

Component	Definition	Specification	Place	Note	Component	Definition	Specification	Place	Note
API	Safety insulation		Control panel		KAQ	Advance door open relay.		Control panel	
BKU	Brake unit		Control panel	Use above 15 KW	KAS	Safety circuit relay		Control panel	
BIT	Eddy current brake		Car top		KMB	Brake contactor		Control panel	
C1	Capacitor in brake circuit		Control panel		KMC	Main contactor		Control panel	
EL1	Car top light		Car top		KMY	Invertor contactor		Control panel	
EL2	Pit light		Pit		KMZ	Contactor for excited brake circuit		Control panel	
EL3	Car light		Car		M	Tractor motor		Machine room	
EL4	Car light		Car		MDO	Door motor		Car top	
F1	Power switch(220V)		Machine room		MCH	Brake of door machine		Car top	QKS9 motor use
FM1	Fuse		Machine room		PG	Encoder		Machine room	
FR1-FR3	Fuse		Machine room		PG-B2	Encode feedback card		Control panel	Yaskawa inverter
FU1	Fuse		Control panel	24V	PHO-M	Intercom(main)		Machine room	
FU2	Fuse		Control panel	110V	PHO-S	Intercom(extend)		Car	
FU3	Fuse		Control panel	220V	QF	Main power switch(380V)		Machine room	
FU4	Fuse		Control panel	36V	RB	Brake resistor		Control panel	
HAA	Alarm bell		Shaft		RCL	Door close resistor		Car top	
HAB	Buzzer		Car		RMD	Door motor resistor		Car top	
HAD	Arrival gong(down)		Car bottom		ROP	Door open resistor		Car top	
HAU	Arrival gong(up)		Car top		RZ1	Brake resistor 1		Control panel	
HC1-HCN	Car call light		Car		RZ2	Brake resistor 2		Control panel	
HCL	Door close light		Car		SAD2	Switch in door machine circuit 2		Control panel	
HD1-HDN	Hall call light(down)		Call box		SAD3	Switch in door machine circuit 3		Control panel	
HFN	Fan		Car		SBB	Alarm button		Shaft	
HOL	Overload light		Car		SBC1-SBCN	Car call button		Car	
HOP	Door open light		Car		SBCD	Down button in car		Car	
HU1-HUN	Hall call light(up)		Call box		SBCL	Door close button		Car	
JRET	Switch of door machine brake		Car top	QKS9 door motor use	SBCU	Up button in car		Car	
KAC	Door close relay		Control panel		SBD1-SBDN	Hall call button(down)		Call box	
KAD	Door lock relay		Control panel		SBOP	Door open button		Car	
KAE	Light control relay		Control panel		SBPD	Down button in control panel		Control panel	
KAGC	Power supply switch for call		Control panel	For group control	SBPS	By-pass button		Car	
KAO	Door open relay		Control panel		SBPU	Up button in control panel		Control panel	
KAP	Phase relay		Control panel		SBDT	Down button on car top		Car top	

Lable				Change	Check	Data	No.	Check	Huzhitao	<div style="text-align: center;"> </div>	File ID	DN7010/20-DT	Version	1.0/0	DFG.	ST212E1301	
									Component List 1			Ver.	1.0	SHEET	11		
												Scale		SHEETS	24		

OTIS

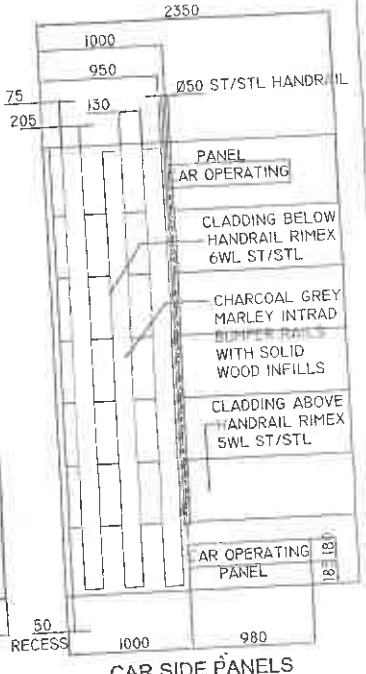
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Component	Definition	Specification	Place	Note	Component	Definition	Specification	Place	Note
SBTU	Up button on car top		Car top		SSFU	Full load switch		Car bottom	
SBUI-SBUN	Hall call button(up)		Call box		SSLS	Governor switch		Machine room	
SHC	Car light switch		Car		SSO	Slow down switch of door open		Car top	
SHL	Pit light		Pit		SSOL	Overload switch		Car bottom	
SHT	Car top light		Car top		SSRG	Slack rope protection gear		Pit	
SLC	Limit switch of door close		Car top		SSU	Slow-down switch(up)		Shaft	
SLDL	Final limit switch(down)		Shaft		SSU1	Slow-down switch(up1)		Shaft	
SLDT	Limit switch (down)		Shaft		STC	Stop switch(in car)		Car	
SLO	Limit switch of door open		Car top		STL	Pit switch		Pit	
SLUL	Final limit switch(up)		Shaft		STP	Stop switch(in control panel)		Control panel	
SLUT	Limit switch (up)		Shaft		STT	Stop switch(on car top1)		Car top	
SM-01-C	Main control board		Control panel		SW	Switch in lighting circuit		Control panel	
SM-02-B	Car control board		Car		SWD	Auto/attendant switch		Car	
SM-03-B	Car call board		Car		SWFI	~ Fire fighting switch		Hall of main floor	
SM-04	Hall call control board		Call box&Car		SWN	Fan switch		Car	
SMC	Gate lock switch		Car		SWV	Independent switch		Car	
SMH1-SMHN	I-N door lock switch		Shaft		TCO	Transformer		Control panel	
SQD	Down leveling switch		Car top		TPB	Switching power		Control panel	
SQE	Safety edge switch		Car		TSE	36VTransformer		Control panel	
SQM	Door zone switch		Car top		UFC	Inverter		Control panel	
SQU	Up leveling switch		Car top		UFD	Inverter of door motor		Car top	
SRCI	Auto/inspection switch(in car)		Car		UR1	24V Rectifier		Control panel	
SRK	Out of service key switch		Hall of main floor		UR2	110V Rectifier		Control panel	
SRP	Auto/inspection switch(control panel)		Control panel		UR3	Diode		Control panel	
SRT	Auto/inspection switch(on car top)		Car top		V	Voltage meter		Control panel	
SSAN	Safety switch		Car top		XS1	Car top 220V power socket		Car top	
SSAW	Emergency exit switch		Car top		XS2	Bottom 220V power socket		Pit	
SSBB	Counter weight buffer switch		Pit		XS3	Car top 36V power socket		Car top	
SSC	Slow down switch of door close		Car top		XS4	Bottom 36V power socket		Pit	
SSCB	Car buffer switch		Pit		YBK	Brake coil		Machine room	
SSD	Slow-down switch(down)		Shaft		YDO	Door motor excitation coil		Car top	
SSD1	Slow-down switch(down1)		Shaft						
SSFU	Full load switch		Car bottom						

Design	Zhu Jiaochu
Collector	Chenling
Standard	
Check	Huzhi

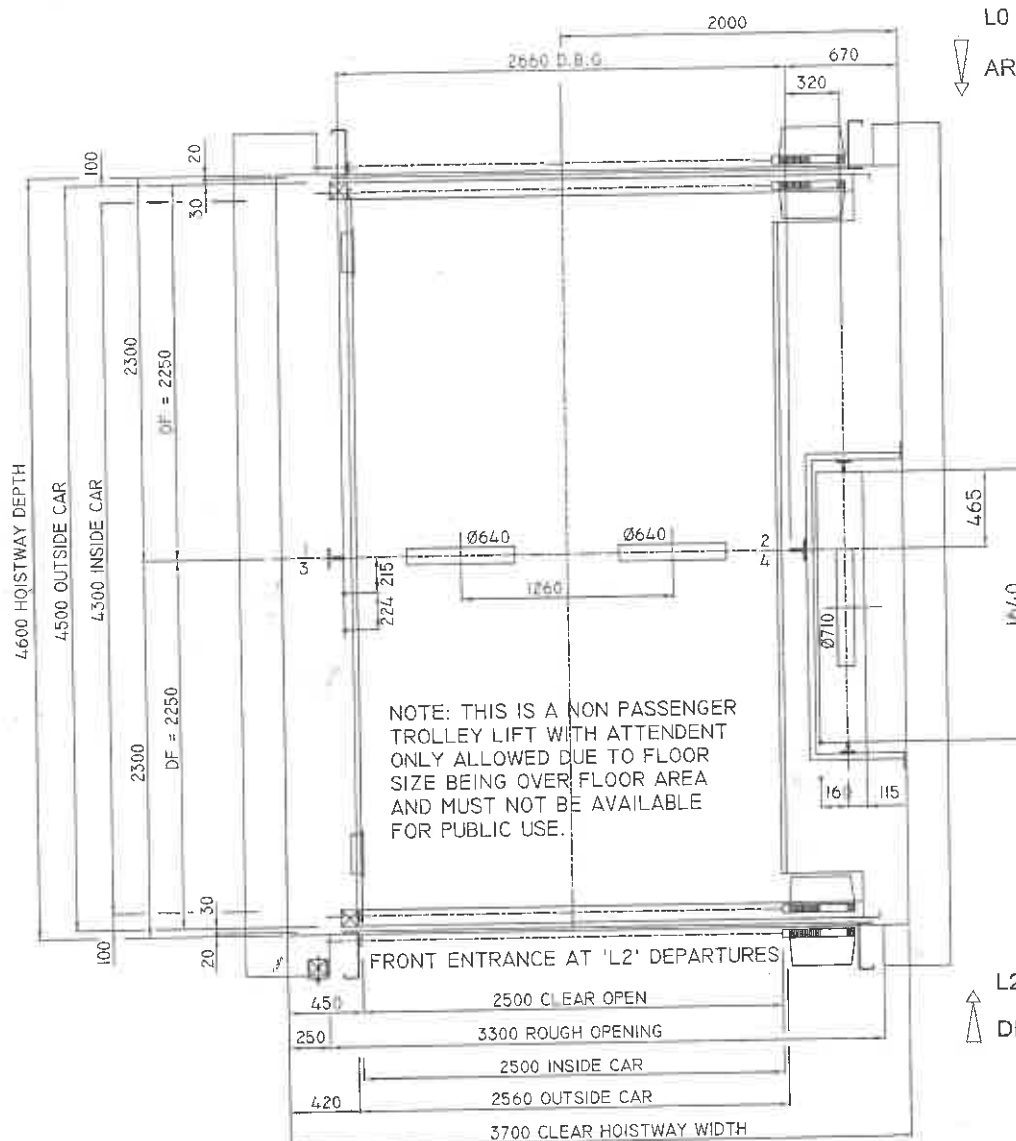
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File ID	DN7010/20-BT	Version	1.0/0	DWG.	ST212E1401
Component List 2				Ver.	1.0
				Scale	SHEETS
					24



CAR SIDE PANELS

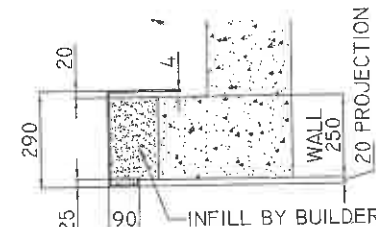
ILEMBE DRAWING NUMBER						SEQ. No.	SHEET	REV.
SITE LOC	DOC. ORIG	DESIGN DISC	LEVEL	DOC. TYPE				
TMB	BFB	ME	XX	DB		3024	04	3



HOISTWAY ROOM PLAN
SCALE 1:30

L0 - T.O.C. 86.500
F.F.L. 86.550
ARRIVALS LEVEL

L2 - T.O.C. 93.640
F.F.L. 93.690
DEPARTURES LEVEL



LANDING FRAME DETAIL

WORK EXCLUDED FROM OTIS TENDER

IN ALL THE FOREGOING, REFERENCE TO "THE CLIENT" SHALL MEAN THE CLIENT OR HIS AGENT AT THE CLIENT'S COST. THE CLIENT OR HIS AGENT SHALL PROVIDE AND ENSURE THAT IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY ACT 85-1993 INCORPORATING SABS-1545, THE FOLLOWING MUST BE ADHERED TO:-

- HOISTWAY SABS-1545 CLAUSE 5
- CLAUSE 5.3 - THE HOISTWAY STRUCTURE WILL BE TOTALLY ENCLOSED BY A SOLID WALL, FLOOR, CEILING AND BE MADE OF INCOMBUSTIBLE MATERIALS WHICH DO NOT ASSIST THE CREATION OF DUST. THIS STRUCTURE MUST BE SUFFICIENTLY PROPORTIONED AND MECHANICALLY STRONG TO TAKE THE LOADS IMPOSED ON IT BY THE LIFT AND ITS ACCESSORIES. THE ONLY OPENING ALLOWED WILL BE THE ONES REQUIRED FOR RUNNING, INSPECTION, VENTING AND RESCUE. NOTE: ACCESS OR TRAP DOORS MUST NOT OPEN TOWARD THE INTERIOR OF THE HOISTWAY.
 - CLAUSE 5.8 - THE HOISTWAY WILL BE EXCLUSIVELY USED FOR THE LIFT AND ITS ACCESSORIES ONLY, IT SHALL NOT CONTAIN CABLES, DEVICES, OR OTHER THAN THOSE REQUIRED FOR THE LIFT.
 - CLAUSE 5.2.3 & 13 - PROVIDE VENTILATION AT THE TOP OF THE HOISTWAY, THIS WILL BE A MINIMUM OF 1% OF THE HORIZONTAL CROSS-SECTION OF HOISTWAY TO OUTSIDE THE HOISTWAY, EITHER DIRECTLY OR VIA THE MACHINE OR OVERHEAD SHEAVE ROOMS. THE WELL SHALL NOT BE USED TO PROVIDE VENTILATION OF ROOMS OTHER THAN THOSE FOR THE SERVICE OF LIFTS.
 - CLAUSE 7.4.1 - IT IS RECOMMENDED THAT A COUNTERSLOPE BE PROVIDED IN FRONT OF LIFT DOORS TO PREVENT WATER DRAINING INTO THE WELL.
 - CLAUSE 5.2.2.1.2 - WHERE DISTANCE BETWEEN LANDINGS EXCEEDS 11m AN ACCESS DOOR IS REQUIRED BETWEEN LANDINGS OR EMERGENCY DOOR BETWEEN LIFT CARS WILL SUFFICE WHEN THERE ARE MULTIPLE UNITS PER 5.12.1.2. OTIS WILL PROVIDE INTERLOCKING. DOORS MUST BE KEY LOCKED FROM PUBLIC SIDE BUT MUST BE CAPABLE OF BEING OPENED FROM SHAFT SIDE AND RECLOSED WITHOUT A KEY. PROVIDE PERMANENT ELECTRIC LIGHTING TO PRODUCE SOLUX MEASURED AT ANY POINT IN THE HOISTWAY CONTROLLED BY TWO WAY SWITCHING BETWEEN THE LIFT MOTOR ROOM AND P1 CONTINUED ON SHEET 2

REVISIONS

REV	BY	DATE	DESCRIPTION
1	G.R.	19.09.2007	REVISED AS PER ARCHITECT'S COMMENT
2	G.R.	23.10.07	REVISED AS PER ARCHITECT'S COMMENT
3	G.R.	07.12.08	LAYOUT APPROVED
4	G.R.	16.08.08	USED AS PER FINAL ARCHITECT'S COMMENT
5	G.R.	19.09.2007	REVISED AS PER ARCHITECT'S COMMENT

INFORMATION	LIFT - 15
Mass load	kg 4000
Speed in	m/s 0.8
Persons	53
Stops/Openings	2/2 NOT IN LINE
Heat Release	kW 7
Motor Power	kW 37
380V 3Ph	Run A 69
50Hz 5Wire	Start A 110

REACTIONS ON GUIDE RAILS	R2
R1=3.2kN	R1
R2=3.6kN	R2
P11=80kN	P11

LAYOUT APPROVAL
THE UNDERSIGNED AGREES TO PROVIDE THE ABOVE "WORK" AND ACCEPTS THE LAYOUT, THE LIFT WELL AND MACHINE ROOM DIMENSIONS AS SHOWN.

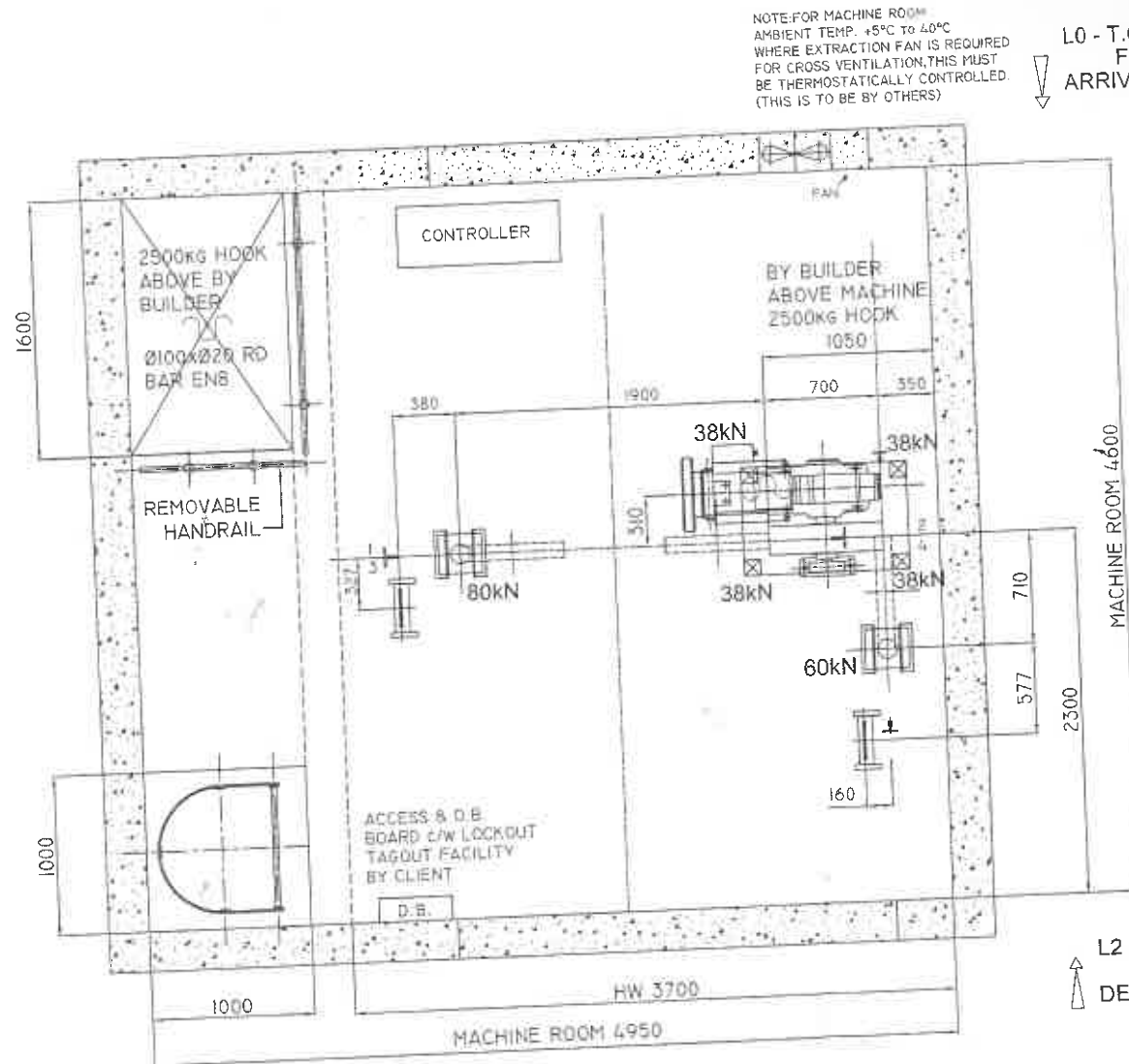
DATE 29.1.2008 SIGNATURE CONSULTANT

NOTE: NO UNAUTHORISED CHANGES PERMITTED

OTIS	KSI-15
	LIFT No.15
Building: KSI/A: TERMINAL BUILDING	
Location: DURBAN	
Owner: Arch: Eng: J.F.A	
Design by: G.R.	Date: 19.9.2007
DRAWING NUMBER	SHEET REV
72NE9162	1of4 F

ILEMBE DRAWING NUMBER

SITE LOC	DOC. ORG	DESIGN DISC	LEVEL	DOC. TYPE	SEQ. No.	SHEET	REV
TMB	BFB	ME	XX	DB	3024	01	3



NOTE: FOR MACHINE ROOM
AMBIENT TEMP. +5°C TO 40°C
WHERE EXTRACTION FAN IS REQUIRED
FOR CROSS VENTILATION, THIS MUST
BE THERMOSTATICALLY CONTROLLED.
(THIS IS TO BE BY OTHERS)

L0 - T.O.C. 86.500
F.F.L. 86.550
ARRIVALS LEVEL

L2 - T.O.C. 93.640
F.F.L. 93.690
DEPARTURES LEVEL

MACHINE ROOM PLAN
SCALE 1:30

- WORK EXCLUDED FROM OTIS TENDER
- MACHINE AND OVERHEAD SHEAVE ROOMS - SABS-1545 SECTION 6
- ROOMS MUST COMPREHEND SOLID WALLS, CEILING, ACCESS DOOR AND/OR TRAP DOOR TO BE ACCESSIBLE TO AUTHORISED PERSONS ONLY. WALLS WILL BE SUITABLY SOUND ISOLATED WHERE REQUIRED AND BE SIZED TO ALLOW EASY, SAFE ACCESS TO ALL EQUIPMENT (N/A TO MACHINE ROOMLESS)
 - THE FLOOR SLABS WILL BE OF MECHANICAL STRENGTH TO WITHSTAND LOADS IMPOSED ON THEM. MOTOR ROOM FLOOR MUST BE FINISHED SMOOTH AND LEVEL, WITH A NON-SKID SURFACE BEFORE THE EQUIPMENT IS PLACED. NO TRUNKING IS ALLOWED IN THE FLOOR.
 - MUST NOT BE USED FOR ANY PURPOSE OTHER THAN LIFTS.
 - ACCESS MUST BE WELL LIT (MIN. 50 LUX) PUBLIC WAY AND BE COMPLETELY SAFE UNDER ALL CIRCUMSTANCES. MIN. ACCESS DOOR HEIGHT 1.8m HIGH BY 0.9m WIDE (N/A TO M/C ROOMLESS)
 - MINIMUM FREE WORKING HEIGHT IS 2100mm FOR MACHINE ROOM AND 1500mm FOR OVERHEAD SHEAVE ROOM.
 - CLAUSE 6.3.6.2 - THE AMBIENT TEMPERATURE MUST BE THERMOSTATICALLY MAINTAINED BETWEEN 5 AND 40 DEGREES CENTIGRADE. ADVICE SHOULD BE OBTAINED FROM A VENTILATION EXPERT. HEAT RELEASED BY EACH LIFT'S MACHINERY IS SHOWN IN THE TITLE BLOCK OF SHEET 1.
 - PROTECT THE LIFT MOTOR ROOM FROM THE INGRESS OF DUST, HARMFUL OR HAZARDOUS FUMES AND HUMIDITY. THE HUMIDITY IS TO BE KEPT BELOW 90% CONDENSING.
 - CLAUSE 13.4 - PROVIDE A DISTRIBUTION BOARD FITTED WITH A LOCK-OUT FACILITY NEAR THE LOOK SIDE OF THE MOTOR ROOM DOOR TO CONTAIN CIRCUIT BREAKERS OR THEIR REMOTE OPERATING DEVICES. FOR EACH LIFT, ONE FOR THE MACHINERY, ONE FOR THE LIFT LIGHTS, ONE FOR THE MOTOR ROOM LIGHTS, ONE FOR THE MOTOR ROOM PLUGS, ONE FOR THE MOTOR ROOM VENTILATION AND ONE FOR THE LIFT HOISTWAY LIGHTS. THE CIRCUIT BREAKERS MUST BE ADEQUATELY SIZED FOR THE EQUIPMENT IT WILL PROTECT - CONSULT YOUR ELECTRICAL ENGINEER.
 - CLAUSE 13.6.1 - A LIGHT SWITCH MUST BE PLACED CLOSE TO THE ACCESS DOOR TO CONTROL LIGHTS COMPLYING WITH SABS-0142
 - CLAUSE 6.2.3 - FURNISH A TRAPDOOR FOR EASY ACCESS AND REMOVAL OF MACHINERY FOR SERVICING. FOR HANDLING OF EQUIPMENT, ONE OR MORE HOOKS, METAL SUPPORTS OR CRAWL BEAMS WILL BE SUPPLIED IN THE CEILING TO MOVE HEAVY EQUIPMENT DURING ERECTION, REPLACEMENT OR REPAIR. USE OF STAIRS IS SPECIFICALLY EXCLUDED.
 - CLAUSE 5.7.3.1 - RENDER THE REINFORCED PIT WATERPROOF AND THE PIT FLOOR LEVEL AND SMOOTH. IF REQUIRED, PROVISION FOR PIT DRAINAGE SHOULD BE MADE (WHICH COULD INCLUDE A SENSOR OPERATED PUMP).
 - CLAUSE 5.2.2 - IF THE PIT DEPTH EXCEEDS 2.5m AN ACCESS DOOR IS REQUIRED. IF THIS CANNOT BE PROVIDED FOR, THEN A PERMANENT ACCESS FROM LANDING DOORS TO PIT IS REQUIRED FOR ACCESS BY A COMPETENT PERSON. ACCESS MUST BE OUTSIDE THE RUNNING CLEARANCE OF THE LIFT EQUIPMENT.
 - CLAUSE 5.6.1 - PROVIDE A PARTITION IN THE PIT BETWEEN MULTIPLE LIFTS A MINIMUM HEIGHT OF 2500mm FROM BOTTOM LANDING.
 - CLAUSE 5.7.3.4 (b) & 13.6.2 - SUPPLY AN ELECTRIC SOCKET OUTLET IN THE PIT.
- OTIS REQUIRES THAT YOU :-
- PROVIDE PIPING AND WIRING BETWEEN LIFT MOTOR ROOMS, THE RECEPTION AREA OR SECURITY DESK FOR INTERCOM, FIREMAN SERVICE OR SECURITY REQUIREMENTS.
 - PROVIDE TEMPORARY POWER AT THE LIFT MOTOR ROOM DURING ERECTION AND COMMISSIONING.
 - BUILD IN THE LIFT ENTRANCE FRAMES AFTER THEY HAVE BEEN FITTED BY OTIS. THE BUILDER MUST ENSURE THAT THE FRAMES RECEIVE ADEQUATE SUPPORT DURING THE PROCESS OF BUILDING IN. THE OPENINGS MUST BE PROTECTED BY THE CLIENT DURING THE BUILDING AND ERECTION OF THE LIFTS.
- THE CLIENT, BY APPROVING THIS DRAWING, WARRANTS THAT THE PIT FLOOR TO UNDERSIDE OF THE SLAB OVER THE WELL WILL BE FLUSH. EACH WALL WILL BE PARALLEL AND WITHOUT TWIST TO THE FOLLOWING MINIMUM TOLERANCES IN ACCORDANCE WITH SABS-0156 TABLE 9
- GRADE 1 :-
- | | |
|----------------------|---------|
| RISE UP TO 30m | -0+20mm |
| RISE FROM 31m TO 60m | -0+25mm |
| RISE FROM 61m TO 90m | -0+35mm |
| RISE ABOVE 90m | -0+50mm |

NOTE: NO UNAUTHORISED CHANGES PERMITTED

OTIS KSI-15
LIFT No.15

Building: KSI: TERMINAL BUILDING
Location: DURBAN

Owner/Arch: En: IGMA
Design by: G.F. Date: 19.2007

DRAWING NUMBER		SHEET		REV
72NE9162		2of4		F

ILEMBE DRAWING NUMBER						
SITE LOC	DOC. ORIG	DESIGN DISC	LEVEL	DOC. TYPE	SEQ. No.	SHEET
TMB	BFB	ME	XX	DB	3024	02
						3



□

- 200 DIA/SQ HOLES
- 100 DIA/SQ HOLES
- 150 DIA/SQ HOLES TO BE
FILLED IN BY CLIENT AFTER
GUIDES HAVE BEEN INSTALLED
BY OTIS.
- 150 x 100 HOLES

NOTE: HOLES ROUND OR
SQUARE TO BUILDERS
DISCRETION

NOTE: NO UNAUTHORISED CHANGES PERMITTED

OTIS	KSI-15 LIFT No.15
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Building: KSIA: TERMINAL BUILDING

Location: DURBAN

Owner: Arch. Engr. S. I. A.
Design by: G.R. Date: 19.9.200

Design: B-10-R	Date: 12-7-200
DRAWING NUMBER	SHEET REV
72NE9162	3of4 F

ITEM# DRAWING NUMBER								Owner: TCHS Design by G.R. Date: 19.9.2007		
SITE LOC	DOC. ORIO	DESIGN DISC	LEVEL	DOC. TYPE	SED. No.	SHEET	REV	DRAWING NUMBER	SHEET	REV
TMB	BFB	ME	XX	DB	3024	03	3	72NE9162	3of4	F