

PROJECT: 1 (LOT 181) GLENBURNIE TERRACE, PLYMPTON (APARTMENTS)

VERTICAL TRANSPORTATION SPECIFICATION

SECON Consulting Engineers
456 Pulteney Street
Adelaide SA 5000
Phone: 08 82237800

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Issued by Anthony Davidson

Director

anthonyd@secon.net.au

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VERTICAL TRANSPORTATION SERVICES**1 GENERAL****1.1 SECTION CONTENT**

Supply and installation of a Kone N Monospace 18.1 MRL lift, or equivalent and approved.

1.2 DESCRIPTION OF WORKS

The supply and installation of an 18 person (1350 kg) 5 stop AS1735 compliant lift.

1.3 EXTENT OF WORK

Outline Description: The Works include, but are not necessarily limited to the matters or things referred to in the outline description of work given below.

Items not included in the specification but shown on the drawing or vice versa shall be included.

- The supply and installation of a lift service comprising one lift car.
- The supply and installation of controls, cables, electrical, switchgear and minor items associated with the above.
- Testing, commissioning and placing into service of the lift.
- 12 months maintenance and defects liabilities.
- A comprehensive operating and maintenance manual.

1.4 ASSOCIATED WORKS

Refer to Schedules of Design and Technical Data.

1.5 MATERIALS

New Material: Material to be incorporated in the work shall be new.

Uniform Type: Uniformity of type and manufacture of fittings, equipment and accessories shall be maintained throughout the installation.

1.6 WORKMANSHIP

Properly and neatly execute all work to a high standard and best practice. Untidy work whether exposed to view or concealed will not be accepted.

2 DESIGN AND COORDINATION INFORMATION**2.1 DESIGN BASIS**

- Compliance with Lift Code AS 1735.
- Compliance with Work Safe SA.
- Compliance with the Wiring Rules AS/NZS 3000.
- Mains Supply: All equipment shall be suitable for use on the SAPN electrical supply system which is nominally rated at 400V, 3 phase, 4 wire, 50Hz.

2.2 EQUIPMENT WEIGHTS, SIZES, POWER REQUIREMENTS

Check all weights, sizes and electrical loads of equipment proposed to be installed on the site and brands nominated in the Tender documents prior to committing to final cable sizes and equipment selections.

This includes checking the ratings of all equipment supplied by the Principal and any other items to be installed which may impact on loads in the building, evaluating the effect of any discrepancies advising the Principal that specified sizes are adequate or that amendments are necessary for stated reasons.

2.3 SPACING OF PLANT AND EQUIPMENT

Ensure that plant and equipment items are readily accessible for operation and maintenance and that sufficient space is provided to comply with the manufacturer's recommendations for overhaul, maintenance or repair.

Where other Contractors are operating in the areas concerned, determine the extent of their work and coordinate the layout of plant and equipment to be installed under this Contract, with that to be installed by the other Contractors.

2.4 TERMINATION POINTS

Included but not limited to items shown in schedules.

2.5 QUALIFICATIONS AND EXPERIENCE

The Tenderer is deemed to have sufficient experience and expertise in Contracts of this nature and to have allowed all contingencies and minor works necessary to fulfill the intent of this Contract. Variation orders will be not be issued for other than changes to the scope of works or scheduled capacities as initiated by the Architect.

2.6 LICENSED PERSONNEL

Comply with all laws relating to the licensing of electrical contractors, electricians and qualified lift mechanics.

2.7 AUSTRALIAN STANDARDS

Referenced Documents: Comply with the following standards:-

AS 1735	Lift Code
AS/NZS 3000	Wiring rules
AS 3080	Telecommunications installation – integrated communications cabling systems for commercial premises
AS 1979	Trailing cables
All other relevant Australian Standards.	

2.8 SETTING OUT

Drawings show the design intent and indicate the locations of equipment. Set out each item of equipment in its optimum location for efficiency, appearance and maintenance access and to the approval of the Architect.

2.9 COORDINATION WITH OTHER TRADES

Determine the extent of their work and coordinate the layout of plant and equipment to be installed under this section of the specification with that to be installed by the other trades to ensure there are no interface problems before installation commences.

2.10 GUARANTEES

Guarantee that the complete system within specified termination points shall safely, reliably, and efficiently provide the specified full load design capacity and performance, including all start up, shutdown and control functions and intermediate ratings as required, throughout the full 12 month period following the date of issue of the Certificate of Practical Completion.

2.11 SPECIFICATION AND TENDER DRAWINGS

Ensure you have a full understanding of the technical and physical requirements of the system described in this specification and accompanying drawings, all appropriate codes, regulations and standards, manufacturer's data, requirements of regulatory and statutory authorities, and instructions issued by the Architect.

Prior to commencement of fabrication or installation, ensure you have all current drawings and checked the dimensions of relevant site works.

Diagrammatic Layouts: Contract drawings showing layouts are diagrammatic only. Before commencing work, verify the exact positions of outlets, plant and the like and ensure the proposed layout is practical. These drawings must not be used for architectural or structural work, but shall be read in conjunction with architectural, structural and all other relevant drawings.

Principle: The services show the principle of design and do not include details of sets and bends required for the co-ordination between the structure and other trades. Due allowance shall be made in the tender price for all sets and bends.

Deviation: Deviation from the design principles will not be permitted without written approval.

2.12 SHOP DRAWINGS AND DETAILED DESIGN

Shop Drawings and Detailed Design shall be prepared as a requirement of the Contract. Any items which the Architect may require to be detailed prior to installation shall be provided to shop drawing standard within seven calendar days of request. Note that Shop Drawings are deemed to include the detailed design and coordination with other trades and services, detailed selection of equipment, detailed selection and design of all items and to enable fabrication and installation to proceed, including all necessary site measurement and coordination with existing and new works.

Requirement: Prepare detailed shop drawings and other documents illustrating the fabrication, installation, operation, maintenance and adjustment of services and equipment and shall include:-

- Equipment location plant layouts and supports
- Equipment details.
- Dimensions and penetrations through walls, floors and roof.
- Electrical wiring and controls.

Coordination: Drawings shall include coordination with building structure, Architectural elements and other services.

CAD: Drawings shall be prepared using CAD drafting format – AutoCAD 2014 or later.

Scale: Drawings shall be to a scale of not less than 1:50 and larger as required.

Submit: Submit (4) four copies allowing 10 working days for the drawings to be examined and returned.

Compliance: The drawings will be examined for general compliance with the contract drawings and specification. Notwithstanding any endorsements, the Contractor is not relieved of his responsibility for the adequacy of the installation.

Resubmission: Where drawings are returned for amendment, amend and re-submit in sufficient time to prevent delays to the completion of the work.

2.13 AS INSTALLED DRAWINGS

Record during the progress of the project all changes to detail design drawing. Prepare using AutoCAD 2014 (or later) drafting format.

'As-Installed' drawings will be reviewed for quality and content in a similar manner as for shop drawings review. Where drawings are determined to be of sufficient quality and content for their purpose, they will be forwarded to the Principal for acceptance. Where errors, discrepancies or omissions are identified, they will be returned to the Contractor for correction.

Where drawings or calculations are returned for amendment, allow for amendments to be carried out and re-submitted in sufficient time to prevent delays to the completion of the work or awarding of Practical Completion.

The review of Contractor's installed drawings is not intended to be a checking process, and the Contractor remains responsible at all times for the content, accuracy and scope of submitted documents.

2.14 PROTOTYPES AND SAMPLES

Submit samples to the Principal for approval of all items listed and obtain written approval prior to placing orders.

A minimum of 10 working days is required between date of submittal and programmed order date.

Selection of final finishes and fixtures to be derived in coordination with the Principal and based on:-

- Principal's nomination of types, colours, finishes.
- Lift Manufacturers standards range of fittings and fixtures.
- Established practices of lift installation construction.
- Sample submissions.

Initial samples required:-

- Hall call buttons in plate assembly with engraved notation.
- Hall car location lamp assemblies.
- Car floor buttons, open-close, alarm buttons key switches and sampled or detailed drawing of assembly.
- Luminaire units as nominated.
- Samples of proposed finishes.

2.15 AUTHORITIES TESTING

Carry out all tests required by the relevant authorities and perform without charge any making good necessary to obtain approvals. Give the Architect 48 hours notice of such tests. Hand over test certificates and approvals on completion, leave a copy of all such items in the Maintenance Manual. Give sufficient notices for interruptions to supply.

2.16 AUTHORITIES, NOTICE OF ALTERATIONS AND CERTIFICATES

Carry out the work to the requirements of all relevant authorities.

Make formal application for supply or submit notice of alteration for each installation, pay all charges, obtain a Certificate on completion of the work and present to the Architect prior to Practical Completion. Include a copy of all such items in the Maintenance Manual.

2.17 AUTHORITIES AND APPROVALS

Authorities: Authorities whose requirements shall apply to the work in this Section shall include the following -

- Local Council
- Health Authority Commission
- The Office of the Technical Regulator
- Safe Work SA
- Insurance Council of Australia
- Building Code of Australia
- South Australian Metropolitan Fire Service (SAMFS)
- SAPN Utilities
- Any other Authorities having jurisdiction over the Works

Lodgement: Complete and lodge all necessary forms (including technical sections) for the submission of applications and approvals to the relevant authorities.

Approvals: The documents evidencing approval of such authorities, which are to be surrendered before the Certificate or Notice of Practical Completion is issued, shall include the authority's official certificate of completion.

2.18 MAINTENANCE LIFTING

Where an item greater than 20 kg requires to be removed for maintenance or replacement, provide the following:-

- Suitable attachments on the item for connection of lifting equipment.
- Suitable attachments from the roof structure or roof slab, such as eye bolts or lifting beams, for the equipment to be removed and positioned over a fork lift, trolley or sled. Alternatively provide purpose built lifting frames. Show all proposed maintenance lifting arrangements on shop drawings and submit to the Architect for approval.

2.19 INSPECTIONS

Give 48 hours written notice to the Architect of all items requiring inspection, including prior to the covering of concealed services.

2.20 WARRANTIES

Supply to the Architect at Practical Completion the warranties offered by the manufacturers of the equipment and accessories used in the Works.

2.21 CERTIFICATE OF COMPLIANCE

Supply an appropriate, signed certificate of compliance before work is handed over to the client. No occupancy by the client will take place before a certificate of compliance is issued.

Supply an appropriate, signed certificate of compliance and lift Registration Certificate before Practical Completion.

2.22 EXTRANEIOUS INTERFERENCE

Requirement: The electrical wiring and equipment shall operate without interference to radio, television, computer communications or other systems within this or other local area installations.

2.23 OBVIOUS WORKS

Minor Parts: If neither the specification or drawings contain any mention of minor parts of work which in the opinion of the Architect is reasonable and obviously necessary for the satisfactory completion of the works, such parts shall be supplied and installed without extra charge.

2.24 EARTHQUAKE PROTECTION

Mount plant and equipment to withstand earthquake forces of 0.2g horizontally and 0.2g vertically in addition to normal restraining forces.

Design of the mountings shall be such as to limit the dynamic force on equipment to 1.0g.

2.25 TOOLS, DRAWINGS, ETC

Provide special tools, circuit diagrams, maintenance and inspection logbooks consumable spare parts and the like as required by the code and facilitate efficient maintenance.

2.26 NOISE AND VIBRATION

Requirement: Select equipment for quiet operation and install to ensure noise and vibration are not transmitted through the building structure or become a nuisance to occupants.

2.27 MAINTENANCE MANUAL

Supply three sets of manufacturer's technical data and operating instructions on all equipment installed, each suitably bound in hard covers and including a set of prints of the 'as installed' drawings referred to above.

3 SCOPE

3.1 GENERAL

Lift in the building to respond to the hall and car call and dispatch commands.

Functions of the installation:-

- Primary Transportation: Building occupants and visiting public as passengers with specific requirements for disabled patrons.
- Secondary Function: Goods and trolleys.

Materials and labour for complete supply; delivery; installation; testing; inspection; commissioning to operation, instruction and handover; maintenance of the lift installation and ancillary plant.

Liaison with other Trades who will provide works and services as defined in the clause 'Associated Works by Others'. Liaison to include provision of authorised shop drawings; technical data; coordination of programming; working and commissioning; setting out and supporting elements in position for final fixing; Authority inspections, testing, acceptance reports; instruction to Principal's representatives.

3.2 ASSOCIATED WORK BY OTHERS

Work in this section of the Specification relates to Lift Service. The Contractor is to ensure the following associated works are performed by other trades and are coordinated with the works detailed in this section of the Specification.

Associated Building Work

- Formed pit with dry sump and checker plate cover.

- Shaft formed in masonry with inserts, rough openings, pockets; top of shaft vent, with weather and bird proofing, concrete pit and masonry shaft construction from pit to roof, plumb and true in each wall to tolerances stated in the Schedules.
- Overhead hitching beam at top of shaft (supplied by Lift contractor and installed by Builder)
- Shaft closure platform at the shaft top.
- Provide temporary barricade enclosures of the shaft at each rough opening the safety operation of which will become the responsibility of the Lift Services Contractor when installation work commences.
- Building in of sills, door frames, hall appointment boxes and conduits, support inserts for plates and brackets, penetrations and similar fixings provided and located by the Lift Services Contractor.
- Floor coverings of cars.
- Two copies of building drawings of plans and sections relative to the lift installation.

Electrical Services

- Power supplies in the form of fire rated cable terminated into the isolator in the Lift distribution board.
- 1 - 10 Amp Switched Socket Outlet connected to a 230V supply.
- Normal and emergency lighting of the access ways to the lift shaft.
- Temporary 15Amp 3 phase power supply on top floor.

Mechanical Services

- Ventilation fan, thermostat control and electrical connections from circuit breaker on Lift Distribution Board.

Fire Services

- Smoke detector at top of shaft.

Telephone Services

- Emergency telephone connected via Dual 4G SIM with battery backup.

4 PERFORMANCE

4.1 GENERAL

Requirement: Ensure the selected equipment will provide specified, capacities performance and automatic operation.

Selection: Select the components for continuous, safe, unattended operation at the required design criteria.

The basic requirements for this installation are set out in the Schedules and as indicated on the Drawings.

The Schedules also set out the Technical Data of the Tenderer's offer(s) such that assessment of Tenderer's submission(s) can be facilitated.

5 ELECTRICAL

5.1 SCOPE

Unless otherwise described, provide all electrical wiring, appliances, accessories for the operation of the lift, lighting and power, controls, alarms, telephones.

5.2 CABLING

Segregate control circuit runs from power circuits.

Main groups of circuits - enclosed within galvanised metal enclosures. Fix ducting to surfaces by direct fixing, brackets or by suspension with supplementary supports.

Trailing cable to AS1979 suitable for lifts with multicore, multistrand elements, steel strainer core, stranded and designed for the appropriate travel.

Alarm cables: Fire rated cable as required.

5.3 LIFT DISTRIBUTION BOARD

Provide suitable distribution board for protection of all lift circuits.

5.4 INCLUDED SYSTEMS

- Power to lift machine.
- Control and indication systems for car, landings, lift controller, pit and top of car operations.
- Signals for alarm situations, with cabling and terminal units.
- Telephone system to car, connection and monitoring.

6 CONTROLS ---

6.1 SCOPE

Provide controls for optimum operation of the service and incorporate basic control functions as outlined in this subsection.

Operational units and indicators shall be as approved and complying with AS1735.12 requirements for the disabled, with tactile and braille flush mounted illuminated recess faced buttons.

6.2 HALL APPOINTMENTS

Refer to schedule listing requirements for directional call buttons, Fireman's access, car location indication and car arrived gong.

6.3 CAR APPOINTMENTS

Refer to schedule listing requirements for floor buttons; door open and close buttons; emergency stop, alarm switches; floor access locking switches, car number, car position, car overloaded annunciators, and emergency communications unit.

Provide enclosed controls for an attendant operation, exclusive (Fireman) control, light and fan switches, maintenance control and communication facilities.

6.4 MAINTENANCE CONTROLS

Pit, top of car, controls and safety systems to comply with Lift Code.

6.5 SPECIAL CONTROLS

- a) Door safety - fit each door set with leading edge obstruction proximity sensing (compliant with NCC Clause E3.6) to effectively arrest and reverse closing of doors. Continued obstruction to initiate nudging operation. Sensing system not to be affected by smoke or to be disarmed by fire alarm signal within the alarm and control system.

6.6 ALARMS

- a) Operation of car alarm button to initiate an alarm signal in the ground floor foyer and to connect the telephone communication system of that car to the telephone 4G SIM System and Lift Services Contractor's service department.
- b) Operation of car emergency stop to also initiate hands free telephone system.

7 PAINTING, CORROSION PROTECTION & IDENTIFICATION ---

7.1 SCOPE

Provide corrosion protection, painting and identification of all items within the Lift Services Contract to ensure the following:-

- Protection of all items against moisture of corrosive agents, which may be encountered during the service life of, installed items.
- Painting to provide an attractive, durable and cleanable surface in plantrooms and areas exposed to view.
- Identification of all plant, controls, wires, terminals, controls, etc. with durable labels and painted markers to identify the following:
 - . Nature of Service.

- . Function of identified item.
- . Cross-Reference identification eg. wire markers to wiring diagrams.
- . Compliance with Statutory & Regulatory requirements eg. hoisting beam/eyes labelling, etc.

7.2 CORROSION PROTECTION

Properly protect all surfaces against corrosion.

7.3 PAINTING PROCEDURES

To paint manufacturer's recommendation as suitable for the following applications; oil and durable finishes to be smooth, even and free of dust or other imperfections, heat resistant enamelling of machines, urethane lacquers for hall furniture and timbers.

7.4 PAINT COLOURS

Shaft to Lift Contractors standards unless otherwise nominated.

Car, door and similar exposed work to selected colour details according to architectural requirements and as scheduled.

7.5 PLANT AND EQUIPMENT IDENTIFICATION

Provide the following identification systems:-

- Equipment Nameplates: Non-fade label permanently fixed by mechanical means to factory - assembled items of equipment.
- Warning Notices: Engraved plastic plates, carrying warning and identification notices required by applicable standards and legislation. ("DO NOT USE LIFT IF THERE IS A FIRE").
- Instruction Plates: Engraved plastic plates carrying operating instructions condensed from the operator's manual, miniature line diagrams, etc. for motors, generators, pumps, fans, valves and the likes.
- Manufacturer's standard labels may be acceptable. Submit sample for approval.

7.6 CONTROLS IDENTIFICATION

Fit markers to each wire termination to conform with wiring diagrams. Fit label to control devices with match identification to diagrams.

8 TESTING AND COMMISSIONING

8.1 GENERAL

Refer Lift Code AS 1735.

Complete standard testing to the code requirements and to acceptance of the Principal.

8.2 SYSTEM TESTING

Carry out prescribed tests and specified system testing. Provide the Principal with a written copy of each nominated inspection or test as and when completed and signed by the Contractor.

Carry out full functional and operational checks.

8.3 TESTING AND COMMISSIONING PROGRAMME

Provide with 4 days notice a detailed list of commissioning tests with program for their implementation. Give the Principal 24 hours notice of confirmation and liaison in relation to witnessing of such tests.

The test report must include the items inspected and tested during commissioning and a copy of the test report to be provided to lift owner.

Where specific performance is specified in the relevant standard (eg. stopping distances, governor tripping speed, pull through forces, mechanical clearances, etc) the test must be recorded in the report. All safety devices must be site tested to ensure correct functionality.

Provide a certificate stating the lift has been installed, commissioned and tested in compliance with the standard.

8.4 HANDOVER

Provide instruction to the Principal's staff on the operation of the installation.

Provide 4 sets of keys for the authorised operation of the lift.

Install sets of permanent print drawings in clear plastic envelopes or laminate within the Lift Motor Room with schedules for maintenance. Provide attendance logbook and maintenance chart.

Provide a list of contact personnel and telephone numbers for emergency call-out.

9 MAINTENANCE

9.1 GENERAL

Maintain the installation throughout the Defects Liability Period in first class operational condition. Implement a regular maintenance program in accordance with the agreed maintenance schedule. Attend promptly to service calls to ensure continual service of lift operations at all hours.

Provide monitoring of emergency telephone.

Provide a log book for servicing recording the date of service, and items attended to.

9.2 MINIMUM REQUIREMENTS OF SERVICING

Replace all faulty and damaged parts of the installation. Make all necessary adjustments.

Service all equipment in accordance with the recommendations of all equipment and component manufacturers.

Check traffic operations, door openings, levelling and adjust as required.

Check all bearings for correct operation and lubrication.

Lubricate all equipment as necessary.

Check motor for excessive operation temperatures and record current draw.

Check all anti-vibration supports for deterioration of rubber or springs, and for freedom of movement of assembly.

Check operation of all automatic controls.

Check and adjust all safety controls at least every six (6) months. Advise the Principal in advance when safety control settings are to be checked. Record all cut-out settings.

Check operation of all test and control switches and relays, and prove correct operation of all control sequences in rotation. Replace burnt-out indicators, coils and contacts.

Repair paintwork damaged through the actions of maintenance staff to provide a surface finish in keeping with undamaged sections on the component concerned.

Ensure that plant room, pit and car surfaces are left in clean and tidy condition.

Replace all equipment in correct positions. Leave plant in correct operating order.

10 SCHEDULES OF DESIGN AND TECHNICAL DATA

10.1 GENERAL DATA

This schedule sets out the basic data for the lift service. For each item the Tenderers are required to list data of their offer under the heading of "TENDER" and subheadings of "AGREED" indicated as "YES" or "ALTERNATIVE" with relevant details.

10.2 BASIC SERVICE

No. of Lifts	1
Machine Type	Electric Gearless Overhead Traction
Passenger/ Load Capacity	18P / 1350 kg
Travel Speed	1 m/ sec
Service Travel	13.7m
No. of Floors Served	5
No. of Entries	1 on one end of car

10.3 TRADE DISCIPLINE RESPONSIBILITIES

Responsibility Codes (Disciplines):-

[B] = Builder	[L] = Lift
[E] = Electrical	[M] = Mechanical
[F] = Fire	[P] = Principal

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
[B] Shaft & Pit	2400mm(d) x 2200mm(w)		
[B] Pit Depth	1350mm		
[B] Pit Sump with Checker plate Cover	NO SUMP		
[B] Headroom	4200mm		
[B] Shaft Construction Tolerances: Width Depth	± 25 mm ± 25 mm		
[B] Construction Tolerances: Front Wall Side Walls Rear Wall	± 12 mm ± 20 mm ± 12 mm		
[B] Rough door openings	2320mm x 1180mm		

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
[B] Formed sill rebates	as required		
[B] Build-in Bond Blocks, Brackets, Fixings & Fittings	as required		
[B] Top of Shaft Venting weather and vermin proof	300mm x 300mm		
[B] Shaft for erection and installation	safe & weather-proof		
[B] Temporary barricades	5 openings		
[B] Top of Shaft Hitch Beam or Lifting Eyes (provided by Lift Manufacturer)	To Manufacturers requirement		
[B] Openings & Rebates for Hall units	as required		
[E] Power Supply to Lift Distribution Board	10 mm ² 32A MCB with 10mm ² earth		
[E] Telephone service external	Dual 4G SIM		
[M] Exhaust Ventilation System			

10.4 SHAFT AND PIT INSTALLATION

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
Take-over and maintain shafts and barricades for the duration of the erection program			
Scaffolding			
Supply and locate all required fixings.			
Supply and Installation of:-			
- Door frames and sills	1000mm x 2100mm		
- Guide rails	Manufacturers standard		
- Lighting in each shaft to code.	LED Battens		
- Switching each shaft at each access level	2 way		
- Safety equipment	To code.		
- Maintenance Controls	As specified		
- Hall doors and appointments	To approval.		
- Pit Ladders	To code		

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
- Buffers	Manufacturers standard		
- Car guides	Manufacturers standard		
- On car safety rail	To code (minimum 1100)		

10.5 LIFT CARS

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
Dimensions W x D x H nominal	1400mm x 2100mm x 2300mm		
Entries:-			
- Number	1 each end		
- W x H nominal	1000 x 2100		
- Configuration	cent. opening		
- Material & finish	To architects selection		
- Sills	formed anti-skid		
- Materials and Finishes (to Principal's selection)			
- Side Walls	Standard finishes to Architects selection		
- End Wall	Standard finishes to Architects selection		
- Ceilings	Standard finishes to Architects selection		
- Floor	Standard finishes to Architects selection		
- Front Wall	Standard finish to Architects selection		
- Hand Rail (AS1735.12 compliant)	40 dia tubular Stainless Steel		
Control Panel (DO NOT USE LIFT IF THERE IS A FIRE):-			
- Material and finish	Linish Stainless Steel		

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
- Floor buttons	Illuminated		
- Door open, door close buttons - All controls need to be Disability Access type - full code compliance (AS1735.12.) - Automatic audible information in accordance with NCC E3.6b	2 floor buttons (Illuminated with door open, alarm and 2 key switches). Call buttons to include braille		
- Emergency hands free communications with light to indicate call received (NCC E3.6b)	Also activates telephone system		
- Alarm	Also activates telephone system		
- Emergency communications	Manufacturers standard		
- Floor indicator	Manufacturers standard		
Maintenance Control Panel Concealed from Public access:-			
- Fire Service Control	Compliant with NCC E3.7 & E3.10		
- Maintenance Control	As required		
- Fan Switch	on – off		
- Light Switch	on – off		
- Emergency Light	on – Test		
Car Lighting	LED lighting to architects approval		
Exhaust Fan Semi Concealed	on ceiling		

10.6 HALL APPOINTMENTS

ITEMS AND ELEMENTS	DESIGN	TENDER	
		AGREED	ALTERNATIVE
Doors and Frames	Stainless Steel		
- Fire Service Control	Compliant with NCC E3.7 & E3.9		
Call button panels. Flush mounted	Stainless Steel		
Car location indication	Manufacturer's standard to architects approval.		
Car Alarm bell	Car Mounted		

Car Arrival audible and visual indication in accordance with NCC E3.6b	Each lift landing		
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