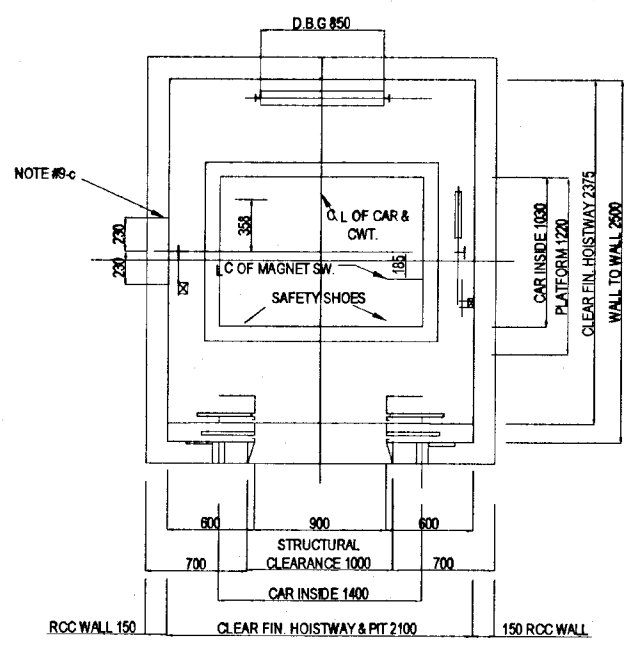


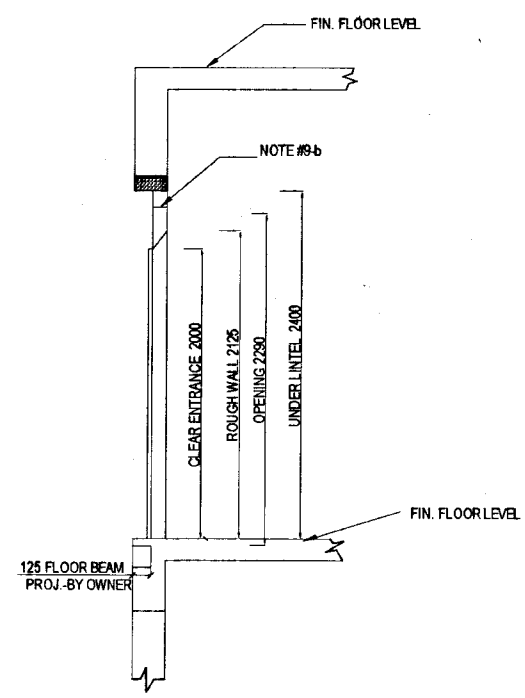
SECTION 'A' - 'A'

FLOOR	HEIGHT
4 <sup>th</sup>	15.75m
3 <sup>rd</sup>	12.55m
2 <sup>nd</sup>	8.65m
1 <sup>st</sup>	4.75m
0 <sup>th</sup>	0



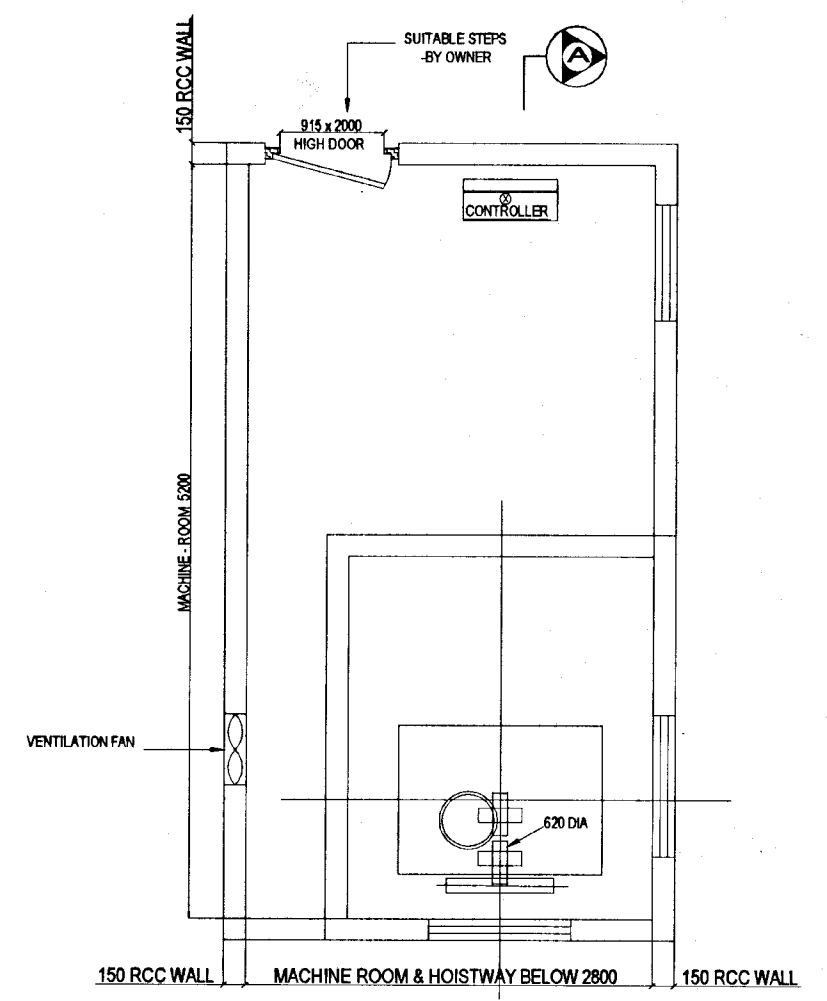
HOISTWAY PLAN

FRONT WALL AT GROUND FLOOR MUST NOT BE CONSTRUCTED UNTIL EQUIPMENT IS SET IN POSITION



DETAIL AT ENTRANCE

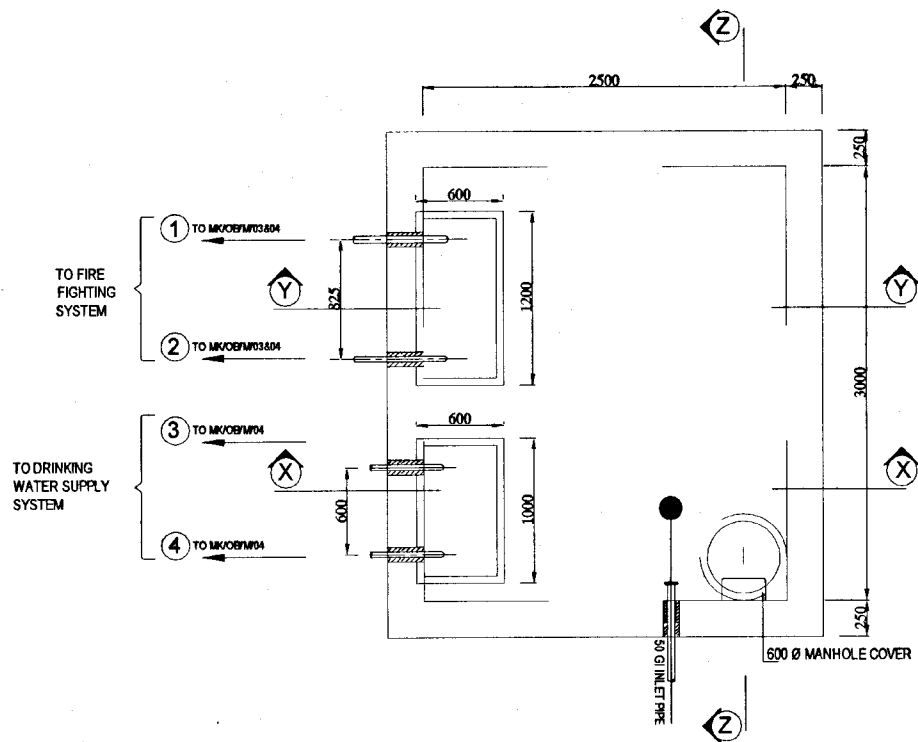
(AT ALL LANDINGS)



MACHINE - ROOM PLAN

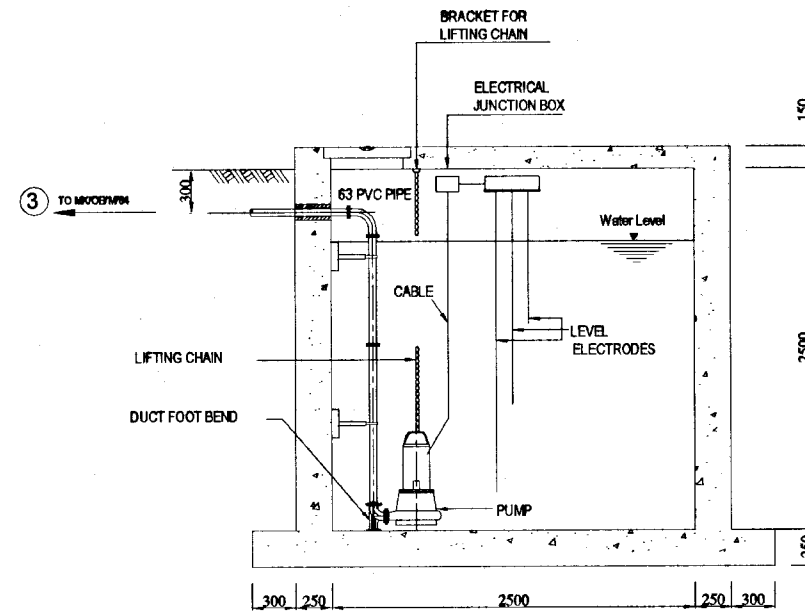
DO NOT SCALE

<p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING GENERAL ARRANGEMENT OF ELEVATOR</p>
	<p>DESIGNED: [Signature]</p> <p>CHECKED: [Signature]</p> <p>BY: TEAM LEADER [Signature]</p> <p>TEAM LEADER [Signature]</p>	<p>DATE: JAN 2001</p> <p>CONTRACT NO: NRW / CW</p>
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p> <p>NIHON SUDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	<p>BY: TEAM LEADER [Signature]</p> <p>TEAM LEADER [Signature]</p>	<p>DATE: JAN 2001</p> <p>CONTRACT NO: NRW / CW</p> <p>MK / OB / M-01</p>



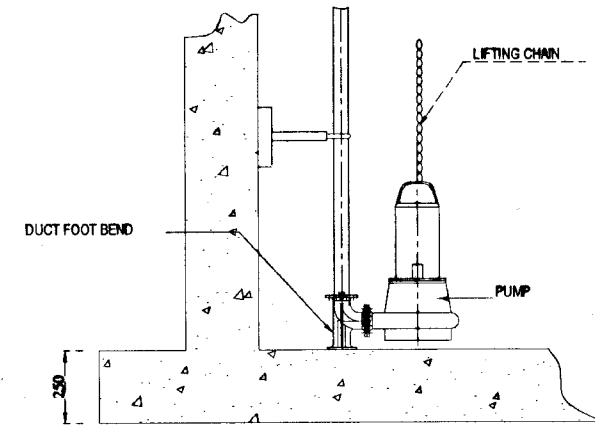
**WATER SUPPLY SUMP PLAN**

SCALE 1 : 50



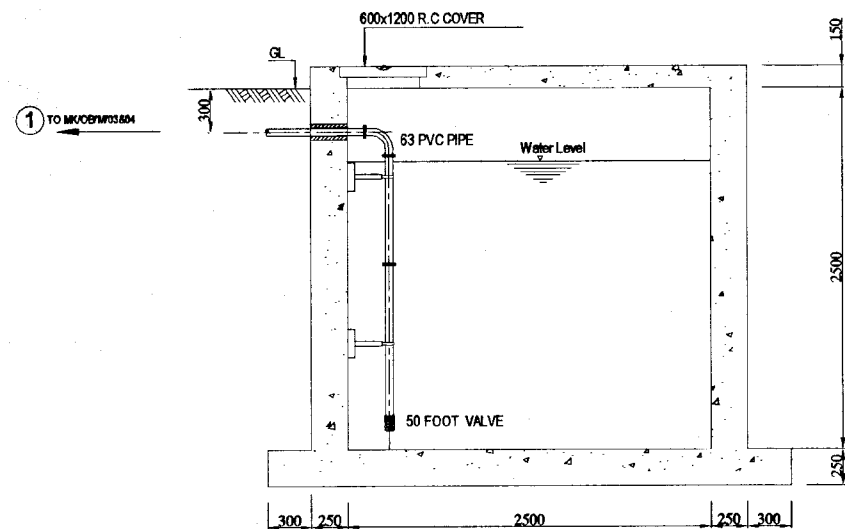
**SECTION X - X**

SCALE 1 : 50



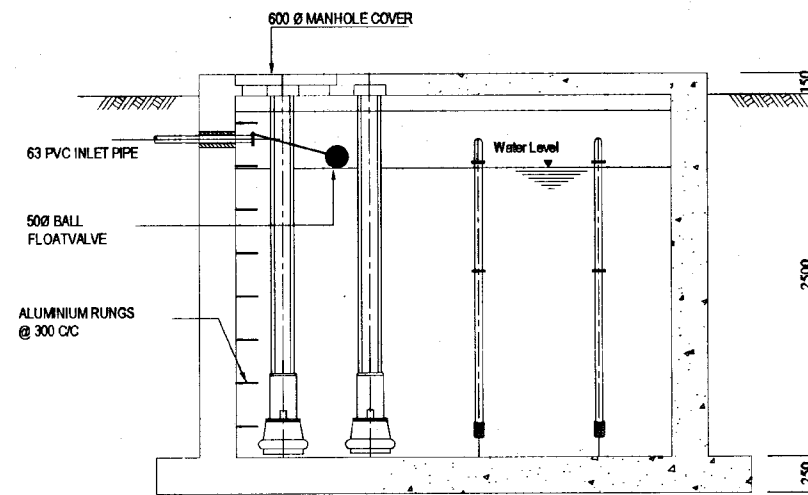
**DETAILS OF SUBMERSIBLE PUMP**

SCALE 1 : 25



**SECTION Y - Y**

SCALE 1 : 50

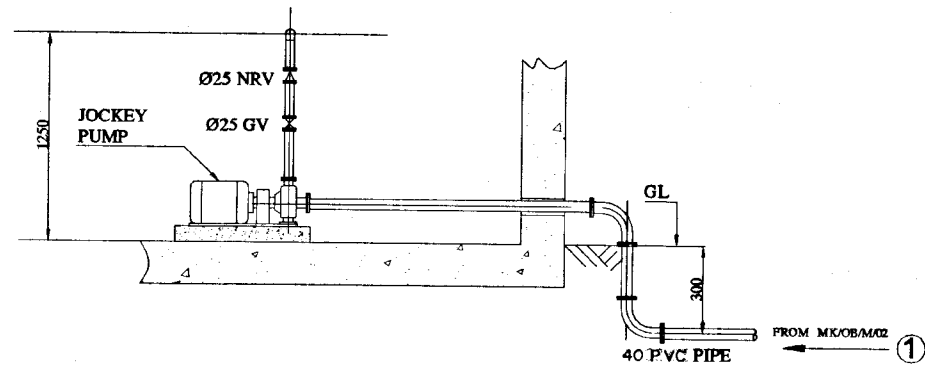


**SECTION Z - Z**

SCALE 1 : 50

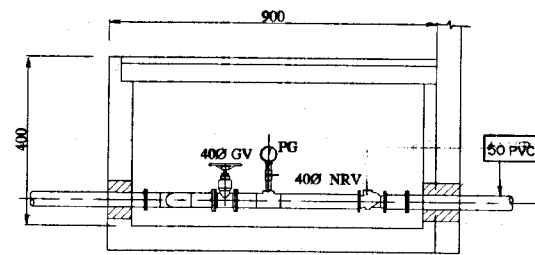
**DO NOT SCALE**

<p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD          THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER          IN THE GREATER COLOMBO AREA</p>	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING          DETAILS OF WATER SUPPLY SUMP</b>	
	DESIGNED: <i>[Signature]</i>	DRAWN: <i>[Signature]</i>	DATE: <b>JAN 2001</b>
	CHECKED: <i>[Signature]</i>	PERMITTED: <i>[Signature]</i>	CONTRACT NO.: <b>NRW / CW</b>
	BY: <i>[Signature]</i>	A.S.M. IN CHARGE: <i>[Signature]</i> R.D.K.	NO. IN: <b>NRWOB/M-02</b>



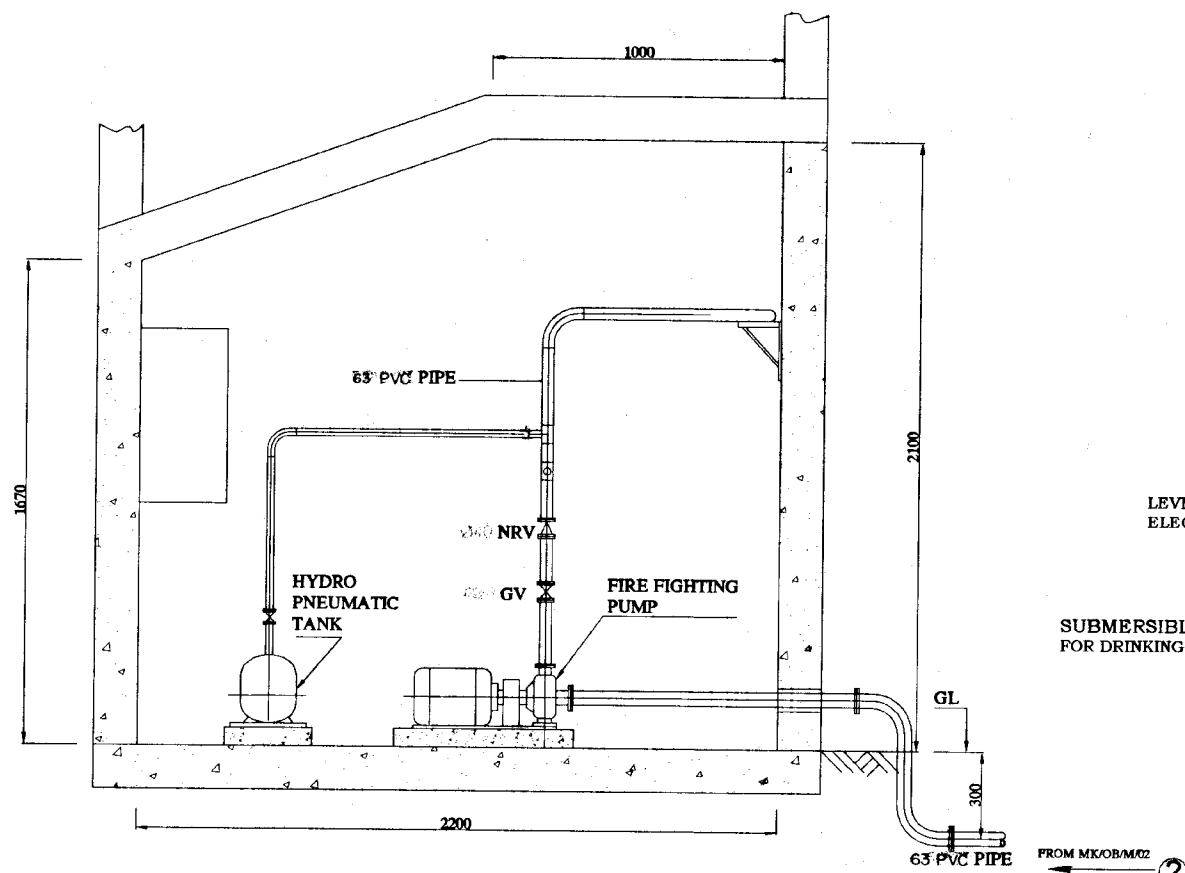
SECTION Y - Y  
MK/OB/M/04

SCALE 1 : 25



SECTION A - A  
MK/OB/M/04

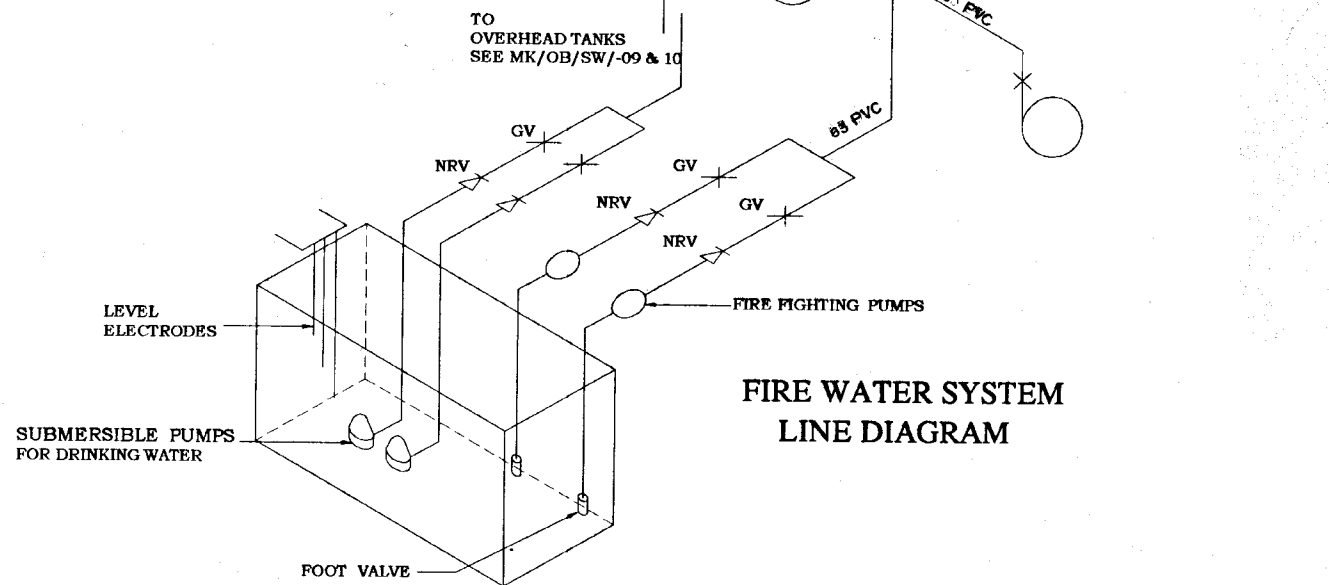
SCALE 1 :  
20



SECTION X - X  
MK/OB/M/04




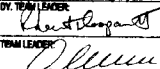
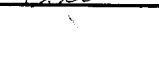




SCALE 1 : 25

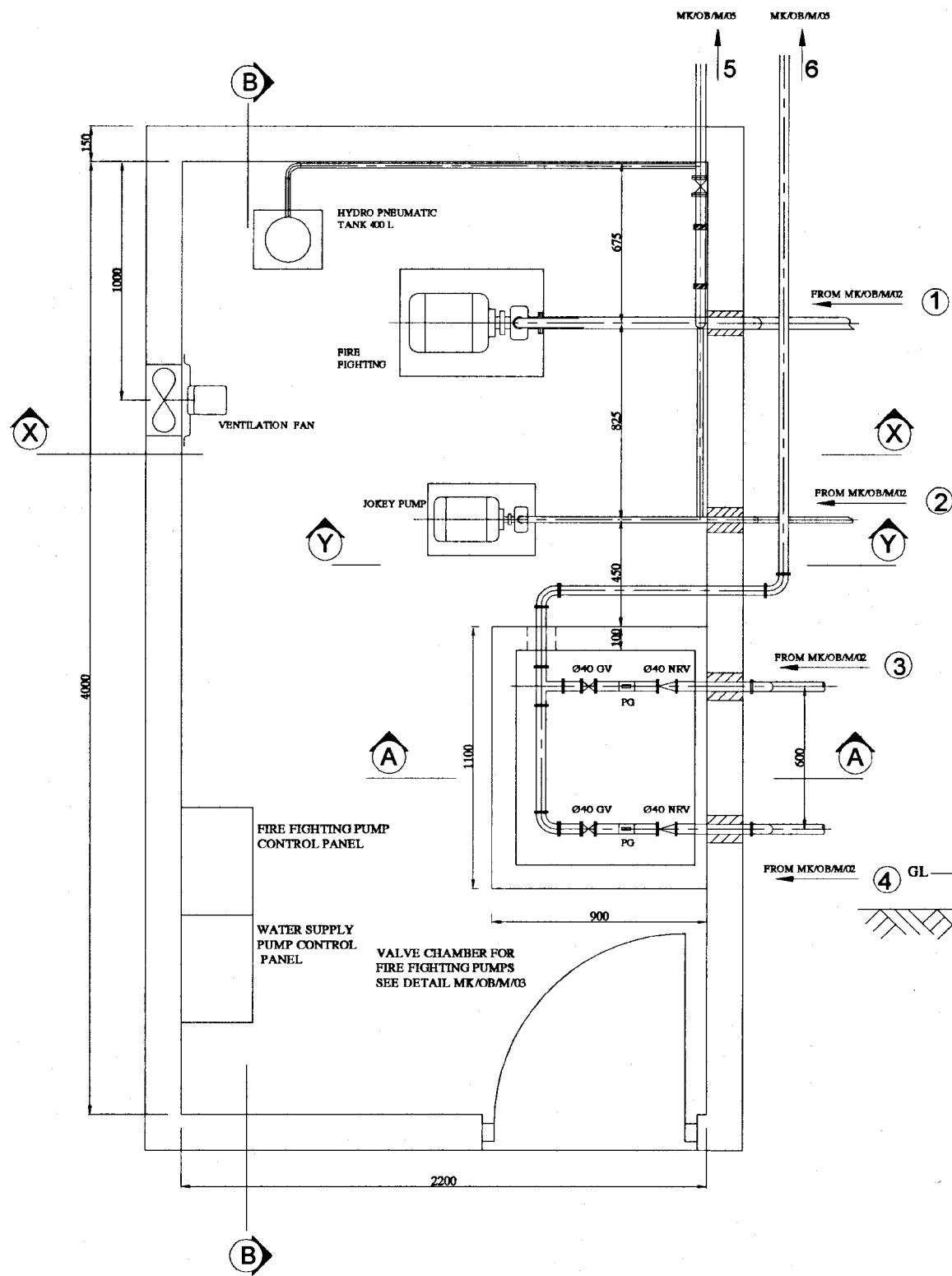
NOTE  
PVC TYPE 1000 PIPES TO BE USED FOR THE  
FIRE FIGHTING SYSTEM.



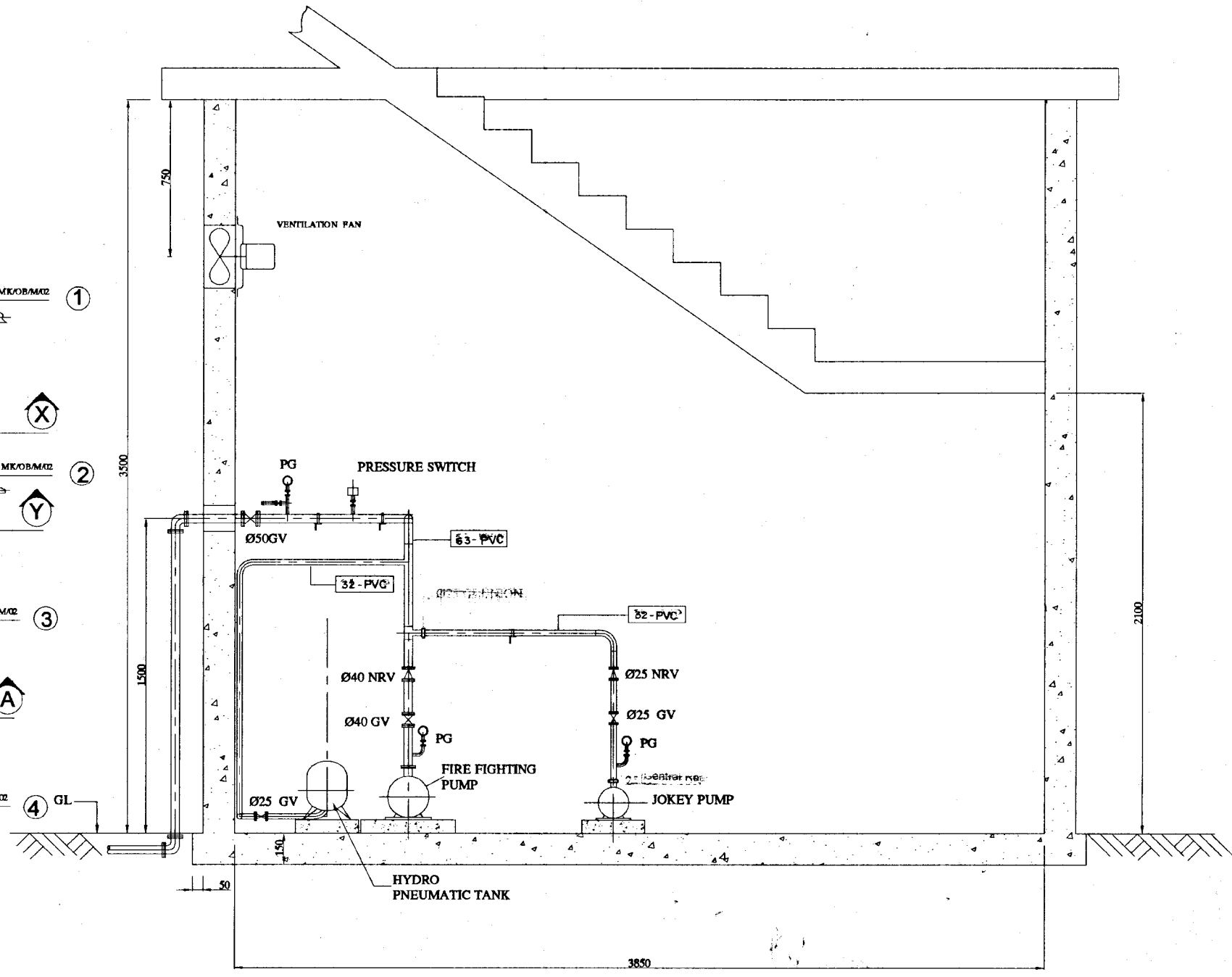
FIRE WATER SYSTEM  
LINE DIAGRAM

DO NOT SCALE

 NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING          DETAILS OF FIRE FIGHTING          AND WATER SUPPLY SYSTEM</b>
	DESIGNED:  CHECKED:  DIV. TEAM LEADER:  TEAM LEADER: 	DRAWN:  P.M. (P.W.S.D.) INCHARGE:  A.S.M. (P.W.S.D.) INCHARGE:  S.B.M. (P.W.S.D.) INCHARGE: 




**PUMP ROOM PLAN**  
SCALE 1 : 25

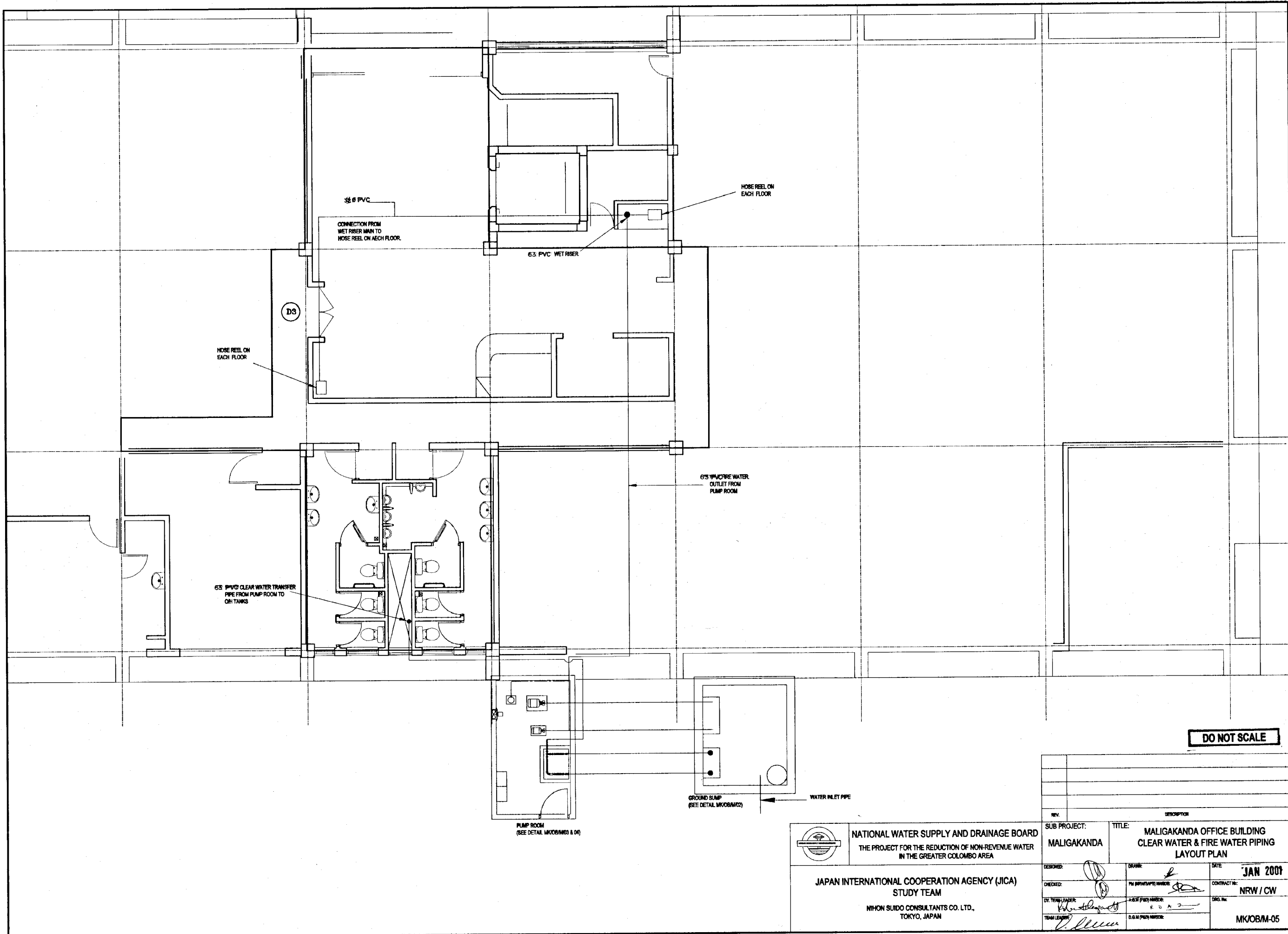



**SECTION B - B**  
SCALE 1 : 25

**DO NOT SCALE**

NOTE  
PVC TYPE 1000 PIPES TO BE USED  
FOR THE FIRE FIGHTING SYSTEM.





 NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING          DETAILS OF FIRE FIGHTING          AND WATER SUPPLY SYSTEM</b>
	DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> DV. TEAM LEADER: <i>[Signature]</i> TEAM LEADER: <i>[Signature]</i>	DRAWN: <i>[Signature]</i> PM (PROVISED) NUMBER: <i>[Signature]</i> A.S.M (P) NUMBER: <i>[Signature]</i> D.S.M (P) NUMBER: <i>[Signature]</i>

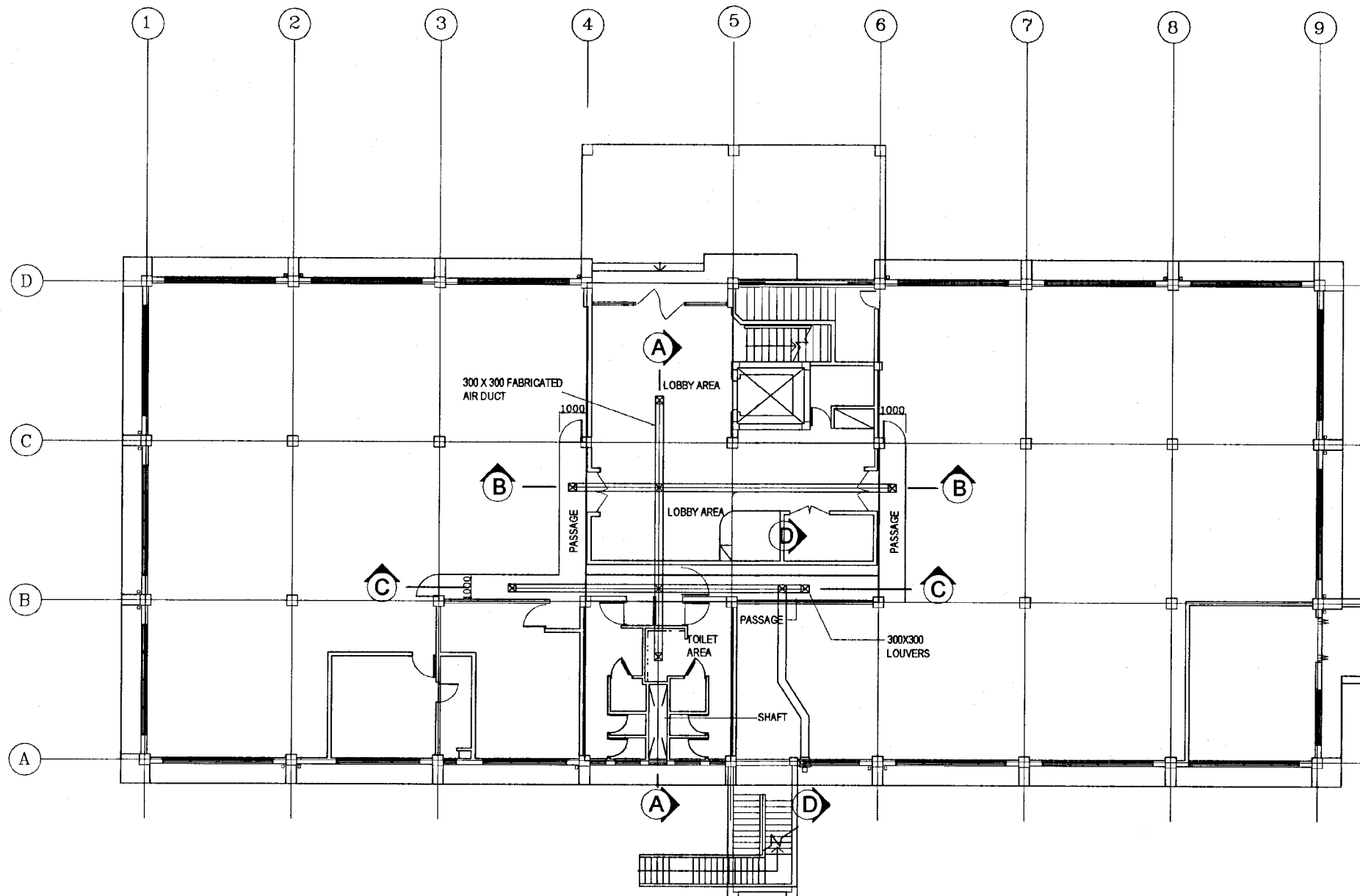



**NATIONAL WATER SUPPLY AND DRAINAGE BOARD**  
 THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER  
 IN THE GREATER COLOMBO AREA

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**  
 STUDY TEAM  
 NIHON SUDO CONSULTANTS CO. LTD.,  
 TOKYO, JAPAN


REV.	DESCRIPTION	

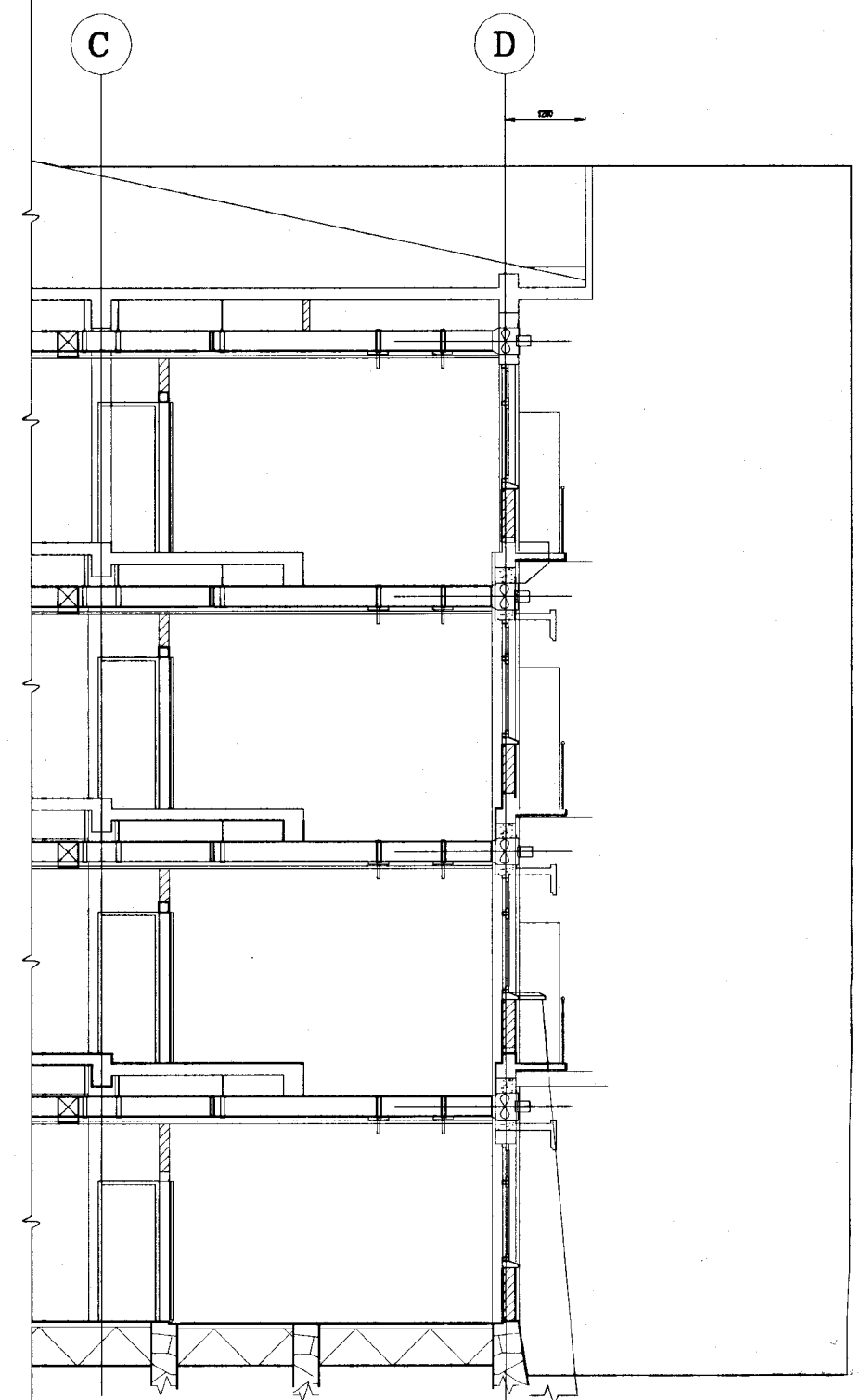
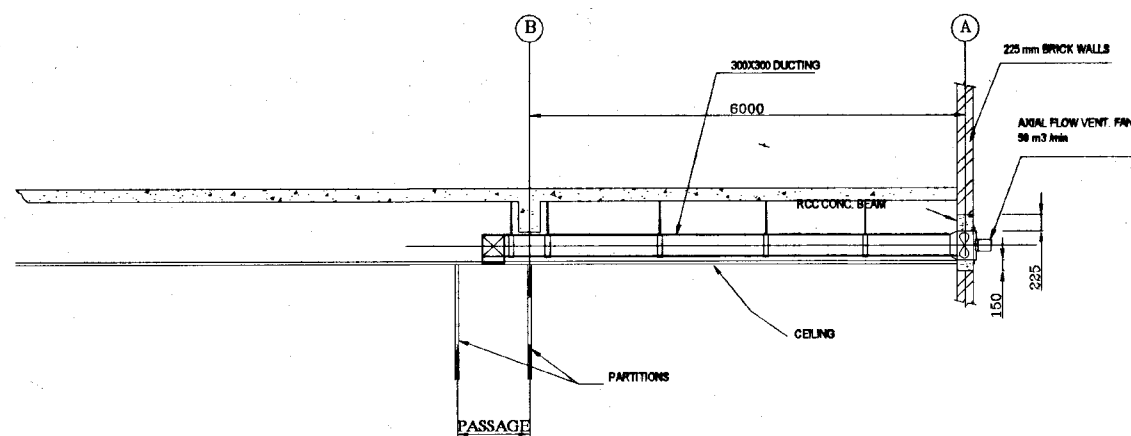
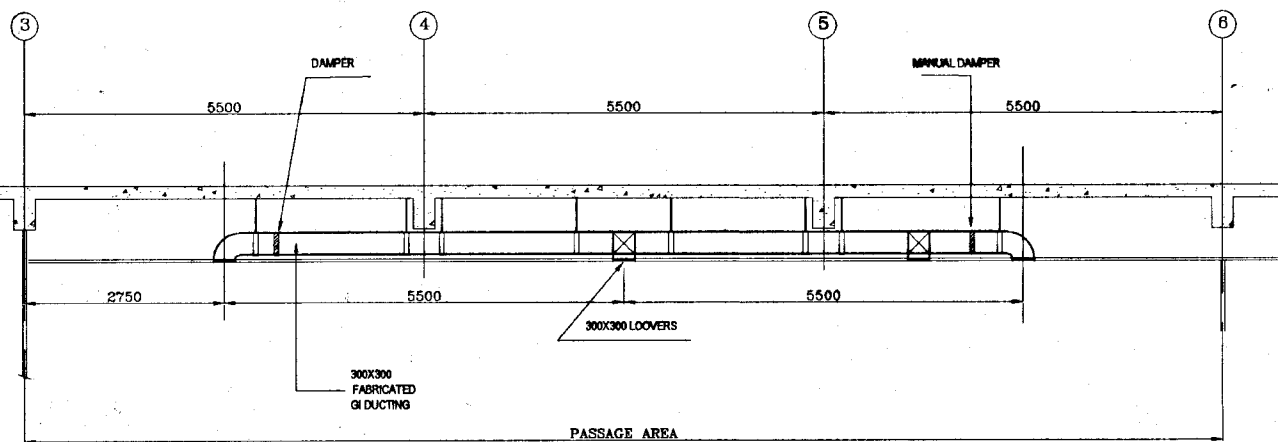
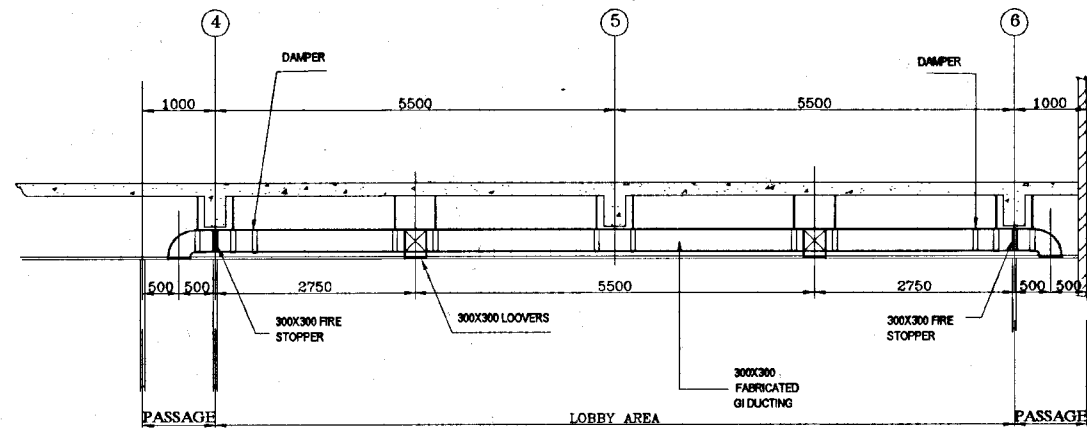
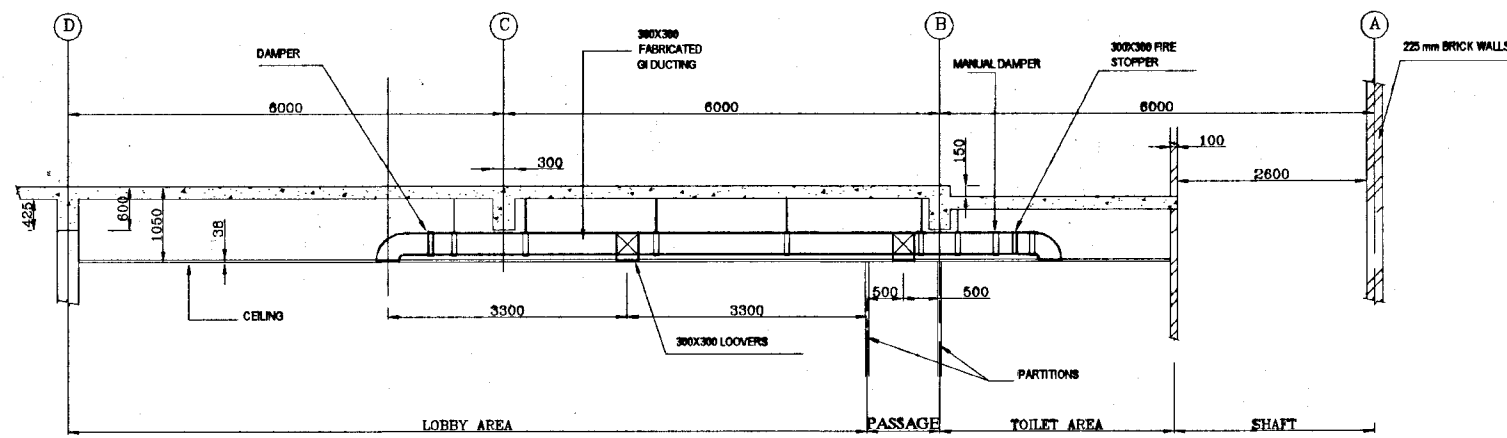
SUB PROJECT: MALIGAKANDA		TITLE: MALIGAKANDA OFFICE BUILDING CLEAR WATER & FIRE WATER PIPING LAYOUT PLAN	
DESIGNED: 	DATE: JAN 2007	CHECKED: 	CONTRACT NO: NRW / CW
DR. TEAM LEADER: 	ASST. (PW) NUMBER: K0A2	DRG. No.	MKJOBM-05
TEAM LEADER: 	D.G.M (PW) NUMBER:		



PLAN  
SCALE 1 : 200

DO NOT SCALE

 <p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING VENT. AIR DUCTING FOR TYPICAL PLAN</p>	<p>DATE: JAN 2007</p>
	<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM NIHON SUDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	<p>DESIGNED: [Signature]</p> <p>CHECKED: [Signature]</p> <p>BY: TEAM LEADER: [Signature]</p> <p>TEAM LEADER: [Signature]</p>	<p>DRAWN: [Signature]</p> <p>SCALE: R. S. &amp; J. J.</p> <p>D.S.M (P&amp;S) NUMBER:</p>



SCALE 1:100

DO NOT SCALE

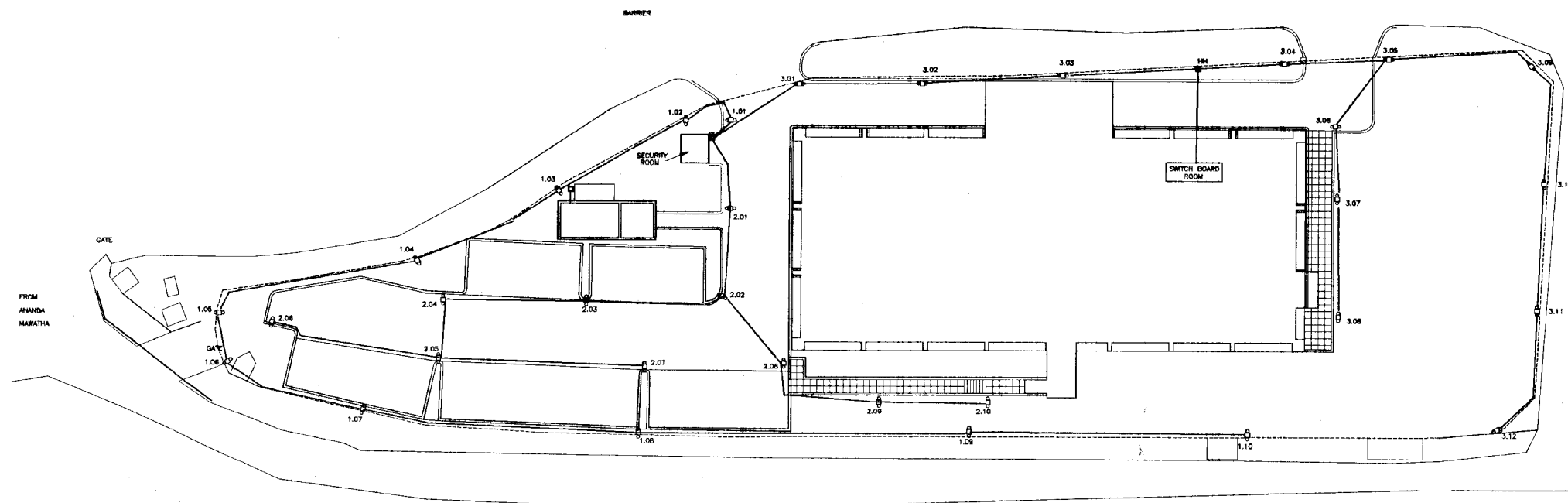
NATIONAL WATER SUPPLY AND DRAINAGE BOARD  
THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER  
IN THE GREATER COLOMBO AREA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
STUDY TEAM

NIHON SUDO CONSULTANTS CO. LTD.,  
TOKYO, JAPAN

REV.	DESCRIPTION

SUB PROJECT:	MALIGAKANDA	TITLE:	MALIGAKANDA OFFICE BUILDING VENT. AIR DUCTING FOR SECTION & DETAILS
DATE:	JAN 2001	CONTRACT NO.:	NRW / CW
CHECKER:	<i>[Signature]</i>	SCALE:	1:100
DR. TEAM LEADER:	<i>[Signature]</i>	DATE:	JAN 2001
TEAM LEADER:	<i>[Signature]</i>	PROJECT NO.:	MK/06M-07

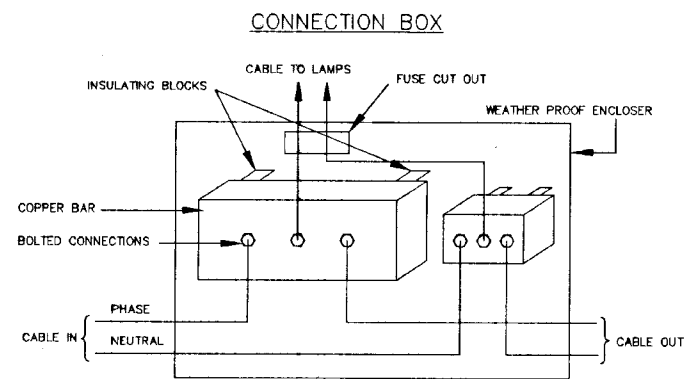
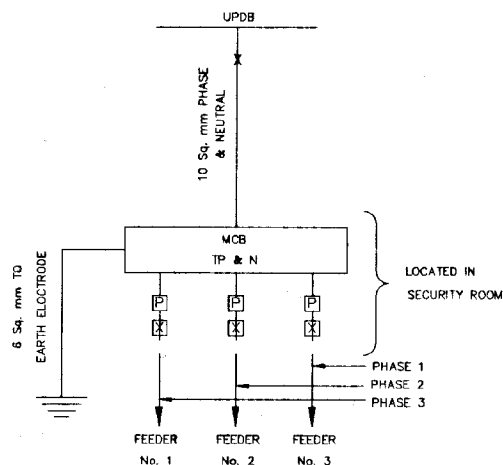


FEEDER No.	ROUTE	SIZE OF CABLES (PHASE & NEUTRAL)	LENGTH (APPROX.)	No. OF LAMPS CONNECTED
1	H. H., 1.01, 1.02, 1.03 THRO TO 1.10	6 Sq. mm UPTO 1.05 & 4 Sq. mm BEYOND	160	10
2	H. H., 2.01, 2.02, 2.03, 2.04, 2.05	6 Sq. mm	45	5
2A	2.02, 2.08, 2.09, 2.10	4 Sq. mm	26	3
2B	2.05, 2.06	2.5 Sq. mm	16	1
2C	2.05, 2.07	2.5 Sq. mm	18	1
3	HH, 3.01, 3.02, THRO TO 3.05	6 Sq. mm	64	5
3A	3.05, 3.06, 3.07, 3.08	4 Sq. mm	28	3
3B	3.05, 3.09, 3.10, 3.11, 3.12	4 Sq. mm	49	4
4	FROM UPDB TO SECURITY ROOM	10 Sq. mm	75	-

LEGEND:-

	GARDEN LAMP (TYPE 32)
	HAND HOLES (600x600x400)
	MCB'S (S. P.) 10A
	PHOTO ELECTRIC CONTROL SWITCH
	RCCB 30A DP

GARDEN LAMPS CONTROL ARRANGEMENT



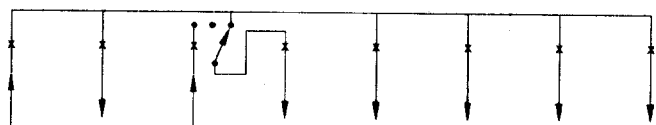
CONNECTION BOXES WITH LOCKABLE FRONT DOORS ARE TO BE EMBEDDED IN THE CONCRETE BASE OF THE GARDEN LAMP SUPPORTS.

**DO NOT SCALE**

<p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING SITE LIGHTING</p>
	<p>DESIGNED: H.S. Jayathilaka</p> <p>CHECKED: H.S. Jayathilaka</p> <p>DRY TEAM LEADER: H.S. Jayathilaka</p> <p>TEAM LEADER: H.S. Jayathilaka</p>	<p>DRAWN: R.D.A.J.</p> <p>SCALE: 1:100</p>



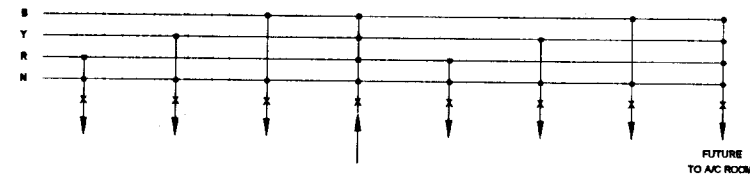
MAIN SWITCH BOARD (MSB)



FEEDER No.	1	2	3	4	5	6	7	8
CONTROL SWITCH	MCCB TP&N	MCCB TP&N	ATS 4 POLE	MCCB TP&N	MCCB TP&N	MCCB TP&N	MCCB TP&N	MCCB TP&N
RATING (NORMAL) (A)	600	125	100	125	125	125	125	125
S. C. RATING (MINIMUM) (kA)	25	25	25	25	25	25	25	25
PROTECTION	O/C, S/C	O/C, S/C	WIDE SPEC.	O/C, S/C & EF	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C
INSTRUMENTS:								
VOLTMETER & SELECTOR SWITCH	✓		✓					
AMMETER & SELECTOR SWITCH	✓	✓	✓	✓	✓	✓	✓	✓
P. F. METER & SWITCH	✓							
W/M METER	✓		✓					
FEEDER								
SIZE No. x Sq. mm	2x240		35	35	50	50	50	50
No. OF CORES	4		4	4	4	4	4	4
FROM / TO	FROM: CEB SWITCH	SPARE	FROM: D-G SET	TO: UPDB	TO: PDB GFL	TO: PDB 1st FL	TO: PDB 2nd FL	TO: PDB 3rd FL

(SWITCH No.1 + No.3 ARE INTERLOCKED)  
POWER DISTRIBUTION BOARDS (PDB'S) ARE LOCATED ON THE WALLS OF THE SWITCH BOARD ROOM, ON EACH FLOOR.

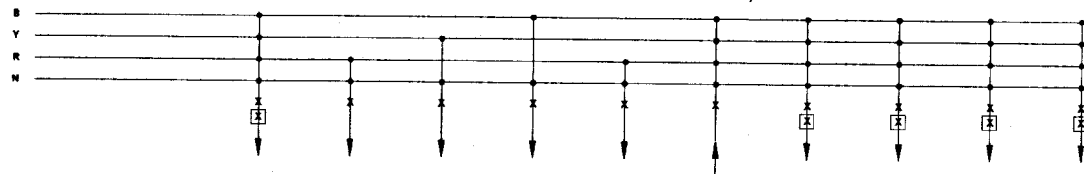
POWER DISTRIBUTION BOARD (PDB)  
(ON EACH FLOOR)



FEEDER No.	1	2	3	4	5	6	7	8
CONTROL SWITCH	MCB DP	MCB DP	MCB DP	MCCB TP&N	MCB DP	MCB DP	MCB DP	MCCB TP&N
RATING (NORMAL) (A)	30	30	30	125	60	60	60	60
S. C. RATING (MINIMUM) (kA)	10	10	10	20	10	10	10	10
PROTECTION	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C
INSTRUMENTS:								
VOLTMETER & SELECTOR SWITCH				✓				
AMMETER & SELECTOR SWITCH								
P. F. METER & SWITCH								
W/M METER								
FEEDER								
SIZE No. x Sq. mm	10	10	10	60	18	18	18	10
No. OF CORES	2	2	2	2	2	2	2	4
FROM / TO	TO: SDB-R	TO: SDB-Y	TO: SDB-B	FROM: MSB (G FL)	TO: LDB-R	TO: LDB-Y	TO: LDB-B	TO: A/C ROOM

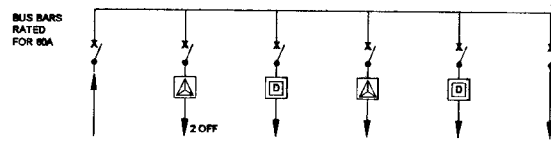
POWER LIGHTING DISTRIBUTION BOARDS (LDB'S) , SOCKET DISTRIBUTION BOARDS (SDB'S) ARE ALL LOCATED ON OF THE SWITCH BOARD ROOM, ON EACH FLOOR.

UTILITIES POWER DISTRIBUTION BOARD (UPDB)  
(LOCATED IN SWITCH BOARD ROOM OF GROUND FLOOR)



FEEDER No.	1	2	3	4	5	6	7	8	9	10
CONTROL SWITCH	MCCB TP&N & RCCB TP	MCB DP	MCB DP	MCB DP	MCB DP	MCCB TP&N & RCCB TP	MCCB TP&N & RCCB TP	MCCB TP&N & RCCB TP	MCCB TP&N & RCCB TP	MCCB TP&N & RCCB TP
RATING (NORMAL) (A)	20	60	60	60	60	100	30	60	30	60
S. C. RATING (MINIMUM) (kA)	10	60	60	60	60	20	20	20	20	20
PROTECTION	O/C, S/C & EF	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C & EF	O/C, S/C & EF	O/C, S/C & EF	O/C, S/C & EF
FEEDER										
SIZE No. x Sq. mm	4	18	18	18	18	35	10	4	4	18
No. OF CORES	4	2	2	2	2	4	4	4	4	4
FROM / TO	TO: YARD LIGHTS CONTROL IN SECURITY ROOM	TO: ELDB GFL	TO: ELDB 1st FL	TO: ELDB 2nd FL	TO: ELDB 3rd FL	FROM: MSB	TO: LIFT	SPARE	SPARE	TO PUMP CONTROL BOARD

PUMP CONTROL BOARD



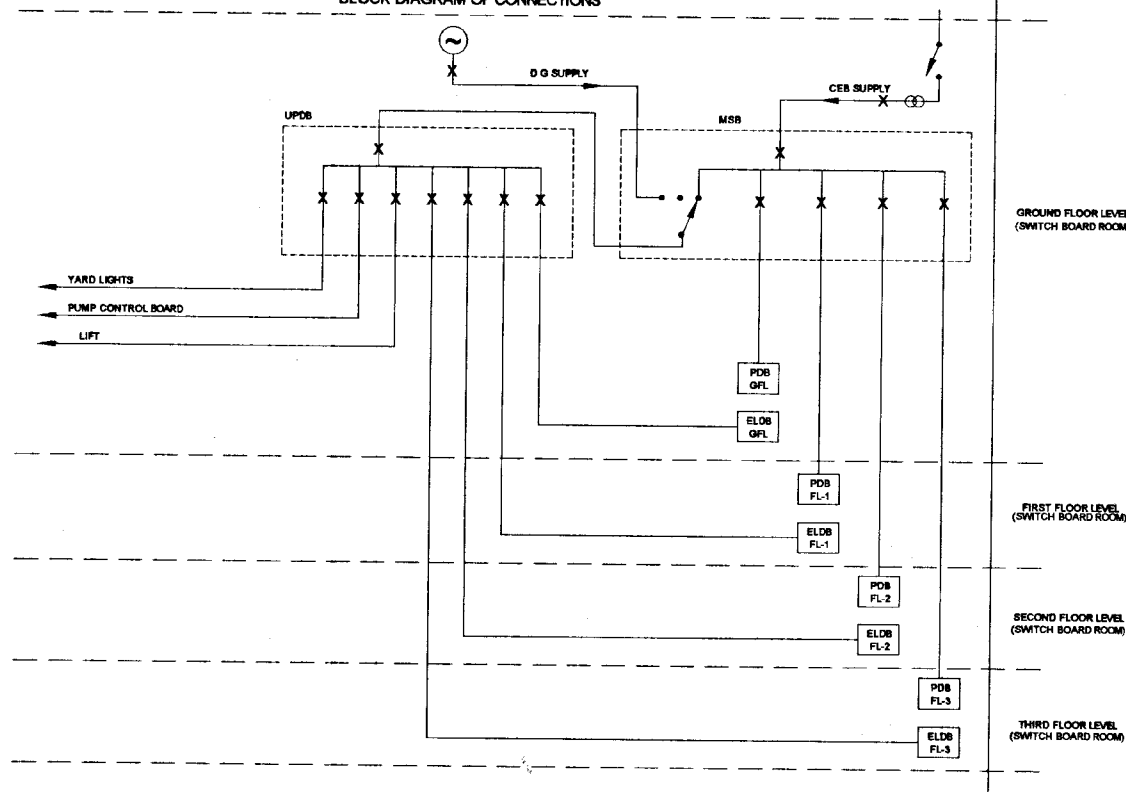
FEEDER No.	1	2	3	4	5	6
CONTROL SWITCH	MCCB	MCCB	MCCB	MCCB	MCCB	MCB
NR OF POLES	TP & N	TP & N	TP & N	TP & N	TP & N	SP & N
RATING (NORMAL) (A)	60	20	16	20	16	20
S. C. RATING (MINIMUM) (kA)	20 ka	20 ka	20 ka	20 ka	20 ka	20 ka
PROTECTION	O/C & S/C	AS SPECIFIED	AS SPECIFIED	AS SPECIFIED	AS SPECIFIED	O/C & S/C RCCB (ELT)
MOTOR STARTER						
TYPE		STAR / DELTA	DOL	STAR / DELTA	DOL	
RATING (kW)		8 kw	3 kw	8 kw	3 kw	
PILOT LAMPS						
ON 'MAINS' SIDE	ONE SET					
ON 'LOAD' SIDE		ONE SET	ONE SET	ONE SET	ONE SET	
INSTRUMENTS						
VOLTMETER & SELECTOR SWITCH	ONE SET 0 TO 600V					
AMMETER & SELECTOR SWITCH	ONE SET 0 TO 60A					
NAME OF FEEDER						
	IN-COMING FROM UPDB	TO WATER PUMP No. 1	TO FINE PUMP	TO WATER PUMP No. 2	TO JOCKY PUMP	FOR ROOM LIGHTING

MULTI - TIER ARRANGEMENT OF SWITCH-GEAR IS PERMISSIBLE.

SELECTION OF CIRCUIS			
(A LIST OF CIRCUIS SPECIFIED)			
WINDING OF	SIZE OF CIRCUIS	NR OF	FE
3-ECIRCUIT			
11-20A	15	15	23
11-20A	4	4	4
21-60A	10	10	10
41-60A	16	16	16
61-125A	25	25	25
81-125A	30	30	30
101-200A	50	50	50
201-300A	80	80	80

1. NR OF CIRCUIS PER CIRCUIT  
2. NR OF CIRCUIS PER CIRCUIT

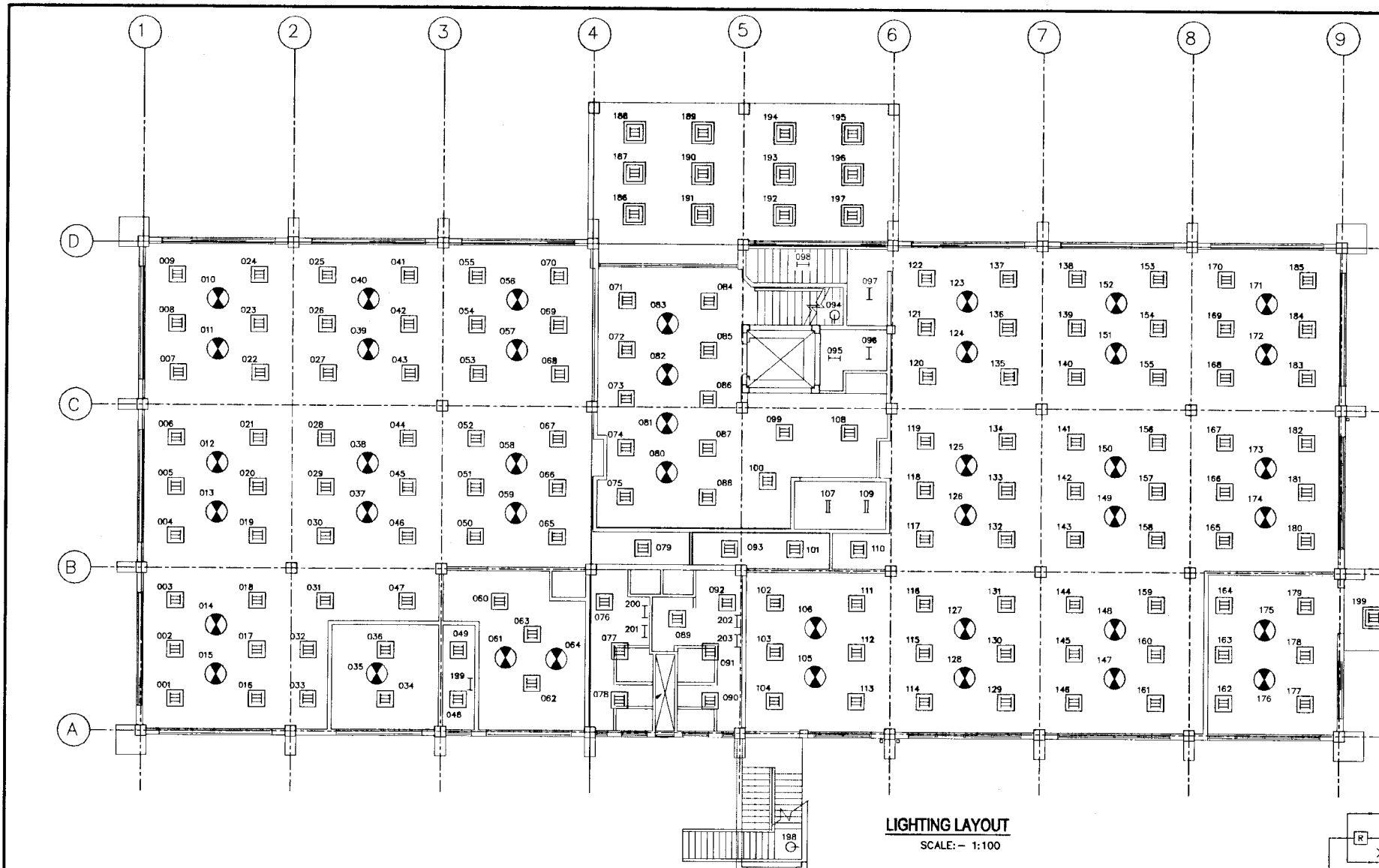
BLOCK DIAGRAM OF CONNECTIONS



- X - MCB
- ⊗ - MCCB
- ⊠ - STAR DELTA STARTER
- ⊡ - DOL STARTER

DO NOT SCALE

<p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	SUB PROJECT:	TITLE:
	MALIGAKANDA	MALIGAKANDA OFFICE BUILDING POWER DISTRIBUTION ARRANGEMENT
DESIGNED: <i>H. Jayaraman</i>	DRAWN: <i>D. Jayaraman</i>	DATE: JAN 2001
CHECKED: <i>H. Jayaraman</i>	IN CHARGE: <i>R. D. A.</i>	CONTRACT NO: NRW / CW
DR. TEAM LEADER: <i>H. Jayaraman</i>	A.S.M. IN CHARGE: <i>R. D. A.</i>	DRG. NO: MK / OB / E-02
TEAM LEADER: <i>H. Jayaraman</i>	D.S.M. IN CHARGE:	
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM NIHON SUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>		



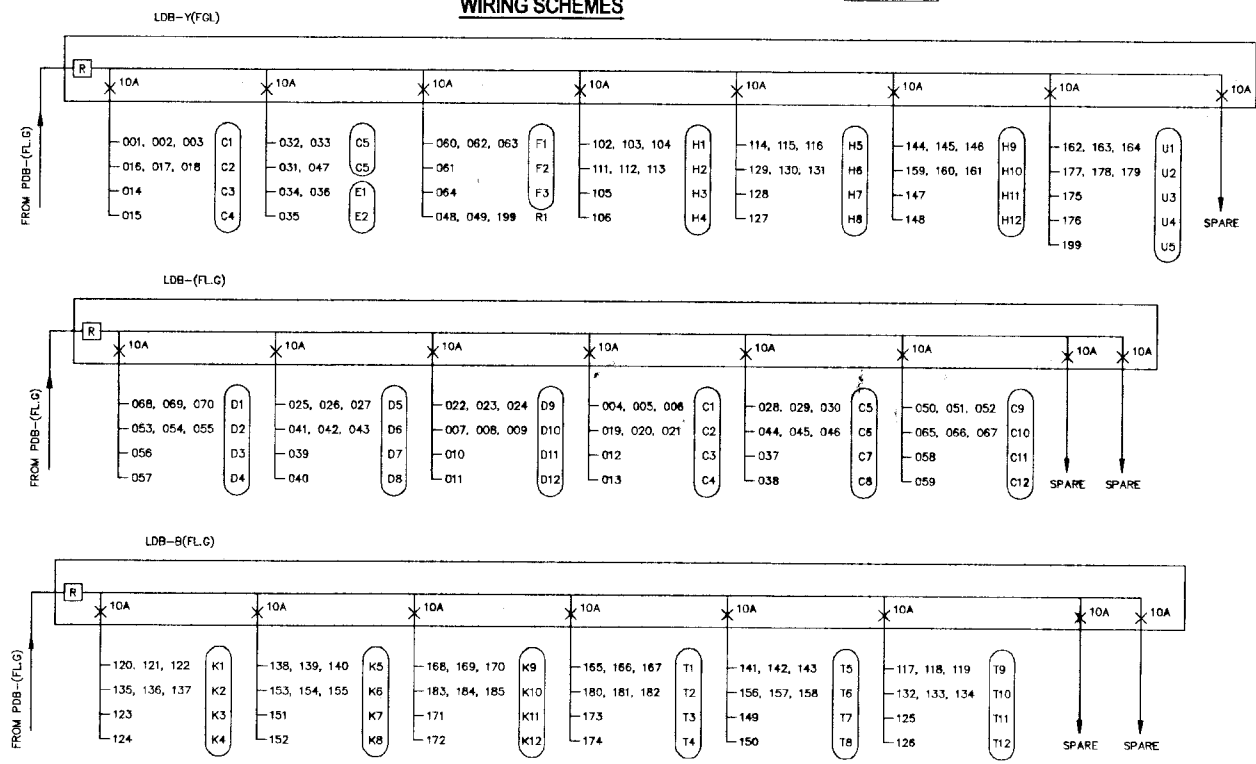
**LIGHTING LAYOUT**  
SCALE: - 1:100

**LEGEND: -**

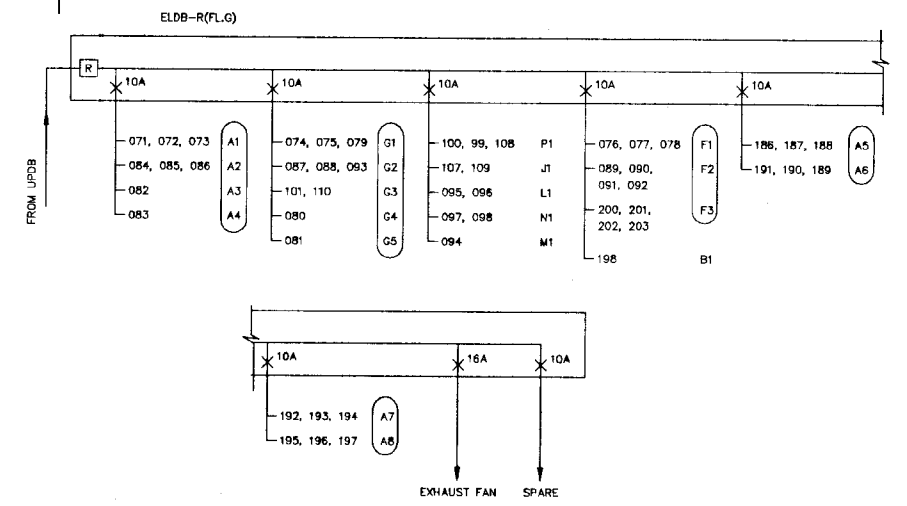
	VERTICALLY MOUNTED LUMINAIRE ON WALL (TYPE 19)
	RECESS MOUNTED LUMINAIRE ON CEILING (TYPE 30)
	CEILING FAN
	LUMINAIRE UNDER CONCRETE SLAB (TYPE 31)
	FLUORESCENT LAMP-SINGLE UNDER FLOOR SLAB (TYPE 9)
	FLUORESCENT LAMP-DOUBLE UNDER FLOOR SLAB (TYPE 10)
	RCCB 60A (30mA)
	MCB (RATING AS SHOWN)

- NOTE: -**
- SWITCH POSITIONS SHOWN ON DRG. No. MK/OB/E-06 AND ARE IDENTIFIED BY LETTERS A, B, C, ETC.
  - INDIVIDUAL SWITCHES ARE SERIALLY NUMBERED BESIDE THE LETTER.
  - SWITCHES GROUPED TOGETHER AT ANY LOCATION, CAN BE GANG TYPE SWITCHES.
  - ONE ELECTRIC BELL (230V OPERATION) TO BE INSTALLED IN LOBBY. PUSH BOTTON SWITCH FOR THIS BELL TO BE LOCATED AT SWITCH LOCATION 'M'

**WIRING SCHEMES**

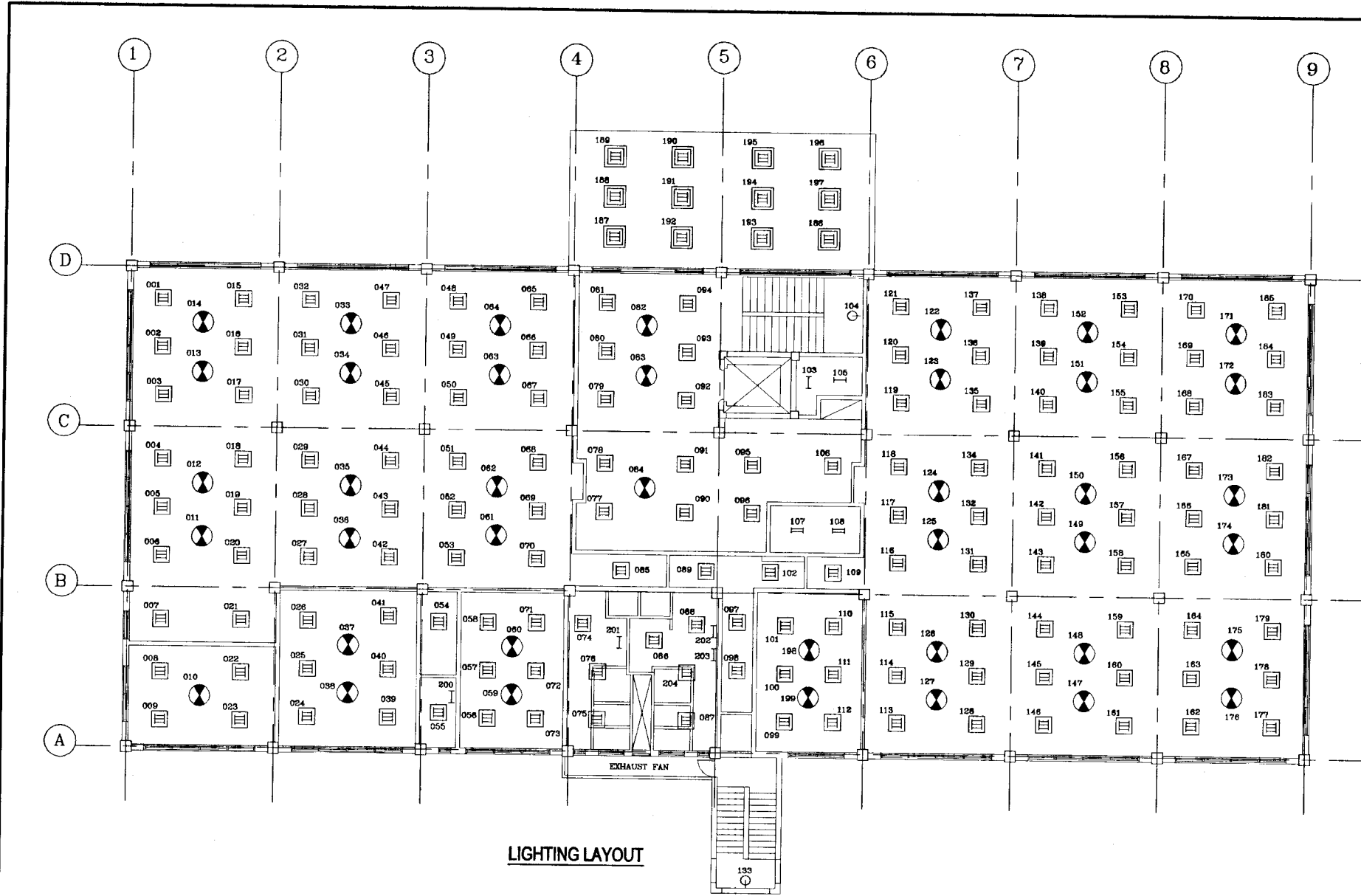


**WIRING SCHEMES**



**DO NOT SCALE**

<p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING LIGHTING LAYOUT &amp; WIRING SCHEME GROUND FLOOR</p>
	<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM NIHON SUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	<p>DESIGNED: <i>H.S. Jayasinghe</i> CHECKED: <i>H.S. Jayasinghe</i> DT. TEAM LEADER: <i>H.S. Jayasinghe</i> TEAM LEADER: <i>H.S. Jayasinghe</i></p>



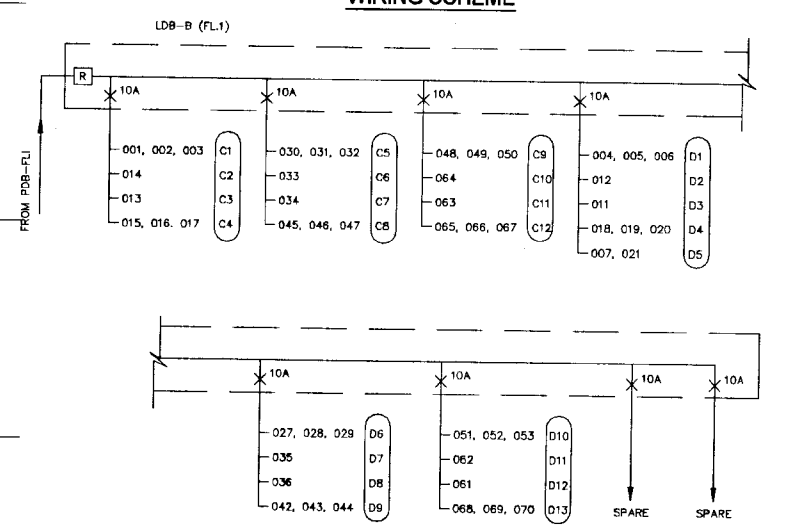
**LIGHTING LAYOUT**

LEGEND: -

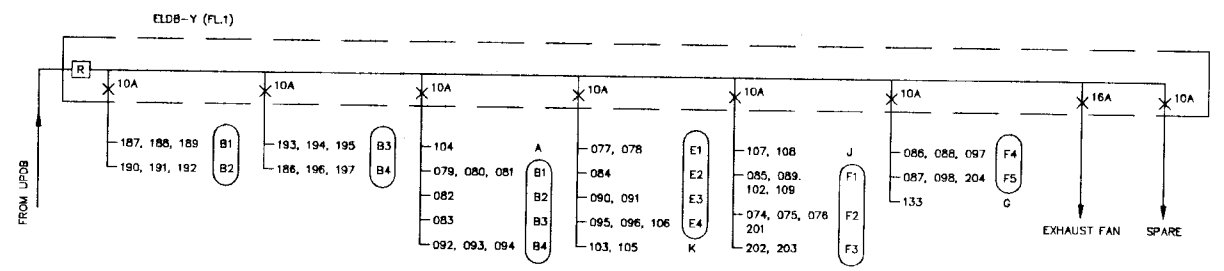
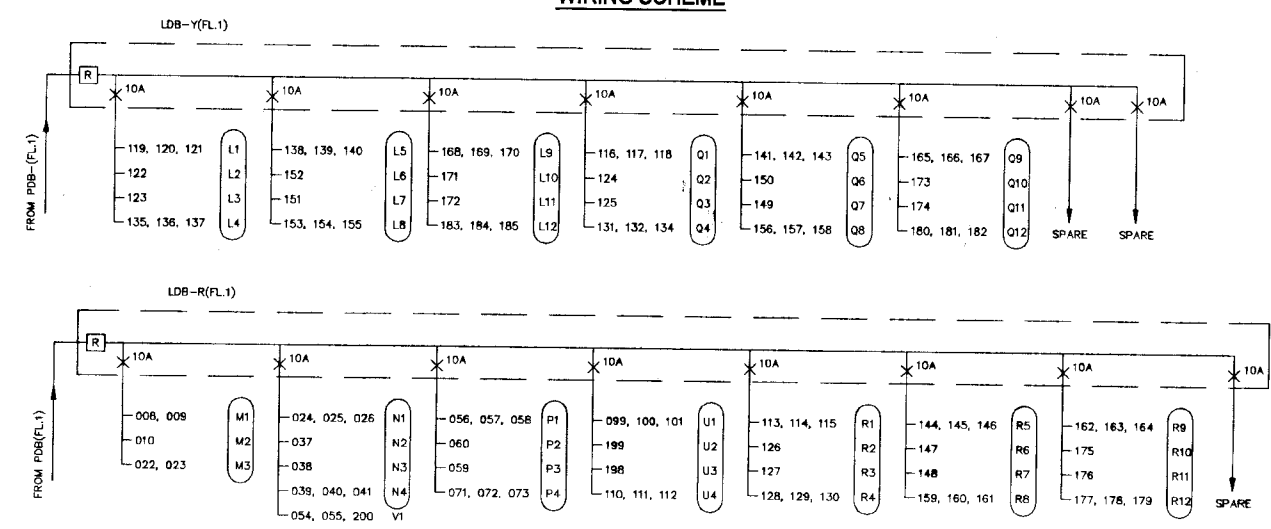
	VERTICALLY MOUNTED LUMINAIRE ON WALL (TYPE 19)
	RECESS MOUNTED LUMINAIRE ON CEILING (TYPE 30)
	CEILING FAN
	LUMINAIRE UNDER CONCRETE SLAB (TYPE 31)
	FLOURESCENT LAMP-SINGLE UNDER FLOOR SLAB (TYPE 9)
	FLOURESCENT LAMP-DOUBLE UNDER FLOOR SLAB (TYPE 10)
	RCB 60A (30mA)
	MCB (RATING AS SHOWN)

- NOTE: -
1. SWITCH POSITIONS SHOWN ON DRG. No. MK/OB/E-07 AND ARE IDENTIFIED BY LETTERS A, B, C, ETC.
  2. INDIVIDUAL SWITCHES ARE SERIALLY NUMBERED BESIDE THE LETTER.
  3. SWITCHES GROUPED TOGETHER AT ANY LOCATION, CAN BE GANG TYPE SWITCHES.
  4. ONE ELECTRIC BELL (230V OPERATION) TO BE INSTALLED IN LOBBY. PUSH BOTTON SWITCH FOR THIS BELL TO BE LOCATED AT SWITCH LOCATION 'A'

**WIRING SCHEME**



**WIRING SCHEME**



**DO NOT SCALE**

<p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING LIGHTING LAYOUT &amp; WIRING SCHEME FIRST &amp; SECOND FLOOR</p>
	<p>DESIGNED: H.S. Jayasinghe</p> <p>CHECKED: H.S. Jayasinghe</p> <p>DR. TEAM LEADER: H.S. Jayasinghe</p> <p>TEAM LEADER: H.S. Jayasinghe</p>	<p>DATE: JAN 2001</p> <p>CONTRACT No: NRW / CW</p> <p>DWG. No: MK / OB / E-04</p>



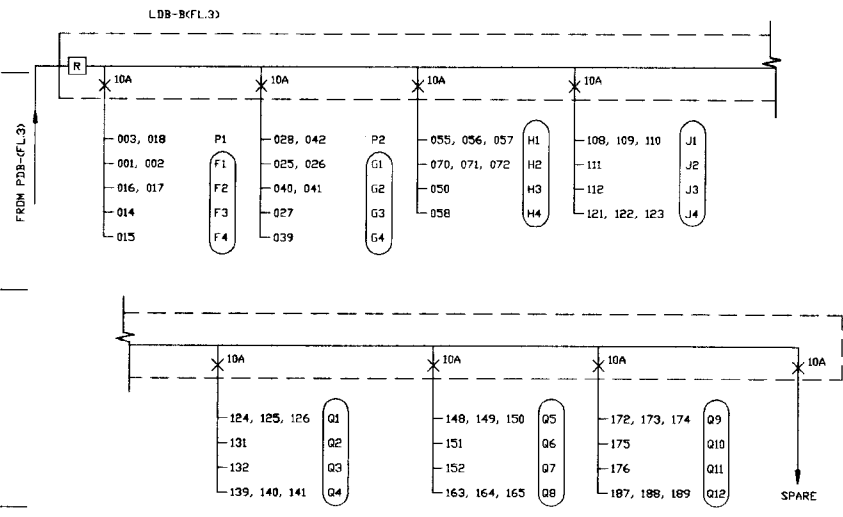
LIGHTING LAYOUT  
SCALE - 1 : 100

LEGEND: -

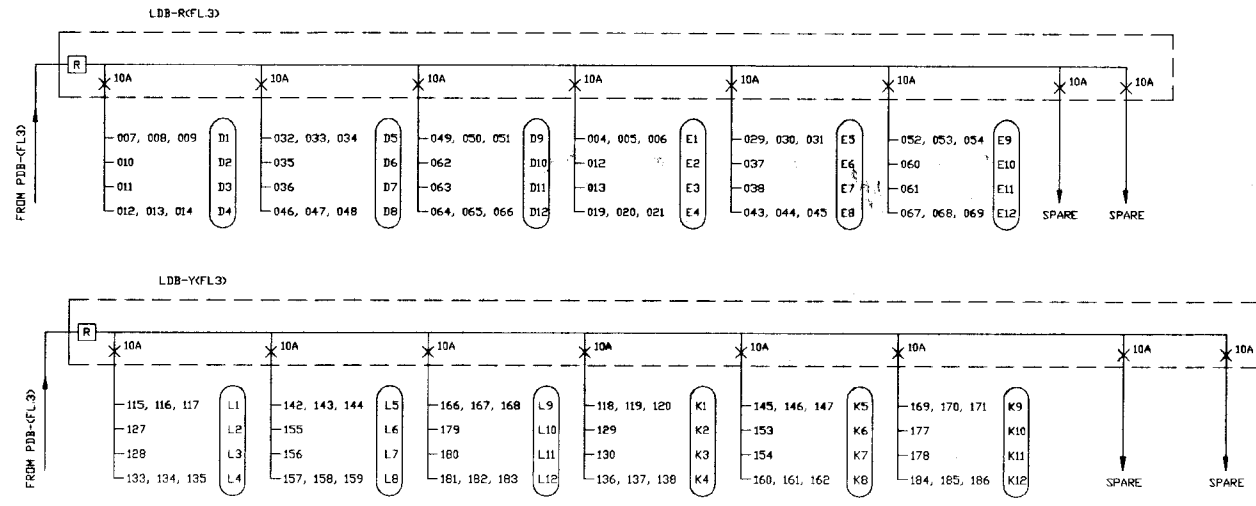
	VERTICALLY MOUNTED LUMINAIRE ON WALL (TYPE 19)
	RECESS MOUNTED LUMINAIRE ON CEILING (TYPE 30)
	CEILING FAN
	LUMINAIRE UNDER ROOF SLAB (TYPE 31)
	FLOURESCENT LAMP-SINGLE UNDER FLOOR SLAB (TYPE 9)
	FLOURESCENT LAMP-DOUBLE UNDER FLOOR SLAB (TYPE 10)
	RCCB 60A (30mA)
	MCB (RATING AS SHOWN)

- NOTE:--
- SWITCH POSITIONS SHOWN ON DRG. No. MK/OB/E-08 AND ARE IDENTIFIED BY LETTERS A, B, C, ETC.
  - INDIVIDUAL SWITCHES ARE SERIALLY NUMBERED BESIDE THE LETTER.
  - SWITCHES GROUPED TOGETHER AT ANY LOCATION, CAN BE GANG TYPE SWITCHES.
  - ONE ELECTRIC BELL (230V OPERATION) TO BE INSTALLED IN LOBBY. PUSH BUTTON SWITCH FOR THIS BELL TO BE LOCATED AT SWITCH LOCATION 'B'

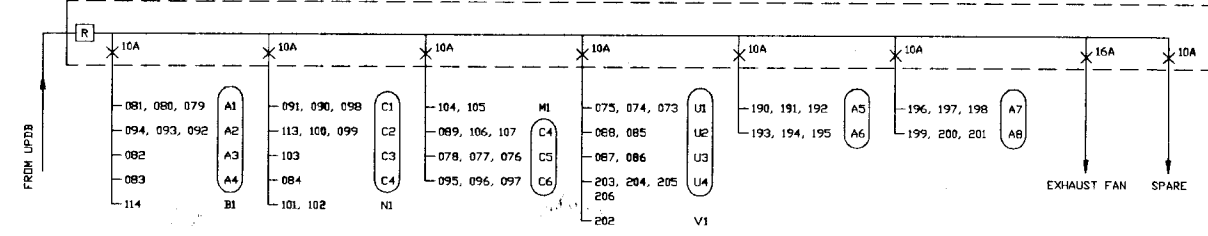
WIRING SCHEME



WIRING SCHEME

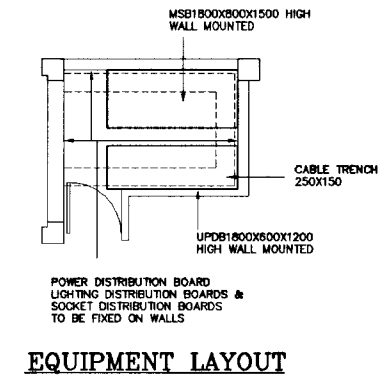
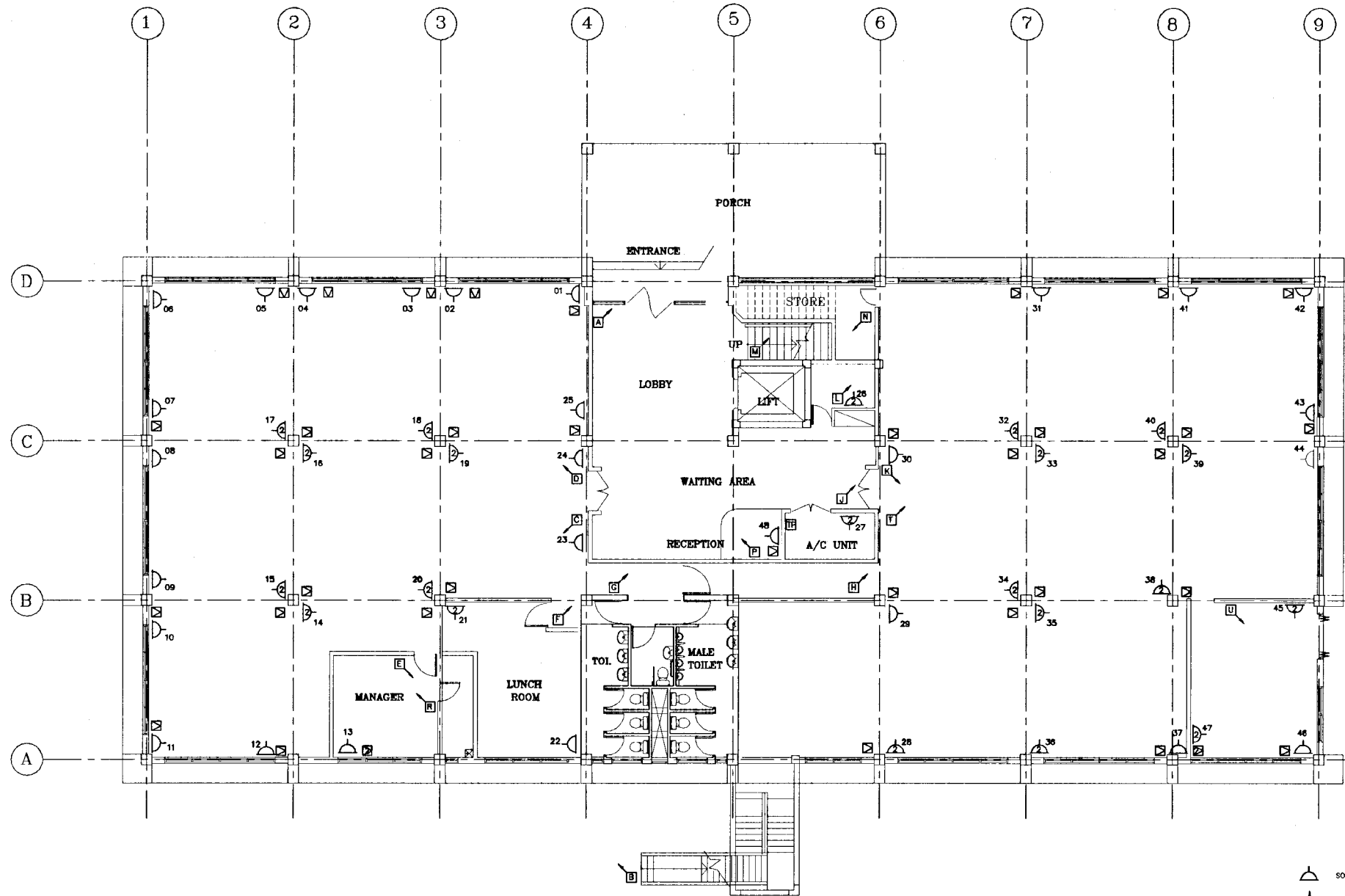


ELDB-BFL3



DO NOT SCALE

<p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING LIGHTING LAYOUT &amp; WIRING SCHEME THIRD FLOOR</p>
	<p>DESIGNED: <i>[Signature]</i></p> <p>CHECKED: <i>[Signature]</i></p> <p>BY: TEAM LEADER: <i>[Signature]</i></p> <p>TEAM LEADER: <i>[Signature]</i></p>	<p>DATE: JAN 2001</p> <p>CONTRACT No: NRW / CW</p> <p>DRG. No: MK / OB / E-05</p>



RING CIRCUIT	SOCKETS
L(R)	01, 02, 03, 04, 05, 06, 07, 17, 18, 25
L(Y)	19, 18, 08, 09, 15, 20, 23, 24
L(B)	21, 14, 10, 11, 12, 13, 22

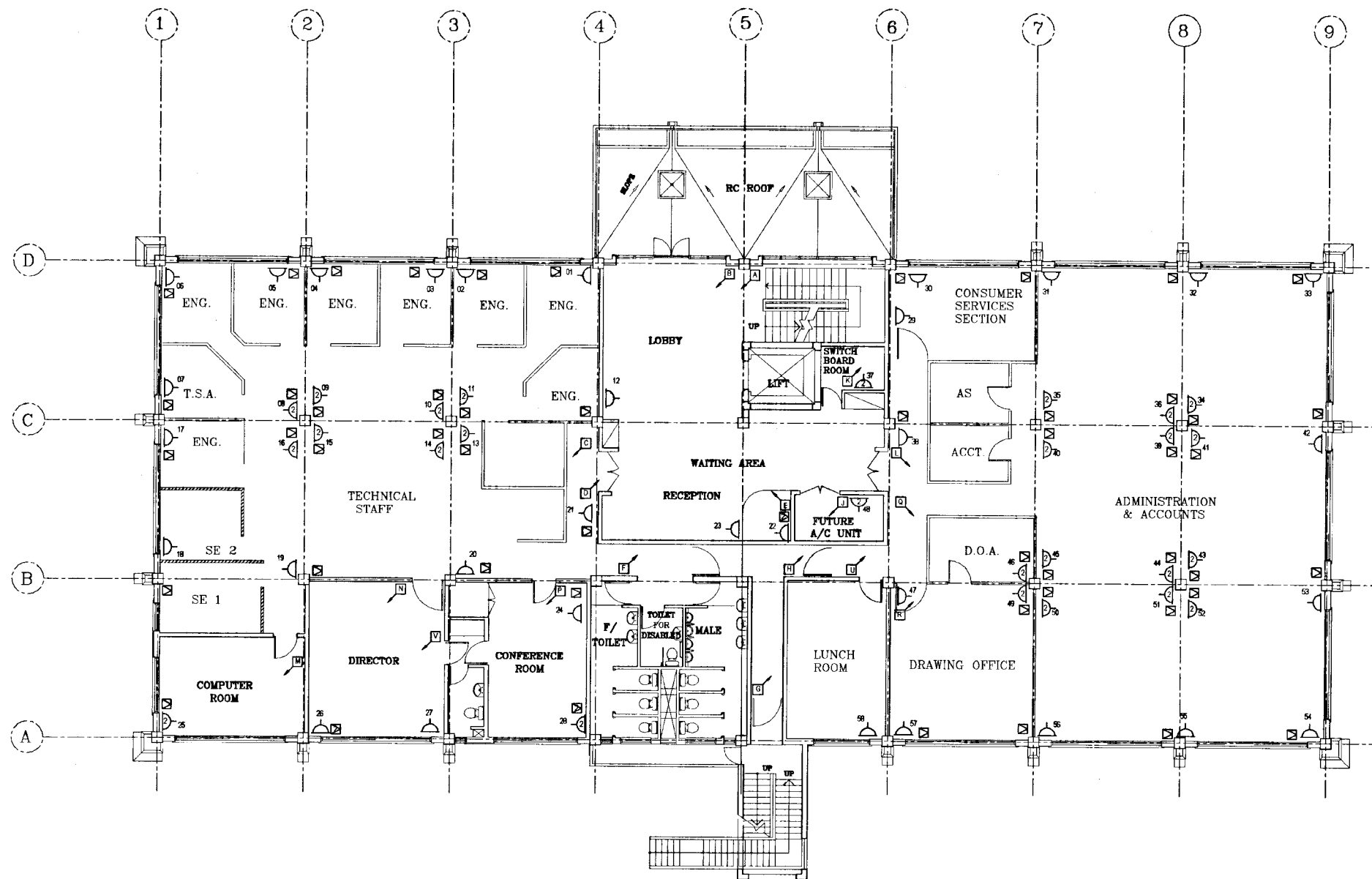
RING CIRCUIT	SOCKETS
R(R)	31, 41, 42, 43, 40, 32, 30, 28
R(Y)	33, 39, 44, 38, 34, 27, 48
R(B)	29, 35, 45, 46, 47, 37, 36, 29

- SOCKET OUTLET HAVING ONE 13A SWITCHED SOCKET WITH ONE SA RISED OUTLET PLUG
- SOCKET OUTLET HAVING 2 No. 13A SWITCHED SOCKETS WITH TWO SA RISED OUTLET PLUGS
- TELEPHONE SOCKET OUTLET (SINGLE)
- TELEPHONE SOCKET OUTLET (DOUBLE)
- SWITCH POSITIONS FOR LIGHTING CIRCUITS (DENOTED BY A SQUARE WITH A LETTER INSIDE)

- NOTES:**
- EACH RING CIRCUIT TO BE WIRED USING 850. mm CABLES (FOR PHASE, NEUTRAL & P.E.) FROM SMALL POWER DB.
  - CONDUIT PIPES TO BE INSTALLED IN FLOOR SLAB & IN COLUMNS TO CARRY SOCKET AND TELEPHONE CABLES.
  - SOCKETS & TELEPHONE OUTLETS SHOWN TO BE LOCATED NEAR COLUMNS ARE TO BE FIXED ON COLUMNS (OR NEARBY WALL) AT A HEIGHT OF 300 mm ABOVE FLOOR LEVEL.
  - EMPTY CONDUITS (2x25 mm DIA.) TO BE LAID BETWEEN SWITCH BOARD AND A/C ROOM FOR FUTURE USE.
  - EXTERNAL TELEPHONE LINES WILL BE TERMINATED AT [TP].
  - CONDUITS (25mm) TO BE LAID FROM [TP] TO ALL TELEPHONE OUTLETS ON ALL FLOORS.
  - SMALL A/C UNITS OF WINDOW TYPES COULD BE SUPPLIED THROUGH 15 AMP. SOCKETS LOCATED IN THE PERIMETER WALL.

**DO NOT SCALE**

<p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING LAYOUT OF SWITCHES &amp; SOCKETS (TEL &amp; POWER) GROUND FLOOR</p>
	<p>DESIGNED: <i>[Signature]</i></p> <p>CHECKED: <i>[Signature]</i></p> <p>BY: TEAM LEADER: <i>[Signature]</i></p> <p>TEAM LEADER: <i>[Signature]</i></p>	<p>DATE: <b>JAN 2001</b></p> <p>CONTRACT NO: <b>NRW / CW</b></p> <p>DRAWING NO: <b>MK / OB / E-06</b></p>



RING CIRCUIT	SOCKETS
L1)	01, 02, 03, 04, 05, 06, 08, 10, 11
L2)	12, 13, 14, 15, 16, 07, 17, 20, 21
L3)	22, 23, 24, 19, 18, 25, 26, 27, 28

RING CIRCUIT	SOCKETS
R1)	29, 30, 31, 32, 33, 34, 35, 36, 37
R2)	40, 39, 41, 42, 43, 44, 45, 46
R3)	47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58

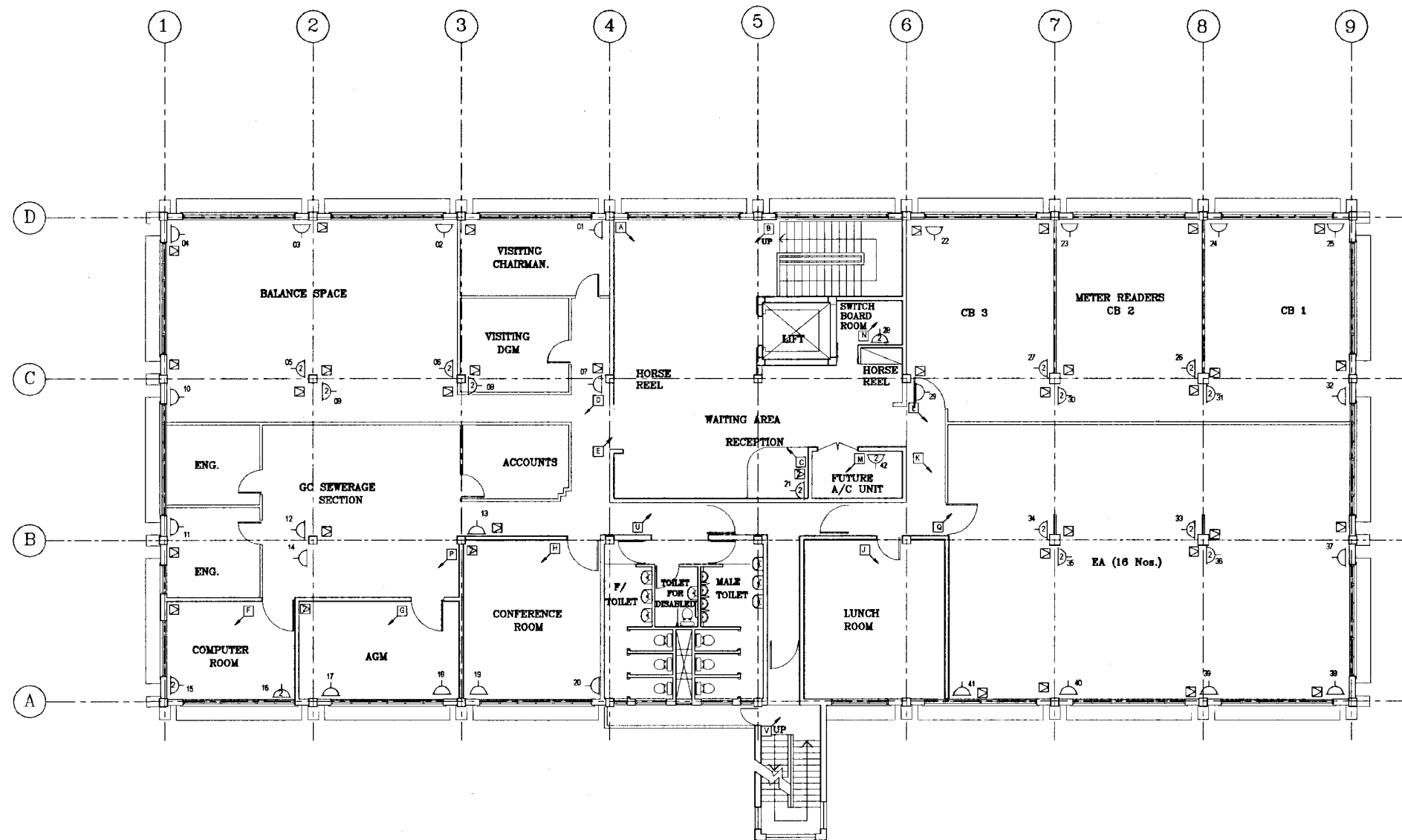
- SOCKET OUTLET HAVING ONE 13A SWITCHED SOCKET WITH ONE 5A FUSED OUTLET PLUG
- SOCKET OUTLET HAVING 2 Nos 13A SWITCHED SOCKETS WITH TWO FUSED OUTLET PLUGS
- TELEPHONE SOCKET OUTLET (SINGLE)
- TELEPHONE SOCKET OUTLET (DOUBLE)
- SWITCH POSITIONS FOR LIGHTING CIRCUITS (DENOTED BY A SQUARE WITH A LETTER INSIDE)

NOTES:

1. EACH RING CIRCUIT TO BE WIRED USING 85Q mm CABLES (FOR PHASE, NEUTRAL & P.E.) FROM SMALL POWER DB.
2. CONDUIT PIPES TO BE INSTALLED IN FLOOR SLAB & IN COLUMNS TO CARRY SOCKET AND TELEPHONE CABLES.
3. SOCKETS & TELEPHONE OUTLETS SHOWN TO BE LOCATED NEAR COLUMNS ARE TO BE FIXED ON COLUMNS (OR NEARBY WALL) AT A HEIGHT OF 300 mm ABOVE FLOOR LEVEL.
4. EMPTY CONDUITS (2 x 25mm) TO BE LAID BETWEEN SWITCH BOARD ROOM AND A/C ROOM FOR FUTURE USE.
5. CONDUITS (25mm) TO ALL TELEPHONE OUTLETS ARE TO BE LAID FROM TP ON GROUND FLOOR.
6. PDB, LDBS, ELDB & SDBS ARE WALL MOUNTED IN SWITCH BOARD ROOM.

**DO NOT SCALE**

<p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING LAYOUT OF SWITCHES &amp; SOCKETS (TEL &amp; POWER) FIRST AND SECOND FLOOR</p>
	<p>DESIGNED: <i>[Signature]</i></p> <p>CHECKED: <i>[Signature]</i></p> <p>BY: TEAM LEADER</p> <p>TEAM LEADER: <i>[Signature]</i></p>	<p>DATE: JAN 2001</p> <p>CONTRACT No: NRW / CW</p> <p>DRAWN: <i>[Signature]</i></p> <p>PA: <i>[Signature]</i></p> <p>A.E.M (PDB) MNSDR: <i>[Signature]</i></p> <p>D.B.M (PDB) MNSDR: <i>[Signature]</i></p>
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p> <p>NIHON SUDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>		<p>DATE: JAN 2001</p> <p>CONTRACT No: NRW / CW</p> <p>DRAWN: <i>[Signature]</i></p> <p>PA: <i>[Signature]</i></p> <p>A.E.M (PDB) MNSDR: <i>[Signature]</i></p> <p>D.B.M (PDB) MNSDR: <i>[Signature]</i></p>



RING CIRCUIT	SOCKETS
L(1)	01, 02, 03, 04, 05, 06, 07
L(2)	08, 09, 10, 11, 12, 13
L(3)	14, 15, 16, 17, 18, 19, 20

RING CIRCUIT	SOCKETS
R(1)	22, 23, 24, 25, 26, 27, 28
R(2)	29, 30, 31, 32, 33, 34, 35, 42
R(3)	36, 37, 38, 39, 40, 41

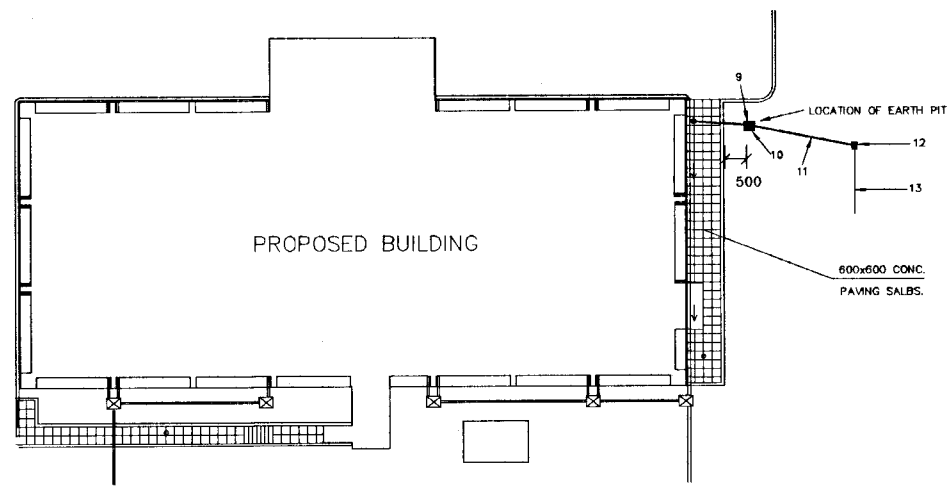
- SOCKET OUTLET HAVING ONE 13A SWITCHED SOCKET WITH ONE 13A FUSED OUTLET PLUG
- SOCKET OUTLET HAVING 2 Nos. 13A SWITCHED SOCKETS WITH TWO 13A FUSED OUTLET PLUGS
- TELEPHONE SOCKET OUTLET (SINGLE)
- TELEPHONE SOCKET OUTLET (DOUBLE)
- SWITCH POSITIONS FOR LIGHTING CIRCUITS (DENOTED BY A SQUARE WITH A LETTER INSIDE)

NOTES:

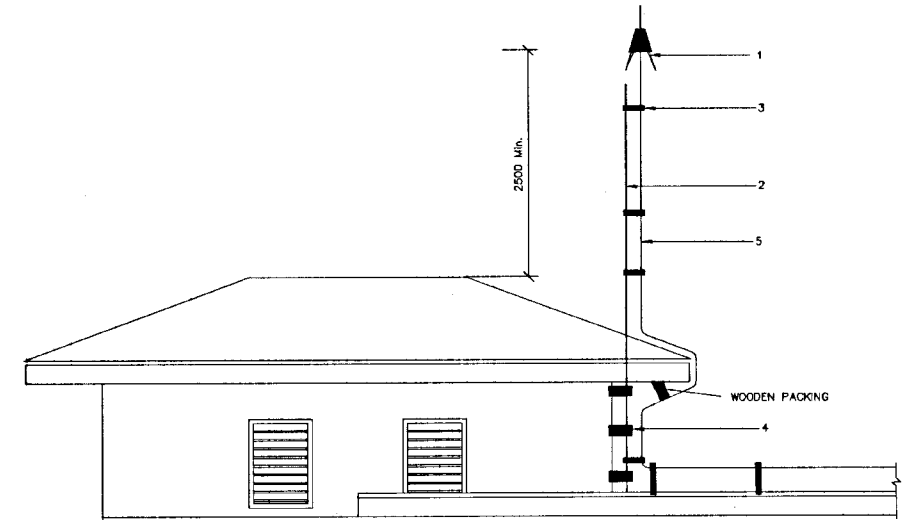
1. EACH RING CIRCUIT TO BE WIRED USING 6SQ. mm CABLES (FOR PHASE, NEUTRAL & PE) FROM SMALL POWER D.B.
2. CONDUIT PIPES TO BE INSTALLED IN FLOOR SLAB & IN COLUMNS TO CARRY SOCKET AND TELEPHONE CABLES.
3. SOCKETS & TELEPHONE OUTLETS SHOWN TO BE LOCATED NEAR COLUMNS ARE TO BE FIXED ON COLUMNS (OR NEAR BY WALL) AT A HEIGHT OF 300 mm ABOVE FLOOR LEVEL.
4. EMPTY CONDUITS (25mm) TO BE LAID BETWEEN SWITCH BOARD ROOM AND A/C ROOM FOR FUTURE USE.
5. CONDUITS (25mm) TO ALL TELEPHONE OUTLETS ARE TO BE LAID FROM TP ON GROUND FLOOR.
6. PDB, LDPS, ELDB & SDBS ARE WALL MOUNTED IN SWITCH BOARD ROOM.

**DO NOT SCALE**

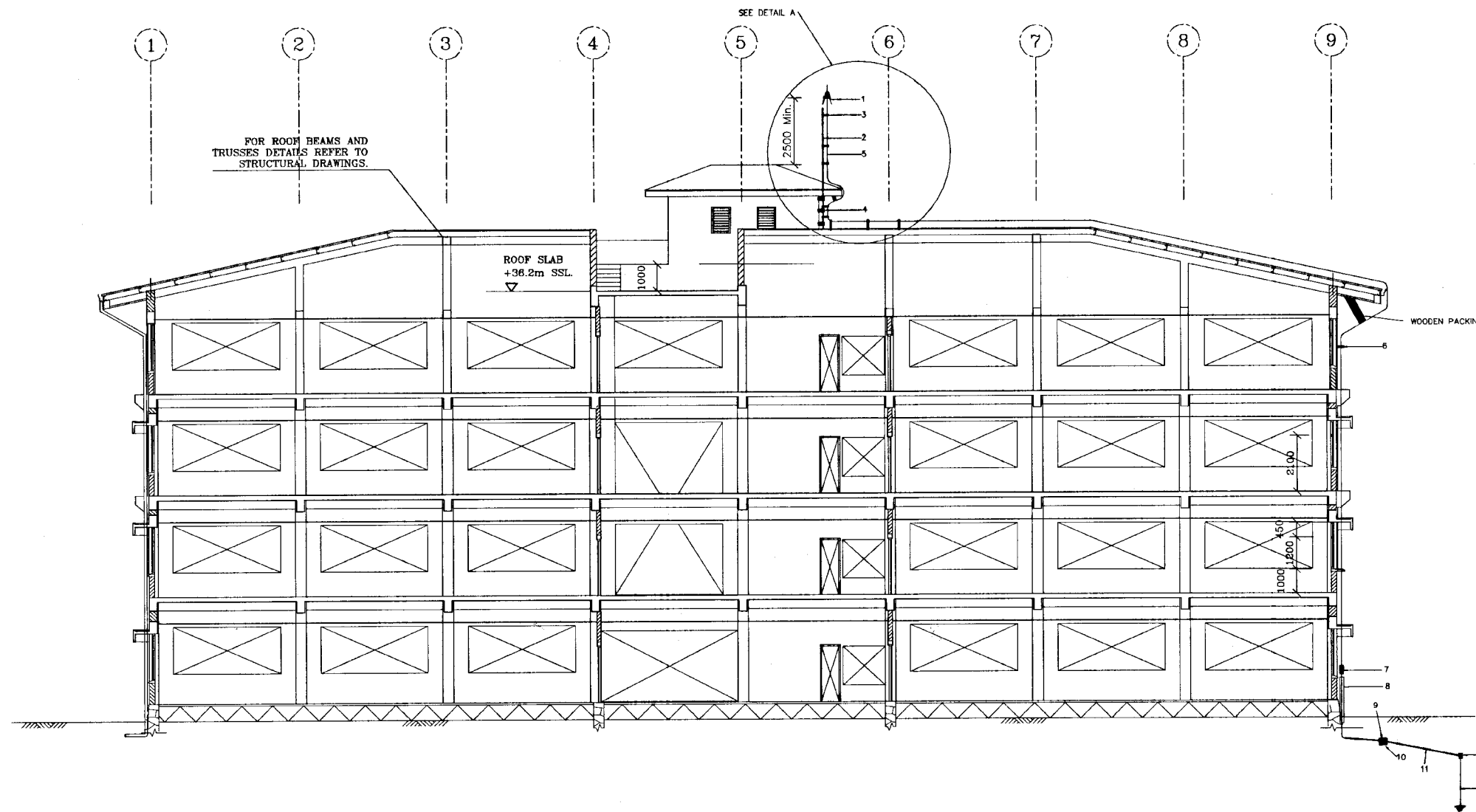
<p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING LAYOUT OF SWITCHES &amp; SOCKETS (TEL &amp; POWER) FIRST AND SECOND FLOOR</p>
	<p>DESIGNED: <i>[Signature]</i></p> <p>CHECKED: <i>[Signature]</i></p> <p>DR. TEAM LEADER: <i>[Signature]</i></p> <p>TEAM LEADER: <i>[Signature]</i></p>	<p>DATE: <b>JAN 2001</b></p> <p>CONTRACT NO: <b>NRW / CW</b></p> <p>DRG. NO: <b>MK / OB / E-08</b></p>



PLAN



DETAIL A




SECTION B:B

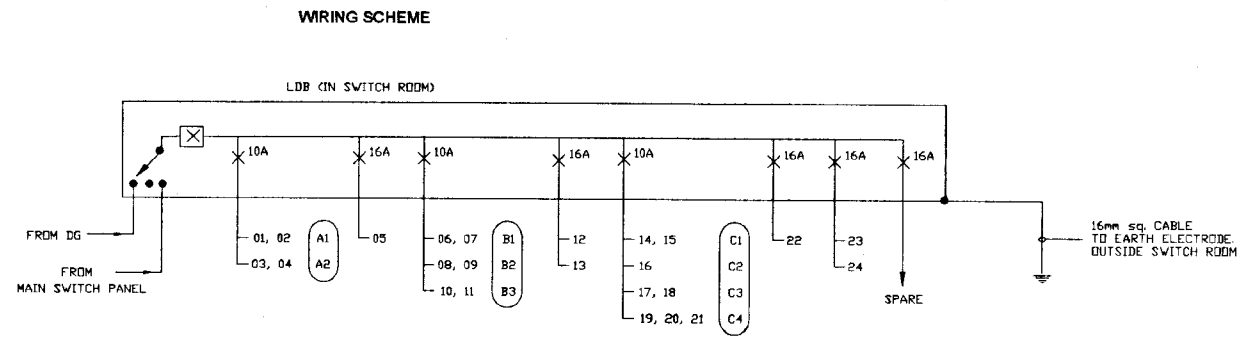
LEGEND

- 1 - LIGHTNING CONDUCTOR FINIAL (ESE TYPE)
- 2 - LIGHTNING CONDUCTOR ROD
- 3 - CLAMPING COLLAR
- 4 - SIDE MOUNTING BRACKET
- 5 - COPPER CONDUCTOR (50 mm)
- 6 - SUPPORT CLAMPS FOR TAPE
- 7 - TEST CLAMP (APPROX. 3 m ABOVE G. L.)
- 8 - PROTECTION PIPE (PVC)
- 9 - EARTH PIT (COPPER PLATE 600x600x3 mm BURIED 1.5 m BELOW G. L.)
- 10 - INSPECTION HOUSING
- 11 - COPPER EARTHING LEAD 250 mm<sup>2</sup>, MIN. LENGTH 3.0 m
- 12 - CLAMP (ROD TO LEAD - BURIED 1.5 m BELOW G. L.)
- 13 - EARTH ROD (100 mm  $\phi$ , 4 m LONG G. I. PIPE)

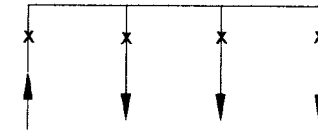
**DO NOT SCALE**

 <p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: <b>MALIGAKANDA</b></p>	<p>TITLE: <b>MALIGAKANDA OFFICE BUILDING LIGHTNING PROTECTION</b></p>
	<p>DESIGNED: <i>H.A. Jayathana</i></p> <p>CHECKED: <i>H.A. Jayathana</i></p> <p>DR. TEAM LEADER: <i>H.A. Jayathana</i></p> <p>TEAM LEADER: <i>H.A. Jayathana</i></p>	<p>DATE: <b>JAN 2081</b></p> <p>CONTRACT NO: <b>NRW / CW</b></p> <p>DRG. NO: <b>MK / OB / E-09</b></p>

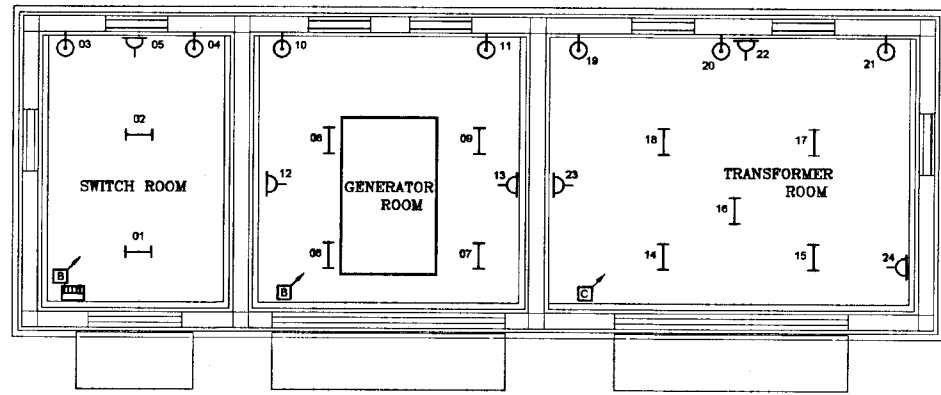




MAIN SWITCH PANEL (IN SWITCH ROOM)



FEEDER No.	1	2	3	4
CONTROL SWITCH	MCCB TP & N	MCCB TP & N	MCCB TP & N	MCCB DP
RATING (NORMAL) (A)	630	500	100	80
S. C. RATING (MINIMUM) (KA)	25	25	25	25
PROTECTION	O/C, S/C	O/C, S/C	O/C, S/C	O/C, S/C
INSTRUMENTS:-				
VOLTMETER & SELECTOR SWITCH	✓			
AMMETER & SELECTOR SWITCH	✓			
P. F. METER & SWITCH				
KWh METER	✓	✓	✓	✓
FEEDER				
SIZE No. x Sq. mm No. OF CORES	2x240 4	2x240 4	35 4	16 2
FROM / TO	FROM: CEB SWITCH	TO:- OFFICE BLDG.	TO:- FEEDER PILLER (RESERVOIR)	TO:- LDB



LEGEND:-

	L.D.B (IN SWITCH ROOM)
	FLUORESCENT LAMP (TYPE 27), ON CEILING
	LUMINAIRE TYPE 19 ON WALL
	SOCKET OUTLET ON WALLS OR COLUMNS (13A)
	LOCATION OF SWITCHES
	MANUAL CHANGE-OVER SWITCH O.C.A. D.P.

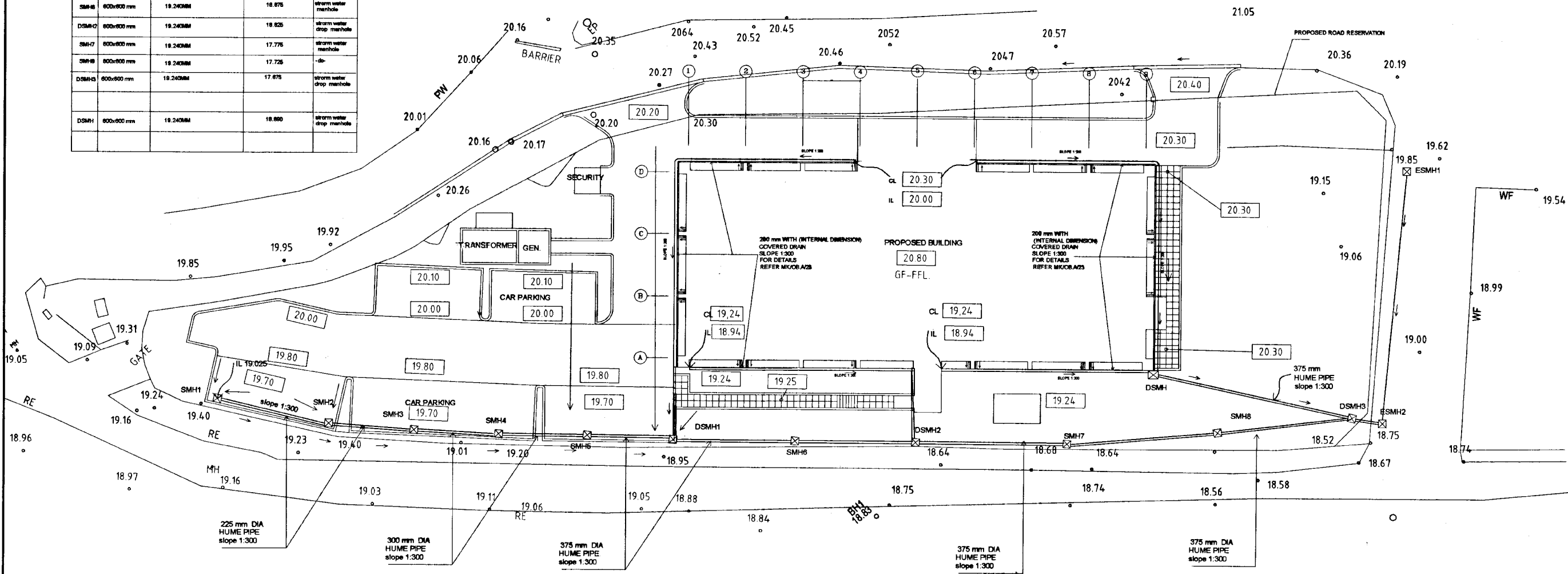
DO NOT SCALE

 <b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>TRANSFORMER ROOM MAIN SWITCH PANEL AND LIGHTING &amp; SMALL POWER</b>	
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</b> STUDY TEAM NIPPON SUDO CONSULTANTS CO. LTD., TOKYO, JAPAN		DESIGNED: <i>HA</i> CHECKED: <i>HA</i> DT. TEAM LEADER: <i>HA</i> TEAM LEADER: <i>HA</i>
		DATE: <b>JAN 2001</b>	CONTRACT NO: <b>NRW / CW</b>
		DIBS NO: <b>MK / OB / E-10</b>	


SCHEDULE OF STORM WATER MANHOLE				
TYPE	SIZE (mm)	COVER LEVEL (m)	INVERT LEVEL (m)	REMARKS
ESMH-1	-	-	16.15m	existing storm water rch.
ESMH-2	-	-	14.35m	existing storm water rch.
SMH-1	600x600 mm	19.703MM	19.025	storm water manhole
SMH-2	600x600 mm	19.703MM	19.080	-
SMH-3	600x600 mm	19.703MM	19.976	-
SMH-4	600x600 mm	19.703MM	19.900	-
SMH-5	600x600 mm	19.240MM	18.825	-
DSMH-1	600x600 mm	19.240MM	18.900	storm water drop manhole
SMH-6	600x600 mm	19.240MM	18.875	storm water manhole
DSMH-2	600x600 mm	19.240MM	18.825	storm water drop manhole
SMH-7	600x600 mm	19.240MM	17.776	storm water manhole
SMH-8	600x600 mm	19.240MM	17.728	-
DSMH-3	600x600 mm	19.240MM	17.875	storm water drop manhole
DSMH-4	600x600 mm	19.240MM	18.880	storm water drop manhole

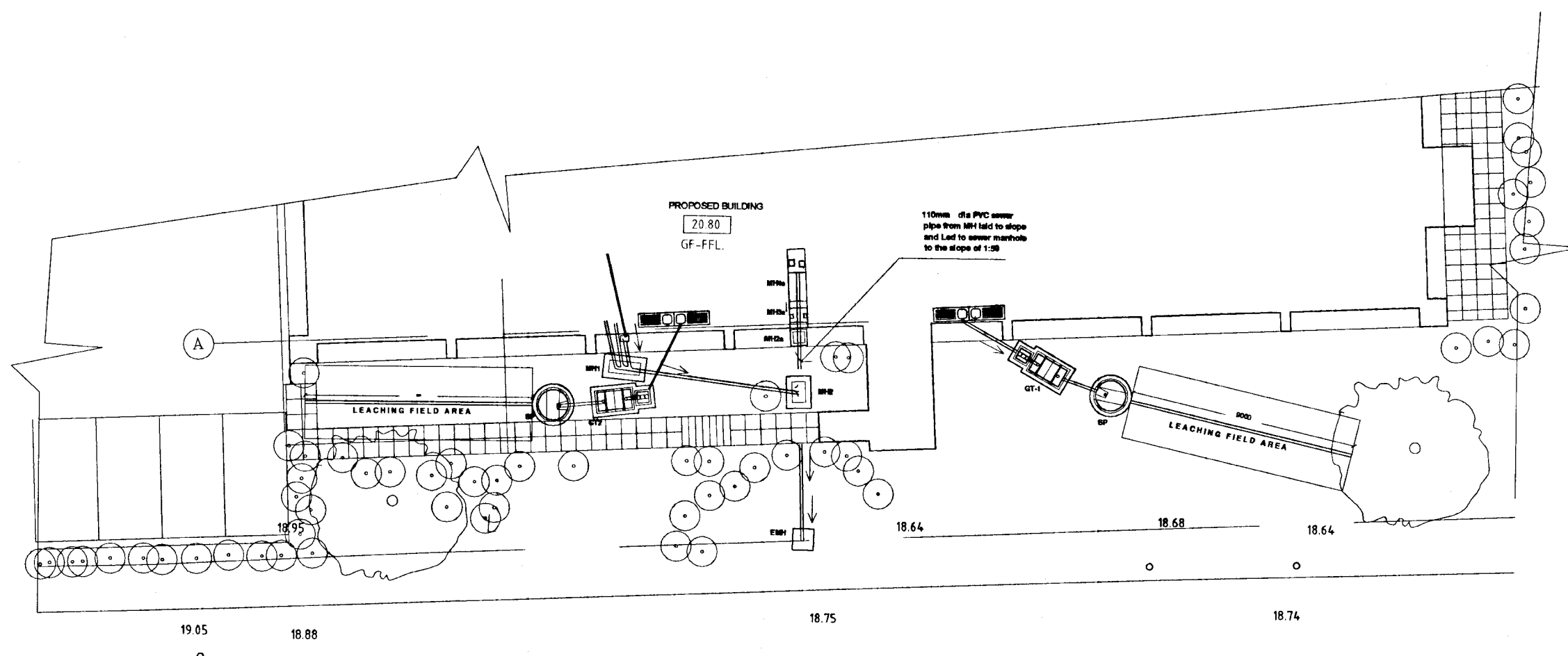
**KEY**  
 DSMH - DROP STORM WATER MANHOLE  
 IL - INVERT LEVEL  
 CL - COVER LEVEL

**NOTES**  
 FOR DETAIL OF  
 SURFACE DRAIN, PLINTH DRAIN  
 PLEASE REFER DRG NO  
 MK/OB/A/23  
 FOR DETAILS REFER  
 MK/OB/SW/15  
 MK/OB/A/23



**DO NOT SCALE**

 <b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: MALIGAKANDA		TITLE: MALIGAKANDA OFFICE BUILDING STORM WATER DISPOSAL LAYOUT
	DESIGNED: [Signature]		DATE: JAN 2001
	CHECKED: [Signature]		CONTRACT NO: NRW / CW
	BY: [Signature]		DRG. NO: MK / OB / SW-01
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM NIKON SUDO CONSULTANTS CO. LTD., TOKYO, JAPAN		PM (NRWS&PS) MEMBER: [Signature] A&M (P&D) MEMBER: [Signature] D&M (P&D) MEMBER: [Signature]	




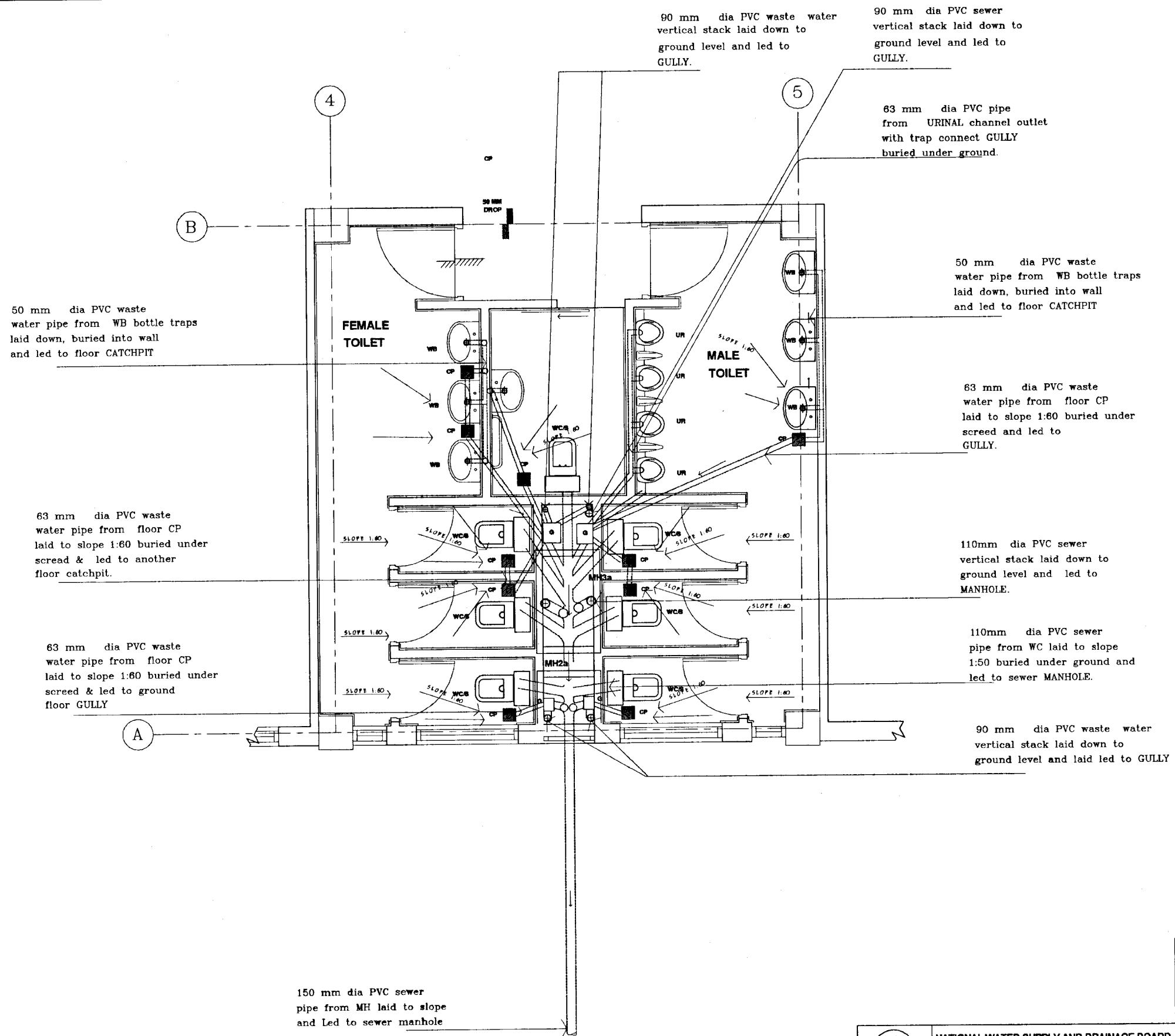
SCHEDULE OF SEWER MANHOLE				
TYPE	SIZE (MM)	INVERT LEVEL (M)	COVER LEVEL (M)	REMARKS
MH1a	800x1300x1000mm	19.200 m	20.200m	duct man hole (concrete walls)
MH1b	800x 800x1000mm	19.600 m	20.200m	duct with concrete wall man hole
MH2a	700x700x600mm	19.600 m	19.200m	brick man hole (brick walls)
MH2	1200x900 x 650mm	19.500 m	19.300m	brick man hole (brick walls)
PIPE LVL AT EXISTING MANHOLE		19.450 m		road existing man hole
EMB1	existing	19.57 m	19.600 m	road existing man hole
MH1	800x 800	19.780 m	19.200m	brick man hole (brick walls)

NOTES  
 SP - SOAKAGE PIT  
 GT1- GREASE TRAP FOR UPPER LVL SINKS SIZE 1500x750  
 GT2- GREASE TRAP FOR GROUND LVL SINKS SIZE 1200x750  
 MH - MANHOLE  
 EMB - EXISTING MANHOLE

FOR DETAILS REFER  
 MK/OB/SW/07

**DO NOT SCALE**

 NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING          SEWERAGE MANHOLE, GREASE TRAP &amp;          SOAKAGE PITS LAYOUTS &amp; INVERT LEVELS</b>
	DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> DR. TEAM LEADER: <i>[Signature]</i> TOWN PLANNER: <i>[Signature]</i>	DRAWN: <i>[Signature]</i> P.M. (P&S) INCHARGE: <i>[Signature]</i> S.D.M. (P&S) INCHARGE: <i>[Signature]</i>



50 mm dia PVC waste water pipe from WB bottle traps laid down, buried into wall and led to floor CATCHPIT

63 mm dia PVC waste water pipe from floor CP laid to slope 1:80 buried under screed & led to another floor catchpit.

63 mm dia PVC waste water pipe from floor CP laid to slope 1:80 buried under screed & led to ground floor GULLY

90 mm dia PVC waste water vertical stack laid down to ground level and led to GULLY.

90 mm dia PVC sewer vertical stack laid down to ground level and led to GULLY.

63 mm dia PVC pipe from URINAL channel outlet with trap connect GULLY buried under ground.

50 mm dia PVC waste water pipe from WB bottle traps laid down, buried into wall and led to floor CATCHPIT

63 mm dia PVC waste water pipe from floor CP laid to slope 1:80 buried under screed and led to GULLY.

110mm dia PVC sewer vertical stack laid down to ground level and led to MANHOLE.

110mm dia PVC sewer pipe from WC laid to slope 1:50 buried under ground and led to sewer MANHOLE.


90 mm dia PVC waste water vertical stack laid down to ground level and led to GULLY

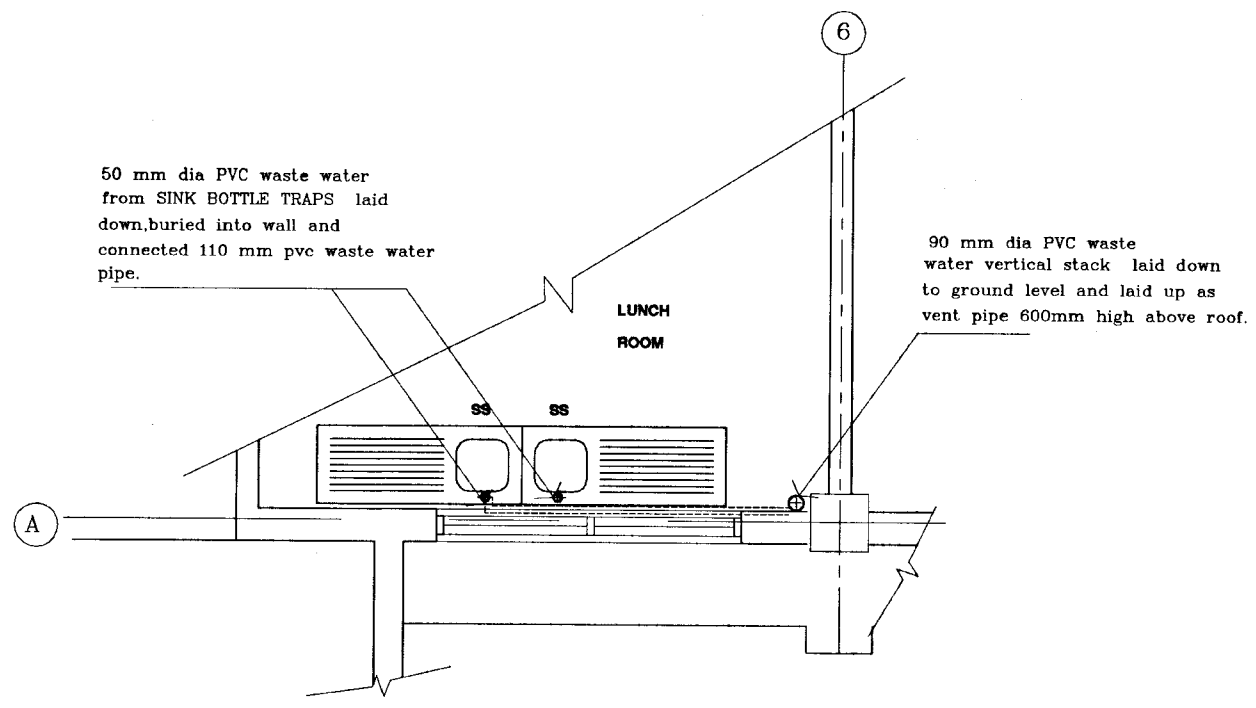
150 mm dia PVC sewer pipe from MH laid to slope and Led to sewer manhole

TO THE MANHOLE

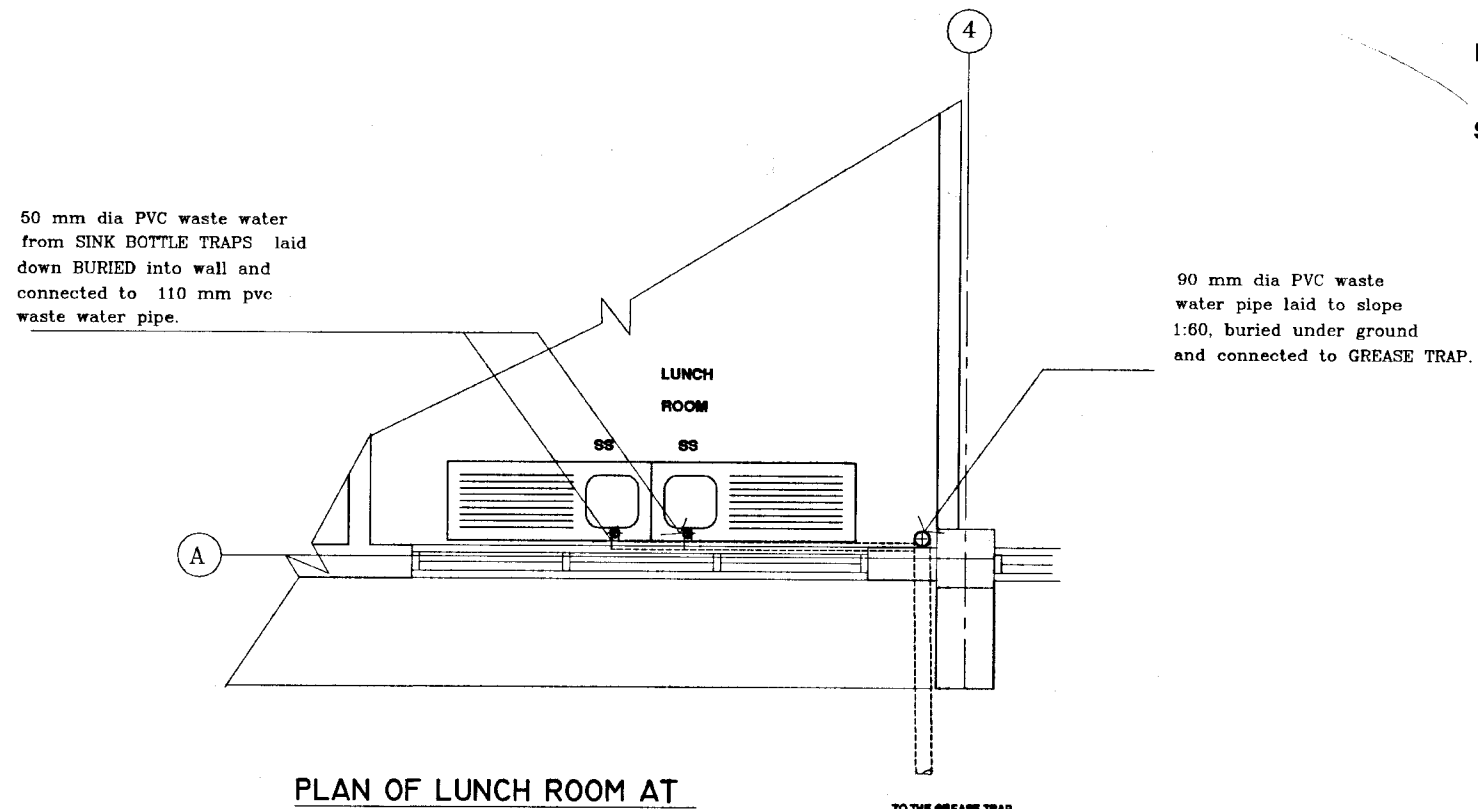
**DO NOT SCALE**

**INTERNAL LAYOUT PLAN OF SEWERAGE & WASTE WATER DISPOSAL AT GROUND FLOOR LEVEL - TOILETS**

 <p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING SEWERAGE &amp; WASTEWATER DISPOSAL</p>
	<p>DESIGNED: [Signature]</p>	<p>DATE: <b>JAN 2001</b></p>
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p>	<p>CHECKED: [Signature]</p>	<p>CONTRACT NO.: <b>NRW / CW</b></p>
<p>NIHON SUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	<p>DR. TEAM LEADER: [Signature]</p>	<p>DRG. NO.: <b>MK / OB / SW-03</b></p>
	<p>TEAM LEADER: [Signature]</p>	



**PLAN OF LUNCH ROOM AT FIRST FLOOR SIMILAR TO SECOND & THIRD FLOOR.)**



**PLAN OF LUNCH ROOM AT GROUND FLOOR LEVEL -**

**NOTES**

1 ALL 110 MM DIA PVC SEWER PIPES SHALL BE GRADE UPVC 600 ALL 50MM DIA, 40MM DIA, 63MM DIA AND 90MM PVC WASTE WATER PIPES SHALL BE GRADE UPVC 1000.  
ONLY INJECTION MOULDED FITTINGS WILL BE ALLOWED.  
ALL THE WATER SUPPLY PIPES SHALL BE GRADE U 1000.

2 EXTERNAL SEWER PVC PIPES LAID UNDER GROUND IN 150 MM THICK BASE WITH 225 X225MM WIDE COVER CONCRETE 1:3:6 (25) AT 900 C/S.

3 WASTE WATER PIPES LAID IN THE BATHROOMS SHALL BE BURIED IN THE SCREED.

4 ALL WATER SUPPLY PIPES TO WATER CLOSETS, WASH BASINS AND VANITY BASINS TO BE PROVIDED WITH 20 MM DIA CP ANGLE VALVE AND METAL COVER PLATE WITH UNIONS AND 900 LONG FLEXIBLE CHROMIUM PLATE CONNECTION.

5 DELIVERY PIPES SHOWN WITHIN THE WALLS, ARE EMBEDDED IN WALLS.

6 ALL APPLIANCES SOIL AND WASTE PIPE CONNECTIONS SHALL BE PROVIDED.

7 TOILET FLOORS TO BE SLOPED TOWARDS FLOOR CATCH PITS AT 1:60.

8 PROVIDE STOP VALVES TO EACH BRANCH OF THE WATER SUPPLY LINES.

9 PROVIDE CLEANING EYES AT NECESSARY LOCATIONS (BENDS) OF THE SEWER AND WASTE WATER PIPES.

10 APPLY TWO COATS OF 'XYPEX' OR 'VANDEX' WATER PROOFING PAINT ON ENTIRE STRUCTURAL SURFACE OF TOILET AREAS BEFORE LAYING THE LEVELLING SCREED.

**11 GULLY**

225MM X225 MM STONE WARE GULLY WITH TRAP HAVING STAINLESS STEEL GRATING ON TOP, SET ON CONCRETE BASE, 112 MM BRICK WALL SURROUND TO BE CONSTRUCTED AND CONNECTED TO WASTE WATER LINES

**12 CATCH PIT**

150 MMX150MM X125MM DEEP INJECTION MOULDED PVC FLOOR TRAP WITH STAINLESS STEEL GRATING ON TOP, SET ON CONCRETE AND CONNECTED TO WASTE WATER LINES

**ABBREVIATION FOR THE TOILET DRAWINGS.**

**CE** CLEANING EYE.

**G** GULLY WITH TRAP AND GRATING

**CP** FLOOR CATCH PIT WITH TRAP AND GRATING.

**WB** WASH BASIN.

**WC/S** WATER CLOSET WITH "S" TRAP.


**WC/P** WATER CLOSET WITH "P" TRAP.

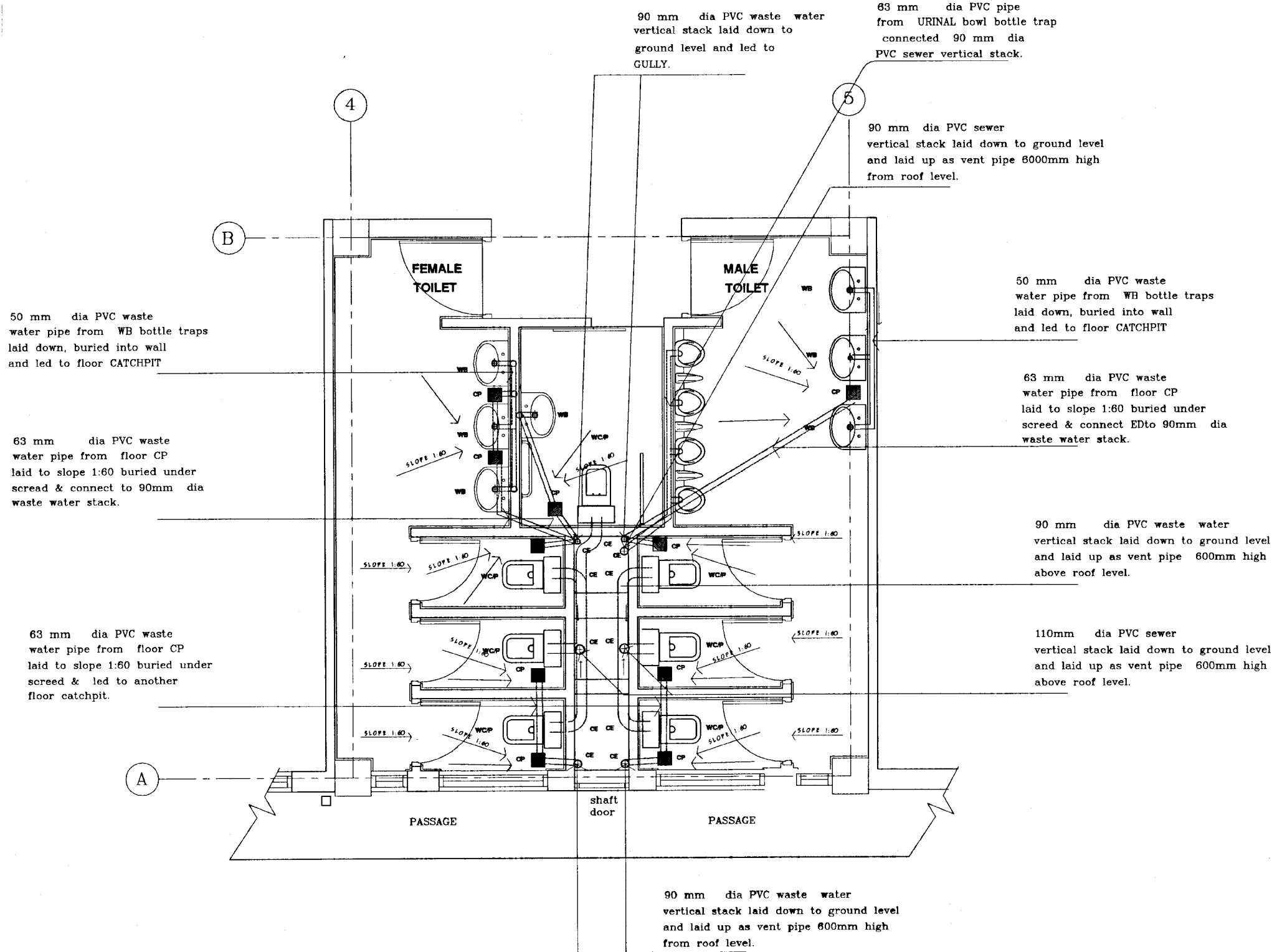
**MN** MAN HOLE

**SS** STAINLESS STEEL SINK.

URINAL BOWL.


**DO NOT SCALE**

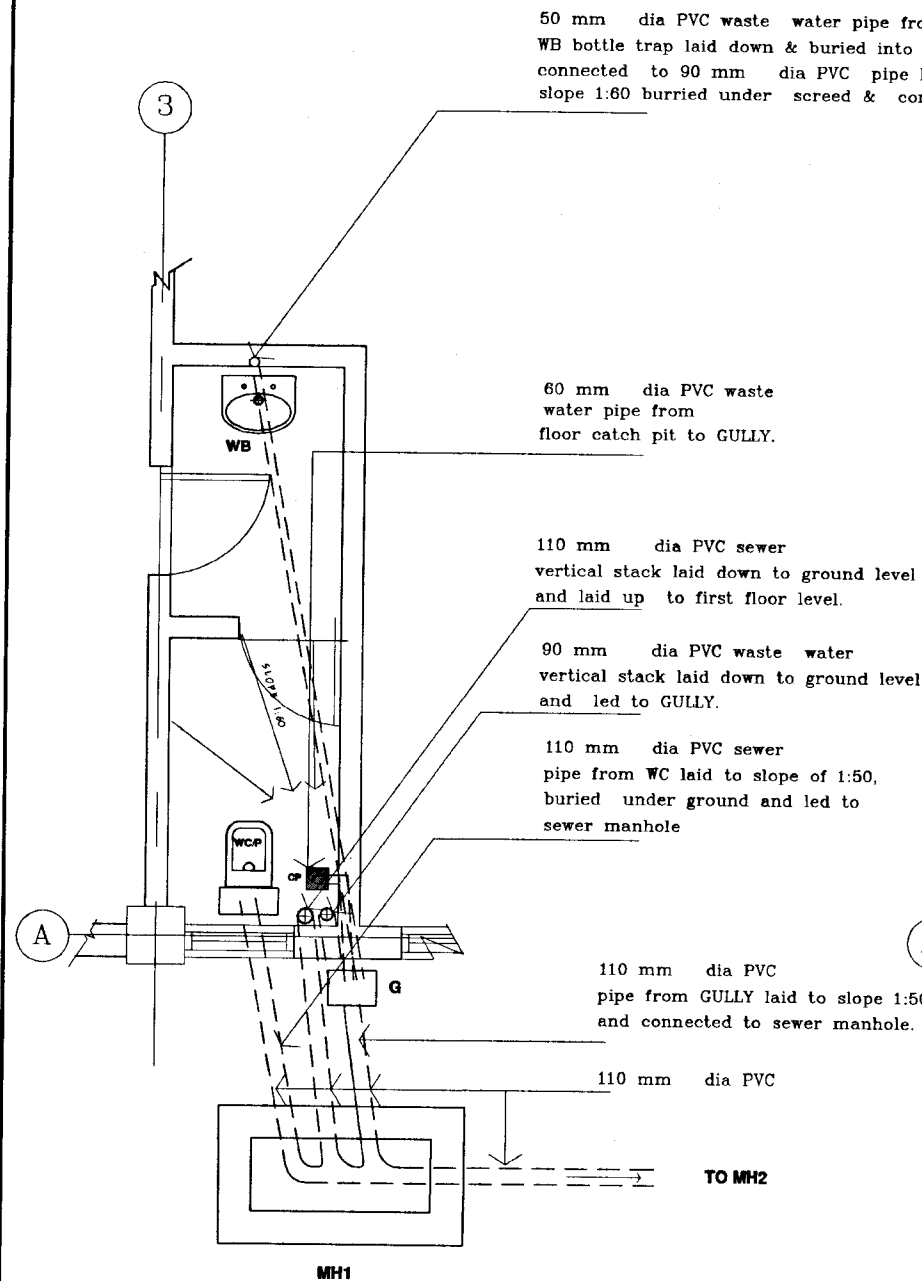
 <b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING SEWERAGE &amp; WASTEWATER DISPOSAL</b>
	DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> D.Y. TEAM LEADER: <i>[Signature]</i> TEAM LEADER: <i>[Signature]</i>	DRAWN: <i>[Signature]</i> P.M. SUPERVISOR: <i>[Signature]</i> I.A.M. (P.M.) INCHARGE: <i>[Signature]</i> D.G.M. (P.M.) INCHARGE: <i>[Signature]</i>



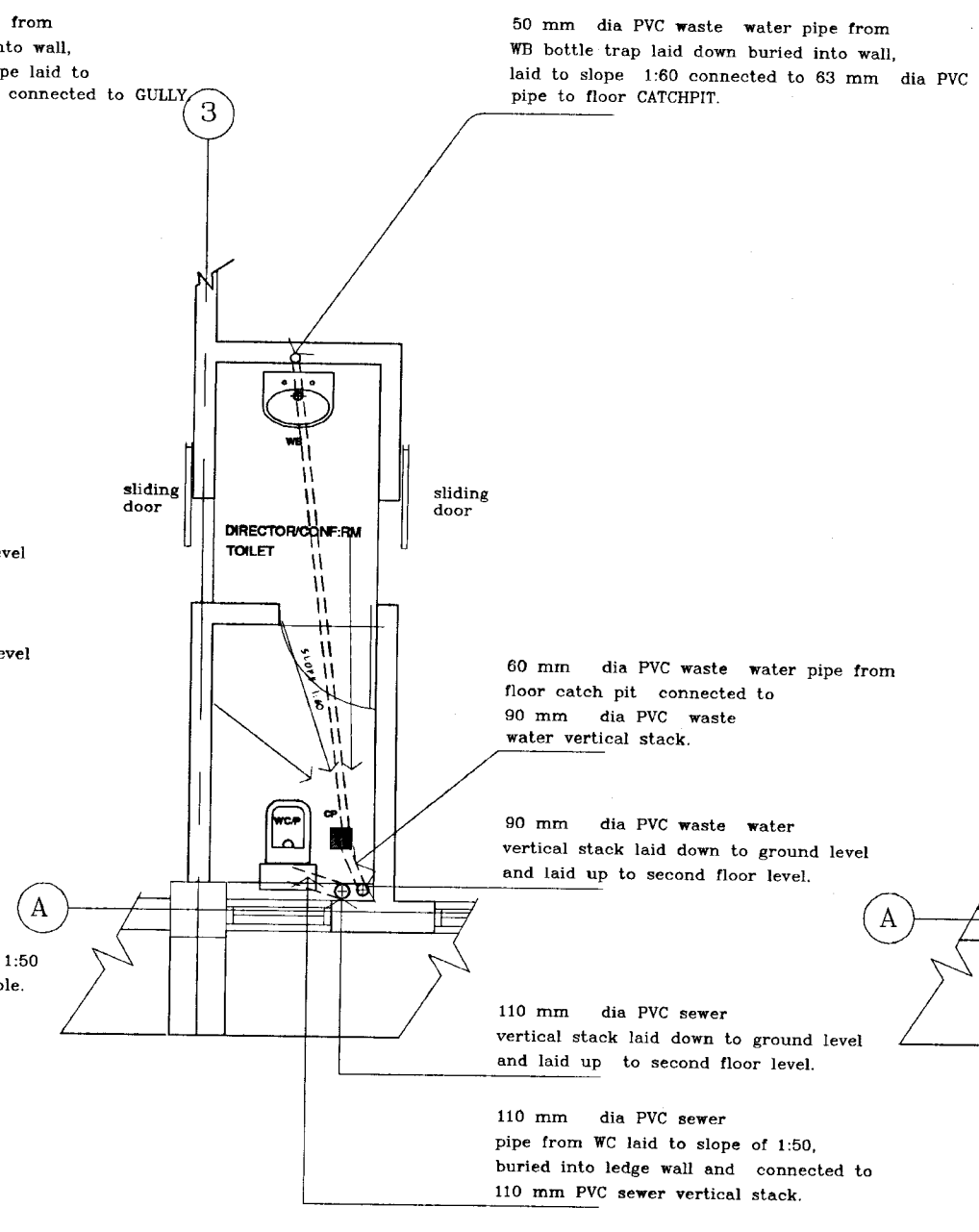
**DO NOT SCALE**

**INTERNAL LAYOUT PLAN OF SHOWING SEWERAGE & WASTE WATER DISPOSAL AT FIRST FLOOR LEVEL - (SIMILAR TO SECOND AND THIRD FLOORS.)**

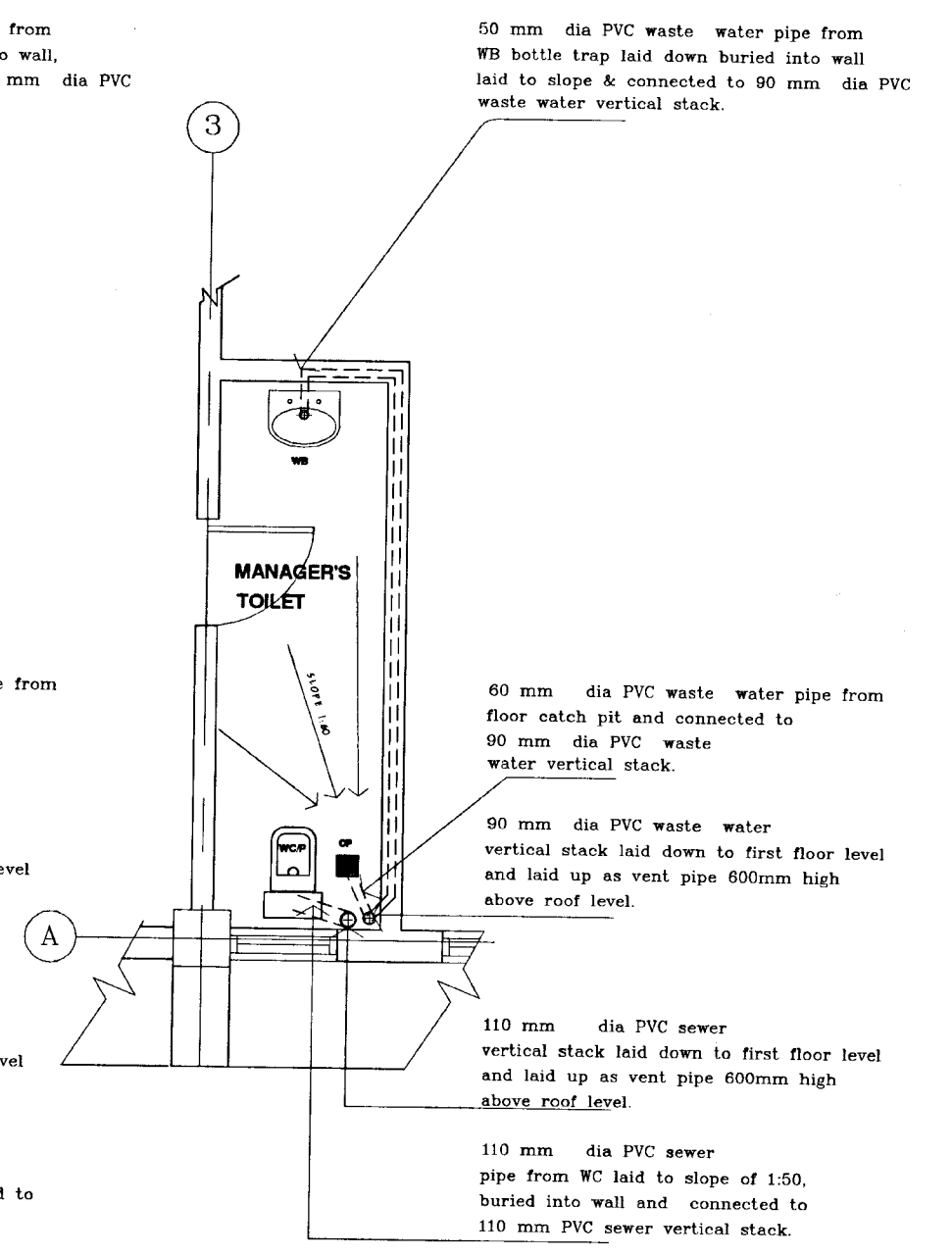
 <b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: MALIGAKANDA		TITLE: MALIGAKANDA OFFICE BUILDING SEWERAGE & WASTEWATER DISPOSAL
	DESIGNED: <i>[Signature]</i>		DATE: JAN 2001
	CHECKED: <i>[Signature]</i>		CONTRACT NO: NRW / CW
	DIV. TEAM LEADER: <i>[Signature]</i> TEAM LEADER: <i>[Signature]</i>		DRG. NO: MK / OB / SW-05 DRG. INC:



**INTERNAL LAYOUT PLAN OF SEWERAGE & WASTE WATER DISPOSAL AT GROUND FLOOR LEVEL - MANAGER'S TOILET.**




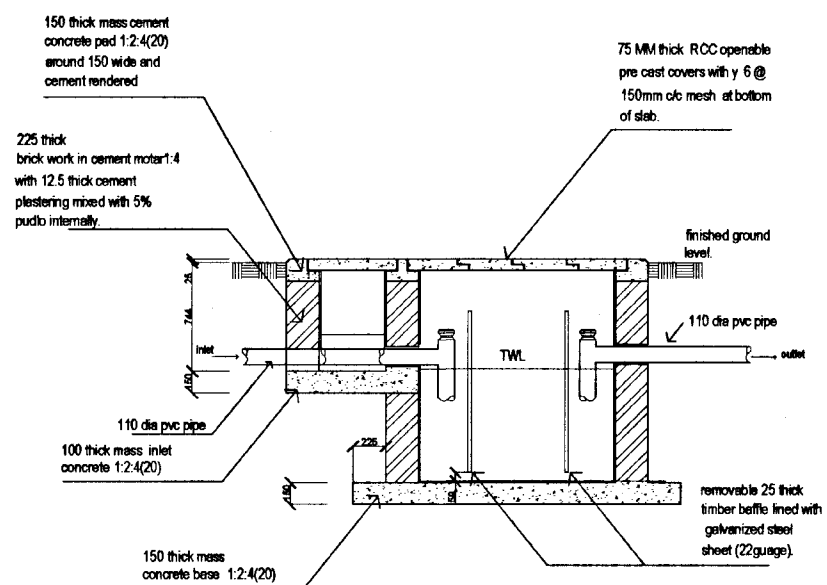
**INTERNAL LAYOUT PLAN OF SEWERAGE & WASTE WATER DISPOSAL AT FIRST FLOOR LEVEL - DIRECTOR/CONF: RM: TOILET.**



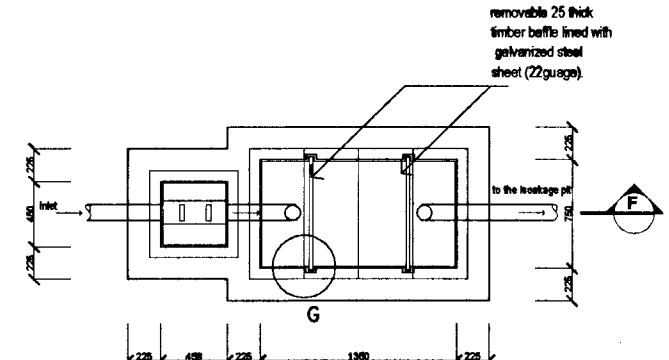
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**DO NOT SCALE**

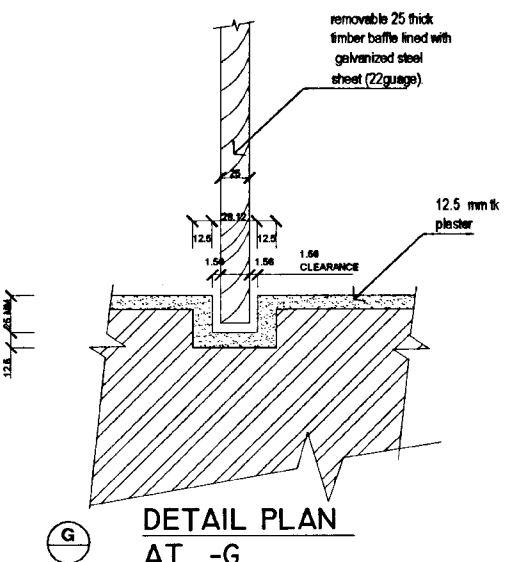
 <p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	SUB PROJECT: MALIGAKANDA	TITLE: MALIGAKANDA OFFICE BUILDING SEWERAGE & WASTEWATER DISPOSAL	
	DESIGNED: [Signature]	DRAWN: [Signature]	DATE: JAN 2001
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p> <p>NIMON SURUDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	CHECKED: [Signature]	CONTRACT NO.: NRW / CW	
	DRY TEAM LEADER: [Signature]	TEAM LEADER: [Signature]	DRG. NO.: MK / OB / SW-06
	TEAM LEADER: [Signature]	D.S.M. (P) NO.:	



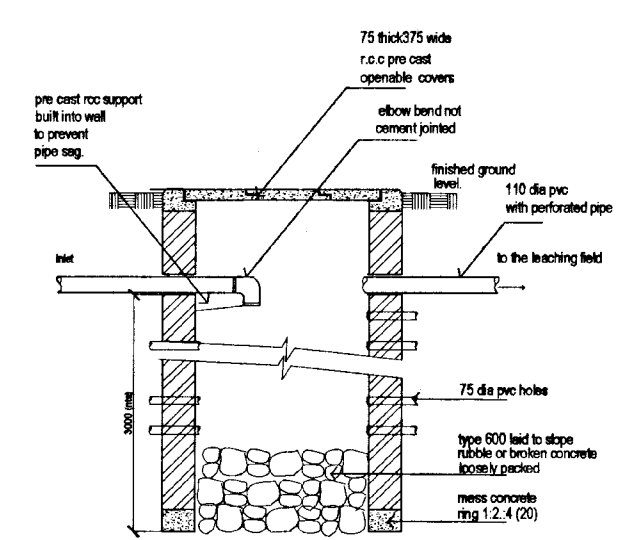
(F) DETAIL SECTION GREASE TRAP



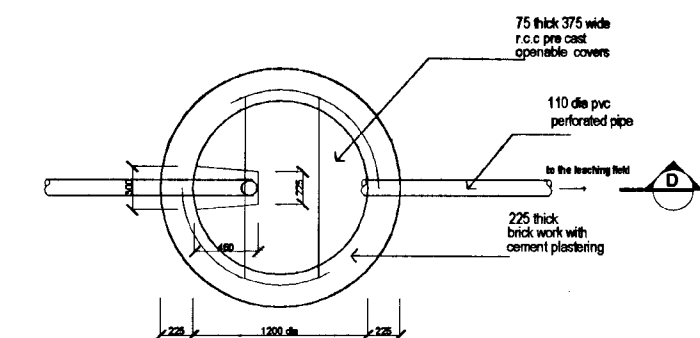
(E) DETAIL PLAN GREASE TRAP



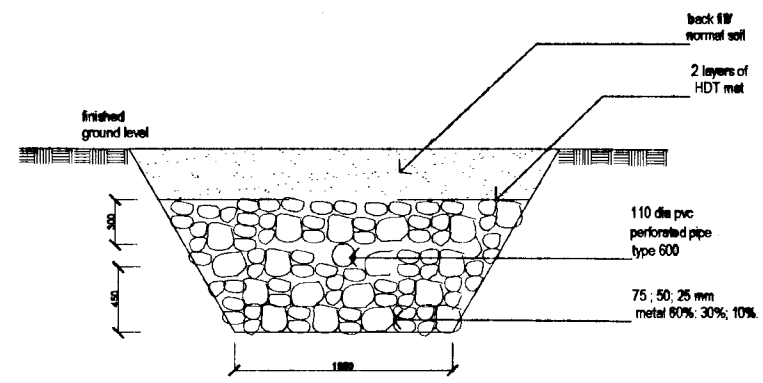
(G) DETAIL PLAN AT -G



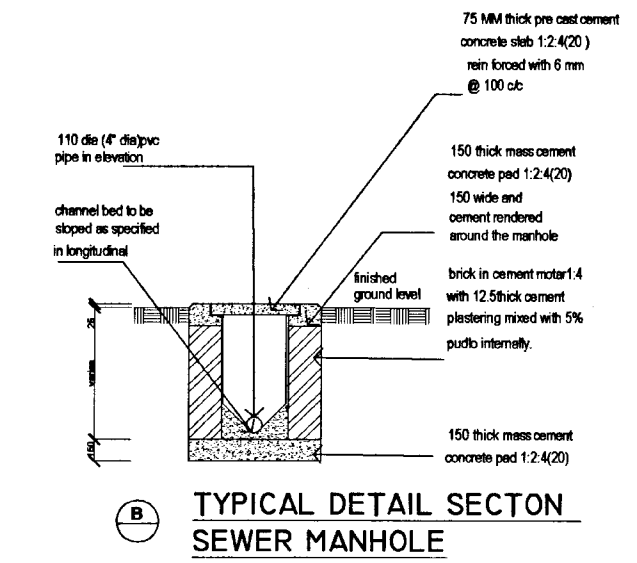
(D) DETAIL SECTION SOAKAGE PIT



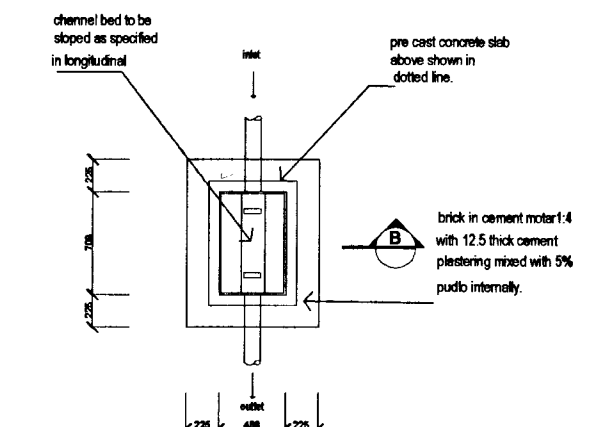
(C) DETAIL PLAN SOAKAGE PIT



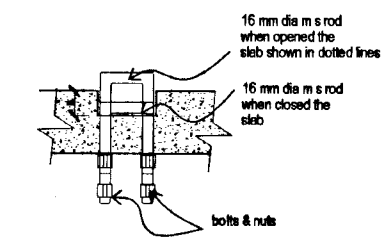
DETAIL SOAKAGE PIT TRENCH



(B) TYPICAL DETAIL SECTION SEWER MANHOLE



(A) TYPICAL DETAIL PLAN SEWER MANHOLE



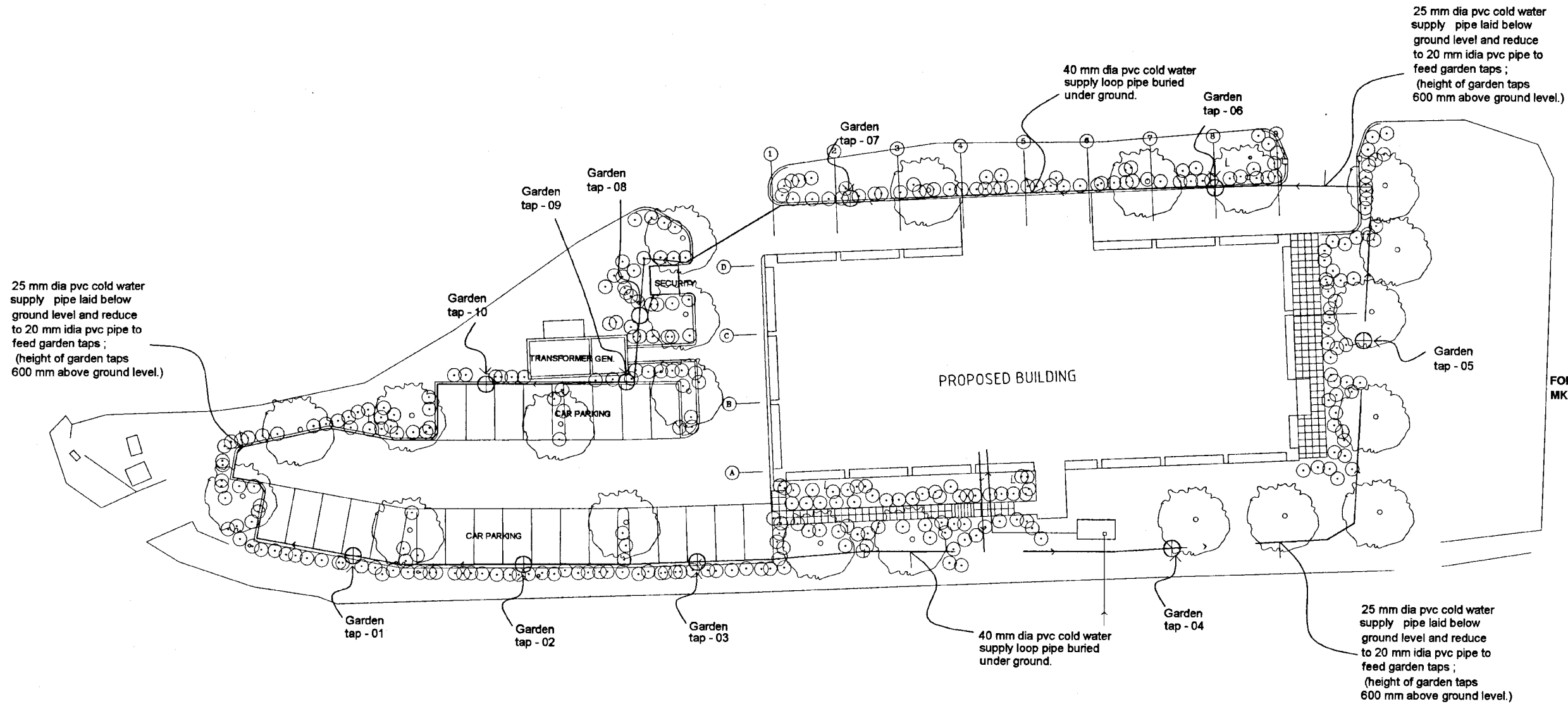
TYPICAL DETAIL SECTION OF M.S. LIFTING HANDLE FOR MANHOLES

**DO NOT SCALE**


REV	DESCRIPTION

<b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA		SUB PROJECT: MALIGAKANDA TITLE: MALIGAKANDA OFFICE BUILDING WASTE WATER DISPOSAL TREATMENT DETAILS
DESIGNED: [Signature] CHECKED: [Signature] BY TEAM LEADER: [Signature] TEAM LEADER: [Signature]	DRAWN: [Signature] PVI (PW/PS/MS/MS): [Signature] A.S.M (P/S) NUMBER: [Signature] D.O.M (P/S) NUMBER: [Signature]	DATE: JAN 2001 CONTRACT NO: NRW / CW D.M. NO: MK / OB / SW-07
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM NIPPON KAIYO CONSULTANTS CO. LTD., TOKYO, JAPAN		





**DO NOT SCALE**

 <p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: <b>MALIGAKANDA</b></p>		<p>TITLE: <b>MALIGAKANDA OFFICE BUILDING WATER SUPPLY LAYOUT FOR GARDEN TAPS</b></p>
	<p>DESIGNED: <i>[Signature]</i></p>		<p>DATE: <b>JAN 2001</b></p>
	<p>CHECKED: <i>[Signature]</i></p>		<p>CONTRACT No: <b>NRW / CW</b></p>
	<p>DT. TEAM LEADER: <i>[Signature]</i></p>		<p>DWG. No: <b>MK / OB / SW-08</b></p>
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p>		<p>DT. TEAM LEADER: <i>[Signature]</i></p>	<p>DWG. No: <b>MK / OB / SW-08</b></p>
<p>NIHON SUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>		<p>D.T. TEAM LEADER: <i>[Signature]</i></p>	<p>DWG. No: <b>MK / OB / SW-08</b></p>

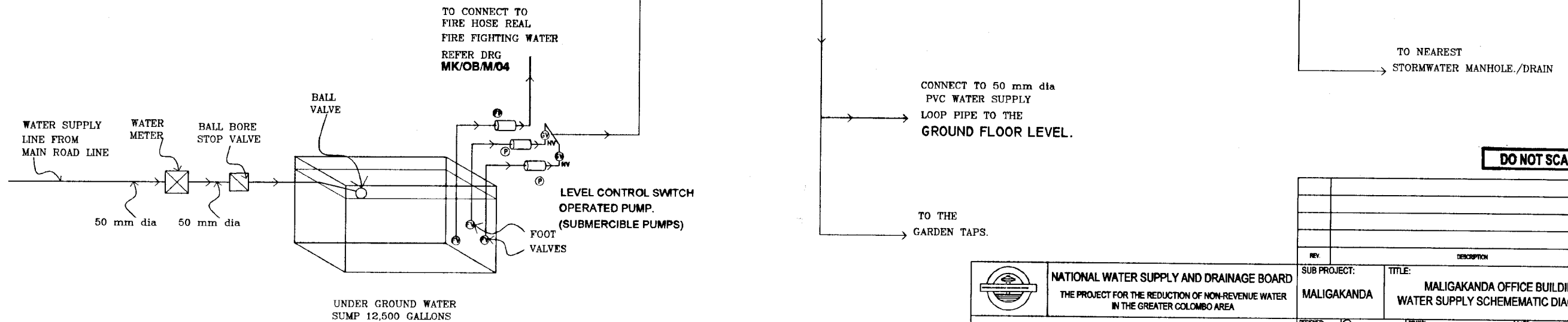
**KEY**

- (A) Denotes 50 mm dia pvc cold water supply pipe from pump to over head water tank.
- (B) Denotes 50 mm dia pvc cold water supply pipe from over head tank - 1 laid down to ground floor to feed male & female toilets manager's toilets & garden taps.
- (C) Denotes 50 mm dia pvc cold water supply pipe from over head tank - 2 laid down to first floor to feed male & female toilets .
- (D) Denotes 50 mm dia pvc cold water supply pipe from over head tank - 2 laid down to second floor to feed male & female toilets .
- (E) Denotes 50 mm dia pvc cold water supply pipe from over head tank - 3 laid down to third floor to feed male & female toilets .
- (F) Denotes 63 mm dia pvc over flow & washout pipe from over head water tank laid down to ground level & led to nearest storm water manhole.

**NOTES**

1. The capacity of each "ARPICO"PLASTIC shell water tank is 3000 Litres.
2. The capacity of under ground water sump is 18 M<sup>3</sup>
3. The internal dimensions of the under ground water sump is 2500x3000x2400mm


FOR THE CONTINUATION OF NOTES  
REFER DRG NO - MK-OB-SW-12

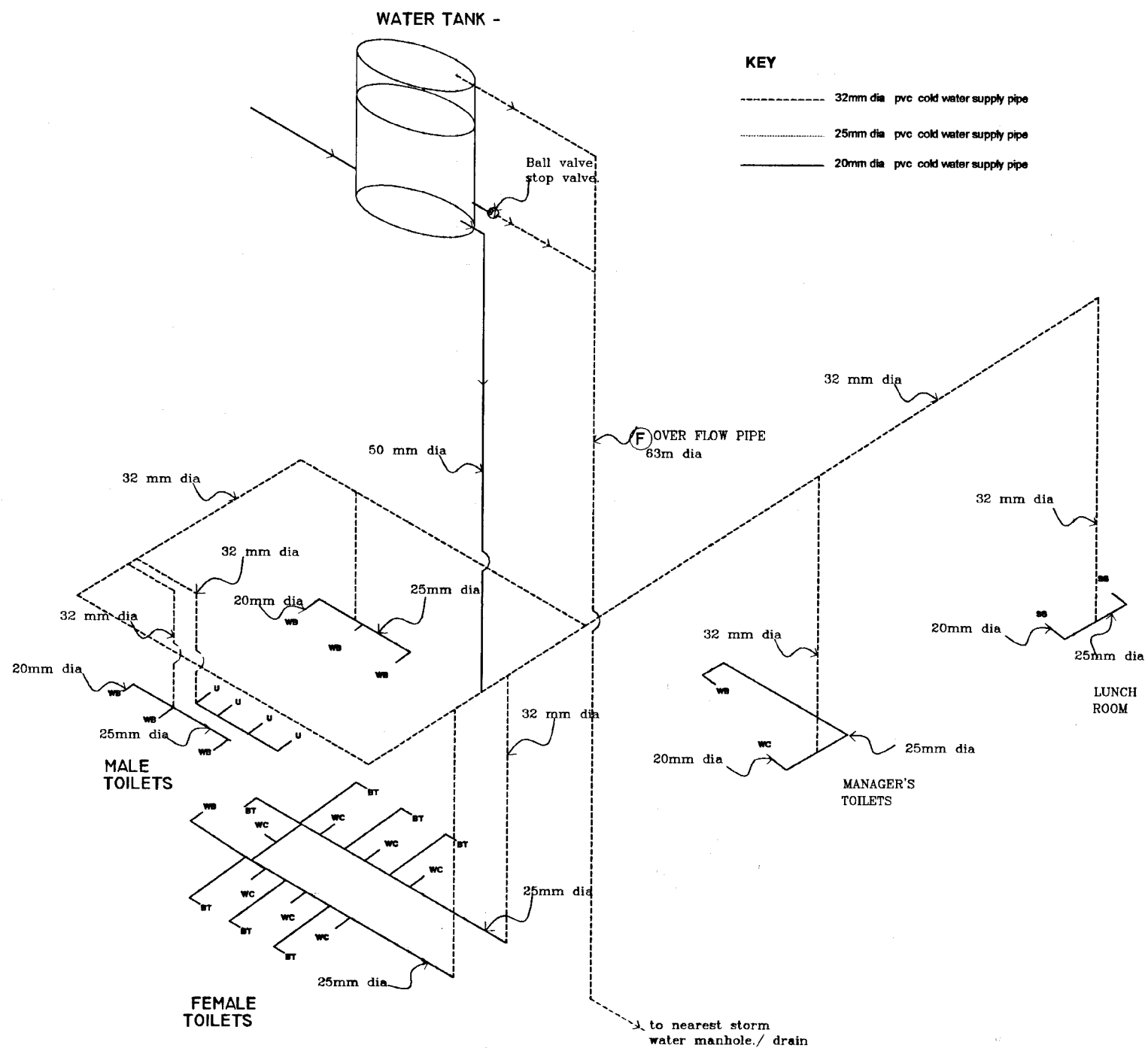


**WATER SUPPLY SCHEMATIC DIAGRAM OF COLD WATER SUPPLY & DISTRIBUTION.**

SCALE 1:25

**DO NOT SCALE**

 <p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: <b>MALIGAKANDA</b></p>	<p>TITLE: <b>MALIGAKANDA OFFICE BUILDING WATER SUPPLY SCHEMATIC DIAGRAM - 1</b></p>
	<p>DESIGNED: <i>[Signature]</i></p>	<p>DATE: <b>JAN 2001</b></p>
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p>	<p>CHECKED: <i>[Signature]</i></p>	<p>CONTRACT NO: <b>NRW / CW</b></p>
<p>NIHON SUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	<p>BY: TEAM LEADER: <i>[Signature]</i></p>	<p>DRG. NO: <b>MK / OB / SW-09</b></p>
	<p>TEAM LEADER: <i>[Signature]</i></p>	




**KEY**

- 32mm dia pvc cold water supply pipe
- 25mm dia pvc cold water supply pipe
- 20mm dia pvc cold water supply pipe

**SCHEMATIC DIAGRAM SHOWING COLD WATER SUPPLY & DISTRIBUTION IN TYPICAL FLOOR.**

SCALE : 1 : 25

**DO NOT SCALE**

 <p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: <b>MALIGAKANDA</b></p>	<p>TITLE: <b>MALIGAKANDA OFFICE BUILDING WATER SUPPLY SCHEMATIC DIAGRAM - 2</b></p>
	<p>DESIGNED: <i>[Signature]</i></p>	<p>DATE: <b>JAN 2001</b></p>
<p>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM</p>	<p>CHECKED: <i>[Signature]</i></p>	<p>CONTRACT No: <b>NRW / CW</b></p>
<p>NIHON SUDO CONSULTANTS CO. LTD., TOKYO, JAPAN</p>	<p>BY TEAM LEADER: <i>[Signature]</i></p>	<p>DWG. No: <b>MK / OB / SW-10</b></p>

32mm dia PVC cold water supply pipe laid down from 32mm dia PVC cold water supply loop pipe up to 600 high from floor level connect 25mm dia PVC cold water supply horizontal pipe and reduce to 20mm dia PVC pipe to feed WASH BASIN.

25 mm dia PVC cold water supply pipe laid down from 32mm dia PVC cold water supply loop pipe up to sistern level and reduce to 20mm dia PVC pipe to feed URINAL SYSTEM.

**KEY**

- 32mm dia pvc cold water supply pipe
- ..... 25mm dia pvc cold water supply pipe
- 20mm dia pvc cold water supply pipe

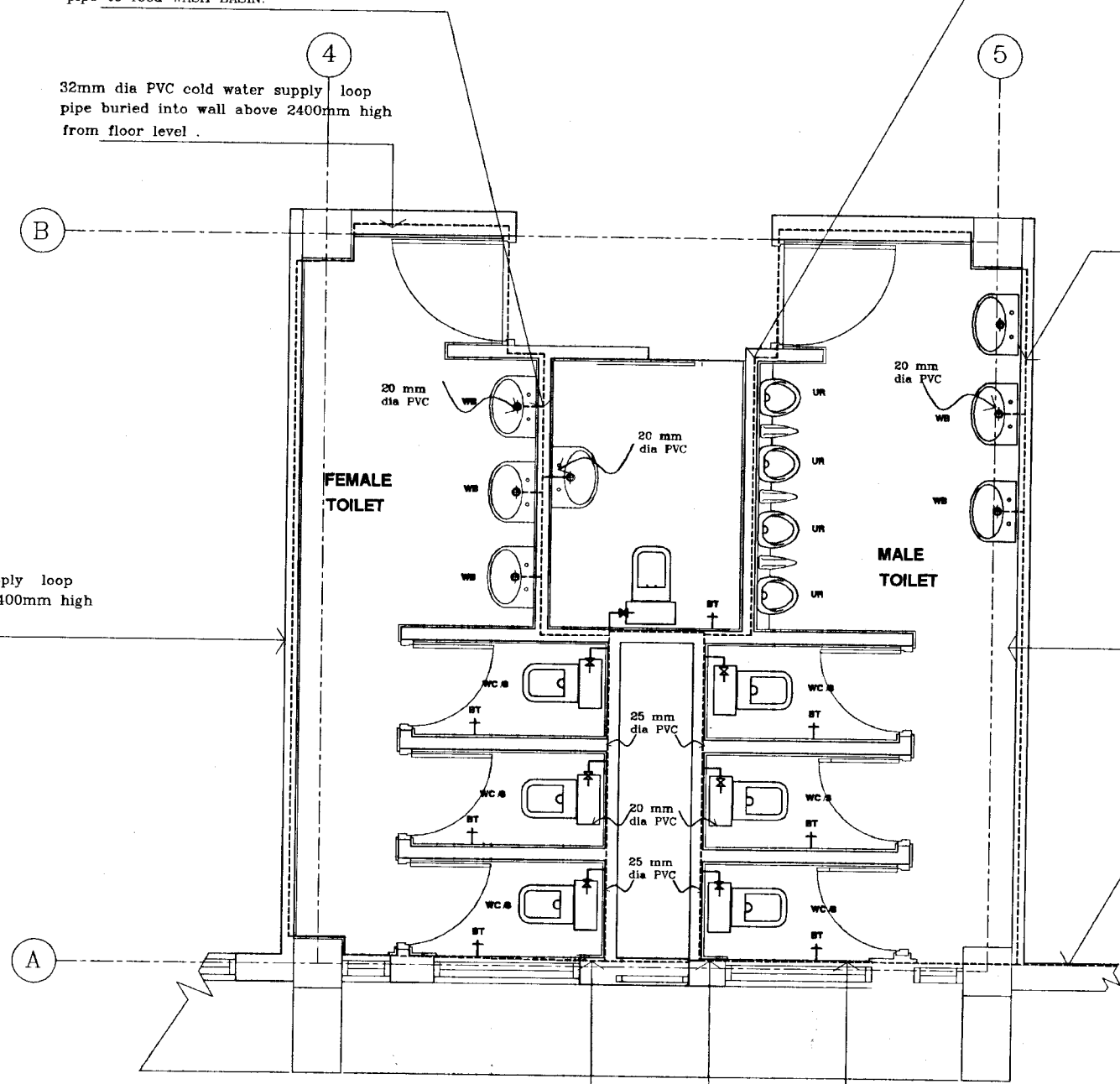
32mm dia PVC cold water supply loop pipe buried into wall above 2400mm high from floor level .

32mm dia PVC cold water supply pipe laid down from 32mm dia PVC cold water supply loop pipe up to 600 high from floor level connect 25mm dia PVC cold water supply horizontal pipe and reduce to 20mm dia PVC pipe to feed WASH BASIN.

32mm dia PVC cold water supply loop pipe buried into wall above 2400mm high from floor level .

32mm dia PVC cold water supply loop pipe buried into wall above 2400mm high from floor level .

32mm dia PVC cold water supply pipe buried into wall above 3000mm high from floor level .to supply lunch room & managers toilet




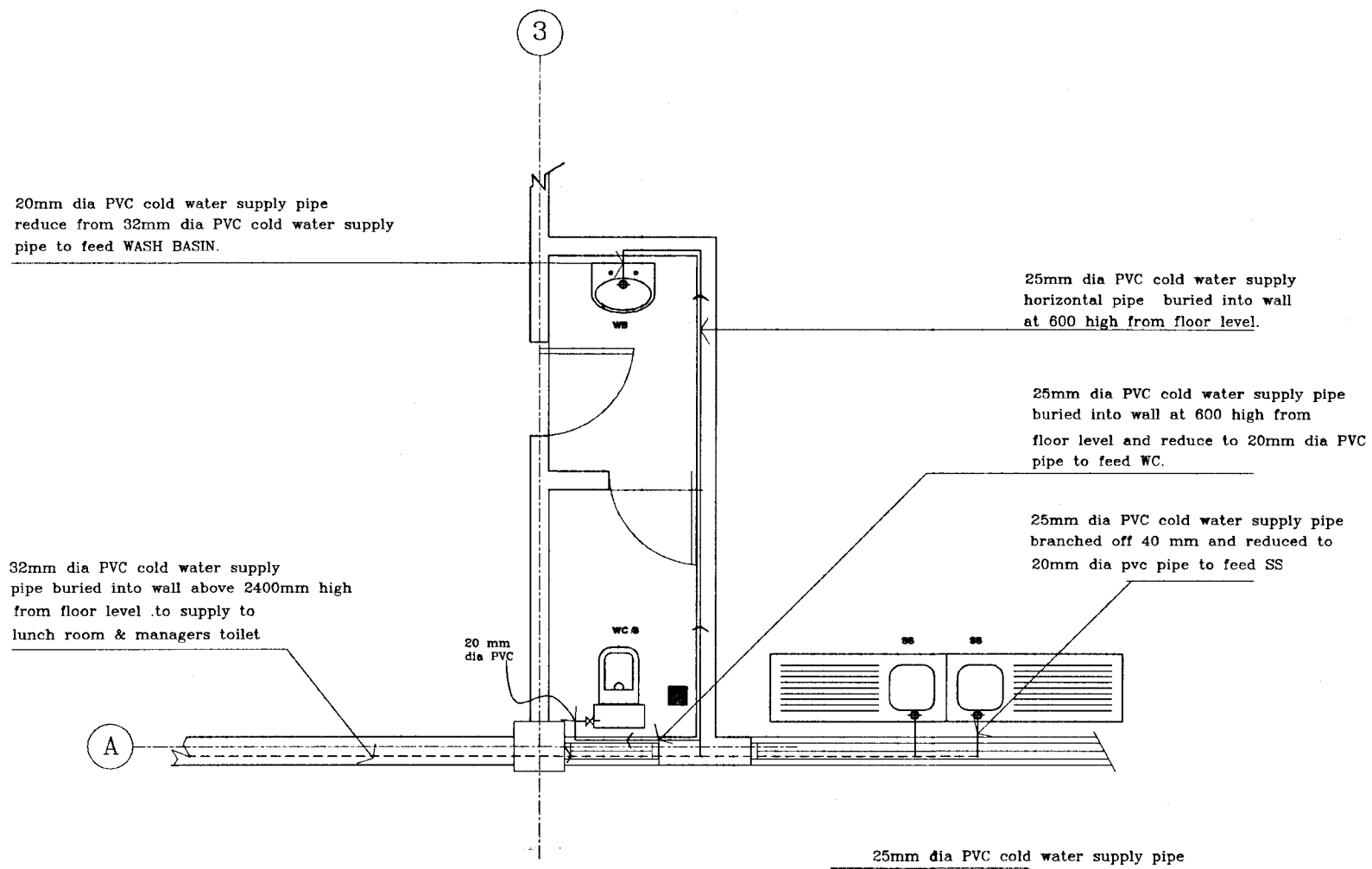
32mm dia PVC cold water supply pipe laid down from 32mm dia PVC cold water supply loop pipe up to 600 high from floor level connect 25mm dia PVC cold water supply horizontal pipe and reduce to 20mm dia PVC pipe to feed WC.

32mm dia PVC cold water supply loop pipe buried into wall above 2400mm high from floor level .

**DO NOT SCALE**

**DETAIL PLAN OF COLD WATER DISTRIBUTION IN MALE & FEMALE TOILETS - GROUND FLOOR**  
**SIMILAR TO FIRST SECOND & THIRD FLOOR PLANS.**  
 SCALE : 1 : 25

 <b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING WATER SUPPLY LAYOUT MALE &amp; FEMALE TOILET</b>
	SHEET 1 OF 2	
DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> DIV. TEAM LEADER: <i>[Signature]</i> TEAM LEADER: <i>[Signature]</i>	DRAWN: <i>Yamuno</i> PW (PROVISION) NUMBER: <i>[Signature]</i> A.S.M (P.W.) NUMBER: <i>[Signature]</i> D.S.M (P.W.) NUMBER:	DATE: <b>JAN 2001</b> CONTRACT NO: <b>NRW / CW</b> DRG. NO: <b>MK / OB / SW-11</b>
<b>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</b> STUDY TEAM <b>NIHON SUIDO CONSULTANTS CO. LTD.,</b> TOKYO, JAPAN		



**KEY**

- - - - - 32mm dia pvc cold water supply pipe
- \_\_\_\_\_ 25mm dia pvc cold water supply pipe
- \_\_\_\_\_ 20mm dia pvc cold water supply pipe


**ABBREVIATION FOR THE TOILET DRAWINGS.**

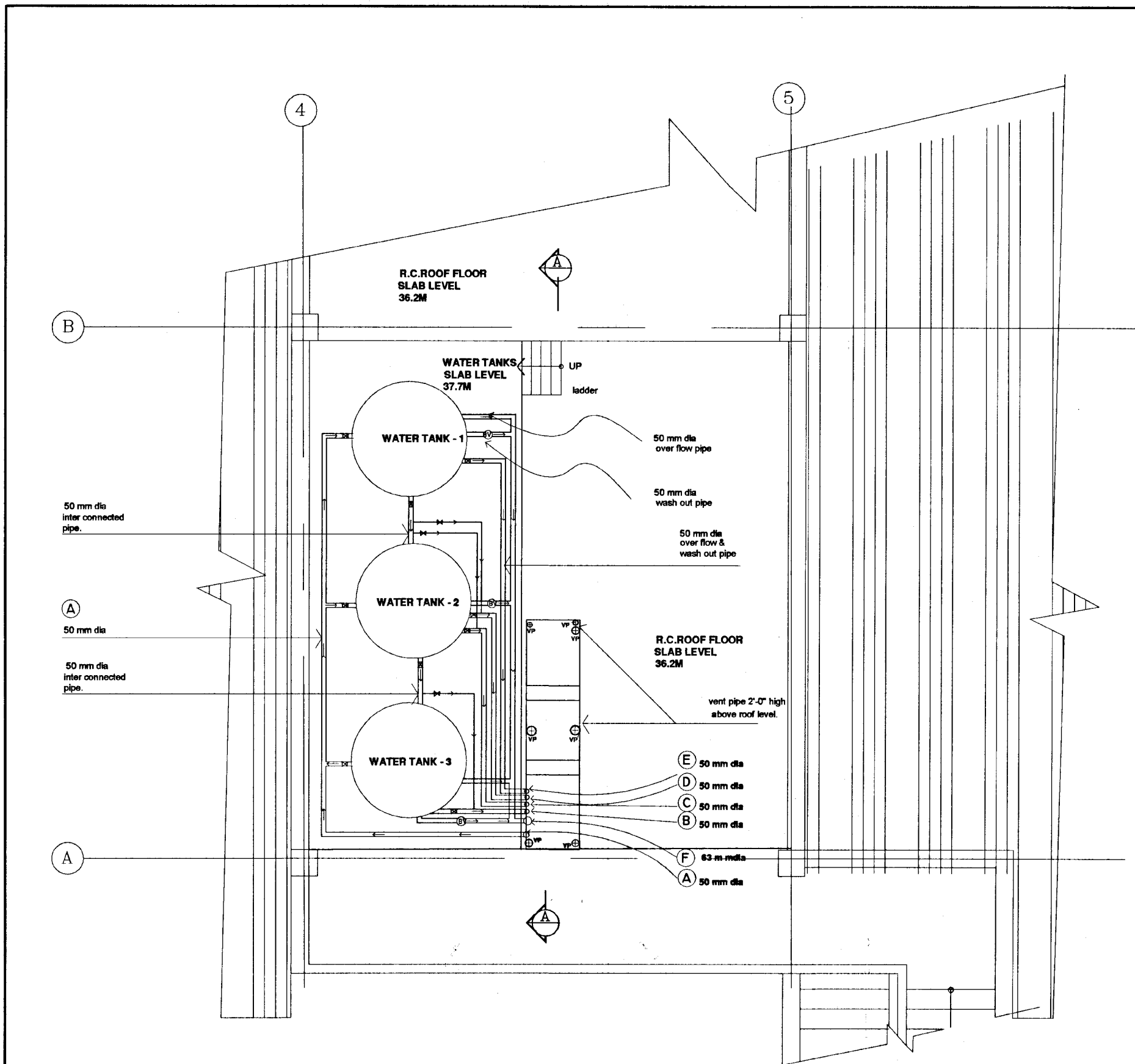
- WB** WASH BASIN.
- WC/S** WATER CLOSET WITH "S" TRAP.
- WC/P** WATER CLOSET WITH "P" TRAP.
- MH** MAN HOLE
- SS** STAINLESS STEEL SINK.
- UB** URINAL BOWL.
- P** LEVEL CONTROL SWITCH OPERATED PUMP
- FP** FIRE PUMP
- FV** FOOT VALVE.
- GV** GATE VALVE
- NV** NONE STOP VALVE
- BT** BIB TAP

**DETAILPLAN OF COLD WATER DISTRIBUTION IN  
MANAGER'S TOILET & LUNCH ROOM.- GROUND FLOOR  
SIMILAR TO FIRST SECOND & THIRD FLOORS**

SCALE : 1 : 25

**DO NOT SCALE**

 <b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA		SUB PROJECT: <b>MALIGAKANDA</b>		TITLE: <b>MALIGAKANDA OFFICE BUILDING          WATER SUPPLY LAYOUT MANAGER TOILET &amp;          LUNCH ROOM</b>		SHEET 1 OF 3	
		DESIGNED: <i>[Signature]</i>	DRAWN: <i>[Signature]</i>	DATE: <b>JAN 2001</b>		CONTRACT NO: <b>NRW / CW</b>	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) STUDY TEAM NIKON SUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN		CHECKED: <i>[Signature]</i>	P.M. (P.M.)/M.M. (M.M.): <i>[Signature]</i>	A.G.M. (P.M.)/M.M. (M.M.): <i>[Signature]</i>	S.M. (P.M.): <i>[Signature]</i>	MK / OB / SW-12	



**NOTES**


1. The capacity of each "ARPICO" plaster shell water tank is 440 Gallons.

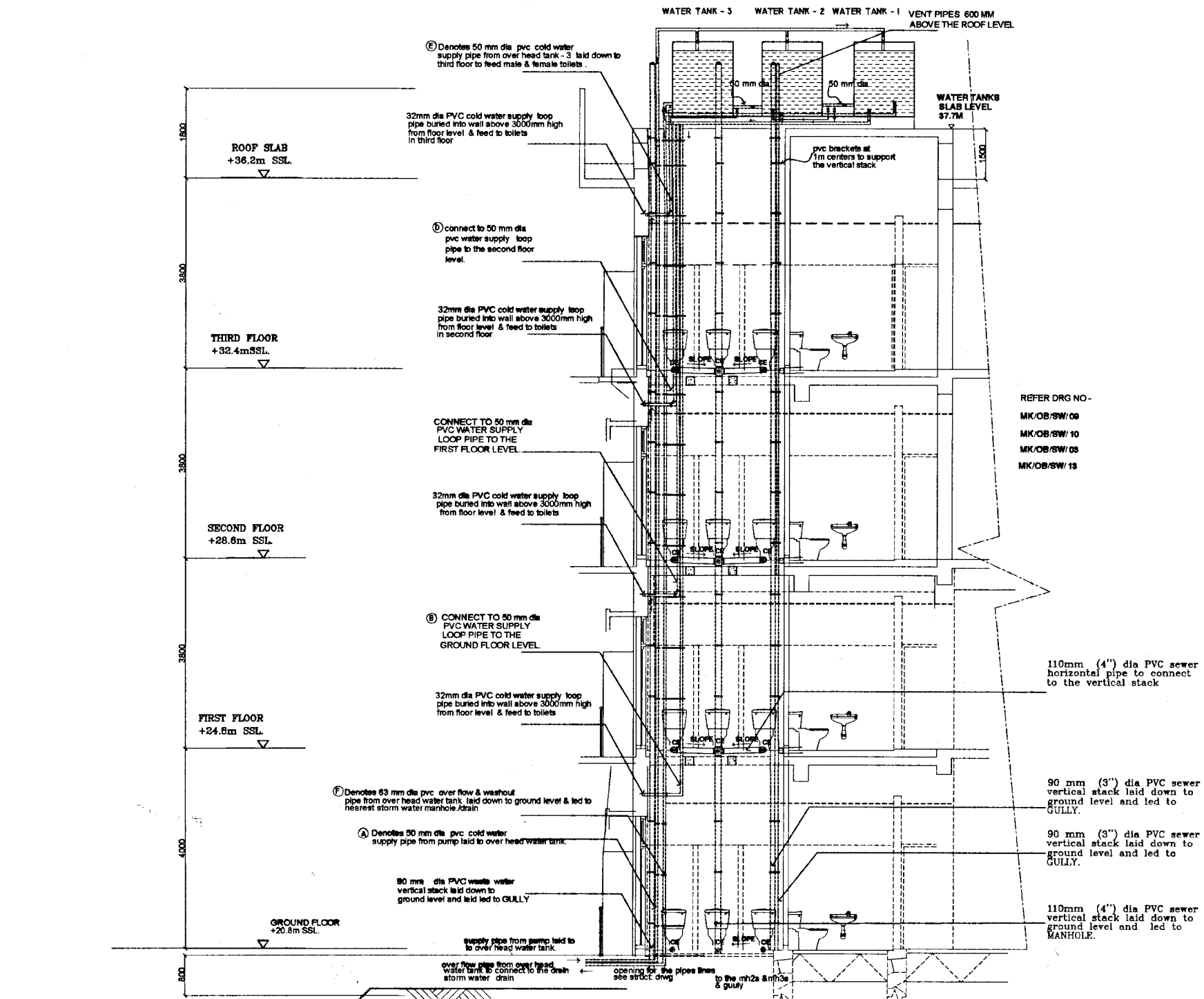
REFER DRG NO -  
 MK/OB/SW/ 09  
 MK/OB/SW/ 10  
 MK/OB/SW/ 14

- KEY**
- (A) Denotes 50 mm dia pvc cold water supply pipe from pump laid to over head water tank.
  - (B) Denotes 50 mm dia pvc cold water supply pipe from over head tank -1 laid down to ground floor to feed male & female toilets manager's toilets & garden taps.
  - (C) Denotes 50 mm dia pvc cold water supply pipe from over head tank -2 laid down to first floors to feed male & female toilets .
  - (D) Denotes 50 mm dia pvc cold water supply pipe from over head tank -2 laid down to second floors to feed male & female toilets .
  - (E) Denotes 50 mm dia pvc cold water supply pipe from over head tank -3 laid down to third floor to feed male & female toilets .
  - (F) Denotes 63 mm dia pvc over flow & washout pipe from over head water tank laid down to ground level & led to nearest storm water manhole.
- BV Ball bore stop valve.

**PLAN**


**DO NOT SCALE**

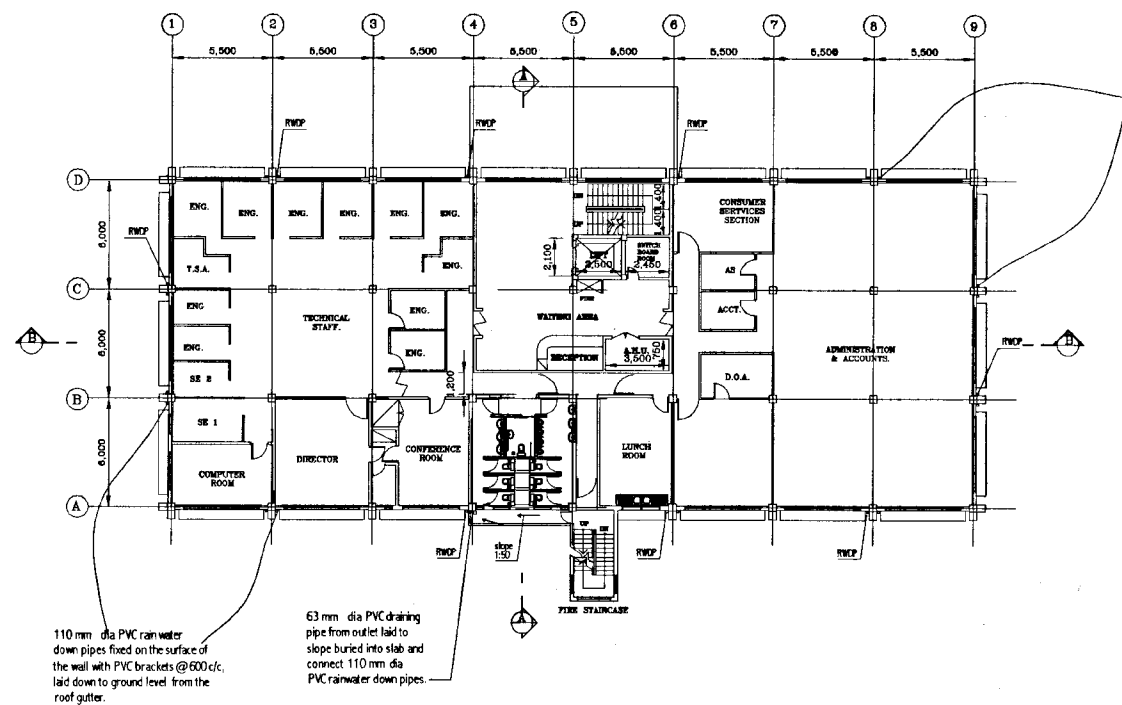
 <p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD          THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER          IN THE GREATER COLOMBO AREA</p>	SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING          LAYOUT OF WATER TANKS IN          ROOF SLAB AREA</b>
	DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> DT. TEAM LEADER: <i>[Signature]</i> TEAM LEADER: <i>[Signature]</i>	DRAWN: <i>[Signature]</i> PW (ARCHITECT) INCHARGE: <i>[Signature]</i> A.S.M (P&I) INCHARGE: <i>[Signature]</i> D.S.M (P&I) INCHARGE: <i>[Signature]</i>



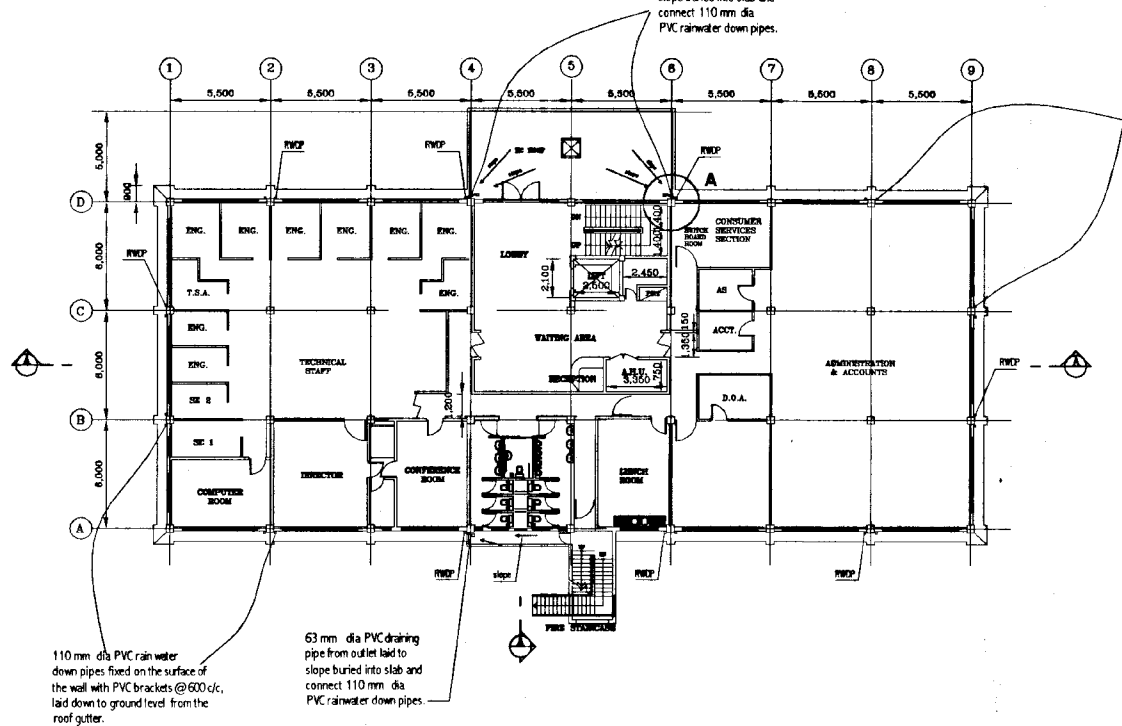
1 DETAIL SETION A--A  
SCALE: - 1:50

**DO NOT SCALE**

 <p>NATIONAL WATER SUPPLY AND DRAINAGE BOARD THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: MALIGAKANDA</p>	<p>TITLE: MALIGAKANDA OFFICE BUILDING SECTIONAL DETAILS OF MAIN WATER LINES FROM OH TANK</p>
	<p>DESIGNED: <i>[Signature]</i></p>	<p>DRAWN: <i>Yamune</i></p>
<p>CHECKED: <i>[Signature]</i></p>	<p>PM (NWS&amp;D) INCHARGE: <i>[Signature]</i></p>	<p>CONTRACT NO: NRW / CW</p>
<p>DT. TEAM LEADER: <i>[Signature]</i></p>	<p>A.B.M (PUB) INCHARGE: <i>[Signature]</i></p>	<p>DWG. NO: MK / OB / SW-14</p>
<p>TEAM LEADER: <i>[Signature]</i></p>	<p>D.O.M (PUB) INCHARGE:</p>	



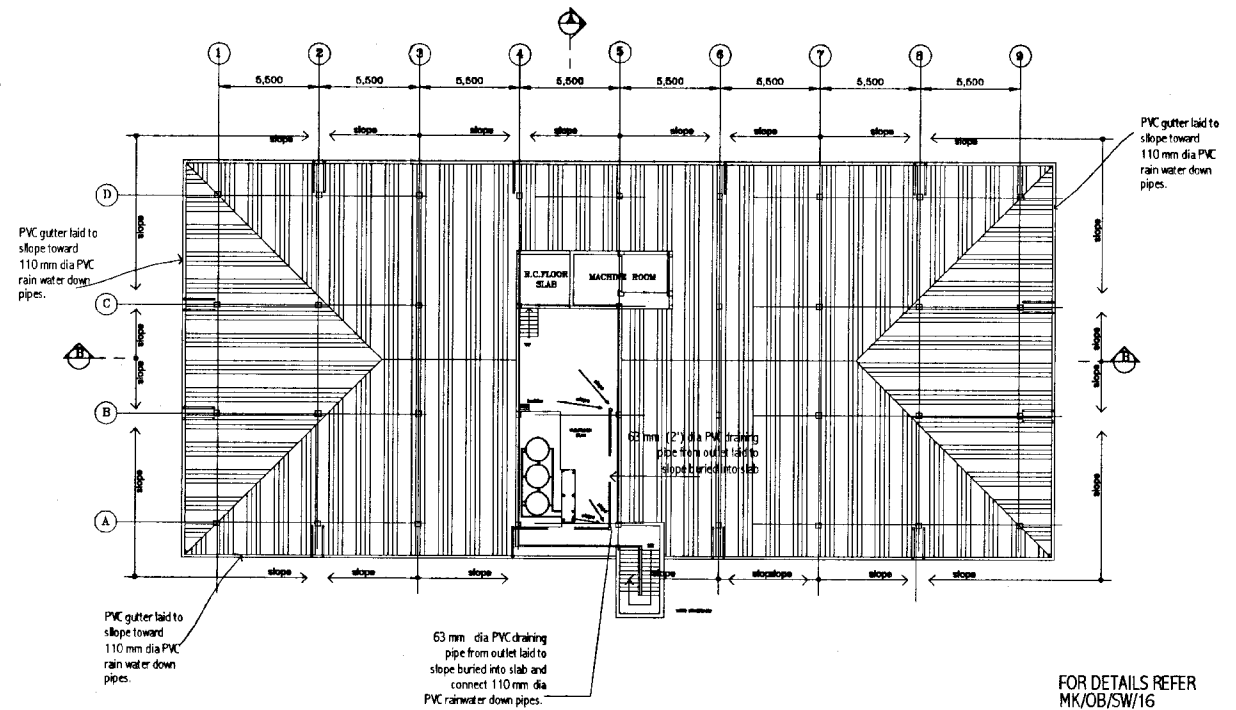
**STORM WATER DISPOSAL AT SECOND FLOOR LEVEL**



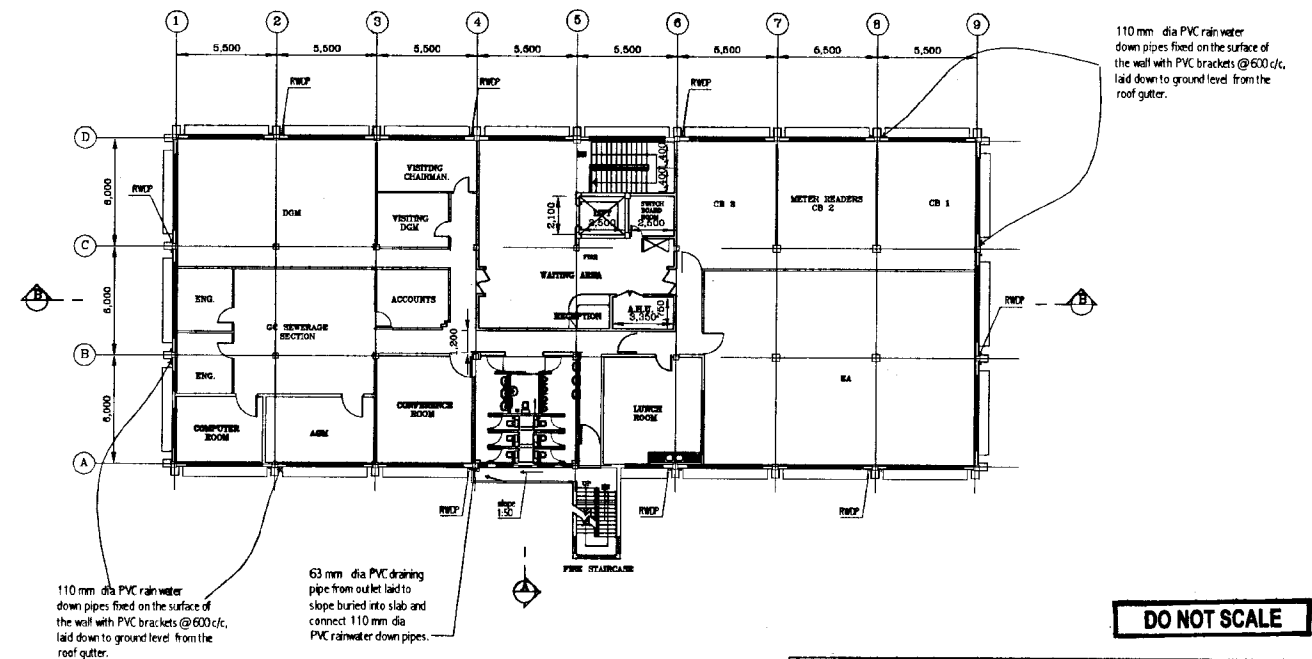
**STORM WATER DISPOSAL AT FIRST FLOOR LEVEL**

110 mm dia PVC rainwater down pipes fixed on the surface of the wall with PVC brackets @ 600 c/c, laid down to ground level from the roof gutter.

110 mm dia PVC rainwater down pipes fixed on the surface of the wall with PVC brackets @ 600 c/c, laid down to ground level from the roof gutter.




**STORM WATER DISPOSAL AT ROOF LEVEL**



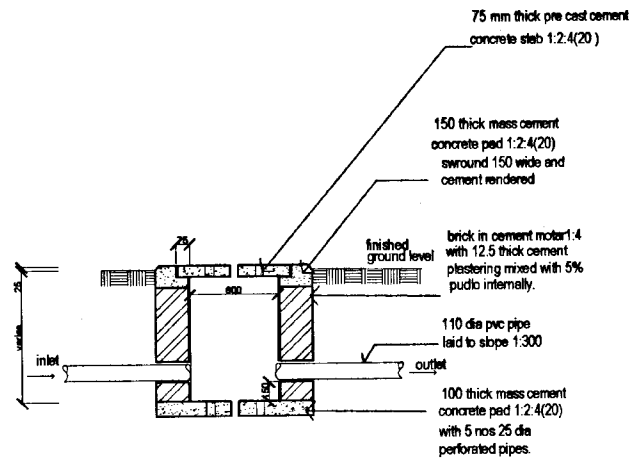
**STORM WATER DISPOSAL AT THIRD FLOOR LEVEL**

FOR DETAILS REFER MK/OB/SW/16

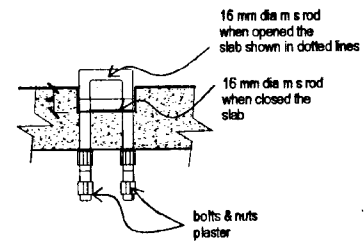
**DO NOT SCALE**

 <p><b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA</p>	<p>SUB PROJECT: <b>MALIGAKANDA</b></p>	<p>TITLE: <b>MALIGAKANDA OFFICE BUILDING STORM WATER LAYOUT OF VARIOUS FLOORS</b></p>
	<p>DESIGNED: <i>[Signature]</i></p> <p>CHECKED: <i>[Signature]</i></p> <p>DR. TEAM LEADER: <i>[Signature]</i></p> <p>TEAM LEADER: <i>[Signature]</i></p>	<p>DATE: <b>JAN 2001</b></p> <p>CONTRACT NO: <b>NRW / CW</b></p> <p>DRG. NO: <b>MK / OB / SW-15</b></p>

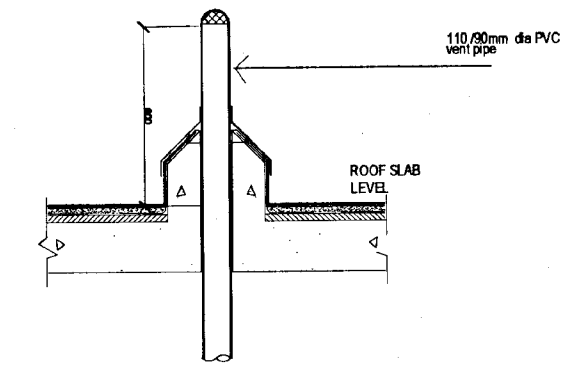




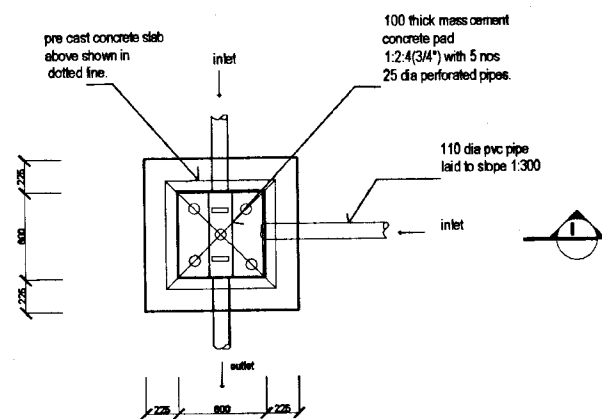
① TYPICAL DETAIL SECTION STORM WATER MANHOLE



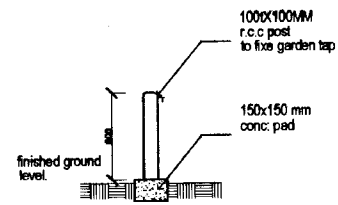
TYPICAL DETAIL SECTION OF M.S. LIFTING HANDLE FOR MANHOLES



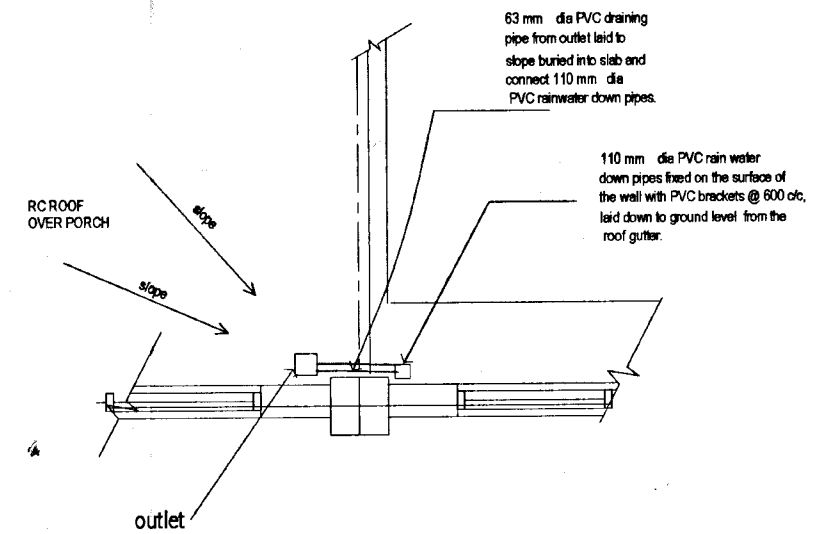
VENT PIPE HEIGHT AT ROOF SLAB



② TYPICAL DETAIL PLAN STORM WATER MANHOLE



GARDEN TAP DETAIL



DETAIL AT - A  
REFER MK/OB/ SW/15  
MK/OB/A-23

DO NOT SCALE

	<b>NATIONAL WATER SUPPLY AND DRAINAGE BOARD</b> THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA		SUB PROJECT: <b>MALIGAKANDA</b>	TITLE: <b>MALIGAKANDA OFFICE BUILDING SEWER STORM WATER MANHOLE DETAILS</b>
	<b>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</b> STUDY TEAM		DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> BY: TEAM LEADER	DRAWN: <i>[Signature]</i> PAI (PWSAPS) MEMBER: <i>[Signature]</i> JICA (PWS) MEMBER: <i>[Signature]</i> D.G.M (PWS) MEMBER: <i>[Signature]</i>
	NIHONSUIDO CONSULTANTS CO. LTD., TOKYO, JAPAN		DATE: <b>JAN 2001</b> CONTRACT NO: <b>NRW / CW</b>	DRG. NO: <b>MK / OB / SW-16</b>
			REV.	DESCRIPTION