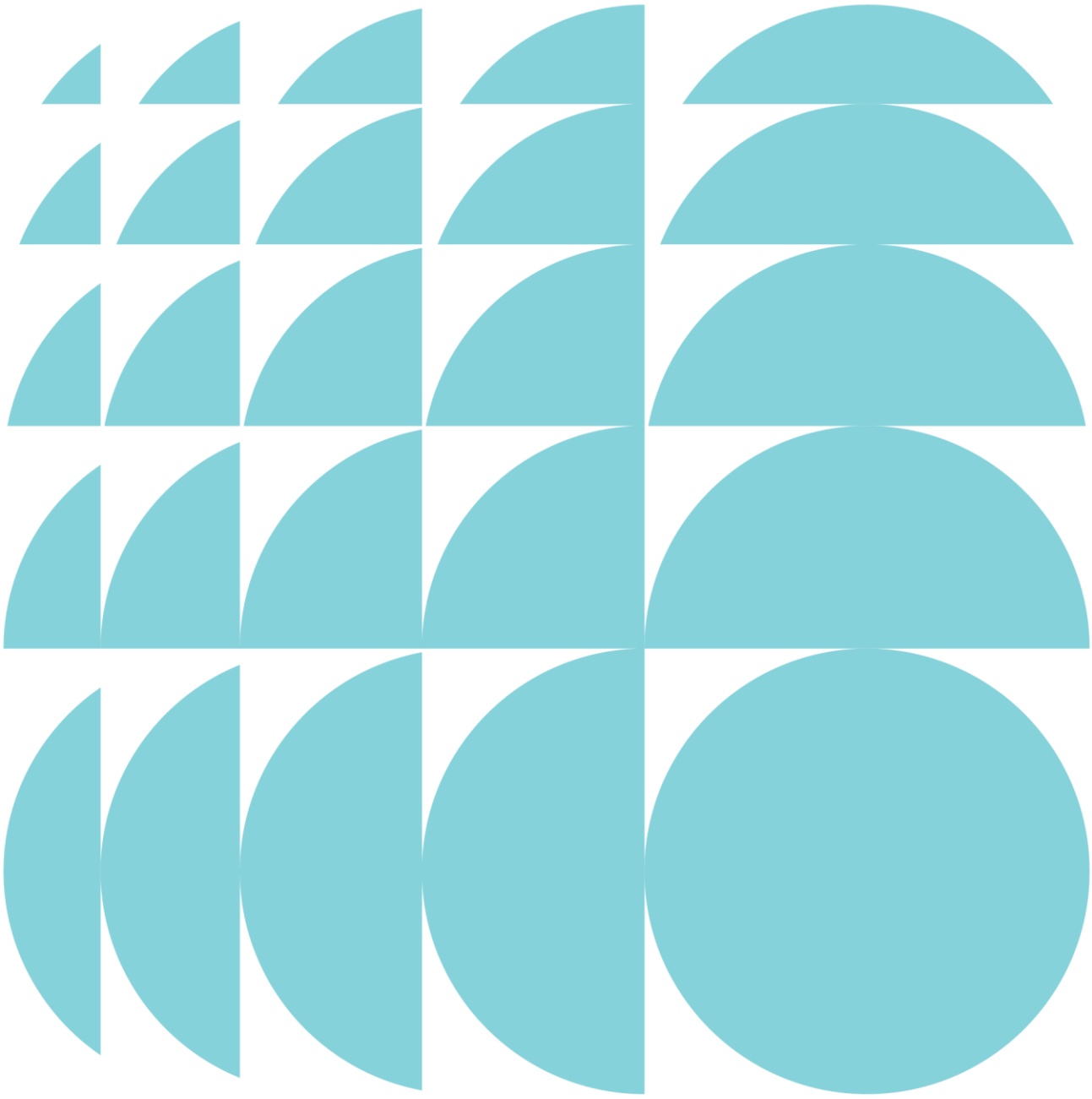
ETHOS URBAN

Response to Submissions and Amended Development Application

Liverpool Hospital - Multi Storey Car Park
Campbell Street, Liverpool

Submitted to Department of Planning Industry and Environment

09 September 2020 | 218264



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1.0 Introduction

An Environmental Impact Statement (EIS) in support of a State Significant Development Application (SSDA) for the construction and operation of a new multi storey car park at Liverpool Hospital was publicly exhibited for a period of 28 days inclusive between 28 May 2020 and 25 June 2020 (SSD 10388).

In total, 8 submissions were received from Government agencies and authorities in response to the public exhibition of the EIS. 1 submission was received from the general public. The applicant Health Infrastructure NSW (Health Infrastructure) and its specialist consultant team have reviewed and considered all issues raised as detailed in **Appendix A**.

This report, prepared by Ethos Urban on behalf of the applicant, sets out the responses to the issues raised and includes design amendments made to SSD 10388 in accordance with Clause 55 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) for which approval is now sought.

This report should be read in conjunction with the original Environmental Impact Statement (EIS) prepared by Ethos Urban (including appendices and dated 8 May 2020), the Design Package prepared by Fitzpatrick and Partners (at Appendix B) and the supporting documents contained within the Appendices.

Where individual responses to the issues raised by agencies are not discussed in this report, a detailed response can be found in the Response to Submissions table at **Appendix A**.

2.0 Consultation

Since the exhibition of the EIS, the project has met with representatives from Liverpool City Council on 3 August 2020 and 13 August 2020 to discuss the feedback raised in their submission. Responses to the feedback and amendments to the proposal where appropriate, are included in this report and the supporting documentation.

3.0 Key Issues and Responses

This section of the report provides a detailed response to the following key issues raised by the Department during the public exhibition of the SSD:

- Traffic;
- Noise; and
- Flooding.

A response to each of the other individual issues raised by the Department and other agencies is provided in the Response to Submissions table at **Appendix A** and within the other supporting documentation (refer Table of Contents).

3.1 Traffic

3.1.1 Issue

In their correspondence, DPIE raised concerns with regards to the performance of the Hume Highway / Bigge Street intersection during the AM peak. DPIE consider the impact on the degree of saturation at this intersection (0.68 to 0.93) must be addressed, noting this intersection would almost be at capacity and require mitigation measures as part of the proposed development.

3.1.2 Applicants response

The analysis submitted in the Transport and Accessibility Impact Assessment prepared by GTA Consultants and dated 6 May 2020, indicates that the degree of saturation increases from 0.68 to 0.89 in the AM peak hour when considering the traffic generation of the Liverpool Westfield and 26 Elizabeth Street developments. With the introduction of the Liverpool Hospital redevelopment, this then increases slightly to 0.93 with the additional traffic generated. Accordingly, much of the change to the degree of saturation at the intersection in the AM peak hour is as a result of the surrounding developments. Notwithstanding, the SIDRA modelling results illustrate that the intersection is expected to operate satisfactorily with the average delay resulting in a level of service C and B in the AM and PM peak hours. While GTA note that the DOS for the intersection could be reduced by increasing the green time for the right turn into Bigge Street, this would likely reduce the green time from Hume Highway and would result in a higher average delay across the intersection and in turn a worse level of service overall.

Therefore, it is not considered that mitigation measures are required or can be easily implemented at the intersection noting that the Sydney Coordinated Adaptive Traffic System (SCATS) currently allocates a significantly higher portion of green time to through traffic along the Hume Highway compared to the right turn into Bigge Street in order to reduce the overall delay.

Further discussion on parking and traffic generation is provided in **Section 5.4** and at **Appendix E** and **Appendix H**.

3.2 Noise

3.2.1 Issue

In their correspondence, DPIE raised concerns with regard to the construction hours and works proposed outside of the standard construction hours.

3.2.2 Applicants Response

The proposed development seeks consent for the following construction hours:

- Standard Hours:
  - Monday to Friday (7am – 6pm) and Saturday (8am – 1pm)
- Outside Recommended Standard Hours:
  - Saturday (1pm – 3pm)

The proposed scope of work to be undertaken outside the recommended standard hours include:

- Concrete finishing works including the use of a Helicopter Float; and
- Erection and installation of a stationary crane.

The worst-case scenario for noise emission from these proposed construction activities has been assessed by Acoustic Logic as follows:

Table 1 Sound Power Levels of the Proposed Equipment (used during extended construction hours)

Equipment / Process	Sound Power Level dB(A)
Helicopter float	100
Semi-trailer	105
Mobile crane	105

Source: Acoustic Logic

It is noted that these noise sources have been derived from the following:

- On site measurements;
- Table A1 of Australian Standard 2436-2010 and Table A1 of Australian Standard 2436-2010; and
- Data held by Acoustic Logic from other similar studies.

Additional SoundPLAN modelling has been undertaken to assess the proposed out of hours works and the impact on surrounding sensitive receivers. The analysis indicates that the proposed out of hours construction activities will marginally exceed the noise management level at Receiver 5 – residents at 41 Forbes Street. At all other locations, the construction activities are below the noise management levels. It is noted that Receiver 2 (TAFE NSW) and Receiver 3 (Liverpool Girls High School) would not be operational during the extended hours.

Accordingly, while the proposed extension to the construction hours will result in a marginal exceedance to the noise management level at Receiver 5, appropriate site specific measure have been included to ensure there are no adverse impacts to residents. These are included in **Section 6.0** and in the additional Acoustic Impact Assessment prepared by Acoustic Logic at **Appendix F**.

3.3 Flooding

3.3.1 Issue

The applicant sought clarification of the DPIE request regarding flooding and DPIE seeks information on how stormwater would be managed during construction and following the completion of construction, given that flows would be altered during the construction of the development and once it is complete.

3.3.2 Applicants Response

Plans illustrating the existing, during construction and post construction overland flow directions have been prepared by TTW. The plans illustrate that all overland flow from the construction site will be managed through siltation fences, sediment traps or filter pits. As shown in **Figure 1** to **Figure 4** below, the proposed construction works will not impact any external overland flow paths and during the post development scenario, overland flows are consistent with the pre-development overland flows. The overland flow path analysis is included at **Appendix L**.

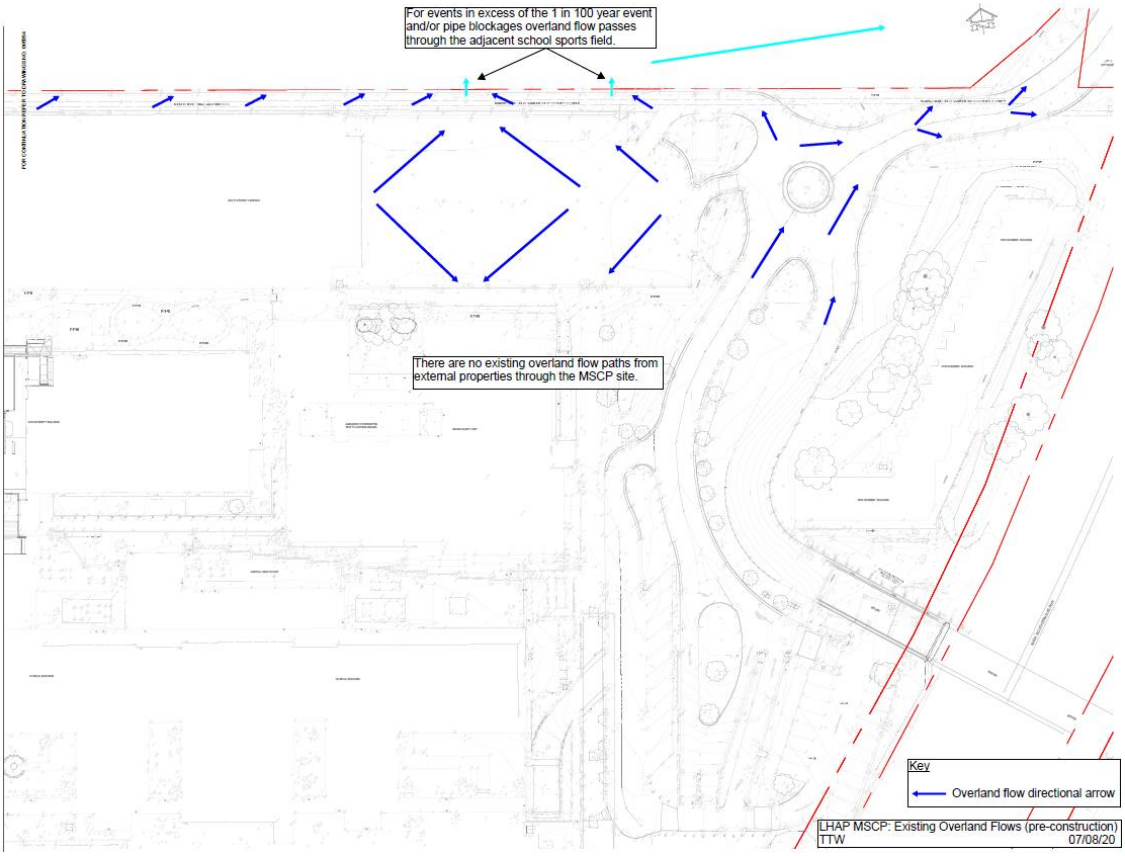

Figure 1 Existing overland flow analysis

Source: TTW

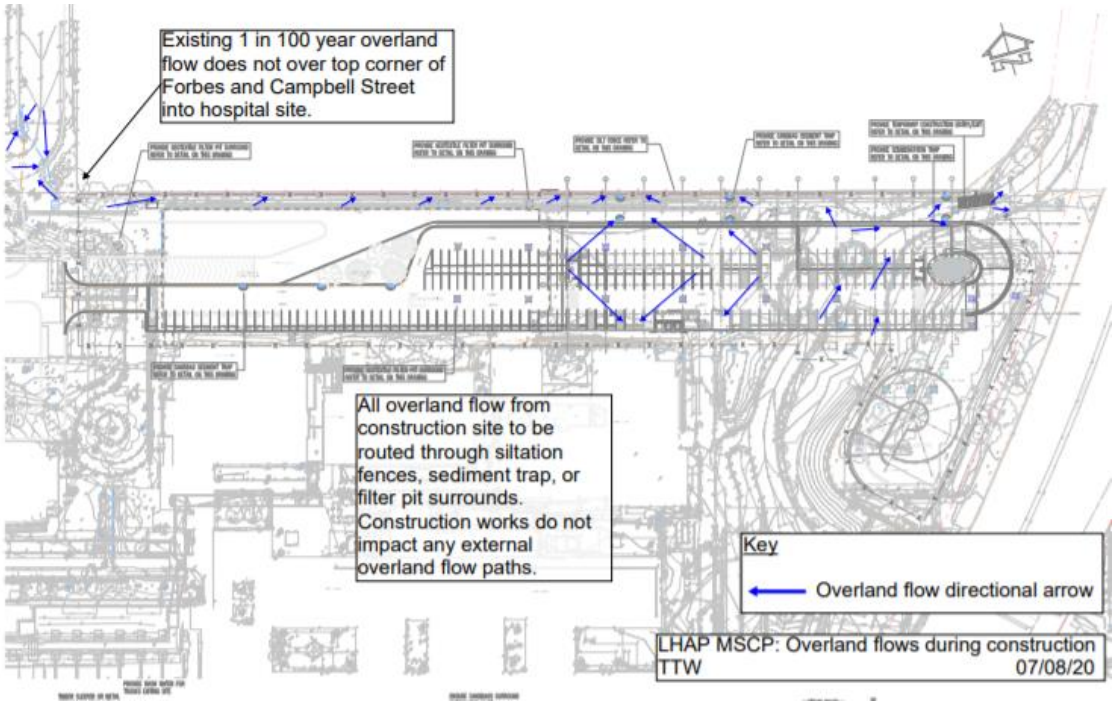

Figure 2 During construction overland flow analysis

Source: TTW

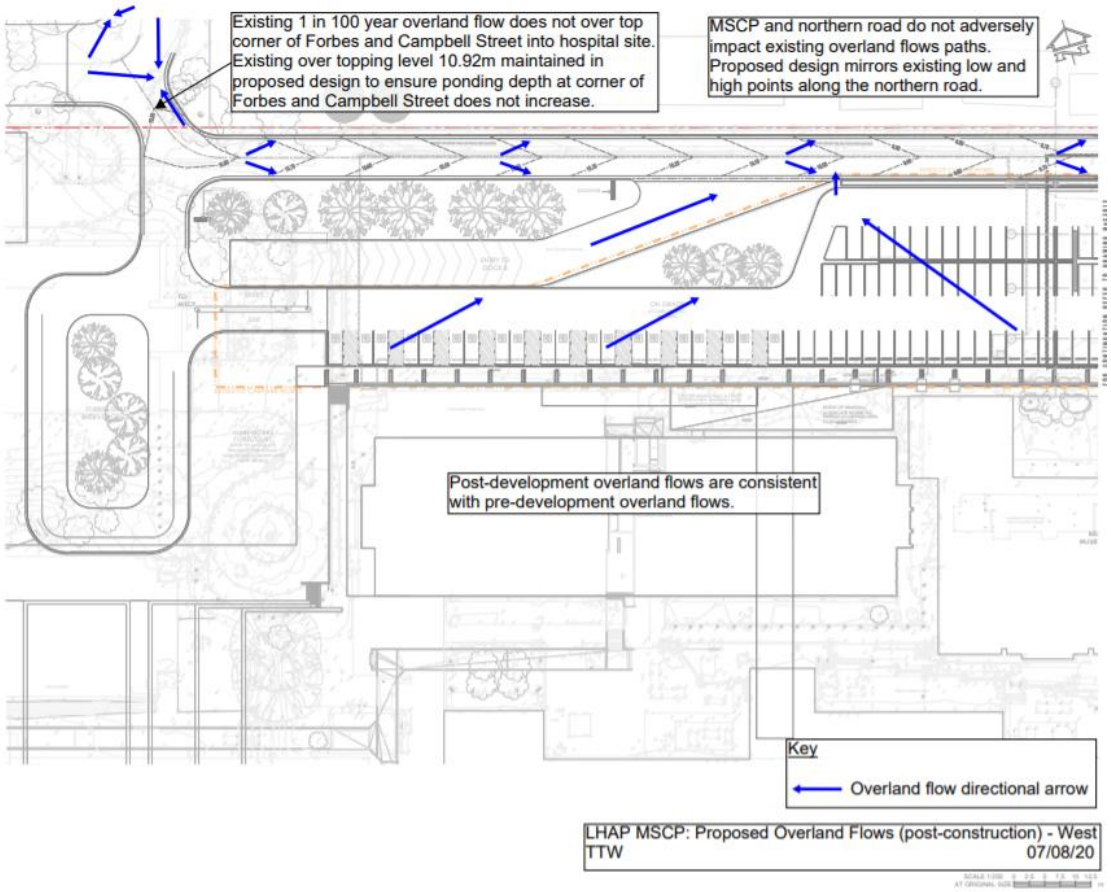

Figure 3 Post development overland flow analysis (western portion)

Source: TTW

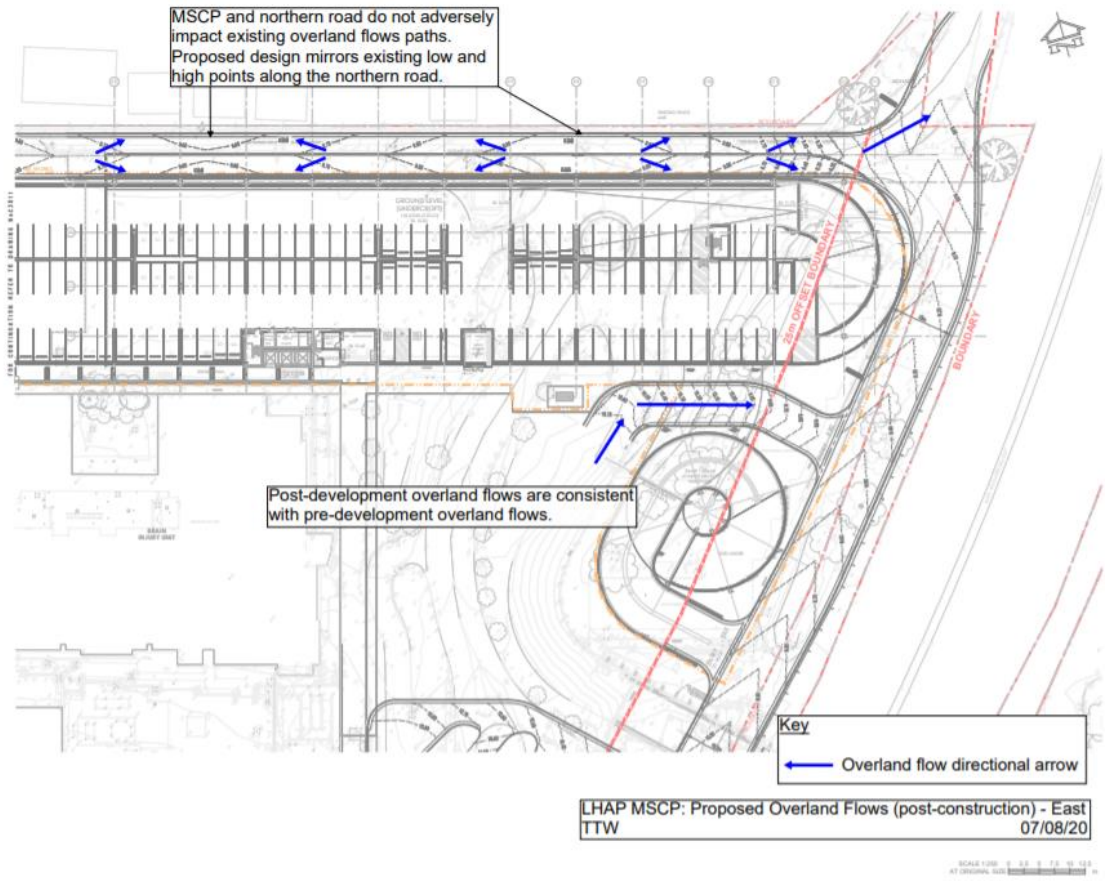

Figure 4 **Post construction overland flow analysis (eastern portion)**

Source: *TTW*

4.0 Amendments to the Proposed Development

Since exhibition of the proposal, a number of amendments have been made to SSDA 10388 to address the issues raised. Further, the construction tender process has confirmed that it is financially possible to construct an additional level of parking that will reduce the amount of parking required off-site. An amended Design Report has been prepared by Fitzpatrick and Partners (refer to **Appendix B**) reflecting these changes. The key changes are summarised below:

- Introduction of an additional level (Level 7) and maximum building height of RL 35.7 (25.2m to the top of the lift overrun);
- An additional 151 car spaces including 23 accessible parking spaces;
- An additional 8 motorcycle spaces, totalling 63 spaces;
- An additional 25 bicycle spaces on the ground level; and
- Removal of 1 on-grade car space and incorporation an additional 8 trees.

It is noted that there is no resultant change to the overall GFA or corresponding FSR.

4.1 Amended DA Description and Numerical Summary

The following section presents a brief updated description of the modified development for which approval is sought. Accordingly, and as detailed in **Section 3.0**, the changes are not considered to give rise to any material alteration to the environmental assessment of the potential impacts considered as part of the original development application.

The DA description for SSDA 10388 has been amended as follows:

- Demolition and site preparation works;
- Construction of a 7 storey car park including:
  - 1,248 car parking space;
  - 63 motorcycle parking spaces;
  - Management office; and
  - Accessible restroom;
- Internal road reconfigurations and connections to the existing road network;
- Wayfinding and signage; and
- Associated landscape works.

The key numeric development information is summarised at **Table 2**.

Table 2 Key development information

Component	As exhibited	As amended
Campus Area	156,235m^2 (east and west campus)	No change
GFA	37m^2	20m^2
FSR	0.75:1	No change
Maximum height	RL 32.8 (22.3 metres) (to lift overrun)	RL 35.7 (25.2 metres) (to lift overrun)
Car parking spaces (including accessible parking)	1,097 (80/20 staff / visitor split)	1,248 (80/20 staff / visitor split)
Bicycle Parking	0	25
Motorcycle parking	55	63

4.2 Amended DA Document Register

For clarity, **Table 3** below provides a consolidated register of the architectural plans and their applicable revision date to support the amended proposal.

Table 3 Architectural Plans Reference

Drawing Number	Title	Revision	Date
Amended Architectural Plans			
A-SSDA-MSCP-02	LOCATION PLAN	08	11/08/20
A-SSDA-MSCP-03	EXISTING SITE PLAN	08	11/08/20
A-SSDA-MSCP-04	DEMOLITION PLAN	08	11/08/20
A-SSDA-MSCP-05	SITE PLAN	08	11/08/20
A-SSDA-MSCP-06	GA GROUND 01 (ROAD LAYOUT)	08	11/08/20
A-SSDA-MSCP-07	GA GROUND 02 (ROAD LAYOUT)	08	11/08/20
A-SSDA-MSCP-08	GA LEVEL 01	08	11/08/20
A-SSDA-MSCP-09	GA LEVEL 02	08	11/08/20
A-SSDA-MSCP-10	GA LEVEL 03	08	11/08/20
A-SSDA-MSCP-11	GA LEVEL 04	08	11/08/20
A-SSDA-MSCP-12	GA LEVEL 05	08	11/08/20
A-SSDA-MSCP-13	GA LEVEL 06	08	11/08/20
A-SSDA-MSCP-14	SECTIONS	08	11/08/20
A-SSDA-MSCP-15	ELEVATIONS	08	11/08/20

Drawing Number	Title	Revision	Date
A-SSDA-MSCP-16	ELEVATIONS	08	11/08/20
A-SSDA-MSCP-17	FACADE DETAILS	08	11/08/20
A-SSDA-MSCP-18	FACADE DETAILS	08	11/08/20
A-SSDA-MSCP-19	SCHEDULE OF FINISHES	08	11/08/20
A-SSDA-MSCP-20	SCHEDULE OF FINISHES	08	11/08/20
A-SSDA-MSCP-21	SCHEDULE OF FINISHES	08	11/08/20
A-SSDA-MSCP-22	3D VIEW	08	11/08/20
A-SSDA-MSCP-23	3D VIEW	08	11/08/20
A-SSDA-MSCP-24	SHADOW DIAGRAMS	08	11/08/20
A-SSDA-MSCP-25	VISUAL IMPACT ASSESSMENT	08	11/08/20
A-SSDA-MSCP-26	VISUAL IMPACT ASSESSMENT	08	11/08/20
A-SSDA-MSCP-27	GA LEVEL 07	08	11/08/20
Amended Landscape Plans			
L-SSDA_MSCP_00	Cover Page	03	19/08/2020
L-SSDA_MSCP_01	Site Plan	03	19/08/2020
L-SSDA_MSCP_02	Ground Plane 01	03	19/08/2020
L-SSDA_MSCP_03	Ground Plane 02	03	19/08/2020
L-SSDA_MSCP_04	Elevations 01	03	19/08/2020
L-SSDA_MSCP_05	Indicative Planting Palette	02	19/08/2020
L-SSDA_MSCP_06	Indicative Materials Palette	02	19/08/2020

Further to this, additional statements and technical studies have been undertaken to support the amended proposal and provide additional information and responses to the issues raised by the relevant agencies. **Table 4** below provides a register of the additional technical studies to support those submitted with the original EIS documentation.

Table 4 Additional documentation register

Document Title	Consultant	Revision / Reference	Date
Amended Architectural Design Report	Fitzpatrick and Partners	06	01/07/2020
Amended Landscape Design Report	Clouston	G	19/08/2020
Additional Level Transport Assessment	GTA Consultants	N170560	20/07/2020
Additional Acoustic Impact Assessment	Acoustic Logic	07	06/08/2020
Architectural Response to Submissions	Fitzpatrick and Partners	N/A	11/08/2020
Transport Response to Submissions	GTA Consultants	N170560	10/08/2020
Additional Geotechnical Assessment	JK Geotechnics	N/A	30/07/2020
Additional Wind Assessment	Windtech	WF151-05F02(rev0)	13/08/2020
Structural Response to Submissions	TTW	N/A	6/08/2020
Overland Flow Paths Assessment	TTW	N/A	07/08/2020

Document Title	Consultant	Revision / Reference	Date
Construction Management Plan	Johnstaff	Final	17/08/2020
Consultation Summary Report	Johnstaff	-	-

The revised supporting documentation enables the Department to undertake an informed assessment of the amended proposal. The findings of the revised supporting consultant documentation that are relevant to the amended design are summarised in **Section 3.0** of this report, with additional findings reported by the consultant team submissions and within the response table at **Appendix A**.

5.0 Additional Information and Assessment

This section provides additional assessment of the proposed development (as amended) against the relevant matters for consideration under section 4.15(1) of the EPA & Act. The assessment is supplementary to and should be read in conjunction with the original environmental assessment provided in the original EIS prepared by Ethos Urban and dated 8 May 2020.

5.1 Environmental Planning Instruments

The proposed development's consistency and compliance (as amended) with the applicable statutory plans and policies remains unchanged from that which was assessed in the EIS prepared by Ethos Urban and dated 8 May 2020.

While it is noted that the proposed development seeks consent for an additional level and resultant increase in building height, the built form remains compliant with the maximum building height and FSR controls provided in the Liverpool Local Environmental Plan 2008 and is well below the 35m maximum building height control.

Therefore, the proposed development (as amended) does not require any further assessment against the strategic plans, state or local legislation as provided in the EIS prepared by Ethos Urban and dated 8 May 2020.

5.2 Building Height and Massing

The proposed building footprint, site layout and design scheme remains generally unchanged from that which was originally proposed. However, the amended proposal seeks consent for an additional level (Level 7) to allow for additional car parking and internalise the demand for future car parking at Liverpool Hospital.

The proposed building envelope seeks a maximum building height of RL 34.35 (23.85m) to the roof of Level 7A. The lift overrun will reach RL 35.7 (25.2 metres). Therefore, the proposed maximum building height complies with the Liverpool LEP 2008 maximum height control of 35m.

With the addition of Level 7, the proposed development will not result in any increase to the GFA or corresponding FSR on the site. Rather, the proposal has reduced the GFA from 37m^2 to 20m^2.

The building envelope will continue to provide a ground level under croft form the New Hospital Road to the north and will allow for a 4.5m height clearance for service and emergency vehicles. The typical levels from Level 1 to Level 7 have been designed to have a 2.8m floor to floor height. On the southern side, no design changes are proposed with the development providing a circular ramp for vehicular access to allow entry and exit from Level 2.

Accordingly, the proposed multi storey car park has been designed with a scale and expression that primarily relates to the streetscape and hospital campus. The proposed building height and massing is considered acceptable and appropriate to facilitate the required car parking to accommodate demand into the future. Through the curvature form and inclusion of facade treatments, the proposed development continues to adopt an appropriate articulation to respond to its surrounding context.

The proposed development is shown at **Figure 5** and **Figure 6** below and an additional Architectural Design Report and Architectural Plans are included at **Appendix B** and **Appendix C**.

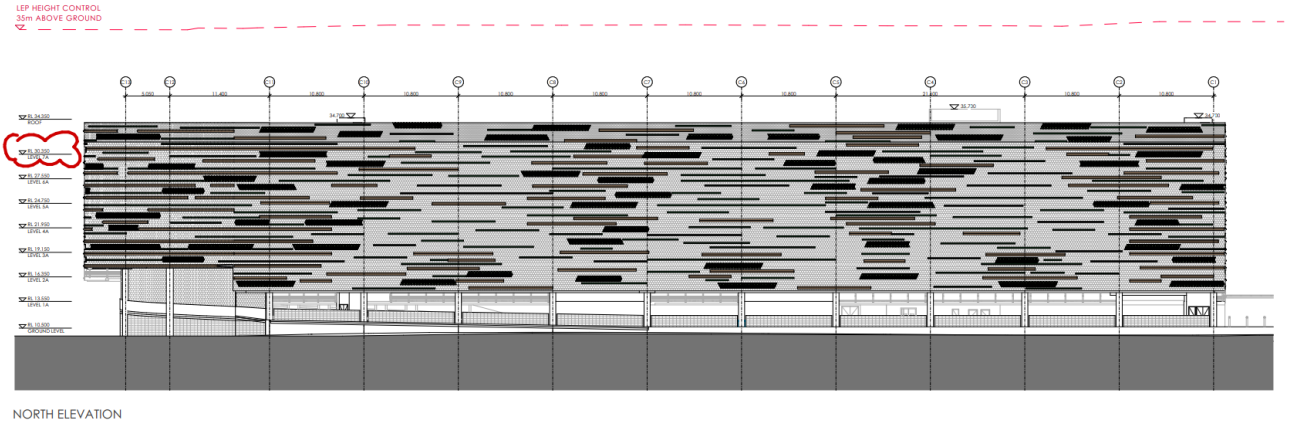

Figure 5 Proposed north elevation

Source: Fitzpatrick and Partners

Figure 6 Photomontage of the proposed development as viewed from Burnside Drive

Source: Fitzpatrick and Partners

5.3 Solar Access and Overshadowing

Additional solar access and overshadowing diagrams have been prepared by Fitzpatrick and Partners and are included at **Appendix B**. The shadow diagrams illustrate that while the proposed addition of Level 7 will result in some additional shadowing from that which was originally proposed, this will continue to fall on the hospital campus only and along a portion of the rail corridor to the east.

Within the hospital campus, the diagrams show that there is additional shadowing from that which currently exists and while the shadow cast will fall on some areas of open space within the north of the campus, the location of the MSCP is largely restricted by the functional needs of car parks. Further, the landscape design scheme that has been adopted in this portion of the campus has had regard to the future climatic conditions and has accounted for this with synthetic turf and tree rows aligned north-south to maximise sunlight during winter months.

Notwithstanding, the campus features various areas of open space and the surrounding locality also includes large parks and sporting fields to ensure staff, visitors and patients have access to open space throughout the day.

Figure 7 illustrates the existing overshadowing and additional shadows cast as a result of the proposed development.

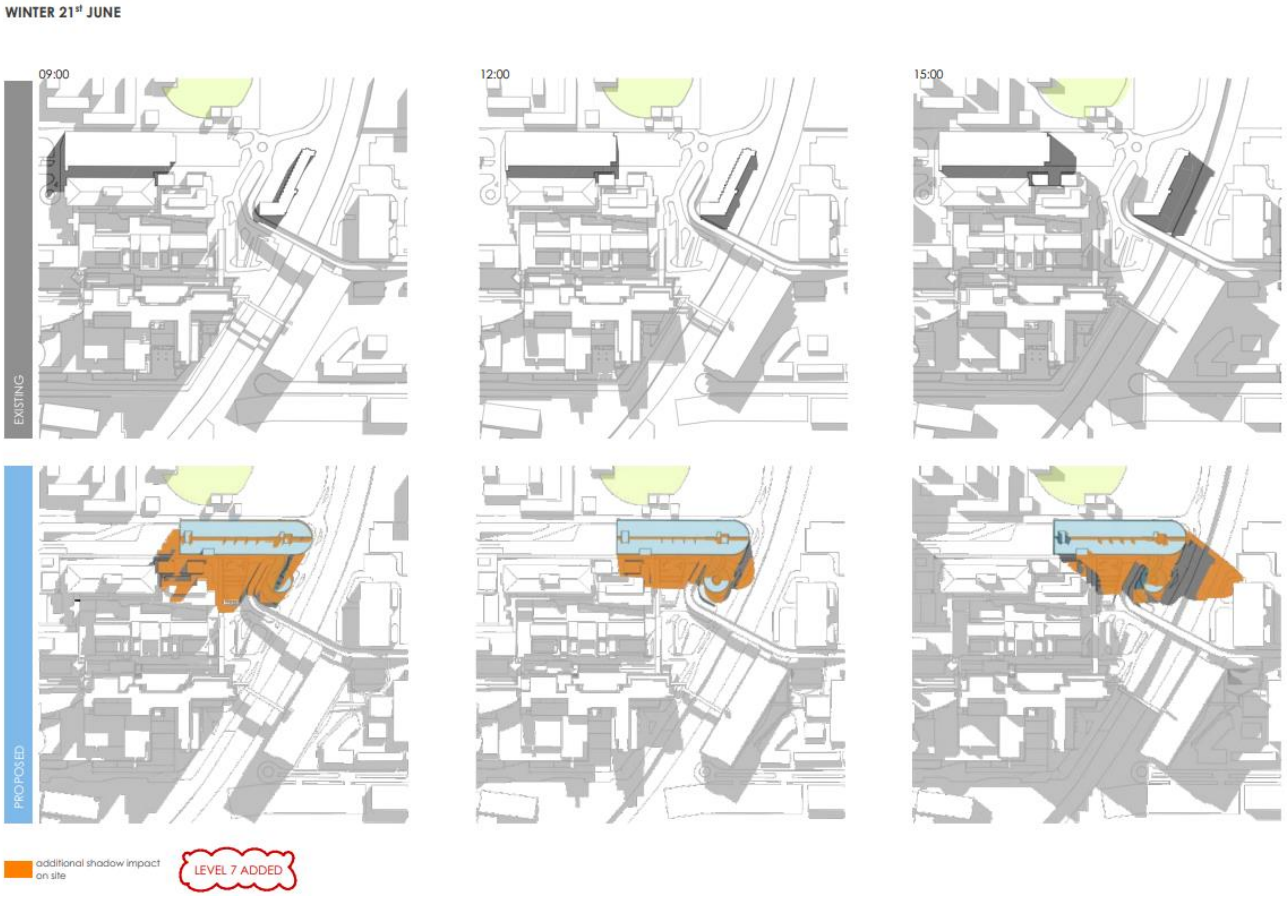

Figure 7 Overshadowing analysis

Source: Fitzpatrick and Partners

5.4 Traffic and Parking

An additional Transport Assessment has been prepared by GTA Consultants to assess the amended proposal and the additional traffic and parking associated with the inclusion of Level 7 at **Appendix E**.

5.4.1 Operational Parking

The Transport and Accessibility Impact Assessment prepared by GTA and submitted with the EIS documentation identified a 2025/26 car parking demand based on staff and visitor projects associated with the Liverpool Health and Academic Precinct redevelopment of 368 parking spaces to meet demand.

The proposed additional level of car parking will result in an increase of 151 parking spaces resulting in a total of 1,248 spaces. The existing hospital campus currently provides 2,295 car parking spaces for staff and visitors. It is noted that works are being undertaken which will remove parking at CP1, CP3 and the Western Campus Fleet car park with these spaces being relocated to the new MSCP. Therefore, as a result of the proposed development, the overall car parking supply will increase by 534 spaces, with a total of 2,829 spaces to satisfy demand to 2025/26. The change in car parking supply is shown in **Table 5** below.

Table 5 Change in car parking supply

Location	Existing	Future	Change
CP1	143	94	-49[1]
CP2	597	1,248	+651
CP3	141	97	-44[1]
CP4	780	780	0
CP5	575	575	0
Health Services Building	35	35	0
Western Campus Fleet Vehicles car park	24	0	-24[1]
Total	**2,295**	**2,829**	**+534**

[1]Removal of parking associated with works approved via separate planning pathways

Source: GTA Consultants

As a result of the additional level, **Table 5** illustrates that the proposed development will meet the 2025/26 additional parking requirement, while also internalising some of the existing off-site car parking demand.

Accessible Parking

As a result of the additional level and resultant increase in car parking spaces, the provision of accessible car parking spaces has been revised. The National Construction Code requires accessible parking to be provided at a rate of one space per 50 car parking spaces or part thereof for the first 1,000 car parking spaces, then 1 space per 100 car parking spaces or part thereof in excess of 1,000 car parking spaces. Therefore, the proposed development (as amended) will provide a total of 23 accessible parking spaces, which is an increase of 1 accessible parking space from that which was previously proposed.

Motorcycle Parking

The amended proposal will provide 63 motorcycle parking spaces which is an increase of 8 spaces from that which was previously proposed.

Bicycle Parking

Within the on-grade car park, the proposed development will provide 25 bicycle parking spaces for visitors to the hospital campus. Along with the Main Works SSDA (SSD 10389), the hospital campus will provide a total of 100 bicycle parking spaces.

5.4.2 Traffic Generation

The Transport and Accessibility Impact Assessment prepared by GTA and submitted with the EIS documentation identified a traffic generation rate of 0.54 and 0.38 trips per car space in the AM and PM road network peak hours respectively. Application of these rates indicates that the site could potentially generate an additional 351 and 247 vehicle trips in the AM and PM peak hours respectively. This represents an increase of approximately 81 and 57 vehicles trips in the AM and PM peak hour from that which was previously proposed under the 6 storey design. **Table 6** below provides an overview of the traffic generation estimates as a result of the amended design.

Table 6 Redevelopment traffic generation estimates (based on amended design)

Peak hour	Nett increase in parking	Traffic generation rate (trips / hour)	Traffic generation estimates (trips / hour)		
			In	Out	Total
AM	651	0.54	316	35	351
PM		0.38	49	198	247

Source: GTA Consultants

The additional traffic generated by the development of the MSCP including the additional level of car parking (resulting in an additional 151 spaces) has been modelled in SIDRA, along with the additional traffic generated by

the Westfield Shopping Centre development and the 26 Elizabeth Street development. The SIDRA modelling results are summarised in **Table 7** below.

Table 7 Intersection operation with surrounding developments and additional parking

Intersection	Peak	Degree of Saturation (DOS)	Average Delay (sec)	95th Percentile Queue (m) [1]	Level of Service (LOS)
Lachlan Street/ Hart Street	AM	0.38	10	17	A
	PM	0.43	9	22	A
Forbes Street/ Campbell Street/ Hospital access	AM	0.17	7	11	A
	PM	0.11	6	4	A
Goulburn Street / hospital access	AM	0.12	7	0	A
	PM	0.19	7	0	A
Hume Highway / Bigge Street	AM	0.93	33	124	C
	PM	0.81	20	118	B
Burnside Drive/ northern access road	AM	0.01	13	1	A
	PM	0.01	10	1	A
Burnside Drive/ Burnside drive bridge	AM	0.02	12	1	A
	PM	0.26	7	9	A
Burnside Drive/ Multi-storey car park access	AM	0.02	6	0	A
	PM	0.03	6	0	A
Bigge Street/ Campbell Street	AM	0.71	14	78	A
	PM	0.49	16	54	B
Bigge Street/ Elizabeth Street	AM	0.59	19	111	B
	PM	0.53	16	65	B
Campbell Street/ Goulburn Street	AM	0.51	16	50	B
	PM	0.26	15	27	B
Elizabeth Street/ Goulburn Street	AM	0.21	6	6	A
	PM	0.34	6	10	A
Bigge Street/ Moore Street	AM	0.69	22	151	B
	PM	0.54	23	128	B
Elizabeth Street/ College Street	AM	0.11	4	5	A
	PM	0.16	4	6	A
Hume Highway/ Remembrance Avenue	AM	0.96	28	244	B
	PM	0.83	27	187	B
Speed Street/ Newbridge Road	AM	0.80	22	88	B
	PM	0.87	24	375	B

Table 6 illustrates the increase in vehicle trips associated with the additional level of car parking will have a minor effect on the surrounding key intersections, with all intersections continuing to operate satisfactorily in the AM and PM peak periods. It should be noted that the additional parking supply does not necessarily result in additional traffic demand at surrounding intersections, with the intention that the additional parking internalises a proportion of the current off-site parking demand.

Further to this, a queuing analysis has been completed based on the anticipated traffic generation with consideration of the additional level. It is anticipated that approximately 237 and 37 vehicles will arrive at the Burnside Drive access point to the MSCP in the AM and PM peak hours. Based on a standard ticket machine rate of 300 vehicles per hour per boom gate and the two boom gates proposed at the Burnside Drive intersection, this would result in a 95th percentile queue of the three vehicles per lane. Therefore, the proposed design allows for vehicles to be stored on the ramp leading into the MSCP without affecting through traffic on Burnside Drive. Further discussion is provided in **Appendix E**.

5.5 Landscaping

The amended proposal will include an additional 8 trees at the on-grade car park. This will provide additional canopy cover in the car parking area. Accordingly, a total of 30 trees will be planted as part of the multi storey car park application. Amended Landscape Plans are included at **Appendix D** and the proposed additional tree planting is shown at **Figure 8** below.

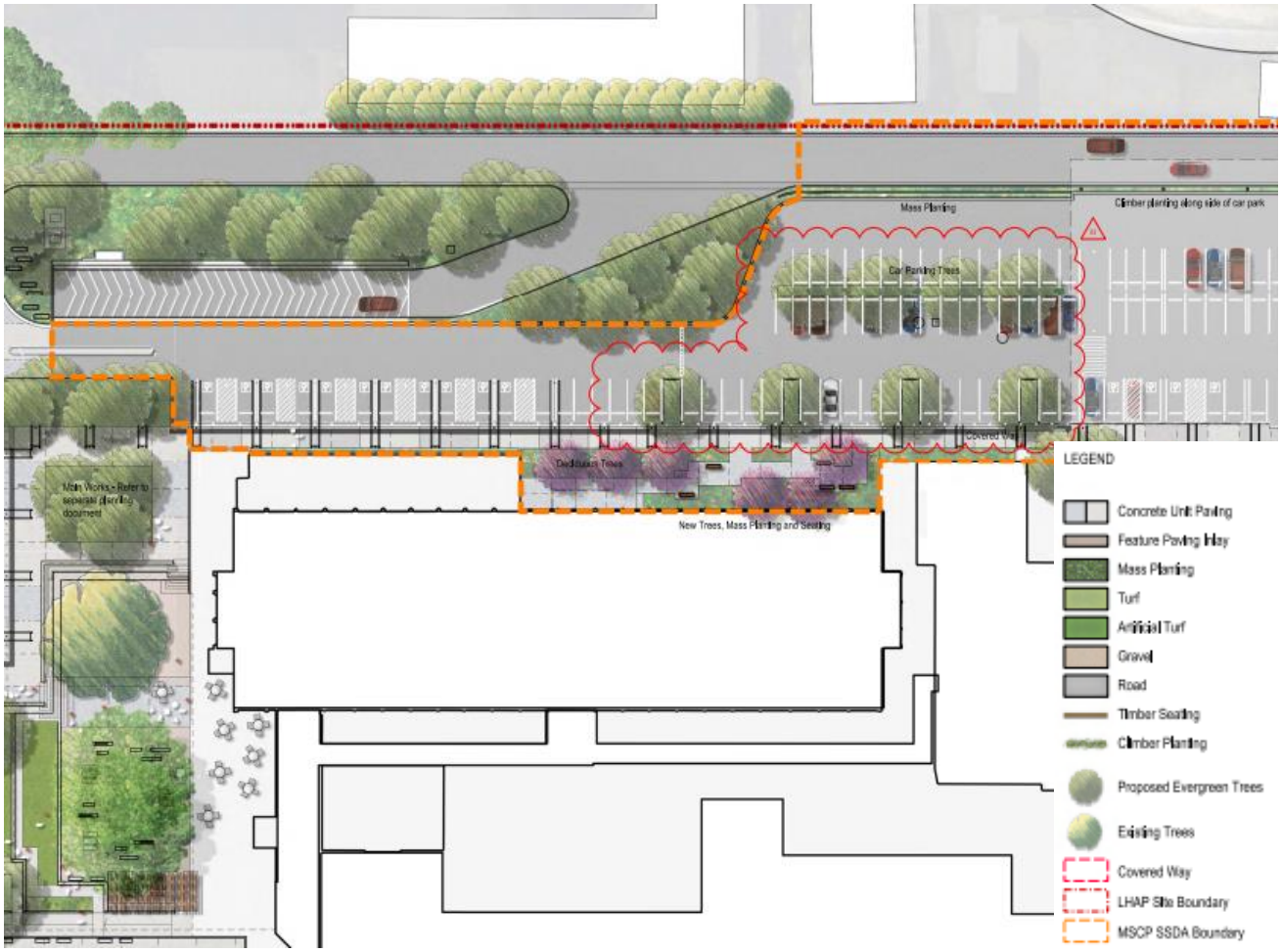

Figure 8 **On-grade car parking – additional tree planting**

Source: *Clouston*

6.0 Mitigation Measures

Since the exhibition of the EIS, the mitigation measures have been amended to respond to the Department's queries and correspond with the updated proposal and supporting documentation. Refer to **Table 8** below.

Table 8 Mitigation Measures

Mitigation Measures
Construction Hours Construction works will be carried out in accordance with the following hours: • Standard Hours: – Monday to Friday (7am – 6pm) and Saturday (8am – 1pm) • Outside Recommended Standard Hours: – Saturday (1pm – 3pm) Construction activities may be undertaken in accordance with the recommendations provided by Acoustic Logic including the following: • Regularly inspect and maintain acceptable lubricant levels and engine performance. Use existing and temporary site buildings plus material stockpiles as noise barriers. • Minimising reversing to minimise the use of movement alarms ("reversing beepers"). • Reasonable instructions from the project applicant and site manager to minimise the use of engine braking; and to avoid noise actions such as slamming doors, loud radios, shouting or the use of truck horns for signalling. • Consultation, notification and complaints handling. • Placement of acoustic barriers at either the source of the receiver. • Placement of silencing devices in the form of engine shrouding, or special industrial silencers fitted to exhausts where appropriate. • The installation of rubber matting over material handling areas to reduce the sound of impacts due to material being dropped by up to 20dB(A). Construction vehicles accessing the site should not queue in residential streets and should only use the designated construction vehicle routes. Loading of these vehicles should occur as far as possible from any sensitive receiver.
Transport and Accessibility Construction and operational traffic will be in accordance with the recommendations of the Transport Impact Assessment prepared by GTA Consultants and dated 6 May 2020. • Vehicle arrivals will be during the approved work hours. • Construction vehicle arrivals will be scheduled according to the available loading / unloading areas during each work stage. • Construction vehicles will be accommodated onsite or within approved work zones. • Prior to construction works commencing, a detailed Construction Traffic and Pedestrian management Plan will be prepared including detail on the arrival times and number of construction vehicles accessing the site.
Aboriginal Heritage Aboriginal Heritage will be managed in accordance with the Aboriginal Cultural Heritage Assessment prepared by RPS and dated 16 January 2020. • Personnel, contractors and subcontractors should be made aware of all statutory obligations for Aboriginal cultural heritage under the National Parks and Wildlife Act 1974 and the Heritage Act 1977. This should be in the form of an induction prior to the commencement of work. • If suspected Aboriginal objects are identified during construction, work should cease immediately and the area cordoned off. Health Infrastructure must be notified, and an archaeologist engaged to assess and record the Aboriginal object, and formulate an archaeological or cultural heritage management plan. The plan must be implemented prior to work recommencing. • In the unlikely event that human remains are identified within the Project Area, all work in the area must cease and the area cordoned off. The applicant must contact the local police. If the remains are thought to be Aboriginal, Heritage NSW must be notified on Enviroline (131 555). If Heritage NSW confirm that the remains are Aboriginal, a management plan developed in consultation with the local Aboriginal community. Work must not recommence without approval from Heritage NSW.
Waste Waste will be managed in accordance with the recommendations of the Operational and Construction Waste Management Plans prepared by Waste Audit and dated January 2020. Construction: • All site employees and sub-contractors will be required to attend a site specific induction that will outline the components of the WMP and explain the site specific practicalities of the waste reduction and recycling strategies outlined in the WMP. • All employees are to have a clear understanding of which products are being reused/recycled on site and where they are stockpiled. They are also to be made aware of waste reduction efforts in regards to packaging.

Mitigation Measures

- It will be the responsibility of the site developers to ensure all contractors clearly specify where all wastes are to be transported, the capacity of the nominated facilities to receive/manage the waste and to ensure that reports on management aspects (types, quantities and disposal pathways) are provided.
- All waste and recycling materials will be stored in bins provided by the appointed contractor(s). These bins will be appropriately coloured and signed to indicate what materials are to be deposited into them and located so as to maximise the recovery of reusable/recyclable materials.
- As construction activities progress, the designated bins will be moved so as to maximise the collection of materials that will be diverted from landfill. This will also involve relocating signage advising as to correct waste management.
- All hazardous wastes will be correctly identified and managed in accordance with all relevant legislation and Codes of Practices. Any hazardous materials will be separated into their individual categories and not mixed with any other materials.
- Records will be kept of all wastes and recyclables generated and either used on site, or transported off–site during the demolition and construction stages of the development

Operation:

- Cleaners will be required to provide feedback to management about any non-compliance issues they observe during their cleaning activities, such as contamination, non-participation, or missing or damaged bins.
- The waste / recycling contractor will be required to report actual quantities collected by stream so that management can monitor and feed this back to staff.
- Specific key performance indicators for performance will be included in waste and recycling contracts.
- The waste contractor will be required to participate in ongoing reviews and provide updates on new opportunities that may allow the hospital to further increase their diversion from landfill.

Stormwater

The proposal will be in accordance with the recommendations of the Civil Report prepared by TTW and dated 3 March 2020. Including:

- Erosion and sediment control devices and procedures will be put in place during construction to ensure that stormwater runoff will be collected and diverted around the disturbed site with sediments removed prior to discharge to the existing stormwater system.
- The controls will include:
  - Silt fences at the downstream boundary of the construction zone;
  - Wash down and diversions at temporary vehicle entrances/exists to the construction zone;
  - Sedimentation trap/basin with outlet control and overflow;
  - Diversions to prevent upstream runoff entering the construction zone; and
  - Sandbag sediment traps and geotextile filters to protect existing stormwater pits and inlets.
- As construction progresses, the erosion and sediment collection devices will be modified and adjusted by the contractor to suit building work stages and programme.
- All erosion and sediment control measures are to be constructed in accordance with “Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)” and “Approved Methods for the Modelling and Assessment of air pollutants in NSW (EPA).

Noise and Vibration

The proposal will be in accordance with the Noise and Vibration Impact Assessment prepared by Acoustic Logic. Including the following as they apply to the operation and construction phases (as well as those identified above under Construction Hours mitigation measures):

- Use quieter plant and equipment based on the optimal power and size to most efficiently perform the required tasks.
- Operate plant in the quietest and most effective manner.
- Maximising the distance between noise activities and noise sensitive receivers. Strategically locating equipment and plant.
- Placement of acoustic barriers and silencing devices where appropriate.
- Installation of rubber matting over material handling areas.

Landscape

The appointed contractor and landscape contractor will be responsible for maintenance of all landscaped areas within the defects and maintenance period as outlined in the landscape specification. Following the completion of the defects and maintenance period, it is advised that a landscape maintenance contractor is appointed for ongoing upkeep of all landscape areas.

Construction Impacts

A Construction Environmental Management Plan (CEMP) will be prepared by the appointed contractor prior to the commencement of works. The CEMP will establish site management principles generally in accordance with the Preliminary Construction Management Plan prepared Johnstaff and dated 29 March 2020.

Contamination

Mitigation Measures
The proposal will be in accordance with the Stage 2 Site Environmental Assessment prepared by JK Environments and dated 29 January 2020, Remediation Action Plan dated 30 April 2020 and Acid Sulfate Soils Management Plan dated 4 May 2020.
Environmentally Sustainable Development The detailed design of the development will incorporate all ESD principles and measures set out in the ESD Statement prepared by Steensen Varming.
Heritage The construction of the development will proceed in line with the following heritage recommendations: • The proposal would not affect an item or area of local or State significance. It is also within an area with low potential for archaeological relics as defined under the Heritage Act 1977. The proposal should proceed with caution. • If a stone, capped, brick or other drain is encountered all work should cease in the affected area and be cordoned off. An archaeologist should then be contacted to record (photographic and scale drawn record) the drain and potentially associated historic items. • In the event that unexpected archaeological resources are identified in the course of the proposal, all work in the affected area should cease, the area should be cordoned off and Heritage NSW notified in accordance with Section 146 of the Heritage Act 1977. • A Heritage Interpretation Plan (HIP) is prepared for the site to include evidence of the archaeological history of the site, previous buildings on the site and the history of the hospital. The HIP will be submitted to the Department for review and evidence will be provided to the PCA that it has been endorsed.

7.0 Conclusion

The applicant and project team have considered all submissions made in relation to the public exhibition of the proposal. A considered and detailed response to all submissions has been provided within the accompanying documentation.

In responding to and addressing the range of matters raised, the proposal has been refined pursuant to Clause 55 of the *Environmental Planning and Assessment Regulation 2000*.

We trust that the responses provided above will enable the Department to finalise their assessment of the SSDA. Given the environmental planning merits (and the ability to suitably manage and mitigate any potential impacts) and significant public benefits proposed, it is requested that the application be approved.