20 August 2020
Ref: E31425PletRev1-ADDRAP

Taylor Construction Group
Level 13, 157 Walker Street
North Sydney NSW 2060

Attention: Eddie Abramian
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ADDENDUM TO REMEDIATION ACTION PLAN
PROPOSED DEVELOPMENT OF PARRAMATTA WEST PUBLIC SCHOOL
CRIMEA STREET, PARRAMATTA, NSW

1 INTRODUCTION

Taylor Construction Group ('the client') commissioned JK Environments (JKE) to prepare an addendum to the Remediation Action Plan (RAP) for Parramatta West Public School. This addendum RAP should be read and implemented in conjunction with the existing RAP, which is referenced as follows:

> *Report to Conrad Gargett Pty Ltd on Remediation Action Plan for Proposed Development at Parramatta West Public School, Crimea Street, Parramatta, NSW* (Ref: E31425KPrpt-RAP, dated 23 July 2018 and referred to as 'the RAP' herein).

The addendum RAP has been prepared to document:

- Clarifications regarding the extent of 'the site' area subject to remediation. For the purpose of this addendum RAP, the term 'the site' refers to Lot 406 DP729083, as indicated on the figures and survey presented in Appendix A;
- Updated project contacts and site details (Section 2);
- A review of the Conceptual Site Model (CSM) and the proposed extent of remediation (Section 3);
- Minor amendments to the capping specification (Section 4);
- Minor amendments to the remedial approach to include some consolidation and capping of soils impacted with bonded asbestos containing material (ACM), and to provide an alternative approach for the batters and tree protection areas where removal of soil and/or capping will not occur (Section 5);
- Minor amendments to the validation plan (Section 6) and contingency plan (Section 7) to reflect the above; and
- Other minor amendments and clarifications in response to *Interim Audit Advice 01* issued by the Site Auditor (Ref: SYDEN233503-IA01 rev1, dated 14 October 2019 and referred to as 'IA 01' herein).

Where there is any inconsistency between this addendum RAP and the RAP, the addendum RAP will take precedence.

Environmental Investigation Services (EIS) re-branded to JK Environments in mid-2019 and will continue to function as the environmental division of JK Group alongside JK Geotechnics and JK Drilling.

1.1 Proposed Development Details

The State Significant Development (SSD) consent was approved by the Minister for Planning and Public Spaces under Section 4.38 of the *Environmental Planning and Assessment Act 1979* (NSW) (Ref: SSD 8790, dated 2 December 2019). The development includes the redevelopment of Parramatta West Public School in three construction stages and incorporates works in areas that fall outside the site area applicable under the addendum RAP.

The proposed development works at the site include:

- Minor earthworks to create the desired levels to facilitate the remediation and construction works;
- Construction of a new two-storey building comprising new homebases, multi-purpose all, administration areas, canteen, staff amenities and storage facilities;
- New formalised entry and forecourt fronting Railway Street and gated entry from Crimea Street;
- Stormwater management works; and
- Landscaping works, including open space improvements, tree removal, fencing and pathways.

2 SITE DETAILS AND PROJECT CONTACTS

2.1 Site Information and Description

Table 2-1: Site Identification

Current Site Owner:	The State of New South Wales (NSW Department of Education is the entity responsible for day-to-day management of the site)
Site Address:	Crimea Street, Parramatta, NSW (bound by Railway Street and Crimea Street, approximately 50m to the west of the intersection with Crimea and Franklin Streets)
Lot & Deposited Plan:	Part of Lot 406 DP729083
Current Land Use:	Enclosed construction site bound by timber hoarding and fencing, with a small portion of the south-western end of the site (outside of the hoarding) used as a temporary learning space occupied by demountable classrooms.
Proposed Land Use:	Primary school, including new school buildings, entry forecourt, landscaping works and open space improvements
Local Government Authority:	Parramatta City Council
Current Zoning:	R2 – Low Density Residential
Site Area (m^2):	Approximately 8,000 (to be confirmed via survey)
RL (AHD in m) (approx.):	25-30
Geographical Location (decimal degrees) (approx.):	Easting: 314084.159 Northing: 6255595.782 (approximate centre point of main building area)
Site Location Plan:	Figure 1, Appendix A
Survey Plan:	Appendix A

JKE inspected the site on 9 January 2020. At the time of the inspection, the client (as Principal Contractor) had commenced establishment on site and timber hoarding was setup around the site boundaries. Site access was via gates which entered the western portion of the site from both Crimea and Railway Streets. Subsequent site inspections have been undertaken by JKE throughout 2020, and as of the date of this revised addendum RAP, earthworks were largely complete in the eastern area of the site and construction of the building had commenced.

Temporary classrooms had been established in the western portion of the site (see attached Figure 1 in Appendix A), beyond the timber hoarding. It is understood that interim management of contamination in the temporary school area is being undertaken by the NSW Department of Education Asset Management Unit as a separate exercise to the development, until such a time that this area is remediated. The presence of carcinogenic Polycyclic Aromatic Hydrocarbons (PAHs) above 250% of the previous investigation criteria in TP32 would warrant notification under NSW EPA Guidelines on the Duty to Report Contamination under

Section 60 of the CLM Act 1997 (2015)[1] in the event the excluded area is not adequately managed/remediated.

2.2 Updated Project Contacts

The updated project contacts are provided in the following table:

Table 2-2: Project Contacts

Task / Role	Company / Organisation	Contact Details
Project Manager	Taylor Construction Group	Eddie Abramian P: 8736 9000 M: 0416 855 558
Principal Contractor	As above	-
Validation Consultant	JKE	Brendan Page P: 9888 5000
Site Auditor	Coffey	Michael Dunbavan P: 9406 1206 M: 0419 395 971
School	Parramatta West Public School	School Principal (Teunis Ploeg) P: 9635 9347
Certifier	Blackett Maguire and Goldsmith	Paul Whelan P: 0498 655 098
Complaints line	NSW Department of Education, School Infrastructure NSW	P: 1300 482 651
NSW EPA	Pollution Line	P: 131 555
Emergency Services	Ambulance, police, fire	P: 000

[1] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997* (referred to as Duty to Report Contamination)

3 REVIEW OF THE EXTENT OF REMEDIATION AND THE CSM

3.1 Extent of Remediation

3.1.1 Asbestos

Asbestos as bonded ACM is widespread in fill/soil and is considered to extend across all of the site. The fill depths encountered during the previous JKE investigation typically ranged from 0.1-0.5m, with some areas of deeper fill (>1m) in the western parts of the site. The concentrations of asbestos (as ACM) in soils based on the bulk field screening samples collected for the previous investigation ranged from 0.0039% weight for weight (w/w) to 0.0896%w/w.

Remediation for ACM will extend across the site to the extent of the Lot 406 DP729083 boundaries, as shown on the survey in Appendix A.

3.1.2 Polycyclic Aromatic Hydrocarbons (PAHs)

The RAP included a nominal area of remediation around location TP32 (see Figure 2, Appendix A) where PAH contamination was identified in the shallow fill. The PAH contamination in shallow soil at TP32 was at an unacceptable level, but was acceptable or not detected elsewhere.

Additional soil samples have been collected from the vicinity of TP32 as part of the site validation process and an initial review of these results indicated that the occurrence of PAHs in fill in the western part of the site is likely to be widespread, albeit at lower concentrations than originally reported in TP32 (the maximum carcinogenic PAH concentration from the validation sampling was 6.3mg/kg and only three of the 34 samples exceeded the 3mg/kg threshold). The PAHs are considered to be attributed to ash, metallurgic furnace slag and/or asphaltic concrete fragments in the fill matrix (all three of these inclusions were found in trace quantities in the fill). Further details are to be presented in the site validation report.

For the purpose of the remediation, site validation and long-term management of the site, the fill in the western area of the site will be deemed to be contaminated with carcinogenic PAHs at concentrations above the Validation Assessment Criteria (VAC). Due to the inferred extent, the original remediation approach proposed in the RAP (i.e. delineate, excavate and dispose) will not be implemented. The 'cap and contain' strategy (initially proposed for asbestos remediation), is considered to be a suitable alternative approach to address the risks associated with PAHs in fill, and this has been reflected in this addendum RAP.

3.2 Review of CSM

The primary contaminants of concern are asbestos (as bonded ACM) and PAHs. The occurrence of unacceptable concentrations of PAHs is limited to the western half of the site, to the west of the proposed new buildings. This general delineation in relation to the extent of the PAH-contaminated fill is based on the following lines of evidence:

- The subsurface conditions in the western half of the site vary from the eastern half in that the fill is deeper (particularly in the vicinity of the sewer) in the western half of the site and contains a larger proportion of manmade inclusions such as slag and asphalt fragments; and

- Thirty fill soil samples were analysed previously for the Detailed Site Investigation (DSI) and only one sample reported a carcinogenic PAH concentration above the VAC of 3mg/kg. This occurred in the fill in the vicinity of the sewer in the western part of the site.

The contamination sources, mechanisms for contamination, affected media, receptors and exposure pathways remain unchanged from the RAP.

We have further considered the potential sources of contamination and other contaminants of potential concern (CoPC) in relation to comments made by the Site Auditor in IA 01 and we note the following:

- An ambulance depot is located approximately 70m to the west of the site. Although it is possible for this type of land use to include potentially contaminating activities (e.g. the storage of fuel in underground or above ground tanks), the depot is located cross/down-gradient of the site in relation to the topography and it is not considered to represent a potential off-site source of contamination that could impact the site;
- The potential for impacted groundwater (that could pose a risk in the context of the proposed development) from up-gradient, off-site areas to flow beneath the site in shallow water-bearing zones within the bedrock is considered to be very low, particularly considering that the up-gradient areas have historically been used for residential or educational purposes which do not involve contaminating activities. Our previous investigation included the installation of a groundwater well in the up-gradient (south-east) portion of the site, to a depth of approximately 10.2m below ground level (BGL) and into the shale bedrock. Samples collected from the well did not identify groundwater impacts that posed a risk;
- A very low concentration of naphthalene was encountered in the groundwater (which occurred at a depth of over 7m). The concentration was substantially below the Health Screening Levels and would pose a negligible risk to site users; and
- There were no historical land uses in the surrounds that would be expected to involve the use, storage or manufacture of per- and polyfluoroalkyl substances (PFAS). There were no properties within a 2,000m buffer of the site that are listed under the NSW EPA PFAS Investigation Program. On this basis, PFAS is not considered to be a CoPC at the site.

4 AMENDED CAPPING SPECIFICATION

The amended capping specification for the site is provided in the table below. Conceptual cross sections for each capping specification are shown on Figure 3 in Appendix A.

Table 4-1: Amended Capping Specification

Area / Finished Surface	Capping Specification
Building footprint. (Capping Type A optional)	Subbase/basecourse and building slab as per the relevant engineering specification. Although not specified under this addendum RAP, it is understood that the client may elect to also place coloured (preferably orange) geofabric[2] overlying the ground surface beneath the structural slab.
Hardstand surfaces, paved areas and areas with continuous surface coverings such as soft fall that are outside building footprint. (Capping Type A)	Coloured (preferably orange) geofabric overlying the ground surface (unless surface can be confirmed/validated as virgin material), followed by the subbase/basecourse and pavement/soft fall as per the relevant engineering/construction specifications.
Battered areas around the site boundaries and areas where trees are to be retained (i.e. where excavation and installation of 300mm clean soil cap cannot/will not occur). (Capping Type B and B2)	Minimum of 0.1m woodchip mulch, or another suitable product as agreed with the Validation Consultant and Site Auditor. The use of tiered garden edging/stabilising measures may be required to retain the 0.1m thick layer depending on the grade of the batter.
Unpaved areas including landscaped or grassed areas with shallow plantings and/or turf (excludes battered areas and existing tree areas as noted above). (Capping Type C)	Coloured (preferably orange) geofabric overlying the ground surface (unless surface can be confirmed/validated as virgin material), overlain by a minimum cap of 300mm comprising clean (validated) imported material or site-won Virgin Excavated Natural Material (VENM). Turf would subsequently be laid over the 300mm cap where required. Shallow plantings are not to extend deeper than the geofabric.
Unpaved areas including landscaped or grassed areas with new tree plantings (excludes battered areas and existing tree areas as noted above). (Capping Type D)	Coloured (preferably orange) geofabric overlying the ground surface (unless surface can be confirmed/validated as virgin material), overlain by a minimum cap of 300mm comprising clean (validated) imported material or site-won VENM. Turf would subsequently be laid over the 300mm cap where required. Tree plantings, assuming they require installation to a depth beyond the 300mm cap, would need to be boxed out over a 1m by 1m area or as

[2] Reference to 'geofabric' in the context of the addendum RAP includes a high visibility (e.g. orange), non-woven product that is also suitable from a free drainage, engineering and geotechnical point of view.

	appropriate considering the size of the root ball and future growth of the tree. The base and side walls of the tree pit is to be lined with the coloured (preferably orange) geofabric (unless base/walls can be confirmed/validated as virgin material) which is to be appropriately secured to the geofabric adjoining the tree pit. The tree pit is to be backfilled using clean (validated) imported material.
Underground services (Capping Type E)	All services are to be placed in trenches backfilled with clean, validated material. Trenches in fill are to be lined at the base and walls with coloured (preferably orange) geofabric. Capping finishes above the service trenches are to align with the above scenarios. Existing underground services, such as the sewer in the western area of the site, will remain beneath the final cap.

Figure 4 in Appendix A presents the preliminary capping arrangement across the various areas of the site. Alterations to this plan are to be reviewed by and approved by the Validation Consultant and the Site Auditor.

5 REMEDIATION DETAILS

5.1 Asbestos Management Plan

The *Asbestos Management Plan* prepared by JKE (Ref: E31425Prpt-AMP, dated 15 January 2020 and referred to as 'the AMP' herein) is to be implemented during remediation and during construction activities occurring concurrently with the remediation. For consistency, the roles and responsibilities described in this addendum RAP generally align with the AMP.

5.2 Sequence of Works / Staging of Remediation

JKE anticipate the following sequence of work for the project (in the context of the remediation):

1) Excavation to create the building platforms, service trenches and other site levels that need to be achieved in the eastern part of the site;
2) Consolidation of some ACM-impacted fill beneath the northern portion of the proposed building area (in preparation for subsequent capping), followed by a layer of site-won VENM to remove the requirement for asbestos controls under the AMP;
3) Temporary stockpiling of some ACM-impacted fill in the western part of the site prior to consolidation of this material in this area (in preparation for subsequent capping);
4) Capping of the site (this includes final landscaping in some instances);
5) Where required, waste classification and off-site disposal of surplus ACM-impacted soil; and
6) Validation throughout the works, and preparation of a validation report on completion.

Site validation will occur concurrently with the steps above and will include validation of all imported materials until the finalisation of the site validation report. In terms of the site audit, it is understood that interim audit advice will be provided to align with the following broad stages of the remediation (to address Condition C42 of the development consent):

- **Stage 1** – cut and fill works for the building pad, capping of the building pad area, and relocation of the fill from the eastern part of the site to the consolidation area in the western part of the site;
- **Stage 2** – capping of the western part of the site following removal of the demountable classrooms; and
- **Stage 3** – completion of capping associated with landscaping.

Interim Audit Advice 04 has already been prepared and issued by the site auditor (Ref: SYDEN233503-IA04, dated 12 June 2012).

5.3 Remediation of Asbestos/ACM and PAHs

Remediation of asbestos/ACM and PAHs will be carried out by the Principal Contractor's nominated subcontractors (including the Asbestos Contractor) as outlined below:

Table 5-1: Remediation – Asbestos/ACM

Step	Procedure
1.	Address Stability Issues and Underground Services: Geotechnical advice should be sought regarding the stability of the adjacent structures and/or adjacent areas prior to commencing remediation (as required). Stability issues should be addressed to the satisfaction of a suitably qualified geotechnical engineer. All underground services are to be appropriately disconnected or rerouted to facilitate the works.
2.	Review of Proposed Capping Design and Adjustment of Levels: The Principal Contractor and their nominated subcontractors should undertake a review of the minimum acceptable capping standards outlined in Section 4 of this addendum RAP in the context of the proposed development design. The site levels are to be adjusted as required and fill is to be consolidated (where necessary) beneath the respective site areas for subsequent capping. Where temporary stockpiling occurs, this is to be undertaken in accordance with the AMP.
3.	Capping: Capping will occur as follows: • Once the pre-capping site levels are achieved, the Asbestos Contractor is to undertake a visual inspection and pick any visible fragments of ACM from the ground surface for disposal to landfill. All ACM is to be managed in accordance with the AMP; • The Validation Consultant or Licensed Asbestos Assessor is to undertake a surface clearance inspection and provide a clearance certificate. This can be undertaken for various sub-areas if required, as the works proceed throughout the site; • The relevant contractor is to install the marker layer where required under the capping specification. A minimum overlap of 0.5m is recommended between each length of geofabric and the geofabric is to be appropriately secured to the ground using soil nails (e.g. 'u' nails or pegs) or other appropriate methods; • Following installation of the geofabric marker (or prior to the importation of the 0.1m of mulch in those areas where the marker layer is not being installed), a pre-capping levels survey is to be completed by the relevant subcontractor (arranged by the Principal Contractor) to record the site levels on-top of the marker layer, prior to installation of any capping layers. It is recommended that survey points are recorded with a spacing of not more than 5m between adjacent points. Additional points may be required for narrow/lineal or irregular-shaped areas and at changes in surface slope; • The Validation Consultant and the nominated subcontractors are to document the installation of the geofabric photographically; • After the pre-capping survey is complete, the area is to be capped to meet the requirements of the development and to address Section 4 of this addendum RAP. All imported materials used during the capping process are to be validated (prior to and during importation) by the Validation Consultant in accordance with the validation plan in Section 6; and • On completion of capping, a post-capping levels survey is to be completed by the relevant subcontractor (arranged by the Principal Contractor) to record the finished site levels for the purpose of demonstrating that the minimum capping requirements have been achieved. It is recommended that survey points are recorded with a spacing of not more than 5m between adjacent points. Additional points may be required for narrow/lineal or irregular-shaped areas and at changes in surface slope.

6 VALIDATION PLAN

6.1 Validation Sampling and Documentation

The table below outlines the validation requirements for the site:

Table 6-1: Validation Requirements

Aspect	Sampling	Analysis	Observations and Documentation
Capping			
Capping	Refer to imported materials validation requirements in the following sections of this table.	Refer to imported materials validation requirements in the following sections of this table.	Visual inspections and photo-documentation of marker layer installation. Where the complete removal of fill occurs from an area, the area is to be inspected by the validation consultant and documentation is to be provided confirming that all fill has been removed and the ground surface is virgin soil or rock. Pre-capping and post-capping levels surveys. Asbestos clearance certificates. Documentation of capping materials and thickness of capping layers. Validation of imported materials used as capping. Asbestos management documentation, as outlined in the AMP (including waste disposal and tracking documentation).
Imported Materials – validation of imported materials is required for any materials imported onto the site during the remediation, to the point in time that the site validation report is prepared (this includes but is not limited to: gravels imported for access driveways and prior to construction of site sheds, imported engineering materials used for filling, basecourse/subbase materials and/or material for backfilling service trenches, landscaping materials and mulches).			
Imported VENM backfill (if required)	Minimum of three samples per source	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), Total Recoverable Hydrocarbons (TRHs), benzene, toluene, ethylbenzene and xylenes (BTEX), PAHs, Organochlorine Pesticides (OCPs), Organophosphate Pesticides (OPPs), Polychlorinated	VENM documentation/report required (should include source site history to demonstrate analytes are appropriate). Photographs of the VENM at the source site. Material is to be inspected upon importation by the Validation Consultant to confirm it is free of visible/olfactory indicators of contamination and is consistent with documentation. Photographic documentation and an inspection log are to be maintained. Where check sampling occurs by the Validation Consultant due to deficiencies or irregularities in existing VENM documentation, the following is required:

Aspect	Sampling	Analysis	Observations and Documentation
		Biphenyls (PCBs), PCBs and asbestos (presence/absence). Additional analysis may be required depending on the site history of the source property.	• Date of sampling and description of material sampled; • An estimate of the volume of material imported at the time of sampling; • Sample location plan; and • Analytical reports and tabulated results with comparison to the VAC.
Imported engineering materials comprising only natural quarried products.	At the Validation Consultant's discretion based on robustness of supplier documentation.	At the Validation Consultant's discretion based on robustness of supplier documentation.	Documentation to be provided from the supplier confirming the material is a product comprising only natural excavated materials (i.e. natural quarried product). Review of the quarry's Environment Protection Licence (EPL). Material is to be inspected by the validation Consultant upon importation to confirm it is free of anthropogenic materials, visible and olfactory indicators of contamination, and is consistent with documentation. Dockets for imported material to be provided. Where check sampling occurs by the Validation Consultant due to deficiencies or irregularities in existing documentation, the following is required: • Date of sampling and description of material sampled; • An estimate of the volume of material imported at the time of sampling; • Sample location plan; and • Analytical reports and tabulated results with comparison to the VAC.
Imported engineering materials such as recycled aggregate, road base etc or Excavated Natural Material (ENM)	Minimum of three samples per source/material type.	Heavy metals (as above), TRHs, BTEX, PAHs, OCP/OPP, PCBs and asbestos (presence/absence). Additional testing may be required for ENM (e.g. foreign materials, pH and electrical conductivity) depending on available documentation. .	Documentation required to confirm material has been classified with reference to a relevant Resource Recovery Order/Exemption. Review of the facility's Environment Protection Licence (EPL). Material is to be inspected by the Validation Consultant upon importation to confirm it is free of visible/olfactory indicators of contamination (e.g. asbestos) and is consistent with documentation. Dockets for imported material to be provided.

Aspect	Sampling	Analysis	Observations and Documentation
			Where check sampling occurs by the Validation Consultant due to deficiencies or irregularities in existing documentation, the following is required: • Date of sampling and description of material sampled; • An estimate of the volume of material imported at the time of sampling; • Sample location plan; and • Analytical reports and tabulated results with comparison to the VAC.
Mulch	Minimum of three samples per source/material type.	Asbestos (presence/absence)	Material is to be inspected upon importation to confirm it is free of anthropogenic materials, visible and olfactory indicators of contamination (e.g. asbestos) and is consistent with expectations.

6.2 VAC and Data Assessment

The VAC are outlined in the following table:

Table 6-2: Validation Requirements

Validation Aspect	Criteria
Waste classification (soil disposal)	In accordance with the procedures and criteria outlined in the NSW EPA *Waste Classification Guidelines* (2014) and any associated waste exemptions/approvals.
PAHs in fill – south-western site area	Carcinogenic PAHs ≤3mg/kg. Total PAHs ≤300mg/kg. Fill with concentrations in excess of the above will be caped and managed with regards to PAHs.
Capping	Documentation of surface (asbestos) clearances via asbestos clearance certificates and complete photographic record of marker layer installation. Pre-capping and post-capping surveys demonstrating clear differential of at least 300mm between the marker layer surface and final surface level in unpaved areas where marker layer installation occurs, or demonstrating differential of 100mm on the battered areas around the site boundaries and areas where trees are to be retained (i.e. where excavation and installation of 300mm clean soil cap cannot/will not occur).
Imported materials	Material imported as general fill must only be VENM or ENM. Results for VENM and other imported materials will need to be consistent with expectations for those materials. For VENM, it is expected that: • Heavy metal concentrations are to be less than the most conservative Added Contaminant Limit (ACL) concentrations for an urban residential and public open space exposure setting presented in Schedule B1 of the National Environmental

Validation Aspect	Criteria
	Protection (Assessment of Site Contamination) Measure 1999 as amended (2013) (referred to as 'NEPM 2013' herein); and • Organic compounds are to be less than the laboratory Practical Quantitation Limits (PQLs) and asbestos to be absent. Recycled materials are to meet the criteria of the relevant exemption/order under which they are produced. Landscaping materials will be initially assessed against the same criteria as for VENM. In the event of validation failure (which is likely for organics such as PAHs and TRHs), a risk-based assessment approach could be adopted, subject to the Validation Consultant consulting with the Site Auditor. All imported materials are to be visually free of asbestos. Aesthetics: soils to be free of staining and odours.

Analytical data should initially be assessed as above or below the VAC. Statistical analysis may be applied if deemed appropriate and undertaken in accordance with the NEPM 2013.

7 CONTINGENCY PLAN

A revised contingency plan is outlined below for unexpected finds should they be encountered at unacceptable levels in the western portion of the site.

7.1 Unexpected Finds Protocol

Residual hazards that may exist at the site would generally be expected to be detectable through visual or olfactory means. At this site, these types of hazards may include: suspected friable types of asbestos in soil, and odorous or stained hydrocarbon impacted soils.

The procedure to be followed in the event of an unexpected find is presented below:

- In the event of an unexpected find, all work in the immediate vicinity should cease;
- The following parties should be contacted immediately:
    - Validation Consultant;
    - Site Auditor;
    - Blue Vision (School Infrastructure NSW Project Manager). Notification under clause 5.6 of Preliminaries document General Condition of Contract to be issued to Blue Vision with required details as soon as practicable thereafter initial notification;
    - School Infrastructure NSW representative;
    - Planning Secretary (to be completed by Blue Vision/School Infrastructure NSW);
- Temporary barricades should be erected to isolate the area from access to the public and workers;
- In the event suspected friable asbestos material is encountered, the Licensed Asbestos Assessor should be contacted in accordance with the AMP (preferably the Validation Consultant will have an in-house hygienist or Licensed Asbestos Assessor);
- The Validation Consultant is to attend the site and assess the extent of remediation that may be required;
- An additional sampling and analytical rationale should be established by the Validation Consultant with reference to the relevant guideline documents, reviewed and approved by the Site Auditor, then implemented with reference to the relevant guideline documents;
- In the event remediation is required outside the purview of the RAP and this addendum RAP, a supplementary addendum RAP or Remedial Works Plan (RWP) should be prepared and submitted to the Principal Contractor, Site Auditor and Consent Authority and School Infrastructure NSW for review and approval; and
- Appropriate validation sampling should be undertaken and the results should be included in the validation report.

8 CONCLUSIONS AND LIMITATIONS

JKE are of the opinion that the site can be made suitable for the proposed development, subject to the implementation of the RAP and this addendum RAP, validation, and preparation of/agreement to an appropriate Environmental Management Plan (EMP). This addendum RAP should be reviewed and endorsed by the Site Auditor. The client and project stakeholders should also review the addendum RAP in the context of the Development Consent and consult with a specialised planner (where deemed necessary) to establish whether any modification of the Development Consent is warranted.

The limitations of the addendum RAP are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by the Validation Consultant in accordance with the RAP/addendum RAP and AMP;
- This report has been prepared based on site conditions which existed at the time of the previous investigation, the validation activities to date, scope of work and limitation outlined in the JKE proposal, and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the screening criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional validation/investigation work may be required in the event of changes to the proposed development or landuse. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa;
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose;
- Copyright in this report is the property of JKE. JKE has used a degree of care, skill and diligence normally exercised by consulting professionals in similar circumstances and locality. No other warranty expressed or implied is made or intended. Subject to payment of all fees due for the investigation, the client alone shall have a licence to use this report;
- If the client, or any person, provides a copy of this report to any third party, such third party must not rely on this report except with the express written consent of JKE; and

- Any third party who seeks to rely on this report without the express written consent of JKE does so entirely at their own risk and to the fullest extent permitted by law, JKE accepts no liability whatsoever, in respect of any loss or damage suffered by any such third party.

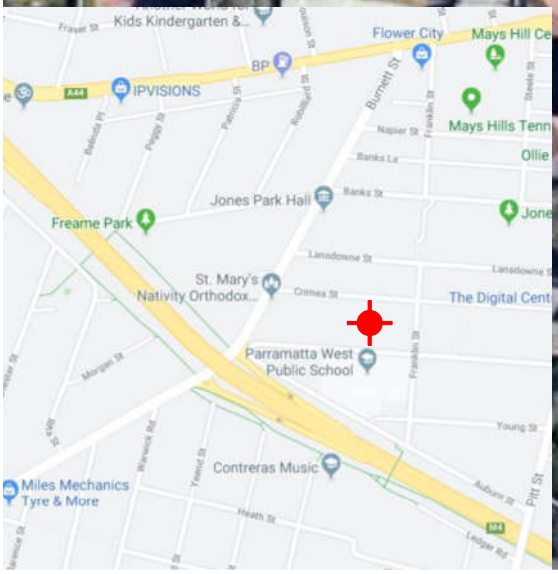
If you have any questions concerning the contents of this letter please do not hesitate to contact us.

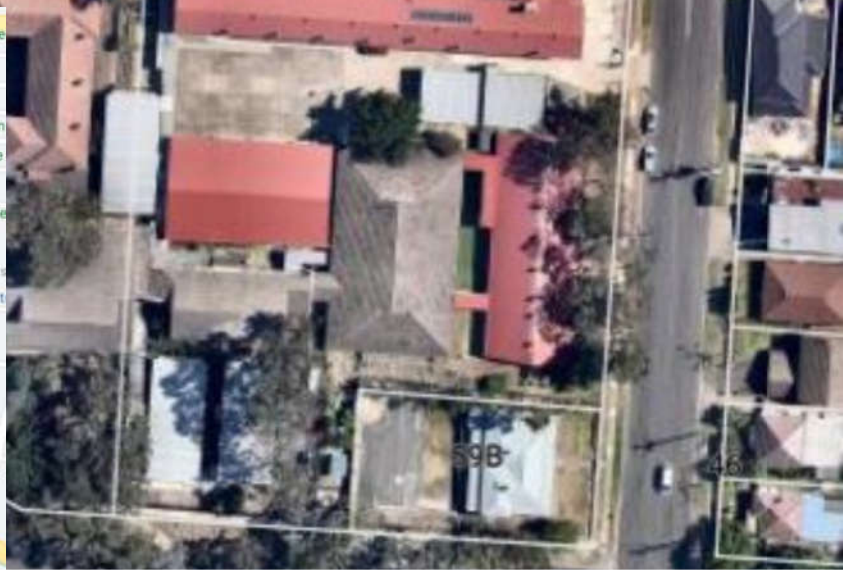
Kind Regards

Brendan Page
Principal Associate | Environmental Scientist

Appendices:
Appendix A: Figures and Surveys

Appendix A: Figures and Surveys





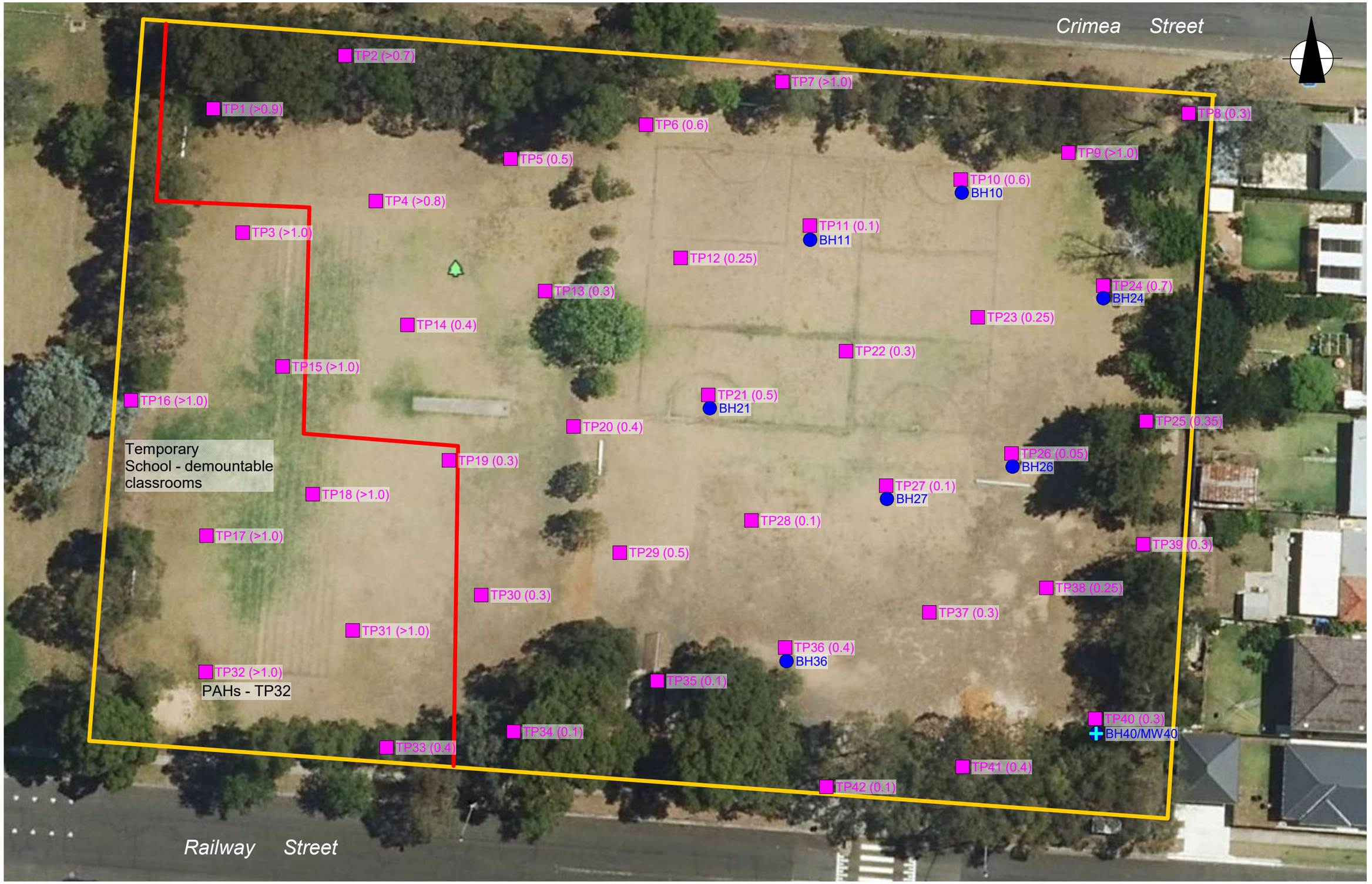
Title:	**SITE LOCATION PLAN**
Location:	PARRAMATTA WEST PUBLIC SCHOOL CRIMEA STREET, PARRAMATTA, NSW
Project No:	E31425PletRev1-ADDRAP
Figure No:	1

Notes: Reference should be made to the report text for a full understanding of this plan.

Image Sources: Nearmap 27 October 2019 and Google Maps.

Not to Scale.

JK ENVIRONMENTS



LEGEND:

- TP40 (0.3) TEST PIT LOCATION, NUMBER AND DEPTH OF FILL (m)
- BH36 BOREHOLE LOCATION AND NUMBER
- MW40 MONITORING WELL LOCATION AND NUMBER
- SITE/LOT BOUNDARY (APPROX.)
- HOARDING BOUNDARY

0 20
Scale Metres

Figure recreated using Google Earth image from previous investigation (date of image not recorded by JKE)

Title: **PREVIOUS SITE FEATURES AND SAMPLE LOCATIONS**

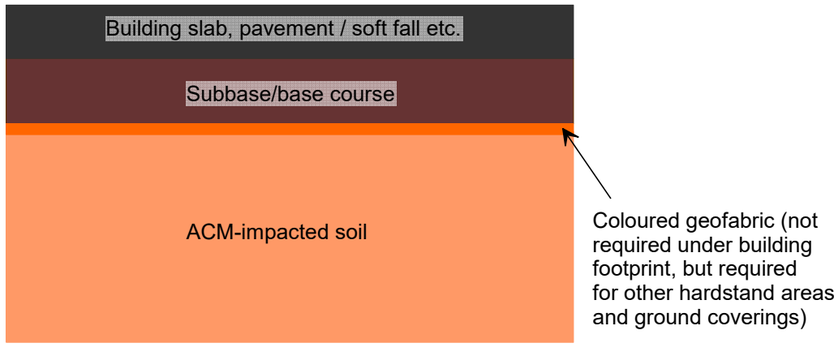
Location: PARRAMATTA WEST PUBLIC SCHOOL, CRIMEA STREET, PARRAMATTA

Project No: E31425PletRev1-ADDRAP

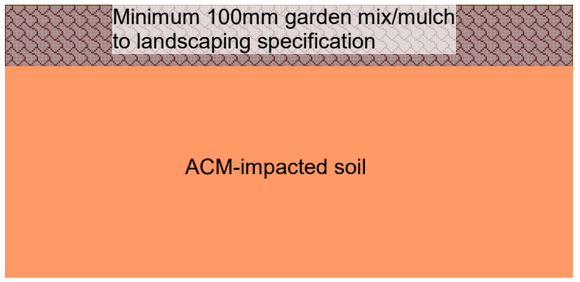
Figure No: 2

JK ENVIRONMENTS

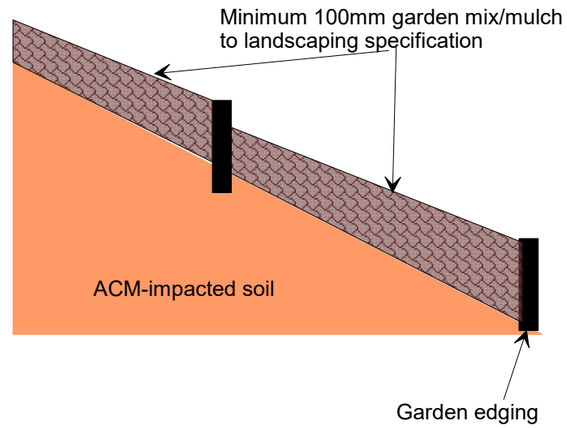
Type A - Building footprint, hardstand surfaces paved areas and continuous ground surface covering such as soft fall:



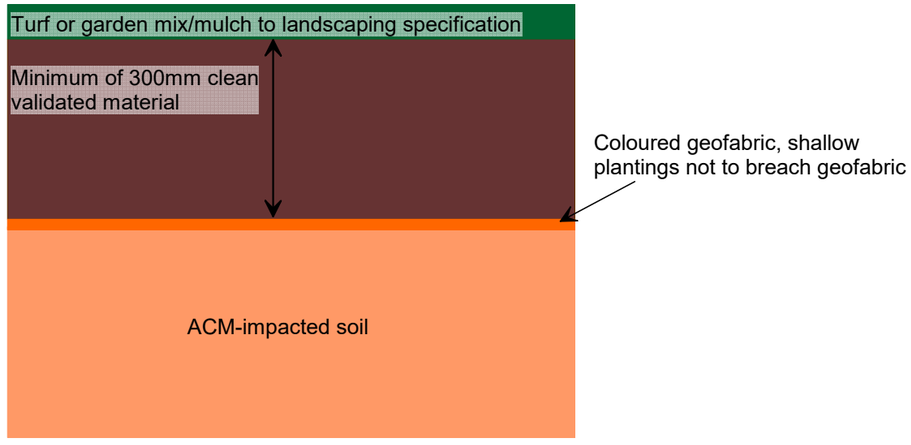
Type B - Battered areas around the site boundaries and areas where trees are to be retained (i.e. where excavation and installation of 300mm clean soil cap cannot/will not occur):



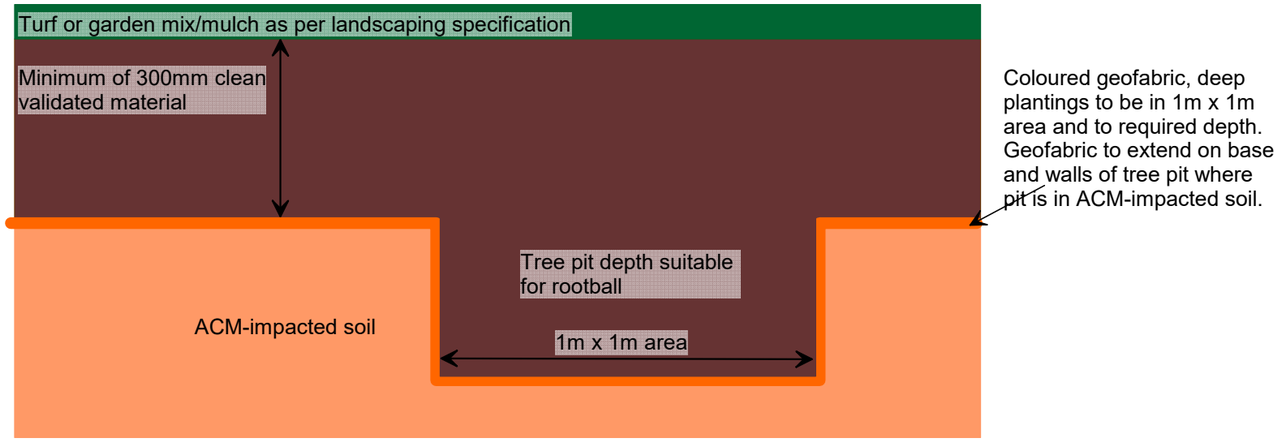
Type B2 - Sloped batters, terraced where required to retain the minimum cover (i.e. where excavation and installation of 300mm clean soil cap cannot/ will not occur):



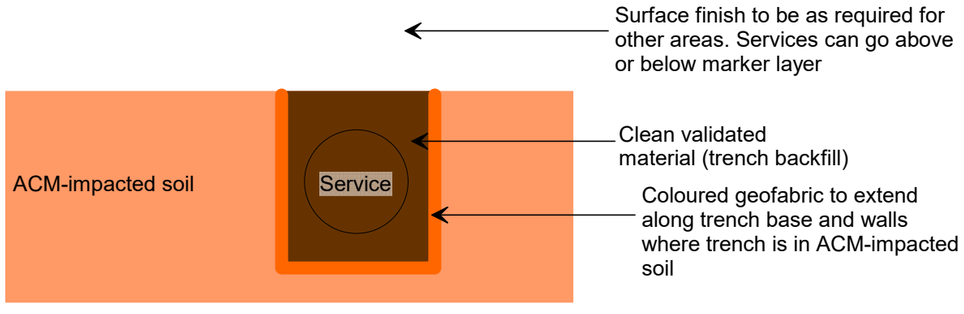
Type C - Unpaved areas with shallow plantings or turf:



Type D - Unpaved areas with deep plantings:



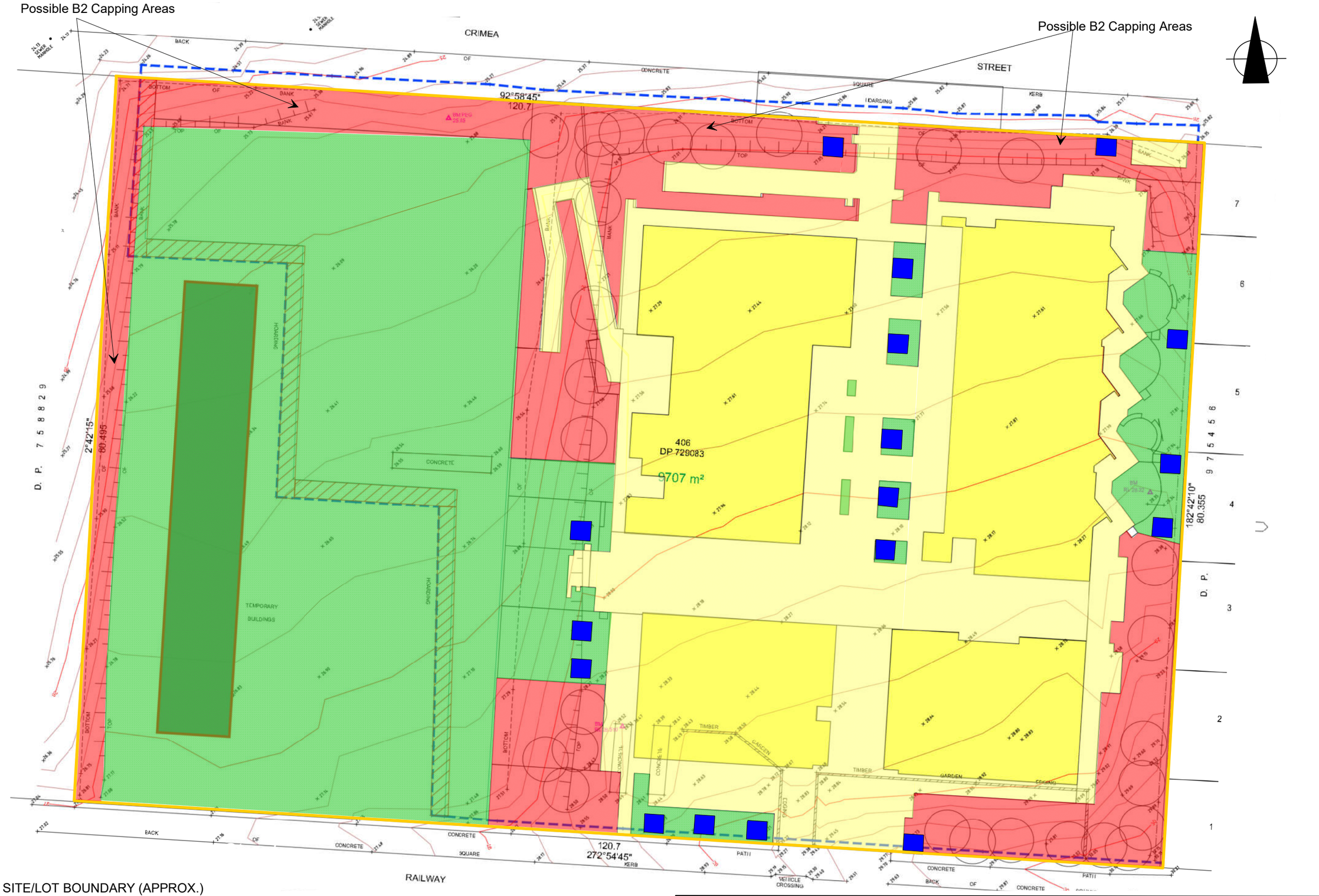
Type E - Underground services:



Specifications are conceptual only and are not to scale.

Title:	**CONCEPTUAL CAPPING SPECIFICATION**
Location:	PARRAMATTA WEST PUBLIC SCHOOL, CRIMEA STREET, PARRAMATTA
Project No:	E31425PletRev1-ADDRAP
Figure No:	3

JK ENVIRONMENTS



LEGEND:

- SITE/LOT BOUNDARY (APPROX.)
- HOARDING BOUNDARY
- TYPE A CAPPING
- TYPE B CAPPING
- TYPE C CAPPING
- TYPE D CAPPING
- TYPE E CAPPING NOT SHOWN

0 — 20
Scale — Metres

Figure recreated using survey and site arrangement plan supplied by the client. Refer to Figure 3 for the conceptual capping specification.

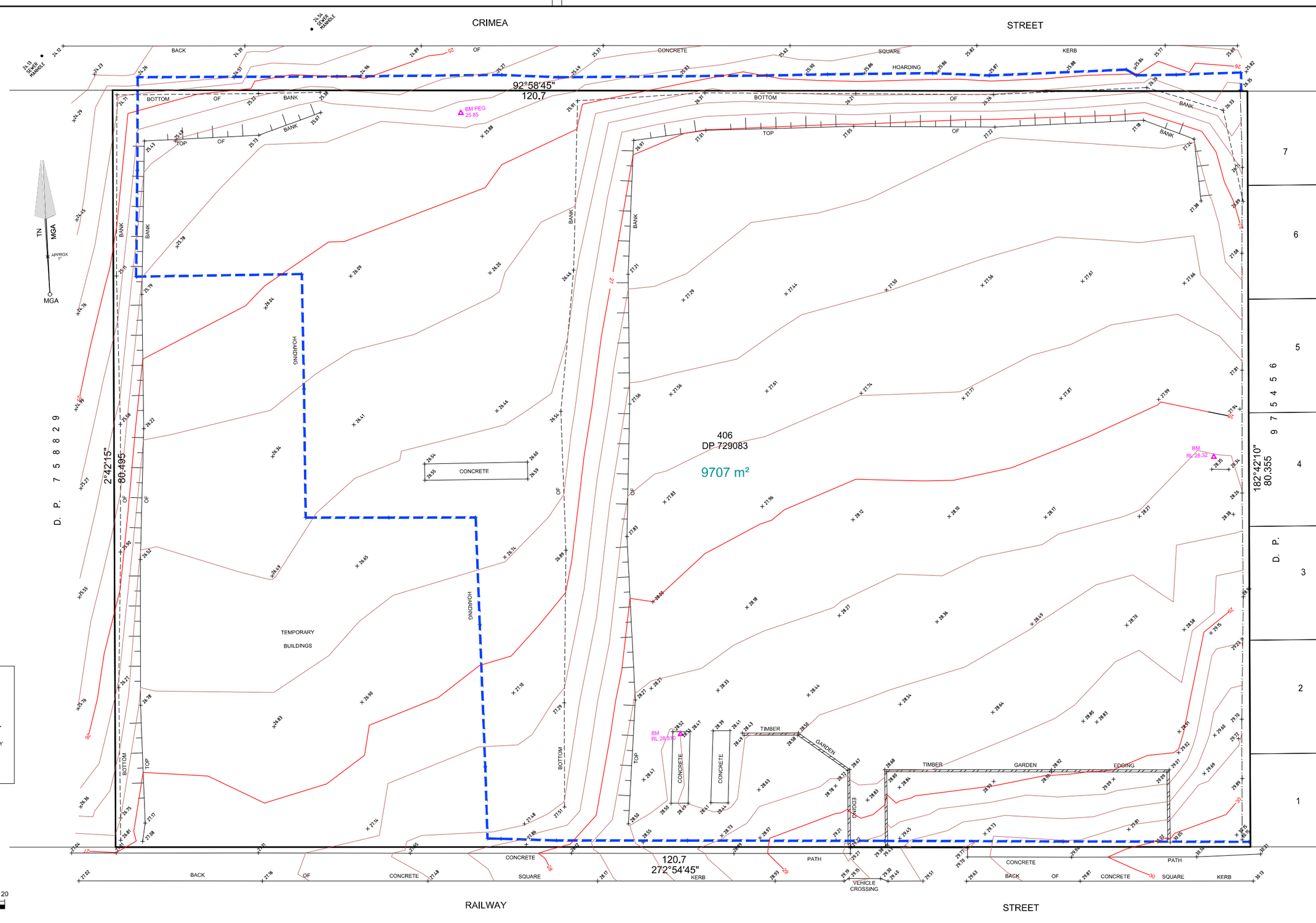
Title: **PRELIMINARY CAPPING ARRANGEMENT**

Location: PARRAMATTA WEST PUBLIC SCHOOL, CRIMEA STREET, PARRAMATTA

Project No: E31425PletRev1-ADDRAP

Figure No: 4

JK ENVIRONMENTS



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NOTES

BOUNDARIES SHOWN HAVE BEEN DETERMINED BY SURVEY. NO BOUNDARIES HAVE BEEN MARKED.

NO SERVICES HAVE BEEN LOCATED ON THIS SURVEY.

AN UNDERGROUND SERVICES TRACE HAS NOT BEEN UNDERTAKEN.

WHERE THE EXACT LOCATION OF UNDERGROUND SERVICES IS CRITICAL TO THE DESIGN OR CONSTRUCTION THE RELEVANT PARTY SHOULD ARRANGE AN UNDERGROUND SERVICES INVESTIGATION.

CONTOUR INTERVAL 1m MAJOR, 0.25m MINOR.

0 2 4 6 8 10 20

SCALE 1:200

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PO Box 1199, CHATSWOOD NSW 2057
Phone: (02) 9411 8166
Email: admin@ushersurvey.com.au

APPROVED

Amendments

ISSUE	DATE	DETAILS
INITIAL	31-01-2020	

PLAN:

SHOWING EXISTING SITE LEVELS
PARRAMATTA WEST - PRIMARY SCHOOL
BEING LOT 406 IN DP 729083

LGA:	CITY OF PARRAMATTA
SUBURB:	PARRAMATTA
ORIGIN:	PM 15827 RL 36.122 AHD CLASS LB, ORDER L2 SCIMS 28/01/2020

REDUCTION RATIO:	1:200
DATUM:	AHD
DATE OF SURVEY:	23-12-2019
SURVEYED BY:	CJ / MB
DRAWN BY:	LL

THIS PLAN IS FOR THE EXCLUSIVE USE OF
TAYLOR CONSTRUCTION

PLAN REFERENCE
6215-DET

A1

ISSUE
INITIAL