบบอาคาร ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา

DATE : 20-Aug-15

LOCATION :

PANEL BOARD NO. : A-1ESP2

TB NO. : 0

TYPE : WALL MOUNTED

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE		CONDUITOR RACEWAY
			R	S	T				CB TO STARTER	STARTER TO MOTOR	
1	A-1FWBP-01 (1)	5.5	11.60	11.60	11.60	D.O.L	3P, 30A	4-4/4G	6-4/4G	Ø15 mm, IMC	
2	A-1FWBP-01 (2)	5.5	11.60	11.60	11.60	D.O.L	3P, 30A	4-4/4G	6-4/4G	Ø15 mm, IMC	
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
SUM			23.20	23.20	23.20						

CONNECTED TO : 3P, 50A MAIN CIRCUIT BREAKER  
 Cu BUSBAR : 100 A, 3Ø 4W, 415/240 VAC, 50Hz  
 100 % NEUTRAL  
 100 % GROUND

ACCESSORIES :  
 - DIGITAL POWER METER  
 3 x 5A FUSE  
 X x(0-500V) VOLT METER  
 3 x PILOT LAMP  
 50 A/5A CT

TOTAL CURRENT : 23.20 AMP  
 MAX CURRENT : 11.60 AMP  
 1.25 TOTAL CURRENT : 29.00 AMP  
 2MAX+REMAIN CURRENT : 34.80 AMP  
 MAX CURRENT : 34.80 AMP

1x(0- AMPMETER  
 - KW METER  
 - KWH METER  
 - SAFETY SWITCH  
 - SELECTOR SWITCH

REV. :-

REV. DATE :

PROJECT : อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา

PANEL BOARD NO. : A-1ESP3

DATE : 20-Aug-15

TB NO. : 0

LOCATION :

TYPE : WALL MOUNTED

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE CB TO STARTER	CABLE STARTER TO MOTOR	CONDUITOR RACEWAY
			R	S	T						
1	A-1WWTP-02	5.5	11.60	11.60	11.60	D.O.L	3P, 30A	4-4/4G	6-4/4G	Ø15 mm. IMC	
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
<b>SUM</b>			11.60	11.60	11.60						

CONNECTED TO :  
 Cu BUSBAR :  
 MAIN CIRCUIT BREAKER  
 A. 3Ø 4W., 415/240 VAC., 50Hz  
 % NEUTRAL  
 % GROUND

ACCESSORIES :  
 DIGITAL POWER METER  
 x 5A FUSE  
 x(0-500V) VOLT METER  
 x PILOT LAMP  
 A/5A CT

TOTAL CURRENT : 11.60 AMP  
 MAX CURRENT : 11.60 AMP  
 1.25 TOTAL CURRENT :  
 2MAX+REMAIN CURRENT :  
 MAX CURRENT : 11.60 AMP

1x(0-  
 A)AMP METER  
 KW METER  
 KWH METER  
 SAFTY SWITCH  
 SELECTOR SWITCH

REV. :-

REV. DATE :

PROJECT : อาคารกิจการนักศึกษา และศูนย์บริการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา

DATE : 20-Aug-15

LOCATION :

TB NO. : 0

TYPE : WALL MOUNTED

A-1ESP4

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE		CONDUIT OR RACEWAY
			R	S	T				CB TO STARTER	STARTER TO MOTOR	
1	A-1GT-01	3	6.70	6.70	6.70	D.O.L	3P, 15A	4-4/2.5G	3-2.5/2.5G	Ø15 mm. IMC	
2	A-1WWTP-01	22	43.50	43.50	43.50	Y-A	3P, 80A	4-35/10G	6-10/10G	Ø32 mm. IMC	
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
SUM			50.20	50.20	50.20						

CONNECTED TO : 3P, 100A MAIN CIRCUIT BREAKER  
Cu BUSBAR : 100 A., 3Ø 4W, 415/240 VAC, 50Hz

TOTAL CURRENT : 50.20 AMP  
MAX CURRENT : 43.50 AMP  
1.25 TOTAL CURRENT : 62.75 AMP  
2MAX+REMAIN CURRENT : 93.70 AMP  
MAX CURRENT : 93.70 AMP

ACCESSORIES :  
- DIGITAL POWER METER  
3 X 5A FUSE  
X (0-500V) VOLT METER  
3 X PILOT LAMP  
100 A/5A CT

1x(0-100) AMPMETER  
- KW METER  
- KWH METER  
- SAFETY SWITCH  
- SELECTOR SWITCH

REV. : -

REV. DATE :

PROJECT : อาคารศึกษารัฐศึกษา และนิเทศการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา  
 PANEL BOARD NO. : A-1SCB1

DATE : 20-Aug-15  
 TB NO. : 0

LOCATION :  
 TYPE : WALL MOUNTED

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE		CONDUIT OR RACEWAY
			R	S	T				CB TO STARTER	STARTER TO MOTOR	
1	A-1GV-01	30	58.00	58.00	58.00	Y-A	3P, 100A	4-50/10G	6-16/10G	Ø40 mm. IMC.	
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
SUM			58.00	58.00	58.00						

CONNECTED TO : MAIN CIRCUIT BREAKER  
 Cu BUSBAR : A, 3Ø 4W, 415/240 VAC, 50Hz  
 % NEUTRAL  
 % GROUND

TOTAL CURRENT : 58.00 AMP  
 MAX CURRENT : 58.00 AMP  
 1.25 TOTAL CURRENT : AMP  
 2MAX+REMAIN CURRENT : AMP  
 MAX CURRENT : 58.00 AMP

ACCESSORIES :  
 1x(0- A/AMP METER  
 x 5A FUSE  
 x(0-500V) VOLT METER  
 x PILOT LAMP  
 A/5A CT

1x(0- A/AMP METER  
 KW METER  
 KWH METER  
 SAFETY SWITCH  
 SELECTOR SWITCH

REV. : -

REV. DATE :

PROJECT : อาคารกิจการนักศึกษา และศูนย์อาหาร ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา

PANEL BOARD NO. : B-1ESP1

DATE : 20-Aug-15

TB NO. : 0

LOCATION :

TYPE : WALL MOUNTED

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE		CONDUIT OR RACEWAY
			R	S	T				CB TO STARTER	STARTER TO MOTOR	
1	B-1WWTP-01	5.5	11.60	11.60	11.60	D.O.L	3P, 30A	4-4/4G	6-4/4G	Ø15 mm. IMC	
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
<b>SUM</b>			11.60	11.60	11.60						

CONNECTED TO : - MAIN CIRCUIT BREAKER  
 Cu BUSBAR : - A, 3Ø 4W, 415/240 VAC, 50HZ  
 - % NEUTRAL  
 - % GROUND

ACCESSORIES : - DIGITAL POWER METER  
 - x 5A FUSE  
 - x(0-500V) VOLT METER  
 - x PILOT LAMP  
 - A/5A CT

TOTAL CURRENT : 11.60 AMP  
 MAX CURRENT : 11.60 AMP  
 1.25 TOTAL CURRENT : - AMP  
 2MAX+REMAIN CURRENT : - AMP  
 MAX CURRENT : 11.60 AMP

1x(0- A)AMP METER  
 - KW METER  
 - KWH METER  
 - SAFTY SWITCH  
 - SELECTOR SWITCH

REV. :-

REV. DATE :

PROJECT : อาคารท่าอากาศยาน และศูนย์บริการ ท่าอากาศยานดอนเมือง จังหวัดนครราชสีมา  
 PANEL BOARD NO. : B-1ESP3

DATE : 20-Aug-15  
 TB NO. : 0

LOCATION :  
 TYPE : WALL MOUNTED

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CABLE		CONDUIT OR RACEWAY
			R	S	T				CB TO STARTER	STARTER TO MOTOR	
1	B-1DNP-01	5.5	11.60	11.60	11.60	D.O.L	3P, 30A	4-4/4G	6-4/4G	Ø15 mm. IMC	
2	B-1DNP-02	5.5	11.60	11.60	11.60	D.O.L	3P, 30A	4-4/4G	6-4/4G	Ø15 mm. IMC	
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
SUM			23.20	23.20	23.20						

CONNECTED TO : 3P, 50A MAIN CIRCUIT BREAKER  
 Cu BUSBAR : 100 A., 3Ø 4W, 415/240 VAC., 50Hz  
 100 % NEUTRAL  
 100 % GROUND

ACCESSORIES :  
 - DIGITAL POWER METER  
 3 x 5A FUSE  
 X x(0-500V) VOLT METER  
 3 x PILOT LAMP  
 50 A/5A CT

TOTAL CURRENT : 23.20 AMP  
 MAX CURRENT : 11.60 AMP  
 1.25 TOTAL CURRENT : 29.00 AMP  
 2MAX+REMAIN CURRENT : 34.80 AMP  
 MAX CURRENT : 34.80 AMP

1x(0-50) AMPMETER  
 KW METER  
 KWH METER  
 SAFETY SWITCH  
 SELECTOR SWITCH

REV. : - REV. DATE :

PROJECT : อาคารกิจการนักศึกษา และศูนย์บริการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา  
 PANEL BOARD NO. : B-1SP1

DATE : 20-Aug-15  
 TB NO. : #N/A

LOCATION :  
 TYPE : WALL MOUNTED

ITEM	EQUIPMENT	POWER CONSUMPTION KW	CURRENT AT FEED			STARTER TYPE	PHASE	CIRCUIT BREAKER	CB TO STARTER	CABLE STARTER TO MOTOR	CONDUITOR RACEWAY
			R	S	T						
1	B-1PFP-01	3	6.70	6.70	6.70	D.O.L	3P, 15A	4-4/2.5G	3-2.5/2.5G	Ø15 mm. IMC	
2	B-1PFP-02	3	6.70	6.70	6.70	D.O.L	3P, 15A	4-4/2.5G	3-2.5/2.5G	Ø15 mm. IMC	
3	B-1PFP-03	3	6.70	6.70	6.70	D.O.L	3P, 15A	4-4/2.5G	3-2.5/2.5G	Ø15 mm. IMC	
4	B-1PFP-04	3	6.70	6.70	6.70	D.O.L	3P, 15A	4-4/2.5G	3-2.5/2.5G	Ø15 mm. IMC	
5	B-1PFP-05	SB	0.00	0.00	0.00	D.O.L	3P, 15A	4-4/2.5G	3-2.5/2.5G	Ø15 mm. IMC	
6	B-1TSC1-01	1.1	10.20	0.00	0.00	-	-	-	2-4/4G	Ø15 mm. IMC	
7	B-1MIX-01	0.25	0.00	2.32	0.00	-	-	-	2-2.5/2.5G	Ø15 mm. IMC	
8	B-1BPC-01	0.1	0.00	0.00	0.93	-	-	-	2-2.5/2.5G	Ø15 mm. IMC	
9	B-1AFP-01	0.1	0.00	0.00	0.93	-	-	-	2-2.5/2.5G	Ø15 mm. IMC	
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
SUM			37.00	29.12	28.66						

CONNECTED TO : 3P, 50A MAIN CIRCUIT BREAKER  
 Cu BUSBAR : 100 A, 3Ø 4W, 4.15/240 VAC, 50Hz  
 100 % NEUTRAL  
 100 % GROUND

ACCESSORIES :  
 - DIGITAL POWER METER  
 3 x 5A FUSE  
 X x(0-500V) VOLT METER  
 3 x PILOT LAMP  
 50 A/5A CT

TOTAL CURRENT : 37.00 AMP  
 MAX CURRENT : 10.20 AMP  
 1.25 TOTAL CURRENT : 46.26 AMP  
 2MAX+REMAIN CURRENT : 47.21 AMP  
 MAX CURRENT : 47.21 AMP

1x(0- A)AMP METER  
 KW METER  
 KW METER  
 SAFETY SWITCH  
 SELECTOR SWITCH

REV. : -

REV. DATE :



# EQUIPMENT SCHEDULE

## โครงการ

อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมืองจังหวัด  
นครราชสีมา

งานวิศวกรรมระบบสุขาภิบาล

LIST OF EQUIPMENTS FOR SANITARY SYSTEM

โครงการ อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมืองจังหวัดนครราชสีมา

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LIST OF EQUIPMENTS FOR WASTEWATER TREATMENT PLANT	1-2
LIST OF EQUIPMENTS FOR REUSE WATER PLANT	1
LIST OF EQUIPMENTS FOR EXTERNAL WORK SYSTEM (WATER FEATURE SYSTEM)	1-2

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**PROJECT : อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา**  
**LIST OF EQUIPMENTS FOR COLD WATER SYSTEM**

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	ELECTRICAL MOTOR DATA				POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
					EACH CAPACITY	APPR. KW	RPM	V/Ø/Hz.		
1	A-1CBP-01	COLD WATER BOOSTER PUMP SET	PUMP RM AT 1 FLR. (A BLDG.)	PACKAGE BOOSTER PUMP SET CONSIST OF 2 PUMPS INCLUDE 1 INVERTOR PUMP AND 1 CONSTANT PRESSURE VERTICLE MULTISTAGE CENTRIFUGAL PUMP SIZE 100% ,100% OF SYSTEM FLOW RATE WITH 1000 LITRES DIAPHRAGM TANK, PRESSURE TRANSMITTER, PRESSURE SWITCH, TRANSMITTER, PRESSURE SWITCH, NON-RETURN VALVES AND ISOLATING VALVES CONTROL DEVICES AND CONTROL PANEL FROM MANUFACTURER	TOTAL FLOWRATE ≈50 cu.m./hr. @ 40 m. H <sub>2</sub> O TDH	11 11	≈2900	380 / 3 / 50	A-1ESP1	AUTOMATIC OPERATED BY PRESSURE SWITCH -HIGH PRESSURE; CUT-OFF -INTERMEDIATE LOW PRESSURE; LEAD PUMP CUT-IN -LOW PRESSURE; 2nd PUMP RUN W/LEAD PUMP *ALL PUMP SHALL BE ALTERNATED IN DUTY CYCLE OPERATION AUTOMATICALLY *ALL PUMP CAN BE MANUAL START/STOP CONTROL
2	A-1FWBP-01	FLUSH WATER BOOSTER PUMP SET	PUMP RM AT B1 FLR. (P2 BLDG.)	PACKAGE BOOSTER PUMP SET CONSIST OF 2 PUMPS INCLUDE 1 INVERTOR PUMP AND 1 CONSTANT PRESSURE VERTICLE MULTISTAGE CENTRIFUGAL PUMP SIZE 100% ,100% OF SYSTEM FLOW RATE WITH 500 LITRES DIAPHRAGM TANK, PRESSURE TRANSMITTER, PRESSURE SWITCH, TRANSMITTER, PRESSURE SWITCH, NON-RETURN VALVES AND ISOLATING VALVES CONTROL DEVICES AND CONTROL PANEL FROM MANUFACTURER	TOTAL FLOWRATE ≈30 cu.m./hr. @ 40 m. H <sub>2</sub> O TDH	5.5 5.5	≈2900	380 / 3 / 50	A-1ESP2	AUTOMATIC OPERATED BY PRESSURE SWITCH -HIGH PRESSURE; CUT-OFF -INTERMEDIATE LOW PRESSURE; LEAD PUMP CUT-IN -LOW PRESSURE; 2nd PUMP RUN W/LEAD PUMP *ALL PUMP SHALL BE ALTERNATED IN DUTY CYCLE OPERATION AUTOMATICALLY *ALL PUMP CAN BE MANUAL START/STOP CONTROL

REV.:- REV. DATE :-

**PROJECT : อาคารกิจการนักศึกษา และนันทนาการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา**  
**LIST OF EQUIPMENTS FOR DRAINAGE AND SEWAGE SYSTEM**

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	ELECTRICAL MOTOR DATA				POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
					EACH CAPACITY	APPR. KW	RPM	V/Ø/Hz.		
1	B-1DNP-01 B-1DNP-02	DRAINAGE PUMP (1-DUTY,1-STANDBY AND ASSIST)	POOL PUMP ROOM	-SUBMERSIBLE DRAINAGE PUMP -NON-CLOG IMPELLER TYPE COMPLETE WITH LIFTING CHAIN AND ACCESSORIES -SOLID PASSAGE ≥= 40 mm.	Each FLOWRATE ≈20 cu.m./hr. @ 250m. H2O TDH	5.5 5.5	52900	380 / 3 / 50	B-1ESP3	*SYSTEM CAN BE OPERATED IN MANUALLY AND AUTOMATICALLY *AUTOMATIC CONTROL IN NORMALLY SET AND OPERATED BY MERCURY FLOAT SWITCH

PROJECT : มาตรการจัดการน้ำศึกษา และน้ำหนทางการ ตำบลในเมือง อำเภอเมือง จังหวัดนครราชสีมา  
 LIST OF EQUIPMENTS FOR WASTEWATER TREATMENT PLANT

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	ELECTRICAL MOTOR DATA				POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
					EACH CAPACITY	APPR. KW	RPM	VIØ/Hz.		
1	A-1ST-01	PACKAGE GREASE TANK	UNDER ROAD 1 FLOOR @ OUTDOOR PARKING	<ul style="list-style-type: none"> <li>- UNDERGROUND TYPE</li> <li>- TANK BODY : FIBER GLASS REINFORCED PLASTIC</li> <li>- MANHOLE COVER : HEAVY DUTY CAST IRON AND OTHER NECESSARIES EQUIPMENT</li> <li>W/ EFFLUENT PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES</li> <li>INCLUDE SUMP PUMP -SUBMERSIBLE TYPE 2 SET.</li> <li>-SOLID PASSAGE &gt;= 40 mm.</li> </ul>	VOLUME >= 54 CUM BOD IN < 1800 mg/l BOD OUT < 1300 mg/l  PUMP FLOW RATE 9 CUM./HR @ 15 m. H2O TDH	1.5  1.5	52900  380 / 3 / 50	A-1ESP4	SYSTEM CAN BE OPERATED IN MANUALLY AND AUTOMATICALLY	
2	A-1WWTP-01	PACKAGE WASTEWATER TREATMENT PLANT	UNDER ROAD 1 FLOOR @ OUTDOOR PARKING	<ul style="list-style-type: none"> <li>SEPARATION &amp; AERATION ACTIVATED SLUDGE PROCESS</li> <li>- UNDERGROUND TYPE</li> <li>- TANK BODY : FIBER GLASS REINFORCED PLASTIC</li> <li>- MANHOLE COVER : HEAVY DUTY CAST IRON COMPLETE WITH</li> <li>- SUBMERSIBLE EJECTOR 3.6-4.3 KgO2/HR @ 3M 1 SET</li> <li>AND OTHER NECESSARIES EQUIPMENT WITH</li> <li>LIFTING PUMP (SUBMERSIBLE SEWAGE PUMP) ,NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES 2 SET</li> <li>- SOLID PASSAGE &gt;= 40 mm.</li> <li>RETURN SLUDGE PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES</li> <li>INCLUDE SUMP PUMP -SUBMERSIBLE TYPE 2 SET</li> <li>-SOLID PASSAGE &gt;= 40 mm.</li> <li>SUBMERSIBLE EJECTOR IN SLUDGE STORAGE TANK</li> <li>- SUBMERSIBLE EJECTOR 1.3-1.5 KgO2/HR @ 3M 1 SET</li> <li>EFFLUENT PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES</li> <li>- SOLID PASSAGE &gt;= 40 mm.</li> </ul>	FLOWRATE >= 64 CUM./D BOD OUT < 20 mg/l SS OUT < 50 mg/l  SUBMERSIBLE EJECTOR 80 m3/hr @ 3 m. H2O  PUMP FLOW RATE 8.5 CUM/HR @ 4 m. H2O TDH  PUMP FLOW RATE 8.5 CUM./ HR @ 4 m. H2O TDH  SUBMERSIBLE EJECTOR AIR FLOW RATE = 28 CUM./HR @ 3 m. H2O PUMP FLOW RATE 9 CUM / HR @15 m. H2O TDH	22  3.7 3.7 3.7  0.25 0.25  0.25 0.25  1.50  1.50 1.50	380 / 3 / 50  380 / 3 / 50  380 / 3 / 50  380 / 3 / 50  380 / 3 / 50  380 / 3 / 50  380 / 3 / 50	A-1ESP4	SYSTEM CAN BE OPERATED IN MANUALLY AND AUTOMATICALLY	

REV. : - REV. DATE : -

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## LIST OF EQUIPMENTS FOR WASTEWATER TREATMENT PLANT

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	ELECTRICAL MOTOR DATA				POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
					EACH CAPACITY	APPR. KW	RPM	V/Ø/Hz.		
3	A-1WWTP-02	PACKAGE WASTEWATER TREATMENT PLANT	UNDER ROAD 1 FLOOR @ NEAR SN PUMP ROOM	SEPARATION & AERATION ACTIVATED SLUDGE PROCESS - UNDERGROUND TYPE - TANK BODY : FIBER GLASS REINFORCED PLASTIC - MANHOLE COVER : HEAVY DUTY CAST IRON COMPLETE WITH - SUBMERSIBLE AERATOR 1.1 KgO2/HR @ 3.5M 1 SET  AND OTHER NECESSARIES EQUIPMENT WITH RETURN SLUDGE PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES 1 SET INCLUDE SUMP PUMP -SUBMERSIBLE TYPE 1 SET - SOLID PASSAGE >= 40 mm. EFFLUENT PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES - SOLID PASSAGE >= 40 mm.	FLOWRATE >= 42 CU.M/D BOD OUT <20 mg/l SS OUT < 50 mg/l SUBMERSIBLE AERATOR AIR FLOW RATE = 20 CU.M/HR @ 3.5 m. H2O  PUMP FLOW RATE 8.5 CU.M/HR @ 4 m. H2O TDH  PUMP FLOW RATE 8.5 CU.M/HR @15 m. H2O TDH	5.5  1.50  0.25  1.50 1.50	380 / 3 / 50  380 / 3 / 50  380 / 3 / 50	A-1ESP3	SYSTEM CAN BE OPERATED IN MANUALLY AND AUTOMATICALLY	
4	B-1WWTP-01	PACKAGE WASTEWATER TREATMENT PLANT	UNDER ROAD 1 FLOOR @ NEAR POOL PUMP ROOM	SEPARATION & AERATION ACTIVATED SLUDGE PROCESS - UNDERGROUND TYPE - TANK BODY : FIBER GLASS REINFORCED PLASTIC - MANHOLE COVER : HEAVY DUTY CAST IRON COMPLETE WITH - SUBMERSIBLE AERATOR 1.1 KgO2/HR @ 3.5M 1 SET  AND OTHER NECESSARIES EQUIPMENT WITH RETURN SLUDGE PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES 1 SET INCLUDE SUMP PUMP -SUBMERSIBLE TYPE 1 SET - SOLID PASSAGE >= 40 mm. EFFLUENT PUMP (SUBMERSIBLE SEWAGE PUMP, NON-CLOG IMPELLER TYPE COMPLETE WITH GUIDE RAIL, LIFTING CHAIN AND ACCESSORIES - SOLID PASSAGE >= 40 mm.	FLOWRATE >= 50 CU.M/D BOD OUT <20 mg/l SS OUT < 50 mg/l SUBMERSIBLE AERATOR AIR FLOW RATE = 20 CU.M/HR @ 3.5 m. H2O  PUMP FLOW RATE 8.5 CU.M/HR @ 4 m. H2O TDH  PUMP FLOW RATE 8.5 CU.M/HR @15 m. H2O TDH	5.5  1.50  0.25  1.50 1.50	380 / 3 / 50  380 / 3 / 50  380 / 3 / 50	B-1ESP1	SYSTEM CAN BE OPERATED IN MANUALLY AND AUTOMATICALLY	

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**LIST OF EQUIPMENTS FOR REUSEWATER PLANT**

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	EACH CAPACITY	ELECTRICAL MOTOR DATA			POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
						APPR. KW	RPM	V/Ø/Hz		
1	A-1/FWT-01	FULSH WATER TANK (REUSE LINE)	PUMP RM AT 1 FLR. (A BLDG.)	FRP TANK WITH COVER, DRAIN PLUG & ACCESSORIES	TANK VOLUME 5,000 LITRES	-	-	-	-	AUTOMATIC OPERATED BY CAPACITIVE LEVEL SENSOR

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**LIST OF EQUIPMENTS FOR EXTERNAL WORK SYSTEM (WATER FEATURE SYSTEM)**

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	ELECTRICAL MOTOR DATA				POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
					EACH CAPACITY	APPR. KW	RPM	V/Ø/HZ.		
1	B-1PPF-01 B-1PPF-02 B-1PPF-03 B-1PPF-04 B-1PPF-05	POND FILTRATION PUMP (4-DUTY,1-STANDBY)	POOL PUMP ROOM (B BLDG.)	SELF PRIMING HORIZONTAL CENTRIFUGAL PUMP WITH BASKET STRAINER (TURNOVER RATE 4 HOUR)	FLOWRATE = 140 GPM @ 18 m. H2O TDH	3.0 3.0 3.0 3.0	52900	380 / 3 / 50	B-1SP1	*BOTH MANUAL AND AUTOMATICALLY OPERATED BY 24 HR TIMER - LOW LEVEL: CUT-OFF - LOW LEVEL (MAKE UP LINE OPEN) - HIGH LEVEL (MAKE UP LINE CLOSE) - HIGH LEVEL ALARM *ALL PUMP SHALL BE ALTERNATED IN DUTY CYCLE OPERATION AUTOMATICALLY *ALL PUMP CAN BE MANUAL START/STOP CONTROL
2	B-1HSF-01 B-1HSF-02 B-1HSF-03 B-1HSF-04 B-1HSF-05	HIGH RATE SAND FILTER (4-DUTY,1-STANDBY)	POOL PUMP ROOM (B BLDG.)	-HIGH-RATE SAND FILTER WITH MULTIPORT VALVE AND ACCESSORIES	Each FLOWRATE =130 GPM.	-	-	-	B-1SP1	*ALL FILTER SHALL BE ALTERNATED IN DUTY CYCLE OPERATION AUTOMATICALLY *ALL PUMP CAN BE MANUAL START/STOP CONTROL
3	B-1SCT-01	SALT CHLORINATOR	POOL PUMP ROOM (B BLDG.)	COMMERCIAL SALT CHLORINATOR CONSIST OF ELECTROLYTIC CELL, CONTROL PANEL AND ACCESSORIES W/DIGITAL DISPLAY UNIT	237 g/hr. OUTPUT EXPRESS IN 100 % GAS CHLORINE EQUIVALENT	1.1	2900	220 / 1 / 50	B-1SP1	AUTOMATICALLY OPERATED
4	B-1AFP-01	ACID FEED PUMP	POOL PUMP ROOM (B BLDG.)	METERING DIAPHRAM PUMP ADJUSTABLE STROKE TYPE, ALL NON-CORROSIVE COMPONENT	6 L/HOUR @4 BAR.	0.1	-	220 / 1 / 50	B-1SP1	AUTOMATICALLY OPERATED BY CHEMICAL CONTROLLER
5	B-1AST-01	ACID TANK	POOL PUMP ROOM (B BLDG.)	PE OR FRP TANK WITH COVER, DRAIN PLUG AND ACCESSORIES FOR METERING PUMP & MIXER INSTALLATION	VOLUME = 800 L	-	-	-	-	-

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**LIST OF EQUIPMENTS FOR EXTERNAL WORK SYSTEM (WATER FEATURE SYSTEM)**

DATE : 20-Aug-15

ITEM NO.	SYMBOL	DESCRIPTION	LOCATION	SYSTEM COMPONENT AND SPECIFICATION	ELECTRICAL MOTOR DATA				POWER CONTROL CENTER	CONTROL FUNCTION AND CONTROL DEVICES
					EACH CAPACITY	APPR. KW	RPM	V/Ø/Hz.		
6	B-1MIX-01	MIXER	POOL PUMP ROOM (B BLDG.)	STAINLESS STEEL SHAFT AND PROPELLER MIXER	FOR 200 L TANK	0.25	51400	220 / 1 / 50	B-1SP1	MANUAL OPERATED
7	B-1BPC-01	pH CONTROLLER	POOL PUMP ROOM (B BLDG.)	pH AND ORP CONTROLLER SYSTEM	-	0.02	-	220 / 1 / 50	B-1SP1	AUTOMATIC pH AND ORP CONTROLLER SYSTEM