



1581-A  
15 November 2010

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**Attention: Mr Rusty Moran**

Dear Sir,

**PROPOSED RETAIL/RESIDENTIAL DEVELOPMENT, 21–35 TREACY ST, HURSTVILLE  
GEOTECHNICAL INVESTIGATION**

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**1. INTRODUCTION**

**1.1 General**

This report presents the results of a preliminary geotechnical assessment for the above project. The assessment was commissioned by Mr Rusty Moran of Moran Corp, on behalf of Earljest Pty Ltd. The work was carried out in accordance with a proposal by Asset Geotechnical Engineering Pty Ltd dated 2 November 2010, reference P1719.

It is understood that the project involves construction of a high-rise development possibly including 6 levels below ground and 16 levels above ground. It is also understood that the site is located adjacent to the Illawarra Railway Line and as such, the project must be referred to RailCorp for their assessment and approval.

The preliminary geotechnical assessment is required as part of a concept design submission to the Department of Planning NSW and RailCorp. If the project is to proceed further, it is understood that a formal Development Application would be prepared, and it is expected that this would include a detailed geotechnical investigation.

**1.2 Scope of Work**

The main objectives were to provide an assessment of likely subsurface conditions, and to provide preliminary geotechnical recommendations for the development with respect to excavations, temporary and permanent support, dewatering, and foundations. More specifically, the report is required to address RailCorp's concerns with respect to building envelope (i.e. suitable depth of excavation and proximity to RailCorp corridor), methodology of excavation and support, anticipated ground surface movements, and avoidance of [permanent] rock anchors extending into the corridor.

In order to achieve the project objectives, the following scope of work was carried out:

- Review of available reports and maps held within our files, including reference to investigation at 3 other sites within the Hurstville business district which also involved deep basement excavation.



- Walkover observations of site conditions and conditions of accessible excavations within the immediate vicinity.
- Review of available third-party reports for adjoining site developments which also involved deep basement excavations.
- Engineering assessment and reporting.

This report must be read in conjunction with the attached Information Sheets. Particular attention is drawn to the limitations inherent in site investigations and the importance of verifying the subsurface conditions inferred herein.

## **2. SITE DESCRIPTION**

The site is located on the southern side of Treacy Street in Hurstville and is rectangular in shape, occupying a total area of 4,119m<sup>2</sup> as shown in the attached Block Plan. It is bounded by Treacy Street to the north, an above-ground Council carpark to the west, the Illawarra Railway line to the south, and a 3 storey mixed-use development (with no basement level) to the east (No 15–19 Treacy Street). A mixed-use development is currently under construction at No 11–13 Treacy Street, comprising 3 levels of basement excavation and 6 stories above ground.

The ground surface generally slopes down to the south and southeast at up to about 5°. Ground surface levels across the site range from about RL 62m to RL 58m. Existing site development comprises a number of one and two storey commercial developments with associated concrete pavements.

The railway track is located at the top of an embankment which is up to about 3m high.

The proposed development includes up to 6 basement levels extending to the site boundaries. The floor level of the lower basement is at RL 42m. This will require excavation of up to about 20m but some areas within the western part of the site up to about 22m.

## **3. ANTICIPATED SUBSURFACE CONDITIONS**

### **3.1 Geology**

The 1:100,000 Sydney Geological Map indicates the site is underlain by Ashfield Shale. This unit typically includes shale and laminate, which weathers to form residual clay soils of medium to high plasticity.

### **3.2 Stratigraphy**

The following general summary description is provided for the subsurface conditions from borehole logs for the adjacent site at 11–13 Treacy Street, and three sites within the Hurstville area with deep basements.



**Table 1 – Generalised Subsurface Profile**

Layer	Description	Depth to Base
Pavement	CONCRETE and ASPHALT	up to 0.2m
Residual	CLAY, generally very stiff	up to 3m
Bedrock	LAMINITE (SHALE), fine grained, interbedded siltstone and fine grained sandstone, extremely to highly weathered, low strength (assessed Class 5 and 4 Shale <sup>1</sup> )	up to 13m
	LAMINITE (SHALE), highly to moderately weathered, medium strength (assessed Class 3 or better Shale)	> 13m

### 3.3 Groundwater

Groundwater is anticipated to be present within fractures in the bedrock, at deeper than about 6m to 10m.

## 4. DISCUSSIONS & RECOMMENDATIONS

### 4.1 Excavation

The excavation for the proposed basement levels is anticipated to be through residual clay and assessed Class 5 and 4 Shale down to about 13m depth, and then into assessed Class 3 (or better) Shale.

The clays and Class 5 shale could be readily excavated using conventional earthmoving equipment (e.g. hydraulic excavator, dozer with ripper). Excavation of stronger bands within the Class 4 Shale and stronger bands within the Class 5 Shale may require use of hydraulic hammer. Excavation of the Class 3 or better Shale will likely require use of a hydraulic hammer. Excavation requirements will be governed by the presence of the rock, and the sensitivity of nearby structures and rail infrastructure to vibrations caused by the rock excavation.

The building constructions and rail infrastructure on the adjacent properties are sensitive to vibrations above certain threshold levels (regarding potential for cracking). Close controls by the excavation contractor over the rock excavation are necessary, and are recommended, so that excessive vibration effects are not generated.

Excavation methods should be adopted which limit ground vibrations at the adjoining developments to not more than 5mm/sec. Vibration monitoring should be carried out to verify that this is achieved. The limit of 5mm/sec are expected to be achievable if rock breaker equipment or other excavation methods are restricted as indicated in Table 2 as follows:

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<sup>1</sup> Pells, P.J.N., Mostyn, G. & Walker, B.F., *Foundations on Sandstone and Shale in the Sydney Region*, Australian Geomechanics Journal, December 1998



**Table 2 – Recommendations for Rock Breaking Equipment**

Distance from adjoining structure (m)	Maximum Peak Particle Velocity 5mm/sec	
	Equipment	Operating Limit (% of Maximum Capacity)
1.5 to 2.5	Hand operated jackhammer only	100
2.5 to 5.0	300 kg rock hammer	50
5.0 to 10.0	300 kg rock hammer	100
	or 600 kg rock hammer	50

At all times, the excavation equipment must be operated by experienced personnel, according to the manufacturer's instructions, and in a manner consistent with minimising vibration effects.

Use of other techniques (e.g. chemical rock splitting, rock sawing), although less productive, would reduce or possibly eliminate risks of damage to adjoining property through vibration effects transmitted via the ground. Such techniques may be considered if an alternative to rock breaking is necessary. If rock sawing is carried out around excavation boundaries in not less than 1m deep lifts, a 900 kg rock hammer could be used at up to 100% maximum operating capacity with an assessed peak particle velocity not exceeding 5 mm/sec, subject to observation and confirmation by a geotechnical engineer at the commencement of excavation.

It should be noted that vibrations that are below threshold levels for building damage may be experienced at adjoining developments.

#### **4.2 Dewatering**

Some groundwater seepage is anticipated through the bedrock. It is expected that this could be controlled by sump-and-pump techniques, and should not adversely affect adjoining developments.

#### **4.3 Temporary and Permanent Shoring**

Design of temporary and permanent shoring will need to consider both long-term (i.e. permanent) and short-term (i.e. during construction) loading conditions, as well as the possible impact on adjoining developments.

In the long-term, the basement structure will provide the permanent support for the excavation, and should be designed as a braced wall for the long-term loading condition.

In the short-term (i.e. during construction), the design of the temporary shoring will depend on the method of construction adopted. Two common construction techniques include top-down and bottom-up construction.

Top-down construction typically involves:

- construction of the perimeter wall as contiguous bored piles;



- pouring the ground floor slab (or sufficient sections of the ground floor to provide adequate bracing);
- excavating to design level, installing additional bracing as required;
- pouring the basement floor slab; and
- pouring intermediate floor slabs progressively upwards.

Bottom-up construction typically involves:

- constructing the perimeter wall as contiguous piles, or intermittent piles with shotcrete infill panels;
- options for wall design include anchored or propped (internal props);
- excavating to basement subgrade level, installing anchors or props as required;
- pouring the ground floor slab and proceeding upwards.

In view of the proposed depth of excavation, the proximity to the rail corridor, and the likely required limits on deflections at the rail corridor boundary, we recommend that top-down construction be seriously considered for this site. This should significantly reduce lateral deflections of the wall and subsidence of adjacent ground, compared with bottom-up construction. The structural elements used for the bracing could form part of the completed structure, and temporary rock anchors would not be required, thereby offsetting some or possibly all of the additional construction costs of excavating within and around internal bracing.

If bottom-up construction is considered, then it will be necessary to utilise either internal props or multi-row stressed anchors.

Multi-row anchored and braced retaining walls may be designed for a uniform rectangular lateral earth pressure (kPa) of  $4H$  where  $H$  = height of wall within assessed Class 5 Shale and soils. The wall should also be designed for rock wedge failure, which should be ascertained during further investigations.

Allowance for groundwater should also be made, subject to further investigation of groundwater levels. Appropriate surcharge loading at the finished surface level should also be adopted for design of the wall.

#### **4.4 Footings**

Footings for the development could include the permanent shoring piles around the perimeter, and internal piles or pad footings. It is anticipated that Class 3 or better Shale could be encountered at founding level, and a maximum allowable bearing pressure (subject to further investigation) of at least 2,000 kPa may be available.

#### **4.5 Further Studies**

If the development is to proceed further, then additional investigations will be required including drilling of a number of cored boreholes to at least 3m below the proposed lowest excavation level and installation of piezometers to allow groundwater monitoring. Computer modelling of the proposed basement excavation will also be required for design of temporary shoring to ensure that deflections at the adjacent rail corridor boundary do not exceed tolerable limits.



## 5. STATEMENT

Provided that the development is designed and constructed in accordance with the recommendations in this report, including requirement for further studies, we consider that the proposed development (in terms of depths of excavation, building envelope and methodology of construction) would not have an adverse impact on the adjoining rail corridor.



Please contact us if you have any questions regarding this report or if you require further assistance.

For and on behalf of

**Asset Geotechnical Engineering Pty Ltd**

**Mark Bartel**

BE MEngSc MIEAust CPEng  
Principal Geotechnical Engineer

*Encl: Information Sheets*

*Block Plan*

*Section A-A*

### **SCOPE OF SERVICES**

The geotechnical report ("the report") has been prepared in accordance with the scope of services as set out in the contract, or as otherwise agreed, between the Client and Asset Geotechnical Engineering Pty Ltd ("Asset"). The scope of work may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

### **RELIANCE ON DATA**

Asset has relied on data provided by the Client and other individuals and organizations, to prepare the report. Such data may include surveys, analyses, designs, maps and plans. Asset has not verified the accuracy or completeness of the data except as stated in the report. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations ("conclusions") are based in whole or part on the data, Asset will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Asset.

### **GEOTECHNICAL ENGINEERING**

Geotechnical engineering is based extensively on judgment and opinion. It is far less exact than other engineering disciplines. Geotechnical engineering reports are prepared for a specific client, for a specific project and to meet specific needs, and may not be adequate for other clients or other purposes (e.g. a report prepared for a consulting civil engineer may not be adequate for a construction contractor). The report should not be used for other than its intended purpose without seeking additional geotechnical advice. Also, unless further geotechnical advice is obtained, the report cannot be used where the nature and/or details of the proposed development are changed.

### **LIMITATIONS OF SITE INVESTIGATION**

The investigation programme undertaken is a professional estimate of the scope of investigation required to provide a general profile of subsurface conditions. The data derived from the site investigation programme and subsequent laboratory testing are extrapolated across the site to form an inferred geological model, and an engineering opinion is rendered about overall subsurface conditions and their likely behaviour with regard to the proposed development. Despite investigation, the actual conditions at the site might differ from those inferred to exist, since no subsurface exploration program, no matter how comprehensive, can reveal all subsurface details and anomalies.

The engineering logs are the subjective interpretation of subsurface conditions at a particular location and time, made by trained personnel. The actual interface between materials may be more gradual or abrupt than a report indicates.

### **SUBSURFACE CONDITIONS ARE TIME DEPENDENT**

Subsurface conditions can be modified by changing natural forces or man-made influences. The report is based on conditions that existed at the time of subsurface exploration. Construction operations adjacent to the site, and natural events such as floods, or ground water fluctuations, may also affect subsurface conditions, and thus the continuing adequacy of a geotechnical report. Asset should be kept apprised of any such events, and should be consulted to determine if any additional tests are necessary.

### **VERIFICATION OF SITE CONDITIONS**

Where ground conditions encountered at the site differ significantly from those anticipated in the report, it is a condition of acceptance of the report that Asset be notified of any variations and be provided with an opportunity to review the recommendations of this report. Recognition of change of soil and rock conditions requires experience and it is recommended that a suitably experienced geotechnical engineer be engaged to visit the site with sufficient frequency to detect if conditions have changed significantly.

### **REPRODUCTION OF REPORTS**

This report is the subject of copyright and shall not be reproduced either totally or in part without the express permission of this Company. Where information from the accompanying report is to be included in contract documents or engineering specification for the project, the entire report should be included in order to minimize the likelihood of misinterpretation from logs.

### **REPORT FOR BENEFIT OF CLIENT**

The report has been prepared for the benefit of the Client and no other party. Asset assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of Asset or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own inquiries and obtain independent advice in relation to such matters.

### **OTHER LIMITATIONS**

Asset will not be liable to update or revise the report to take into account any events or emergent circumstances or fact occurring or becoming apparent after the date of the report.

**METHOD**

**borehole logs**

AS	auger screw *
AD	auger drill *
RR	roller / tricone
W	washbore
CT	cable tool
HA	hand auger
D	diatube
B	blade / blank bit
V	V-bit
T	TC-bit

\* bit shown by suffix e.g. ADV

**excavation logs**

NE	natural excavation
HE	hand excavation
BH	backhoe bucket
EX	excavator bucket
DZ	dozer blade
R	ripper tooth

**coring**

NMLC, NQ, PQ, HQ

**SUPPORT**

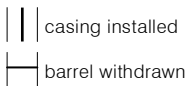
**borehole logs**

N	nil
M	mud
C	casing
NQ	NQ rods

**excavation logs**

N	nil
S	shoring
B	benched

**CORE—LIFT**



**NOTES, SAMPLES, TESTS**

D	disturbed
B	bulk disturbed
U50	thin-walled sample, 50mm diameter
HP	hand penetrometer (kPa)
SV	shear vane test (kPa)
DCP	dynamic cone penetrometer (blows per 100mm penetration)
SPT	standard penetration test
N*	SPT value (blows per 300mm)
* denotes sample recovered	
Nc	SPT with solid cone
R	refusal of DCP or SPT

**USCS SYMBOLS**

GW	Well graded gravels and gravel-sand mixtures, little or no fines.
GP	Poorly graded gravels and gravel-sand mixtures, little or no fines.
GM	Silty gravels, gravel-sand-silt mixtures.
GC	Clayey gravels, gravel-sand-clay mixtures.
SW	Well graded sands and gravelly sands, little or no fines.
SP	Poorly graded sands and gravelly sands, little or no fines.
SM	Silty sand, sand-silt mixtures.
SC	Clayey sand, sand-clay mixtures.
ML	Inorganic silts of low plasticity, very fine sands, rock flour, silty or clayey fine sands.
CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays.
OL	Organic silts and organic silty clays of low plasticity.
MH	Inorganic silts of high plasticity.
CH	Inorganic clays of high plasticity.
OH	Organic clays of medium to high plasticity.
PT	Peat muck and other highly organic soils.

**MOISTURE CONDITION**

D	dry
M	moist
W	wet
Wp	plastic limit
Wl	liquid limit

**CONSISTENCY**

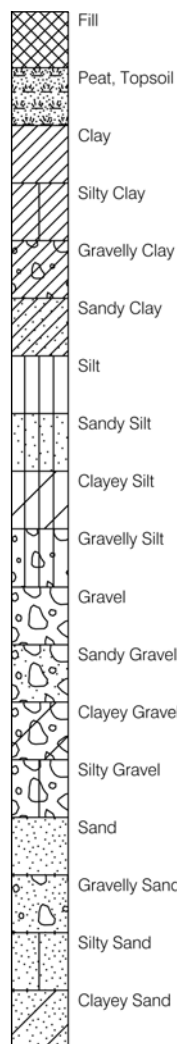
VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fb	friable

**DENSITY INDEX**

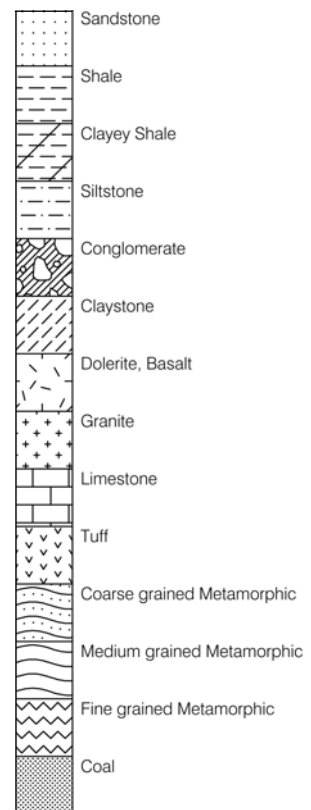
VL	very loose
L	loose
MD	medium dense
D	dense
VD	very dense

**GRAPHIC LOG**

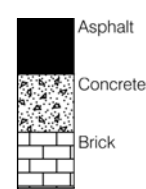
**Soil**



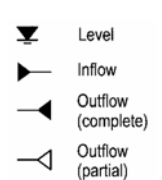
**Rock**



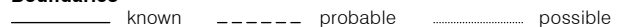
**Other**



**Water**



**Boundaries**



**WEATHERING**

XW	extremely weathered
HW	highly weathered
MW	moderately weathered
SW	slightly weathered
FR	fresh

**STRENGTH**

EL	extremely low
VL	very low
L	low
M	medium
H	high
VH	very high
EH	extremely high

**RQD (%)**

$$= \frac{\text{sum of intact core pieces} > 2 \times \text{diameter}}{\text{total length of section being evaluated}} \times 100$$

**DEFECTS**

**type**

JT	joint
PT	parting
SZ	shear zone
SM	seam

**coating**

cl	clean
st	stained
ve	vener
co	coating

**shape**

pl	planar
cu	curved
un	undulating
st	stepped
ir	irregular

**roughness**

po	polished
sl	slickensided
sm	smooth
ro	rough
vr	very rough

**inclination**

measured above axis and perpendicular to core

**AS1726-1993**

Soils and rock are described in the following terms, which are broadly in accordance with AS1726-1993.

**SOIL**
**MOISTURE CONDITION**

Term	Description
Dry	Looks and feels dry. Cohesive and cemented soils are hard, friable or powdery. Uncemented granular soils run freely through the hand.
Moist	Feels cool and darkened in colour. Cohesive soils can be moulded. Granular soils tend to cohere.
Wet	As for moist, but with free water forming on hands when handled. Moisture content of cohesive soils may also be described in relation to plastic limit ( $W_p$ ) or liquid limit ( $W_L$ ) [ $>>$ much greater than, $>$ greater than, $<$ less than, $<<$ much less than].

**CONSISTENCY OF COHESIVE SOILS**

Term	Su (kPa)	Term	Su (kPa)
Very soft	< 12	Very Stiff	100 – 200
Soft	12 – 25	Hard	> 200
Firm	25 – 50	Friable	–
Stiff	50 – 100		

**DENSITY OF GRANULAR SOILS**

Term	Density Index (%)	Term	Density Index (%)
Very Loose	< 15	Dense	65 – 85
Loose	15 – 35	Very Dense	> 85
Medium Dense	35 – 65		

**PARTICLE SIZE**

Name	Subdivision	Size (mm)
Boulders		> 200
Cobbles		63 – 200
Gravel	coarse	20 – 63
	medium	6 – 20
	fine	2.36 – 6
Sand	coarse	0.6 – 2.36
	medium	0.2 – 0.6
	fine	0.075 – 0.2
Silt & Clay		< 0.075

**MINOR COMPONENTS**

Term	Proportion by Mass	
	coarse grained	fine grained
Trace	≤ 5%	≤ 15%
Some	5 – 2%	15 – 30%

**SOIL ZONING**

Layers	Continuous exposures.
Lenses	Discontinuous layers of lenticular shape.
Pockets	Irregular inclusions of different material.

**SOIL CEMENTING**

Weakly	Easily broken up by hand.
Moderately	Effort is required to break up the soil by hand.

**USCS SYMBOLS**

Symbol	Description
GW	Well graded gravels and gravel-sand mixtures, little or no fines.
GP	Poorly graded gravels and gravel-sand mixtures, little or no fines.
GM	Silty gravels, gravel-sand-silt mixtures.
GC	Clayey gravels, gravel-sand-clay mixtures.
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OL	Organic silts and organic silty clays of low plasticity.
MH	Inorganic silts of high plasticity.
CH	Inorganic clays of high plasticity.
OH	Organic clays of medium to high plasticity.
PT	Peat muck and other highly organic soils.

**ROCK**
**SEDIMENTARY ROCK TYPE DEFINITIONS**

Rock Type	Definition (more than 50% of rock consists of ....)
Conglomerate	... gravel sized (>2mm) fragments.
Sandstone	... sand sized (0.06 to 2mm) grains.
Siltstone	... silt sized (<0.06mm) particles, rock is not laminated.
Claystone	... clay, rock is not laminated.
Shale	... silt or clay sized particles, rock is laminated.

**LAYERING**

Term	Description
Massive	No layering apparent.
Poorly Developed	Layering just visible. Little effect on properties.
Well Developed	Layering distinct. Rock breaks more easily parallel to layering.

**STRUCTURE**

Term	Spacing (mm)	Term	Spacing
Thinly laminated	<6	Medium bedded	200 – 600
Laminated	6 – 20	Thickly bedded	600 – 2,000
Very thinly bedded	20 – 60	Very thickly bedded	> 2,000
Thinly bedded	60 – 200		

**STRENGTH**

Term	Is50 (MPa)	Term	Is50 (MPa)
Extremely Low	<0.03	High	1.0 – 3.0
Very low	0.03 – 0.1	Very High	3.0 – 10.0
Low	0.1 – 0.3	Extremely High	> 10.0
Medium	0.3 – 1.0		

NOTE: Is50 = Point Load Strength Index

**WEATHERING**

Term	Description
Residual Soil	Soil derived from weathering of rock; the mass structure and substance fabric are no longer evident.
Extremely .....	Rock is weathered to the extent that it has soil properties (either disintegrates or can be remoulded). Fabric of original rock is still visible.
Highly .....	Rock strength usually highly changed by weathering; rock may be highly discoloured.
Moderately .....	Rock strength usually moderately changed by weathering; rock may be moderately discoloured.
Slightly .....	Rock is slightly discoloured but shows little or no change of strength from fresh rock.
Fresh	Rock shows no signs of decomposition or staining.

**DEFECT DESCRIPTION**

Type	Description
Joint	A surface or crack across which the rock has little or no tensile strength. May be open or closed.
Parting	A surface or crack across which the rock has little or no tensile strength. Parallel or sub-parallel to layering/bedding. May be open or closed.
Sheared Zone	Zone of rock substance with roughly parallel, near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects.
Seam	Seam with deposited soil (infill), extremely weathered insitu rock (XW), or disoriented usually angular fragments of the host rock (crushed).

**Shape**

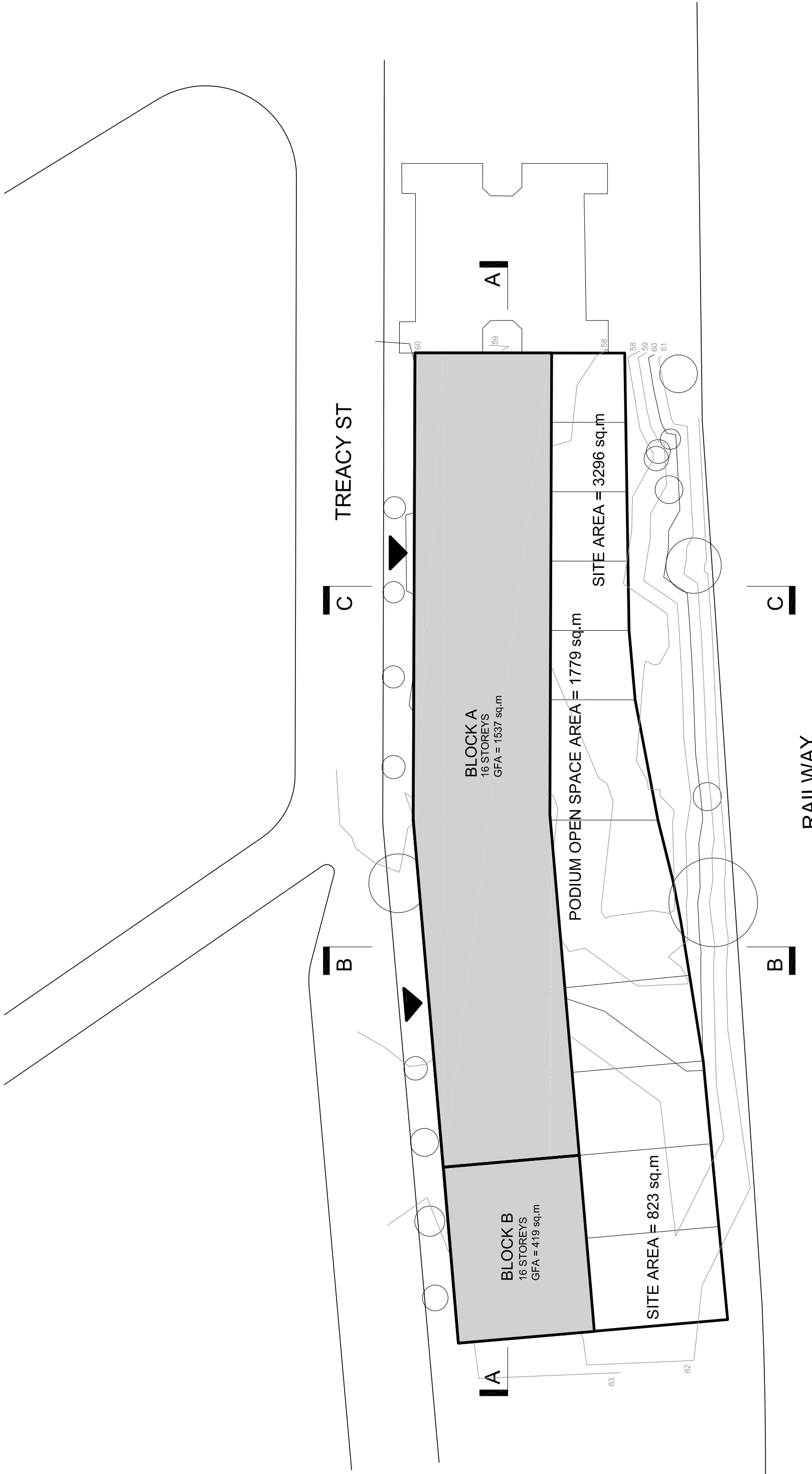
Planar	Consistent orientation.
Curved	Gradual change in orientation.
Undulating	Wavy surface.
Stepped	One or more well defined steps.
Irregular	Many sharp changes in orientation.

**Roughness**

Polished	Shiny smooth surface.
Slickensided	Grooved or striated surface, usually polished.
Smooth	Smooth to touch. Few or no surface irregularities.
Rough	Many small surface irregularities (amplitude generally < 1mm). Feels like fine to coarse sandpaper.
Very Rough	Many large surface irregularities, amplitude generally > 1mm. Feels like very coarse sandpaper.

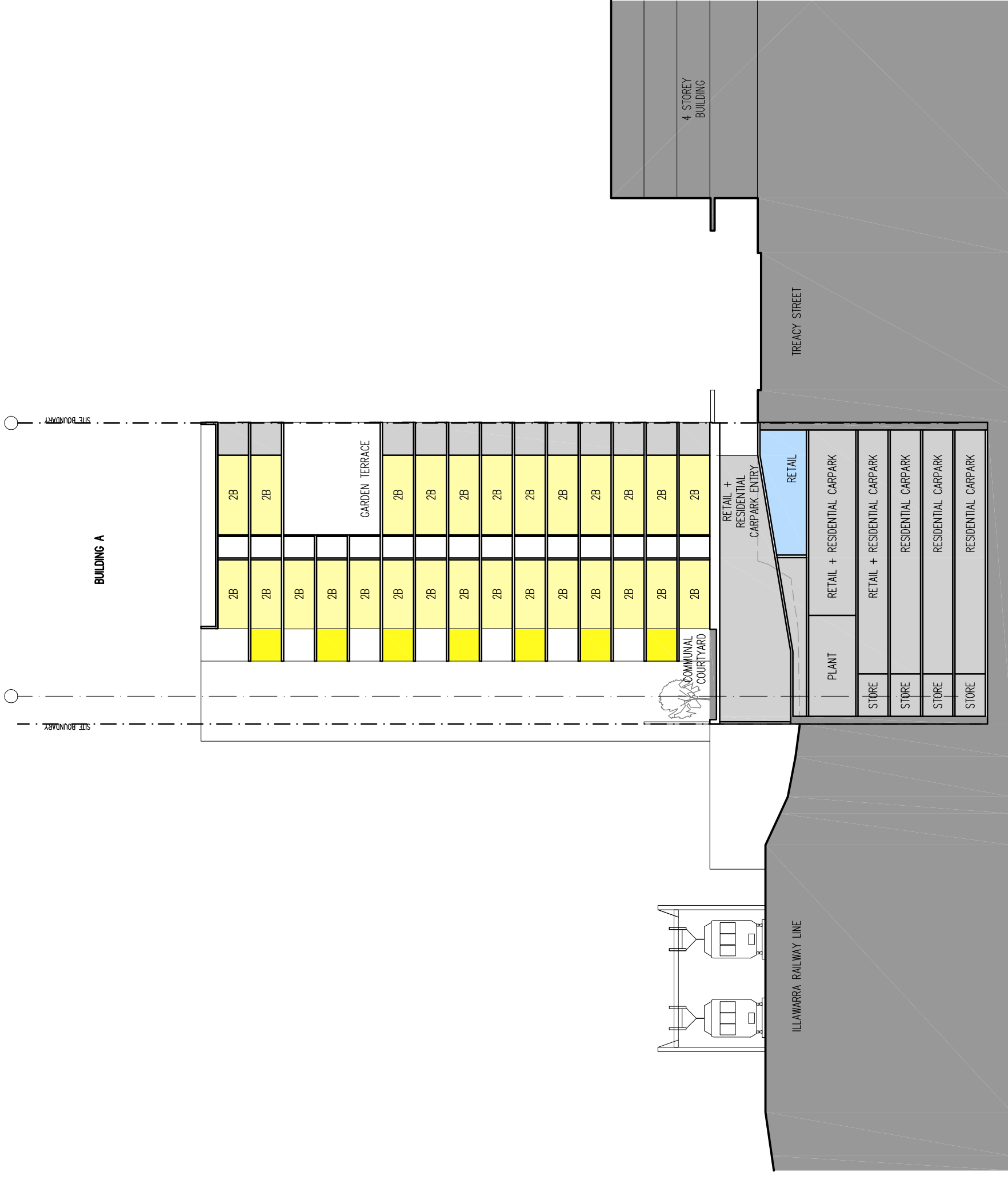
**Coating**

Clean	No visible coating or discolouring.
Stained	No visible coating but surfaces are discoloured.
Veneer	A visible coating of soil or mineral, too thin to measure; may be patchy
Coating	Visible coating ≤ 1mm thick. Thicker soil material described as seam.



TOTAL SITE AREA = 3296+823 = 4119 sq.m

- ▽ T.O.B RL 114.60
- ▽ U5 RL 110.20
- ▽ U4 RL 107.15
- ▽ U3 RL 104.10
- ▽ U2 RL 101.05
- ▽ U1 RL 98.00
- ▽ U10 RL 94.95
- ▽ U9 RL 91.90
- ▽ U8 RL 88.85
- ▽ U7 RL 85.80
- ▽ U6 RL 82.75
- ▽ U5 RL 79.70
- ▽ U4 RL 76.65
- ▽ U3 RL 73.60
- ▽ U2 RL 70.55
- ▽ U1 RL 67.50
- ▽ GROUND RL 63.00
- ▽ LOWER GROUND RL 58.50
- ▽ LEVEL B1B RL 54.00
- ▽ LEVEL B2B RL 51.00
- ▽ LEVEL B3B RL 48.00
- ▽ LEVEL B4B RL 45.00
- ▽ LEVEL B5B RL 42.00



<p><b>STANISIC ASSOCIATES ARCHITECTS</b>          LEVEL 3, 346 KENT STREET          SYDNEY NSW 2000          T. 02 9299 7871 F. 02 9299 7872          E. info@stanisic.com.au          www.stanisic.com.au</p>	<p><b>PROJECT</b>          21-35 TREACY STREET          HURSTVILLE NSW</p>	<p><b>CLIENT</b>          EARLJEST ATF          HURSTVILLE UNIT TRUST</p>	<p><b>No.</b>          -</p> <p><b>DATE</b>          23.07.10</p> <p><b>REVISION / ISSUE DETAILS</b>          CONCEPT PLAN</p>	<p><b>DRAWING TITLE</b>          SECTION AA</p>	<p><b>SCALE:</b> 1:400@A3  <b>PROJECT NUMBER:</b>          10 011</p>	<p><b>DATE:</b> 23.07.10  <b>DRAWING NUMBER:</b>          CD35</p>	<p><b>DRAWN:</b> QD          DZ  <b>REVISION:</b>          -</p>
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