



**KANE**

# CONSTRUCTION MANAGEMENT PLAN

CHILDREN'S HOSPITAL WESTMEAD STAGE 2 – MULTI STOREY CAR PARK (MSCP)

8/07/2022

# DOCUMENT HISTORY

Content Author	Marcus Owen
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## TABLE OF CONTENTS

1	INTRODUCTION .....	5
1.1	Review Milestones .....	5
1.2	Project Overview .....	6
1.3	Site Description .....	6
1.4	Management Plans .....	6
1.5	Project key Risks and Mitigations .....	6
2	PROJECT ORGANISATION .....	10
2.1	Site Management Team .....	10
2.2	Roles and Responsibilities .....	10
3	PROCUREMENT AND SUBCONTRACTOR MANAGEMENT .....	11
4	SITE MANAGEMENT .....	11
4.1	Site Inductions .....	11
4.2	Site Records .....	12
4.3	High Level Program .....	12
4.4	Construction Programs .....	12
4.5	Subcontractors Program .....	13
4.6	Subcontractors Time Management .....	13
4.7	Site Cleanliness and Housekeeping .....	14
5	SITE ESTABLISHMENT .....	14
5.1	Site Compound .....	15
5.2	Fencing .....	16
5.3	Vertical Lifting .....	17
6	ENVIRONMENTAL MANAGEMENT .....	18
6.1	Materials Handling and Traffic management .....	18
6.2	Craneage & General Materials Handling .....	18
6.3	General Deliveries .....	19
6.4	Site Delivery Management .....	19
6.5	Working Hours .....	20
6.6	Traffic & Pedestrian Management .....	20
7	CONSTRUCTION METHODOLOGY .....	21
7.1	Introduction .....	21
7.2	Overview .....	21
7.3	Planned Approach & Key Issues .....	21
7.3.1	Public Safety, Access & Amenity .....	22
7.3.2	Commissioning & Ongoing Maintenance Plan .....	22
7.3.3	Environmental performance .....	22

7.4	<i>Site Induction / Safety &amp; Security Provisions</i> .....	22
7.5	<i>Existing Services</i> .....	23
7.6	<i>Pre Construction</i> .....	24
7.7	<i>Staging of Works</i> .....	24
7.8	<i>Concrete</i> .....	29
7.11	<i>Structural Steel &amp; Roofing Materials (PV solar panels)</i> .....	30
7.12	<i>Façade</i> .....	31
7.13	<i>Building Services</i> .....	31
7.14	<i>Fit out</i> .....	32
7.15	<i>External Works</i> .....	32
7.17	<i>Fire Management</i> .....	32
7.18	<i>Air Pollution</i> .....	32
7.19	<i>Partnership</i> .....	33
8	OPERATION CONTINUITY .....	34
8.1	<i>Operation Continuity Strategy</i> .....	34
8.2	<i>Approvals Process</i> .....	35
9	PROGRAM .....	35
10	PROCUREMENT .....	36
11	SUSTAINABILITY .....	37
11.1	<i>Waste Disposal</i> .....	37
11.2	<i>Environmental Controls</i> .....	38
11.3	<i>Stormwater Management and Sediment Control</i> .....	38

# 1 INTRODUCTION

The Construction Management Plan is a sub plan of Project Management Plan.

The Construction Management Plan will address the site establishment, construction methodology, materials handling, traffic management and staging of the Children's Hospital Westmead Stage 2 - Multi-Storey Carpark. This will include the demolition and construction, which must be undertaken with minimal impact to the active neighbourhoods and stakeholders, whilst ensuring their safety at all times. Focus will be made on traffic and pedestrian management and stakeholder consultation and management throughout the process. This will be in particular for any service crossovers, isolations and commissioning which may impact on the amenities and functions of some SCHN Facilities. Works will be programmed in such a way as to minimise disruptions to the wider community, with particular attention to Ronald McDonald House.

## 1.1 Review Milestones

The Construction Management Plan will be reviewed by the Project Manager when the following milestones are reached or on a quarterly basis.

	MILESTONE	DATE
	Project Start – Early Works Interface	12/07/22
	In Ground Works Complete	TBC
	All in-ground services complete	TBC
	Tower Crane Erection	TBC
	Structure Complete	TBC
	Fit out Completion	TBC
	Project Completion	TBC
	Project Review, Lessons Learnt, Stakeholder Feedback, Complete Report, Share to Database, Archive	TBC

Table 1: CMP Revision Dates



## 1.2 Project Overview

The new Children's Hospital Westmead Stage 2 - Multi-Storey Carpark is a strategic blueprint to increase parking capacity across the Children's Hospital Network. The project will deliver value and address the high demand for parking facilities among all CHW user groups including staff, patients, visitors and service providers. The proposed facility will be a great asset in serving the network and wider community.

The new eight level carpark is purpose built with future proofing provisions, comprising the following:

- 997 parking spaces.
- 17 EV charging locations, with a further 33 EV provided for.
- Rooftop PV and façade integrated BIPV with 661kW solar capacity.
- Perforated Faced panels with integrated artwork, allowing 50% free-air flow
- Interactive landscaping zones including playground area complete with soft-fall and large play equipment.

## 1.3 Site Description

The site is located on the corner of Redbank Road and Labyrinth Way, Northmead NSW, 2152.

## 1.4 Management Plans

The successful delivery of the Children's Hospital Westmead Stage 2 - Multi-Storey Carpark will depend on detailed pre-planning involving all stakeholders, and the provision of clear and concise communication for each area of interface.

In order to manage this process, the following series of Kane Management Plans, will be prepared and/or modified for the specific requirements of this project.

1. Project Management Plan
2. Construction Management Plan
3. Work Health, Safety and Environment Management
4. Construction Environmental Management Plan (including Sub Plans)
5. Design Management Plan
6. BIM Management Plan
7. Quality Management Plan
8. Social Procurement Workforce Development Plan
9. Workplace Relations Management Plan
10. Commissioning and Handover Plan

## 1.5 Project key Risks and Mitigations

A key aspect of Kane's approach to delivering community projects is a collaborative team with relevant experience.

Kane has employed this strategy with great success in the past on projects across various sectors, including private school projects (education), health infrastructure projects and government contracts in the development of public spaces and community facilities.

Our proposed Project Methodology has been developed to provide a detailed and open insight into how Kane proposes to execute the works and operate the site during construction.

Upon project commencement Kane will hold a detailed project Risk and Opportunity workshop inclusive of the full consultant team and key project stakeholders. More details of this workshop can be found in the Design Management Plan.

Throughout the Tender phase our Pre-Construction team has held several round table team reviews of the documentation and conducted preliminary risk identification workshops where the following key risks and mitigation strategies were identified:

KEY RISKS	KANE'S MITIGATION STRATEGY
<b>Constructing within live sites whilst limiting disruption to surrounding activities and operations and maintaining public safety.</b>	<p>Kane's experience in schools, hospitals, museums and other highly sensitive occupied facilities demonstrates our rigorous understanding of the required processes and staff attention to detail in order to minimise impacts of surrounding live operations.</p> <p>We have a vigilant safety culture and strict implementation of practical effective processes. We have a consistent high-quality presentation across various circumstances and strict implementation including inspection and auditing, whilst always implementing 'Best Practice' methods of work.</p> <p>Kane will prepare and submit a Noise, Dust and Community Management plan upon commencement of the project for issue to all key stakeholders.</p>
<b>Disruption to Existing Facility and Amenities</b>	<p>Kane understand the importance in maintaining clear pedestrian and vehicular access for hospital staff, patients, and visitors, Ronald McDonald House patients and staff, and the wider community</p> <p>Kane's methodology and program have been derived limiting all construction activities to the hours between 7am and 6pm Monday - Friday to eliminate any disruption or limiting disruptions to all stakeholder groups.</p>
<b>Emergency Vehicle Access</b>	<p>Kane understand that Emergency Vehicle access will need to be maintained along the southern boundary of the site in the event of fire or emergency. Kane's main vehicle access point to site is accessed via the existing gate adjacent this emergency vehicle entry point.</p> <p>Kane have consulted with all project stakeholder groups identified under the contract conditions, and will continue to consult with relevant councils, the DPIE, Health Infrastructure (HI), the Sydney Children's Hospital Network (SCHN), the Fire Brigade as required and implement an emergency plan for the project which will be issued to all site staff, subcontractors and Parramatta Council representatives to ensure protocol are adhered to should the emergency services require access at any stage.</p> <p>During work hours the Construction Traffic Management Plan will</p>

KEY RISKS	KANE'S MITIGATION STRATEGY
	<p>maintain unimpeded access for emergency services.</p> <p>During non-work hours the emergency vehicular pathway will remain clear of equipment and materials to allow unimpeded vehicular access. Kane will conduct daily perimeter inspections to ensure the boundary hoarding remains in peak condition to eliminate the risk of part of the hoarding becoming an obstruction during non-work hours.</p>
<b>Site &amp; Compound Security</b>	<p>Kane understand that the adjacent facilities are utilised by general public daily and have developed the site plan to ensure traffic and pedestrian management is maintained at all times throughout the works.</p> <p>Kane will install a semi permanent chain wire mesh fence around both the north and east site boundaries, with A-class hoarding to the south and west site boundaries, providing a secure perimeter and minimising the capability of public intrusion and injury. All materials will be stored wholly within the compound.</p>
<b>Quality</b>	<p>Kane understand the importance of the new CHW Multi-Storey Carpark being of the highest quality to ensure the level of finish and detailing is what would be expected from NSW Health Infrastructure and PwC.</p> <p>In order to meet this expectation, Kane will prepare a comprehensive quality plan. Our Quality Management Plan is AS/NZS ISO 9001:2008 accredited and demonstrates Kane Construction's commitment to quality outcomes and understanding and acceptance of the principles of Quality Assurance.</p> <p>The Quality plan will be managed by our Project manager. Our subcontractors will be required to provide QA plans for their scopes of works which will be monitored through the course of the project.</p> <p>All works will be subject to quality reviews and subject to individual Inspection Test Plans (ITP's) and Inspection Test Records (ITR's), which will be retained in the site office and made available for inspection and review.</p>
<b>Environmental Controls</b>	<p>Given the location of the project within a NSW government health facility, the environment protection to the public will be given priority throughout all facets of construction. Particular focus will be the fence line and any erosion or sediment protection required to the adjacent field.</p> <p>Kane will prepare a comprehensive Environmental Management Plan prior to commencement which will be updated throughout the course of the project.</p> <p>The endorsed plan will be issued to all subcontractors as part their agreements, with hard copies remaining on site for review at all times.</p> <p>In addition, all existing environmental controls and monitoring will remain in place.</p>
<b>Materials Handling &amp; Storage limitations</b>	<p>The project materials handling strategy has been developed based on ensuring the project works provide minimal to no disruption to public.</p>

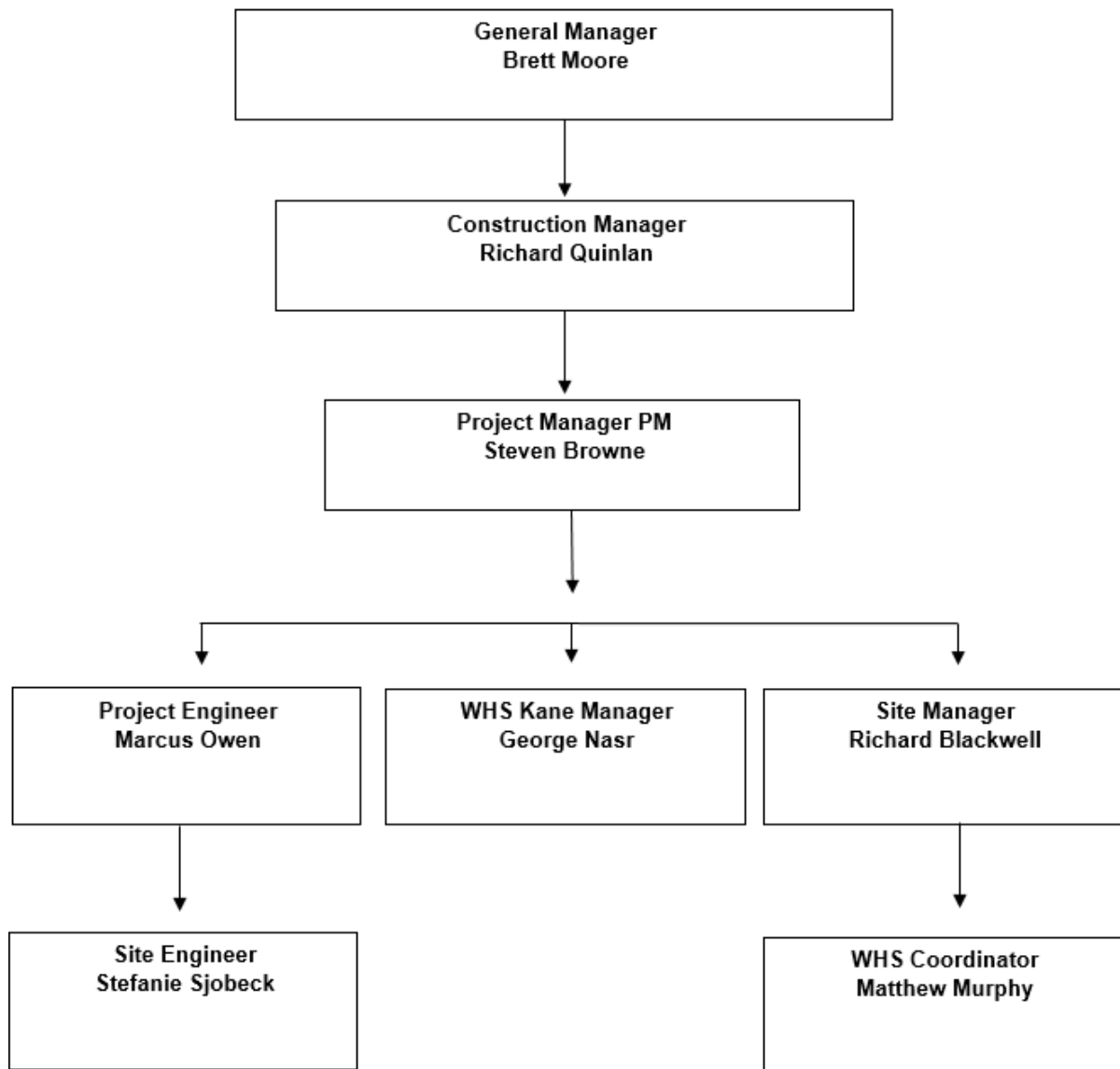


KEY RISKS	KANE'S MITIGATION STRATEGY
	All small deliveries will be made via the pedestrian gate into Kane site compound. All larger deliveries will be dropped at the vehicle entry zones within each respective site compound.
<b>Program</b>	<p>We have tested and challenged our program and note the concurrent faces operating as presented are realistic when viewed against the current market resources, selected materials and site constraints.</p> <p>The program will be managed by the site team and statused weekly, with short term programs developed fortnightly to ensure target dates are met.</p>
<b>Structure</b>	<p>Kane will test the design to achieve best practice in:</p> <ul style="list-style-type: none"> <li>• Development of structural arrangement (pour breaks), if required;</li> <li>• Architectural arrangement to ensure efficiencies in structural design/buildability; and</li> <li>• Efficiencies in foundation construction</li> <li>• General efficiencies in structural elements.</li> <li>• Efficiencies based on construction methodology.</li> </ul>
<b>Quality Finishes</b>	Kane will test the design to achieve the best practice in developing efficiencies in the design to allow minimal on site coordination for finishes and allow for off-site production and manufacturing. Key areas of focus will be feature stairs, polished concrete, off form concrete and exposed painted steel.
<b>Accessibility Compliance</b>	<p>Kane's project teams are well aware of the importance of accessibility compliance in accordance with the NCC and AS1428.1.</p> <p>Particular review and care will be taken to ensure all gradients, tactile elements, handrails, visual indicators and floor slip resistance ratings are compliant.</p>
<b>PCA / Occupation Certificate</b>	<p>The progressive involvement of the PCA is critical for any project. Kane's methodology would ensure that the PCA is involved at key stages to ensure:</p> <ul style="list-style-type: none"> <li>• Design documentation compliance,</li> <li>• As built works conformance, and</li> <li>• Understanding of Certificates and Inspections required</li> </ul> <p>By acknowledging this we can ensure a successful handover and occupation certificate.</p>

The risks identified above will be incorporated into the Kane overall project risk schedule which will be stored as the Kane schedule R document on the Hammertech platform. These risks will be mitigated through the design where possible. Any residual risks will be maintained on the project risk register and addressed throughout the construction phase of the project.

## 2 PROJECT ORGANISATION

### 2.1 Site Management Team



### 2.2 Roles and Responsibilities

Kane will develop project specific Roles and Responsibilities for the project. These will be based on the Kane Standard Roles and Responsibilities documents. Refer to Annexure A for copies of Kane's standard documents.

### 3 PROCUREMENT AND SUBCONTRACTOR MANAGEMENT

Kane will develop a detailed Scope Demarcation sheet that is linked to the BOQ. This is done as part of our tender process and will be reviewed by the project team upon successful award of the project. This process is undertaken to minimise any missed scope items. The next step will be to develop a procurement program as part of our overall delivery program. This will identify any long lead time items and design requirements to enable the sub contractor packages to be issued.

Kane will use a detailed tracking tool that will highlight the following:

- Kane person responsible for the package
- Trade package
- Issue date
- Close Date
- Evaluation Period
- Tender Recommendation Date
- Approval Date
- Subcontract Issue Date
- Subcontract Execution Date

These Milestone dates will be tracked by the Project Manager and reported on in Monthly reviews with senior management.

A similar process will be implemented to assist in the finalisation of subcontractors and the collation of required documents for project completion.

### 4 SITE MANAGEMENT

#### 4.1 Site Inductions

Kane will induct all workers and subcontractors prior to their commencing on site. The induction process will discuss site access, site conditions and specific safety requirements. Specific site rules will be developed and incorporate the requirements unique to the CHW Multi-Storey Carpark including:

- Site Access – Pedestrian and Vehicular specific to deliveries;
- Personal behaviour;
  - In relation to the respect of the site safety rules and safety equipment;
  - Respecting the neighbouring Community;
  - Respecting Council assets;
- Personal Protective Equipment;
- Detailed methodologies designed to reduce impact (noise, vibration & dust) on the neighbouring community. We will ensure that the Contractor Induction is completed by all operatives prior to them undertaking any works on the project. All employees intending to work on the site must also provide evidence of completing the construction Industry Induction (white card or interstate equivalent).
- All employers must induct their employees in to their Safety Plan and Safe Work Method Statements prior to commencing on site. SWMS must be completed for all high risk activities.
- All visitors to site must sign into Kane's online safety management system (Hammertech) The sign in location will be located at the main gate. All visitors must be accompanied by an inducted person at all times.

## 4.2 Site Records

The Site Management Team will maintain records of the progress in accordance with corporate policy and procedural requirements and applicable contractual requirements.

Records to be maintained for the Project will cover the following management components:

- Project start-up and mobilisation
- Approvals
- Project control
- Procurement
- Site management
- Program management
- Contract administration
- Cost reporting
- Client relations
- Quality control
- Environmental management and sustainability
- Work health and safety
- Employee and industrial relations
- Community relations
- Training and development
- Completion management
- Communications

A site diary will be maintained by the Site Management Team to record general construction progress. Diary entries will include such items as;

- Weather conditions
- Temperature range, rainfall and general weather conditions
- Labour/subcontractors
- List of subcontractors at the site
- Number of personnel on site
- Job progress/instructions/project equipment
- Industrial action/delays
- WH&S issues
- Environment and community issues
- Quality issues
- Instructions, orders and requests by any authorities
- Meetings and significant decisions
- Significant services connection and disconnection
- Equipment tests and commissioning
- Partial completions and occupancies
- Unusual events
- Emergency procedures and orders
- Visitors

## 4.3 High Level Program

A high level program will be developed as part of the Kane's tender submission. This will be the basis of all sub programs as highlighted below.

## 4.4 Construction Programs

Kane will utilise the following programming controls when engaging and managing subcontractors to ensure they have capability and responsibility to meet the program:

1. **Overall Delivery Schedule** - provided by Kane to the subcontractor, as updated or amended;
2. **Medium Range Schedule** - provided by Kane to all subcontractors and suppliers;
3. **Short Range Schedule** - provided by Kane, as updated or amended; and
4. **Subcontractor's Program** - the program provided by the Subcontractor and approved by Kane, as revised or updated by the Subcontractor.

## 4.5 Subcontractors Program

Within an agreed time frame of being notified of the award of the Subcontract, the Subcontractor must submit to Kane for approval either a programme or the information required by Kane which must:

- Be consistent with the dates shown on the Overall Delivery Schedule and Medium Range Schedule for commencement and completion of:
  - The Works;
  - The Stages of the Works (if any); and
  - The activities and items required for completion of the Works, making due allowance for delays since the issue of the Overall Delivery Schedule.
- Show all on and off-Site activities necessary to permit weekly comparisons between the Works as programmed and the actual progress of the Works;
- Show the dates or periods for:
  - Supply of drawings and information from Kane;
  - Approvals from Authorities and Kane;
  - Provision of samples, opening up for inspection work covered up and testing of materials or executed work;
  - Provision and approval of shop drawings and as-constructed drawings allowing for the times required for Kane's review and approval;
  - Provision of all maintenance and operations manuals including drafts thereof;
  - Supply of essential materials;
  - Sequences and labour requirements for commissioning;
  - Provision and approval of safety procedures;
  - Provision of quality procedures; and
- Include labour forecasts for each programmed activity and expected labour productivity rates;
- Indicate the critical path of the Works

## 4.6 Subcontractors Time Management

The process to manage the subcontractors to ensure they meet the overall project timeline and provide adequate resources to deliver the works will involve a series of programmes as follows:

- **Overall delivery programme:** with a Work Breakdown Structure that covers the scope of work, key interfaces between workgroup and disciplines and major long lead time activities;
- **Medium range programme:** to communicate the execution of work packages at the deliverable level of 3-6 months and updated on a monthly or bi-monthly basis to provide sufficient level of detail to plan and coordinate multi-discipline/ craft activities; and
- **Short Range programme:** to communicate the task requirements for completing detailed on site activities. This will generally be a 3 week look ahead or 4 week rolling schedule to show the works planned for the upcoming 3 weeks, as well as the work accomplished the previous week.

## 4.7 Site Cleanliness and Housekeeping

Weekly site safety walks will be conducted by the site safety committee. Any items that require rectification will be done immediately or as soon as practicable depending on the nature of the item.

Dedicated labourers will undertake regular housekeeping to ensure that the site is kept in a clean state. This also includes the roadways outside site at entry and exit points which will be regularly inspected and cleaned.

## 5 SITE ESTABLISHMENT

Kane recognise the importance of a positive start to the project and will carry out site establishment and site mobilisation activities in a logical and ordered manner. Kane's site establishment for the works aims to:

- Provide clear presence (to those entering the site) and suitable during all phases of the project.
- Utilise existing infrastructure, whilst not impacting the civil/construction process.
- Minimise the impact on the works as a whole and the need to relocate during the works.
- Maximise the efficiency of construction, via a selected location containing all facilities, access to site entry and access to the work faces.

All site establishment activities will be conducted in accordance with:

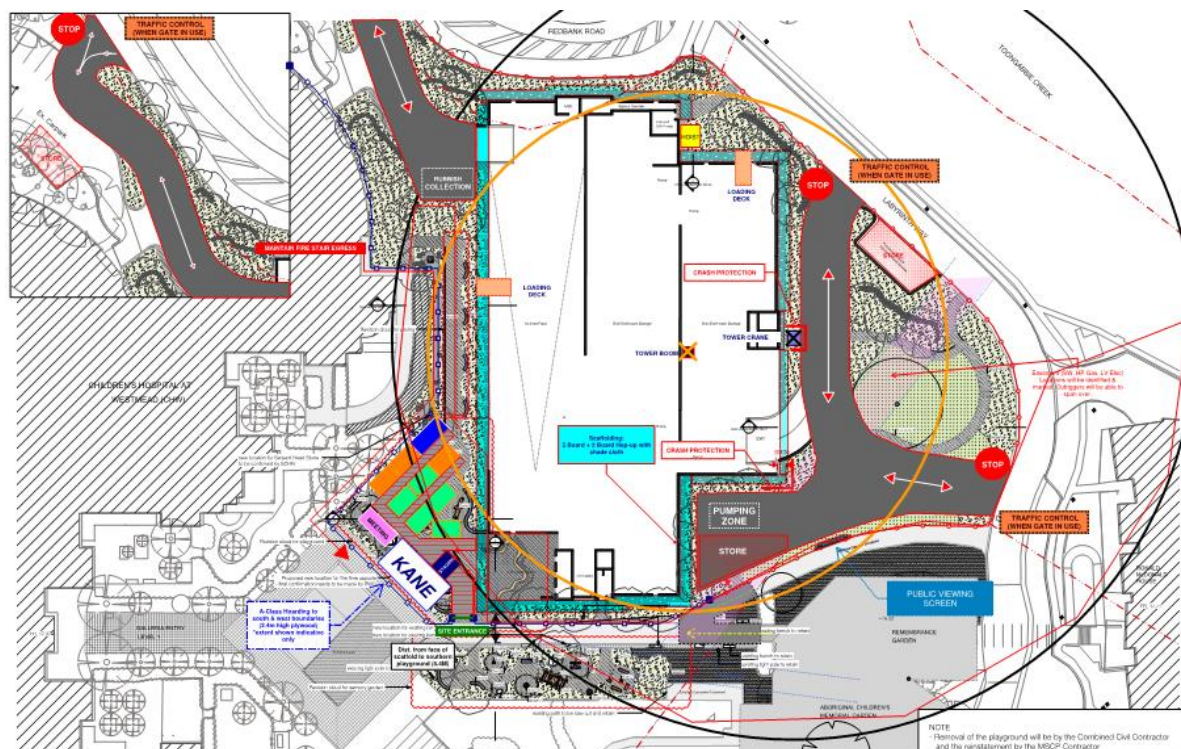
- Consultation (with PwC, Health Infrastructure, and the Sydney Children's Hospital Network)
- The requirements of the Contract
- Stakeholder requirements
- Program timeframes, and
- Relevant Codes of Practice

Kane has elected to primarily utilise the tower crane to vertically and horizontally transport materials. With secondary resources comprising of a forklift and electric pallet trollies when and where required inside the building structure.

This materials handling methodology has influenced the overall site establishment approach which has generally been derived from the following;

- Overall site size & available loading and unloading locations
- Overall footprint & height of the new building;
- Construction materials required for the project;
- Construction target cycle times; and
- Construction sequence.





## 5.1 Site Compound

The temporary site compound will be located to the south west of the main MSCP building footprint away from all roads and heavy vehicle traffic..

The entire site compound will be bounded with a combination of 2400 high A-Class plywood hoarding and semi-permanent wire mesh fence to a minimum 1800.

A double gate, 2200 wide, will be installed at the site entrance, and remain open during site hours of operation. This gate has been designed to allow full visibility from outside the site to within the small area of unsecured space between the site entrance and the site office/staging area. This internal area will also be secured by 1800 high fencing on both sides so that anyone that wanders in to this zone cannot get lost and will always be visible from outside the site.

The staging area provides a barrier for visitors and/or curious members of the public from finding their way on to the construction site. Anyone wanting to enter site must come via the site office, where they will be inducted, escorted, or redirected as determined.

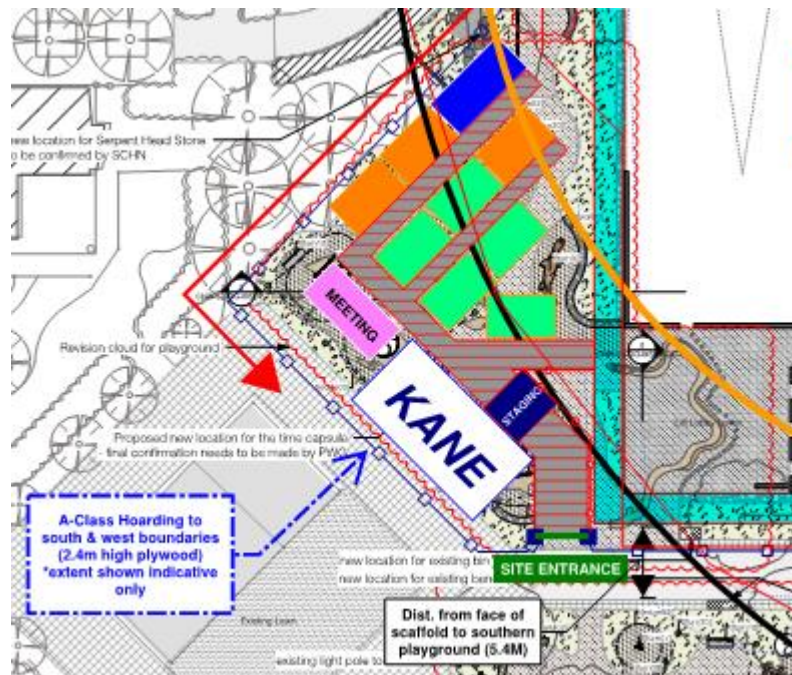
Pre-induction construction workers will be directed to the site office. Once inducted, workers will be provided a proximity swipe card to access the site via the secure staging unit.

Further to this Kane will implement and manage interface between our site and adjacent facilities, with specific awareness to the “bubble” requirements for COVID management.

The temporary site compound will accommodate the following:

- 1 off 2.4 x 2.4 Kane Staging/Secure Entrance Unit
- 1 off 6 x 12 Kane Combined Site Office and Lunchroom

- 1 off 6 x 7 Kane Meeting Room.
- 1 off 6 x 7 Kane Ablution Block (unisex)
- 5 off 6 x 3 Lunch Rooms
- 3 off 6 x 3 Change Rooms
- 1 x Kane Container



Two gates will be installed for construction vehicle access and deliveries on Labyrinth Way. An additional gate will be installed in the far north/west corner of the site for rubbish removal. All gates will be managed in accordance with the CTMP, and will all be locked and secured when not in operation.

## 5.2 Fencing

Site barrier systems will combine A-Class hoarding to a minimum of 2400 high, and chain wire mesh semi-permanent fencing to a minimum 1800 high.

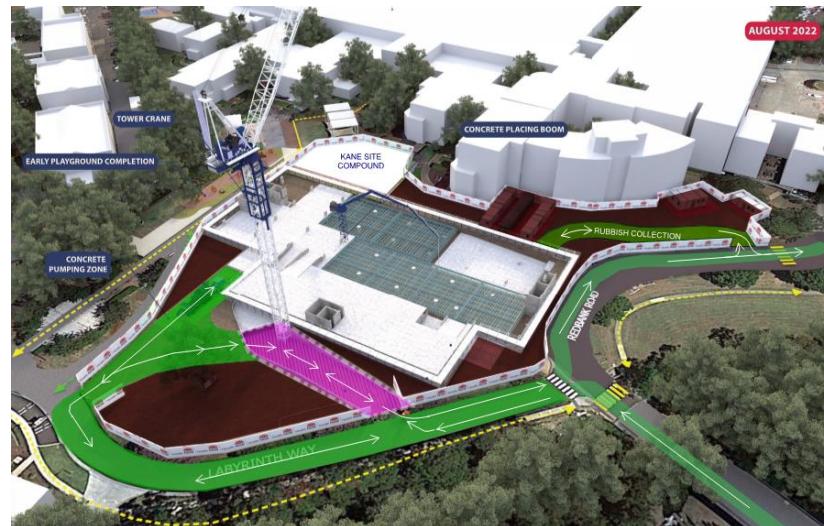
All temporary fencing will be designed and certified, access gates will be provided for both pedestrians and construction vehicles with prominently displayed directional signage and contact information of key site management personnel.

Kane's site management team will be available for contact 24 hours in the event of a security breach or emergency. Details to be provided.



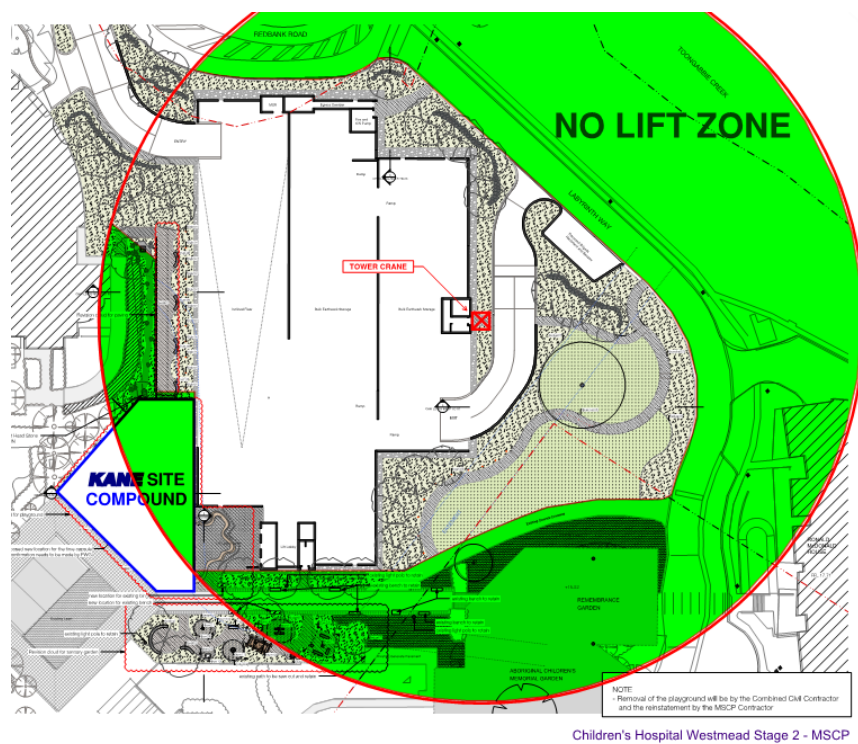
### 5.3 Vertical Lifting

Vertical lifting throughout the course of the construction phase works will be completed utilising a Tower Crane positioned adjacent the Stair 2.



Kane have chosen the location to be close to the delivery/loading zone while still maintain reach and lifting capacity at the north and south lift and stair cores. All site materials handling, rubbish collection and lay down area are also within the crane reach.

As part of Kane's ongoing commitment to WHS best practice, we are fitting the tower crane with lift limiting software. This software effectively prevents the crane from operating over selected zones. Shown below in green.



Lifts to be completed will be for structural steel, post-tension materials, formwork materials, steel reinforcements, and general construction refuse. Kane's intention is to utilise the crane within approved DA hours, while endeavouring to maintain a 5-day week working week, some lifting may occur during approved DA hours on a Saturday (subject to Client approval).

## 6 ENVIRONMENTAL MANAGEMENT

Noisy tasks will be identified during our detailed planning stage. Steps will be taken to minimise noise and Kane will liaise regularly with the client at our Client Coordination Meetings to identify mutually acceptable times to carry out noisy tasks, noting the proximity of the existing Children's Hospital and Ronald McDonald House.

Any airborne dust and dirt will be controlled and monitoring points are in operation.

Shade cloth will be installed to all perimeter chain wire fencing.

Storage zones will be capped and sealed.

Adjacent roads will be kept clean at all times.

### 6.1 Materials Handling and Traffic management

Kane have engaged a Traffic consultant to develop a project specific Construction Traffic Management Plan (CTMP).

The CTMP outlines Kane's proposed intentions and incorporates Kane's management strategy to be utilised throughout the course of construction. This is considered a live document and may get updated from time to time throughout different phases of construction.

Refer Construction Environmental Management Plan sub plan: *Construction Traffic Management Plan*

### 6.2 Cranage & General Materials Handling

Refer to image on the next page to be read in conjunction with the below table.

Activity	Equipment	Comment
Lifting of Steel Reinforcements, Formwork Materials, Post-Tension Materials, Structural Steel, Roof Materials, Façade panels, Plant	Tower Crane	Most economical and efficient method of material management in the vertical plane for each stage based on differing site restrictions
Roofing & Façade Materials Installation	Tower Crane	Façade panels and PV Panels will be lifted via the tower crane onto the structure where required.  Installers will have access to the roof level via scaffold and articulated elevated work platforms to finally fix off the sheeting.

Activity	Equipment	Comment
Concrete Pumping	Tower Placement Boom	<p>The concrete tower placement pump will be established within the site and continue up through the structure via slab penetrations. Concrete trucks will be required to drive onto the Site's designated pumping zone, where a mobile pump/hopper will be stationed.</p> <p>Concrete trucks will be contained on site within the loading zones to eliminate trucks congesting street and access to car parking areas.</p>
General Material Movement	Hand and or Forklift (if required)	<p>The general movement of materials around the site will be serviced via hand and forklift if required.</p> <p>Internally, Kane will use electronic pallet trolleys or similar.</p>
Edge Protection / Scaffold	Traditional tube and coupler and pre-fabricated	<p>Kane owns and operates its own scaffold plant and equipment yard and thus invests in product development and design that can improve work efficiencies and/or reduce high-risk activities.</p> <p>For those aspects requiring edge protection, Kane will use traditional measures and access systems.</p>

### 6.3 General Deliveries

All delivery vehicles will primarily access the site via the delivery/loading zones within the construction site area.

Large vehicle deliveries, particularly for reinforcements, will be assisted into delivery zones and site compound areas as required by the CTMP.

All deliveries will be made inside the site compound to minimise disruptions to local traffic. Traffic controllers will be implemented as required and in-line with our CTMP.

### 6.4 Site Delivery Management

Site deliveries will be co-ordinated via site management staff and respective trades and suppliers. Kane management at their discretion take deliveries either directly into site or within the site compound. This will be controlled depending on the size of delivery and access allowable due to site constraints.

Kane management will have a site deliveries board in place to clearly identify expected deliveries.

## 6.5 Working Hours

In accordance with the DA approval and project specific requirements, working hours will be 7:00am to 6:00pm Monday to Friday. Works will only be undertaken on Saturdays between 7.00am to 1.00pm with Client approval.

## 6.6 Traffic & Pedestrian Management

Kane will adopt a collaborative approach to traffic and pedestrian management during this project. The acknowledgement of our responsibility to provide both the procedural infrastructure and the staff to ensure it can be done is essential to this.

This approach plus the implementation of a rigorous delivery booking system managed by our Site Manager will ensure that staff, the public and construction traffic can co-exist.

Our Site Establishment plans have been developed with the following considerations:

- Pedestrian access around the site
- Minimisation of disruption to public traffic.
- Contractor vehicular access for construction works;
- Maximising efficiency of construction works;
- Safety of service staff and visitors; and
- Ease of demobilisation upon completion of works.

Construction inevitably will impact the surrounding community and/or residents, via increased traffic movements, type of vehicles moving around the area or increased pedestrian traffic (workforce personnel).

With respect to the management of vehicle movements, to and from the site, adequate allowance has been made for a traffic controller to be positioned at the site entry gate to manage vehicle movements through these gates as required during the course of the project. Kane have separate pedestrian gates to ensure people plant separation. Traffic Controllers will assist with the interaction of people and plant within the site boundary.

To effectively manage this, Kane shall implement a site procedure, where the trucks need to book in their deliveries before arriving at site and can only enter the site under the control of the traffic controller.



## 7 CONSTRUCTION METHODOLOGY

### 7.1 Introduction

The key to project success is a sound understanding and appreciation of what we are to deliver. Kane are keen to work with the Project Stakeholders and the consultant team on this project and are confident that we have a robust and solid understanding of the project requirements, limitations and opportunities.

The complexity is delivering the works within the best possible timeline, whilst ensuring the surrounding environments are not compromised. This includes quality and building performance during and post construction.

An open and transparent relationship will be fostered with Kane, Project Stakeholders and the consultant teams, to ensure the focus on quality, detailing, design intent, function and commissioning is collectively understood, appreciated and delivered.

Our Methodology and understanding will focus on the following:

- Kane's knowledge and experience
- Kane's commitment and detailed project understanding
- Risk Management and Mitigation

### 7.2 Overview

When considering our methodology with respect to the technical and programming challenges of this project, the following comments reflect our general strategy:

- The critical path is found in the dictated order of the works, following a traditional critical path logic. This is prioritised in all trade procurement, works and logistical planning.
- Kane's strong focus on program is particularly relevant as any impact to the shop drawings and or procurement of finishes trades has a direct impact on the completion date.
- If required, multiple supervisors will be used to enable a series of concurrent faces to operate simultaneously.
- Protection of the general public, precinct staff, adjacent residents, businesses and construction work force personnel during construction will be a priority.

### 7.3 Planned Approach & Key Issues

Kane's overall project approach and methodology has ultimately been influenced to achieve the most cost effective product with an efficient construction program. We appreciate the drivers and challenges in delivering the most critical aspects and components of this project.

We have identified the key issues and requirements of the project, which have influenced our project approach and methodology, to be as follows:

- Project completion as quickly and efficiently as possible.
- Provision of a quality highly detailed and well finished product
- Minimised disruption and access to the remaining complex users
- General security patrol visibility during the course of construction
- A well aligned project team who share the same vision, with a collaborative attitude and ability to work with and coordinate key consultants and authorities.
- Sensitivities of the project neighbours, including noise, vibration and dust control issues.
- A well thought out site establishment layout to assist in the most efficient building delivery.

- Earliest completion of structural works
- Implementing Kane site staff supervision by area and providing sufficient management and administration staff wholly assigned to the project.

Kane understand the importance of achieving the required completion dates and believe our approach is the most practical and achievable methodology and one which mitigates most risk to respective Project Stakeholders.

### **7.3.1 Public Safety, Access & Amenity**

- Understanding the diverse abilities, disabilities, frailties, vulnerabilities and curiosity of the general public and maintaining their wellbeing and amenity.
- Understanding the requirement to minimise traffic and pedestrian disruptions within the site vicinity.
- Maintaining respect in relation to working in close vicinity of public spaces.
- Providing robust perimeter site fencing and stringent site access procedures to eliminate unauthorised entries.
- Ensuring our main site contact is on 24/7 alert in case of incidents.

### **7.3.2 Commissioning & Ongoing Maintenance Plan**

- Kane acknowledges the importance of ensuring maintainable aspects are positioned to provide minimal disruption to operational functions; and/or
- Equipment selected based on performance and maintenance cycle times.

### **7.3.3 Environmental performance**

- The end project is to operate at the highest level of environmental performance, meaning, all aspects must be installed as per the manufacturer's recommendation/instructions and function as intended;
- The target for Kane, is to deliver the project with the smallest environmental footprint possible.
- Minimal impact to the surrounding sensitive receivers through collaboration with all stake holders and being proactive in the provision of information.

## **7.4 Site Induction / Safety & Security Provisions**

There will be security arrangements, traffic management arrangements and physical separation barriers to control pedestrian and vehicular movements. The overall objective will be to minimize disruption by maintaining collaborative relationships and actively anticipating and planning for all stakeholder requirements (refer to WH&S Management Plan for specific details).

Induction of personnel to the construction site commences with subcontractors being made aware of site requirements during the tender period. Our standard site induction document will be modified to include any site specific requirements as well as any requirements nominated by PwC, NSW Health Infrastructure (HI), and the Sydney Children's Hospital Network (SCHN), Issues will include:

1. PPE requirements
2. Delivery and material handling requirements
3. Parking
4. Site access
5. Site behavior

6. Rubbish removal
7. Noise restrictions
8. Infection Control
9. Dust and Odor Control
10. Disruption Notification
11. Permit requirements
12. Emergency evacuations
13. Strict No Smoking Policy
14. Unexpected Finds Procedure

All personnel will be inducted by Kane site personnel, and will not commence works on site until the induction process is completed.

As part of the tender process, subcontractors are required to complete a tender interview including providing their insurances, and company WHS & E policies pertaining to the project. These documents will be supplied by the successful tenderer and will form part of their subcontract documentation.

Prior to starting on site the subcontractor must issue to Kane their safe work method statements (SWMS) relating to the overall execution of the trade package. This is then reviewed by the Site Manager.

All electrical tools are listed in the Kane's site electrical register. All chemicals to be used on site must have a Material Safety Data Sheet (MSDS) with recommendations to be followed in the use of the chemical on site which is reviewed by the Kane's site staff. This chemical if accepted for use on site is then added to the site Chemical Register.

The purpose of this is to ensure all personnel are clear on the requirements they must adhere to while working on the project.

Kane will be responsible for the security of all works areas. All work areas will be secured at all times by hoarding, fencing or barricades. Site access will be via a designated access path. Signage will be installed in the Site Compound directing personnel to the designated egress pathways.

## 7.5 Existing Services

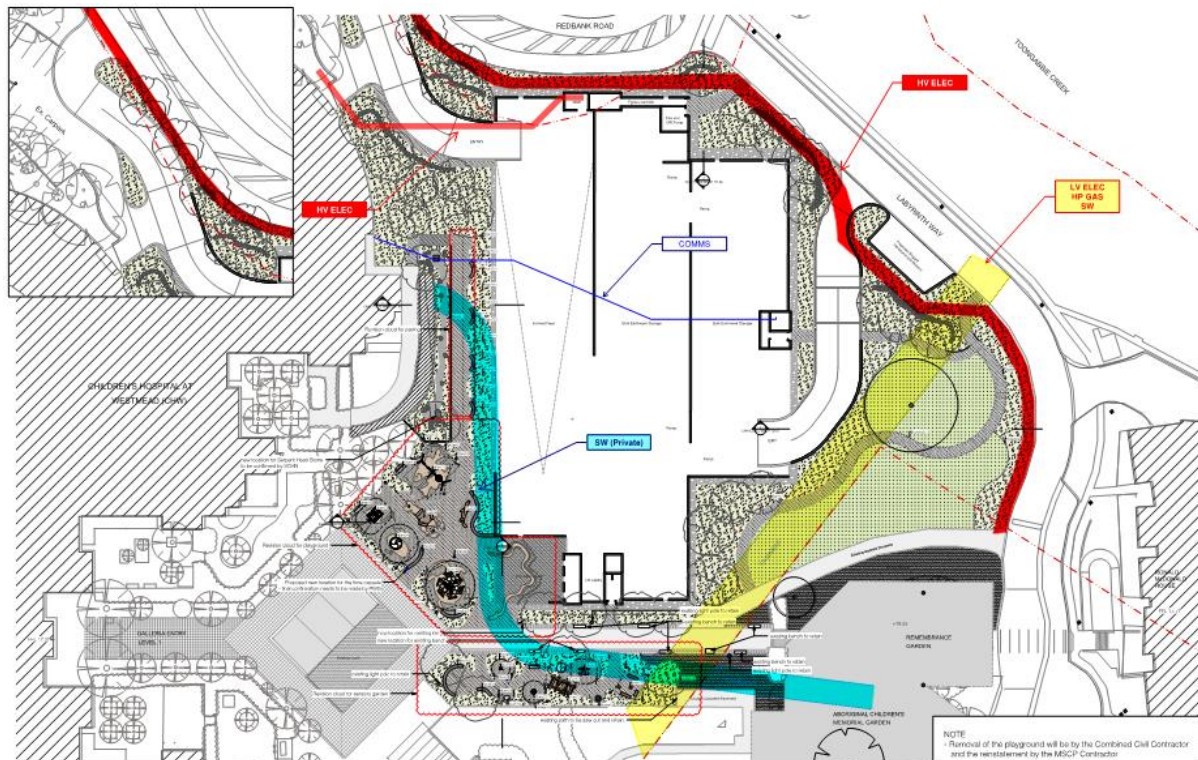
Before commencing any works, if required, Kane will obtain from "Dial Before You Dig" confirmation of underground services in and around the site.

Kane will engage a suitably qualified services locator to conduct an investigation of existing services in ground in conjunction with design documentation and any other client supplied information.

Identified services will be pegged out on site and documented by overlay on the design drawings. This plan of existing services will be incorporated in the Project Safety Management Plan, posted on the site notice board, included in the site safety inductions, excavation permits / procedures and subcontract tender documentation. This plan will be updated ongoing throughout the project in the event of redundant services removal and any diversion works.

Coordination and notification PwC, HI, and SCHN will be undertaken in advance of any service to be isolated to ensure minimal disruption and adequate services. If required temporary diversions of services will be undertaken.

## Existing Services – MSCP



Kane will prepare a plan of isolation identifying the known points of isolation. If in the unlikely event a service is damaged, we can promptly shut down the service to minimise the potential impact.

### 7.6 Pre Construction

Kane will establish on site, commence the shop drawing process and place orders for equipment with long lead times. As part of the site establishment, Kane will put in place a Package of Management Plans which will include a Traffic & Pedestrian Management, Materials Handling as well as WHS, Environment and Quality Plans.

Prior to establishing on site and taking over responsibility as the Principal Contractor, a Dilapidation Report on the surrounding buildings, roadways and footpaths will be undertaken and distributed to all stakeholders.

### 7.7 Staging of Works

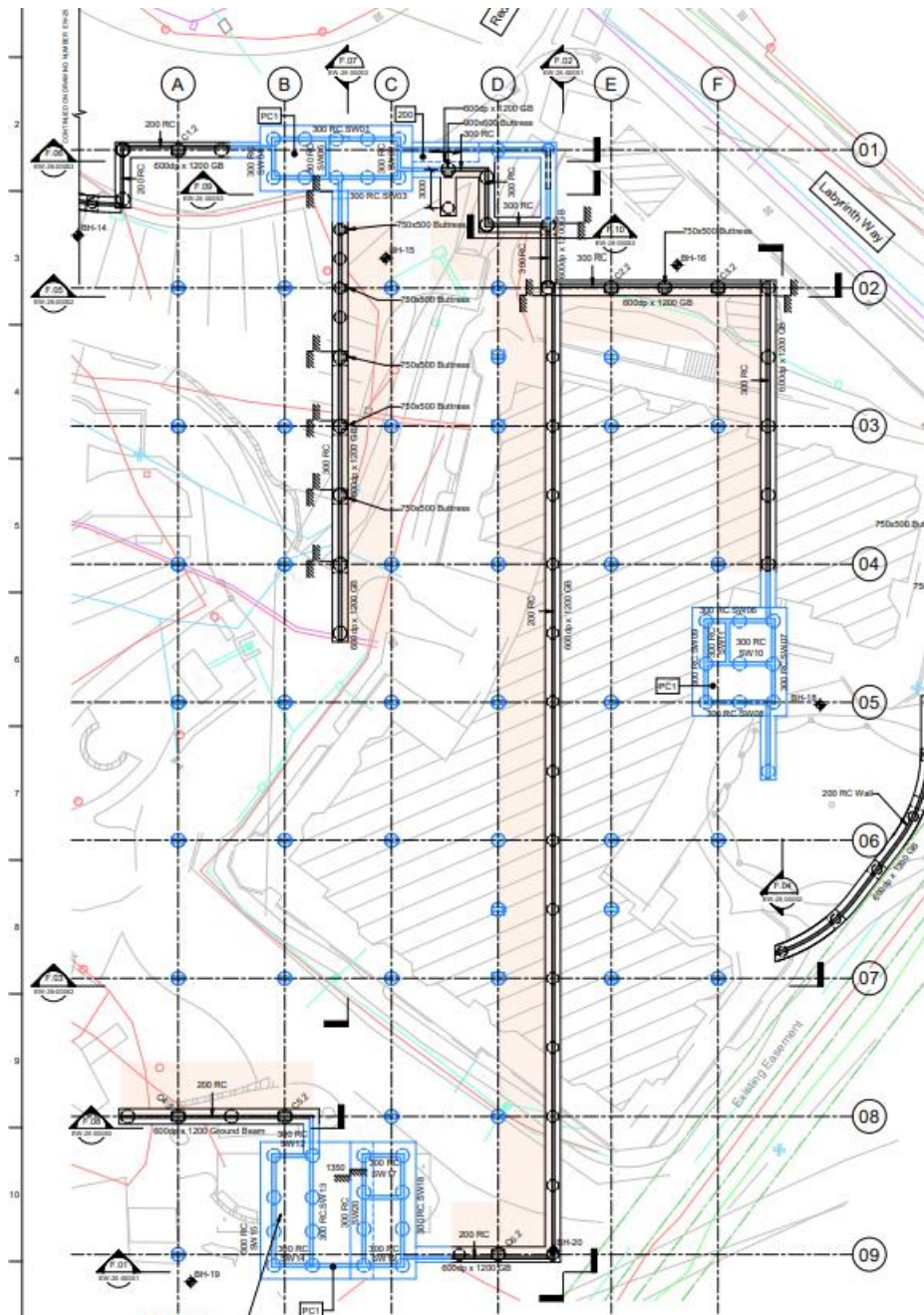
#### Stage 1 – Combined Civil Interface

As part of the combined civil partnership arrangement, the early works contractor, Ford Civil Contracting (FCC), has been contracted to complete Kane detailed excavation, services trenching and piling works.

Under the contract agreement, FCC are to remain the Principal Contractor, while Kane operate in a limited capacity under FCC site induction and facility. During this stage, Kane will undertake construction activities limited to;



- Core Footings
- Footing Beams
- Core Walls
- Retaining Walls



Kane's FRP work areas will be provided as 'Clean Zones' where all ACM will be contained and capped. These areas will be delineated from the ongoing civil works undertaken by FCC, using barrier protection and mesh lined fencing. This will provide safe work zones where asbestos PPE will not be required.



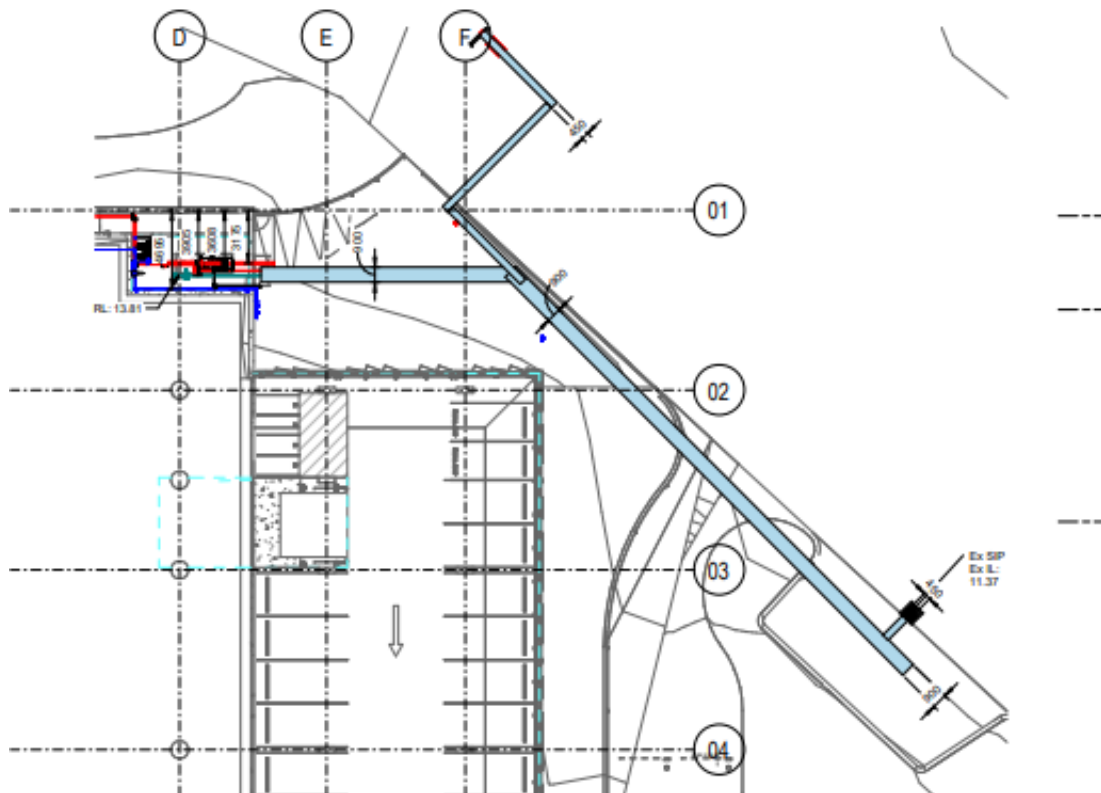


### Service Trenching - Hydraulics

- Fire Hydrant in ground Pipework

While FCC will be undertaking the excavation, trenching and backfill/compaction scope, Kane's subcontractors will work in tandem to lay the pipework. These areas will NOT be 'Clean Zones' and all worker will be required to wear asbestos PPE.

#### **Stage 1. Extent of Hydraulics Trenching**



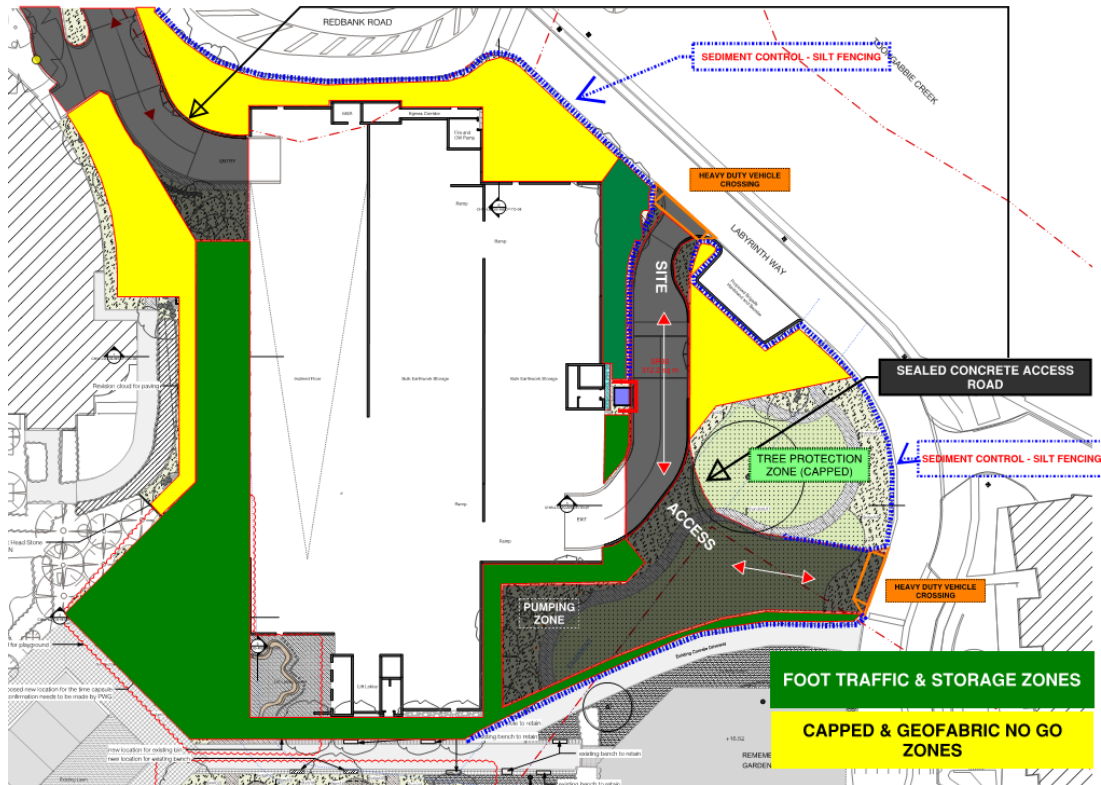
Early site establishment will involve other works that will include setting up:

- Sediment Controls
- Tree Protection
- Existing Services Surveys
- Sealed Concrete Temporary Access Driveway

The combined civil interface site establishment is anticipated in July 2022, with staged works anticipated for completion in September 2022.

Once complete, the site will be treated per Kane's Site Establishment Plan, with a mix of sealed concrete driveways suitable for heavy vehicle traffic, trafficable (pedestrian) storage zones, and no-go zones isolated from disturbance

### Stage 1. Capping at Handover



### Stage 2 – Full Site Establishment

Kane will establish the permanent amenities and site fencing in the 1-2 month period leading up to Kane becoming the Principal Contractor (anticipated to occur in September 2022).

This will include:

- 1 off 2.4 x 2.4 Kane Staging/Secure Entrance Unit
- 1 off 6 x 12 Kane Combined Site Office and Lunchroom
- 1 off 6 x 7 Kane Meeting Room.
- 1 off 6 x 7 Kane Ablution Block (unisex)
- 5 off 6 x 3 Lunch Rooms
- 3 off 6 x 3 Change Rooms
- 1 x Kane Container

Fencing will be installed to the perimeter of the new building construction zone as indicated below. The existing fence line will be maintained and the existing 1800 chain wire fencing will be retained along the North and West boundaries.

## 7.8 Concrete

Once the foundation and retaining structure is complete, the BOC levels finished, and the site has been handed-over from the Combined Civil Contractor to Kane, Formwork for the level P1 & P1A suspended slab on ground will commence.



Upon completion of formwork, conventional reinforcement and services penetration installation, the level P1 & P1A suspended slab on ground will be placed in four (4) separate pours.

Vertical elements (walls & columns) will be poured down once the formwork deck is in place and handed over to subsequent trade coordination.

Suspended PT Decks will then progress from level P2 & P2A - to - P8 & P8A. Each level will be completed in three (3) pours.

Edge protection handrails will be installed at all times to all formed live-edges. The full perimeter scaffold will provide edge protection to external edges. The façade will be installed from this perimeter scaffold.

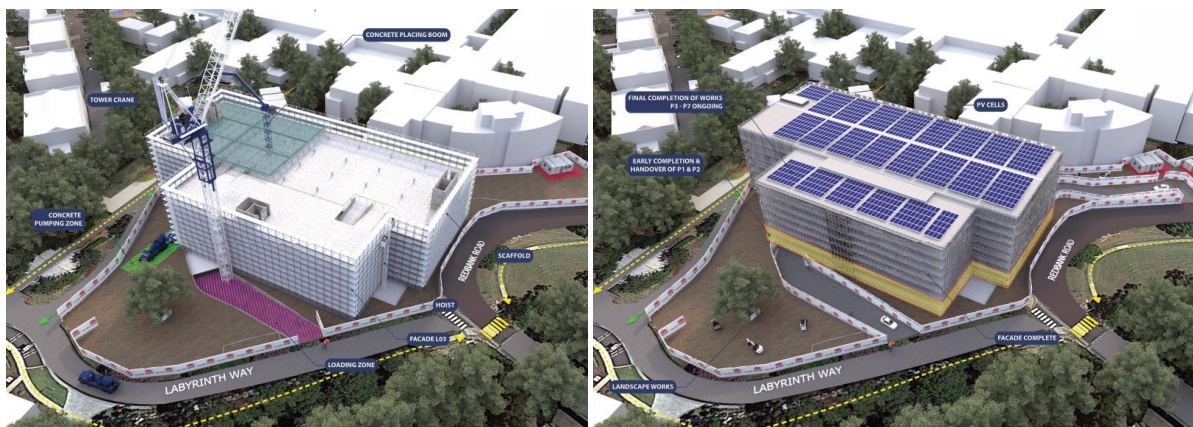




### 7.11 Structural Steel & Roofing Materials (PV solar panels)

Following completion of the level P8 & P8A slabs to the Multi-Storey Carpark, the erection of structural steel framing and framework to the roof will be completed using the tower crane & elevated work platforms.

The roof steelwork will be lifted via a tower crane located as per the Site Plan, assisted into position utilising elevated works platforms from level 8.



PV solar panels will be installed on the roof via elevated work platforms and manually positioned from the roof structure.

Perimeter scaffolding will provide robust edge protection during construction of all structural steel and roofing install.

Careful planning and co-ordination will be required to ensure shop drawing and fabrication lead times do not hinder installation timing following completion of the concrete works.

The team will have highlighted the need to protect the off form finishes & painted exposed structural steel during the works to ensure the finish remains at a high quality for the duration of the project.

## 7.12 Façade

The façade mainly consists of feature perforated aluminium panels, and building integrated photovoltaic (BIPV) panels.

Façade works will commence with the installation of the external steel work, followed by installation of framing, then perforated aluminium panels and BIPV panels.

Access to façade elements will be via scaffolding and elevated work platforms (where required)

Kane acknowledge the importance of ensuring the final product reflects the original Architects detailing especially in respect to the facade. This importance will be reinforced with our selected subcontractors during the shop drawing stages. Kane will ensure all stakeholders are happy with the final detailing at shop drawing stage prior to fabrication.



## 7.13 Building Services

The installation of all services, plant & infrastructure, will be completed in parallel with the main building elements.

Following the completion of the required fit out elements, all services will be fitted off.

The detailed installation, testing and commissioning of each building service will be undertaken by specialist subcontractors. Kane will only engage a subcontractor with the expertise, knowledge, resources and skills to complete the works.



This includes the following disciplines:

- Mechanical Services
- Electrical Services
- Hydraulic Services
- Fire Services
- Lift Services
- Communications & Data Services

Particular attention will be paid to those areas associated with services infrastructure, plant rooms, switch rooms and the like. We will coordinate the installation of services and prevent clashes between the services. Each trade must be completed and tested prior to moving to the next area. Time will be spent detailing the locations of all services points to ensure consistency of the final installation, ensuring light switches, air grilles, control panels, light fittings and the like are aligned correctly.

Particularly detail will need to be given to finishes of Service Fixtures to particular rooms, exposed services and full coordination and set out with the original Architectural intent.

#### 7.14 Fit out

Following the stripping of formwork and completion of the structural steel, and roofing installation, high level services installation will immediately be undertaken. This will be followed by all other services integrated into wall and ceiling elements. Commencing from the P1 and P1A level and progressing to Level P8 and P8A.

Trades will follow a programmed sequence ensuring each trade component is complete and free of defects prior to following trades commencing. Each trade will be required to protect their works to prevent damage.

#### 7.15 External Works

Civil remediation works will commence in conjunction with a staged site rationalisation. Once sufficient space is available on level P1 & P1A, site accommodation and amenities will be relocated to allow for preparation of and below the playground areas and surrounding landscaping in the south east corner of the site.

The scaffold removal sequence will provide the trigger for the commencement of soft landscaping, and the removal and remediation of the temporary access driveway will precede permanent driveway works and hard landscaping.

#### 7.17 Fire Management

Kane will have adequate firefighting equipment strategically placed around our construction sites in the event of small ignitions.

#### 7.18 Air Pollution

Kane will ensure all construction vehicles and machinery is maintained in good working order and meets the appropriate Australian Standard.

Dust control measures such as watering down during construction and covering any stockpiled material will be carried out. Our strategy of leaving heavy vehicles on site where possible and the use of large skip bins will lessen the number of trips to site and consequently reduce pollution.

All loads of material or deliveries will be covered.

Base measures of security that will form part of our management plans are as follows:

- Induction and overall awareness to all persons on site;
- Physical barriers to areas of 'no work';
- Signage/warning signs on each entry point;
- Kane supervision monitoring;
- Lockable gates site fenced areas; and
- Consultation with stakeholders addressing all work front areas and special needs (as required).

## 7.19 Partnership

Kane will ensure that all of our activities and works do not compromise the safety and wellbeing of the general public and stakeholders involved with the project. We aim to do this through careful planning, implementation and management of Kane's process and procedures detailed on our BMS system.

Kane will liaise with all stakeholders to coordinate site activities, prevent interruptions and we will not compromise on safety on all fronts.

We will draw on experience in working on similar projects from the selected team. This experience will be bolstered by and benefit from Kane's diligent processes, financial strength and local trade base knowledge.

We can further demonstrate our expertise in relation to working within, or in close proximity of operational facilities with current Kane projects at the UTS CB10 project, Fairfield Showground Grandstand, SAMIS Mona Vale and Cabramatta Carpark redevelopment project.

Our team will establish a collaborative and consultative relationship built through our culture of:

- Being open, honest, cooperative and collaborative
- Honouring our commitments
- Consistently delivering challenging projects in operational environments on time and on budget
- Forging positive relationships with our clients, consultants, stakeholders, subcontractors and our staff
- Continually reviewing our performance and striving for better outcomes for our clients, staff and subcontractors

This philosophy is driven by the senior management of Kane and is evident in the culture of the company's workforce.

Kane has a good understanding of the documents provided, programme considerations and the requirement for interface with existing public operations. Kane has solid industry experience in delivering live, staged projects with such technical complexities.

## 8 OPERATION CONTINUITY

*The core principle of our operations continuity strategy is to maintain the safety and wellbeing of the general public and maintain safe and clear access and egress throughout the entire duration of the works.*

Kane's operation continuity strategy for the Children's Hospital Westmead Stage 2 - Multi-Storey Carpark is founded on a proven track record of working within live operational facilities; including residential buildings, hospitals, clubs, schools and government facilities.

Our interface with Project Stakeholder's will be managed by our Project Manager, Steven Browne, who will lead this process and ensure works are carefully planned in accordance with our Business Management System (BMS), effectively communicated to the team and stake holders and meticulously executed as per our policy and procedures.

We understand the importance of no surprises, and as such, Kane will utilise the proven and effective process of the existing disruptive works process (Notice of Disruption - Nod) to perform such aspects which involve any disruptive and noisy works and connection into, or interface with live services.

Kane will maintain a flexible approach to minimise any potential disruption. We will work closely with all affected stakeholders to plan, communicate and execute the works with minimal disruption.

We are acutely aware that the key to the successful completion of works is clear and open communication. Should an issue arise, Kane will immediately communicate how it will affect the duration or impact the works, and will work with Project Stakeholders to implement mitigation strategies.

We will:

- plan works well in advance and provide adequate notice prior to the commencement of work
- maintain our flexible approach to ensure minimum impact to existing facility operations
- seek approval for fencing locations
- discuss planned activities at the weekly site meetings / NOD review meetings

### 8.1 Operation Continuity Strategy

Our overarching strategy for ensuring that existing complex tenants and users can continue to go about their daily business with maximum safety and minimal disruption and down time is simple:

1. Clearly identify diversions and changes to areas around the site, through signage and consultation with respective Project Stakeholders.
2. Inform all affected parties of future anticipated disruptive works through clear communication.
3. Collaboratively work with the project team to identify methodologies and timings which are mutually agreeable.
4. Securely isolate the construction zone and associated compounds.
5. Inspections and maintenance of site boundaries on a daily basis.
6. Maintain infrastructure and services.
7. Minimise Dust, Noise & Vibration (refer to Environmental Management Plan)

Based on our lessons learnt from previous live environment projects, we will achieve this strategy through close management of the following five key areas:

1. **Clear communication** – Kane will communicate clearly, honestly and in a timely manner for all works. This style will develop trust between the parties and facilitate strong working relationships.

2. **Prior planning and knowledge** – Kane will thoroughly investigate the full scope of works being conducted and analyse all potential risks in order to accurately develop work schedules and/or sequences. Kane will always be present during disruptive works to ensure all parties complete the works as planned and in the required periods.
3. **Interface Management** – Due to the close proximity of works to existing operations and adjacent premises, Kane has nominated our Project Manager, Steven Browne, as the single point of contact for all interface works. This will ensure communication is controlled through a single, knowledgeable, and transparent source. Steven will provide constant feedback about the disruptive works process, attend all interface meetings and be available to answer any questions that arise in regards to any works which may pose an impact to the residents.
4. **Kane presence during works** – Kane will be present during every component of works completed. This ensures works are completed as planned / scheduled and that any issues are actioned immediately, as well as communicated to the relevant bodies or groups.
5. **Contingency plans and redundancies during shutdowns or cut-overs** – Due to the risks associated with disruptive works, Kane will always ensure spare plant, equipment and materials are available during disruptive works. This is extremely important when these works are completed out of hours.

## 8.2 Approvals Process

The approach to obtaining approvals is outlined as follows:

- Kane will submit documents such as; Shop Drawings, Samples, Data Sheets, Permit Applications, Service Interruption Notices, Hot Works Permits, etc.
- These will be submitted in accordance with the contract documents
- Each document format will be formally submitted.
- Project Stakeholders will then review the document and provide a response and/or approval within the time frames of the construction program.
- Upon the receipt of the approval, Kane will then formally instruct the subcontractor and/or supplier to proceed with the work.

## 9 PROGRAM

With a project such as Children's Hospital Westmead Stage 2 - Multi-Storey Carpark, where the coordination of works and timing of procurement and logistics are critical, the Kane culture of process driven delivery provides consistent and predictable outcomes. "Program Focus" is the Kane procedure that describes the mandated process for targeting and achieving early completion.



Fortnightly meetings will be held with the stakeholders to coordinate project activities regularly as required.

At project commencement, a construction program will be issued to the stakeholders and monitored weekly.

It is the responsibility of our Project Manager, Steven Browne, to confer the status and interpret the program each week, identifying those items that are either ahead of forecast completion, achieving forecast completion or extending beyond forecast completion. Tracking this will ensure items that need to be accelerated to meet the program, or additional resources applied to 'mitigate and recoup' program impacts, are discussed with the Construction Manager and delivery team.

Steven will liaise and communicate with the Principal's Representative for sign off and approvals of all samples, shop drawings, equal alternative materials and construction documentation.

We have programmed the works commencing on site 12 July 2022 (pending receipt of the Construction Certificate) and it is based on a 5 day working week calendar.

## 10 PROCUREMENT

With an annual turnover of more than \$1.2 Billion, Kane will leverage off its national buying power with key suppliers to ensure the preferential supply of materials. Kane are well positioned to ensure NSW Health Infrastructure is receiving the best value for money and comfort that materials will be supplied to their project in a timely manner.

Kane's procurement team will work with suppliers to ensure our subcontractors are receiving preferential attention at the time of materials ordering.

A key element in the success of this project will be the selection of subcontractors with financial stability and resources/skillsets to perform the works. The forecast completion date of the project must also be considered when selecting and awarding trade packages, to ensure selected trades are not over committing when viewing current work load/demands.

Long lead-time items and value engineering initiatives will be identified early and processes put in place for their timely delivery, including tracking by inclusion to the construction procurement section of the program. Planning is vital for the procurement of subcontractors and their respective contracts, as it is the responsibility of the administration team to build contingency / opportunity and the responsibility of the delivery team to maintain and or improve.

The overall procurement process will be managed by Steven Browne, Kane's Project Manager, using our Business Management System (BMS). The BMS provides a framework for the continual review and improvement of Kane's processes, with continuous improvement of the business being a key objective.

Kane will ensure that the procurement is carried out in a manner that will not affect the construction schedule, cost, quality and WHS and Environmental objectives.

Kane's delivery team will reaffirm the critical dates for contract letting (as presented at tender time) of all trade packages taking into account lead times for ordering, fabrication and delivery of materials, and mobilisation of site. The procurement strategy will include:

- Pre-qualification policy and procedures;
- Contract form;
- Preferred supplier status;
- Bid evaluation, negotiation and recommendation/success criteria; and
- Local industry participation.
- Tender packages will include, but not be limited to the following:
  - Detailed Scope of Works;
  - Drawings and Specifications;
  - Construction (target) Program;
  - Tender Period;
  - Commissioning and Testing Requirements; and
  - Samples Required.



To achieve the high level of quality Kane demands, we will select preferred subcontractors that have the relevant experience and demonstrated technical construction knowledge relating to the works. Subcontractors will be selected based on the following criteria:

- Commercial aspects, including price, financials, and proven ability to deliver on time and quality;
- Technical aspects, including experience in similar works;
- Quality Systems in use;
- WHS and E systems in use;
- Resources/current and actual capacity.

All on-site activities will be under the direct control and management of Richard Blackwell. The Site Manager, and/or his identified responsible representative, will be on site whenever site-based activities are occurring.

## 11 SUSTAINABILITY

An integrated design process is crucial to delivering ecologically sustainable buildings. Our team does not consider the resolution of environmental concerns as a separate issue, but rather embraces an all-inclusive approach incorporating sustainable design as a fundamental in our design & construction methodology. We work collaboratively with our clients through all stages of the project to deliver buildings that achieve financial, social and environmental objectives.

The Kane team is well-versed on the stringent requirements for legislative compliance, performance modelling and simulation, rating systems, design optimisation and facility management practices and is able to assist our clients through these issues and provide compliant solutions.

Our team applies common sense and use simple tools in the consideration of the fundamental parameters of sustainability: energy, water, site / landscape, health / comfort, social and materials/waste. We understand that our clients have limitations and priorities with regards to ESD and ensure the methodologies selected for any particular project match required outcomes against 'value for money' criteria.

Sustainable building reduces the impact on the environment throughout a building's life-cycle: from design, construction, operation, maintenance, renovation, and demolition. A building designed and constructed in a sustainable way minimises the use of water, raw materials, energy, land etc. over the life cycle of the building.

### 11.1 Waste Disposal

The establishment of an effective waste and rubbish removal process from the site is important in controlling a safe working environment as well as minimizing the amount of rubbish generated from the work area.

General waste disposal will be via crane-able bins at the building workface to transport waste to the main skip bins located at accessible locations within the site compound. During the fit out works, crane-able bins will be substituted with wheelie bins.

## 11.2 Environmental Controls

Our project Construction Environmental Management Plan (CEMP) will be developed comprehensively and implemented strictly to ensure the project complies with authority guidelines and council bylaws. The project's exposure to weather during remediation, excavation, landscape, structure and building envelope enclosure emphasises the need for rigorous management, specifically relating to water run-off and stormwater control.

Kane has developed a project-specific CEMP, which will provide details on how Kane intends to manage environmental issues and the controls we will put in place. We will draw on the company's extensive experience of working on similar sites in the development of this plan.

## 11.3 Stormwater Management and Sediment Control

- Appropriate stormwater management and sediment control mechanisms will be put in place in accordance with the approved Civil drawings.
- Temporary swale drains with hay bale and sediment traps will be installed on site to direct all stormwater run-off from the site.
- Silt fences with hay bale traps will be installed around all soil stockpiles if required.
- All existing stormwater inlets will be protected by silt traps and sediment socks to prevent sediment ingress into the system.
- Any environmental conditions of the planning permit will be reviewed, understood and actioned.