Appendix E

Construction Management Plan

TOUKLEY SENIORS LIVING
222 MAIN ROAD, TOUKLEY

DRAFT CONSTRUCTION MANAGEMENT PLAN

Contents

1. Introduction

This document outlines a construction management plan for the development of a residential building containing 53 SEPP SL apartments, including car parking, community areas and a small commercial area for business associated with the development.

The contents of this document include a brief description of the project, project specific waste, stormwater, noise, vibration, air, traffic, concrete waste, paint waste, light spills and community management plans.

This document provides a statement on the commitments proposed for environmental mitigation, management and monitoring of the construction works. It identifies those measures that need to be implemented during the construction in order to achieve an environmentally sustainable outcome with minimal impact on the environment.

The preparation of a Construction Management Plan would normally be undertaken as part of the Construction Certificate process, allowing input from the tender process and the preferred building contractor. This document is intended to outline the principles of that eventual construction management plan. The principles set out in this document will be preserved in the final Construction Management Plan and will form part of a detailed Environmental Management Plan to be prepared by the preferred building contractor.

2. Project Description

The land is currently unoccupied over 5 titles. The developer wishes to develop a vertical village for Senior Living under the relevant SEPP SL legislation and current regulatory requirements. This vertical village will present 3 stories to Main Road and 4 stories to the water at the rear. The façade fronting Rowland Terrace will be 2 stories.

The proposed development is intended to provide 53 apartments for purchase by individuals in the over 55 age group.

The facilities will provide self contained apartments with an ambience of comfort, security and familiarity that of “my home”. The development will also provide common facilities allowing owners of each individual apartment to meet with, share space with and perhaps exercise and relax with owners of other apartments as each desires.

The common facilities include library / meeting room, 1 office suitable for doctor and hairdresser, gym and swimming pool.

3. Project Sequencing

The works are planned to be undertaken in the following basic sequence:-

- demolition of existing structures on site
- excavation to bulk levels including protection to lakeside
- establish site perimeter security fencing and required hoardings
- establishment and completion of the concrete structure including in ground foundations
- establishment and completion of the external facade
- establishment and completion of associated services and finishes
- establishment and completion of external works

4. Project Structure

The preferred building contractor will engage specialist structure, façade, finishes, services and external works subcontractors for the development.

The subcontractors will comply with all current Codes, Regulations and Standards.

The preferred building contractor's senior project staff will be the main point of contact for all of the works.

The processes for monitoring the subcontractor's procedures such as safety plans, risk assessments, safe work method statements and controls is to ensure continual improvement in the environmental performance, and will form part of the preferred building contractor's management system.

5. Waste Management Plan

The objective is to avoid, whenever possible, the generation of wastes and to recycle a minimum of 50% of all hard waste material, and soft waste material generated on the construction site during the works, thus achieving up to 60% reduction/avoidance in waste to landfill.

Waste Management will follow the preferred hierarchy of avoidance/reduction, re-use, recycle, treat and dispose. Best Practice should be adopted wherever possible, to achieve waste minimisation and reduction.

In addition the preferred building contractor will:

- liaise with subcontractors to identify areas where they can reduce waste and reuse materials in their respective trades;

- meet local, state and federal waste minimisation legislation and environmental standards;
- prevent pollution and damage to the environment;
- protect the safety and health of workers on site and the public.

Waste materials generated on site are to be managed such that recycling is maximised and the volume of waste transported to landfill is minimised.

Construction waste minimisation requires early planning and establishment of a "Waste Minimisation Culture" by all participants in the design, construction and end user process. Waste minimisation is a key element in life cycle analysis, material selection and specification.

Materials selected must be fit for re-use. The re-use of existing building materials that are fully recycled and/or include recycled material in their production will be maximised where practicable.

Planning

Prior to commencement, all subcontractors will be required to develop and implement any waste minimisation initiatives (eg. Use of a recycled product).

Detail site waste minimisation details shall include as a minimum the following:

- practical measures associated with their works to prevent waste entering on site;
- waste streams resulting from their works which can be recycled and will be actively managed as part of their waste reduction plan;
- alternative products containing recycled material that could be utilised in their works, in place of more traditional materials, which conform and meet with the design specification;

All suppliers of building materials will be encouraged to nominate packaging minimisation and reuse initiatives, which have been implemented, as part of product supply to the project.

Bulk handling and reusable/returnable transport containers will be encouraged.

Construction Phase

Bin System

The waste management system to be adopted on site will be through the use of the separation bins for recyclable materials, and non-recyclable waste materials as practicable for the subcontractor.

Additional bins may be provided where possible to further separate waste. Examples include nominated bins for plasterboard and timber only.

Materials collected for recycling could include:

- amenities waste
- office generated waste
- demolition generated waste
- shoring and excavation generated waste.

All subcontractors performing work on site will place all relevant generated waste in the correct bins on site. The subcontractors will be responsible for the daily cleaning of their respective work areas.

If a particular bin is found to be “contaminated” by waste material from a subcontractor, that particular subcontractor will be responsible for the tipping or sorting of waste in the contaminated bin.

Signs will be located on each bin, indicating type of bin and what waste may be placed in that bin.

Washout Areas

Washout processes and facilities for paint and/or finishing trades are to be minimised and water recycling for these activities are encouraged where possible.

The preferred building contractor’s guidelines for disposal of paint and associated wastes are to be implemented.

Finishing trades washout facilities will not be plumbed to any building services and will be of a stand-alone nature. The maintenance of these facilities should be the subcontractor’s responsibility and should comply with all appropriate environmental legislation and local authority guidelines.

Packaging

All suppliers of building materials will be encouraged to nominate packaging minimisation and reuse initiatives, which have been implemented, as part of product supply to the project.

Bulk handling and reusable transport containers will be encouraged.

Recycled Materials

Suppliers will be encouraged to nominate products that include a recycled component and ability/opportunity for recycling of unused components. Product selection will

include a selection factor associated with recyclability and percent of recycled product, for example office and amenities supplies.

Training

Communication and education material on the waste management system will be part of site induction program and form part of relevant subcontractor's scope of works, risk assessments and safe work method statements.

The responsibility to ensure that waste materials go into nominated bins will be with everyone on site.

6. Concrete Waste Management Plan

Key Management Issues

Concrete waste management will follow the preferred hierarchy of avoidance/reduce, re-use, recycle, treat and dispose as outlined in the National Waste Minimisation and Recycling Strategy. Best Practice should be adopted wherever possible, to achieve waste minimisation by recycling a minimum of 50% of all concrete waste material.

Site Controls

A waste storage and waste handling diagram will be prepared for the site showing details of the designated storage locations of segregated waste, water / washout waste in conjunction with suppliers, subcontractors and waste removal contractors.

Priority will be given to concrete wash-out operations being performed off-site at the concrete supplier's facility.

A designated concrete wash down area will be established on site as a contingency measure (if required). The designated wash down area will be located and designed so that any excess drainage from the area will be contained within a separate drainage collection and storage site system preventing any off-site discharges without necessary approvals and permits. Signage shall be erected advising all concrete trucks pumping units etc. that all wash down must only take place within the designated area.

Responsibility for maintenance of this facility will rest with the preferred building contractor. The subcontractor at concrete pumping/ placing locations will also be expected to appropriately contain any possible spillages.

This shall be controlled through the subcontractors on site safety plan, risk assessments and work method statements.

Training

Communication and education material on the concrete waste procedures will be part of the site induction program that will be incorporated into the subcontractors site safety plan, risk assessments and work method statements.

7. Paint Waste Management Plan

The objective is to eliminate damage to the environment caused by disposal of paint and associated wastes and to implement appropriate controls to eliminate damage to the environment caused by disposal of paint and associated wastes.

Key Management Issues

As part of the works, appropriate environmental safeguards are required to ensure that no uncontrolled discharges paint waste and/ or washout occurs from the site and impacts off-site sensitive receptors including local waterways.

In addition to the above, all disposal documentation from construction processes will be obtained from subcontractors and retained by the preferred building contractor in the site records for verification purposes.

Site Actions

All paints and associated products are to be stored appropriately to ensure the elimination of damage to the site environment or potential sensitive receptors located off-site. Painting subcontractors will be encouraged to supply amounts needed on a daily basis to avoid excessive storage areas, and requested to conduct all washout activities off site at nominated disposal facilities.

If this cannot be achieved, the following measures shall be implemented:

Paint storage areas are to consist of the following components (if stored on site);

- secure / lockable area where paints can be stored without risk of vandalism, theft or damage.
- appropriate washout facilities as described below.
- in the case of enamel paints and thinners, a fire extinguisher is to be stored in the storage area.
- the area is to be well ventilated.

Paint washout facilities are to consist of the following components (if required);

- water and recycled water storage (approx 10 litres).
- enamel paint filter and recycled turpentine storage.
- paint residue and clean out wastes.

- empty drum storage for return to the manufacturer.

Procedure for cleaning acrylic based paints.

- designated painting equipment per type and colour of paint used on the project.
- transfer as much paint as possible from rollers, brushes and trays back into paint containers at the end of the day or job.
- clean paint trays with cloth or paper. do not wash in water. dispose of cloth or paper as clean out waste in the nominated waste bin located in the paint washout area.
- place the roller sleeve into a Covermate canister, and fill with the appropriate amount of water as specified by the manufacturer, and shake. replace the canister in the designated location in the paint storage area.
- place brushes into a storage tin filled with water or recycled water.
- on commencement of the next roller application, remove the roller from the Covermate canister and spin off into the appropriate spinning drum. the roller sleeve is now ready for use.
- on commencement of the next brush application, wash brush in storage tin and spin off in the appropriate spinning drum. the brush is now ready for use.
- repeat above mentioned process on a daily basis or as necessary
- dispose of old brushes and roller sleeves as clean out waste on completion of the project.

Procedure for cleaning enamel paints.

- allow a paint brush and roller per type and colour of paint used on the project
- transfer as much paint as possible from rollers, brushes and trays back into paint containers at the end of the day or job.
- clean paint trays with cloth or paper. do not wash in solvent. dispose of cloth or paper as clean out waste in the nominated waste bin located in the paint washout area.
- place the roller sleeve into a Covermate canister, and fill with the appropriate amount of solvent as specified by the manufacturer, and shake. replace the canister in the designated location in the paint storage area.
- place brushes into a storage tin filled with solvent or recycled solvent.
- on commencement of the next roller application, remove the roller from the Covermate canister and spin off into the appropriate spinning drum. the roller sleeve is now ready for use.
- on commencement of the next brush application, wash brush in storage tin and spin off in the appropriate spinning drum. the brush is now ready for use.
- repeat above mentioned process on a daily basis or as necessary
- dispose of old brushes and roller sleeves as clean out waste on completion of the project.
- flammable liquid signage to be clearly displayed indicating to keep fire away.

Disposal of clean out wastes

- filter all washout liquids through filter fabric, eg stocking or biddum, into the appropriate recycled liquid container. (allow for colour and type).
- dispose of the filter as clean out waste in the nominated waste bin located in the paint washout area.
- when recycled liquid is no longer fit for use and can't be filtered, dispose of as clean out waste in the nominated bin located in the paint washout area.
- when sufficient amount of clean out waste is accumulated, eg 20 litres, seal the drum and return to the manufacturer, or alternately, dispose of at an approved waste disposal facility.

8. Stormwater & Erosion Management Plan

The objective is to :-

- plan and carry out the work to avoid erosion, contamination and sedimentation.
- to control the quality of surface water leaving the construction site such that no unacceptable impact occurs to adjoining waterways or the local stormwater system.
- minimise disturbance to the hydrologic regime of the surrounding landscape and maximise opportunities for stormwater recycling on the site.
- protect groundwater from contamination which could result from construction activities.

Key Management Issues

Construction activity on the project site involves disturbing soils so that infrastructure and foundation activities can be conducted. The potential exists for unconsolidated soils to be eroded by water and wind action.

The works phase have the potential to adversely impact:

- water quality for receiving waterways
- hydrology and flooding
- soil resources
- unconsolidated soils to be eroded by water and wind action.

However the following activities are expected to be the key risk sources during construction:

- bulk excavation and filling
- detailed excavation and disposal.

Potential discoveries which could result from work activities include direct contact with contaminated soil or substances of unknown quality during infrastructure works and detailed excavation.

The following management issues have been identified:

- site contamination through the potential for an overflow of fuel/chemical storage containers and contamination from the equipment and plant repair area into the surrounding natural watercourse*;*
- stormwater runoff coming into contact with potential contaminated soils may potentially flow into the stormwater inlets and thus nearby natural water courses could be affected and consequently reduce water;
- sediment laden water from the site may potentially flow into the stormwater inlets and thus nearby natural water courses could be affected and consequently reduce water;
- stormwater with excessively high or low ph values could run-off from the selected stockpiles stabilisation area;
- site cut off drains eroding and increasing site water sediment loads;
- vehicles leaving the construction site depositing dirt/mud on public roads after rain periods;
- removal of bulk material off site escaping from vehicles and polluting roadways

Site Actions

The prevention of soil erosion by water and wind and by sediment pollution will be key components of the environmental management plan for the site.

A preliminary stormwater, erosion and sedimentation control plan will be formulated in the early works construction management plan. Water quality impacts shall be minimised by incorporation of appropriate erosion and sediment control measures in the design, specification, contract arrangements and quality assurance inspections during construction with the subcontractors.

The stormwater management plan is in accordance with the following principles:

Planning

- divert runoff around disturbed areas
- limit disturbance to the area
- stormwater drainage;
- site access will be limited to the minimum number of entry and exit points required;
- all approved access points shall be marked prior to the commencement of construction within that area;
- dissipate uncontrolled flow by sediment fencing/devices placed across the line of water flow;

- reduce the erosive energy (concentrated flow and velocity) of water using measures such as temporary storage, dissipaters and bulk excavation as holding ponds.
- where practicable maintain stormwater inlets and protect the drainage line from erosion;
- direct runoff from disturbed areas through sediment traps or filters
- loss of soil from stockpiles is minimised using filter barriers and temporary covering

Dispersal Control

- prevent deposition of sediment on the public road network due to truck / equipment movements to and from the site;
- a purpose built wheel wash/shaker facility will be constructed at the exit gates of the site if required;
- main construction roads on site to be all weather and adequately drained;
- collection of on site stormwater into temporary detention basins as part of bulk excavation. (refer to dewatering procedure)

Rehabilitation

During the works, sediment traps constructed as part of the works to all kerb inlets on streets shall be monitored for silt material at the base of the pit and removed upon completion of all surrounding works.

For landscaped areas, maintenance will continue until vegetation is well established.

De-watering

Management practices have been implemented to address all sources of pollution on the site in accordance with current practices outlined by NSW Department of Environment and Climate Change.

All site waters during construction shall be contained on site, by utilising the current topography of the site and the bulk excavation. The collection of stormwater/ground water on the project could be discharged to the stormwater system if it meets certain criteria. This would involve an analysis of the quality of receiving waterways and the collected water within the project boundary. This analysis would need to be carried out by a nominated environmental consultant to prepare and interpret results for verification and acceptability before any pump out work can commence.

The analysis would need to demonstrate that the collected water within the project boundary does not exceed the tested parameters and have no evidence of the following substances detected:

- nutrients, from fertilisers;
- herbicides and pesticides used in landscaping;

- acids from washing;
- building wastes and litter;
- paint and paint wastes; and
- oils, grease and fuel, from equipment operation and maintenance.

An on site treatment with discharge to stormwater system could be implemented providing that there is no chemical contamination (as listed above) and compliance to all legislation and other standard requirements and guidelines.

This site treatment should be contracted to an appropriate contractor and the test results supplied to the preferred building contractor and filed in the site records for verification purposes.

Treatment options could include the use of a mobile specialist plant for this procedure and may prove more cost effective than a procedure of pumping out and/or on site storage of this water. It is envisaged to re-use site contained rain water for dust suppression during the excavation and filling works.

Ongoing water quality monitoring would need to be addressed and the appropriate contractor engaged to do this work would need to provide a safe work method statement detailing the frequency of sampling and on site procedures to ensure discharge does not exceed the criteria.

Training

Communication and education material on the stormwater, erosion and sediment controls will be part of the site induction program, subcontractors scope of work, risk assessments and safe work method statements for all of the works.

Monitoring and Reporting

At least weekly, and after major rainfall, the preferred building contractors or nominated stormwater / sedimentation control subcontractors will inspect (and document) the entire site and provide particular attention to the following:

- visual inspection of sediment control devices.
- ensure drains operate effectively and initiate repair as required.
- remove spilled soil (or other materials).
- construct additional erosion and/or sediment control works as might become necessary to ensure the desired protection is given.
- remove trapped sediment from catch drains, pits, sediment fences, etc.
- ensure rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate;
- maintain erosion and sediment control measures in a functioning condition until all activities are completed and the site is rehabilitated.
- remove temporary soil conservation structures as a last activity in the rehabilitation program.

- monitoring and recording quality of water being discharged from site to ensure that the sediment loads are acceptable.

9. Noise & Vibration Management Plan

The objective is to:-

- minimise the generation of noise and vibration from construction activities occurring on site and its impact on surrounding residents, businesses and workers.
- to comply with the NSW industrial noise policy goals.
- establish and maintain good relations with community and adjacent neighbour sites.

Key Management Issues

Noise generated on the project site during construction will be created by vehicle movements, generators, heavy machinery (eg: concrete pumps) and hand-held machinery and tools. Some additional vehicle noise may be generated by the thoroughfare of vehicles using transport corridors to and from the site.

Construction noise acceptability criteria vary depending on construction period, as outlined in the DECC Construction Noise Management Guidelines. The preferred building contractor shall undertake localised noise monitoring during periods of construction to establish accepted criteria to the above standard.

Construction period

The trades, including structure, façade, finishes, services and external works will operate during the hours nominated in the local authority guidelines. The intent is for all works to be conducted within these nominated operating hours, however due to construction methods and certain safety issues, there will be occasions when works are completed outside normal working hours. If any of these works are proposed then approval will be sought from the relevant authorities.

The key measures to addressing this issue are as follows:

- establish and maintain good relations with community and neighbouring sites;
- manage noise generated during construction activity affecting adjoining properties; and
- manage noise generated during construction affecting overall site operations.

This includes noise and vibration generated from construction machinery such as jackhammers, concrete pumps and from vehicles travelling to and from the site.

Site Actions

No construction works shall commence unless the subcontractor has submitted a risk assessment and work method statement which details the schedule of plant and equipment describing the equipment types to be used, noise levels these will generate, expected time and duration of use, and any measures required to ensure the noise levels are acceptable (such as screen mufflers), or monitored.

Ensure traffic access to and from the site will be via designated entry/exit points.

Personnel safety measures shall be implemented wherever noise exceeds 85dB (A).

Fit and maintain appropriate mufflers on construction equipment as required, and to meet current legislation requirements. Operation of all plant, vehicles and hand held equipment is to be in accordance with DCE Industrial Noise Policy Guidelines.

Vibration

When planning for the works construction activities that may include vibration work, all practical efforts to protect vibration sensitive buildings and the amenity of the occupier's of buildings are to be assessed and monitored.

A fully detailed dilapidation survey shall be conducted. This shall be undertaken initially by an authorised consultant, further survey undertaken by the preferred building contractor and all the sub contractors. These surveys shall be documented, issued to the relevant authorities and a copy kept on site.

Apply a practical and economical combination of vibration control measures to manage vibration impacts such as:

- substitution by an alternative process
- restricting times when work is carried out
- screening or enclosures
- consultation with affected residents and businesses.

During business hours, vibration disturbance from construction operation must be kept to a minimum. The basis for this vibration management strategy will be to limit the times that certain vibration producing activities may be carried out. Generally, this may well be accomplished by performing such work outside of normal hours (when the majority of businesses are either not present or engaged in less vibration sensitive activities).

Training

Communication and education material on the noise and vibration controls and procedures will be part of the site induction program and relevant subcontractor's scope of work, risk assessment and safe work method statements.

Monitoring and Reporting

Subcontractors may be required to submit noise monitoring compliance certificates or monitoring results for all major plant and equipment on the project prior to use on site demonstrating conformance with all standards, codes and regulations.

Routine inspections of plant and equipment should ensure acoustic performance as per compliance.

Subcontractors are to provide details of acoustic performance of plant and equipment used on site.

Any noise issues, queries, concerns or feedback from adjoining properties or from the operational facilities around the site will be recorded, reported and monitored.

The preferred building contractor may require subcontractors to carry out additional noise monitoring if issues regarding construction noise are received.

10. Air Quality Management Plan

The objective is:-

- to implement appropriate controls to suppress dust and other suspended particles in accordance with legislation and risk management requirements.
- to minimise all potential odour issues relating to contaminated soil or groundwater.
- to minimise the generation of dust on the project site.
- to minimise all potential emission issues relating to plant and equipment.

Key Management Issues

Heavy machinery (mobile and fixed) may contribute to emissions (diesel pollution) to the local atmosphere.

Exposed soils and unsealed vehicle access may contribute to dust generation and affect local air quality, with potential impacts upon native fauna and flora and reduce resident amenity.

The generation of dust from the works trades could be a major issue to local activities as well as creating unacceptable working conditions. The key measures to addressing this issue are as follows:

- emissions of dust due to traffic movement. limit areas of disturbance to the minimum necessary;
- ensure water carts are available to dampen approaches, access roads and other susceptible surfaces;

- emissions of dust due to wind erosion of stockpile material and exposed soil. cover or rapidly dampen down areas where practicable to minimise wind erosion ;and install mitigation devices to reduce the transfer of spoil and dust;
- emissions of gases, vapours and odours from exposure and handling of contaminated soils and/or contaminated water, to be mitigated by initial risk assessment and the installation of procedures to control the risk.

Site Actions

The minimisation of air-borne pollution is a key component for this environment management plan for the site.

Construction phase air quality impacts shall be minimised or avoided by incorporation of appropriate air quality control measures.

The installation and application of air quality controls during the construction phase shall be in accordance with the following principles:

Prior to Construction Works

- ensure that all equipment used and all facilities erected on site are designed and operated to control the emission of smoke, dust, fumes and any other air impurity into the atmosphere;
- spray earthworks, roads and other surfaces as necessary with water; or other approved applications.

Construction Phase

All disturbed areas shall be stabilised as soon as practicable to prevent or minimise wind blown dust;

- trafficable areas shall be clearly defined by guide posts or other suitable barriers to prevent unnecessary vehicle movement onto other areas;
- water carts, high pressure water hoses and other approved methods shall be employed as required to dampen work areas and exposed soils, to prevent the emission of excessive dust from the site.
- a wheel washing/shaking facility shall be constructed at the access point to the site if appropriate.
- trucks transporting material from the site shall be covered immediately after loading to prevent wind blown dust emissions and spillages. the covering must be maintained until immediately before unloading the trucks;
- the tailgates of all trucks leaving the premises must be securely fixed prior to loading or immediately after unloading to prevent loss of materials;
- all access roads shall be surfaced in selected materials to minimise generating dust, mud stone, clay stone and shale stone shall not be used;

- subcontractors will maintain all construction equipment to ensure exhaust emissions comply with the relevant regulations issued under the state legislation;
- cleared vegetation, demolition materials and other waste material shall not be burnt on the site and no fires of any kind shall be lit;
- all waste material will be removed from the site in a manner described in the waste management plan including covered stockpiles, secure waste bins and removal / recycling process off site at nominated waste depots.

Training

Communication and education material on the air quality and dust controls and procedures will be part of the site induction program and form part of the relevant subcontractor's scope of work, risk assessments and safe work method statements.

Monitoring and Reporting

The preferred building contractor in conjunction with the subcontractors will monitor background levels of dust deposition and air quality, the effectiveness of dust emission controls on the construction site and the impacts of any nuisance on adjoining properties or other affected properties.

The preferred building contractor may require the subcontractor to carry out additional air monitoring if an issue, query or concern regarding air quality is received.

11. Construction Site & Traffic Management Plan

The objective is:-

- to address construction site and traffic issues arising from the works and to establish general guidelines and standards that address the issues.
- manage site establishment to ensure that issues between construction activities address local operational facilities and community activities in the area.

Key Management Issues

The location of the site, consultation with the appropriate stakeholders and careful traffic management will ensure that conflicts between construction and operational facilities and activities in the area will be avoided.

Construction traffic on the project site is subject to constraints imposed by site conditions and public traffic movements.
The primary issues include:

- general site access and egress
- interaction with existing facilities and operations

- the timing and extent of material deliveries ;
- vehicle movements to perimeter of site;
- traffic congestion and conflicts on external roads;
- pedestrian movements;
- signage and directions; and
- general public

Site Actions

Perimeter Fencing
The perimeter fence to the site shall consist of concrete jersey kerbs topped with mesh panels.

A certified 'B' class hoarding may be erected along the footpath to Main Road, to provide overhead protection for pedestrians during the works. The hoarding shall be constructed in accordance with regulations and codes, including lighting, appropriate directional signage and shall be monitored and maintained on a daily basis to ensure compliance.

Pedestrian Movements
All pedestrian movement diversions shall be in place to ensure that the public are diverted around the site during the works. Appropriate directional signage will be provided to ensure pedestrians are diverted.

Traffic Movements
Traffic movements and vehicles will conform to current Roads Traffic Authority (RTA) requirements.

All vehicles accessing the site during the works will conform to the RTA "Traffic controls at work sites" manual, and Australian Standard 1742 – Traffic control, and only certified traffic controllers shall be used.

All vehicles will use the entry and exit points currently located on Main road and Rowland Terrace. All these points will have relevant signage and certified traffic controllers to manage the vehicle movements.

Loads on vehicles removing spoil or delivering material to be within Roads Traffic Authority legal weight limits, vehicles to travel only on approved roadways, loads secured and covered.

Appropriate directional signage and traffic control will be provided to ensure vehicles enter and leave site with minimal disturbance to other road users.

On site parking will be provided for all plant and equipment.

It is proposed that the site accommodation and amenities for the works shall be provided within the fenced boundary of the site.

Materials Handling
Materials handling will be predominantly by the use of a tower crane, elevated work platforms, cherry pickers, tip trucks, forklifts, and mobile cranes operating generally within the site, newly constructed loading docks and construction zones. The removal of materials will be by load covered trucks and waste bins.

Perimeter scaffold / screens and personnel access shall be provided within the boundary of the construction site as per current legislation, codes and requirements for various stages of the construction works.

A detailed materials handling risk assessment and safe work method statement shall be documented and submitted by the subcontractors for approval by the preferred building contractor prior to any works. All plant and equipment used for materials handling shall comply with all sections of the CMP and legislation, regulations and codes.

Training

All site personnel will be inducted into the construction site and traffic management systems that will be operating for their sequence of the works during the site induction program.

Monitoring and Reporting

The preferred building contractor will report when required on the implementation of the aforementioned plan.

The plan will be periodically updated to include but not be limited to: -

- changes to access points in use;
- changes and alterations to site accommodation;
- variations to traffic management plans;
- identification of any safety / operational incidents and the actions taken to address monitoring issues / queries / concerns and corrective actions.

Appendix F

Deposited Plans

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 2nd day of April, 1980

CONVERSION TABLE ADDED IN DEPARTMENT OF LANDS

DP 406181

FEET	INCHES	METRES
1	6	0.457
1	6 1/4	0.464
2	11 3/4	0.908
10	-	3.048
35	-	10.668
50	-	15.240
52	1 1/4	15.881
66	-	20.117
66	3 1/4	20.199
196	2 3/4	59.811
204	6 1/4	62.338
212	9 1/2	64.859
220	-	67.056
221	0 3/4	67.380
225	-	68.580
228	-	69.494
229	4 1/4	69.907
238	-	72.542
241	-	73.457
260	-	79.248
350	-	106.680

AC	RD	P	SQ M
-	-	2 1/4	56.9
-	-	2 3/4	69.6
-	-	4 1/2	113.8
-	-	39 3/4	1005
-	1	1 3/4	1056
-	1	5	1138

AC	RD	P	HA
5	-	3 1/2	2.032

M.P.S (R.P.)
G957169
F.P. 406181.

Plan Form No C (for transfers, leases, etc.)

Municipality of Shire of Wyong

PLAN

of subdivision of part of Portion 73 at Toukley

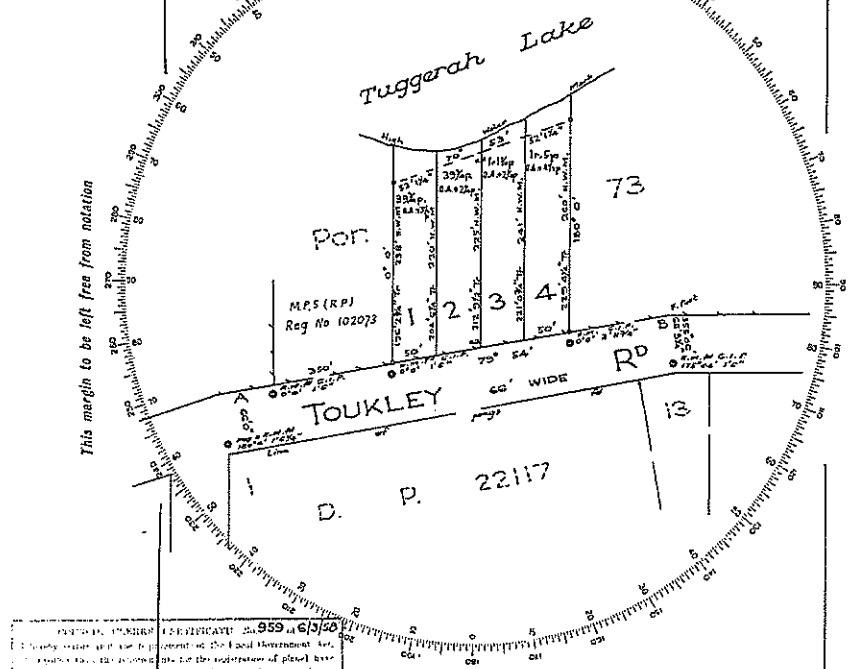
Parish of Wallarah County of Northumberland

Scale: 100 feet to an Inch.

M P S (R P)
106181

This margin to be left free from notation

Signatures of parties to be made in this margin.



Approved by the Council and Certified in accordance with the Provisions of Section 327 of the Local Government Act, 1919.

Subdivision No. 959

Council Clerk. Golding

Datum line of Azimuth. A - B.

I, Godfrey John Hunter

of Gosford

a surveyor registered under the Surveyors Act, 1929-1940, hereby certify that the survey represented in this plan is accurate and has been made * (4) by me (5) ~~under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on † 27-2-58

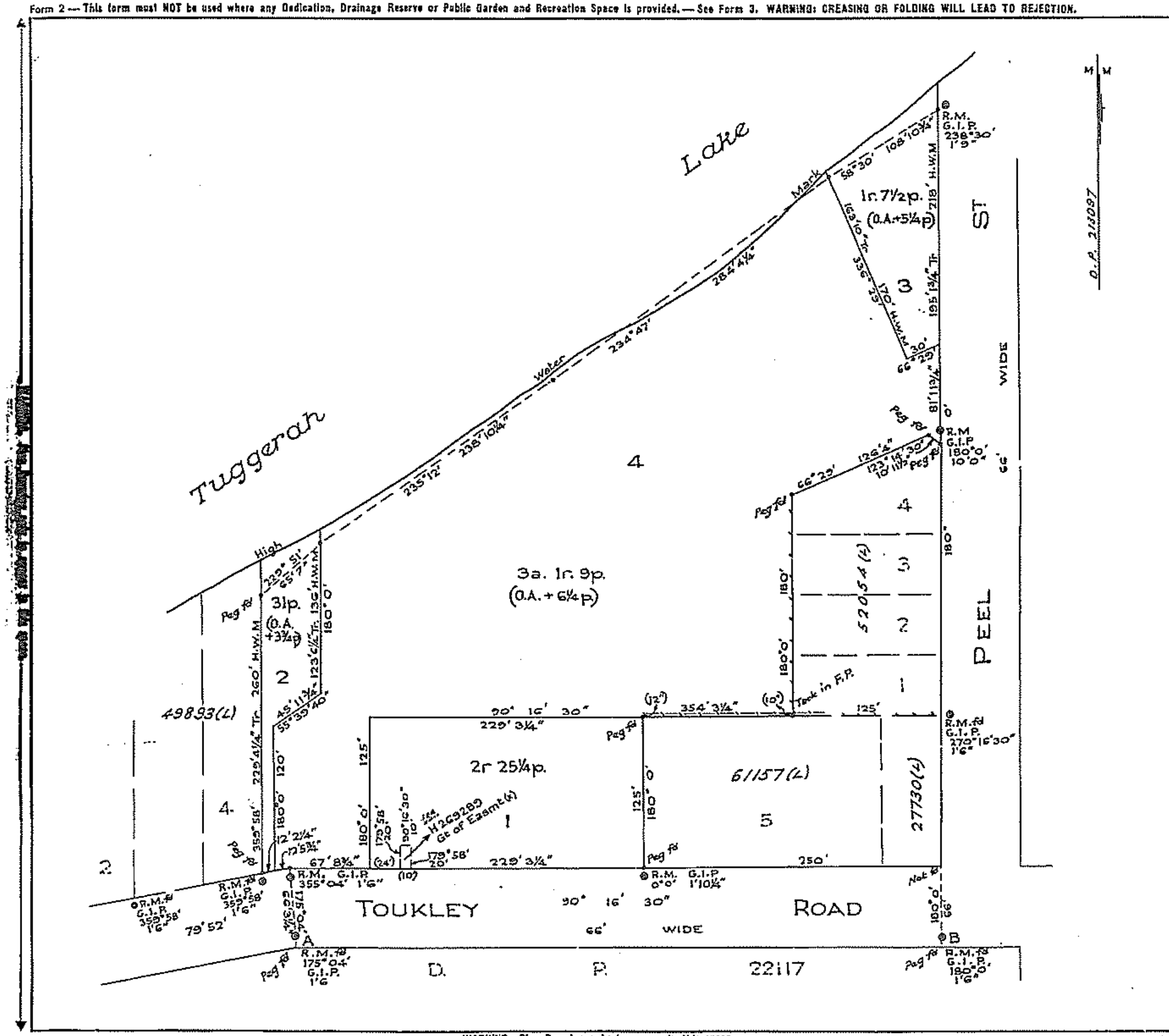
(Signature) G.J. Hunter

Surveyor registered under the Surveyors Act, 1929-40.

*Strike out either (4) or (5). †Insert date of Survey.

This is the plan marked " " referred to in ..... Dated .....

Form 2 — This form must NOT be used where any Dedication, Drainage Reserve or Public Garden and Recreation Space is provided. — See Form 3. WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION.



WARNING. Plan Drawing only to appear in this space.

File 7356

DP213097

OFFICE USE ONLY.

Registered: 4/6/62 KTB

C.A.: 1461 of 9.5.62

Title System: Torrens

Purpose: Subdivision

Ref. Map: ph. #

Last Plan: -

PLAN OF SUBDIVISION OF PART OF PORTION 73

Scale: 60 feet to an inch

Mun./Shire City: Wyong

Locality: Toukley

Parish: Wallarah

County: Northumberland

I, Colin Ray Murray of Bannister & Hunter of Gosford a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made * (1) by me ~~(2) under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on † 7.3.62.

Signature: C. R. Murray

Surveyor registered under Surveyors Act, 1929, as amended. Datum line of Azimuth A–B

Statements of Proposed Easements.

Approved by Council. I hereby certify that the requirements of the Local Government Act, 1919 (other than the requirements for registration of plans) have been complied with by the applicant in relation to the proposed subdivision set out herein.

Subdivision No. 1461 Date 9/5/62

Council Clerk: [signature]

* Strike out either (1) or (2). † Insert date of survey.

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 213097

FEET	INCHES	METRES
-	10	0.254
1	-	0.305
1	3 3/8	0.391
1	6	0.457
1	9	0.533
1	10 1/4	0.565
10	-	3.048
10	11 1/2	3.340
12	2 1/4	3.715
12	5 3/4	3.804
20	-	6.096
22	11 5/8	7.001
24	-	7.315
28	5 3/8	8.671
30	-	9.144
45	11 3/4	14.014
65	7	19.990
66	-	20.117
66	3 1/4	20.199
67	8 3/4	20.644
81	11 3/4	24.987
108	10 3/4	33.191
120	-	36.576
123	6 1/4	37.649
125	-	38.100
126	4	38.506
136	-	41.453
163	10	49.936
170	-	51.816
180	-	54.864
195	1 3/4	59.480
218	-	66.446
220	-	67.056
229	3 1/4	69.882
229	4 1/4	69.907
238	10 1/4	72.803
250	-	76.200
260	-	79.248
284	4 1/4	86.671
354	3 1/4	107.982

AC	RD	P	SQ M
-	-	3 3/4	94.8
-	-	5 1/4	132.8
-	-	6 1/4	158.1
-	-	31	784.1
-	1	7 1/2	1201
-	2	25 1/4	2662

AC	RD	P	HA
3	1	9	1.338

AMENDMENTS OR ADDITIONS NOTED ON PLAN IN REGISTRAR GENERAL'S OFFICE.

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 12th day of April, 1977