

Documentation of design and construction (suitability or evidence of suitability)

Project Name: Quay waterfront	
Project address: 47 Swaying Terrace	Site Plan attached:
Prepared by: Anya English	
Date: 19/10/23	
Description of project:	
Quay waterfront is a 28 level luxury resort - style amenities residential building	
Site Classification/s:	
class 7 - car park class 6 - cafes/shops part of hotel /accommodation	

Documentation of design and construction (suitability or evidence of suitability)		
Site preparation		
Site preparation	NCC / Australian Standards requirements	Compliant Performance solution
Earthworks	AS 3798-2007 Safe guard people from loss of amenity caused by structural behaviour from physical damage caused by structural damage	MUST sustain against all repeated + expected design actions incl. of rainwater earthquake + snow action
Site preparation		
Site preparation		
Earth retaining structures	NCC / Australian Standards requirements	Compliant Performance solution
	AS 4678 Safe guard people from loss of amenity caused by structural behaviour from physical damage caused by structural damage	MUST sustain against all expected and repeated design action, wind action, rainwater action, earthquake action.
Drainage	A Building including any associated stormwater is to be constructed in a way that protect people and other property from the adverse effects of redirect surface water	A drainage system for the disposal of surface water resulting from a storm having an annual exceedance probability of 5% must convey surface water to an appropriate out fall and avoid surface water damaging the building and it must avoid the entry of surface water into building.

Site preparation	NCC / Australian Standards requirements	Compliant Performance solution
Termite risk management	compliant with AS3600.1 materials used entirely not subject to termite risk.	Durable notice is fixed on meter box or the live of management used / date of installation / chemicals used / installer recommendations
Materials	materials that are compliant of 3600.1 timber Appendix C + Appendix D	steel, aluminum / other metals, concrete, masonry, fibre, reinforcement cement, timber
Footings and slabs		
Site classification		
Footings and slabs	NCC / Australian Standards requirements	Compliant Performance solution
Footings and slabs	Footings + slabs to be designed and constructed to withstand through actions of hydrostatic, hydrodynamic, erosion, wind and other.	performance solution to withstand against flotation, collapse or significant permanent movement.

Footings and slabs	NCC / Australian Standards requirements	Compliant Performance solution
Moisture Barrier	if floor of a room is laid on the ground a damp proofing membrane complying with Section 5.3.3 of AS 2870 must be installed.	The structural resistance of materials / forms of construction must be determined using five percentile characteristics material properties with appropriate allowance for restrained dimensional changes due to moisture.
Materials	Barriers to prevent moisture from air must have high resistance to moisture penetration + high resistance to damage during construction + high resistance to degradation by dissolved salts AS 2904 → must be compliant	- Embossed black polyethylene film - Polyethylene coated aluminium - Bitumen impregnated materials no less than 2.5mm thick.
Concrete and reinforcement	NCC / Australian Standards requirements	Compliant Performance solution
Concrete and reinforcement	concrete construction AS 3600 autoclaved aerated concrete AS 5146.1 + 5146.3 post-installed + cast in fastening AS 5216	a concrete external wall (precast panel) must be designed so that in the event of fire within the building the likelihood of outward collapse is avoided.
Materials	are non-combustible + used whenever a non-combustible material is required.	- concrete + autoclaved aerated concrete, mortar

Masonry		
Masonry	NCC / Australian Standards requirements	Compliant Performance solution
Masonry	AS 2699.1 AS 2700 - Masonry structure AS 3700 - masonry	a loadbearing internal wall and a loadbearing fire wall must be constructed from masonry in a class 5, 6, 7, 8 or 9 building.
Moisture Barrier	safe guard occupants from illness or injury and protect the building from damage caused by surface water and external moisture entering a building and the accumulation of internal moisture in a building	Mortar/Brick aren't completely water resistant. Silane sealer can be used to create a protective barrier.
Materials	A lintel need not comply with if it doesn't contribute to the support of a fire door, fire window or fire shutter and it spans an opening in masonry which is not more than 150mm thick and not more than 3m wide if the masonry is non-bearing or not more than 1.8m wide if the masonry is load bearing	solid calcium-silicate masonry minimum thickness (mm) 50-60/60/60 + 90/90/90 + 120/120/120 + 180/180/180 65-240/240/240 solid clay masonry 50-60/60/60 + 90/90/90 + 120/120/120 65-180/180/180 90-240/240/240 solid concrete masonry - 50-60/60/60 + 90/90/90 + 120/120/120 65-180/180/180 90-240/240/240

Framing/Structure		
Framing/Structure	NCC / Australian Standards requirements	Compliant Performance solution
Framing	Building is to withstand the combination of loads and other actions to which it may be reasonably subjected	where component has a calculated resistance coefficient of variation of less than 10% then a minimum value of 10% must be used
Materials	Masonry - AS3700 concrete construction - AS 3600 Autoclaved aerated concrete - AS146.1 Steel Structure - AS4100 Timber structure - AS 1684.2 1684.3 1684.4	Timber + steel framing perimeter members must securely fixed to the adjoining structure and beaded in resilient compound or the joint must be caulked so that there are no voids between framing members and the adjoining structure.

Roof and Wall Cladding		
Roof and wall cladding	NCC / Australian Standards requirements	Compliant Performance solution
Roof and wall cladding	Sarking AS4200.1 AS4200.2 stop water penetration is to be constructed to prevent Penetration of water from the outside	Weatherproofing- roof and external wall must prevent the penetration of water that could cause unhealthy or dangerous conditions or loss of amenity and undue dampness or deterioration of building element. Roof coverings- must be compliant with AS2049 Fixed in accordance with AS2050 Sarking. Glazed assemblies resistant of water penetration - windows/sliding/sliding glazed doors with a frame / register louvers/shopfronts/windows walls with one piece framing.
Materials	Terracotta, fibre cement and timber slates and shingles designed and installed in accordance with AS4597 Sarking type material must comply with AS4200.1 + AS4200.2 Materials for resistance water penetration	Roof must be covered either roof tile, metal sheeting plastic sheet, terracotta, fibre cement and timber slates, external waterproofing membrane. sarking type material

Glazing		
Glazing	NCC / Australian Standards requirements	Compliant Performance solution
Glazing Comply with AS2047	Glazing is to be installed in a building to avoid undue risk of injury to people - Glazing in a building should not cause injury to people due its failure or people impacting with it because they did not see it.	Must perform adequately under all reasonably expected design, designed to sustain local damage + avoid causing damage to other properties sustain under wind action, earthquake action, snow action, liquid pressure, ground water action etc.
Materials	11ft shaft vision panels are ^{less} than 65,000m ² or equal to laminated, toughened, annealed glass with security polyester film coating, safety wire glass, polyester glass. Glazed assemblies in an external wall must comply with 2047	^{laminated} 6mm (0.76mm interlayer), toughened - 6mm (0.76mm interlayer) annealed (6mm) Safety wire subject to fire test Polyester carbonated 6mm

Fire Safety		
Fire Safety	NCC / Australian Standards requirements	Compliant Performance solution
Fire Safety	A Performance-based design Brief (PBD) must be completed as it defines the scope of work for the fire engineering analysis.	Must involve all stakeholders relevant to building design and outline the fire strategy to be adopted, must cover the fire safety strategy for the building outlining the philosophy and approach that will be adopted to achieve the required level of performance
	A Sign must be installed on doors to communicate that the operation of doors can not be obstructed	→ Sign must be fixed on each side of the door. → Sign must be in capital letters not less than 20mm high in a colour contrasting.
	A Building is to be provided with fire-fighting equipment to safeguard against fire spread to allow occupants to safely evacuate so that the fire brigade have the necessary equipment to undertake search, rescue and fire-fighting operations.	Fire hose reels - Occupants to safely undertake initial attack on a fire appropriate to the size of the fire compartment, function of the building, other fire systems installed and the fire hazard. Fire extinguishers - allow occupants to have initial attack on fire appropriate to function of building, other fire safety systems and fire hazard. Fire hydrants.

Access/Stairs/Lifts/Ramps		
Access/Stairs/Lifts/Ramps	NCC / Australian Standards requirements	Compliant Performance solution
Access	carparking is to be provided for people with a disability for safe access. A building is to provide as far as is reasonable safe and equitable and dignified access for people to the service and facilities within. A required fire-isolated stairway including any associated fire-isolation passageway or fire-isolated ramp serving more than 2 below ground storeys. AS 1668.1 D3D6.	carparking spaces must be provided, to the degree necessary to give equitable access for carparking and designated and easy to find An automatic air pressurisation system for a fire-isolated exits in accordance with AS 1668.1 open access ramps or balconies basements - not less than 2 exits must be provided from any store if egress from that storey involves a vertical rise within the building.
Materials	People can walk safely to / within a building, have safe gradients, stairways and ramps must have slip-resistant walking surfaces.	Gradient no steeper than 1:8 Non-combustible materials

Ancillary Provisions		
Ancillary Provisions	NCC / Australian Standards requirements	Compliant Performance solution
Bushfire Prone AREAS	Safeguard occupants from injury from the effects of a bushfire and protect buildings from the effects of a bushfire and facilitate temporary shelter for building occupants who may be unable to readily evacuate the building prior to a bushfire	must be designed to reduce the risk of ignition from a bushfire with an annual exceedance probability not more than 1:100 and take account of the assessed duration and intensity of the fire action of the design bushfire and be designed to prevent internal ignition of the building and its contents and maintain the structural integrity of the building for the duration of the design bushfire
	N/A	N/A
	N/A	N/A

Energy Efficiency		
Energy Efficiency	NCC / Australian Standards requirements	Compliant Performance solution
	A Building must reduce the energy consumption and energy peak demand of key energy using equipment	A building must have features that facilitate the efficient use of energy appropriate to the function and use of the building and the level of human comfort required for the building use. Solar radiation and the energy source of the services and the sealing of the building envelope against air leakage
	Reduce the greenhouse gas emissions that occur as a result of a building's energy consumption and energy source	For class 7/6 it is determined that the annual greenhouse gas emissions of the proposed building are not more than the annual greenhouse gas emissions of a reference building when the proposed building is modelled with the proposed services and as the reference building.
	For other than a sole-occupancy unit of class 2/4 protect occupant health and amenity by ensuring the building envelope assists in the maintenance of acceptable internal conditions while the building is occupied.	the building complies with the simulation requirements and is registered for a green star - Design & AS-Built or Green Star Building rating.

Health and Safety

- Basement construction - vibration management plan
- Building construction - construction management plan

Consultation

- Materials are termite + mould resistant.
- Employees/ hours are accurate for dig out stage
- Precast panel grading/ specifications
- Materials used for membrane.
- fire safety

Policies

- HSEPOL001 Environmental management and sustainability Policy
- HSEPOL002 Risk management policy
- HSEPOL004 Contractor management
- HSEPOL008 Hazardous substances policy
- HSEPOL007 First aid policy
- HSEPOL010 Induction + further training policy
- HSEPOL012 Manual handling policy
- HSEPOL013 Mobile phone policy
- HSEPOL014 Personal protective equipment policy
- HSEPOL016 Workplace wellness policy
- HSEPOL019 Workplace health + safety policy.

Procedures

- HSE SWP000 - Access + Egress - workers must provide access from scaffold
- HSEP001 - Sorebars
- HSEP002 - Base jacks.
- HSEP003 - Stagger requirements
- HSEP004 - Transoms + ledgers
- HSEP005 - Boxing out a bay
- HSEP006 - Built ladder
- HSEP007 - Ladder beams
- HSEP008 - Heal + toe braces
- HSEP009 - Wall ties
- HSEP013 - Rafter ties
- HSEP014 - installation of containment
- HSEP015 - construction stair
- HSEP016 - Stretcher
- HSEP020 - Working in the heat
- HSEP024 - Hilti dust removal system
- HSEP028 - Installation of bolt down handrail
- HSEP031 - Scaffold inspections
- HSEP033 - damaged/non-compliant equipment
- HSEP047 - Working near electrical powerlines.

Issues to be addressed and consultation				
Issue	Who to consult	Improvements for consideration	Feedback following consideration	Supporting Resources
is there alarm systems. organised.	R.L.V.	Smoke alarm's alarm systems water sprinklers	Has been ordered	N/A
Materials used for termite prevention	R.L.V.	Steel to be used	Steel - in specifications	N/A
Workforce for Basement dig.	Michelle	labour for Basement dig	labour has been accounted for	N/A
mould Prevention	R.L.V.	materials used will not have mould build up	steel - in specifications	N/A