Appendix 2. Stormwater Drainage Plan

PT Design

Client:	**Bud Urban Developments** PO Box 397 UNLEY SA 5061
Attn:	Nicole Footer
Architect:	**City Collective** 406/33 Pirie Street, Adelaide ADELAIDE SA 5000
Attn:	David Cooke
Other:	

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DOCUMENT REGISTER & TRANSMITTAL

Project Name:	Project No.	Sheet No.
Dean Street (12), Gawler West	19505	1 of 1

ENCLOSED ARE COPIES OF DOCUMENTS AS LISTED BELOW		DATE OF ISSUE																	
Discipline: **STRUCTURAL/CIVIL**	Day	25	31	11	23														
	Month	07	07	10	11														
	Year	17	17	17	17														
SHEET TITLE	**Dwg No.**	**REVISION STATUS**																	
Stormwater Management Plan	C01	A	B	C	D														
Stormwater Management Plan	C02	A	B		C														

DISTRIBUTION TO:	NUMBER OF COPIES																	
Bud Urban Developments	1	1	1	1														
City Collective	1	1		1														

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FORMAT ISSUE (eg. A1, A2, A3, PDF, DWG, CD etc.)			PDF	PDF	PDF	PDF													

REASON FOR ISSUE:																			
A – For Approval/Certification C – For Construction P – Preliminary/Draft	R – Revision T – For Tender X – For Information	RC – Record Copy AB – As Built	P	A	R	R													

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structural • civil • engineers

STORMWATER MANAGEMENT REPORT

Dean Street (12), Gawler West

Prepared by:

PT Design ABN 35 008 116 916
141-149 Ifould Street, ADELAIDE SA 5000
Tel: (08) 8412 4300

Project No: 19505
Revision: -01-
Date of Issue: 23/11/2017

INTRODUCTION

A new residential development is proposed at 12 Dean Street, Gawler West. The site is located in a typically residential area with the train line and Gawler train station to the east of the site. A development of this nature is therefore considered fitting for the area. This report considers the stormwater management including detention in accordance with council's requirements.

THE SITE

The site is a hammerhead type piece of land 5900m^2 in area. The site is bordered by residential allotments to the west, Overway Bridge Road to the north, the railway line to the east and Dean Street to the south.

The southern half of the block has a gentle slope back towards Dean Street, whilst the northern half of the block falls significantly to the north.

There is no stormwater system adjacent the property that will allow direct connection of the stormwater. Alternate measures to dispose of the stormwater therefore must be investigated.

STORMWATER DETENTION

The Town of Gawler states that the flow from the post development critical major storm event must be restricted to the pre-development minor storm event.

As only 5780m^2 of the total site catchment will create stormwater runoff from the development. As such, calculations show that we must provide 116.4 kL of storage with a maximum discharge rate of 22.3 L/sec. Refer to Appendix A for the supporting calculations.

Detention will be provided by way of a combination of underground storage (oversized pipes) and above ground storage in the carpark area. All stormwater will be pumped to the proposed stormwater allotment connection in Dean Street. The final makeup and/or location of the detention will be finalised during detailed design development in the future.

STORMWATER DESIGN

Given there is no existing stormwater system adjacent the site, we propose to extend the stormwater pipe in Dean Street to allow direct connection of the stormwater. The existing system will be extended via a new 300 dia. concrete pipe and new stormwater pit in front of the site.

The proposed buildings will be set at RL 51.80. This FFL is set to best match the existing site levels to the south of the hammerhead piece of land. Some filling of the site will be required to the northern end of the site.

To protect the site during stormwater flows in the street during a major storm event, the driveway levels at Dean Street will be set a min 300mm above the water table levels. The top level of the retaining wall along the Overway Road boundary will be set the same dimension above the nearest adjacent water table level.

Paved and carpark areas around the buildings will be such that a safe overland flow path around the building is provided to protect the buildings in a major storm event.

Due to the tight nature of the site, water sensitive urban design measures cannot be achieved. There is little to no room left to provide vegetated swales, rain gardens or the like. To reduce any pollutants leaving the site a proprietary oil and grease arrestor/solid pollutant filter will be provided prior to stormwater being discharged from the site. Permeable paving will generally be provided over the tree protection zones of the trees noted in the Arborist's report.

1.0kL rainwater tanks will be provided to each residence to be plumbed back into the WCs.

All roof and paved catchment areas within the site will be directed to the stormwater detention system. Final stormwater pipe layout and sizes will be determined in accordance with AS3500.3 during detailed design development stage in the future.

APPENDIX A

STORMWATER DETENTION CALCULATIONS

STORMWATER CALCULATIONS

Dean Street (12), Gawler West

Prepared by:

PT Design ABN 35 008 116 916
141-149 Ifould Street, ADELAIDE SA 5000
Tel: (08) 8412 4300

Project No: 19505
Revision: -01-
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Project:	12 Dean Street	Project #	19505-1
	Gawler West	Date	23.11.2017
Design By:	MP	Page	1

CRITICAL 1 IN 100 YEAR DETENTION VOLUME

PRE DEVELOPMENT FLOW (MINOR STORM)

Time of Concentration	10	mins
Rainfall Intensity	69.5	mm/hr

Catchment Area	C	Area (m^2)		
Roof	0.9	0	0.0	
Impervious	0.75	0	0.0	
Pervious	0.2	5780	22.3	
		Total	**22.3**	L/sec

POST DEVELOPMENT FLOW (MAJOR STORM)

Time of Concentration	t	mins (critical TBC)
Rainfall Intensity	$^{100}I_t$	mm/hr

Catchment Area	C	Area (m^2)		
Roof	0.9	2144.3	0.54	
Impervious	0.75	2821.1	0.59	
Pervious	0.2	814.6	0.05	
		Total	**1.17**	$^{100}I_t$

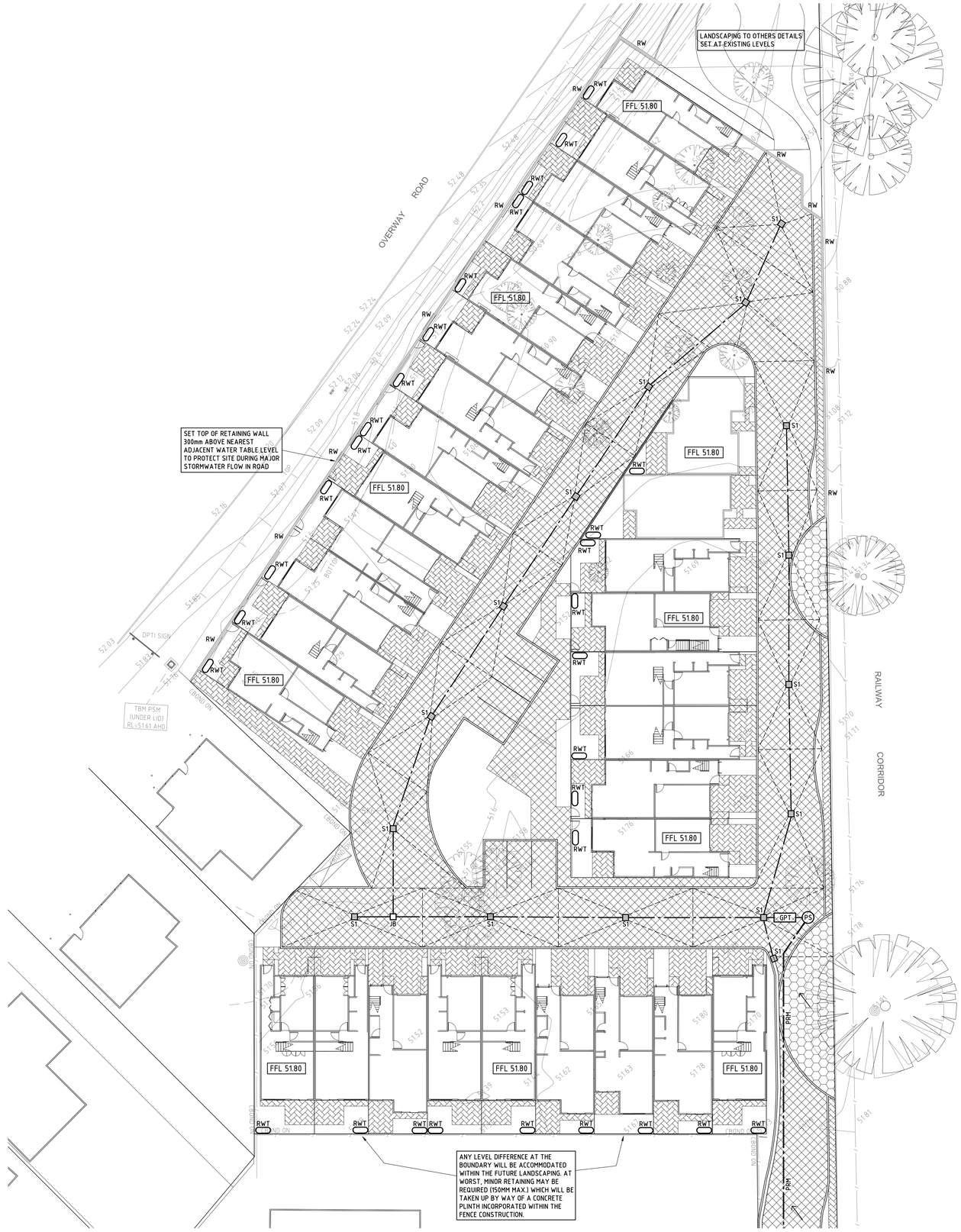
Project:	12 Dean Street	Project #	19505-1
	Gawler West	Date	23.11.2017
Design By:	MP	Page	1

CRITICAL STORAGE VOLUME

Q in		Q out	
1.17	$^{100}I_t$	22.3	L/sec

Tc (mins)	Intensity, I (mm/hr)	Q in (L/sec)	Pump intiated t (mins)	V total (L^3)
5	192	224.5	0.5	54613
6	177	206.9	0.5	60485
10	140	163.7	0.7	79028
20	96.4	112.7	1.0	103087
30	75.4	88.1	1.3	113494
60	47.7	55.8	2.0	116393
120	29.3	34.3	3.3	83608
180	21.9	25.6	4.4	34621
360	13.3	15.5	7.2	-143290
720	7.9	9.2	12.1	-555644
1440	4.7	5.5	20.3	-1432978

PEAK STORAGE REQUIRED 116393 L^3



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SCALE 1:200 @B1

LEGEND

- STORMWATER PIPE TO FUTURE DETAILS
- APPROX. LOCATION OF EXISTING STORMWATER PIPE CONFIRM LOCATION & DEPTH ON SITE
- S1 GRATED SUMP TO FUTURE DETAILS
- JB JUNCTION BOX TO FUTURE DETAILS
- DIRECTION OF SURFACE FALL
- GRADE LINE
- RW RETAINING WALL
- GPT SOLID POLLUTANT FILTER / OIL AND GREASE ARRESTOR TO FUTURE DETAILS
- RWT 1.0 kL RAINWATER TANK TO MANUF'S DETAILS PLUMBED BACK INTO BUILDING AS PER AS 3500
- PS PRE-PACKAGED PUMP STATION TO PUMP MANUFACTURERS DETAILS PUMP RATE – 22.3 L/sec
- PRM PUMP RISING MAIN TO PUMP MANUFACTURERS DETAILS
- HOTMIX BITUMEN TO FUTURE DETAILS
- PAVING TO FUTURE DETAILS
- PERMEABLE PAVING TO FUTURE DETAILS

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PUMP NOTES:

PUMP SHALL BE DUAL PUMP. THE PUMP CONTROLS SHALL BE SET UP TO ENABLE ALTERNATE PUMP OPERATION AT EACH START. IN THE EVENT THAT A PUMP FAILS TO OPERATE WHEN THE WATER LEVEL IN THE WELL REACHES THE PUMP START, THE OTHER PUMP SHALL BE ACTIVATED AND A VISIBLE ALARM INITIATED. IN THE EVENT THAT BOTH PUMPS FAIL TO OPERATE, AN AUDIBLE ALARM SHALL BE INITIATED. PROVIDE BACK-UP POWER SUPPLY IN CASE OF POWER FAILURE.

NOTE:

DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AS A PACKAGE. REFER TO ARCHITECTS DRAWINGS FOR ALL SETOUT DIMENSIONS.

ALL LEVELS SHALL BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION. SHOULD ANY DISCREPANCY OCCUR THE CONTRACTOR SHALL CONTACT THIS OFFICE IMMEDIATELY FOR FURTHER INSTRUCTION.

CONTRACTORS NOTES:

COVER LEVELS GIVEN FOR PITS ARE NOMINAL ONLY. COVER LEVELS SHALL MATCH FINISHED PAVING LEVELS.

THE CONTRACTOR IS RESPONSIBLE FOR CHECKING LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING ANY EXCAVATION WORK. ANY DAMAGE CAUSED TO ANY SERVICES SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT & SHALL BE REPAIRED BY THE APPROPRIATE AUTHORITIES. ALL COSTS ASSOCIATED WITH REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. PHONE 'DIAL BEFORE YOU DIG' (1100) FOR ASSISTANCE.

WHERE PROPRIETARY ITEMS ARE SPECIFIED, ALTERNATE EQUIVALENT PRODUCTS MAY BE ADOPTED WITH THE PRIOR WRITTEN APPROVAL OF THIS OFFICE.

Date	Revision	Issue
23.11.2017	UPDATED TO SUIT REVISED SITE PLAN	D
11.10.2017	ADDED PERMEABLE PAVING TO LAYOUT	C
31.07.2017	ISSUED FOR APPROVAL	B
25.07.2017	PRELIMINARY ISSUE	A

FOR APPROVAL

PT Design Pty Ltd 141-149 Ifould Street Adelaide SA 5000
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Designed	MP	Drawn	MP
Approved		Date	JUL '17
CIVIL		Sheet	1 of 2

Project

PROPOSED DEVELOPMENT 12 DEAN STREET GAWLER WEST

Client

BUD URBAN DEVELOPMENTS

N

Drawing Title

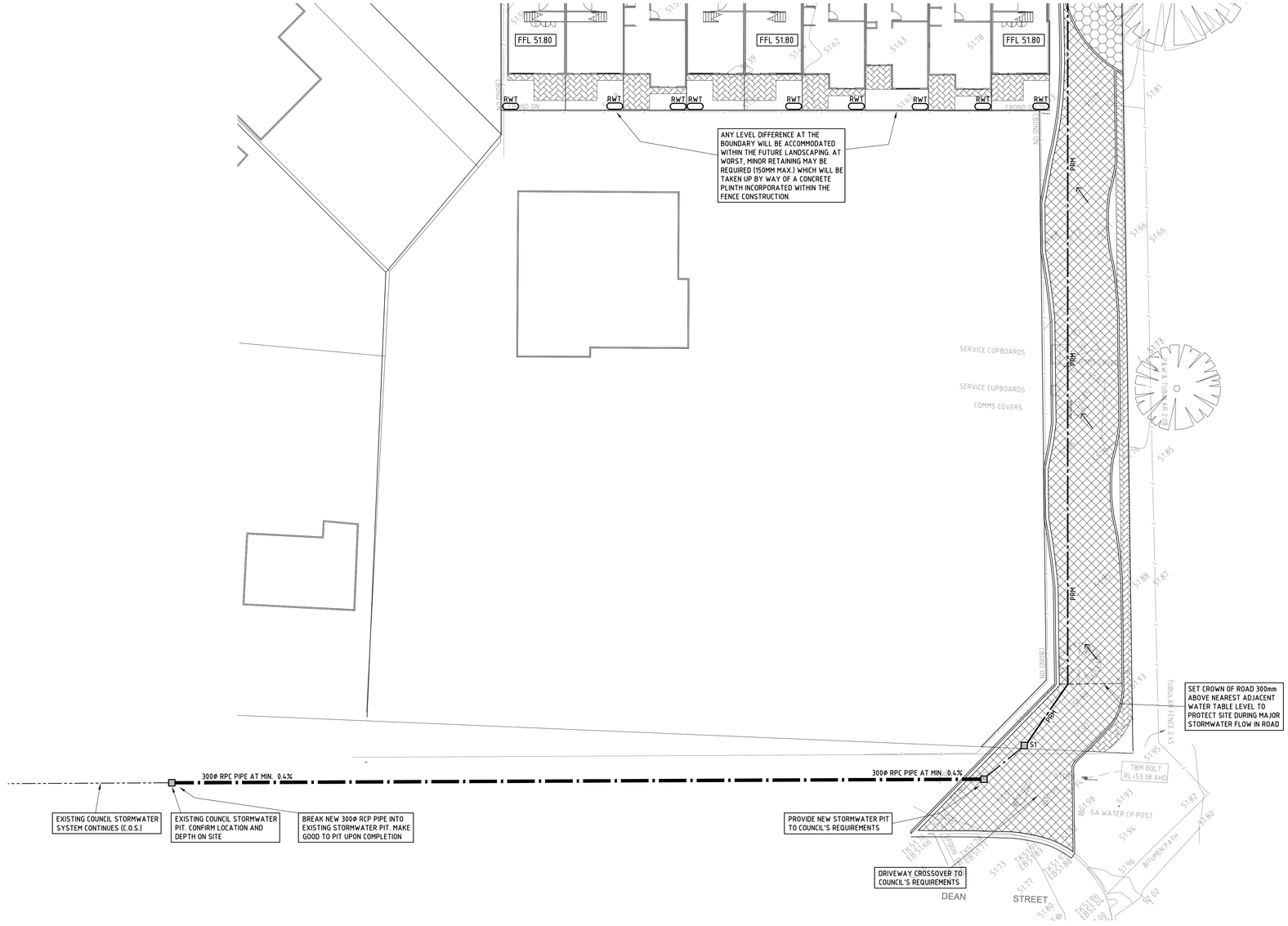
STORMWATER MANAGEMENT PLAN

Scale 1:200

Drawing Number

19505-C01

Issue **B**



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SCALE 1:200 @B1

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Date	Revision	Issue
23.11.2017	UPDATED TO SUIT REVISED SITE PLAN	C
31.07.2017	ISSUED FOR PLANNING APPROVAL	B
25.07.2017	PRELIMINARY ISSUE	A

FOR APPROVAL

PT Design Pty Ltd 141-149 Ifould Street Adelaide SA 5000
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Designed	MP	Drawn	MP
Approved		Date	JUL '17
CIVIL		Sheet	2 of 2

Project

PROPOSED DEVELOPMENT
12 DEAN STREET
GAWLER WEST

Client
BUD URBAN DEVELOPMENTS

N

Drawing Title
STORMWATER MANAGEMENT PLAN

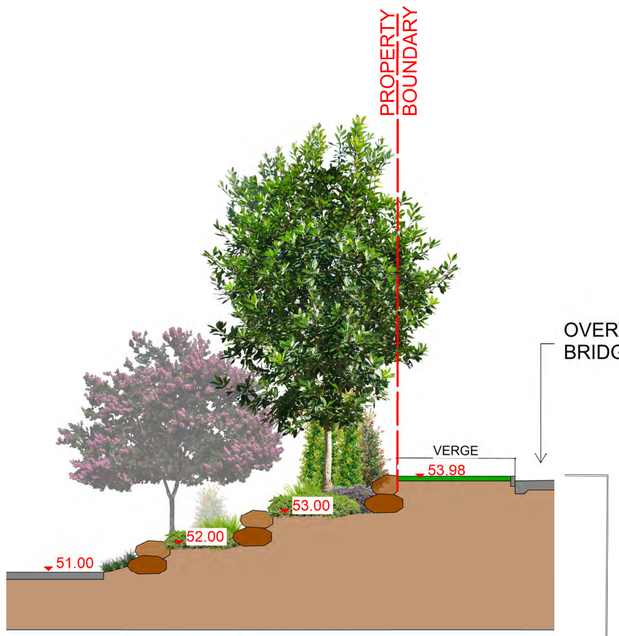
Scale
1:200

Drawing Number
19505-C02

Issue
C

Appendix 3. Landscape Plan

Outerspace



SECTION A_1:100 @ A1

OVERWAY BRIDGE ROAD

LEGEND

TREE PROTECTION ZONE

EXISTING TREES TO BE RETAINED; REFER TO ARBORIST'S REPORT

PROPOSED TREES

SCREENING SHRUBS

IRRIGATED MULCHED GARDEN BEDS

ARTIFICIAL TURF

IRRIGATED INSTANT TURF

PERMEABLE PAVERS

LARGE FORMAT FEATURE PAVERS

PAVED PATH FLUSH WITH ROAD LEVEL

SEATS

ROCK RETAINING

SITE LIGHTS; BY OTHERS

RETAINING WALL; BY OTHERS

PROJECT SCOPE

OVERWAY BRIDGE ROAD

PAVED PLAZA WITH SEATING

BUILDING 1

BUILDING 2

BUILDING 3

NEW 1.5M WIDE FOOTPATH TO DEAN ST.TO CONNECT THE SUBJECT SITE TO THE EXISTING RAILWAY CROSSING

GAS AND WATER METER

ROCK RETAINING WITH PLANTS IN BETWEEN

A

POCKET GARDEN WITH SEATING AND COLOURFUL PLANTINGS

OUTER SPACE
258a rundle street adelaide, sa 5000
p: (08) 8223 3228
e: admin@outerspace.net.au
w: www.outerspace.net.au

PROJECT GAWLER WEST RESIDENCES

CLIENT BUD URBAN DEVELOPMENTS

DRAWING DRAFT LANDSCAPE PLAN - DEVELOPMENT APPROVAL

DRAWN BY MN

APPROVED BY PG

DRAWING No. OS611_CP01

ISSUE DATE 17/11/17

0 2 5 10 15 20 25m

SCALE 1:250 @ A1

FOR APPROVAL
NOT FOR CONSTRUCTION

LEGEND

PROPOSED TREES

ARTIFICIALTURF

MULCHED GARDEN BED

CONCRETE EDGING

AC UNITS

TYPE A TYPE B TYPE C

PRECEDENT IMAGES

ROCK RETAINING

PAVED PLAZA WITH SEATS

PERMEABLE PAVERS

TREES

Acer x freemannii 'Autumn Blaze'
Jeffer's Red Maple
Height: 10m
Width: 9m

Acer platanoides 'Crimson Sentry'
Purple Norway Maple
Height: 7m
Width: 4m

Cupaniopsis anacardioides
Tuckeroo
Height: 8m
Width: 5m

Pyrus calleryana 'Bradford'
Ornamental Pear
Height: 10m
Width: 5m

Cupressus sempervirens 'Stricta'
Italian Cypress
Height: 4m
Width: 1m

SCREENING SHRUBS

Rosmarinus officinalis
Rosemary
Height: 1.5m
Width: 1.5m

Viburnum tinus
Laurustinus
Height: 3m
Width: 2m

Westringis fruticosa
Coastal Rosemary
Height: 1.5m
Width: 1.5m

Raphiolepsis delacourii
Indian Hawthorn
Height: 1.5m
Width: 1.5m

Nandina domestica 'Blush'
Nandina Blush
Height: 1m
Width: 0.9m

Myoporum parvifolium
Myoporum
Height: 0.15m
Width: 1m

Cistus salvifolius 'Brilliancy'
Rock Rose
Height: 1.5m
Width: 1m

Erigeron karvinskianus
Seaside Daisy
Height: 0.2m
Width: 0.2m

LOW SHRUBS & GROUNDCOVERS

Dianella 'Little Jess'
Little Jess
Height: 0.5m
Width: 0.5m

Dianella 'Cassa Blue'
Cassa Blue
Height: 0.5m
Width: 0.4m

Correa 'Pink Mist'
Correa
Height: 0.75m
Width: 1m

Lomandra longifolia 'Tanika'
Dwarf Mat Rush
Height: 0.6m
Width: 0.6m

Hardenbergia 'Meema'
Meema
Height: 0.5m
Width: 2m

Liriope muscari
Lilyturf
Height: 0.4m
Width: 0.4m

Limonium perezii
Sea Lavender
Height: 0.8m
Width: 0.5m

OUTER SPACE
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e: admin@outerspace.net.au
w: www.outerspace.net.au

PROJECT GAWLER WEST RESIDENCES

CLIENT BUD URBAN DEVELOPMENTS

DRAWING DRAFT LANDSCAPE PLAN - DEVELOPMENT APPROVAL

DRAWN BY MN

APPROVED BY PG

DRAWING No. OS611_CP02

ISSUE DATE 17/11/17

0 1 2 3 4 5 10m

SCALE 1:100 @ A1

FOR APPROVAL
NOT FOR CONSTRUCTION

Appendix 4. Light Spill Plans

Bestec

BCA Engineers / Adelaide
33 Rundle St, Kent Town SA 5067
PO BOX 2620, Kent Town SA 5071

T +61 8 8132 1700
enquiry@bcaengineers.com
bcaengineers.com

Ref: 4172.171108.G.1 (Rev A)
17 July 2017

Nicole Footer
Budurban
Unit 11 / 1-5 Beulah Rd
Norwood SA 5061

Dear Nicole,

Re: Gawler West Residential

External Lighting:

The external lighting for the above development has been designed to comply with the following:

AS/NZS1158 Part 3.1 “Lighting for roads and public spaces Pedestrian area (Category P)”

AS 4282 “Control of the obtrusive effects of outdoor lighting”

Classifications:

Under AS/NZS1158 Part 3.1 the classifications used as the basis of design are P11c for the carparks and P4 for streets.

Under AS 4282 the classification used as the basis of design is “Boundary of Commercial and Residential area” under curfewed hours (Macintosh Avenue residential property).

Under AS 4282 the classification used as the basis of design is Residential Areas with dark surrounds under curfered hours (on all other boundaries) and front of town houses.

Lighting Parameters:

Illuminance in the vertical plane has been calculated equal or less than 1 lux at building window locations.

Luminous Intensity less than 500 cd.

The above is within the recommended limits of AS4282 Table 2.1

Please refer to the attached Isolux Diagram for further details.

Lighting Design:

The lighting design for this site was undertaken by BCA Engineers and HI Lighting. The light fittings selected are:

The B1 : Ligman Lightsoft 1 15W LED 1m bollard, 180° distribution (half shielded)

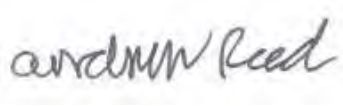
The L1 : Ligman PowerMission 2 15W type 2 distribution

The L1/S : Ligman PowerMission 2 41W type 2 distribution with rear shield

It is important to note that each light fitting has specific optics and any alternative light fittings must be reviewed to ensure compliance with relevant Codes is maintained.

Should you require any further information relating to the external lighting, please contact the undersigned.

Yours sincerely



Andrew Reed
Electrical Engineer

Encl: Isolux Diagrams

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	1	R1	SINGLE	N.A.	0.800	PO29-GP041-XW-4 LIGMAN POWERMISSION 2 LUMINAIRE 41W EW OPTIC C/W GLARE SHIELD
	8	15W T2	SINGLE	N.A.	0.800	PO29-GP015-T2-4 Powermission LED Streetlight on4.5m Pole
	2	BOL 30W	SINGLE	N.A.	0.800	LH-10665-W40 +A10431 Ligman Lightsoft Bollared + Half Shield

6/11/17 Rev D
Alternate Locations
Bollards Added

Calculation Summary								
Project: Main Results								
Label	CalcType	Units	Avg	Max	Min	Min/Avg	Min/Max
Parking 1-3	Illuminance	Lux	9.13	36.8	1.8	0.20	0.05
Parking 4-7	Illuminance	Lux	6.83	30.8	1.2	0.18	0.04
ROADWAY	Illuminance	Lux	3.74	19.14	0.05	0.01	0.00

Calculation Summary			
Project: Typical Front of Towhouses			
Label	CalcType	Units	Max
Indic Front Bldg #2 to 6m high_Ill_Seg1	Obtrusive Light - Ill	Lux	0.6
Indic Front Bldg 1 to 6m high_Ill_Seg1	Obtrusive Light - Ill	Lux	0.8
Indic Front Section A Bldg#3_Ill_Seg1	Obtrusive Light - Ill	Lux	0.9
Indic Front Section B Bldg #3_Ill_Seg1	Obtrusive Light - Ill	Lux	1.0
Indic Front Section C Bldg #3_Ill_Seg1	Obtrusive Light - Ill	Lux	0.4

Calculation Summary			
Project: Fencelines & Existing House			
Label	CalcType	Units	Max
Entry - Fenceline Existing_Ill_Seg1	Obtrusive Light - Ill	Lux	5.7
Existing Building_Ill_Seg1	Obtrusive Light - Ill	Lux	0.3
Existing Building_Ill_Seg2	Obtrusive Light - Ill	Lux	0.2
Fenceline Between BLG #1&#2_Ill_Seg1	Obtrusive Light - Ill	Lux	0.2
Fenceline2 Between BLG #1&#2_Ill_Seg1	Obtrusive Light - Ill	Lux	4.6
Rear Fencelines Bldg #3 adj CP_Ill_Seg1	Obtrusive Light - Ill	Lux	0.1
Rear Fencelines Bldg #3 adj CP_Ill_Seg2	Obtrusive Light - Ill	Lux	2.4
Rear Fencelines Bldg #3 adj CP_Ill_Seg3	Obtrusive Light - Ill	Lux	0.2

4.5m Pole
0.65m outreach

DEAN STREET

EXISTING FENCELINE

OVERWAY BRIDGE ROAD

EXISTING BUILDING

SITE BOUNDARY 20.27

SITE BOUNDARY 14.75

SITE BOUNDARY 22.33

SITE BOUNDARY 75.16

SITE BOUNDARY 51.00

SITE BOUNDARY 159.77

BUILDING #1
FFL 51.80

BUILDING #2
FFL 51.80

BUILDING #3
FFL 51.80

FFL 51.65

WM GM

EXISTING ENTRY FENCELINE

SET-OUT B1

SET-OUT B2

SET-OUT B3

COUNCIL PROPERTY

51.45

51.76

51.8

50.6

0.1 lx

0.14 lx

15W T2
MH: 4.5
Tilt: 0

15W T2
MH: 4.5
Tilt: 5

BOL 30W
MH: 1
Tilt: 0

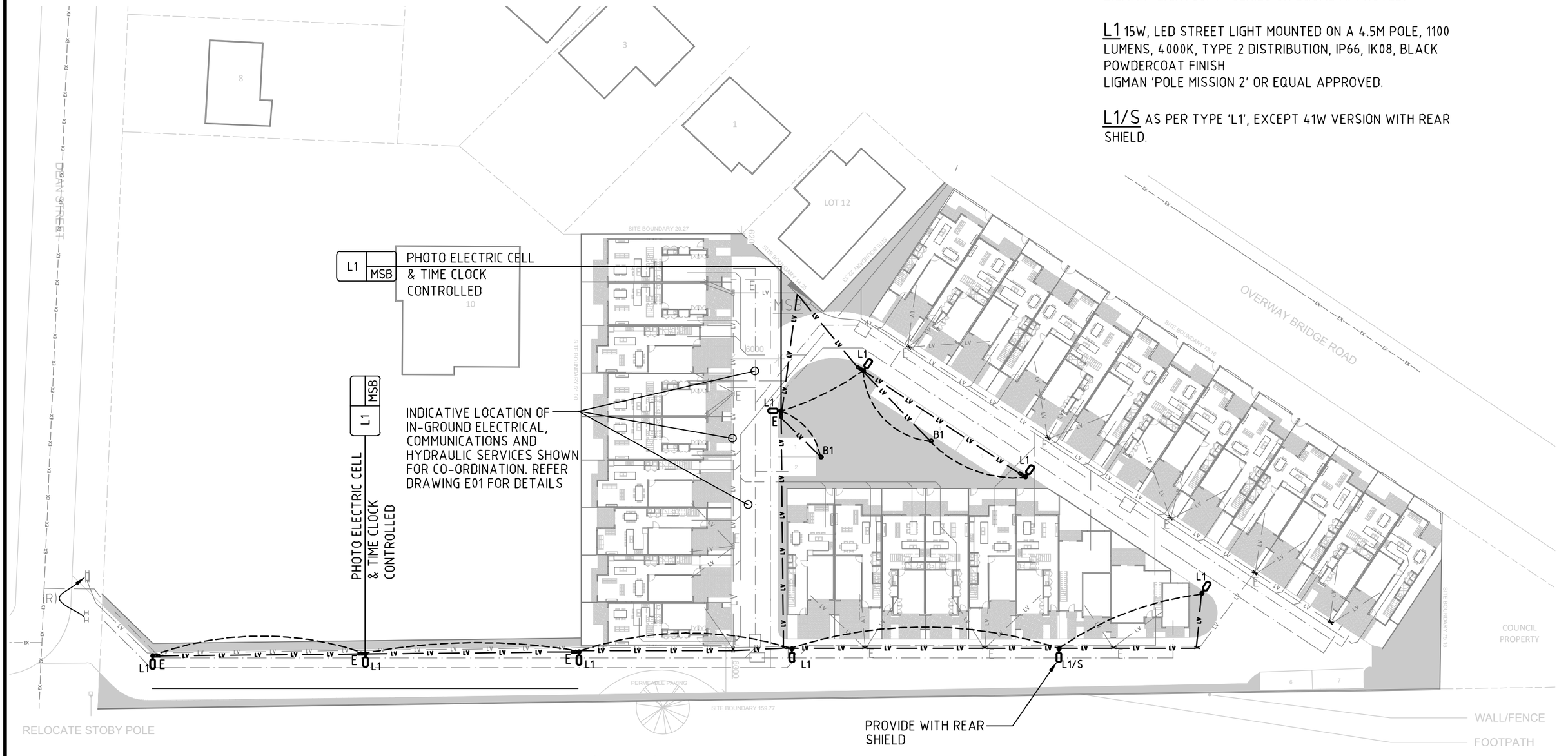
100mm AT FULL SIZE

LUMINAIRE SCHEDULE:

B1 27W, IP65, 4000K, IK08, 1000mmH, SURFACE MOUNT BOLLARD, IN ALUMINIUM WITH BLACK POWDERCOAT PAINT FINISH TO SELECTED COLOUR AND VANDAL RESISTANT LOCKING SCREWS.
180° SPILL (HALF SHIELD).
LIGMAN "LIGHTSOFT" SERIES OR EQUAL APPROVED.

L1 15W, LED STREET LIGHT MOUNTED ON A 4.5M POLE, 1100 LUMENS, 4000K, TYPE 2 DISTRIBUTION, IP66, IK08, BLACK POWDERCOAT FINISH
LIGMAN 'POLE MISSION 2' OR EQUAL APPROVED.

L1/S AS PER TYPE 'L1', EXCEPT 41W VERSION WITH REAR SHIELD.



SITE PLAN

SCALE 1:500 @ A3

Rev	Date	Amendment Description	By	Chk
B	08.11.17	SITE LIGHTING REVISED	MAM	PCC
A	27.09.17	TENDER ADDENDA E01	MAM	PCC

bca engineers
33 Rundle Street
Kent Town, SA, 5071
or PO Box 2620
e. administration@bcaengineers.com
p. 08 8132 1700

DESIGN AND CONSTRUCT
THESE DOCUMENTS ARE NOT SUITABLE FOR CONSTRUCTION OR CERTIFICATION PURPOSES. THESE DOCUMENTS ARE ONLY SUITABLE FOR "DESIGN AND CONSTRUCT" PRICING.

GAWLER WEST RESIDENTIAL
LOT 15 DEAN STREET, GAWLER WEST, SA, 5118

ELECTRICAL SERVICES — TENDER
SITE LIGHTING PLAN

Drawing No.	Revision	Scale @ A3	Drawn	Approved
4172-E02	B	N/A	MAM	FML

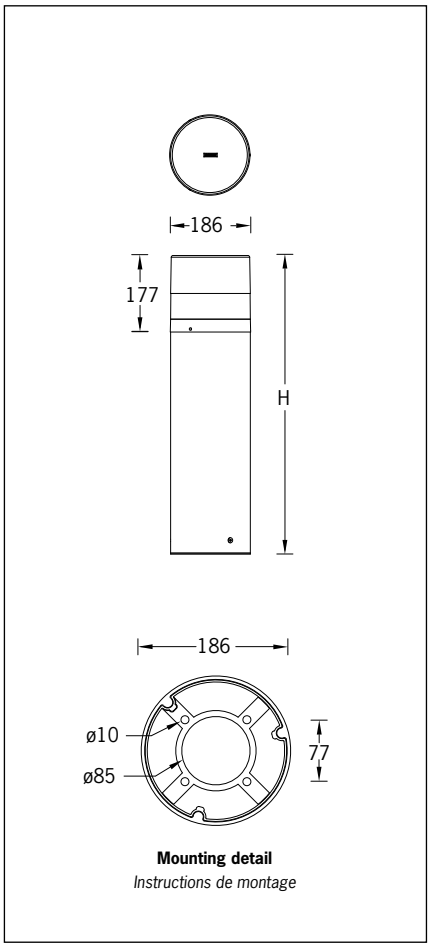
Lightsoft 1

Bollards

LH-106XX

IP65 · CLASS I · CE · IK08

Project :	John Croci Reserve	Location :	City of Port Adelaide Enfiel	Type :	Bollard	Quantity :	3
Note :	Pathway Proposal - P3 Compliance						



Mounting detail

Instructions de montage

Application

A modern range of cylindrical and square shape bollards with symmetrical light distribution available in two standard heights and two sizes. Designed for lighting of entrances and residential areas by providing downward wide spread illumination on driveways, pathways and squares. The high power LED technology of the Lightsoft bollard guarantees a high degree of efficiency and optimal visual comfort.

Description

The luminaire rated as CLASS I with integral driver. Colour temperature 2700K, 3000K and 4000K, LED CRI >80 and life time 50,000 Hours.

Extruded aluminium body and low copper content die-cast aluminium housing. Stainless steel fasteners in grade 316. Durable silicone rubber gasket and clear vandal impact resistant UV stabilized polycarbonate lens. Single cable entry. Housing is treated with a chemical chromatized protection before powder coating, ensuring high corrosion resistance. Anodized high purity aluminium reflector.

Product Code

Model No.	Lamp	System Power W	Lumen	EEC	Colour	Beam Angle	Weight kg	Height (H)
☐ LH-10655 - W30	12 LED	27	1161	A+	3000K	360°	6.1	600
◯ LH-10655 - W40	12 LED	27	1188	A+	4000K	360°	6.1	600
◯ LH-10665 - W30	12 LED	27	1161	A+	3000K	360°	7.7	1000
◯ LH-10665 - W40	12 LED	27	1188	A+	4000K	360°	7.7	1000

Ordering guide sample

LH-10655 - W40 - A10391 - A10731

Model No | Colour | Accessory1 | Accessory2

Colour Temperature

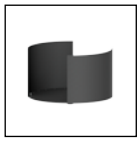
W30 – Warm white 3000K

W40 – Neutral white 4000K

Accessory

☐ Anchor bolt kit (A10391)

☐ Light shield 180° (A10731)



◯ Light shield 90° (A10831)

Colour Code

☐ - 01 Black RAL 9011 | ◯ - 02 Dark Grey RAL 7043 | ◯ - 03 White RAL 9003 | ◯ - 05 Matt Silver RAL 9006 | ◯ - 06 Bronze RAL 6014 | RESET

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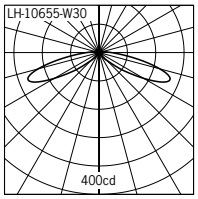
Lightsoft 1

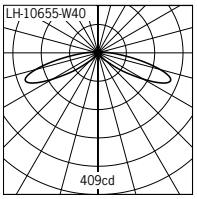
Bollards

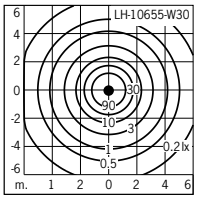
LH-106XX

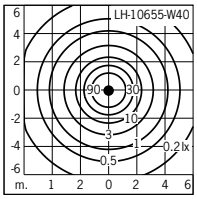
IP65 · CLASS I · CE · IK08

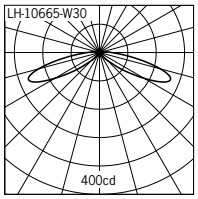
Photometric

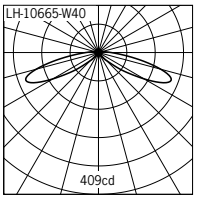


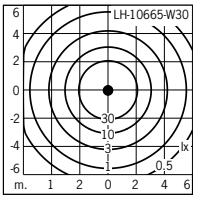


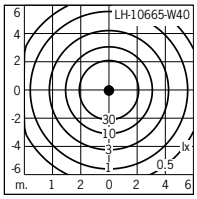












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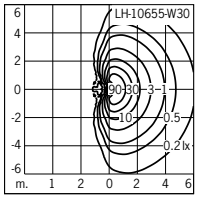

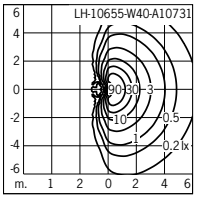

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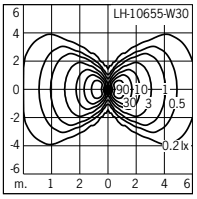

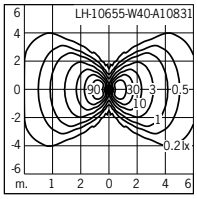

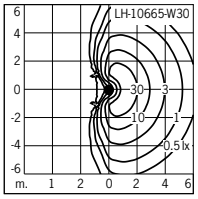

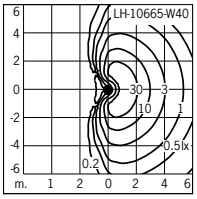

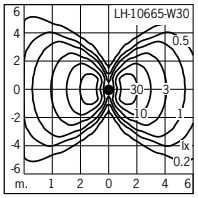

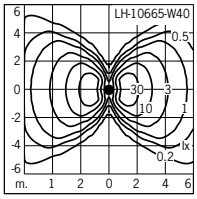

Light symbol

- Installation manual available online at www.ligman.com.
- Luminous flux and system power are rated from absolute photometry according to LM-79-08 standard for LED luminaire.
- Photometric diagram for standard non-accessory, please consult the factory in case accessory option.

Ligman Lighting Co.,Ltd. | Professional Lighting Solutions
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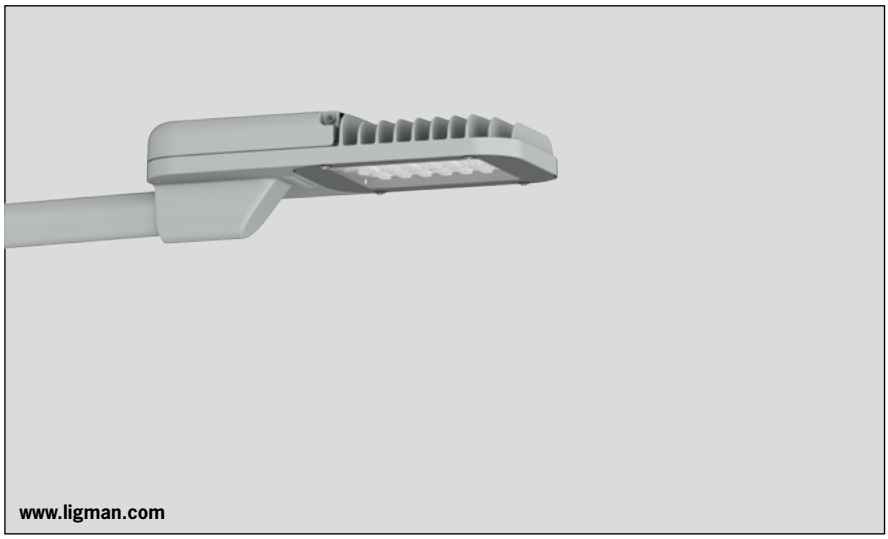
PowerMission 2

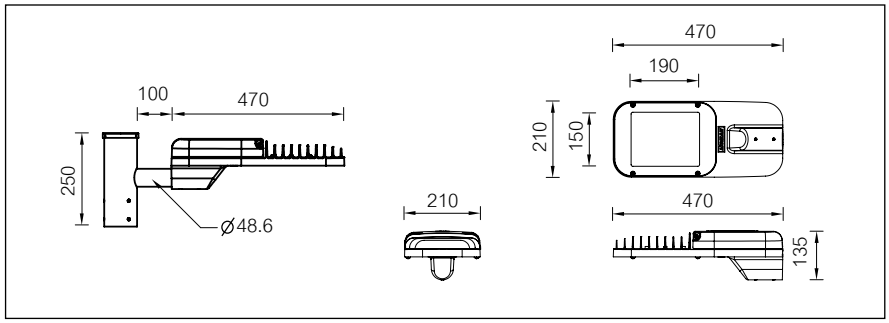
Street lighting luminaires

PO29

IP66 · CLASS I · CE · IK08

Project :	John Croci Reserve	Location :	City of Port Adelaide Enfiel	Type : Bollard	Quantity : 3
Note :	Pathway Proposal - P3 Compliance				





Application

Engineered from the base up with environmental consciousness and energy efficiency in mind, LIGMAN's PowerMission series, developed specifically to fulfill the demanding conditions of road and street lighting applications, are highly flexible and can be easily retrofitted onto existing street lighting infrastructure making it a state-of-the-art technology that is practical and affordable.Industry leading optical technology that minimizes light pollution and optimizes light distribution ensures that only the targeted areas are illuminated, reducing unwanted light trespass and sky glow. This characteristic ensures PowerMission's compliance to the Dark Sky requirements.

Description

The luminaire rated as CLASS I with integral driver. Colour temperature 3000K and 4000K, LED CRI >80 and life time 50,000 Hours.

A high quality die-casted aluminum casting not only houses the control gear and the light modules but it also acts as the primary thermal management device, eliminating the need for additional and sometimes bulky heat sinks while improving the overall performance and extending the life span of the LEDs. Stainless steel fasteners in grade 316. Durable silicone rubber gasket and impact resistant toughened glass diffuser. The luminaire is treated with a chemical chromatised protection before powder coating, ensuring high corrosion resistance.

Ordering guide sample

PO29 - LM059 - T3 - W40 - A90876

Model No	Lamp Series	Type	Colour	Spigot mounting

Colour Temperature

W30 – Warm white 3000K

W40 – Neutral white 4000K

Spigot

SC60 – Dia. 60mm.

SC76 – Dia. 76mm.

Product Code

Model No.	Lamp	System Power W	Lumen lm	Colour	EEC	Distribution Type	Weight kg
PO29 - GP015 - T2 - W30	12 LED	15	1025	3000K	A++	Type 2	4.7
PO29 - GP015 - T3 - W30	12 LED	15	1035	3000K	A++	Type 3	4.7
PO29 - GP015 - T4 - W30	12 LED	15	1039	3000K	A++	Type 4	4.7
PO29 - GP015 - T2 - W40	12 LED	15	1092	4000K	A++	Type 2	4.7
PO29 - GP015 - T3 - W40	12 LED	15	1103	4000K	A++	Type 3	4.7
PO29 - GP015 - T4 - W40	12 LED	15	1107	4000K	A++	Type 4	4.7
PO29 - GP020 - T2 - W30	12 LED	21	1384	3000K	A+	Type 2	4.7
PO29 - GP020 - T3 - W30	12 LED	21	1397	3000K	A+	Type 3	4.7
PO29 - GP020 - T4 - W30	12 LED	21	1404	3000K	A+	Type 4	4.7
PO29 - GP020 - T2 - W40	12 LED	21	1474	4000K	A++	Type 2	4.7
PO29 - GP020 - T3 - W40	12 LED	21	1488	4000K	A++	Type 3	4.7
PO29 - GP020 - T4 - W40	12 LED	21	1496	4000K	A++	Type 4	4.7
PO29 - GP028 - T2 - W30	12 LED	28	1799	3000K	A+	Type 2	4.7
PO29 - GP028 - T3 - W30	12 LED	28	1816	3000K	A+	Type 3	4.7
PO29 - GP028 - T4 - W30	12 LED	28	1827	3000K	A+	Type 4	4.7
PO29 - GP028 - T2 - W40	12 LED	28	1917	4000K	A+	Type 2	4.7
PO29 - GP028 - T3 - W40	12 LED	28	1934	4000K	A+	Type 3	4.7
PO29 - GP028 - T4 - W40	12 LED	28	1946	4000K	A+	Type 4	4.7

Light symbol

T2 T3 T4

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PowerMission 2

Street lighting luminaires

PO29

IP66 · CLASS I · CE · IK08

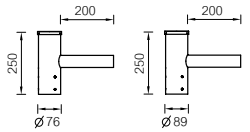
LIGMAN
The quality of life ...

Product Code

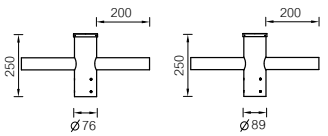
Model No.	Lamp	System Power W	Lumen lm	Colour	EEC	Distribution Type	Weight kg
◯ PO29 - LM028 - T2 - W30	12 LED	28	1992	3000K	A++	Type 2	4.7
◯ PO29 - LM028 - T3 - W30	12 LED	28	2007	3000K	A++	Type 3	4.7
◯ PO29 - LM028 - T4 - W30	12 LED	28	2015	3000K	A++	Type 4	4.7
◯ PO29 - LM028 - T2 - W40	12 LED	28	2390	4000K	A++	Type 2	4.7
◯ PO29 - LM028 - T3 - W40	12 LED	28	2409	4000K	A++	Type 3	4.7
◯ PO29 - LM028 - T4 - W40	12 LED	28	2418	4000K	A++	Type 4	4.7
◯ PO29 - GP027 - T2 - W30	24 LED	27	2272	3000K	A++	Type 2	4.8
◯ PO29 - GP027 - T3 - W30	24 LED	27	2282	3000K	A++	Type 3	4.8
◯ PO29 - GP027 - T4 - W30	24 LED	27	2311	3000K	A++	Type 4	4.8
◯ PO29 - GP027 - T2 - W40	24 LED	27	2421	4000K	A++	Type 2	4.8
◯ PO29 - GP027 - T3 - W40	24 LED	27	2431	4000K	A++	Type 3	4.8
◯ PO29 - GP027 - T4 - W40	24 LED	27	2462	4000K	A++	Type 4	4.8
◯ PO29 - GP041 - T2 - W30	24 LED	41	3215	3000K	A+	Type 2	4.8
◯ PO29 - GP041 - T3 - W30	24 LED	41	3229	3000K	A+	Type 3	4.8
◯ PO29 - GP041 - T4 - W30	24 LED	41	3238	3000K	A+	Type 4	4.8
◯ PO29 - GP041 - T2 - W40	24 LED	41	3425	4000K	A++	Type 2	4.8
◯ PO29 - GP041 - T3 - W40	24 LED	41	3440	4000K	A++	Type 3	4.8
◯ PO29 - GP041 - T4 - W40	24 LED	41	3450	4000K	A++	Type 4	4.8
◯ PO29 - GP061 - T2 - W30	24 LED	56	4287	3000K	A+	Type 2	4.8
◯ PO29 - GP061 - T3 - W30	24 LED	56	4305	3000K	A+	Type 3	4.8
◯ PO29 - GP061 - T4 - W30	24 LED	56	4341	3000K	A+	Type 4	4.8
◯ PO29 - GP061 - T2 - W40	24 LED	56	4587	4000K	A+	Type 2	4.8
◯ PO29 - GP061 - T3 - W40	24 LED	56	4587	4000K	A+	Type 3	4.8
◯ PO29 - GP061 - T4 - W40	24 LED	56	4625	4000K	A+	Type 4	4.8
◯ PO29 - LM059 - T2 - W30	24 LED	54	4500	3000K	A++	Type 2	4.8
◯ PO29 - LM059 - T3 - W30	24 LED	54	4540	3000K	A++	Type 3	4.8
◯ PO29 - LM059 - T4 - W30	24 LED	54	4586	3000K	A++	Type 4	4.8
◯ PO29 - LM059 - T2 - W40	24 LED	54	5400	4000K	A++	Type 2	4.8
◯ PO29 - LM059 - T3 - W40	24 LED	54	5448	4000K	A++	Type 3	4.8
◯ PO29 - LM059 - T4 - W40	24 LED	54	5504	4000K	A++	Type 4	4.8

Accessories No.

Spigot mounting	SC60	SC76
Single arm	□ A90560	◯ A90676



Double arm	◯ A90860	◯ A90876



Colour Code

◯ - 01 Black RAL 9011 ◯ - 02 Dark Grey RAL 7043 ◯ - 03 White RAL 9003 ◯ - 05 Matt Silver RAL 9006 ◯ - 06 Bronze RAL 6014 RESET

• Installation manual available online at www.ligman.com.
• Luminous flux and system power are rated from absolute photometry according to LM-79-08 standard for LED luminaire.
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PowerMission 2

Street lighting luminaires

PO29

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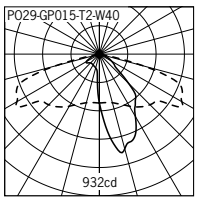
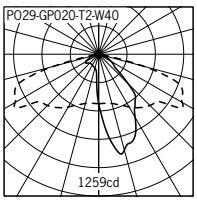
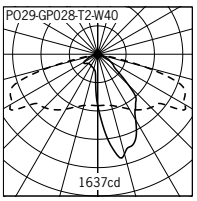
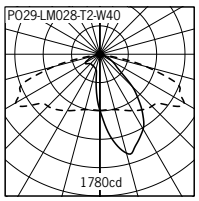
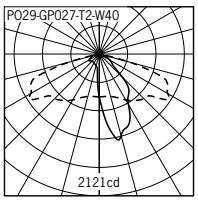
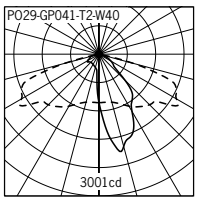
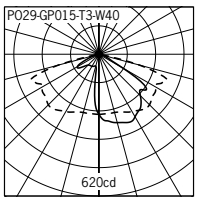
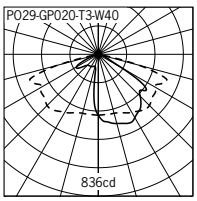
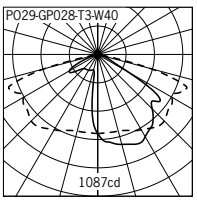
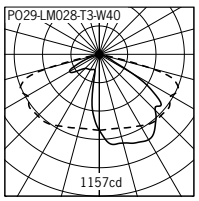
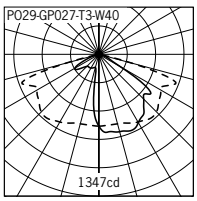
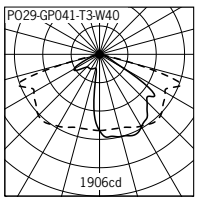
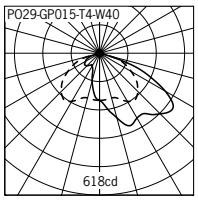
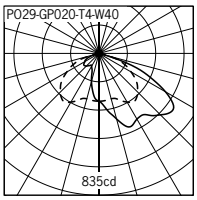
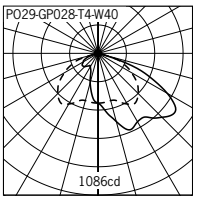
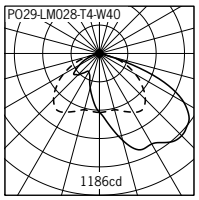
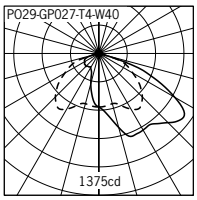
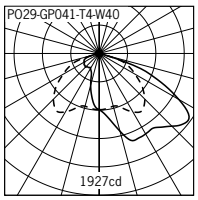
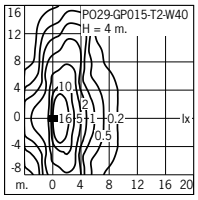
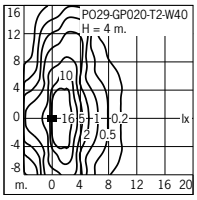
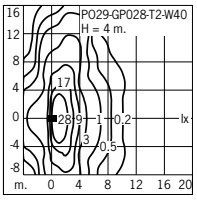
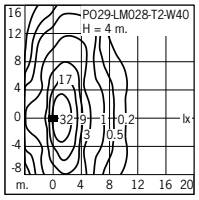
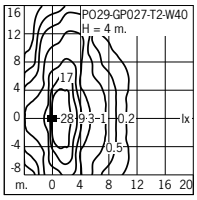
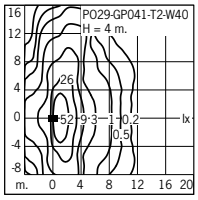
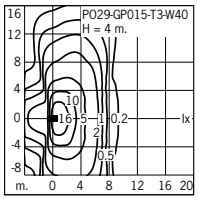
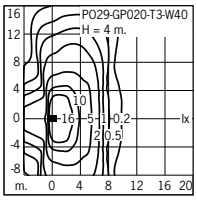
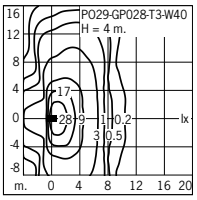
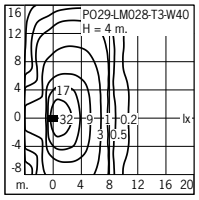
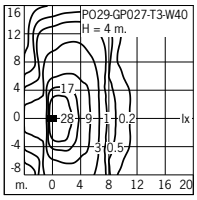
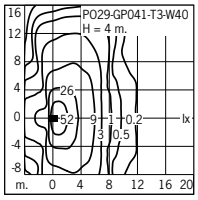
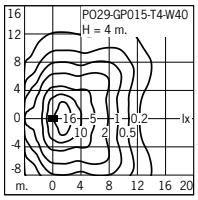
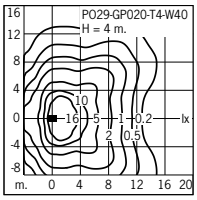
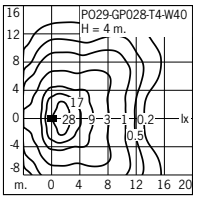
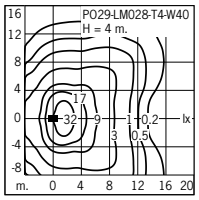
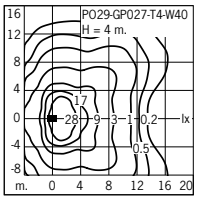
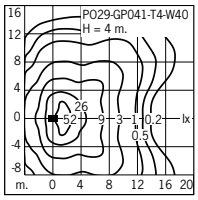
Photometric

	GP015	GP020	GP028	LM028	GP027	GP041
T2						
T3						
T4						
T2						
T3						
T4						

Ligman Lighting Co.,Ltd. | Professional Lighting Solutions
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PowerMission 2

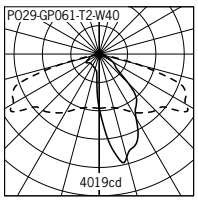
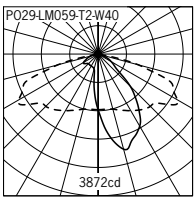
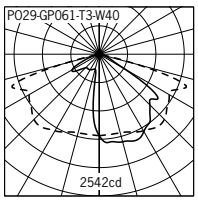
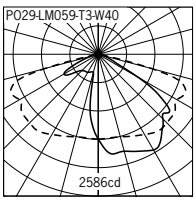
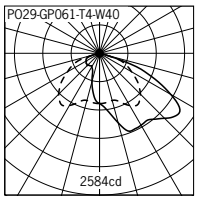
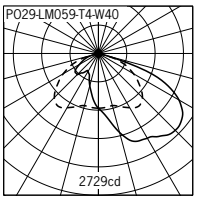
Street lighting luminaires

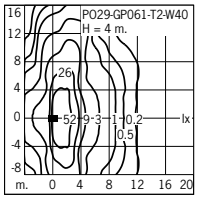
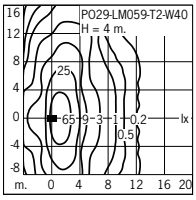
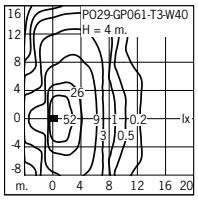
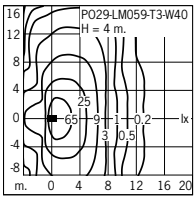
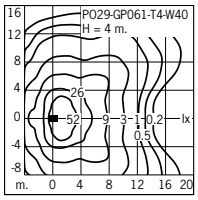
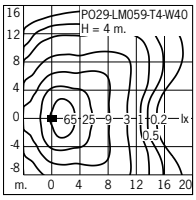
PO29

IP66 · CLASS I · CE · IK08

LIGMAN The quality of life ...

Photometric

	GP061	LM059
T2		
T3		
T4		

T2		
T3		
T4		

• Installation manual available online at www.ligman.com.
• Luminous flux and system power are rated from absolute photometry according to LM-79-08 standard for LED luminaire.
• Photometric diagram for standard non-accessory, please consult the factory in case accessory option.

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ekistics

Appendix 5. Arborist Report

Arborman Tree Solutions

Reference Number:
ATS4714-L15DeaStVC

Tuesday, 21 November 2017

Bud Urban Developments
Attn: Nicole Footer
PO Box 397
Unley SA 5061

Dear Nicole

Re: Lot 15 Dean Street, Gawler West – Addendum to ATS3164-Lot15DeaStEcam

I have considered the impacts of the proposed development as shown in drawing OS611_CP01 dated 20 November 2017 and it is my opinion that the impact of the proposed development will be low. Factors such as species, tree health, the tree's growing environment and the construction methodologies have been taken into account.

The trees all identified as *Eucalyptus camaldulensis* (River Red Gum); this is a species that has a high tolerance to alterations to its root zone. Whilst the potential encroachment is greater than 10% of the Tree Protection Zone due to the combination of the species tolerance and the permeable pavement this development is not expected to impact on tree condition. Please see the attached summary table.

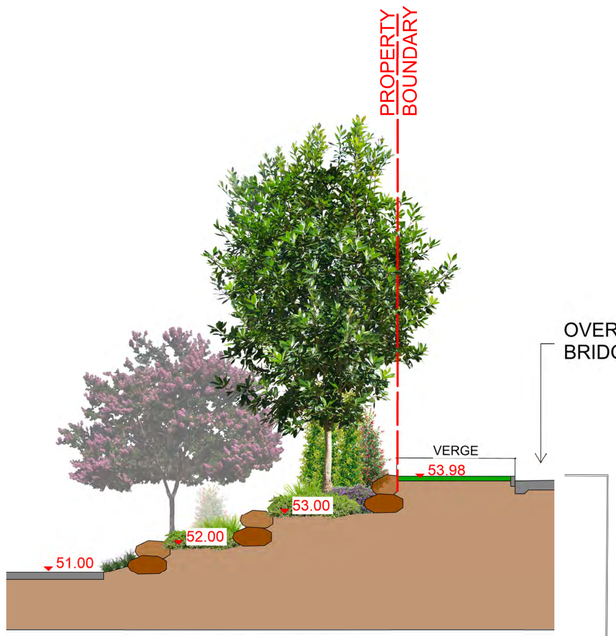
Thank you for the opportunity to provide this report. Should you have any questions or require further information, please contact me and I will be happy to be of assistance.

Yours sincerely

MARCUS LODGE
Senior Consulting Arboriculturist
Diploma in Arboriculture
International Society of Arboriculture – Tree Risk Assessment

Summary Table

Tree Number	Percentage of TPZ within the site	Potential Impact	Other comments
1	20%	Low - the area of the TPZ within the site is part of the driveway which is to be constructed with permeable pavement.	
2	22%	Low - the area of the TPZ within the site is part of the driveway which is to be constructed with permeable pavement.	
3	27%	Low - the area of the TPZ within the site is part of the driveway which is to be constructed with permeable pavement.	The majority of the rest of the TPZ within the property is to landscaped and retained as garden bed. The garden area includes permeable paving.
4	20%	Low - the area of the TPZ within the site is landscaped and retained as garden bed.	The garden area includes permeable paving.
5	12%	Low - the area of the TPZ within the site is landscaped and retained as garden bed.	The garden area includes permeable paving. The area of encroachment is only marginally above the allowable encroachment.
6	7%	No impact on tree health is anticipated.	Less than allowable encroachment and unlikely to impact on the tree.



SECTION A_1:100 @ A1

OVERWAY BRIDGE ROAD

LEGEND

TREE PROTECTION ZONE

EXISTING TREES TO BE RETAINED; REFER TO ARBORIST'S REPORT

PROPOSED TREES

SCREENING SHRUBS

IRRIGATED MULCHED GARDEN BEDS

ARTIFICIAL TURF

IRRIGATED INSTANT TURF

PERMEABLE PAVERS

LARGE FORMAT FEATURE PAVERS

PAVED PATH FLUSH WITH ROAD LEVEL

SEATS

ROCK RETAINING

SITE LIGHTS; BY OTHERS

RETAINING WALL; BY OTHERS

PROJECT SCOPE

BUILDING 1

BUILDING 2

BUILDING 3

PAVED PLAZA WITH SEATING

OVERWAY BRIDGE ROAD

NEW 1.5M WIDE FOOTPATH TO DEAN ST.TO CONNECT THE SUBJECT SITE TO THE EXISTING RAILWAY CROSSING

GAS AND WATER METER

ROCK RETAINING WITH PLANTS IN BETWEEN

A

POCKET GARDEN WITH SEATING AND COLOURFUL PLANTINGS

OUTER SPACE
258a rundle street adelaide, sa 5000
p: (08) 8223 3228
e: admin@outerspace.net.au
w: www.outerspace.net.au

PROJECT GAWLER WEST RESIDENCES

CLIENT BUD URBAN DEVELOPMENTS

DRAWING DRAFT LANDSCAPE PLAN - DEVELOPMENT APPROVAL

DRAWN BY MN

APPROVED BY PG

DRAWING No. OS611_CP01

ISSUE DATE 20/11/17

0 2 5 10 15 20 25m

SCALE 1:250 @ A1

FOR APPROVAL
NOT FOR CONSTRUCTION

LEGEND

PROPOSED TREES

ARTIFICIALTURF

MULCHED GARDEN BED

CONCRETE EDGING

AC UNITS

TYPE A TYPE B TYPE C

PRECEDENT IMAGES

ROCK RETAINING

PAVED PLAZA WITH SEATS

PERMEABLE PAVERS

TREES

Acer x freemannii 'Autumn Blaze'
Jeffer's Red Maple
Height: 10m
Width: 9m

Acer platanoides 'Crimson Sentry'
Purple Norway Maple
Height: 7m
Width: 4m

Cupaniopsis anacardioides
Tuckeroo
Height: 8m
Width: 5m

Pyrus calleryana 'Bradford'
Ornamental Pear
Height: 10m
Width: 5m

Cupressus sempervirens 'Stricta'
Italian Cypress
Height: 4m
Width: 1m

SCREENING SHRUBS

Rosmarinus officinalis
Rosemary
Height: 1.5m
Width: 1.5m

Viburnum tinus
Laurustinus
Height: 3m
Width: 2m

Westringis fruticosa
Coastal Rosemary
Height: 1.5m
Width: 1.5m

Raphiolepsis delacourii
Indian Hawthorn
Height: 1.5m
Width: 1.5m

Nandina domestica 'Blush'
Nandina Blush
Height: 1m
Width: 0.9m

Myoporum parvifolium
Myoporum
Height: 0.15m
Width: 1m

Cistus salvifolius 'Brilliancy'
Rock Rose
Height: 1.5m
Width: 1m

Erigeron karvinskianus
Seaside Daisy
Height: 0.2m
Width: 0.2m

LOW SHRUBS & GROUNDCOVERS

Dianella 'Little Jess'
Little Jess
Height: 0.5m
Width: 0.5m

Dianella 'Cassa Blue'
Cassa Blue
Height: 0.5m
Width: 0.4m

Correa 'Pink Mist'
Correa
Height: 0.75m
Width: 1m

Lomandra longifolia 'Tanika'
Dwarf Mat Rush
Height: 0.6m
Width: 0.6m

Hardenbergia 'Meema'
Meema
Height: 0.5m
Width: 2m

Liriope muscari
Lilyturf
Height: 0.4m
Width: 0.4m

Limonium perezii
Sea Lavender
Height: 0.8m
Width: 0.5m

OUTER SPACE
258a rundle street adelaide, sa 5000
p: (08) 8223 3228
e: admin@outerspace.net.au
w: www.outerspace.net.au

PROJECT GAWLER WEST RESIDENCES

CLIENT BUD URBAN DEVELOPMENTS

DRAWING DRAFT LANDSCAPE PLAN - DEVELOPMENT APPROVAL

DRAWN BY MN

APPROVED BY PG

DRAWING No. OS611_CP02

ISSUE DATE 17/11/17

0 1 2 3 4 5 10m

SCALE 1:100 @ A1

FOR APPROVAL
NOT FOR CONSTRUCTION

Appendix 6. Character Impact Statement

DASH Architects

Gawler West Residential Development –

Lot 15 Dean Street Gawler West

Annexure: Character Impact Assessment

DA143080 Issue –

13.10.2017

1.0 Background

In 2015 DASH Architects was engaged by Leedwell Property to undertake an assessment of a proposed residential development at Lot 15 Dean Street, Gawler West, which is located in a Residential Historic Conservation Zone.

In summary, the original 2015 proposal reviewed by DASH Architects sought to construct 53 apartments and 6 townhouses on the 5869sqm site, in the form of:

- Building 1: three to four storey apartment building fronting Overway Bridge Road (44 apartments);
- Building 2: three storey apartment building near the rail corridor (9 apartments); and
- Townhouses: six off two storey townhouses along the southern site boundary.

It is understood there may have been an amendment to this resulting in a final approval of 55 Apartments only.

The 2015 Character Impact Assessment Report prepared by DASH Architects for the scheme outlined above included a detailed review of the locality, and an assessment of the proposal against the relevant development plan provisions. It found:

- The size and configuration of the site is not typical of the Policy Area;
- The topography, road configuration, rail corridor and surrounding development combine to 'disconnect' the site to some extent from the surrounding locality;
- The locality around the site was not representative of the Desired Character statement for the Policy Area within the development plan, namely "*dwellings dating from the period 1860-1910*";
- The site and immediate locality has only basic residential amenity in its present undeveloped form;
- Planning policy that seeks historic character to be *retained* and *strengthened*, and new development to be *compatible* or *sympathetic* is sound in principle, but problematic when sought to be applied in locations where such character is not present; and

dasharchitects

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t 8223 1655
adelaide@dasharchitects.com.au
www.dasharchitects.com.au
ABN 82 059 685 059

- While it was acknowledged that the 2015 proposal fell short of fulfilling some of these relevant planning previsions, it was concluded that such shortfalls had only a negligible impact on the historic character of the locality.

The report concluded by noting:

> *Given the unique attributes of the site, and the absence of the cited historic character within its locality, Council will need to consider the weighting it applies to these historic character provisions as part of a broader planning assessment of the overall merits of the proposed development*.

2.0 Amended Proposal (2017)

An alternative proposal has since been lodged for the site consisting of 30 off two storey townhouses. The general layout of the proposed development is generally consistent with the original proposal, namely a row of built form along Overway Bridge, the rail corridor and the southern boundary.

This Annexure to our 2015 Character Impact Statement has been prepared in response to the following request from Council:

> *It is recommended that DASH provide an annexure to the previously prepared Heritage Impact Statement to further elaborate if the proposed development is considered to have a detrimental impact on Historic Character/interface with the adjoining contributory items*

It is noted that while there have been revisions to the Development Plan between the 2015 and 2017 applications, the relevant Residential Historic (Conservation) Zone and Policy Area provisions have remained unchanged.

3.0 Character Impact Assessment

The key issues identified in DASH Architects' 2015 assessment remain consistent with those associated with the current 2017 application, as outlined in the below table.

Development Plan provisions	Comment
Residential Historic (Conservation) Zone	
Objective 2: Retention of all places (including landscape elements) which contribute to the historic character of the Zone.	The Subject Site is vacant land, and does not propose the removal of any places that contribute to the historic character of the Zone
PDC 1: Development should reinforce and complement the historic character and significance of the area and the integrity of any places and items identified in Table Ga/2, Table Ga/5 or Table Ga/6. **PDC 2:** Vacant land, buildings or sites not having a detrimental affect on the character of the locality should be redeveloped and upgraded in accordance with the historic and future character of the Zone and Policy Areas, and where applicable, the guidelines in Table Ga/3. **PDC 5:** Development should enhance and contribute to visual cohesiveness, and any new buildings should be of complementary height, scale, set-back, form and external appearance, and display creative and diverse examples of high standard contemporary architecture. **PDC 8:** Development abutting or in close proximity to a place or item identified in Table Ga/2, Table Ga/5 or Table Ga/6 should: (a) respect the historic character of the area and the integrity of the particular place or item of significance and be designed to a high architectural standard; and (b) be compatible in respect of its design, siting, scale, building and roof shape, bulk, height, materials and colours, fences and landscaping and any advertising signs and external illumination with the place or item	As noted in the 2015 Character Impact Assessment, while the site is located in the H(C)Z, the actual locality of the Subject Site has limited, if any, historic character in accord with that cited by the Policy Area's Desired Character. Notwithstanding this, it is acknowledged that the site is located within close proximity to 5 Contributory Items, that have been identified by Council as contributing towards the historic character of the locality. The proposed development does not affect the *integrity* of these Contributory Items. The primary factors influencing the extent to which the 2015 development *reinforced and complemented*, and avoided *detrimental impacts* was the height and scale of development. At three to four storeys in height it was notably higher than residential development within the locality, Policy Area and Zone generally. Despite this, the proposal was not considered to have a detrimental affect on the character of the locality as the locality displayed limited, if any of the cited historic character attributes. Unlike the 2015 proposal, the 2017 application is only two storeys, and in being such is of a notably more compatible scale to the existing residential built form within the locality (also refer PA PDC 4 discussion). It is also acknowledged that the proposed development differs from majority of the RH(C)Z in that it seeks to develop the land with a series of townhouses, rather than detached dwellings. This townhouse development creates a different setback pattern, and external appearance to the remainder of the Zone. The unique attributes of the site (size, topography, proximity to rail corridor, surrounding development) creates a locality that currently lacks *visual cohesiveness* to the remainder of the Zone. For this reason, the proposed development will create its own unique *visual cohesiveness* to the locality. Further, the proposal does seek to establish a design compatibility with the nearby Contributory Items through providing a highly articulated built form and variation of colour and material.

Gawler South Policy Area	
Desired Character: …Gawler South is residential in character, consisting mainly of dwellings dating from the period 1860 - 1910. Dwellings are typically detached and are set back from the street and neighbouring houses. The area is of historic importance because it contains a significant number of high integrity residences, mainly from the period 1860 - 1910, which illustrate the character and continuing expansion of residential Gawler in the latter half of the nineteenth century… Appropriate Uses are: Dwellings; Two-storey development along the designated part of Nineteenth Street in the Gawler Railway Station Precinct in the form of shops, offices, showrooms and residential use; Entertainment, confined to existing hotels in the Gawler Railway Station Precinct; Service Trade Premises; Shops; Retail Showrooms; Service Industry; Warehousing; Car parking; Public Transport interchange in the Gawler Railway Station Precinct; Local Services (Recreation areas, schools, child care centres, community uses).	As noted, the Contributory Items within the vicinity of the Subject Site date from c1950, and are in varying states of integrity. They are not representative of 1860-1910 dwellings. While there are such dwellings located on the southern side of Dean Street, these are sufficiently isolated from the proposed development as to not affect the character of its locality. As outlined in the above discussion, it is acknowledged that the Development Plan primarily envisages single storey dwelling development in this locality (also ref PA PDC 4), and that the proposed development is not consistent with this (albeit now only two storeys in comparison to the 2015's three to four storeys). Given, however, the site's unique location adjacent the rail corridor, topography and surrounding streetscape character, I consider there to be merit in tempering the application of these Desired Character provisions as part of a broader planning assessment of the proposed development.
Objective 1: Development complementary to the historic character and significance of the Policy Area as expressed in the Future Character. **PDC 2:** Development should: (a) complement and reinforce the historic character of existing dwellings sited on generous allotments; and (b) be set-back from the street and neighbouring buildings consistent with the historic set-back on the site.	As noted, the extent to which the development can (or *should*) complement the 1860-1910 historic character of the locality is questionable, due to the absence of this character in the locality of the Subject Site.

PDC 4: Residential development generally should be single storey in height unless indicated otherwise.	As acknowledged, the development is not single storey. As discussed in the 2015 Impact Assessment, additional height on this site has negligible, if any impact on the historic character of the locality due to the site being both 'disconnected' from the remainder of the Policy Area, surrounding built form and limited representation of *dwellings dating from the period 1860-1910*. It should also be noted that the 2017 proposal is notably lower in scale than the 2015 scheme, being only two storeys compared to three to four storeys of the earlier scheme. Finally, I also note that historically it is not uncommon for land immediately adjacent a rail corridor to be developed in a differing, more intensive manner to land set further away. This was historically the case for the nearby Railway Precinct, which saw buildings of a larger scale developed to service the transit line.
Table Ga/3 Infill Development Design Guidelines	
Introduction The guidelines are directed at utilisation of infill sites within Historic (Conservation) Policy Areas and the Historic Conservation Zone. Such heritage areas and the zone are defined with the purpose of retaining and strengthening existing historic character. To achieve this, development must be responsive to site and locality conditions and the Desired Character. This means that off-the-shelf building products are unlikely to be suitable forms of development for infill sites. Overview The objective is development, which is compatible with and sympathetic to the: • desired character; • adjacent buildings; and • streetscapes. This will be achieved through sympathetic contemporary design without copying historic architectural detailing or decoration, and specifically through: • reinforcing streetscape patterns by appropriate building location, plan and roof forms and front fence design; • development designed to follow topography and which directly addresses the street; • detached garages that are set behind dwellings; • wall heights and building elements which match heritage buildings in the locality; and • use of simple materials.	While the 2017 proposal seeks to develop the site in a notably less intensive manner than that 2015 scheme, it is nonetheless acknowledged that the proposal is still of a scale, and of a differing building typology to that of the surrounding residential development. Accordingly, it will fall short of achieving the specific requirements of these guidelines. The introduction of these Guidelines states the purpose of establishing *historic areas* is for *retaining and strengthening existing historic character.* The Desired Character statement for the policy area states this character as being derived from 1860-1910 dwellings. As noted above, the Subject Site's locality does not display this noted historic character. Furthermore, the Subject site is somewhat segregated from the remainder of the H(C)Z in that it is located on its outer edge, adjoins the rail corridor, and has a primary frontage to the diverse (and limited) character of Overway Bridge Road. This again brings into question the extent to which development on this site can (or *should) retain and strengthen* a historic character that is not present, and whether or not it is relevant to be *sympathetic* with *adjacent buildings*. For these reasons, Council may again consider tempering the application of these provisions when undertaking a broader planning assessment of the merits of the proposed development.

4.0 Summary

While there have been changes to Council's Development Plan since the assessment and subsequent approval of the 2015 proposal for the site, the provisions pertaining to historic character impact have remained consistent between the applications.

The 2017 proposal differs from the 2015 scheme in that it is of a lower scale and intensity. It does, however, share a similar basic site layout, particularly with regards to the primary interfaces with the remainder of the surrounding Zone and Policy Area.

Like the 2015 proposal, it is acknowledged that the current application falls short of some of the more prescriptive character provisions within Council's Development Plan (albeit to a lesser extent than the approved scheme). As outlined in the 2015 assessment, however, the locality of the Subject Site is not consistent with the remainder of the Zone and Policy Area, displaying none of the historic character or attributes cited by the Desired Character Statement.

The Development Plan provisions seek development to *retain* and *strengthen* the cited historic character, while incorporating design elements / techniques that are *compatible* or *sympathetic*. This is a general sound approach for areas of consistent historic character, however is highly problematic in locations where such character is simply not present, such as is the case for the Subject Site. That is to say: how can a new development *retain* and *strengthen* a historic character that is simply not present?

It is therefore again not surprising that the current proposed development falls short of fulfilling some of the Development Plan provisions considered above. Given the uniqueness of the site, and absence of historic character within the locality, it would appear that Council placed a lesser weighting on these *historic character* provisions than they might have had the development been proposed elsewhere in the Zone.

This approach remains valid for the 2017 application. Given the notably less intensive scale of this current proposal compared to the approved scheme, the present proposal would similarly appear to warrant favourable consideration with regards to impacts on Historic Character.

Appendix 7. SAPN Correspondence

Rob Gagetti

To: Budurban-Mick
Subject: RE: Dean St Gawler West.

From: Tim Caddy [mailto:Tim.Caddy@sapowernetworks.com.au]
Sent: Thursday, 16 November 2017 1:35 PM
To: Budurban-Mick <Mick@budurban.com.au>
Subject: RE: Dean St Gawler West.

Good Afternoon Mick,

I can confirm that SA Power Networks have received payment of the Offer Fee for the following project

Project Title : BCA, Stobie Pole Relocation, Gawler West
Our Reference: CN-500012617
Scope of Works: Relocation of an existing Stobie Pole located at 12 Dean Street, Salisbury

We are proceeding with the preparation of the Firm Offer. Currently I am waiting on advice for the DPTI regarding alteration to an existing overhead rail crossing and from our Public Lighting department regarding the relocation of the existing Street Light.
Once I have all relevant information and I have finalised the offer with management approval I will issue the offer to you.

Kind regards,

Tim Caddy
Network Project Officer
Direct: 08 8366 7429
Int: 41429
Mobile: 0403 582 308
tim.caddy@sapowernetworks.com.au
---
52 Jacobsen Crescent, Holden Hill SA 5088
www.sapowernetworks.com.au

SA Power Networks

Appendix 8. NAWMA Correspondence

Rob Gagetti

To: Budurban-Nicole
Subject: RE: Townhouse Development plan in Gawler West

From: David Diprose [mailto:D.Diprose@NAWMA.sa.gov.au]
Sent: Wednesday, 18 October 2017 4:09 PM
To: Budurban-Nicole <Nicole@budurban.com.au>
Cc: council@gawler.sa.gov.au
Subject: Spam>RE: Townhouse Development plan in Gawler West

G'day Nicole
Firstly apologies for the long list of emails below! Further to discussion earlier – the trucks used by Suez are the top (4850mm wheelbase) version in the attached doc. They can be gross weight up to around 23 tonnes – further mass details are in the table. The road pavement will need to be designed to cater for these loads – your civil engineering people will be able to determine pavement designs to satisfy this. In a public road sense these pavement designs are normally based on a 20 year design life

Please also note that **the developer/owner needs to provide Suez (the collection contractor)with written permission to use the private road to service bins and an indemnity that Suez wouldn't be responsible for any road repairs resulting from normal truck use**

Trust this is clear. Please let me know if you have any queries.

regards
David Diprose *BE Civil (Hons), CPEng*
Processing & Disposal Manager, NAWMA
P: 08 8259 2100 M: 0423 779 046

From: Budurban-Nicole
Sent: Monday, 16 October 2017 1:32:32 PM (UTC+09:30) Adelaide
To: Holly Tuppin
Subject: RE: Townhouse Development plan in Gawler West

Hi Holly,

We have submitted our application for planning approval to council and have recently received back an RFI covering various points. One point which they have asked to check with NAWMA is if you have any "additional requirements regarding the level of common road construction. Typically it is Council's understanding that the roads need to be constructed to accommodate a typical weight load."

Can you please confirm any requirements of this type?

Thanks,

Nicole

From: Holly Tuppin [mailto:h.tuppin@nawma.sa.gov.au]
Sent: Friday, 23 June 2017 9:48 AM
To: Budurban-Nicole <Nicole@budurban.com.au>
Subject: Spam>RE: Townhouse Development plan in Gawler West

Hi Nicole,

Apologies for the delayed response.

The contractor has been able to fully review the proposals and has advised that due to the location of the property a REL bin service is not available, my apologies that I was not aware of this and didn't advise sooner.

Truck collection would be possible with a ring route design (option 1) as long as the road are of a sufficient width as are the entries, as well as allowing for sufficient turning circles and tapering of corners, as previously advised.

- At minimum 6 m wide roads with any comers along trucks route tapered allowing for sufficient space for truck's to turn
- A 20 Metre Turning Circle within the complex Or a road that goes through the property with a separate entry and exit

I hope this is of assistance and if we can assist any further please do not hesitate to contact us.

Kind regards

Holly Tuppin
Office Supervisor

71-75 Woomera Ave, Edinburgh Park
Box 10 MDC, Edinburgh North, SA, 5113
P: 08 8259 2105
M: 0417 845 102
E: H.Tuppin@nawma.sa.gov.au
W: www.nawma.sa.gov.au

From: Budurban-Nicole
Sent: Thursday, 8 June 2017 10:43 AM
To: 'Holly Tuppin' <h.tuppin@nawma.sa.gov.au>
Cc: 'Paul Morris' <Paul.Morris@gta.com.au>
Subject: RE: Townhouse Development plan in Gawler West

Hi Holly,

Thanks for that response. Our original preference had been for individual bin collection from out front of the townhouses like a normal street. I am reading into your responses that this might not be possible however.

You are correct that the entry point is 4m and then widens to 6.3m (or 5.3m when visitor car parks are utilised). To make the entry wider we would need to relocate a stoby pole which currently sits at the entry point. Would the smaller truck that collects the REL's be able to enter in the 4m opening? If we went the shared option they would need to be along the hammerhead driveway I believe. Would that work?

Yes, this will eventually be part of a larger complex, however it is not certain what the exact form of the rest of the complex will take on at this stage. The current approval is for some apartment buildings however it is likely that a further 20 or so townhouses will be built instead with a ring road servicing them. I have attached a plan of this, however we are not submitting for this full approval yet with council though, only the initial 9 townhouses.

Cheers,
Nicole

From: Holly Tuppin [mailto:h.tuppin@nawma.sa.gov.au]
Sent: Thursday, 8 June 2017 10:13 AM
To: Budurban-Nicole <Nicole@budurban.com.au>
Cc: Rob Gagetti <rgagetti@ekistics.com.au>
Subject: Spam>RE: Townhouse Development plan in Gawler West

Good morning Nicole,

Apologies for the delayed response, so that we can provide accurate feedback – can you advise where you had hoped the bins will be collected – i.e preferred individual bins from out front each Individual property like a normal street, or do you propose another location – please note the following requirements for truck access also,

- At minimum 6 m wide roads with any comers along trucks route tapered allowing for sufficient space for truck's to turn
- A 20 Metre Turning Circle within the complex Or a road that goes through the property with a separate entry and exit

Unless I am mistaken the entry point at Dean street is 4m then widening to 5 M – is this correct? If so it will not be possible for a normal collection truck to empty in that complex, you will either need to widen the roads or the alternative is you use a shared bin system for the general Rubbish known as REL's, for this service a smaller truck would empty the REL's. For the number of units in this complex 2 x 660L REL Bins (1260 mm wide x 1200 mm high x 780mm Deep) is recommended at minimum, they will need to be kept in a accessible location (can be behind a locked gate as long as we are provided an access key) – driver will roll bins out to truck, empty then return them – this would need to occur within the complex and will possibly block road during the process. For us to determine if this is a feasible option please advise where you would locate the shared bins.

Is this complex apart of a larger complex? If so can you provide / has it be designed the road system throughout the whole development, perhaps there are other alternatives we can think of as a result?

Kind regards

Holly Tuppin
Office Supervisor

71-75 Woomera Ave, Edinburgh Park
Box 10 MDC, Edinburgh North, SA, 5113
P: 08 8259 2105
M: 0417 845 102
E: H.Tuppin@nawma.sa.gov.au

W: www.nawma.sa.gov.au

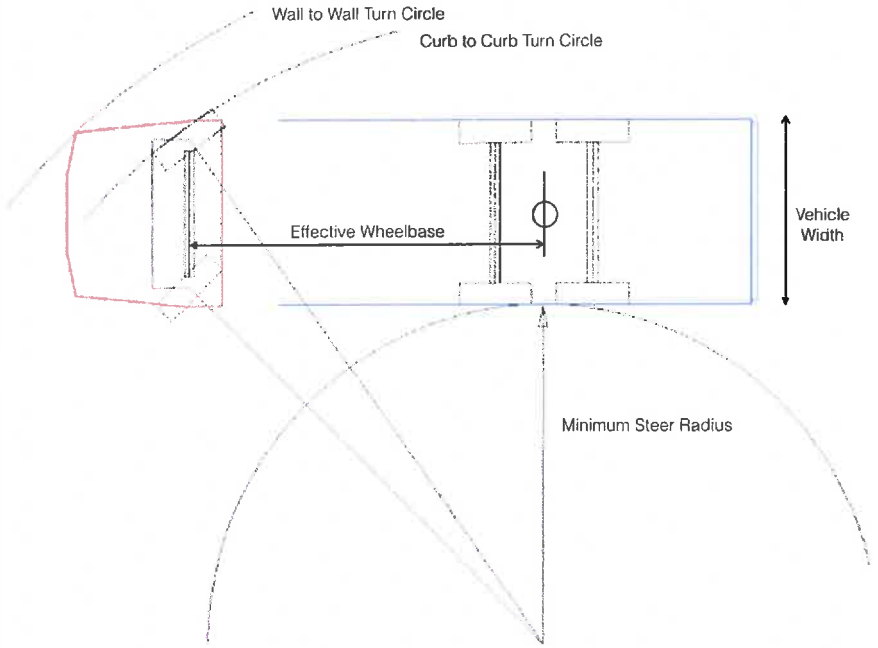
E: nicole@budurban.com.au | www.budurban.com.au

DE 6x4 Turn Circle Model - 4850 mm, 5350 and 5500 mm wheelbase

DE 6x4 4850 mm wheelbase		
Vehicle Width	2500	mm
Inner Steer Angle	45.00	deg
Outer Steer Angle	38.00	deg
Effective Wheelbase	4850	mm
Theoretical Wheelbase	4850	mm
Track Width	2000	mm
Front Mass	6500	kg
Rear Mass	17000	kg
Centre of Mass	1341	mm
Centre of Mass Steer Radius	5689	mm
Min Steer Radius	4850	mm
Curb to Curb Steer Radius	8806	mm
Curb to Curb Turn Circle	17.6	m
Wall to Wall Steer Radius	9822	mm
Wall to Wall Turn Circle	19.6	m

DE 6x4 5350 mm wheelbase		
Vehicle Width	2500	mm
Inner Steer Angle	45.00	deg
Outer Steer Angle	38.00	deg
Effective Wheelbase	5350	mm
Theoretical Wheelbase	5350	mm
Track Width	2000	mm
Front Mass	6500	kg
Rear Mass	17000	kg
Centre of Mass	1480	mm
Centre of Mass Steer Radius	6276	mm
Min Steer Radius	5350	mm
Curb to Curb Steer Radius	9500	mm
Curb to Curb Turn Circle	19.0	m
Wall to Wall Steer Radius	10528	mm
Wall to Wall Turn Circle	21.1	m

DE 6x4 5500 mm wheelbase		
Vehicle Width	2500	mm
Inner Steer Angle	45.00	deg
Outer Steer Angle	38.00	deg
Effective Wheelbase	5500	mm
Theoretical Wheelbase	5500	mm
Track Width	2000	mm
Front Mass	6500	kg
Rear Mass	17000	kg
Centre of Mass	1521	mm
Centre of Mass Steer Radius	**6452**	**mm**
Min Steer Radius	5500	mm
Curb to Curb Steer Radius	9708	mm
Curb to Curb Turn Circle	19.4	m
Wall to Wall Steer Radius	10740	mm
Wall to Wall Turn Circle	21.5	m



Tree Report ATS3164-Lot15DeaStEcam V4

Tree Report for Dean Place Pty Ltd
C/- Leedwell Property
Level 2, 15 Leigh Street
Adelaide SA 5000

Re: Lot 15 Dean Street, Gawler West

Report commissioned by:
Bernadette Lee
Executive Assistant
Leedwell

Report compiled by:
Arborman Tree Solutions Pty Ltd
Gary Moran – Consulting Arboriculturist

Table of Contents

Brief

I was asked to carry out an inspection, from ground level, of the (6) *Eucalyptus camaldulensis* (River Red Gum) located at Lot 15 Dean Street, Gawler West and provide information in relation to the following points: -

- Assess the general condition and structure of the subject trees.
- Assess the trees against the current provisions of the *Development Act 1993* relating to Regulated and Significant Trees.
- Identify and define the appropriate Tree Protection Zone and Structural Root Zone for the trees.
- Determine the extent and long-term effect of possible damage to the subject trees associated with the development and supporting infrastructure.
- Recommend appropriate action for immediate and ongoing management of the trees. This may include crown and root zone treatments and management principles.
- Provide any additional relevant information as appropriate.

Assessment

Observations

Tree 1 was identified as ***Eucalyptus camaldulensis*** **(River Red Gum)** and its status is as follows:-

Assessment Date:
22 June 2015

Southing and Easting:
34°36'24.61" S 138°44'21.84" E

Height:
16 metres

Spread:
15 metres

Age:
Mature

Useful Life Expectancy:
> 10 years

Health:
Fair

Structure:
Fair

Circumference:	**DBH:**	**DRB:**
4.13 metres	0.92 metres	0.99 metres
Legislative Control Status:	**TPZ:**	**SRZ:**
Significant	11.04 metres	3.30 metres

Retention Rating:
Moderate: Fair tree which requires remedial treatment or protection but worthy of retention.

- The subject tree is located immediately east of Lot 15 Dean Street, Gawler West and is listed as "Tree 1" within Appendix A.
- Tree 1 divides into two trunks near ground level. Both trunks support an array of lateral branches and form a broad dome shaped crown.
- The tree's root zone consists of an open grassy area surrounding the trunk and the railway corridor to the east. There have been no obvious recent disturbances noted within the root development area.
- Tree health is considered to be fair as indicated by the normal foliage colour and good density however there is borer activity on the lower southern trunk.
- Tree structure is considered to be fair as indicated by the codominant form and minor bark inclusion located at approximately six metres above ground level.

Tree 2 was identified as ***Eucalyptus camaldulensis*** **(River Red Gum)** and its status is as follows:-

Assessment Date:
22 June 2015

Southing and Easting:
34°36'24.61" S 138°44'21.84" E

Height:
16 metres

Spread:
15 metres

Age:
Mature

Useful Life Expectancy:
> 10 years

Health:
Good-Fair

Structure:
Fair

Circumference:	**DBH:**	**DRB:**
2.66 metres	0.59 metres	0.77 metres
Legislative Control Status:	**TPZ:**	**SRZ:**
Regulated	7.08 metres	2.97 metres

Retention Rating:
Moderate: Fair tree which requires remedial treatment or protection but worthy of retention.

- The subject tree is located immediately east of Lot 15 Dean Street, Gawler West and is listed as "Tree 2" within Appendix A.
- Tree 2 divides into two trunks at approximately 0.3 metres ground level. Both trunks support an array of lateral branches and forms a broad dome shaped crown.
- The tree's root zone consists of an open grassy area surrounding the trunk and the railway corridor to the east. There have been no obvious recent disturbances noted within the root development area.
- Tree health is considered to be good to fair as indicated by the normal foliage colour and good density. There is a minor amount of internal deadwood present and there were no substantial pests or diseases noted within the crown.
- Tree structure is considered to be fair as indicated by the codominant form and minor bark inclusion located within the main union. The remaining structure is free of notable defects and the lateral branches offer good pruning options for future management.

Tree 3 was identified as ***Eucalyptus camaldulensis*** **(River Red Gum)** and its status is as follows:-

Assessment Date:
22 June 2015

Southing and Easting:
34°36'24.61" S 138°44'21.84" E

Height:
18 metres

Spread:
15 metres

Age:
Mature

Useful Life Expectancy:
> 10 years

Health:
Good-Fair

Structure:
Fair

Circumference:	**DBH:**	**DRB:**
3.49 metres	1.11 metres	0.77 metres
Legislative Control Status:	**TPZ:**	**SRZ:**
Significant	13.32 metres	2.97 metres

Retention Rating:
Moderate: Fair tree which requires remedial treatment or protection but worthy of retention.

- The subject tree is located immediately east of Lot 15 Dean Street, Gawler West and is listed as "Tree 3" within Appendix A.
- Tree 3 divides into multiple ascending stems at approximately 1.4 metres ground level. The stems support an array of lateral branches and form an upright crown with a slight southern bias due to the phototropic growth response to adjacent trees.
- The tree's root zone consists of an open grassy area surrounding the trunk and the railway corridor to the east. There have been no obvious recent disturbances noted within the root development area.
- Tree health is considered to be good to fair as indicated by the normal foliage colour and good density. There is a minor amount of internal deadwood present and there were no substantial pests or diseases noted within the crown.
- Tree structure is considered to be fair as indicated by the past lopping at approximately 1.4 metres above ground level. The remaining structure is free of notable defects and the lateral branches offer good pruning options for future management.

Tree 4 was identified as ***Eucalyptus camaldulensis*** **(River Red Gum)** and its status is as follows:-

Assessment Date:
22 June 2015

Southing and Easting:
34°36'21.80" S 138°44'21.74" E

Height:
19 metres

Spread:
14 metres

Age:
Mature

Useful Life Expectancy:
> 10 years

Health:
Good-Fair

Structure:
Fair

Circumference:	**DBH:**	**DRB:**
2.81 metres	0.89 metres	0.94 metres
Legislative Control Status:	**TPZ:**	**SRZ:**
Regulated	10.68 metres	3.22 metres

Retention Rating:
Moderate: Fair tree which requires remedial treatment or protection but worthy of retention.

- The subject tree is located immediately east of Lot 15 Dean Street, Gawler West and is listed as "Tree 4" within Appendix A.
- Tree 4 divides into multiple ascending stems at approximately two metres ground level. The stems support an array of lateral branches and form an upright crown.
- The tree's root zone consists of an open grassy area surrounding the trunk and the railway corridor to the east. There have been no obvious recent disturbances noted within the root development area.
- Tree health is considered to be good to fair as indicated by the normal foliage colour and good density. There is a minor amount of internal deadwood present and there were no substantial pests or diseases noted within the crown.
- Tree structure is considered to be fair as indicated by the past lopping at approximately two metres above ground level. The remaining structure is free of notable defects and the lateral branches offer good pruning options for future management.

Tree 5 was identified as ***Eucalyptus camaldulensis*** **(River Red Gum)** and its status is as follows:-

Assessment Date:
22 June 2015

Southing and Easting:
34°36'21.58" S 138°44'21.81" E

Height:
16 metres

Spread:
13 metres

Age:
Mature

Useful Life Expectancy:
> 10 years

Health:
Good-Fair

Structure:
Fair

Circumference:	**DBH:**	**DRB:**
2.61 metres	0.81 metres	0.94 metres
Legislative Control Status:	**TPZ:**	**SRZ:**
Regulated	9.72 metres	3.22 metres

Retention Rating:
Moderate: Fair tree which requires remedial treatment or protection but worthy of retention.

- The subject tree is located immediately east of Lot 15 Dean Street, Gawler West and is listed as "Tree 4" within Appendix A.
- Tree 5 divides into multiple ascending stems at approximately three metres ground level. The stems support an array of lateral branches and form an upright crown.
- The tree's root zone consists of an open grassy area surrounding the trunk and the railway corridor to the east. There have been no obvious recent disturbances noted within the root development area.
- Health is considered to be good to fair as indicated by the normal foliage colour and good density. There is a minor amount of internal deadwood present and there were no substantial pests or diseases noted within the crown.
- Tree structure is considered to be fair as indicated by the past lopping at approximately two metres above ground level. The remaining structure is free of notable defects and the lateral branches offer good pruning options for future management.

Tree 6 was identified as ***Eucalyptus camaldulensis*** **(River Red Gum)** and its status is as follows:-

Assessment Date:
22 June 2015

Southing and Easting:
34°36'21.45" S 138°44'21.81" E

Height:
14 metres

Spread:
10 metres

Age:
Mature

Useful Life Expectancy:
> 10 years

Health:
Fair

Structure:
Fair

Circumference:	**DBH:**	**DRB:**
2.95 metres	0.88 metres	0.96 metres
Legislative Control Status:	**TPZ:**	**SRZ:**
Regulated	10.56 metres	3.25 metres

Retention Rating:
Moderate: Fair Tree which requires remedial treatment or protection but worthy of retention.

- The subject tree is located immediately east of Lot 15 Dean Street, Gawler West and is listed as "Tree 6" on the attached plan within Appendix A.
- Tree 6 divides into multiple ascending stems at approximately three metres ground level. The stems support an array of lateral branches and forms an upright crown.
- The tree's root zone consists of an open grassy area surrounding the trunk and the railway corridor to the east. There have been no obvious recent disturbances noted within the root development area.
- Health is considered to be fair as indicated by the reduced foliage density, moderate level of dieback throughout the crown and borer activity on the lower trunk.
- Tree structure is considered to be fair as indicated by the past lopping at approximately two metres above ground level. The remaining structure is free of notable defects and the lateral branches offer good pruning options for future management.

Development Plan Principles of Development Control – Tree 1 and 3

The subject trees attain a "Significant" trunk circumference measurement and are therefore required to be assessed to determine if they achieve any of the Principles of Development Control listed within the Town of Gawler Development Plan as follows:-

a) The trees make an important contribution to the character or amenity of the local area. The large leafy crowns provide considerable amenity to the area.

b) The species is not listed under the *National Parks and Wildlife Act 1972* as a rare or endangered native species.

c) The trees represent an important habitat for native fauna: The trees are part of a group of mature indigenous trees therefore represent important habitat.

d) The trees are part of a wildlife corridor or a remnant area of native vegetation; the trees are a link to the wildlife corridor of the Gawler River.

e) The subject trees are important to the maintenance of biodiversity in the local environment; as indigenous natives that are linked to a wildlife corridor, the subject trees form part of a genetic resource and are therefore important to the maintenance of biodiversity within the local environment.

f) The tree forms a notable visual element to the landscape of the local area; the trees are considered to be an eminent feature of the local landscape.

In the case of tree-damaging activity, the following points are also considered:-

A Significant Tree should not be removed or damaged other than where it can be demonstrated that one or more of the Principles of Development Control listed within the Town of Gawler Development Plan apply. These Principles of Development Control are discussed as follows:

a) No pruning is currently warranted and therefore has not been recommended.

b) The work is not required due to an unacceptable risk to public and private safety; the trees do not represent an unacceptable risk. No pruning work is therefore currently warranted.

c) The trees are not within a Bushfire Prone Area.

d) The trees are not causing or threatening to cause substantial damage to a substantial building or structure of value.

e) The aesthetic appearance and structural integrity of the subject trees will be maintained both during and post the development process.

The development involves groundwork activities such as excavation, filling and sealing of surrounding surfaces, however management options are available to protect the root system of the Significant Trees and therefore no adverse effect to the aesthetic appearance, health and integrity is expected.

The land division and development will not result in a substantial tree-damaging activity occurring to a Significant Tree.

Development Plan Objectives and Principles of Development Control – Tree 2, 4, 5 and 6

The subject trees attain "Regulated" trunk circumference measurements and are therefore required to be assessed to determine if they achieve any of the Objectives and Principles of Development Control listed within the Town of Gawler Development Plan as follows:-

a) The trees make a significant contribution to the character or visual amenity of the local area. The large leafy crowns provide considerable amenity to the area.

b) The species is indigenous to the local area.

c) The species is not listed as rare or endangered under the *National Parks and Wildlife Act 1972*.

d) The trees represent important habitat for native fauna; the trees are mature indigenous specimens which are linked to the wildlife corridor of the Gawler River and therefore provide important habitat.

In the case of tree-damaging activity, the following points are also considered:-

A Regulated Tree should not be removed or damaged other than where it can be demonstrated that one or more of the Principles of Development Control listed within the Town of Gawler Development Plan apply. These Principles of Development Control are discussed as follows:

a) The trees are not diseased nor do they have a short life expectancy.

b) The trees do not represent a material risk to public or private safety.

c) The trees are not causing damage to a building.

d) The trees are not preventing development that is reasonable and expected. The proposed development is achievable in conjunction with the sustainability of the subject trees.

The development does involve groundwork activities such as excavation, filling and sealing of surrounding surfaces, however management options are available to protect the root system of the Regulated Tree and therefore no adverse effects to the aesthetic appearance, health and integrity are expected.

The land division and development will not result in substantial tree-damaging activity occurring to a Regulated Tree.

Discussion / Conclusion

The subject trees are identified as mature specimens of *Eucalyptus camaldulensis* (River Red Gum). This group of indigenous trees offers a substantial contribution to the amenity, landscape character and biodiversity of the area and therefore they should be protected throughout the development process in accordance with Australian Standard AS4970-2009 *Protection of Trees on Development Sites*.

The six subject trees achieve a circumference of the trunk at one metre above ground level which deems them as Regulated/Significant Trees under the current provisions of the *Development Act 1993*.

The subject trees are in good overall condition and tree protection measures are provided within this document designed at ensuring that their condition is not impacted by the proposed development.

Tree 1

The encroachment within the Tree Protection Zone of Tree 1 is recognized as a Major Encroachment by AS4970-2009 however Tree friendly design methods and materials for the parking area are proposed within the TPZ. This construction methodology will minimise the potential for tree damaging activity to occur.

Trees 2 - 6

The encroachment within the Tree Protection Zones of Tree 2 - 6 are recognized as Minor Encroachments by AS4970-2009. These minor encroachments are generally incurred by the proposed landscaping. Tree friendly landscaping methods are presented within Appendix C and are aimed at preventing negative impacts to tree health and/or integrity from occurring.

The subject trees are considered to be sustainable within the proposed development as;

≠ The species (*Eucalyptus camaldulensis*) has a good tolerance to root disturbance as it has evolved along water courses throughout mainland Australia. This environment is subject to natural changes in soil levels due to flooding and erosion events. The root structure is therefore able to tolerate considerable soil disturbance which AS4970-2009 section 3.3.4 (c) allows consideration for.

≠ There is substantial future root development area contiguous to the TPZ's located within the railway corridor (AS4970-2009 section 3.3.2).

≠ The species is well adapted to the local environment.

≠ Tree friendly design methods have been incorporated into the development proposal.

≠ Recommendations are provided within this document aimed at promoting tree sustainability and minimising potential impacts.

The trees achieve trunk measurements as well as aesthetic and environmental qualities that qualify them as Regulated and Significant Trees worthy of retention. It is my opinion that under the *Development Act 1993,* their retention is required. I therefore provide the following management recommendations for the subject trees.

Recommendations

Root Zone Management

- Appoint a Project Arborist.
- Delineate a Tree Protection Zone (TPZ) on site around the tree equivalent to the radius listed within the Observations for the relevant tree/s; the TPZ includes both the below and above ground parts of the tree.
- Erect a protective fence around the available TPZ (the existing boundary fence will become part of the TPZ fence) to prevent unauthorised entry, ensure the area is clearly signed TREE PROTECTION ZONE - NO ENTRY (a TPZ sign has been appended to the end of this report which is intended to be reproduced, laminated and attached to the TPZ fence). The fence must be constructed with sturdy temporary fencing, 1.5-2 metres high.
- Decompact the soil within the available TPZ and treat the grass in the area with a suitable glyphosate, or similar, based herbicide.
- Apply a layer of composted mulch 75-100 mm deep over the available TPZ (spread by hand - do not use machinery to spread mulch within the TPZ as this will compact the soil and reduce tree health and vigour) omit mulch from direct contact with the trunk.
- Certificates of compliance should be attained from the Project Arborist at specified development intervals as outlined within Appendix D - AS4970-2009 Schedule of Compliance Checks.
- All excavation within any TPZ is to be completed under the supervision of the Project Arborist using non-destructive techniques such as HydroVac® or similar.
- Where roots are encountered the Project Arborist is to determine the significance of the root to tree health and treat accordingly i.e. prune or remove the root.

Thank you for the opportunity to provide this report. Should you have any questions or require further information, please contact me and I will be happy to be of assistance.

Yours sincerely

GARY MORAN
Consulting Arboriculturist
Advanced Certificate in Arboriculture

Glossary

Size:	approximate height and width of tree in metres.
Age:	identification of the maturity of the subject tree.
Useful Life Expectancy:	expected number of the years that the subject specimen will remain alive and sound in its current location and/or continues to achieve the relevant *Principles of Development Control*.
Current health of tree:	visual assessment of tree health.
Structure:	visual assessment of tree structure.
Circumference:	trunk circumference measured at one metre above ground level. This measurement is used to determine the status of the tree in relation to the *Development Act 1993*.
Diameter at Breast Height (DBH):	trunk diameter measured at 1.4 metres above ground level used to determine the Tree Protection Zone as described in Australian Standard AS4970-2009 *Protection of trees on development sites*.
Diameter at Root Buttress (DRB):	trunk diameter measured just above the root buttress as described in Australian Standard AS4970-2009 *Protection of trees on development sites* and is used to determine the Structural Root Zone.
Tree Protection Zone:	area of root zone that should be protected to prevent substantial damage to the tree's health.
Structural Root Zone:	calculated area within the tree's root zone that is considered essential to maintain tree stability.
Root Buttressing:	area of root development as it joins to the trunk base.
Bifurcation:	a stem union supporting ascending stems and potentially containing included bark.
Included Bark Union:	a poorly formed stem or branch union where bark becomes trapped between the structural fibres causing a weakness in the supporting structure.
Project Arborist	A person with the responsibility for carrying out a tree assessment, report preparation, consultation with designers, specifying tree protection measures, monitoring and certification. The project arborist must be suitable competent in arboriculture, having acquired through training and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this standard.
Lopping:	random cutting of branches or stems between branch unions usually resulting in epicormic regrowth. Such pruning is listed as an unacceptable practice within Australian Standards AS4373-2007 *Pruning of Amenity Trees*.

References

Australian Standard AS4373–2007 ***Pruning of amenity trees***: Standards Australia.

Australian Standard AS4970–2009 ***Protection of trees on development sites***: Standards Australia.

Matheny N. Clark J. 1998: ***Trees and Development a Technical Guide to Preservation of Trees During Land Development***: International Society of Arboriculture, Champaign, Illinois, USA.

Matheny N. Clark J. 1994: ***Evaluation of Hazard Trees in Urban Areas***: International Society of Arboriculture, Champaign, Illinois, USA.

Julius A. Kocher W. Liefheit K. Lilly S. et al 2013: ***Tree Risk Assessment Qualification***: International Society of Arboriculture, Champaign, Illinois, USA.

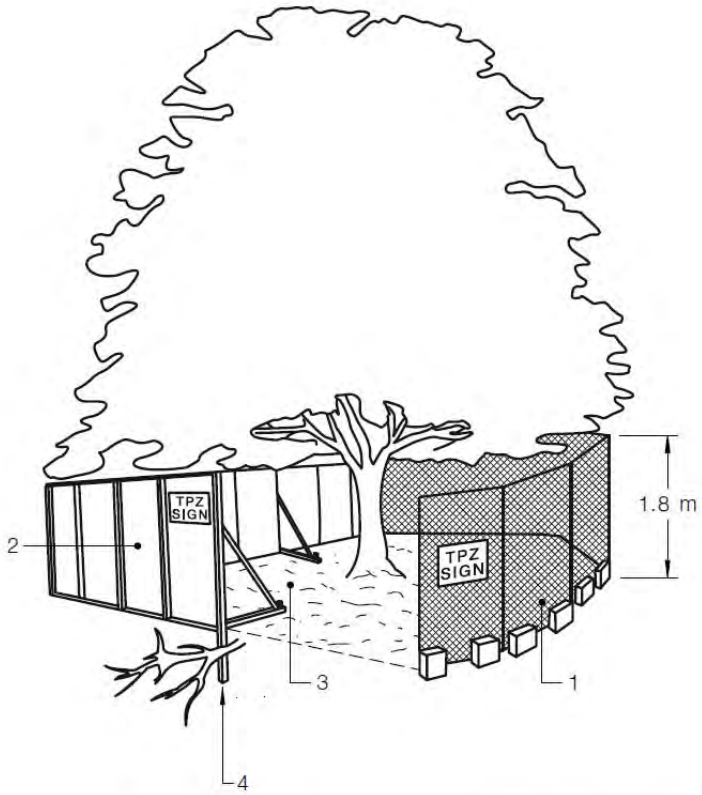
Keane P.J. Kile G.D. Podger F.D. Brown B.N. 2000: ***Diseases and Pathogens of Eucalypts***: CSIRO Publishing, 150 Oxford Street, Collingwood, Victoria 3066 Australia

Appendix A – Tree Location

Appendix B - Erecting a Tree Protection Zone fence.

4.4 SIGNS

Signs identifying the TPZ should be placed around the edge of the TPZ and be visible from within the development site (refer Figure 3). The lettering on the sign should comply with AS 1319. Appendix C provides an example of a suitable TPZ sign.



LEGEND:

1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

FIGURE 3 PROTECTIVE FENCING

Above is an extract from Australian Standard AS4970–2009 *Protection of trees on development sites.*

A protective fence should be installed around the TPZ to prevent unauthorised entry, ensure the area is clearly signed **TREE PROTECTION ZONE - NO ENTRY**. The fence must be constructed with sturdy temporary fencing, 1.8 metres high.

Appendix C Landscaping Program

Once all construction and paving has been completed the TPZ fence can be removed and the landscaping of the garden area can be completed. The following recommendations are made in relation to this part of the development.

- Maintain the composted mulch layer and top up as appropriate. Remove any new weed growth from the mulched area.
- When excavating planting holes, this is to be completed by hand and where tree roots are found the planting hole is to be repositioned as appropriate.

These recommendations are targeted at reducing the level of impact to the root zone of the tree to an acceptable level. There is unlikely to be any detrimental impacts to the health and structure of this tree providing these recommendations are adhered to.

Appendix D - AS4970-2009 Schedule of Compliance checks

Stage in development	Tree management process	
	Matters for consideration	Actions and certification
Planning (Sections 2 and 3)		
Site acquisition	Legal constraints	
Detail surveys	Council plans and policies Planning instruments and controls Heritage Threatened species	Existing trees accurately plotted on survey plan
Preliminary tree assessment	Hazard/risks Tree retention value	Evaluate trees suitable for retention and mark on plan Provide preliminary arboricultural report and indicative TPZs to guide development layout
Preliminary development design	Condition of trees Proximity to buildings Location of services Roads Level changes Building operations space Long-term management	Planning selection of trees for retention Design review by proponent Design modifications to minimize impact to trees
Development submission	Identify trees for retention through comprehensive arboricultural impact assessment of proposed construction. Determine tree protection measures Landscape design	Provide arboricultural impact assessment including tree protection plan (drawing) and specification
Development approval	Development controls Conditions of consent	Review consent conditions relating to trees
Pre-construction (Sections 4 and 5)		
Initial site preparation	State based OHS requirements for tree work	Compliance with conditions of consent
	Approved retention/removal	Tree removal/tree retention/transplanting
	Refer to AS 4373 for the requirements on the pruning of amenity trees	Tree pruning Certification of tree removal and pruning
	Specifications for tree protection measures	Establish/delineate TPZ Install protective measures Certification of tree protection measures

Construction (Sections 4 and 5)		
Site establishment	Temporary infrastructure Demolition, bulk earthworks, hydrology	Locate temporary infrastructure to minimize impact on retained trees Maintain protective measures Certification of tree protection measures
Construction work	Liaison with site manager, compliance Deviation from approved plan	Maintain or amend protective measures Supervision and monitoring
Implement hard and soft landscape works	Installation of irrigation services Control of compaction work Installation of pavement and retaining walls	Remove selected protective measures as necessary Remedial tree works Supervision and monitoring
Practical completion	Tree vigour and structure	Remove all remaining tree protection measures Certification of tree protection
Post construction (Section 5)		
Defects liability/ maintenance period	Tree vigour and structure	Maintenance and monitoring Final remedial tree works Final certification of tree condition

Site Plan


SITE PLAN
SITE PLAN (OPTION A)
501-264-PA02
GRAVELER WEST RESIDENTIAL
DEA STREET

Tree Protection Zone

NO ACCESS

Contact: Arborman Tree Solutions
Gary Moran

Ph. 1300 886 001
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arborman tree solutions
PROFESSIONALS IN ARBORICULTURE

Heritage Impact Assessment & Architectural Design Review – **12 Dean St, Gawler West**

grieve gillett dimitty andersen architects

Grieve Gillett Dimitty Andersen Architects (GGDAA) has been commissioned by the Town of Gawler to provide a heritage impact assessment and architectural design review of the proposed development at 12 Dean Street, Gawler West.
We are architects and experienced Heritage Advisers, currently providing advice for Light Regional Council, Adelaide Hills Council, Warrnambool and Moyne Shire Councils in Victoria and also Adelaide City Council (for State Heritage place matters only). We provide the following advice based upon examination of the submitted Development Application by 'ekistics' Urban and Regional Planning and Design – dated 26 February 2015. We have also visited the site to understand the current built form context and have reviewed the relevant sections of the Town of Gawler Development Plan.
The following assessment is structured for clarity, summarising the current site condition; Development Plan provisions; our advice regarding the architectural solution and finally, the potential impact of the proposed development on the heritage values and attributes of the locality.

Issue		*Analysis*	*Discussion*	*Advice*
Address:	12 Dean Street, Gawler West	-		
Applicant:	'Ekistics', Urban & Regional Planning & Design.	-		
Proposal:	Proposed (Building 1) three/four storey residential flat building, (Building 2) three storey residential flat building, (Building 3) two storey residential flat building, car parking canopy, landscaping.	-		
Subject site	Vacant 5869m² site, with proposed driveway address to Dean Street and non-accessible frontage to the railway corridor and Overway Bridge Road.	The subject property is located in the south west of Gawler - adjacent to the Gawler Railway Station, directly south of Overway Bridge Road and west of the Adelaide-Gawler railway line.	The local built form context is predominantly domestic and single storey in scale. Two storey scale State and Local Heritage buildings are located nearby. The Overway Bridge Road overpass (approx two storey scale) is adjacent the subject site.	The site is relatively unique within the surrounding residential area. It is irregular in shape and significantly larger than allotment sizes typical to surrounding streets. Further, the site is mostly landlocked, with limited street frontage to two streets. It is also bordered by an elevated roadway at the north end. The site is not typical of residential sites in the locale. The amenity value of the site is mixed, as it borders a railway corridor, an elevated roadway and (in part) a residential area of mixed character. The train station precinct is of low visual amenity – featuring large areas of chainmesh fencing, few trees, extensive bitumen and a rail yard area. The surrounding Historic Residential Zone is of mixed visual amenity – with a mix of dwellings and fencing of varied condition, with few street and allotment trees. The general residential area to the west and north of the site is of moderate visual amenity, featuring post WW2 Housing Trust dwellings of average condition and more recent landscaped residential development beyond.
Architectural Design Review				
Architecture	**Scale**: The proposal includes the construction of three 'residential flat' buildings: - Building 1 is three/four storeys in height - Building 2 is three storeys in height - Building 3 is two storeys in height	The proposal is designed as three buildings of differing height, sited around the edges of the site. Building 1 faces Overway Bridge Rd, Building 2 faces the open space railway corridor and Building 3 is sited adjacent existing single storey dwellings.	While Building 1 will in part be concealed from street view due to the elevated nature of Overway Bridge Rd, it will still present 4 storeys to the street, a substantial built form impact for dwellings opposite the site. Further, the proposal will dominate townscape/ roofscape views of southern Gawler – which is mostly single storey in scale, except for the two storey buildings of importance such as the Railway Station, nearby hotels, churches and Murray St buildings. The urban hierarchy would be compromised. Building 2 will not be seen from the streetscape, but will be clearly in views of the site from the other side of the railway line, with State Heritage and Local Heritage places within views. Building 3 is two storeys in scale and is appropriate within the surrounding single storey residential context. The building form will not overly dominate these places.	Recommend that the scale of the proposal be reduced, to reduce the 'landmark' scale impact of the proposal on the established scale/ built form character of southern Gawler. Further, recommend that Building 1 be reduced in height by a storey (3 storeys maximum), to reduce the scale impact of Building 1 on the streetscape amenity along Overway Bridge Road and surrounds. The footprint of Building 2 could be enlarged to offset loss of height, as the impact of an increased floor plate would not greatly impact on adjacent streetscapes and nearby heritage listed buildings.
	Architectural Form: the form of the development is rectilinear, with three buildings featuring skillion roofs.	The architectural solution is contemporary in style, with simple, rectilinear forms, a mix of wall materials, regular window fenestration, cantilevered balconies and low pitch skillion roofs. The buildings have been modelled in design as a series of modulated vertical forms, reflecting apartment plans. The articulation of building forms also reduces the perceived bulk and scale of the proposal. The architectural design solution is generally competent and of a high quality.	Floor plans of proposed residential flats are adequate and typical for such developments currently being constructed in Adelaide. The internal amenity is appropriate for the type of development proposed. Balconies are well screened for privacy and are deep, allowing private outdoor space for most residents. Solar orientation is adequate for Buildings 1 and 2. Building 3 is well sited to take advantage of solar gains.	It is suggested that the solid side walls of balconies be checked to confirm that solar gains are maximised in winter and minimised in summer. Future air-conditioning plant locations should be confirmed by the Applicant and screen details developed before DA approval, to conceal units from view.
	Materials, Finishes. The proposal incorporates a variety of material finishes to the exterior.	All buildings incorporate honed concrete block, grey colorbond, painted fibre cement sheet, zincalume sheet and painted concrete cladding. Red brickwork also features on the facades of the two storey residential flat building. Entry foyers are identified in an appropriate manner and are recessive in form, featuring glazing and vertical timber batten screens. The finish of the three and four storey skillion roofs is not documented.	The proposed materials palette - honed concrete block, colorbond and zincalume corrugated cladding, vertical timber battens, metal profiled panels and painted precast and fibre cement sheet panels - is not one typical to the historic and domestic character of southern Gawler. Given the scale of the proposed buildings, materials should be used that reflect those typically found in the locale, to improve the visual compatibility of the development.	As recommended in the Heritage Assessment, it is advised that external materials be altered to better reflect materials typical to the locale, to assist in reducing the visual dominance of the proposed development within the townscape of southern Gawler. The selection of facade cladding materials should be reconsidered. (C01) could be either galvanised, or mid grey in colour; and (PP) & (BL1) facing the railway line could be red brick faced, instead of white concrete and honed block in finish. (see sketch). The panels (FC1) should also be coloured to a light/mid grey. (Co2) zincalume should be upgraded to a galvanised finish, to reduce glare.
	Carparking/ Carports	Car parking is confined to the centre of the site, under a curved canopy shade structure. The roof material for the canopy structure has not been defined.	The roofed carpark will visually and physically dominate the centre of the site, when viewed from within the site, creating an open space 'canyon' effect between Building 1 and Building 2. Further, architectural features will be obscured from view. The resultant urban amenity of the	It is recommended that the extent of roofing over car parking be reduced, to open more of the site as open space. A central paved/ landscaped area would also provide a green space focus for residents and improve the landscape amenity of the site. If Building 2 was re-oriented parallel to the railway corridor, more useful open space may be

Issue		*Analysis*	*Discussion*	*Advice*
			development will be poor.	achieved for car spaces, reducing the number of spaces required along the central roadway.
Setting	Open space – siting of apartment buildings	Community open space is limited in the proposal – a majority of the centre of the site is dedicated to roofed car parking. Building 3 private space is efficient and adequate.	As noted above, the urban and landscape amenity of the centre of the site will be poor – an open space between apartments, lined with car park canopies and parked cars. There is little shared community space for Building 1 and 2 occupants.	The car park layout should be revisited, to allow creation of a central, useful landscaped community space for the use of Building 1 and 2 residents. The orientation of Building 2 may need to be revisited to better utilise 'left over' space around the building for car parking, freeing up central space for park activities.
	landscaping	Lawn and 'new landscaped garden' is proposed for the site. A two-way road is also proposed between the central car park and Dean Street.	Trees are not shown on the site plan. The siting of proposed buildings has also resulted in a series of 'useless spaces' around buildings – difficult to access and use. There is no central, dedicated park space for the development	As above, a central landscaped space with facilities for BBQs, seating, community use should be developed, of at least 120m2 (row of 4 x 2 deep car spaces). A pergola/ arbor structure over part of this area would also provide a vegetated shade refuge during summer. Car park canopies should be reduced in extent and trees proposed down the centre of the site and along the entry driveway, to improve the landscape amenity of the whole site.
Heritage Assessment				
Zone affected	Compatibility with **Gawler RH(C) Residential Historic (Conservation) Zone** requirements - Historic character and the design of new development (Objective 3, PDC 2, 3, 5)	The Gawler RH(C) Residential Historic (Conservation) Zone represents the early residential development character of Gawler. The Zone is predominantly residential, with commercial development focused along arterial roads such as Adelaide Road and the historic service centre focused on the 1870s Gawler Railway Station. The State Heritage Area – Church Hill – is also contained within the Zone. Dwellings through the area date from the 1850s through to the 20th century and are typically single storey in scale. Many dwellings are of historic value and are identified as Local Heritage Places, or Contributory Items within Policy Areas. The proposed development is of a scale and footprint not typical of residential development common to Residential RH(C) HCZ. The proposed development does not reflect the general established HCZ streetscape character, subdivision pattern, building alignment, set-backs, building forms and materials of the Zone. It is worth noting though that the subject site is located on the edge of the Zone and is isolated from a majority of the Zone by the railway corridor and the elevated section of Overway Bridge Road.	PDC 2 references Table Ga/3 – which guides the design of infill development within the Historic Conservation Zone. These guidelines refer to the design of infill dwellings in residential streetscapes of historic character. The proposed development is larger in scale and footprint than development proposed in the guidelines and therefore only some guidelines are of assistance in this case. Comments are provided where relevant. Specific comment regarding the impact of the proposed development on the historic character of the immediate Historic (Conservation) Policy Area is provided separately under *'Gawler South Residential Historic (Conservation) Policy Area'.*	PDC2 Table Ga/3 – advice: *Application* – The proposed development is clearly contemporary in design, as encouraged in the guidelines. The detailing is simple, without historical references. Window openings are typically vertical in emphasis, reflecting fenestration typical to dwellings of historic character in the HCZ. Facades are horizontal in form, but feature vertical elements such as balconies and projecting elements, which break down the visual bulk of the facades and assist in maintaining a degree of domestic scale in the development. *Streetscape pattern & Plan Form* – Building 1, facing Overway Bridge Road generally reflects these guidelines, matching the setback already established by dwellings in the street. The facade has also been articulated with projecting rooms and balconies, repeating the pattern of projecting gable forms common to dwellings in the local. The scale of the building **is at variance** with surrounding development though, diminishing the compatibility of the proposal within the streetscape. *Roofs* – The guidelines recommend gable or hipped roof forms, pitched to suit building scale. All three proposed buildings feature skillion and butterfly form roofs of 6 degree pitch. The proposed roofs are not compatible with roofing commonly found in the HCZ – typically small scale, gable and hip form, 30-35 degree CGI clad pitched roofs. It is advised that the proposed roofs not reflect historic forms common through the HCZ though, as the scale of a traditional roof form would add another 2m to the height of proposed buildings, further increasing the dominance of the proposed development within the HCZ roofscape. The current proposed roof forms are generally compatible with the historic character of dwellings within the HCZ – they are pitched and are low profile in form. *Materials* – **Materials common to the HCZ** (and HCPA) include corrugated galvanised roofs, face rubble limestone, bluestone and red brick walling, timber detailing, verandahs, red brick chimneys and rubble limestone fence walls. These materials **are a key part** of the historic character of the HCZ. The proposed development incorporates a mix of materials – including honed concrete block, colorbond and zincalume corrugated cladding, metal profiled panels and painted precast and fibre cement sheet panels. It is advised that the materials palette proposed be revised as noted in this assessment, to better reflect materials common to the HCZ. Buildings 1 and 2 will be seen in several significant streetscapes/ vistas from surrounding heritage listed places and the general HCPA.
	The subject property is located adjacent the **Gawler (R) Residential Zone.**	The subject property is located directly adjacent the Gawler (R) Residential Zone – which comprises a mix of semi-detached and detached single storey dwellings, predominating dating from the mid 20th Century + in construction.	The built form context of the adjacent section of the Gawler Residential zone is one of a mix of dwellings, including post-WWII era Housing Trust dwellings (NE of railway line), a mix of Housing Trust development and speculative housing 1945+ (NW of railway line and south of Ryde St). Most housing stock within the Residential Zone is of mixed character, dating from post 1945. Several continuous streetscapes of 1945-55 era Housing Trust dwellings are extant, but most streets are of mixed character and amenity, with either 'austerity era', vacant allotments or contemporary dwellings of no historic character.	Refer immediately below for advice regarding the suggested changes to proposed development. The residential amenity of the streets surrounding the subject site is mixed to poor, so the proposed development will not further reduce this amenity.
		Impact of new development on **Gawler (R) Residential Zone** historic townscape(and roofscape) vistas/ views (Objective 4)	The proposed development will have a negative impact on the established 'historic townscape vistas and views' of the surrounding residential HCZ. The proposed development will be up to four storeys in scale, in a locality of predominantly single storey dwellings. The subject site is in clear view when travelling along Overway Bridge Road – in particular, the elevated section of the road over the rail lines. The proposed development will be seen as a part of roofscape views of south and west Gawler, when travelling over the overpass. This is a view of heritage value, illustrating the scale and extent of the late 19th Century development of this part of the town. The roof and upper walls of the proposed development will also be seen in part from surrounding streets within the Historic (Conservation) Policy	It is advised that the height of Building 1 is excessive and will adversely dominate the historic character roofscape of southern Gawler. It is recommended that the four storey section of the building be reduced to three floors in height and that the three storey section be reduced to two storeys in height. Building 2 could remain as a three storey structure, as it faces the railway, rather than surrounding dwellings. Further, there is historic precedent in the locality for taller buildings adjacent the railway – the Duffield Grain Store and the 9.5m high Gawler Railway Station. To further reduce adverse visual impact within the roofscape of the locale, materials should be considered which are more compatible with those considered typical of the era of historic character of the surrounding streets of the HCPA of the HCZ – predominately late 19th Century. It is suggested that building materials be altered to Building 1 and 2 as noted, as both will dominate surrounding vistas/ roofscape views. It is again advised that facade materials (PP) and (BL1) (or similar combination) also be altered to be face red brick in finish (see sketches) – a material domestic in nature and typical to the era of significance in the surrounding HCZ. Incorporation of timber cladding/

Issue		*Analysis*	*Discussion*	*Advice*
			Area and nearby streets – in the distance of streetscape views.	framing to balconies may also improve the compatibility of these elements within the locale. The roof form of each building in the proposed development should reflect building forms/ roofs common to the era of identified historic character of the HCPA of the HCZ, to be visually compatible, rather than dominant in views within the locale. A gable/ hipped roof form would be considered compatible, but in this case it would be too large, given the footprint of the proposed development. The proposed skillion roof form is a more appropriate response in this instance, keeping the roof to a minimum height while still (in part) referencing pitched roofs typical to the HCZ. It is advised that the roof material be corrugated in profile and mid grey in colour, to minimise visual distraction in distant views of the proposed development. (colour not provided in documents).
Gawler South Residential Historic (Conservation) Policy Area.	The subject property is located in the **Gawler South Residential Historic (Conservation) Policy Area.** The Gawler South Historic (Conservation) Policy Area (15) is one of the five Policy Areas comprising the Gawler Residential Historic (Conservation) Zone.	The Gawler South Residential Historic (Conservation) Policy Area (15) is located in southern Gawler, extending southwards from the South Para River. Both the Adelaide Road and the Adelaide-Gawler railway line pass through the Policy Area. The historic character of the Policy Area is: *"Gawler South is residential in character, consisting mainly of dwellings dating from the period 1860-1910. Dwellings are typically detached and are set back from the street and neighbouring houses. The area is of historic importance because it contains a significant number of high integrity residences, mainly from the period 1860-1910, which illustrate the character and continuing expansion of residential Gawler in the latter half of the 19th Century".* (Development Plan extract)	Dwellings within the HCPA in surrounding streets contribute to the historic character of the HCPA and the proposed residential flat buildings will be seen in background views of these streetscapes. The historic character of existing dwellings directly adjacent the proposed development are of low integrity and post-date the key period of significance of the surrounding HCPA of 1860-1910. Materials common to the HCPA include: corrugated galvanised roofs, face rubble limestone, bluestone and red brick walling, timber detailing, verandahs, red brick chimneys and rubble limestone fence walls. These materials are a key part of the historic character of the HCZ.	A reduction in building height and changes to proposed facade materials is recommended to improve design compatibility and reduce visual dominance within the HCPA. . Refer **Gawler RH(C) Residential Historic (Conservation) Zone** comments for specific advice.
		Complementary new development (Objective 1)	The Policy Area is a historic residential area with 1860-1910 era single storey, detached dwellings of heritage value, sited on a regular grid of streets. Dwellings are predominantly cottages and villas in type, built of local limestone and red brick, with pitched roofs and front verandahs. Stone fences, open space and regular streetscapes are features typical to the Policy Area.	A reduction in building height and changes to proposed facade materials is recommended to improve design compatibility and reduce visual dominance within the HCPA. . Refer **Gawler RH(C) Residential Historic (Conservation) Zone** comments for specific advice.
		Retention of pattern of development & subdivision - residential development (Objective 3 (a) & 4)	The subject site is not being subdivided into allotments, so the traditional pattern of allotments is unaltered. The site is also not a part of the historic pattern of development of the area.	Objective is not relevant in this case.
		Development to reflect historic development pattern (PDC 2)	The proposed development does not repeat the historic character of development in the immediate locale. The immediate area is mixed in character – part open space, part rail yard and overpass, part suburban.	PDC not relevant in this case.
	Gawler Railway Station Precinct	Impact on **Gawler Railway Station Precinct** (PDC – 7) The subject site is adjacent the 'Gawler Railway Station Precinct'. The Precinct dates from 1857 and developed as a service centre for the Station. Buildings from the late 19th Century enclose an open square urban space (now car park) and have been adapted for commercial and residential uses. The 1870s Gawler Railway Station is a historic landmark in the Precinct.	The proposed development will be seen in the background of significant views associated with the Precinct. Future development will have a visual impact on views from the railway station/ former warehouses, as it will be seen in the background of these heritage listed sites.	A reduction in building scale and treatment of roof cladding and facade finishes as previously discussed will mitigate visual dominance to a greater extent.
	Immediate context	The subject site is currently vacant and is predominantly flat in topography. Several 'SAR railway' single storey, timber framed dwellings dating from the Inter-war period are located adjacent, two facing Dean Street and three facing Overway Bridge Road.	The built form character of the Overway Bridge Road streetscape adjacent to the subject site is mixed in construction age and style and is not of particular heritage value. The built form character of the Dean Street streetscape adjacent to the subject site is mixed, but contains several single storey Contributory Item dwellings of the pre-WW1 period.	The streetscape will not be greatly affected by any development on the subject site, as only a driveway fronts the street. Views east and also west along the street will be equally unaffected.
Heritage listing	**State Heritage Places** affected:	New development should complement **State Heritage** listed places (PDC 1, 8) - Railway Station, Parcel Office, Train Shed, Goods Shed and Signal Box, Twenty-third Street, Gawler - Railway Hotel, 25-7 Eighteenth Street - Wheat Store, 1-4/25 Twenty-third Street - Sunnybrae, 6 Sixteenth Street	The proposed development is opposite several adjacent State Heritage Places: Gawler Railway Station, Railway Hotel and the Wheat Store on the Nineteenth Street corner. The Railway Station is approximately 9.5m in height (to the ridge) – similar to that of proposed Building 2 (3 storeys). Sunnybrae is also near the site, but the proposed development will not be seen in views of this SHP, as it is distant, only seen in side views of the place and is mostly screened by the overpass structure. The proposed development will have an adverse (negative) visual impact on the setting of the SHP Hotel and Railway Station, when viewed from the Dean Street corner, Fifteenth Street and Overway Bridge Road. The view impact on the Railway Station and Hotel will be distant, but still may visually distract from the current historic setting of the places, when looking north from the east side of the station, on the platform and from the carpark.	It is recommended that the four storey section of Building 1 be reduced to three floors in height and that the three storey section of the building be reduced to two storeys in height – to not dominate in background of views of the Gawler Railway Station and indirect views of the Railway Hotel. To further reduce adverse visual impact, materials should be considered which are more compatible with those considered typical of the era of historic character of the surrounding streets of the HCPA of the HCZ. It is suggested that building materials be altered to Building 1 and 2. (C01) could be either galvanised, or mid grey in colour; and (PP) & (BL1) could be red brick faced, instead of white concrete and honed block in finish. (see sketch) The panels (FC1) should also be coloured to a light/mid grey. (C02) zincalume should be upgraded to a galvanised finish, to reduce glare. Incorporation of timber cladding/ framing to balconies may also improve the compatibility of these elements within the locale. Roof sheeting should also be corrugated in profile and mid grey in colour to both residential flat buildings and the car park canopy.
	Local Heritage Places affected:	New development should complement **Local Heritage** listed places (PDC 1, 8)	Proposed Building 2 will feature in views of the LHP Duffield Grainstore, when seen from Fifteenth Street and from the car park of the SHP Railway	To reduce negative visual dominance on LHP, the Building 2 selection of facade cladding materials should be reconsidered, using materials more typical to the era of significance of the subject

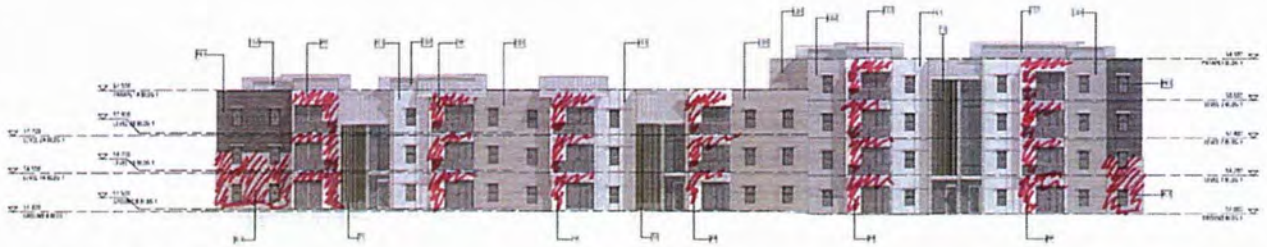
Issue		*Analysis*	*Discussion*	*Advice*
		Duffield Grain Store, Fifteenth Street	Station, with the SHP Railway Hotel in view. The visual impact of Building 3 will be minimal, as the scale of the building is similar to that of Duffield Grainstore (when view lines are considered from Twelfth and Eighteenth Streets). Further, proposed red brick cladding is a typical material of the era of significance of the Grainstore, enhancing visual compatibility between Building 3 and the Grainstore – no heritage issues of concern.	buildings. (C01) could be either galvanised, or mid grey in colour; and (PP) & (BL1) facing the railway line could be red brick faced, instead of white concrete and honed block in finish. (see sketch) The panels (FC1) should also be coloured to a light/mid grey. (Co2) zincalume should be upgraded to a galvanised finish, to reduce glare.
	Contributory Items affected: - 1, 3, and 5 Overway Bridge Rd - 6 and 8 Dean Street	New development should complement heritage listed places (PDC 1, 8) The proposed development impacts on five nearby Contributory Items – former South Australian Railways employee dwellings of mixed integrity, dating from the Inter-war period. The site directly abuts one Contributory Item – 1 Overway Bridge Road.	Contributory dwellings are of historic interest, but post-date the key period of significance of the surrounding Gawler South Residential Historic (Conservation) Policy Area – 1860-1910.	It is considered that this is not a heritage issue of substantial concern, as the adjacent Contributory Item dwellings are of low integrity and do not represent the main historic character values of the HCPA as listed in the Development Plan.

Summary of Recommendations	Issue	Recommendations
State Heritage & Local Heritage	The proposed development will negatively impact on the heritage values of the setting of adjacent State (SHP) and Local (LHP) Heritage listed places. Proposed Building 2 will feature in part in views of the LHP Duffield Grainstore, when seen from Fifteenth Street, and views from the car park of the SHP Gawler Railway Station, with the SHP Railway Hotel in view.	It is recommended that the four storey section of Building 1 be reduced to three floors in height and that the three storey section be reduced to two storeys in height. To further reduce adverse visual impact, materials should be considered which are more compatible with those considered typical of the era of historic character of the surrounding streets of the HCPA of the HCZ. It is suggested that building materials be altered to Building 1 and 2. (C01) could be either galvanised, or mid grey in colour; and (PP) & (BL1) could be red brick faced, instead of white concrete and honed block in finish. (see sketch) The panels (FC1) should also be coloured to a light/mid grey. (Co2) zincalume should be upgraded to a galvanised finish, to reduce glare. Incorporation of timber cladding/ framing to balconies may also improve the compatibility of these elements within the locale. Roof sheeting should also be corrugated in profile and mid grey in colour to both residential flat buildings and the car park canopy.
Gawler RH(C) Residential Historic (Conservation) Zone & Gawler South Historic (Conservation) Policy Area	Negative impact on the historic character values of the streetscapes and roofscape of the Gawler RH(C) Residential Historic (Conservation) Zone, and in particular, the Gawler South Historic (Conservation) Policy Area. The proposed development will be up to four storeys in scale, within a locality of predominantly single storey dwellings. While the development is in part obscured by the adjacent elevated roadway of Overway Bridge Road, it will still be seen in selected vistas and views from surrounding streets of historic character and the roofscape of southern Gawler.	It is recommended that the four storey section of Building 1 be reduced to three floors in height and that the three storey section be reduced to two storeys in height. The proposed roof form of all buildings is appropriate for the locale, as it references surrounding pitched roofs while also keeping the overall scale of the development as low as practical. To further reduce adverse visual impact, materials should be considered which are more compatible with those considered typical of the era of historic character of the surrounding streets of the HCPA of the HCZ. It is suggested that building materials be altered as scheduled above.
Contributory Items	Negligible impact on Contributory Items directly adjacent to the subject site.	Not of heritage concern – integrity of Contributory Items not high – significance diminished.
Architectural issues	The architectural design solution is generally competent and of a high quality. The buildings have been modelled in design as a series of modulated vertical forms, reflecting apartment plans. The articulation of building forms also reduces the perceived bulk and scale of the proposal. The proposed materials palette - honed concrete block, colorbond and zincalume corrugated cladding, metal profiled panels and painted precast and fibre cement sheet panels - is not one typical to the historic and domestic character of southern Gawler. Given the scale of the proposed buildings, materials should be used that reflect those typically found in the locale, to improve the visual compatibility of the development.	It is suggested that the solid side walls of balconies be checked to confirm that solar gains are maximised in winter and minimised in summer. Future air-conditioning plant locations should be confirmed by the Applicant and screen details developed before DA approval, to conceal units from view. As recommended in the Heritage Assessment, it is advised that external materials be altered to better reflect materials typical to the locale, to assist in reducing the visual dominance of the proposed development within the townscape of southern Gawler. The selection of facade cladding materials should be reconsidered. (C01) could be either galvanised, or mid grey in colour; and (PP) & (BL1) facing the railway line could be red brick faced, instead of white concrete and honed block in finish. (see sketch). The panels (FC1) should also be coloured to a light/mid grey. (Co2) zincalume should be upgraded to a galvanised finish, to reduce glare.
Carparking	The roofed carpark will negatively dominate the centre of the site, creating an open space 'canyon' effect between Building 1 and Building 2. Further, architectural features will be obscured from view. The resultant urban amenity of the development will be poor.	The extent of covered car parking should be reduced, to open more of the site as open space and improve site amenity. If Building 2 was re-oriented parallel to the railway corridor, more useful open space may be achieved for car spaces, reducing the number of vehicle spaces required along the central roadway.
Open Space/ Landscaping	The urban and landscape amenity of the centre of the site will be poor – an open space between apartments, lined with car park canopies and parked cars. There is little shared community space for Building 1 and 2 occupants.	The car park layout should be revisited, to allow creation of a central, useful landscaped community space for the use of Building 1 and 2 residents. The orientation of Building 2 may need to be revisited to better utilise 'left over' space around the building for car parking, freeing up central space for park activities.
	The siting of proposed buildings has also resulted in a series of 'useless spaces' around buildings – difficult to access and use. There is no central, dedicate park space for the development	A central landscaped space with facilities for BBQs, seating, community use should be developed. Car park canopies should be reduced in extent and trees proposed down the centre of the site and along the entry driveway, to improve the landscape amenity of the whole site.

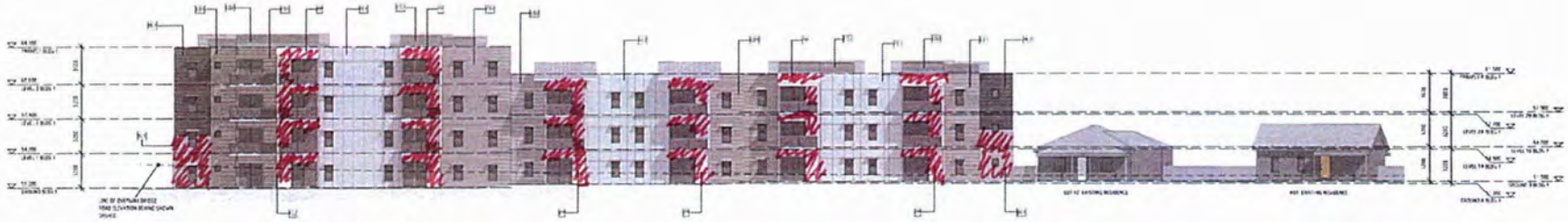
Appendix notes

Review of DASH Heritage Report		
	Comment:	The DASH Architects report of 16 February 2015 has been reviewed and we generally agree with the their assessment of the historic character of the locality, **except for the following**:
	Contributory Items	The Contributory Item dwellings located at 1, 3, and 5 Overway Bridge Rd and 6 and 8 Dean Street **date from the Interwar period**, not 1950-60s – the dwellings are typical of those erected by the South Australian Railways for employees. The roof profile and cladding of 6 Dean St is in particular typical of the early, not late 20th century period in South Australia. All dwellings have been modified over time, but have an historic association with the operations of the adjacent Gawler Railway Station.
	Relationship to State and Local Heritage Places – impact on setting	The proposed development **will be evident and will have a negative visual impact** in significant views associated with the State Heritage listed Gawler Railway Station/rail corridor and in the background of views of the Local Heritage listed Duffield Grain Store buildings.
	Impact on roofscape setting of surrounding HCZ/ HCPA suburb	The proposed development **will negatively impact on** the roofscape setting of the surrounding Gawler South Residential HCPA, as it is significantly taller than surrounding single storey dwellings/ streetscapes. The upper floors and roofs of the proposed development will be seen from several streetscapes within the HCPA – some uphill and some downhill.

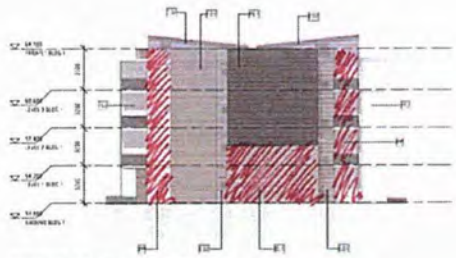
Grieve Gillett Dimitty Andersen Architects – 12 May 2015



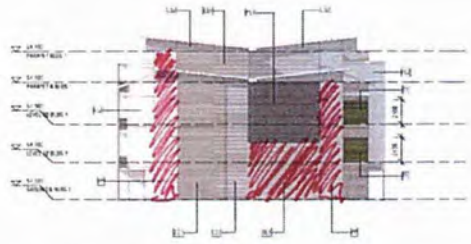
BUILDING 1 SOUTH EAST ELEVATION



BUILDING 1 NORTH WEST ELEVATION - OVERWAY BRIDGE ROAD STREETSCAPE



BUILDING 1 NORTH EAST ELEVATION



BUILDING 1 SOUTH WEST ELEVATION

FINISHES SCHEDULE - EXTERNAL

Drawn: PB
Checked: Date:
D.A. Plan DE 18.02.15
D.A.B.uild
Tender
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DRAWING AMENDMENTS

Rev	Amendment	Date
-	ISSUED FOR PLANNING	18.02.15

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FAYETTEVILLE
250 REGENCY ROAD, REGENCY PARK SA 5010

Issue: DEPA
Scale at A1: 1:200
Sheet: 04 of 14
Date: FEB 2015

Drawing Title:
ELEVATIONS - BUILDING 1

Drawing Number: PA04
Revision: -

BUILDING 1 EAST PERSPECTIVE

BUILDING 1 NORTH PERSPECTIVE

BUILDING 1 SOUTH PERSPECTIVE

BUILDING 1 WEST PERSPECTIVE

Drawn: MB

Checked: Date:

D.A. Plan DE 10.07.15

D.A Build

Tender

Const.

DRAWING AMENDMENTS

Rev	Amendment	Date
-	ISSUED FOR PLANNING	10.07.15

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Issue: DAPA

Scale at A1:

Sheet: 05 of 14

Date: FEB 2015

Drawing Title:

PERSPECTIVES - BUILDING 1

Drawing Number:

PA05

Revision:

-

488

BUILDING 2 EAST PERSPECTIVE

BUILDING 2 NORTH PERSPECTIVE

BUILDING 2 SOUTH PERSPECTIVE

BUILDING 2 WEST PERSPECTIVE

Drawn: MB
Checked: Date:
D.A. Plan DE 18.07.15
D.A Build
Tender
Const.

DRAWING AMENDMENTS

Rev	Amendment	Date
-	ISSUED FOR PLANNING	18.07.15

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Issue: DDPA
Scale at A1:
Sheet: 08 of 14
Date: FEB 2015

Drawing Title:
PERSPECTIVES - BUILDING 2

Drawing Number: PA07
Revision: -

489

ATTACHMENT 5

Town of Gawler
Heritage Advisor Comment

Planning Application No.:	490/452/2017
Applicant:	BUD URBAN (Nicole Footer)
Location:	12 Dean Street, Gawler West [the subject site]
Zone:	Residential Historic (Conservation)
Policy Area:	Gawler South Residential Historic (Conservation) 15
Heritage Status:	-
Proposal	Construction of three (3) new two (2) storey residential flat buildings
To	Scott Twine, Development Assessment Planner
Date:	17 October 2017

1 Summary of Proposal

The proposal seeks to establish three (3) Residential Flat Buildings [RFB] comprising a total of 30 dwellings to the subject site. Each dwelling will be joined by a party wall creating three (3) separate buildings, summarised below:

- The proposal includes Five (5) different dwelling types hereinafter referred to as Parcel A, Parcel B, Parcel C, Parcel D and Parcel E. Parcels D and E are unique to RFB 3 and floor plans for these dwellings will be submitted to under separate cover. Each dwelling will be two (2) storeys in height. A summary of key features and characteristics of the development are summarised below:
- Residential Flat Building (RFB 1) comprising nine (9) dwellings including four (4) Parcel A dwellings, four (4) Parcel B dwellings and one (1) Parcel C dwelling;
- Residential Flat Building (RFB 2) comprising thirteen (13), including four (4) Parcel A dwellings, four (4) Parcel B dwellings and five (5) Parcel C dwellings;
- Residential Flat Building (RFB 3) comprising eight (8) dwellings including three (3) Parcel A dwellings, two (2) Parcel B dwellings and one Parcel C, D and E dwelling;
- The provision of seven (7) communal visitor parking spaces;
- Two (2) parcels of communal open space comprising areas of 270m2 and 90m2;
- Earthworks (excavation and filling) and boundary retaining walls reaching an approximate height of 1 metre in the north-eastern corner of the site; and
- A boundary fence to be constructed in gabion and Colorbond® materials, reaching a maximum height of 1.8 metres enclosing the rear boundaries of the dwellings forming part of Building 2.

2 Previous Development Applications

Below is a summary of recent development applications for the subject site:

Development Application	Description	Planning Consent Status
DA490/129/2015	Three (3) Residential Flat Buildings (comprising 55 dwellings – 2-3 storey) with associated carpark (including carport structures) fencing, landscaping and off-site works including footpaths and stormwater infrastructure	PLANNING CONSENT APPROVAL EXTENDED until 23 November 2017
DA490/691/2008	Buildings of two (2) storeys comprising 22 dwellings	PLANNING CONSENT APPROVAL LAPSED

3 Proximate Heritage Places

The subject site is beyond the extents of and sufficiently separate from the Gawler State Heritage Area.

The subject site abuts the rail corridor, with the Gawler Railway Station located to the south. Below is an extract from Location SA Map Viewer showing proximate heritage places:

Figure 1: Aerial photograph showing proximate heritage places.
Source: Location SA Map Viewer

Place Address	Description	Heritage Status
1 Overway Bridge Rd GAWLER WEST	Railway Cottage	Contributory
3 Overway Bridge Rd GAWLER WEST	Railway Cottage	Contributory
5 Overway Bridge Rd GAWLER WEST	Railway Cottage	Contributory
6 Dean St GAWLER WEST	Railway Cottage	Contributory
8 Dean St GAWLER WEST	Railway Cottage	Contributory
1-3 Dean St GAWLER WEST	Cottages	Contributory
5 Dean St GAWLER WEST	Dwelling	Contributory
7 Dean St GAWLER WEST	Dwelling	Contributory
1 Railway Tce GAWLER WEST	Dwelling	Contributory
2 Fifteenth St GAWLER SOUTH	Dwelling	Contributory
10 Fifteenth St GAWLER SOUTH	Fitness Centre, former Duffield Grain Store	Local Heritage Place
5 Fifteenth St GAWLER SOUTH	Dwelling	Contributory
7 Fifteenth St GAWLER SOUTH	Dwelling	Contributory
6 Sixteenth St GAWLER SOUTH	Dwelling ('Sunnybrae')	State Heritage Place
25-27 Eighteenth St GAWLER SOUTH	Railway Family Hotel	State Heritage Place
Twenty-third St GAWLER SOUTH	Gawler Railway Station Complex	State Heritage Place
18-20 Nineteenth St GAWLER SOUTH	Criterion Hotel and Stone Shed	Local Heritage Place

4 Heritage Places – Development Plan Extracts

Table Ga/2: State Heritage Places

Property Address	Description and/or Extent of Listed Place	Lot No. or Part Section	Plan No.	Certificate of Title	Sec 16 Criteria	Heritage Branch ID
25-27 Eighteenth Street, Gawler South	Railway Hotel			CT 3663/91		12136
Twenty-third Street, Gawler South	Railway Structure including Station, Parcel Office, Train Shed, Goods Shed & Signal Box	Lot 6		CT 5155/143		10379

Table Ga/5: Local Heritage Places

Property Address	Description and/or Extent of Listed Place	Lot No. or Part Section	Plan No.	Certificate of Title	Sec 23(4) Criteria	Heritage Branch ID
10 Fifteenth Street	Fitness Centre, former Duffield grain store The historic form and fabric of the whole former grain store building but not including the rendered finish on all except western walls, structural signs or recent minor entrance alterations.	Lots 93-96, Sec 2 Hd Mudla Wirra		CT 1399/54	a, b, e, f	
18-20 Nineteenth Street	Criterion Hotel and stone shed The historic form and fabric of the Hotel and rear stone outbuildings but not including rear additions or the bottle shop additions.	Sec 8 Hd Mudla Wirra		CT GM43/319	a, c, f	

Table Ga/6: Contributory Places

Property Address	Description and/or Extent of Listed Place	Lot No. or Part Section
1 Overway Bridge Rd	Railway Cottage	
3 Overway Bridge Rd	Railway Cottage	
5 Overway Bridge Rd	Railway Cottage	
1-3 Dean Street	Cottages	
5 Dean Street	Dwelling	
6 Dean Street	Railway Cottage	
7 Dean Street	Dwelling	
8 Dean Street	Railway Cottage	
1 Railway Terrace	Dwelling	
2 Fifteenth Street	Dwelling	
5 Fifteenth Street	Dwelling	

Property Address	Description and/or Extent of Listed Place	Lot No. or Part Section
7 Fifteenth Street	Dwelling	

5 Gawler Heritage Survey

The Gawler Heritage Survey (Danvers Architects, 1998 – the Heritage Survey) provides the context for the policy are which the subject site is located.[ii] Though non-statutory in its impact, it provides useful background to assist the understanding of the statements contained in the Gawler (CT) Development Plan.

It includes the following general statements:

> Gawler South Historic (Conservation) Policy Area[iii]
>
> The Gawler South Historic (Conservation) Policy Area includes most of the current suburb of Gawler South, and a large part of Gawler West. This is an area of high integrity containing a large number of places of heritage significance and contributory places.
>
> History[iv]
>
> The Gawler South Historic (Conservation) Policy Area includes parts of the current suburbs of. Gawler South and Gawler West. Historically, these two suburbs and the former Bassett Town (now part of Gawler West) were grouped together to form the Gawler South District Council (1899 to 1933) Gawler West
>
> The Gawler Railway station was established in 1857. The prospects for industry and employment in that area were immediately increased, and land was surveyed for suitable subdivisions both around the railway yards, and to the other side of the main road to Adelaide (Gawler South). The Gawler West subdivision occurred in 1857 with 116 allotments to the north-east of the railway station. This area included the current Fourteenth, Fifteenth and Sixteenth Streets.
>
> In 1857 and 1864 the. Railway and Criterion Hotels were established, and these buildings were soon followed by industrial and residential buildings. The establishment of significant industries in the area provided an important catalyst for growth. These included the Victoria Mill (1868) the Britannia Foundry (1885) and May Brothers' Engineering complex (1885). The latter company produced mining and agricultural equipment, employing between 200 and 300 local residents in the late 19t h and early 20th centuries.
>
> Bassett Town
>
> At the time of the establishment of the Gawler station, much of the land immediately to the east of the station was owned by William Bassett, whose house is now situated on Twenty-first Street. In 1857, Bassett commissioned prominent local surveyor George Warren to survey his land, and on 24 March 1858 the subdivision of Bassett Town was officially created. Also in that year, the Engine and Driver hotel was opened next door to Bassett's house.
>
> The first Bassett Town subdivision created 70 lots between the current Eighteenth and Twenty-first Streets. The second Bassett Town subdivision in 1873 created another 85 lots south of Twenty-first Street and west of the railway station. During the late 19th century and early 201h century a variety

of residential development took place in Bassett Town. This area is now subsumed into the suburb of Gawler West.

Gawler South

The official plan of the township of Gawler South was deposited in the Lands Titles Office on 1 February 1858. This subdivision created 360 lots covering the area to the south of Dead Man's Pass, and the east of the new industrial area, railway yards and residential town on the other side of Adelaide Road also became a popular and affordable area in which to live. This subdivision is characterised by its streets of medium to small-scale dwellings, with most of the commercial development being along Adelaide Road and pockets of industrial development in such places as the Gas Works and station area.

Built Character[v]

The Policy Area is located on relatively flat terrain to the south of the original town. In the early 20th century the street names were changed to numbers ranging from First to Twenty-fifth Street. The streets are generally wide and have been laid out in a grid pattern across the Policy Area. The area is residential in character, generally consisting of single storey dwellings, dating from the period 1860 - 1910. Dwellings are typically detached and are set back from the street and neighbouring houses. The use of local building stone, and locally-manufactured bricks and cast-iron contributes to the distinctive character of the area.

The area is of historic importance because it illustrates the character and continuing expansion of residential and industrial Gawler in the latter half of the nineteenth century.

The Heritage Survey provides a description, statement of heritage value and s23(4) (Development Act 1993 (SA)) criteria assessment for local heritage places (incorporated into the Development Plan extracts (included above)), but not for contributory items. Of the proximate heritage places identified above, the following entries are included in the Heritage Survey:

Place Address	10 Fifteenth St GAWLER WEST
Description	Fitness Centre, former Duffield Grain Store
Heritage Status	Local Heritage Place
Description	Random rubble bluestone building with render to south, east and north elevations and a corrugated-iron gable roof. Features include rendered plinth, coping over gable ends and a large double doorway in the centre of the eastern elevation.
Statement of Heritage Value	The former grain store is significant for its associations with Walter Duffield and the Victoria Mill, Gawler's earliest mill and one of its most significant industrial complexes.
Relevant Criteria	(a) it displays historical, economic or social themes that are of importance to the local area, being one of few surviving buildings associated with the

	significant local industrial complex the Victoria Mill. (b) it represents customs or ways of life that are characteristic of the local area, representing the industrial activity which was so significant in the station area during the latter half of the latter 19th century and early 20th century. (e) it is associated with a notable local personality or event, namely Walter Duffield, significant colonial entrepreneur. (f) it is a notable landmark in the area, being a large building situated in open land between the railway line and Fifteenth Street.

Place Address	18-20 Nineteenth St, GAWLER SOUTH
Description	Criterion Hotel and Stone Shed
Heritage Status	Local Heritage Place
Description	Two-storey painted limestone building with red-brick dressings and gambrel corrugated-iron roof. Features include chamfered corner and a two-storey return verandah with timber posts, balustrade and tracery and a bull-nose corrugated-iron roof, parapet with moulded cornice, painted red-brick chimneys, flat arches over openings and timber-framed double-hung multi-paned sash windows. To the rear (east) of the hotel is a single-storey stone shed.
Statement of Heritage Value	This hotel is a significant landmark in the station area which is one of Gawler's older commercial buildings, one of two surviving early hotels in Gawler South and has played an important part in the lives of the local community.
Relevant Criteria	(a) it displays historical, economic or social themes that are of importance to the local area, being an early hotel connected to local industrial and residential development. (c) it has played an important part in the lives of local residents, especially those who patronised the hotel. (f) it is a notable landmark in the area, being a large two-storey building on a prominent corner of a residential area opposite the railway station.

6 Gawler (CT) Development Plan

The Gawler (CT) Development Plan (the Development Plan) includes the following council-wide provisions relevant to the review of the proposal for the subject site:

Conservation

OBJECTIVES

Objective 12: Retention and enhancement of localities in the Council area of distinctive and valued or historic significance through preservation of State and Local Heritage Places, Contributory Items and other places of historic character, and compatible infill development.

Gawler contains a number of areas of special historic character. In those areas redevelopment and infill should be carried out in preference to demolition which should only be undertaken in association with development which conserves and enhances the special character of those areas.

Church Hill, which is of particular significance. That character is largely derived from its setting, framed by the North Para River and South Para River and flanked to the east by the elevated ridge running parallel with the main street, Murray Street. Generous parkland spaces, flanked by wide terraces, encompass the river valleys. The dominating traditional grid road pattern is realigned in response to topographic conditions to create significant entrance points and important vistas. Several landmarks, including the Church Hill town squares are created as significant focal points. Native riverine eucalypts on the North Para River and South Para River parklands are complemented within the town centre area by Moreton Bay Fig trees, pinus species, palms and exotic European trees.

Buildings of historic interest, although containing a diversity of architectural styles from modest, simple colonial cottages to grand villas, and elaborate residences, display a rare cohesiveness, with few disparate new structures. The building form generally consists of:

(a) shape - orthogonal load-bearing building forms with hip, gable and hip-gable combination roofs. Verandahs are commonly found.

(b) scale - generally single-storey, but with lofty, high-pitched roofs.

(c) materials - local building stone (bluestone, limestone) and sandstone, or red brick walls with corrugated iron roofs.

(d) advertising or advertising displays - integrated with the building's architecture so that details which provide interest (such as arches, columns, decorative panels and lacework) are not obscured or disturbed.

PRINCIPLES OF DEVELOPMENT CONTROL

35 Development should not impair the character or nature of buildings or sites of architectural, historical or scientific interest or sites of natural beauty (including those not specifically identified of heritage importance in Table Ga/2 or Table Ga/5).

36 When excavation in historic conservation zones or places and items in Table Ga/2, Table Ga/5 or Table Ga/6 is proposed, consideration should be given to an archaeological assessment prior to excavation. Monitoring should occur during construction to protect and recover artifacts and document important historic features.

RESIDENTIAL HISTORIC (CONSERVATION) ZONE

Introduction

In addition to the Council Wide policies, the Residential Historic (Conservation) Zone and Policy Area policies apply to the areas shown on:

Gawler Rivers Floodplain Area: Figures Fl/1 to Fl/8.

Residential Historic (Conservation) Zone: Maps Ga/3, 5, 6, 12.

Gawler Health Services Helipad: Figure Hel/1.

OBJECTIVES

Objective 1: The Residential Historic (Conservation) Zone is primarily for residential development together with local facilities that support a healthy and convenient living environment.

Five Policy Areas are identified in Fig Res H(C)/1 according to:

(a) historic significance;

(b) future character;

(c) the type and nature of development considered appropriate; and

(d) other features that differentiate one area from the other.

In some localities, which are specifically nominated in Policy Areas, limited types of business use or mixed residential/business use will be appropriate.

Objective 3: Conservation and enhancement of the historic character of the Zone, through consideration of:

(a) Streetscape character;

(b) Subdivision pattern (allotment size and dimensions and street layout);

(c) Building alignment and set-backs;

(d) Building form and materials;

(e) Site layout, landscaping and fencing.

Objective 4: Maintenance of the existing topography and retention of historic townscape vistas and views.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should reinforce and complement the historic character and significance of the area and the integrity of any places and items identified in Table Ga/2, Table Ga/5 or Table Ga/6.

2 Vacant land, buildings or sites not having a detrimental affect on the character of the locality should be redeveloped and upgraded in accordance with the historic and future character of the Zone and Policy Areas, and where applicable, the guidelines in Table Ga/3.

3 Development should conserve, maintain, enhance and reinforce the existing streetscape character of the Zone and Policy Areas and the historic character of individual buildings, items, structures, and places.

4 Development should not adversely impact on the character of an adjacent street, for example by introducing new entrances which require removal of historic slate kerbs, by introducing new entrance surfaces inside the property boundary or on the adjacent street such as concrete or paving which is inconsistent with the historic character of footpaths and street surfaces or by allowing stormwater outlets on streets which due to the placement or materials have a negative effect on the character of the adjacent street.

5 Development should enhance and contribute to visual cohesiveness, and any new buildings should be of complementary height, scale, set-back, form and external appearance, and display creative and diverse examples of high standard contemporary architecture.

8 Development abutting or in close proximity to a place or item identified in Table Ga/2, Table Ga/5 or Table Ga/6 should:

(a) respect the historic character of the area and the integrity of the particular place or item of significance and be designed to a high architectural standard; and

(b) be compatible in respect of its design, siting, scale, building and roof shape, bulk, height, materials and colours, fences and landscaping and any advertising signs and external illumination with the place or item.

11 Landscaping which should include fencing at the street boundary, should complement and reinforce the historic character of places or items identified in Table Ga/2, Table Ga/5 or Table Ga/6 and the zone generally.

12 Development should have fences to define street boundaries that complement the historic fences found in the locality. Existing traditional front fencing should be preserved in the Zone.

13 The design of new fences, or alterations to existing fences should complement and reinforce the historic character of the zone as follows:

(a) front fences should complement historic adjacent fences in height, be timber picket, metal palisade, woven wire mesh between timber posts, hedges or rendered masonry with brick copings or other traditional materials (high brush or corrugated steel fences are not appropriate);

(b) side and rear fences should be timber picket or board, corrugated steel sheeting (natural galvanised or painted finish), hedges or rendered masonry with brick copings or other traditional materials;

(c) side fences should match the front fence in height for the depth of the front yard.

15 New allotments should reinforce the integrity of and complement the local historic character.

In addition to the above, the Development Plan includes the following local policy provisions relevant to the review of the proposal for the subject site:

Gawler South Policy Area (Figure Res H(C)/3)

Desired Character

The Policy Area comprises the subdivision of Gawler West; Bassett Town and Gawler South, and is located on relatively flat terrain to the south of the original town. Streets are relatively wide and have been laid out in a grid pattern.

The Gawler Railway Station was established in 1857. The prospects for industry and employment in Gawler West and Bassett Town were immediately increased, and the area was surveyed for suitable subdivisions for a mixture of uses both around the railway yards, and to the other side of the main road to Adelaide (Gawler South). In 1857 and 1858 the local hotels

were established, and these buildings were soon followed by industrial and residential buildings.

Gawler South is residential in character, consisting mainly of dwellings dating from the period 1860 - 1910. Dwellings are typically detached and are set back from the street and neighbouring houses.

The area is of historic importance because it contains a significant number of high integrity residences, mainly from the period 1860 - 1910, which illustrate the character and continuing expansion of residential Gawler in the latter half of the nineteenth century.

Part of Nineteenth Street which abuts the Gawler Railway Station Precinct is a locality that is suitable for offices and low-key retail uses. Nineteenth Street, which has a central median and a strong visual axis to the Railway Station buildings, has the potential to be enhanced as a boulevard of considerable style and urban character with the identified precinct for mixed use being developed with two storey buildings positioned close to the road frontage and designed to directly address the street.

The Gawler Railway Station Precinct provides a wide range of services including entertainment, shops, markets, fodder sales; warehousing, offices, car parking and public transport. The station precinct, because of excellent access to services, is ideal for increased residential densities. Two-storey residential development is particularly suited to the edges of the Station precinct. This will occur through redevelopment of buildings and sites of no historic value, or sympathetic reuse of buildings of historic value.

Gardens within the Area should be in scale with existing buildings and large allotments should not be reduced in size if attractive building settings, which are provided by gardens and significant trees, will be compromised or put at risk. Fences to define street boundaries are of critical importance to maintain and enhance the streetscape.

Signage to promote business uses is appropriate, but only where sensitively integrated into the building architecture or located in gardens. The number and scale of signs must be constrained. Where buildings are set back from the road, a single small pylon or free-standing sign is appropriate. For buildings that are close to the street boundary, either a Flat Wall, Projecting or Under verandah signs are appropriate.

Appropriate Uses are:

Dwellings;

Two-storey development along the designated part of Nineteenth Street in the Gawler Railway Station Precinct in the form of shops, offices, showrooms and residential use;

Entertainment, confined to existing hotels in the Gawler Railway Station Precinct;

Service Trade Premises; Shops; Retail Showrooms; Service Industry; Warehousing; Car parking; Public Transport interchange in the Gawler Railway Station Precinct;

Local Services (Recreation areas, schools, child care centres, community uses).

OBJECTIVES

Objective 1: Development complementary to the historic character and

significance of the Policy Area as expressed in the Future Character.

Objective 3: A residential area with locations of:

(a) historic character which should be retained with limited change in the allotment layout;

(b) mixed business/residential use in identified localities;

(c) broadacre land suitable for future division into allotments for residential use; and

(d) existing residential development suitable for modest infill development.

Objective 4: Conservation and enhancement of the historic character of the policy area, and pattern of development through consideration of subdivision pattern, allotment size, width of streets and the function of residential "night cart lanes" for rear vehicular access.

PRINCIPLES OF DEVELOPMENT CONTROL

2 Development should:

(a) complement and reinforce the historic character of existing dwellings sited on generous allotments; and

(b) be set-back from the street and neighbouring buildings consistent with the historic set-back on the site.

3 Residential development should not be sited on side allotment boundaries and should be set back from side boundaries to complement adjacent existing development.

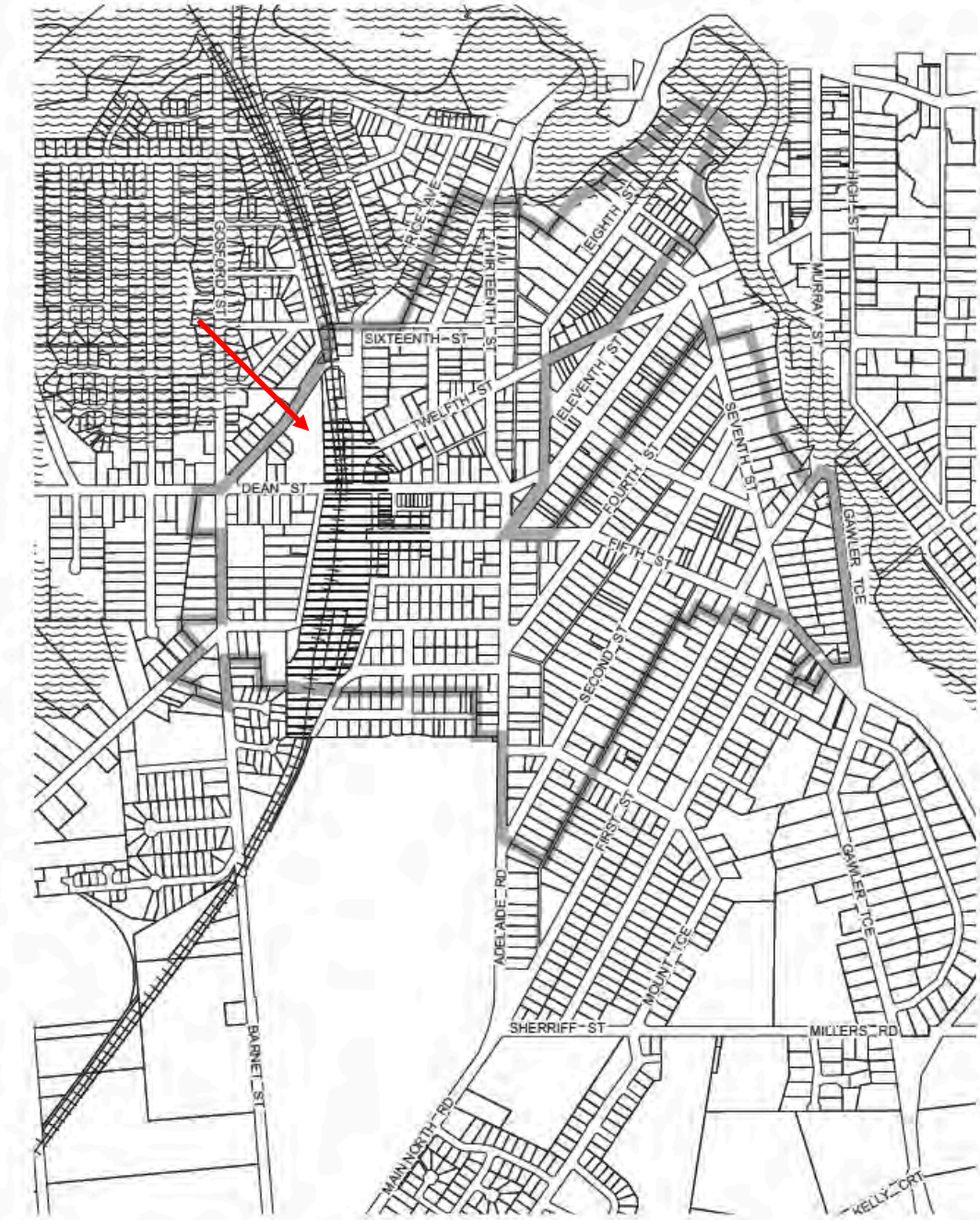
4 Residential development generally should be single storey in height unless indicated otherwise.

7 Development in the Gawler Railway Station Precinct should complement and reinforce the historic character of the early commercial development in the area.

7 Development Plan Maps

The following extracts from the Development Plan are provided for reference, with the subject site indicated.


FIGURE Ga(HPCI)/5 ADJOINS
FIGURE Ga(HPCI)/9 ADJOINS
FIGURE Ga(HPCI)/11 ADJOINS
FIGURE Ga(HPCI)/12 ADJOINS
1:6,000
0
100
200
300
400
500 M
State Heritage Places
Local Heritage Places
Contributory Items
Development Plan Boundary
GAWLER (CT)
HERITAGE PLACES AND
CONTRIBUTORY ITEMS
FIGURE Ga(HPCI)/10
Consolidated - 28 April 2016



Note: See figure FI/1 for flood data definition explanation and disclaimer.

0 metres 200 400 600 800 1000

Gawler Railway Station Precinct

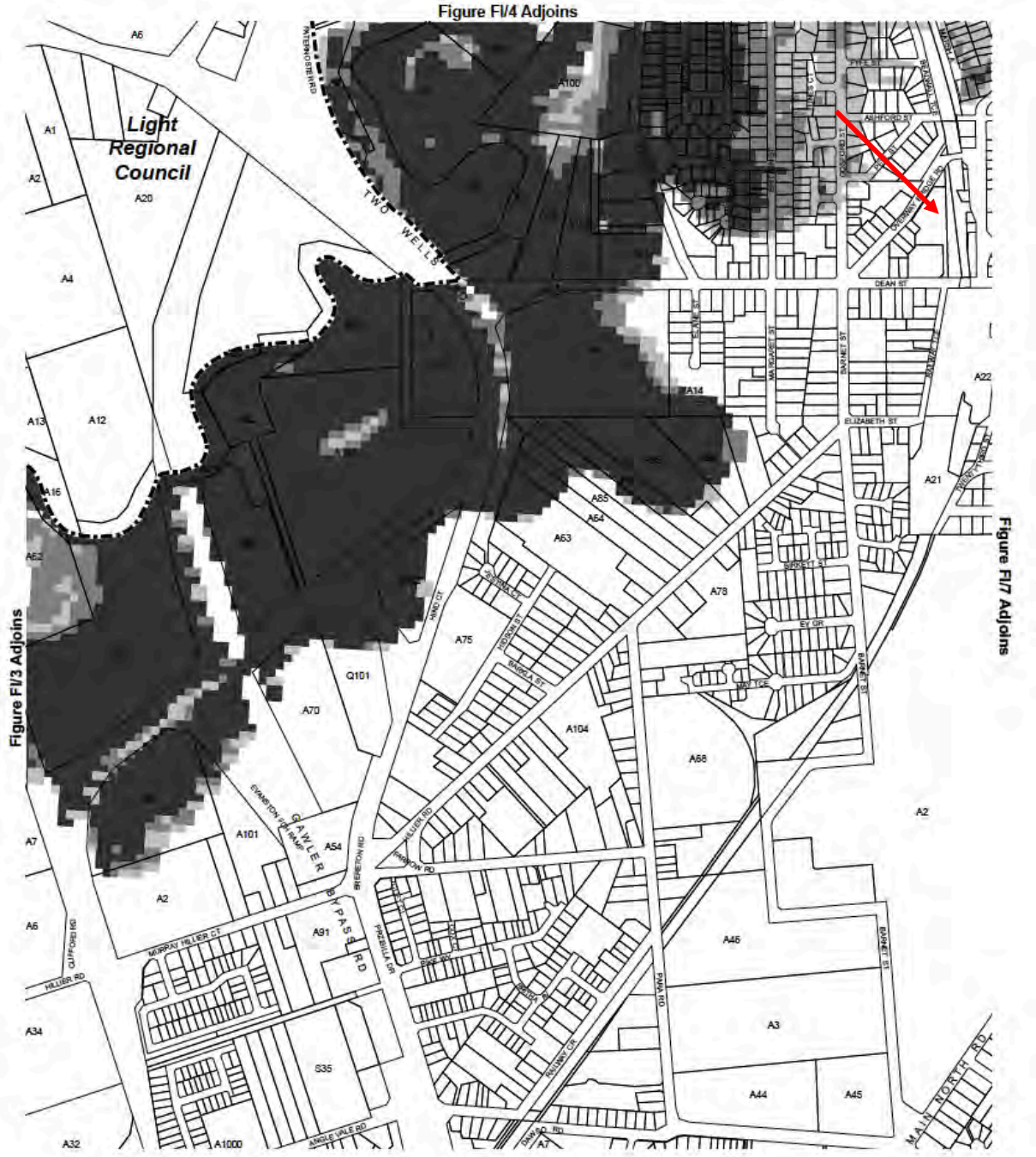
Flood Prone Land

Railway

Policy Area Boundary

GAWLER (CT)
GAWLER SOUTH RESIDENTIAL HISTORIC (CONSERVATION) POLICY AREA 15
FIGURE ResH(C)/3

Consolidated - 28 April 2016



Note: See figure FI/1 for flood data definition explanation and disclaimer.

Hazard Flood Risk Areas

- High
- Medium
- Low
- Development Plan Boundary

GAWLER (CT)
GAWLER RIVER
FLOOD PRONE AREAS
FIGURE FI/5

Consolidated - 28 April 2016

8 Comment

Comment on the submitted proposal for the subject site is provided under the following sub-headings;

- Review against Development Plan provisions;
    - Conservation
    - Zone
    - Policy Area
- Review of the submitted Heritage Report;
- Comment from an architectural perspective on the overall design of the buildings, materials used, site and dwelling layouts, functionality (including balcony usability etc);
- Comment on bulk and scale (issues, recommendations);
- Potential impact (if any) on adjacent State Heritage Item, and;
- Other considerations.

The comments that follow are based on the materials contained in the planning consultant report entitled 'Three Residential Flat Buildings, 12 Dean Street Gawler West: PLANNING STATEMENT, prepared for Bud Urban, date: August 2017 (ekistics: REF#00432-003, dated 23 August 2017) and architect's statement (28 June 2017), collectively referred as "the proposal".

8.1 Review against Development Plan Provisions

8.1.1 Conservation

The proposal for the subject site is proximate to several Contributory, Local and State Heritage Places, including the Gawler Railway Station state heritage place. The applicant notes the subject site is *somewhat 'disconnected' from the surrounding locality due to the rail corridor to the east and a partially elevated roadway (Overway Bridge Road) to the north*.[vi] Though there is separation by the rail corridor and roadway, the legibility of proximate heritage places could be affected by the proposal.

Objectives

In relation to the built form criteria identified at Objective 12, the following comments are made with reference to the submitted proposal;

- Shape: orthogonal, rectilinear plan form to suit dwelling type. Concealed

shallow mono-pitch roof form differs from identified character of hip, gable and hip-gable, typically with a ridge parallel to the street boundary.

- Scale: It is noted the typical scale is single-storey with lofty, high-pitched roofs. The two-storey aspect of the proposal is interpolated to be slightly higher than the ridge/envelope height of the adjacent contributory place (no dimensions provided).

- Materials: It is noted the adjacent contributory places are typically painted weatherboard clad framed construction with either corrugated metal or tile roofs, with face or rendered masonry construction to the proximate State and Local heritage places. The proposal employs similarly economical lightweight contemporary materials applied to framed construction that reflect similar colours to the identified palette (red brick, masonry, opaque painted render to masonry, (un-)painted corrugated metal roofs) that take reference from the surrounding neighbouring dwellings.

- Advertising or advertising displays – not applicable.

Principles of Development Control

In relation to the principles of development control, the following comments are made with reference to the submitted proposal;

- PDC35: The proposal addresses the principal frontages of the subject site and provides an orthogonal elevation to the street and rail corridor (the principal vantages) and, the abutting boundary. It appears the proposal seeks to reduce the overall bulk and mass through architectural composition, materials, setbacks and an array of dwelling types so as to not impair the character of the nearby Contributory places though it is set forward of the interpolated street setback alignment. The Contributory places to the east of Overway Bridge Road (north of Dean Street) are separated from the subject site by a recent single storey development (set closer to the street, constructed of rendered masonry with a corrugated metal roof and currently without a front fence) and new walkway. A drive, walk-way and boundary wall/ fence provides additional separation of the mass of the proposal to the rail corridor and maintains sightlines to the local and state heritage places from the Overland Bridge/ rail corridor, noting the extant trees are located within the rail corridor. The proposal is not considered to detrimentally impair the character or nature of the proximate heritage places.

- PDC36: A desktop assessment could be undertaken by an archaeologist to determine the potential archaeological interest and include watching-brief during times of ground disturbance.

8.1.2 Zone

The proposal is for an array of residential dwelling types and though of a greater density to the adjoining allotments, its proximity to the legal access point of Gawler Train Station is noted, with a portion (albeit the proposed driveway) of the subject site forming part of the Gawler Railway Station Precinct (the Precinct).

Objectives

- O1: The proposal is exclusively for residential development *which understands the Gawler market and demographic mix*, with ancillary facilities and landscaping to support this.

- O3: The proposal incorporates identifiable elements which demonstrate efforts to consider the established pattern of development within the zone;

    - The streetscape to the east of Overway Bridge Road contains single level Contributory places of framed construction and economical linings, with high roof spaces. The proposal uses a parapeted roof with limited vertical transition and a restrained material (linings) palette to incorporate an array of two-storey dwelling types and lot parcel widths to provide a cohesive street elevation interpolated to be slightly higher than ridges of adjoining framed construction Contributory places (not dimensioned). This approach, in lieu of taller building forms or other dwelling type configurations, is preferable and continues recent approaches to compatible infill development that has occurred east of the Precinct to Eighteenth, Nineteenth and Twenty-Third Streets to increase residential densities. The addition of streetscape conditions, including proposed fence treatment and roadway would aid the understanding of the proposal as the subject site approaches Overway Bridge.

    - The subject site is an irregular allotment and it is not clear if any further sub-division is included in the proposal. Lot boundaries and dwelling type titles should be identified on drawings.

    - The proposal includes three buildings orientated to the principal allotment boundaries. Due to the dwelling type and density, road alignment, rail corridor, topography, the proposal incorporates an internalised court-yard living approach in response to the unique configuration, location and topography of the subject site. The proposal employs tight setbacks where abutting existing developed lots (especially to the common boundaries of Building One) which is not consistent with the established pattern of sub-division within the policy area. If greater setbacks were employed, the potential streetscape impact (Overway Bridge Road in particular) and expressions of scale

and bulk of the proposal could be mitigated.

- Building One abuts the rear of allotments to Dean Street with a variable setback to dwelling types – no setback dimensions are provided from the site boundary, though this appears to employ tight setbacks to the abutting Dean Street lot and 1 Overway Bridge Road.

- Building Two fronts Overway Bridge Road also with variable setbacks (also not dimensioned). The proposal is set forward of the adjoining Contributory places with minimal garden space to the street and, due to the road levels, it appears several dwelling types do not have access from the Road. If two-storeys developed is to be pursued, it is recommended greater setbacks from Overway Bridge Road be employed to reduce the encroachment in the interpolated setback zone of the Contributory places.

- Similarly, a footpath of unknown width is identified to the south of Building Two provides some separation to the adjoining unlisted lot. In order to manage the transition from the proposal to the adjacent unlisted place and Contributory places, it is recommended increased separation be considered to the boundary abutting Lot 12 Overway Bridge Road.

- Building Three is internal within the allotment and orientated to the rail corridor with a driveway providing separation – setbacks to lot boundaries vary to suit the dwelling type (also not dimensioned) and includes direct access to proposed open space. Similarly to the Fitness Centre, former Duffield Grain Store (LHP), there is sufficient separation from the rail corridor for the Building of comparable scale to be supported and, frame the sightlines to the Gawler Railway Station and the Precinct.

- The built form of the proposal reflects a contemporary approach to cost-effective two-storey townhouse development with elevation emphasis and restrained articulation. The proposal incorporates robust, economical external linings to framed construction – this approach is considered consistent in design intent of their time, with the adjoining Contributory Places to Overway Bridge Road.

- The site layout concentrates the proposed development to the principal lot boundaries and incorporates a set-back to the rail corridor in the form of a driveway and walkway. The set-back of built form to the rail corridor provides a generous setback to maintain sightlines to proximate heritage places across the rail corridor, including the Gawler

Railway Station state heritage place. The reduced setback to Overway Bridge Road (less than previous consents for the subject site) has the potential to obstruct the sightlines to the Contributory places to the south of the subject site and further review is encouraged (refer above). Comments on the suitability of the proposed fences and landscaping are provided in response to the zone PDCs below.

PRINCIPLES OF DEVELOPMENT CONTROL

The proposal has been reviewed against the PDC's set out below. Nearby recent development within the zone, either which has an outlook to the rail corridor or within the Gawler Railway Station Precinct (the Precinct) provides some reference for compatible, complementary new infill development within this locality.

It appears the applicant's submission does not include consideration of PDC4, 5, 11, 12, 13 and 15 in this section. For the comments set out below, it would be beneficial if the applicant could address these as part of any revised submission.

- PDC1: Contributory places to the south of the subject site, west of the rail corridor reinforce an evolving pattern of development within the zone, including changing economic circumstance, whilst the nearby Local and State heritage places are orientated to the Gawler Railway Station and the Precinct reflect the prominence of development about the station. The proposal is not considered to diminish their historic character, though further consideration of building envelope, materiality, setbacks, landscaping and fences is recommended (refer above).

- PDC2: in-principle, the potential redevelopment of the subject of the subject site is not considered to not have a detrimental effect on the character of the locality, however, the form of this redevelopment requires further consideration, especially against the guidelines provided at Table Ga/3.

  Though the proposal is of greater density than the established pattern of development, the Desired Character statement of the Policy Area anticipates two-storey development to the edges of the Precinct through the redevelopment of vacant sites of no historic value (such as the subject site). The subject site is located at the boundary of the policy area and separated from other features, the legibility, visual linkages and understanding of its connection to the Precinct and pattern of development remain sufficiently legible for it not to be considered disconnected from the Desired Character of the Policy Area. It is noted the current lot (the subject site) is of unique configuration, location and topography which is not typical of the sub-division of the policy area. In this instance, compatible two-storey infill development (incorporating aspects of detached and semi-detached dwelling types) appears to respond in-principle to the Desired Character statement as applicable to the

subject site. The proposal appears to incorporate some of the guidelines contacting in Table Ga/3 including;

- Development designed to follow topography and which directly addresses the street (save the portion of the raised road level to suit Overway Bridge approach);
- Use of simple materials;
- Using building modules typical of the locality;
- Adopt a simple plan form, utilising a series of simple, connected plan forms;
- Garages set back from the front of the dwelling, and;
- Functional verandahs, canopies and overhangs.

As the orientation of the attached dwelling types is perpendicular to the street and not consistent to the established pattern of development, it is preferable the dwelling type does not attempt to replicate the prevailing gable/ hip roof geometry of heritage places. In the absence of roof plan or section drawings, it is assumed the proposal incorporates shallow mono-pitch roofs concealed behind low parapets in order to reduce the visual bulk of the proposal. For the subject site in this instance, this is considered a preferred approach if it can enable improved articulation between storeys and separation between dwelling types.

In order to ensure cohesive development continues to occur in accord with the Desired Character statement, the proposal could be reviewed against the following guidelines of Table Ga/3;

- Streetscape pattern by appropriate building location (setback - reflecting existing setbacks to front and side boundaries), plan form and front fence design - it is critical to design the plan form as a response to site conditions and street character;
- Wall heights and building elements which match heritage building (including Contributory places) within the locality.

- PDC3: Within the extents of the zone (east side of Overway Bridge Road), the historic character of proximate Contributory places has been affected by recent sub-division and development. The streetscape character to the eastern side of Overway Bridge Road has also been affected by installation of high, solid fences in front of Contributory places, reducing the visibility of Contributory places (though all these have been maintained). The proposal continues this trend and includes new 1.8m AFGL high fences with an increase in density to

the Overway Bridge street frontage which in turn, increases the built envelope and reduces or eliminates the established separation between dwellings prevalent in the existing streetscape character. The latter concern can be mitigated through further design consideration per PDC2 response above, in particular with regard to setbacks, noting its location as part of the Precinct and increased residential density. It would be desirable if the fence design could be revised per the guidelines contained at PDC12 (refer below).

Building One and Three of the proposal are not considered to affect the streetscape character of Overway Bridge Road.

A revised heritage report could provide commentary on this aspect too.

- PDC4: Additional information should be sought from the applicant to review proposed landscaping (hard and soft), stormwater management and entrance surfaces – these are not identified on the architectural drawings.

- PDC5: The proposal appears to incorporate several elements of the guidelines (Table Ga/3) to enable cohesive new, infill development to occur, however, further refinement is suggested per response to PDC2 (above).

- PDC8: The material submitted doesn't communicate design intent or show how the design proposal responds to the architect's statement. Additional information should be sought from the applicant to assist consideration against this principle, specifically providing further design rationale in the architect's statement and revision of the heritage report to reflect the proposal.

- PDC11: Landscape design detail should be sought from the from the applicant to enable consideration against this principle.

- PDC12: Fence heights should be clarified by the applicant. In addition, the use of solid corrugated steel fences to front boundaries are discouraged in preference for fence types that complement historic fences of the locality (PDC13) – this matter should be reviewed by the applicant and could include improved visual transparency where located above road level.

- PDC13: Additional information should be sought from the applicant to enable consideration against this principle. Specific guidance is provided in this principle of anticipated front fence types and discourages use of high corrugated steel fences. A solid fence to the rail corridor is noted as 'F2' but no height is provided. As this fence is to the rail corridor and to public space within the lot, in order to reduce the potential impact upon sightlines, it would be desirable if greater visual permeability were incorporated.

- PDC15: The subject site is not a new lot but a previously undeveloped site of no heritage value – as identified at Zone O3 comment above, the applicant is

requested to clarify if further sub-division is contemplated as part of the proposal.

8.1.3 Policy Area

The proposal has been reviewed against the Desired Character, Objectives and PDCs of the policy area as set out below.

Desired Character

- Though the statement identifies the principal period of historic importance of 1860 – 1910, it does not exclude other periods. The inclusion of the c1940 Contributory places to the east of Overway Bridge Road, south of the subject site, enable the retention of the evolving pattern of development to the policy area to remain. These Contributory places are of a consistent form identified in the statement, being detached and set-back from the street. The proposal seeks to depart from this (in the form of attached townhouses) and include two-storeys due to its proximity to the Gawler Railway Station Precinct through the redevelopment of sites of no historic value (as anticipated by the Character Statement). Further the statement includes reference to gardens being in scale with existing buildings and fences being used to maintain and enhance the streetscape.

- The proposal is within a built envelope anticipated by the statement for such a site in the Precinct and given its unique configuration, location and topography further consideration could be given to incorporating greater separation between dwelling types if a two-storey envelope is to be pursued. Further detail of gardens and, demonstration how the proposed fences will maintain and enhance the streetscape would be desirable.

Objectives

- O1: The proposal seeks to depart from the established pattern of detached development, setback from the street, as identified in the Desired Character statement. The two-storey envelope is anticipated by the statement due to the location of the subject site to the Gawler Railway Station Precinct, though detached dwellings identified as being typical to the policy area. Given the established streetscape of detached dwellings to the east of Overway Bridge Road, reduction in density and consideration of additional separation between dwelling types to Building Two is desirable.

- O3: The proposal includes exclusively residential use and maintains the current allotment configuration – the extent of sub-division to suit the dwelling types is not clear. The subject site is situated in a region of existing single dwellings to a lot, setback from the street, though its unique configuration, topography and location may require an a-typical response if modest infill development is to

occur. Further justification of the proposal as a modest infill development, in line with the statement would be useful.

- O4: The subject site is a large undeveloped allotment, not representative of the typical pattern of allotment configuration. This does not preclude the capacity for the proposal to respond to and enhance the historic character of the policy area and, the established pattern of development through the use of dwelling density and type, siting, setbacks and building separation.

- Upper level separation is provided in the proposal through the arrangement of dwelling types and combined with material selections assist to break-down the scale and bulk of the proposal.

PRINCIPLES OF DEVELOPMENT CONTROL

- PDC2:

    - a) A revised heritage report and/or architect's statement could provide commentary on this aspect.

    - b) Building Two of the proposal is set within the interpolated setback alignment of nearby Contributory places and combined with the two-storey envelope partially obscures the sightline to the Contributory places, when viewed from Overway Bridge Road. If a two-storey envelope is to be pursued, further consideration of setbacks from Overway Bridge Road is recommended.

- PDC3: Building One is sited within one metre of the boundary to the Contributory Place at 1 Overway Bridge Road and its setback from 10 Dean Street varies. These setbacks are not consistent with the adjacent existing development. If this density and built envelope of development is to be pursued, consideration of increasing setbacks to abutting allotments is desirable.

- PDC4: The subject site (undeveloped) is unique in its configuration, topography and location that in part, abuts the Gawler Railway Station Precinct which anticipates two-storey development. In light of previously consented development, and the Desired Character statement for the Gawler Railway Station Precinct, it is conceivable for new development to be of two-storey. The elevated Overway Bridge Road approach to the north of the subject site assists to reduce the appearance of two-storeys to a portion of the site.

- PDC7: The proposal enables the built-form hierarchy and visual prominence of the Gawler Railway Station state heritage place to be retained. In setting the proposed development back from the rail corridor, sightlines to other proximate heritage places are retained through setting the development back from the rail

corridor.

8.2 Review of submitted Heritage Report

The report should be revised to reflect the proposal and include an assessment of its potential heritage impact.

8.3 Comment on Architectural Design of Built Form

The Desired Character Statement of the Policy Area anticipates two-storey development and increased residential densities to the Gawler Railway Station Precinct, which the proposal is consistent. The proposal adopts a two-storey envelope with limited separation at upper levels to each of the three Buildings, which are arranged to address principal lot boundaries.

Proximate Contributory places along the east of Overway Bridge Road present as a cohesive collection of cottages of similar proportions. In pursuing an adjoining dwelling configuration, the proposal (specifically Building Two as it faces Overway Bridge Road) gradually increases the residential density as anticipated and, continues some of this rhythm in its design of the streetscape elevation.

The proposal incorporates open space to the centre of the lot, with limited private open space to each dwelling type. The Desired Character statement advocates for gardens within the area to be in scale with existing dwellings and identifies the critical importance of fences to define street boundaries … to maintain and enhance the streetscape. If the proposal is to incorporate the degree of open space identified, detailed design of its treatments is requested. Similarly, further detail of the fence to Overway Bridge Road (including heights) is requested, along with consideration of sections of visually permeable fencing to the rail corridor boundary to maintain a visual connection to the Station Precinct.

8.4 Comment on Bulk and Scale

The design of new built form at two-storeys provides a compatible built envelope and scale in the context of its proximate heritage places. In avoiding ridge, hip or gable forms, a low parapet height enables the height of the proposal to be reduced, though this does not follow the established pattern of architectural dwelling form.

The use of a mix of dwelling type, judicious use of a materials, variable setbacks to ground and upper levels, subtle variation of parapet height and, upper level separation between dwelling types assist to reduce the visual bulk of the proposal. further review of the design is encouraged per our response to PDC2 of the policy area above.

To assist in this review, it would be beneficial if the applicant could describe how the proposal responds to the proportions of these dwellings, including wall, roof and fenestration configuration. The Contributory places comprise two principal elements which comprise their height when viewed from the street – lined wall (base or lower storey) and tile/ corrugated metal (roof or upper storey) – the applicant is encouraged

to review the proposal to explore if similar street elevation articulation of storey proportion can be incorporated, especially where it appears some dwelling types are proposed to be clad with 'FC1' to both lower and upper levels.

8.5 Comment on Potential Impact on adjacent State Heritage Item

It is noted the previous consents for the subject site were considered sufficiently separate to not negatively impact the adjacent State Heritage Item. Though the potential heritage impact of the proposal is arguably reduced when compared with the recently consented development and feedback received, discussion of the proposal with DEWNR: SHU is recommended given the proximity of the subject site to the extent of registration of the state heritage item to confirm this remains current advice.

9 Recommendation

Additional information is requested to assist in the review of the Proposal, including design refinements as suggested through s8 Comment. In its current form, it would be desirable if the applicant reviewed the proposal and consider the suggested amendments.

We trust the above meets your immediate requirements.

Please feel free to contact me on alistair@flightpatharchitects.com.au or (08) 8211 6355 with any queries.

Yours sincerely,

FLIGHTPATH ARCHITECTS PTY LTD

Alistair Ravenscroft
Senior Architect (Conservation + Design)

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[i] Danvers Architects, Gawler Heritage Survey (1998), p234
[ii] Danvers Architects, Gawler Heritage Survey (1998), Section 8.2.3
[iii] Danvers Architects, Gawler Heritage Survey (1998), Section 8.2.3.1
[iv] Danvers Architects, Gawler Heritage Survey (1998), Section 8.2.3.2
[v] ekistics planning report, p 21.

ATTACHMENT 6

FIGURE Ga(HPCI)/5 ADJOINS

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- State Heritage Places
- Local Heritage Places
- Contributory Items
- Development Plan Boundary

GAWLER (CT) HERITAGE PLACES AND CONTRIBUTORY ITEMS FIGURE Ga(HPCI)/10