

ΤΕΧΝΙΚΕΣ ΠΡΟΔΙΑΓΡΑΦΕΣ ΜΕΓΑΡΟΥ ΕΣΠΕΡΙΔΕΣ

1. Στατικός Οργανισμός

Πέδιλα, θεμελιοδοκοί, υποστυλώματα, χυτοί τοίχοι, πλάκες, δοκοί και στηθαία από σκυρόδεμα με κύριο οπλισμό από νευροχάλυβα υψηλής αντοχής με ελαστικό όριο διαρροής 420 N/mm² και δευτερεύοντα οπλισμό από μαλακό ρευστοπαγή χάλυβα με ελάχιστο όριο διαρροής 220 N/mm². Χυτοί τοίχοι και οροφές υπογείου με λεία ανεπίχριστη επιφάνεια.

2. Τοιχοποιία

Τοίχοι γενικά είναι από οπτοπλινθοδομή με διάτρητους οπτόπλινθους κατά το 19:1983 και τσιμεντοκονίαμα 1:3.

Ανώφλια χαλύβδινα τύπου Catnic ή από οπλισμένο σκυρόδεμα.

3. Μονώσεις

Επάλειψη με προϊόντα Colas (super penetration primer, flint coat τύπου 3,5 και 7. Μembrάνη πολυθενίου πάχους 0.25mm σε όλες τις εξωτερικές επιφάνειες των χυτών τοίχων που βρίσκονται σε επαφή με το έδαφος.

Μembrάνη πολυθενίου πάχους 0.25mm καθόλη την έκταση του πατώματος το οποίο ευρίσκεται σε επαφή με το έδαφος.

Πισσόχαρτο κατά μήκος των τοίχων, οι οποίοι εδράζουν επί του πατώματος το οποίο ευρίσκεται σε επαφή με το έδαφος.

Ελαστομερές ασφαλτοπίλημα Testudo 20 ενισχυμένο με πολυεστέρα 4mm πάχους σε δάπεδα του ασκέπαστου τμήματος του πατώματος ισογείου, το οποίο καλύπτει μέρος του υπογείου.

Θερμομονωτικές πλάκες από εξηλασμένη πολυστερίνη τύπου Roofmate SL 50mm πάχους, σκυρόδεμα C20 ελάχιστου πάχους 50mm με οπλισμό από συρματόπλεγμα ορνιθώνα προς επίτευξη ρύσεων και ελαστομερές ασφαλτοπίλημα Testudo 20 ενισχυμένο με πολυεστέρα 4mm πάχους με διπλή επάλειψη αντανάκλαστικού χρώματος Allumasol σε όλη την επιφάνεια της οροφής.

4. Ξύλινες Κατασκευές

Εξώθυρες γραφείων και θύρες χώρων υγιεινής κατασκευασμένες με μελαμίνη με σκελετό από μαλακή ξυλεία.

Πάγκοι νιπτήρων στους χώρους υγιεινής κατασκευασμένοι από μελαμίνη με σκελετό από μαλακή ξυλεία. Καπάκια πάγκων από γρανίτη.

Πάγκοι και αναρτημένα ερμαράκια κουζινών κατασκευασμένοι από μελαμίνη με σκελετό από μαλακή ξυλεία. Καπάκια πάγκων από γρανίτη.

Θύρες πυρασφαλείας κατασκευασμένες σύμφωνα με τις τεχνικές προδιαγραφές, βλέπε **Παράρτημα Β**.

5. Κατασκευές Αλουμινίων

Αλουμίνια Muskita MU4200 semi structural thermal για τα Curtain walls.

Χρώμα Anodised silver.

Υαλοπίνακες Double glaze 6mm Cool Lite STB - 16mm Argon- 6mm Soft Coated Low E. Ug: 1.1 W (m²/k). Βλέπε **Παράρτημα Γ** για προδιαγραφές υαλοπινάκων.

Περιμετρικά σκίαστρα παραθύρων ορόφων με αλουμίνιο.

6. Μηχανολογικές και Ηλεκτρολογικές Εγκαταστάσεις

Βλέπε **Παράρτημα Δ**.

7. Αγωγοί πυροσβέσεως

Εγκατάσταση αγωγού πυροσβέσεως με διπλό υδροστόμιο τροφοδοτήσεως, απλό υδροστόμιο λήψεως σε κάθε όροφο και ειδική δικλίδα αερισμού σύμφωνα με τις απαιτήσεις της Πυροσβεστικής Υπηρεσίας.

8. Ανελκυστήρες

Δύο ανελκυστήρες 8 ατόμων βλέπε **Παράρτημα Ε** για προδιαγραφές.

9. Δάπεδα

Δάπεδα χώρων σταθμεύσεως υπογείων και ισογείου

100mm πάχος δάπεδα από σκυρόδεμα κατηγορίας C25 με προσθήκη ινών από πολυπροπυλένιο fibermesh σε αναλογία 1kg ανά m³ σκυροδέματος, διάστρωση κατά τμήματα 15m², σφράγισμα αρμών με χημικό προϊόν Vulkem 45. Τρίψιμο επιφανειών με τριβίδι και επάλειψη με άχρωμο στεγανωτικό υλικό Epronite Clear Sealer σε δύο στρώσεις. Γραμμογράφηση χώρων σταθμεύσεως με γραμμές πλάτους 100mm με ειδικό λευκό χρώμα επιχρώσεως οδοστρωμάτων.

Δάπεδα κοινόχρηστων χώρων

Όλα τα δάπεδα κοινόχρηστων χώρων και όλα τα κλιμακοστάσια είναι επενδυμένα με μάρμαρα.

Δάπεδα χώρων υγιεινής

Όλα τα δάπεδα των χώρων υγιεινής είναι επενδυμένα με κεραμικά πλακίδια.

Δάπεδα γραφειακών χώρων

Όλα τα δάπεδα των γραφειακών χώρων είναι από υπερυψωμένα δάπεδα με τέλειωμα παρκέ.

10. Επενδύσεις τοίχων

Εξωτερικές επενδύσεις κτηρίου με μάρμαρα τοποθετημένα με μηχανική στήριξη με επάλειψη με στεγανοποιητικό υλικό στο πίσω μέρος.

Μέρος εξωτερικής επένδυσης κτηρίου με alucobond.

Μαρμάρινες επενδύσεις σε κούτελα θυρών ανελκυστήρων.

Κεραμικές επενδύσεις σε τοίχους χώρων υγιεινής.

11. Αναρτημένα ταβάνια

Ακουστικές πλάκες με σύστημα αναρτήσεως από ειδικά γαλβανισμένα ελάσματα . Βλέπε **Παράρτημα Ζ** για τεχνικές προδιαγραφές.

12. Χρωματισμοί

Χρωματισμοί με πλαστικό χρώμα (πολυμερές γαλάκτωμα) σε τρία στρώματα στις επιχρισμένες εσωτερικές επιφάνειες και με υδατοδιαλυτό χρώμα συνθετικής ρητίνης Santex Exterior Matt σε δύο στρώσεις στις εξωτερικές.

13. Εξωτερικοί χώροι

Κατασκευή πεζοδρομίων, πλακοστρώσεων, σκυβαλαποθήκης, περιτοιχίσματος και φυτόχωμα σε χώρους πρασίνου.

14. Ενεργειακή Απόδοση

Κατηγορίας Β.



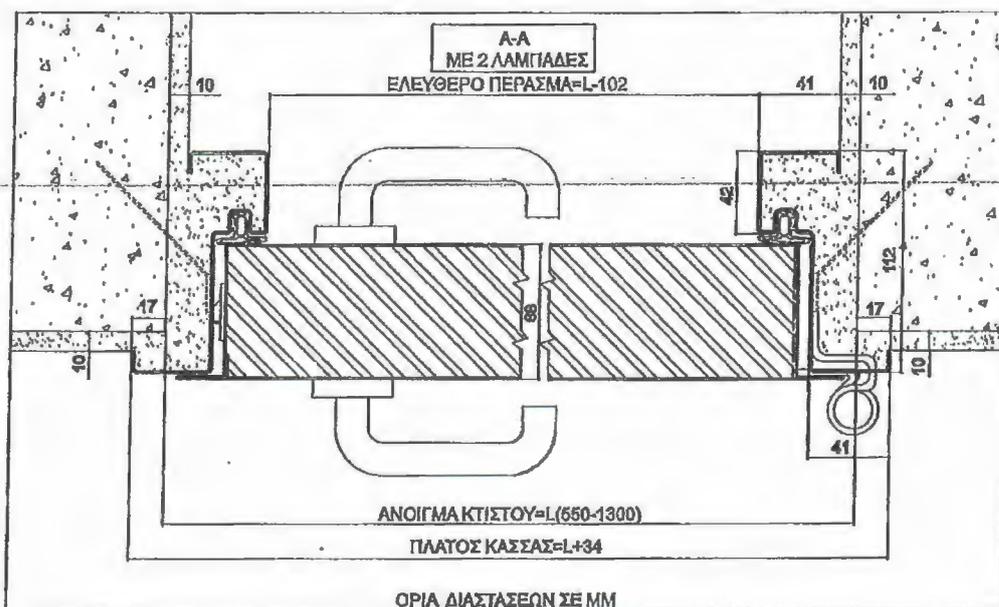
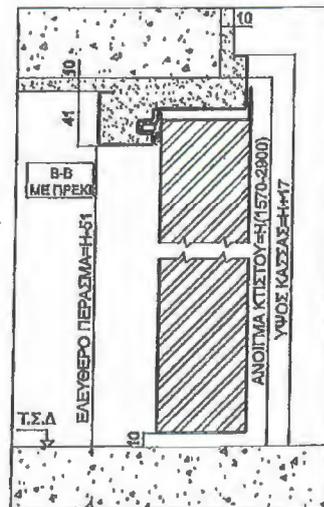
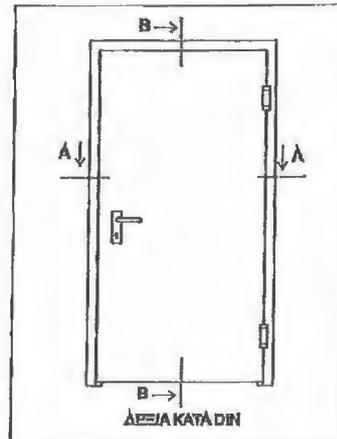
ΠΑΡΑΡΤΗΜΑ Β

ΘΥΡΕΣ ΠΥΡΑΣΦΑΛΕΙΑΣ

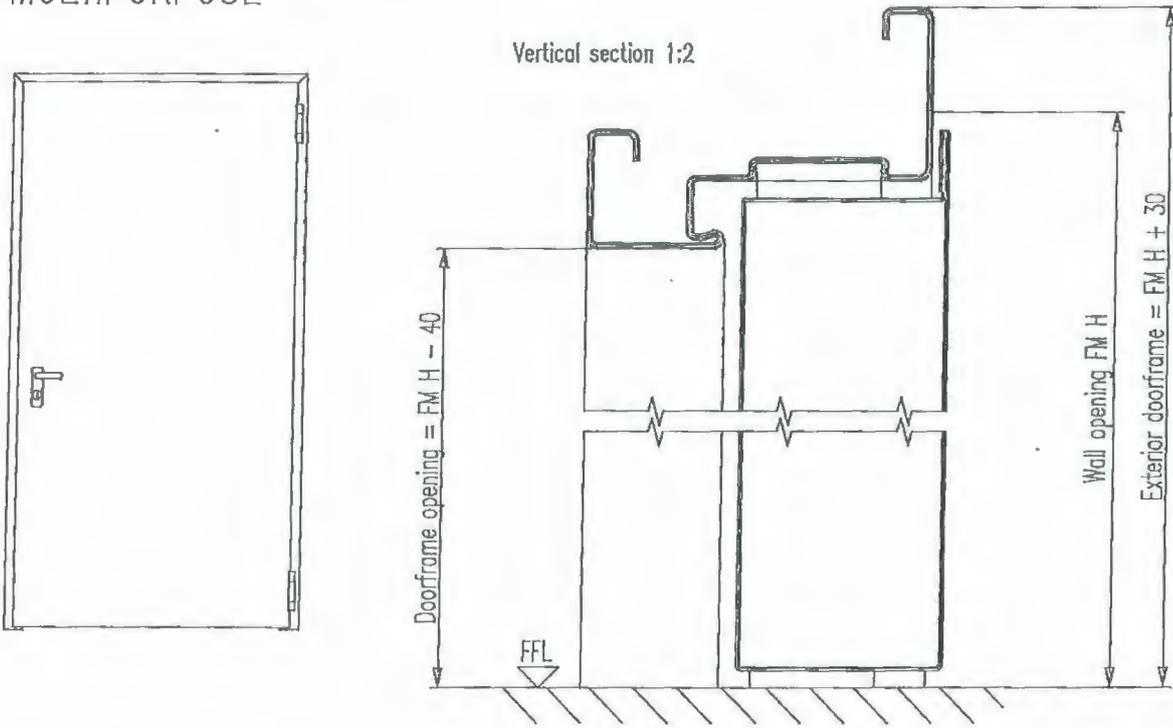
ΤΕΧΝΙΚΗ ΠΕΡΙΓΡΑΦΗ - ΣΧΕΔΙΑ ΜΕΤΑΛΛΙΚΕΣ ΠΟΡΤΕΣ ΓΕΝΙΚΩΝ ΧΡΗΣΕΩΝ (ΜΟΝΟΦΥΛΛΕΣ)

Οι μεταλλικές πόρτες Γενικών Χρήσεων (Μονόφυλλες) αποτελούνται από :

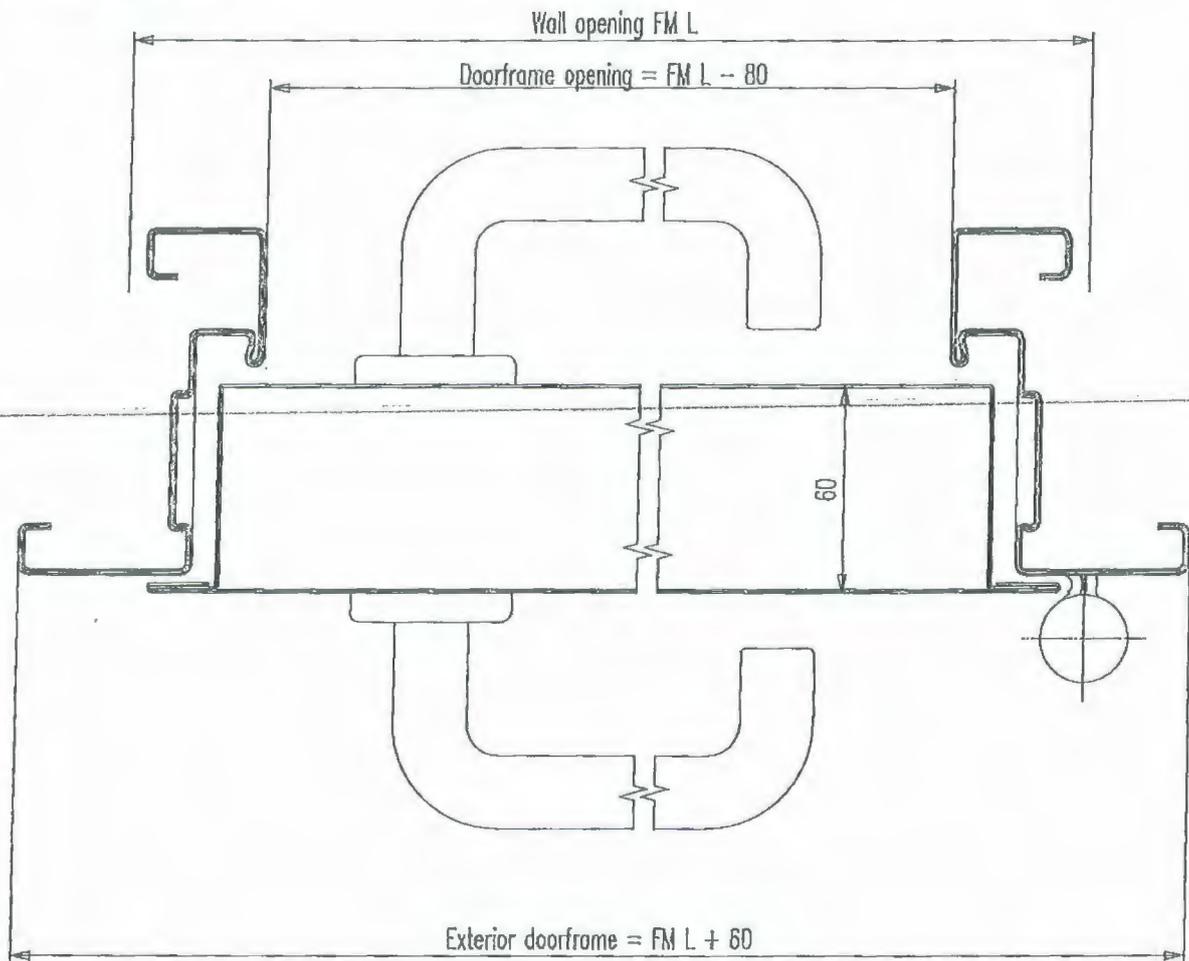
- Κάσα διαιρούμενη από γαλβανισμένη λαμαρίνα πάχους 1,5 mm με υποδοχή για λάστιχο, διαμορφωμένη όπως τα συνημμένα σχέδια.
- Θυρόφύλλο με καβαλίκι συνολικού πάχους 68 mm από γαλβανισμένη λαμαρίνα πάχους 1,0mm, γεμισμένο με χαρτοκυφέλη.
- Δύο μεντεσέδες πυρασφαλείας ανά φύλλο (ο ένας με ελατήριο για την επαναφορά του θυροφύλλου).
- Πείρο ασφαλείας που διαπερνά την κάσα στην πλευρά των μεντεσέδων.
- Κλειδαριά πυρασφαλείας με ειδικό κλειδί, χωρίς ή με αφαλό προαιρετικά.
- Πόμολα πυρασφαλείας με εσωτερική ατσάλινη ενίσχυση ή σύστημα πανικού (κατ' επιλογή).
- Βαφή με ειδικό primer 2 συστατικών απόχρωσης RAL 5024 (γαλάζιο) ή προαιρετικά άλλο χρώμα της παλέτας RAL.
- Οδηγίες τοποθέτησης.
- Προαιρετικά, διατίθενται με θέση για τζάμι, άλλους τύπους πομόλων, μπάρες πανικού, συστήματα συγκράτησης, μηχανισμούς επαναφοράς, περσίδες εξερισμού



PROGET EI₂ 60, REI 60, REI 120, EI₂ 120,
MULTIPURPOSE



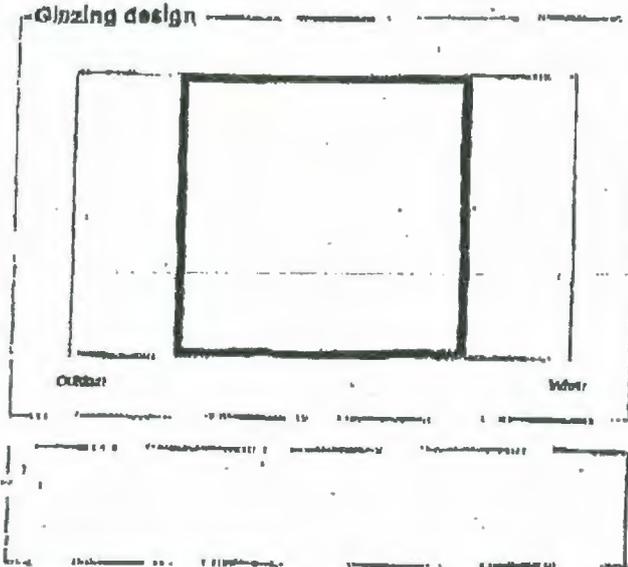
Horizontal section 1:2





ΠΑΡΑΡΤΗΜΑ Γ

ΥΑΛΟΠΙΝΑΚΕΣ



	First glazing	Second glazing
Gas		Air 16mm
Coating		PLANITHERM ULTRA N
First glass	PLANILUX 6mm	PLANILUX 6mm
Coating	GOOL-LITE 6T 120	
Layer		
Coating		
Second glass		
Coating		

Manufacturing sizes

Nominal thickness : 28.0 mm
Weight : 30.0 kg/m²

Luminous factors - EN 410-2011

Transmittance : 16 %
Outdoor reflectance : 32 %
Indoor reflectance : 27 %

Energy factors - EN 410-2011

Transmittance : 11 %
Outdoor reflectance : 17 %
Indoor reflectance : 34 %
Absorptance A1 : 60 %
Absorptance A2 : 2 %

Solar factor g : 0.18
Shading coefficient : 0.19

APPROVED

SIGNED:
DATE: 5/4/2012

NUMECH Ltd.
CONSULTING ENGINEERS

Thermal transmission - EN673-2011 - 0° related to vertical position

Ug : 1.4 W/(m²/K)



PHOTO
PORPHYRIOS CHAP GLASS
ALBA DISTRICT
18 KYPRIANOU, BRIGATES INDUSTRIAL AREA
NICOSIA
2083

Phone :
Mobile :
Fax :
porphyriosglass@oyl.com.cy

+357 22487786
+357 22487910

CALCULATIONS are a simplified estimate to calculate key performance of glass such as light transmission, solar factor or thermal insulation coefficient. Computer values are indicative and subject to change. They can not be used to guarantee performance of the products. These values are calculated according to EN 410-2011 and EN673-2011 standards. Tolerances are defined according to EN 10164 standard. Nevertheless, (EN) (M) check the QUALITY of the associated product. In particular in terms of thickness and colour. Furthermore, it is the responsibility to check that the resulting performance regarding energy requirements at national, local or regional level.

Calculations and associated values of Calculator have been validated by TÜV Rheinland Quality Report 4010041010087

PORPHYRIOS CHAP GLASS LTD



ΠΑΡΑΡΤΗΜΑ Δ

ΜΗΧΑΝΟΛΟΓΙΚΕΣ ΚΑΙ ΗΛΕΚΤΡΟΛΟΓΙΚΕΣ ΕΓΚΑΤΑΣΤΑΣΕΙΣ

NUMECH Ltd.

CONSULTING ENGINEERS

Registered Office:

No. 301, PATSALOS PLAZA, ΓΟΡΓΟΝΩΝ 14,
6047 Lamaca, Cyprus

e-mail: info@numech.com.cy

Tel. 24-636888

Fax. 24-639888

Date: 27/08/2015

Προς:
VASSOS MARKIDES ESTATES LTD
(Φαξ 22343514)
Λευκωσία.

SUBJECT: OFFICES FOR VASOS MARKIDES ESTATES LTD STROVOLOS – NICOSIA

ELECTRICAL & MECHANICAL SERVICES

A.) MECHANICAL ENGINEERING SERVICES

1. Air Conditioning System – Ventilation

The air-conditioning system (heating/cooling), is of the VRV (Variable Refrigerant Volume Inverter Driven Unit) concept system, with ceiling-type cassettes and VRV compressors on the roof. The temperature control is achieved by electronic controllers, which communicate with the outdoor units to provide the amount of cooling or heating required at any given time. Also the electronic controller provides a programmable timer for switching on and off the units if required.

Individual heavy duty split units have been installed in all Computer Rooms for precise and independent temperature control.

The exhaust and fresh air requirements of the building are satisfied by using Heat Recovery Units for energy saving complete with ducting, grilles and electrical connections.

Exhaust fans have been installed in all basements, complete with ducting, grilles, goose necks and electrical connections for proper ventilation.

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CONSULTING ENGINEERS

2. Hot and Cold Water Installation

The system consists of hot, cold and drinking water piping, using pressure units and cold water storage tanks on the roof. Electric instant water heaters are installed for hot water needs.

3. Sewage System

The building's sewage system consists of all sewage piping, vent piping, access manholes, etc. and connection with the Main Sewerage Plant of the city.

The building rain water system consists of one pumping station in the basement and collection piping with floor gullies.

4. Fire-Fighting system

The fire-fighting system fulfills the rules, regulations and standards of the Cyprus Fire Department. The system consists of fire extinguishers in all spaces, dry riser in the stairways, hose reels in all spaces and sprinkler system in the three level basements together with pumps and water storage tanks.

B.) ELECTRICAL SERVICES INSTALLATIONS

1. INTRODUCTION

The electrical services installed are in full compliance with the Electricity Authority of Cyprus (EAC) regulations, and the IEE Regulation 16th Edition and other BS Specification as applicable.

The services comprise the following:

- a) Low Voltage distribution with Power Factor Correction Units (PFCU)
- b) Small Power systems.
- c) Earthing systems.
- d) Lighting and emergency lighting systems.
- e) Fire Alarm systems.
- f) Provision for Photovoltaic System.
- g) Structured Cabling Network.
- h) Security system.
- i) Lighting protection and earth pits.
- j) Lift transportation system.

2. POWER SUPPLY AND DISTRIBUTION SYSTEM

11kV Electricity Supply and metering will be provided to the project by the Electricity Authority (EAC) to suitably sized substation which will comprise 1No 1000kVa transformer.

The substation will facilitate unhindered 24-hour personnel access. Substation will be cross - ventilated in accordance with EAC regulations.

Power distribution will be through dedicated Distribution Boards (DB) for lighting, Small Power and other Mechanical loads. In the mechanical plant rooms, Motor Control Centres (MCC's) will be provided and will incorporate power and control sections. All switchboards will have top and bottom cable entry facilities and shall be front accessed.

Secondary power supply rated 240/415V 3-phase 50Hz with means of LV Switchgear will be housed in a room adjacent to the substation. The LV Switchgear will be so designed as to provide maximum flexibility, protection of personnel, easy maintenance and reliability.

The LV Switchgear will feed power to all load centres located in the building complex. Adequate number of MDB's/SMDB's will be designed to facilitate the sub-circuits distribution which will be by final DB's (MCB-type) as per requirement of loads and their inrush currents.

Suitable vertical riser ducts accommodating horizontal/vertical cables trays and/or ladders will be provided for routing all distribution cables as may be required. A network of GI cable trays with armoured cables and will be used to feed the individual DB's.

The entire installation is carried out in accordance with the IEE Regulations, 16th Edition and EAC requirements.

Small Power

In general the power distribution system will be achieved by utilising an integrated busbar trunking system, mounted within the floor void. The cabling will terminate through floor grommets into dedicated desk modules on offices. The Desk Modules will provide the containment system for the power, controls (BMS) and voice and data cabling.

The small power requirements of the building will be provided by appropriately rated and positioned floor, wall or desk mounted outlets.

Individual isolators will be provided at appropriate positions for the mechanical equipment.

Each workstation shall be equipped with a minimum of 2No 13A socket outlets.

2.1 Uninterrupted Power Supply System (UPS)

Dedicated UPS will be provided in areas requiring continuous power in order to satisfy the requirements of the computer equipment power, cashier machines and other essential loads of the building.

The rating, back-up power and other features of the UPS will be designed as per the Client's requirements.

The distribution philosophy of the UPS power shall be based upon a flexible partitioning methodology to allow modification to a maximum degree.

3. LIGHTING SYSTEM

3.1 Internal Lighting

The levels of illumination internally and externally will be according to the CIBSE Lighting Code.

The philosophy of lighting system design shall take into consideration the natural illumination of each area of the building, energy saving techniques and the relevant IP ratings as applicable. The type of the selected luminaries shall be compatible with the building construction, decoration and architecture.

Office/Drafting areas will generally be served by either:

1. Fluorescent luminaries (CIBSE LG3 Cat.2) (550lux/800lux respectively)
2. In plant rooms and other operational areas, a higher IP-rating will be the criterion.

Suitable lighting control panel with programmable time switch will be provided for efficient energy management.

An integrated ceiling system shall be provided in areas where planning flexibility is required.

This system will include facilities for lighting in the form of down-lighting or luminous ceiling lighting with CAT 2 diffusers as required, air handling, ceiling in-fills and other ceiling fixed services.

In general, within service rooms, surface mounted fluorescent lighting fittings shall be used. The fittings will be equipped with cool white fluorescent tubes. The number of tubes per fitting will be as required.

In areas where lower level of illuminance is required (corridor), the new generation low wattage lamps will be employed.

Special lighting shall be provided in co-ordination with the Architect in order to achieve features or mood lighting where required.

3.2 External Lighting

Car parking and circulation areas shall be provided with high efficiency SOx luminaires except where decorative floodlighting is required.

The external lighting will be designed to provide decorative floodlighting and security lighting where required.

Pole mounted flood lighting of HID (High Intensity Discharge) will be provided in a combination of bollards for gardens and wall recessed for boundaries.

3.3 Emergency Lighting and Illuminated Signs

The emergency lighting system shall be designed to meet the local Fire Brigade requirements and respective BS5266 standards.

An emergency lighting system will be provided with adequate number of self-contained maintained or non-maintained, luminaires. They will be installed in such a manner as to automatically provide lighting to cover all escape routes from the building including all staircases and plant-rooms.

Emergency lighting shall fulfil the following functions,

- Illuminate the escape routes.
- Indicate the escape route direction clearly.
- Provide the Exit signs on all the exits.
- Ensure fire alarm call points; fire fighting equipment & other life saving equipment on the premises.

4. **FIRE ALARM SYSTEM**

The system shall be designed to comply with Cyprus Fire Brigade requirements and British Standard BS 539. The proposed system shall be of the "analogue addressable" type, which allows multiple devices to be connected on a single loop, each individually addressable. The system shall be provided complete with LC screens, integral battery and charger unit.

Control panel shall allow a number of fire detection loops, each loop with the ability to support the following devices:

- a. Sounder units
- b. Manual break glass units.
- c. Automatic heat detectors.
- d. Ionisation type smoke detectors in high risk service areas.
- e. Optical type smoke detectors in plant rooms and electrical rooms.
- f. Interface units for other auxiliary or interrelated system.

A main display and control panel will indicate the systems state and pin point an outbreak of fire. This panel will be located within the main Control room. Connection to the Fire Fighting Authority will be provided through the Master Fire Alarm Control Panel.

The Fire Alarm System may be activated from the following:

- a. Any heat or smoke detector
- b. Manually through break glass push button.

- c. Any Tamper or Flow switch of the Sprinkler System.

In the event of an alarm condition the system will:

- a. Activate the door release mechanisms for closing all fire doors, where applicable.
- b. Close the motorised smoke dampers on the ventilation ducts, where applicable.
- c. Shutdown all AHU's and other ventilation plant as required.
- d. Lift recall at ground level.

5. LOW CURRENT SERVICES

In general the low current services include:

1. Structured Cabling System (cat 6)
2. Intruder Alarm System
3. Door – phone system
4. Card Access System

The low current systems will be finalised as per the Client's requirements'.

5.1 Structured Cabling System

The Structured Cabling System Network shall be provided to support and give the capability for analogue/digital voice applications and data, to the extent of local area network (LAN), video and low voltage devices for building controls and management on a common cabling platform. The proposed network shall be of the Category 6 (Cat.6) in full accordance with the ANSI/EIA-TIA-568A, ANSI/EIA-TIA-568B, IEC 11801 Codes.

The distribution philosophy of the Structured Cabling Network shall be based on a flexible partitioning methodology to allow modifications at a maximum degree.

Each working station shall be equipped with a minimum of 2No. double points consisted of 4No RJ45 sockets, one for telephone and three for computer.

5.2 Security System

In general low voltages systems such as, Access Control, Intruder/Burglar Alarm and Door- phone system for high risk areas shall be provided according to the project needs to secure the building in its entirety.

The Security System will be located within the Main Control room.

Intruder Alarm System

An intruder alarm system shall be provided for the complex. The level of sophistication and types of alarm sensors are to be discussed with the Client in order to establish in consultation with the Client.

Furthermore, the parts of the building requiring a central intruder alarm system are to be established in consultation with the Client.

Card Access System

If required by the Client, an access control system shall be provided. Details of the system requirements will be developed in consultation with the Client.

6. LIGHTING PROTECTION SYSTEM

A lightning protection system will be provided in accordance with the British Standards BS6651 – Faraday's Cage. The System will comprise the following:

- 25x 3mm Copper tape on perimeter.
- Adequate number of down conductors (25x3mm PVC Coated Cu tape) based on the area and height.
- Earthing rods
- Test point

The metallic parts of all equipment at roof level will be earthed to the lightning protection system.

The lightning protection system will be equipotentially bonded to the building's earthing.

7. LIFTS

The Lifts will be designed in accordance to the BS 5655 and according to the specific requirements of the project.

In general, the driving system shall be of the Variable Frequency VF closed loop type.

In case of a fire alarm, the fire detection system of the building will have suitable connections capable to bring the lifts to the Ground Floor. The lifts shall be fitted with stand-alone emergency landing devices.

An intercom system shall be provided within the elevator cars connection to the main security office.

Με εκτίμηση

HUMECH MECHANICAL CONSULTANTS


Ε. Ν. Γεωργούδης
Μηχανολόγος Μηχανικός



ΠΑΡΑΡΤΗΜΑ Ε

ΑΝΕΛΚΥΣΤΗΡΕΣ

SECTION 3L - LIFT PARTICULAR SPECIFICATION

3L.01.1. TECHNICAL DATA - PASSENGER LIFT PL-1 & PL-2 - BASIC OFFER

Item No.	Definition	Requirement
1.	Load	: 630kg
2.	Capacity	: 8 persons (minimum)
3.	Lift Speed Drive System and Control	: Variable (V3F) inverter drive up to 1.60m/sec, levelling accuracy \pm 5mm or better and closed – loop with speed encode.
4.	Travel Height	: 20.65m approximately
5.	No. of stops	: 7 stops (2B, 1B, GF, 1F, 2F, 3F & 4F)
6.	No of Entrances	: 7 entrances all on the same line
7.	Lift well dimensions	: See detail on the relevant drawing
8.	Driving Machine	: Gearless traction machine with a squirrel cage, AC motor and an electronically controlled variable frequency inverter AC drive with a thermostatically controlled cooling fan.
9.	Machine Room	: Within shaft – Machine roomless
10.	Lift Car	: Car to be of clear floor area according to the manufacturer standards and as required by the EN81 Part 1 standards and 2.20m in height (1100mm(W) x 1400mm(D)). Car to be constructed from steel sheet in steel framework. Car walls and ceiling to be in brushed stainless steel finish to the Client's and Architect's choice & approval. Ceiling shall be provided with adequate number of recessed down lights c/w compact fluorescent PL lamps, silver reflector and safety glass, ensuring light intensity of at least 50LUX at floor level and on the control devices. Floor finish would be of the laminate type to Client's and Architect's approval. Car shall be equipped with the following: i. Ceiling fan controlled by an on/off switch ii. Recessed wall type CYTA approved telephone set with all associated wiring to the machine room. Recess door shall be as car interior finish. iii. Full car width mirror on the backside of car interior finish frame extending above handrail. iv. Stainless steel handrails on the three sides. v. Ventilation grills. vi. Floor announcement.
11.	Car Doors	: VVVF inverter control system with automatic horizontal sliding two panel side opening (800mm x 2000mm), fully automatic doors in sheet steel lined on the inside, in brushed stainless steel finish as car interior.

12. Landing Doors : Automatic Fire Resistant (2-hour rated) Sliding, two-panel, side opening, operated with the car doors. Landing doors of sheet steel lined on the outside brushed stainless steel finish as car interior. Clear door opening to be 800mm(W) x 2000m(H). Doorframes shall be provided by the Lift Contractor for all landings. Doorframes shall be provided by the Lift Contractor for all landings and shall be made of stainless steel sheet.
13. Car & Counterweight : In profiled T-section.
14. Counterweight : Made of cast iron fillers.
15. Safety Gear : Safety gear shall be of the progressive type with buffered effect operated by speed governor. Car frame to be provided with electrically operated safety locks limit switches etc. All electrical protection required by Electricity Regulations. Car doors to be provided with interlock device to interrupt operation when doors are not completely closed and a full height electronic safety door edge for immediate door opening when doors are obstructed. Lift car should also be provided with overload alarm facilities to interrupt operation when car is overloaded and to initiate an audible alarm.
16. Buffers : Spring type buffers for car and counter weight at bottom limit of travel.
17. Operation Control System : Fully automatic UP and DOWN simplex collective selective operation. Provide simplex selective collective operation from a riser of hall push button stations. The registration of one or more car calls shall dispatch the car to the reached by the car, irrespective of the sequence in which the calls were registered. The car shall also respond to registered hall calls in the same direction of travel. Car and hall calls shall be cancelled when answered. When travelling in the up direction, the car shall stop at floor for which car calls or up hall calls have been registered. It shall not stop at floors where a down hall call only has been registered, unless the stop for that floor is in response to a registered car call, or unless the down hall call is at the highest floor for which any call has been registered. Likewise, a down travelling car shall not stop where only an up hall call has been registered unless the stop for that floor is in response to a registered car call, or unless the up call is at the lowest floor for which any call has been registered. When the car has responded to the highest or lowest call, and calls are registered for the opposite direction, the car shall reverse direction automatically and respond to those registered calls. If the car has no car calls registered and arrives at a floor where both up and down hall calls have been registered, the car shall respond to the hall call corresponding to the direction of car travel. If after making its stop ahead to the car corresponding to its original direction of travel, the doors shall close and immediately reopen in response to the hall call for the opposite direction.

- The car shall maintain its original direction at each stop until the doors are fully closed to permit a passenger to register a car call before the car reverses its direction of travel.
18. FIXTURES
- 18.a Micro push-button Controls & Digital Luminous indicators : All plates to be made of stainless steel.
- 18.b Main car operating Panel : Provide a main car operating panel on the inside return front panel of each car.
The micro push call buttons shall become individually illuminated as they are pressed. The button lights shall extinguish as the calls are answered.
The panel shall include:
- i. A call button for each floor served
 - ii. Door open and close buttons
 - iii. Alarm button
 - iv. Fan Switch
 - v. Telephone recess
 - vi. Car position indicator.
- Provide a self powered emergency light unit in the lift car, consisting of a light fixture and a power pack unit.
- i. The light fixture shall contain a minimum of two (2) lamps
 - ii. The power pack shall contain a nickel cadmium battery and a charger.
 - iii. Unit shall provide illumination for at least (3) hours.
- 18.c Car position Indicator : Provide a digital directional luminous indicator directly above doors or in operating panel at all landings.
- 18.d Hall position Indicator : Provide same as in '18c' but with a gong signal (once for up twice for down) (entrance - floor only).
- 18.e Hall call station : Provide up and down buttons at intermediate landings and a single button at each terminal floor.
19. Fireman's Control (option) : Fireman's control facilities to be provided as specified. The control station shall be located in Ground Floor.
20. PARTICULAR REQUIREMENTS
- 20.a Landing door status : The lift car shall park at landings with its doors in fully closed position.
Landing doors to be equipped with emergency key opening.
- 20.b Motor Gear : The lift Contractor shall be responsible to provide full details of motor/gear to be used i.e. (class of insulation, starts per hour, ratio etc).
- 20.c Handicapped Requirements : Locate door reopening devices at (125mm) and (735mm) above the finish floor.
Locate the alarm button and emergency stop switch at (889mm) and floor and control button not more than (1370mm).
Provide brail markings in the panel to the left of the floor and control buttons.
The centreline of the hall push button station shall be (1100mm) above the floor. Adjust as necessary.

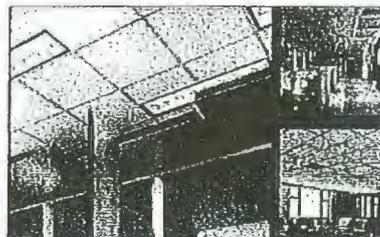
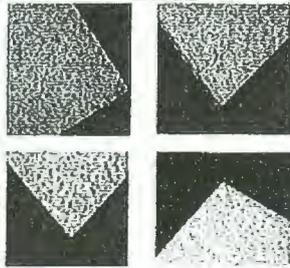
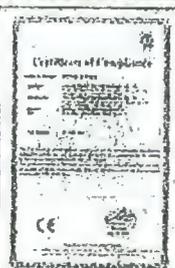
- Provide floor designations (brailed markings) at each entrance on both sides of jam at a height of (1500mm) above the floor.
- 20.d Top of Car Station : Mount an inspection station on top of car. This device shall be activated by a switch located on car operating panel and shall include:
- i. Up and Down direction buttons
 - ii. A stop switch
 - iii. A socket outlet
 - iv. A work light with wire guard and an OFF/ON switch. When the station is operational the lift speed shall not exceed 0.5m/s and all operating devices in the cab shall be inoperative.
- 20.e Shaft : Permanent inspection lighting in the lift well by means of 100W bulkhead fittings shall be installed. One fitting shall be installed 0.5m from the highest point and the other 0.5m from the lowest structural slab.
- 20.f Wiring : Provide all wiring and conduit required for the operation of the lift. Provide at least 10% spare in travel cables.
- 20.g Lift Interface with the Fire Alarm System : The lift controller shall have the capability to be interfaced with Fire Alarm Signalling. On a smoke condition the Fire Alarm System shall recall the lifts to the designated floor or to an alternate floor. The Lift contractor is responsible to provide all necessary conduits from the F/A panel as well as to provide the necessary wiring and make final connections to the controllers.
- 20.h Evacuation : In case of a power failure the Lift shall have the capability to be driven by a special automatic device to the next floor (below or above) and open the doors. An indicator to show the prospective travel shall be provided in the main operating panel.



ΠΑΡΑΡΤΗΜΑ Ζ

ΑΝΑΡΤΗΜΕΝΑ ΤΑΒΑΝΙΑ

Minerl fiber board Introduction



Raw materials	perlite, mineral fiber, organic fiber, additive
Measures	610x610, 610x1220, 595x595, 595x1195
Thickness	12, 13, 14, 15, 16, 17, 18, 19mm
Edge profile	Square, tegular, concealed, adhesive and nail, shiplap, linear shiplap
Colors	white
Surface treatment	SAND, REAL SAND, FLOWER
NRC	0.5
CAC	Minimum 30
Insulation coefficient	Average R factor(75° F, 24°C) is 1.31(BTU units), 0.23(Watts units)
Fire rating	B1
Light reflect	Minimum LRO 0.8
Temperature coefficient	40°C
Sag resist	Low density RH80~85
Flexural breaking force	174N
Antimicrobial	Inherent
Recycled content	38~50%
Standard	CE En13162
Warranty	5 year
New products - Development	YES
Asbestos	No added
Radionuclide	N
Thickness Tolerance	0.5mm
Length Tolerance	2mm
Width Tolerance	2mm
Density	280~320KG/M3
Radionuclide	Ira: 0.3 Ir:0.6
FOB Price	Depense on quantity thinkness, model
Installation and related	T grid suspension system
Production capacity	20,000m2/day

Thickness (595x595)	PC/CARTON	AMOUNT CARTON	AMOUNT PSC	AMOUNT CBM	AMOUNT SQUARE METER
12	10	1500	15000	66.96	5400.00
13		1381	13811	66.14	4900.00
14		1250	12500	65.72	4500.00
15		1181	11808	66.32	4250.00
16		1111	11111	66.39	4000.00
17		1047	10472	66.34	3770.00
18		986	9861	66.02	3550.00