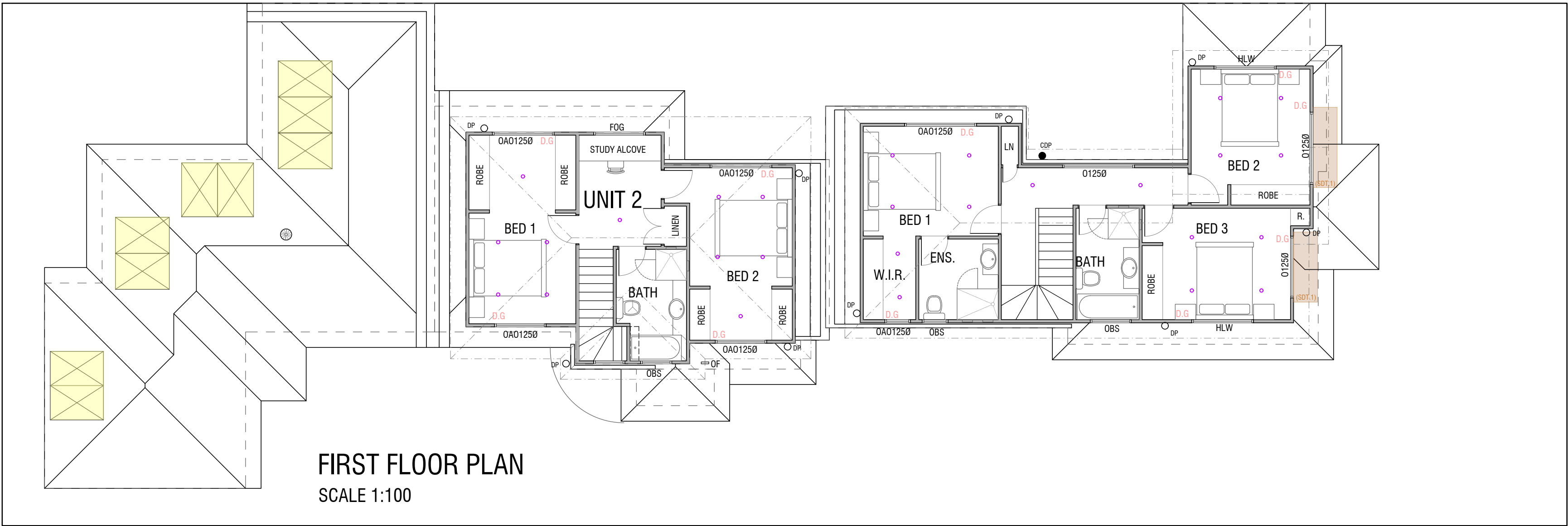
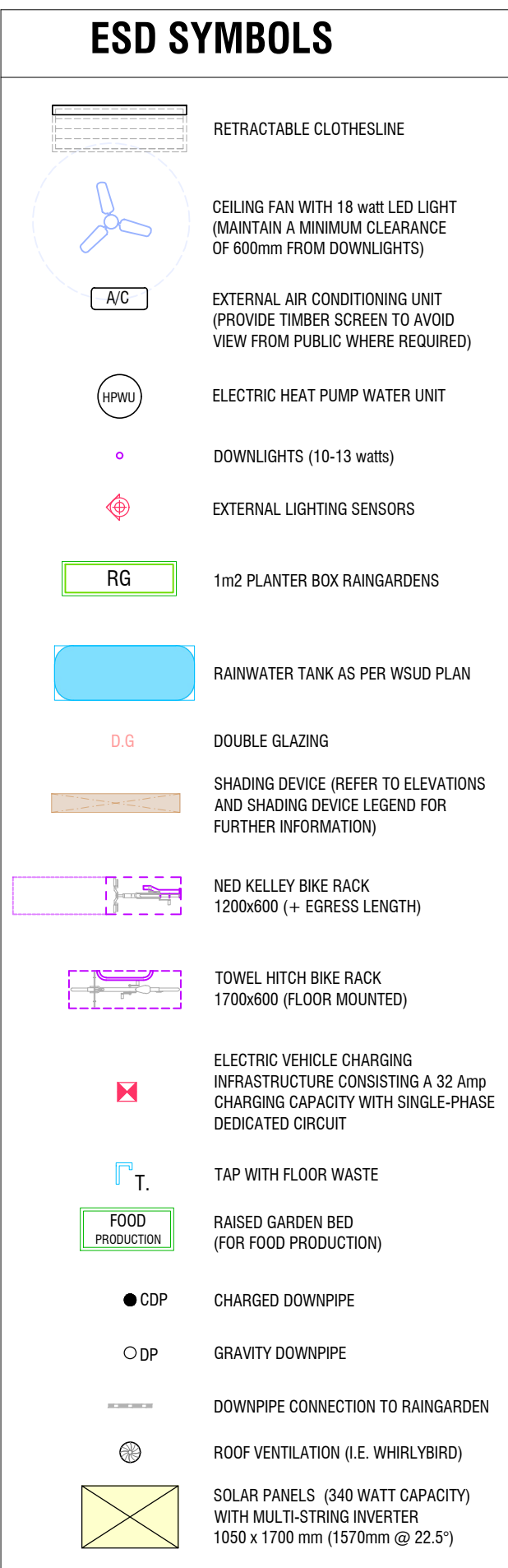


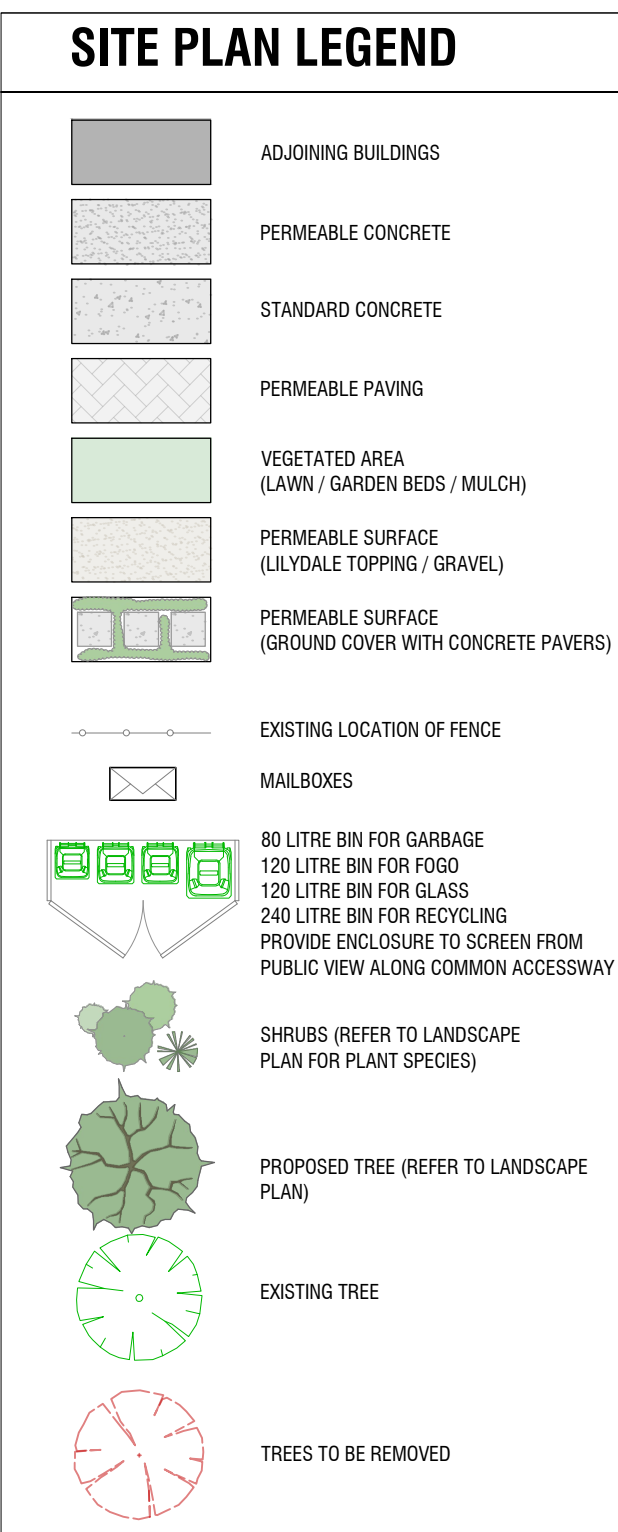
ROOF PLAN  
SCALE 1:100



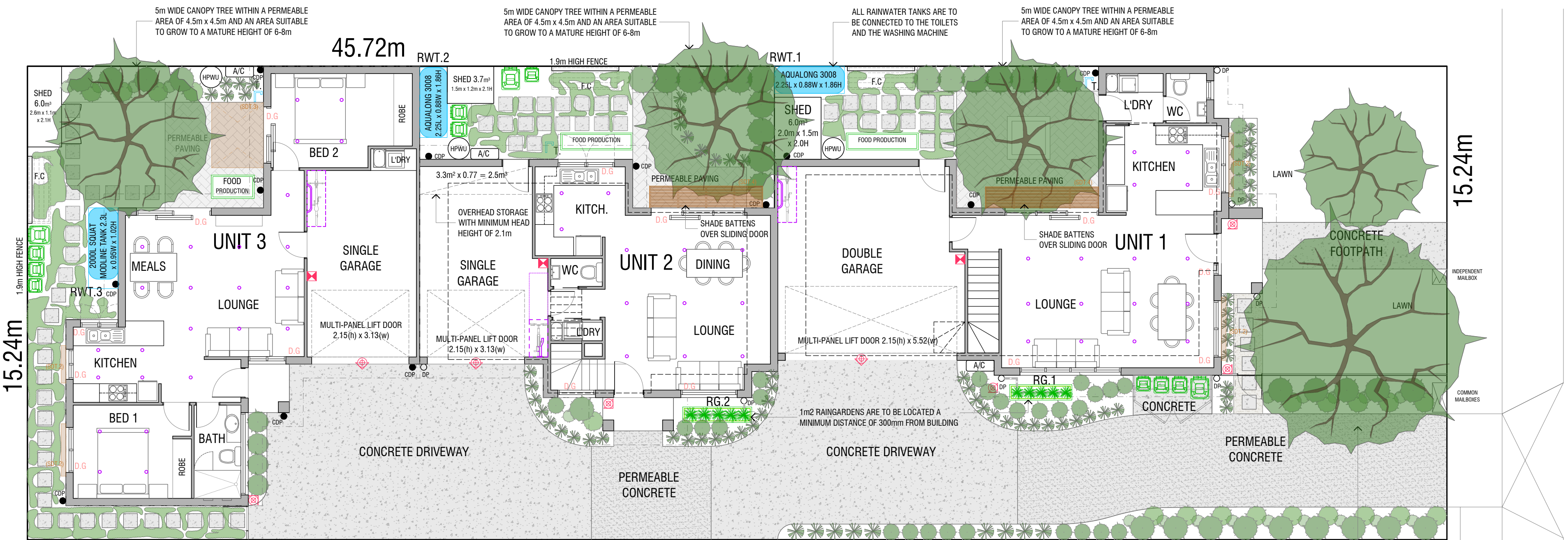
FIRST FLOOR PLAN  
SCALE 1:100





ABBREVIATIONS	
A	AWNING OPENING
C	CASEMENT OPENING
DG	DOUBLE GLAZING
F	FIXED GLAZING
FC	FOLDABLE CLOTHESLINE
FOG	FIXED OBSCURE GLAZING
FCL	FINISHED CEILING LEVEL
FFL	FINISHED FLOOR LEVEL
HLW	HIGHLIGHT WINDOW
O1250	OPENING LIMITED TO 125mmØ
OA01250	OBSCURE AWNING OPENING 125mmØ TO 1.7m
OBS	OBSCURE GLAZING
SD	SLIDING DOOR



BESS INITIATIVES	
SPECIFICATION TO ACHIEVE BESS REQUIREMENTS (PROJECT # 21844174)	
MANAGEMENT	
A BUILDING USER GUIDE WILL BE PROVIDED TO THE OCCUPANTS PROVIDED ADDITIONAL INFORMATION ON : <ul style="list-style-type: none"><li>- POROUS PAVING MAINTENANCE</li><li>- RAINGARDEN MAINTENANCE</li><li>- RAINWATER TANK MAINTENANCE</li><li>- WASTE REDUCTION AND OPPORTUNITIES FOR RECYCLING AND DIVERSION</li><li>- MAKING USE OF NATURAL VENTILATION</li><li>- OPERATING ADJUSTABLE SHADING DEVICES</li><li>- EFFICIENT USE OF APPLIANCE</li><li>- ELECTRICAL INFRASTRUCTURE THAT IS AVAILABLE FOR THE FUTURE INSTALLATION OF CAR CHARGER</li></ul>	
WATER EFFICIENCY	
RAINWATER TANKS DWELLING ARE TO BE PROVIDED WITH EITHER A 2,000 OR A 3,000 LITRE RAINWATER TANK. REFER TO WSUD LEGEND TANKS ARE TO BE CONNECTED TO: <ul style="list-style-type: none"><li>- SANITARY FLUSHING SYSTEMS,</li><li>- WASHING MACHINES; AND</li><li>- IRRIGATION (AS PER WSUD PLAN).</li></ul>	
WATER FIXTURES, FITTINGS AND CONNECTIONS SHOWERHEADS: MINIMUM 4 STAR WELS RATING (>4.5 BUT <= 6.0) BATH: MEDIUM SIZED CONTEMPORARY BATHTUBS KITCHEN TAPS: MINIMUM 5 STAR WELS RATING BATHROOM TAPS: MINIMUM 5 STAR WELS RATING DISHWASHERS: DEFAULT (3 STAR MINIMUM) WELS RATING TOILETS: MINIMUM 4 STAR WELS RATING (CONNECTED TO RAINWATER TANK) WASHING MACHINES: MINIMUM 4 STAR WELS RATING (CONNECTED TO RAINWATER TANK) WATER EFFICIENT LANDSCAPING: DRIP IRRIGATION SYSTEM CONNECTED TO RAINWATER TANK WITH PROGRAMMABLE TIMERS AND RAIN SENSORS WITH DROUGHT TOLERANT PLANTS AS PER LANDSCAPE PLAN	
ENERGY EFFICIENCY	
ENERGY SUPPLY: PHOTOVOLTAIC SYSTEM WITH MULTI-STRING INVERTER (AS SHOWN ON ROOF PLAN) NO GAS CONNECTION	
THERMAL PERFORMANCE: DWELLINGS WILL HAVE A MINIMUM OF 7.0 STAR NatHERS RATING	
ENERGY USE HEATING SYSTEM: REVERSE CYCLE HEATING (MINIMUM 4 STAR RATING) COOLING SYSTEMS: REVERSE CYCLE COOLING (MINIMUM 4 STAR RATING) HOT WATER SYSTEM: ELECTRIC HEAT PUMP CLOTHES DRYING: FOLDABLE CLOTHESLINE EXTERNAL LIGHTING: TO BE CONTROLLED BY A MOTION SENSOR (AS SHOWN ON FLOOR PLANS) ILLUMINATION: 4 WATT / SQM (THROUGH 10-13 watt LED DOWNLIGHTS)	
STORMWATER MANAGEMENT	
REFER TO WATER SENSITIVE URBAN DESIGN PLAN TABLE	
INDOOR ENVIRONMENTAL QUALITY	
CROSS VENTILATION ALL HABITABLE ROOMS HAVE AN OPENING EQUIVALENT TO AT LEAST 2% OF THE FLOOR AREA, WITH A CROSS PATH OF LESS THAN 15m BETWEEN ONE HABITABLE ROOM TO ANOTHER PASSING THROUGH ONE DOOR ONLY.	
DOUBLE GLAZING: APPLICABLE TO ALL HABITABLE ROOM WINDOWS SHADING DEVICES: APPLICABLE TO ALL HABITABLE ROOM WINDOWS (REFER TO ELEVATIONS FOR TYPE OF SHADING DEVICES)	
ORIENTATION: AT LEAST 50% OF THE LIVING AREAS ARE ORIENTED TO THE NORTH	
TRANSPORT	
BICYCLE PARKING: TO BE PROVIDED WITHIN THE GARAGE OF EACH OF THE DWELLINGS AS SHOWN EV INFRASTRUCTURE: EACH DWELLING IS TO INCLUDE: <ul style="list-style-type: none"><li>- INFRASTRUCTURE AND CABLE TO EACH GARAGE THAT CAN SUPPORT LEVEL 2 (Mode 3) 32 Amp EV CAR CHARGING AND</li><li>- LOAD MANAGEMENT SYSTEMS THAT ENSURE THAT EV CHARGING OCCURS OUTSIDE OF PEAK ELECTRICITY DEMAND HOURS AND THE EV INFRASTRUCTURE DOES NOT ADVERSELY IMPACT THE SITES MAXIMUM DEMAND.</li></ul>	
WASTE	
FOOD & GARDEN WASTE: DEDICATED STORAGE AREA FOR ORGANIC WASTE BINS FOR EACH DWELLING	
URBAN ECOLOGY	
VEGETATION: 31% OF THE SITE IS TO BE COVERED WITH VEGETATION (AS PER VEGETATED PLAN) TAPS IN COURTYARD: TAPS ARE TO BE PROVIDED IN EACH OF THE COURTYARDS FOOD PRODUCTION: EACH COURTYARD TO HAVE 1m² OF FOOD PRODUCTION WITH RAISED GARDEN BEDS	



GROUND FLOOR PLAN  
SCALE 1:100



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Project

3 Unit Development  
Example Project

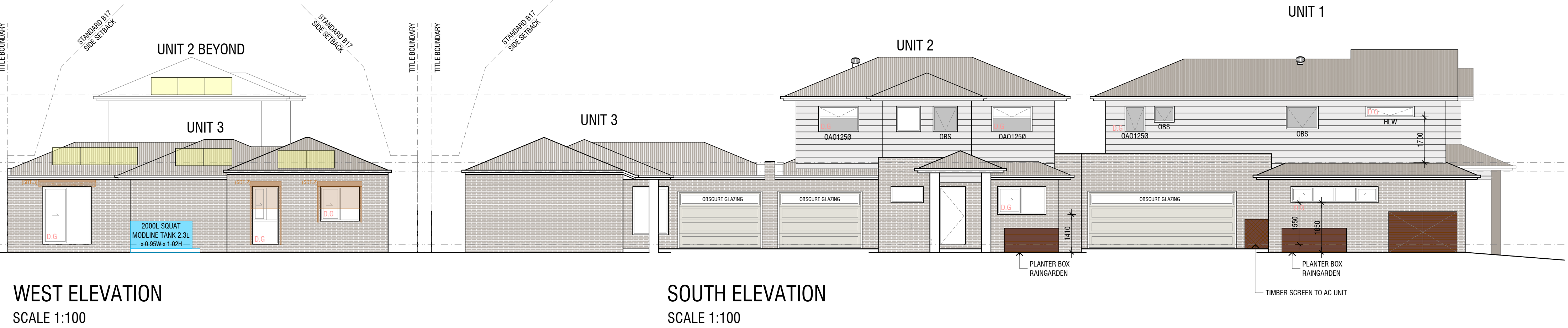
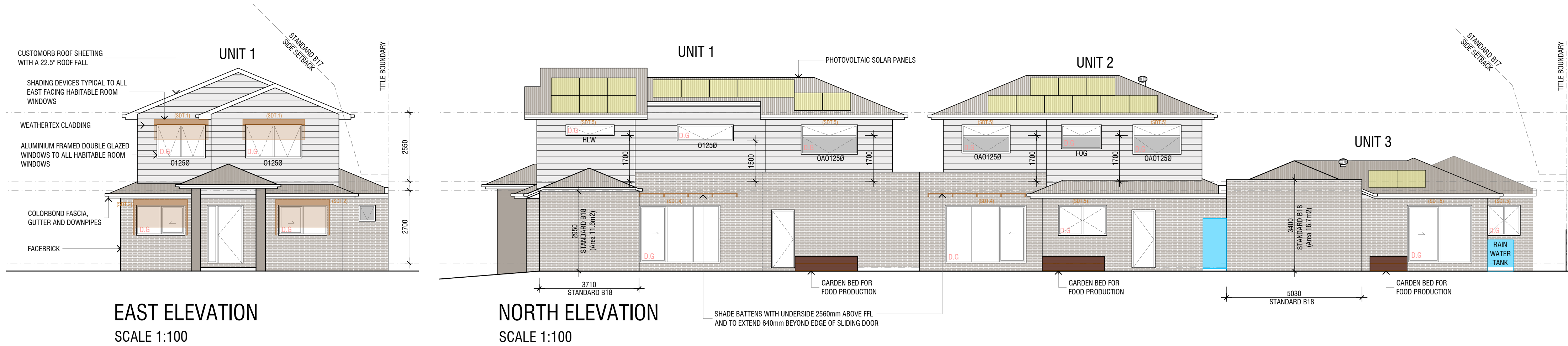
Drawing Title

Floor Plans

Scale	Date
1:100 @ A1	28 / 06 / 2022
Drawing Number	Revision
TP01 of 03	A



SHADING DEVICE LEGEND				
SHADING DEVICE TYPE	PLAN VIEW	ELEVATION	SECTION	IMAGE
<b>PIVOT ARM SHADING DEVICE (SDT.1)</b> Suitable for North, East, West, North-East, North-West and South-West windows Suitable for awning or sliding windows				
<b>GUIDE RAIL PULL-DOWN SHADING DEVICE (SDT.2)</b> Suitable for North, East, West, North-East, North-West and South-West windows Suitable for sliding windows. If horizontal rod is present at bottom extending the opening of the shading device, this device may also be suitable for awning windows.				
<b>FOLDING ARM SHADING DEVICE (SDT.3)</b> (NORTH FACING OPENINGS) Suitable for sliding doors or casement windows				
<b>SHADE BATTENS (SDT.4)</b> (NORTH FACING OPENINGS ONLY) Fixed horizontal shade battens for north must extend beyond the width opening by the same distance as their outward projection. 'H' represents the distance between the underside of the Shade Batten and the sill. The projection must be 25% of the 'H'. The distance between the window head and the underside of the Shade Batten is to be 16% of 'H'. Shade battens must be spaced so that the distance between them is no more than the height of the batten. Vegetation is optional. Deciduous vines may be used to provide additional shade during summer and allow solar access to the window provided the vines are trimmed back at the end of daylight savings.	  			
<b>FIXED EAVE (SDT.5)</b> (NORTH FACING WINDOWS ONLY) The width of the eave and the gutter is used to determine the sill height of the window to use a fixed eave as a shading device for north facing windows. The eave width is to be 25% or more of the 'HEIGHT'. The 'HEIGHT' is taken from the underside of the shading device and varies based on the angle of the roof pitch and the wall cladding. The height of the window varies based on the head height of the window.	  			

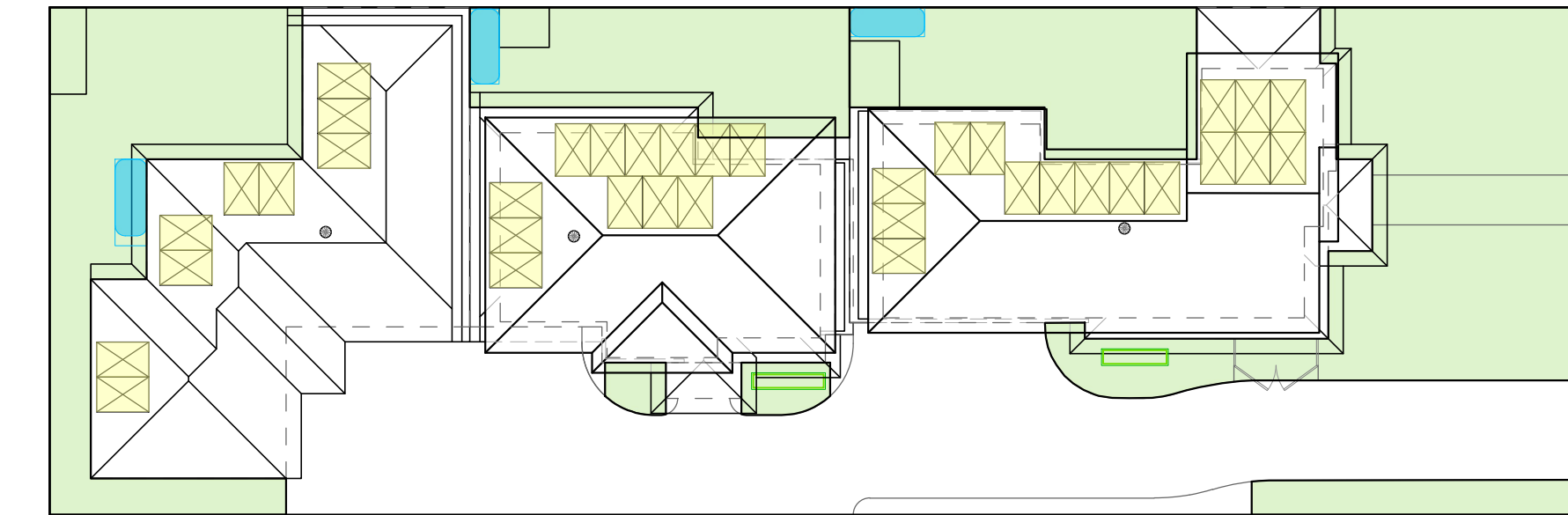


DEVELOPMENT SUMMARY		
<b>SITE AREA</b>	<b>696m<sup>2</sup></b>	
SITE COVERAGE (INCLUDING CANTILEVERING, GARDEN SHEDS, PORCHES & EAVES LESS THAN 600mm)	293.8m <sup>2</sup>	42.2%
TOTAL PERMEABLE SURFACE AREA (INCLUDING PERMEABLE CONCRETE, PAVING OR STAIRS WITH FALL TO ADJACENT GARDEN BED, LILYDALE TOPPING, LAWN AND GARDEN BEDS INCLUDING AREA UNDER EAVE)	306.3m <sup>2</sup>	44.0%
TOTAL VEGETATED AREA (ONLY AREAS OF NATURAL LAWN, GARDEN BEDS AND BASE OF TREES)	219.3 m <sup>2</sup>	31.5%
<b>ZONING REQUIREMENT</b>		
GARDEN AREA (DRIVEWAYS, EAVES BIGGER THAN 600mm AND GARDEN AREAS LESS THAN 1m)	243.6m <sup>2</sup>	35.0%
<b>WATER SENSITIVE URBAN DESIGN</b>		
ROOF CATCHMENT AREA & EXPOSED HARD SURFACE AREA	420.1 m <sup>2</sup>	
<b>DWELLING 1</b>		
GROUND FLOOR:	62.6m <sup>2</sup>	
FIRST FLOOR:	75.6m <sup>2</sup>	
GARAGE:	38.8m <sup>2</sup>	
PORCH:	3.6m <sup>2</sup>	
<b>TOTAL AREA:</b>	<b>180.6m<sup>2</sup></b>	<b>19.4 SD</b>
SECLUDED PRIVATE OPEN SPACE TO REAR (MIN. 3m WIDTH)	38.4 m <sup>2</sup>	
FRONT YARD	68.3 m <sup>2</sup>	
<b>TOTAL PRIVATE OPEN SPACE</b>	<b>106.7 m<sup>2</sup></b>	
<b>CAR PARKING (DOUBLE GARAGE)</b>	2	
<b>DWELLING 2</b>		
GROUND FLOOR:	49.7m <sup>2</sup>	
FIRST FLOOR:	56.0m <sup>2</sup>	
GARAGE:	26.5m <sup>2</sup>	
PORCH:	2.4m <sup>2</sup>	
<b>TOTAL AREA:</b>	<b>134.6m<sup>2</sup></b>	<b>14.5 SD</b>
TOTAL SECLUDED PRIVATE OPEN SPACE TO REAR	41.3m <sup>2</sup>	
<b>TOTAL PRIVATE OPEN SPACE</b>	<b>41.3m<sup>2</sup></b>	
<b>CAR PARKING</b>	1	
<b>DWELLING 3</b>		
GROUND FLOOR:	77.2m <sup>2</sup>	
GARAGE:	23.4m <sup>2</sup>	
PORCH:	2.1m <sup>2</sup>	
<b>TOTAL AREA:</b>	<b>102.7m<sup>2</sup></b>	<b>11.0SD</b>
TOTAL SECLUDED PRIVATE OPEN SPACE TO REAR - RECREATIONAL SPOS (MIN. 3m WIDTH)	60.3m <sup>2</sup>	
<b>TOTAL PRIVATE OPEN SPACE</b>	<b>60.3m<sup>2</sup></b>	
<b>CAR PARKING</b>	1	

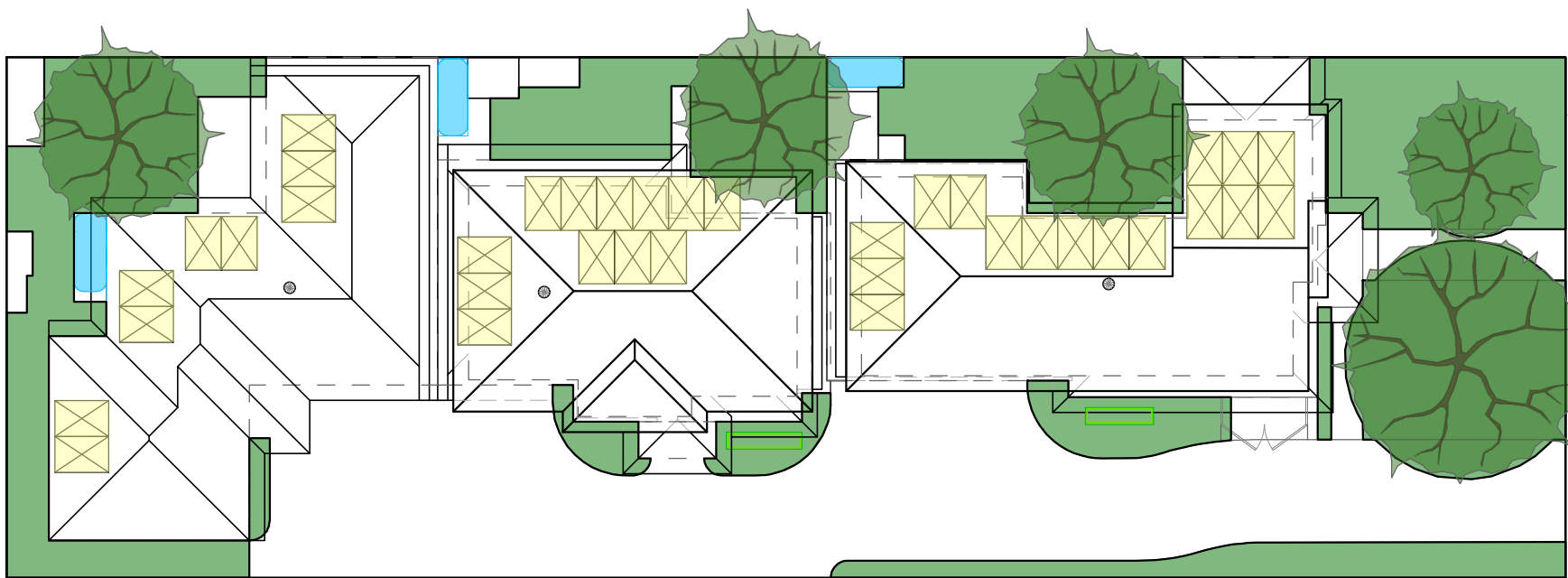
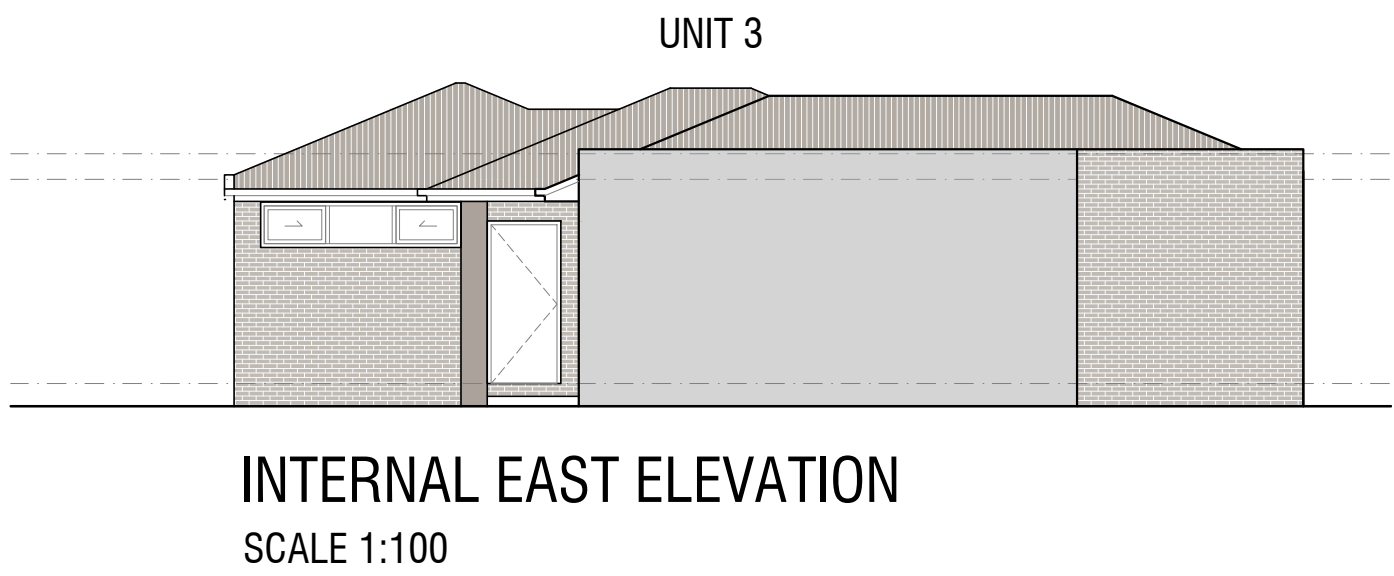
COLOURS & MATERIAL SCHEDULE					
APPLICATION	MATERIAL	COLOUR	COLOUR SAMPLE	HATCH REFERENCE	
WALLS	WEATHERTEX CLADDING	DULUX 'LEXICON - SWIPE3' OR SIMILAR			
WALLS	FACEBRICK	AUSTRAL 'ACCESS STONE' OR SIMILAR			
COLUMNS	RENDER	DULUX 'CALF SKIN' OR SIMILAR			
WINDOW FRAMES, FASCIA, DOWNPIPES, ROLLER DOOR	COLORBOND ALUMINIUM	'SURFMIST' OR SIMILAR			
ROOF & GUTTERS	CUSTOM ORB ROOFING	'DUNE' OR SIMILAR			

ROOF PLAN LEGEND	
	340 watt SOLAR PANELS WITH MULTI-STRING INVERTER
	WHIRLY BIRD
	RAINGARDENS
	RAINWATER TANK AS PER WSUD PLAN
	CHARGED DOWNPIPE
	GRAVITY DOWNPIPE
	DOWNPIPE CONNECTION TO RAINGARDEN
	VEGETATED AREA (LAWN / GARDEN BEDS / CANOPY COVER / MULCH)
	GARDEN AREA

ABBREVIATIONS	
A	AWNING OPENING
C	CASEMENT OPENING
DG	DOUBLE GLAZING
F	FIXED GLAZING
FC	FOLDABLE CLOTHESLINE
FOG	FIXED OBSCURE GLAZING
FCL	FINISHED CEILING LEVEL
FFL	FINISHED FLOOR LEVEL
HLW	HIGHLIGHT WINDOW
01250	OPENING LIMITED TO 125mmØ
0A01250	OBSCURE AWNING OPENING 125mmØ TO 1.7m
OBS	OBSCURE GLAZING
SD	SLIDING DOOR



<b>GARDEN AREA PLAN</b>		
SCALE 1:200		
Garden Area	243.6m <sup>2</sup>	
Site Area	696.0m <sup>2</sup>	
Percentage of site	35.0%	
Garden area is required under the zoning provisions of the Planning Scheme. The garden area excludes driveways and parking areas, landscaped areas less than 1m in width and areas under an eave that is greater than 600mm.		



<b>VEGETATED AREA PLAN</b>		
SCALE 1:200		
Vegetated Area	219.3m <sup>2</sup>	
Site Area	696.0m <sup>2</sup>	
Percentage of site	31.5%	
This vegetated area plan demonstrates how the development achieves the Vegetated Area claimed in the BESS assessment. It shown the area for natural lawn and garden beds. It excludes non-vegetated permeable surfaces such as lilydale topping, gravel, permeable surfaces or timber decking over a permeable surface.		

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Project  
**3 Unit Development Example Project**

Drawing Title  
**Elevations & Shading Devices**

Scale 1:100 @ A1	Date 28 / 06 / 2022
Drawing Number TP02 of 03	Revision A

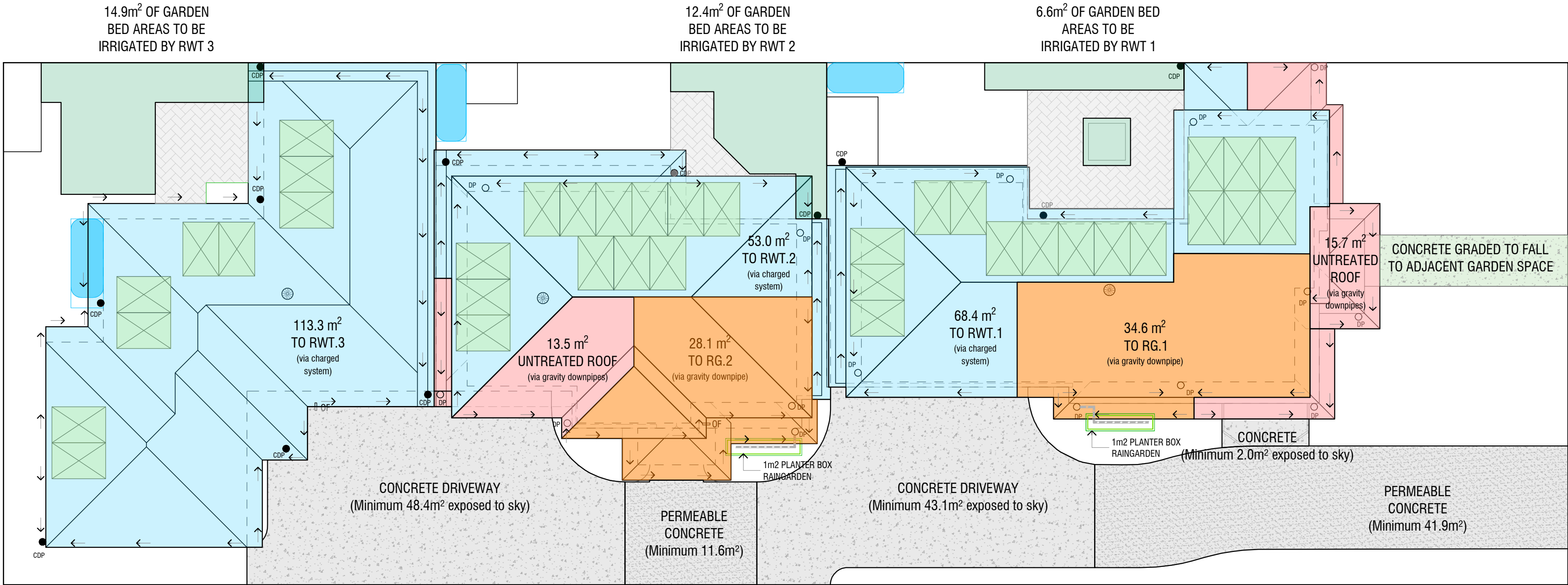




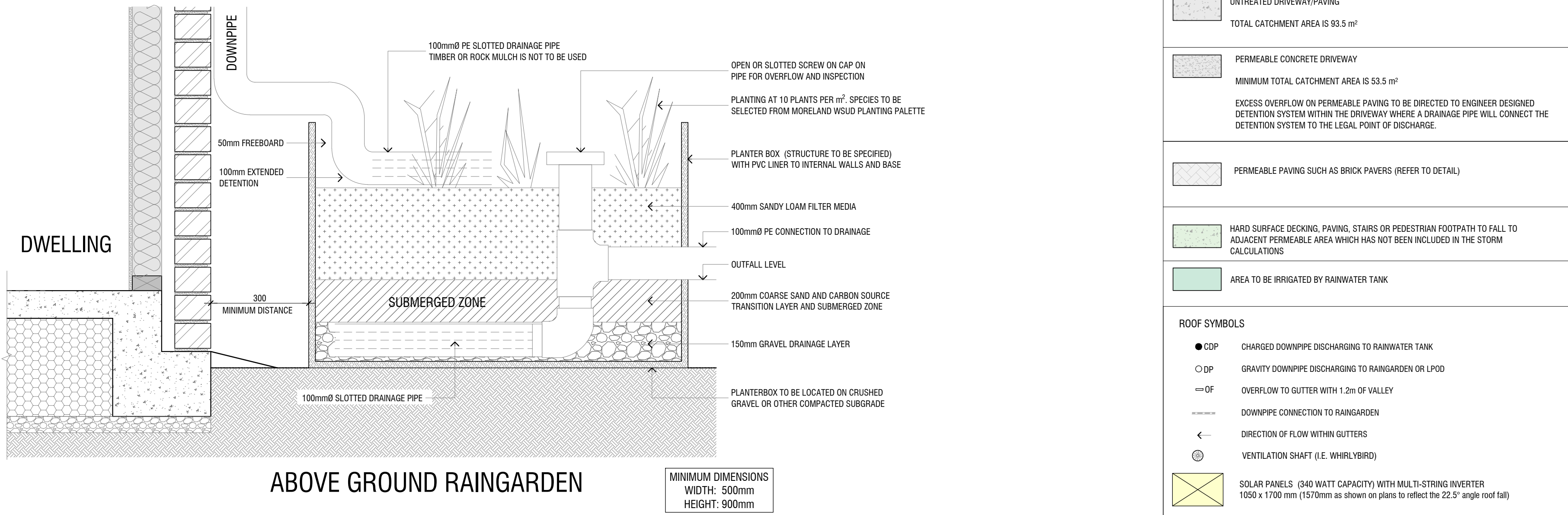
TYPICAL ABOVE-GROUND RAINGARDEN

Melbourne Water STORM Rating Report						
TransactionID:	1395028					
Municipality:	MORELAND					
Rainfall Station:	MORELAND					
Address:	Pascoe Vale VIC 3044					
Assessor:	Akay Architects					
Development Type:	Residential - Multiunit					
Allotment Site (m2):	696.00					
STORM Rating %:	100					
Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Unit 1 to RWT1	68.40	Rainwater Tank	3,000.00	4	170.00	82.00
Unit 2 to RWT2	53.00	Rainwater Tank	3,000.00	3	170.00	82.00
Unit 3 to RWT3	113.30	Rainwater Tank	2,000.00	3	114.00	89.30
Unit 1 to RG1	34.60	Raingarden 100mm	1.00	0	131.15	0.00
Unit 2 to RG2	28.10	Raingarden 100mm	1.00	0	132.00	0.00
Unit 1 untreated roof	15.70	None	0.00	0	0.00	0.00
Unit 2 untreated roof	13.50	None	0.00	0	0.00	0.00
Concrete driveway	93.50	None	0.00	0	0.00	0.00

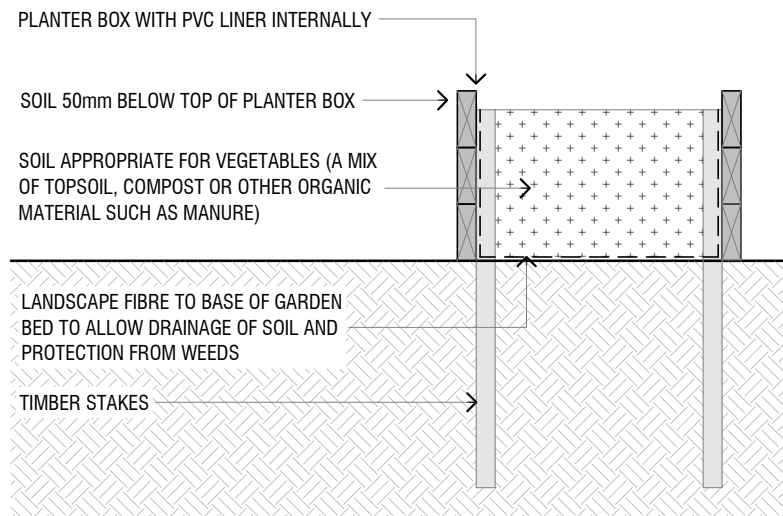
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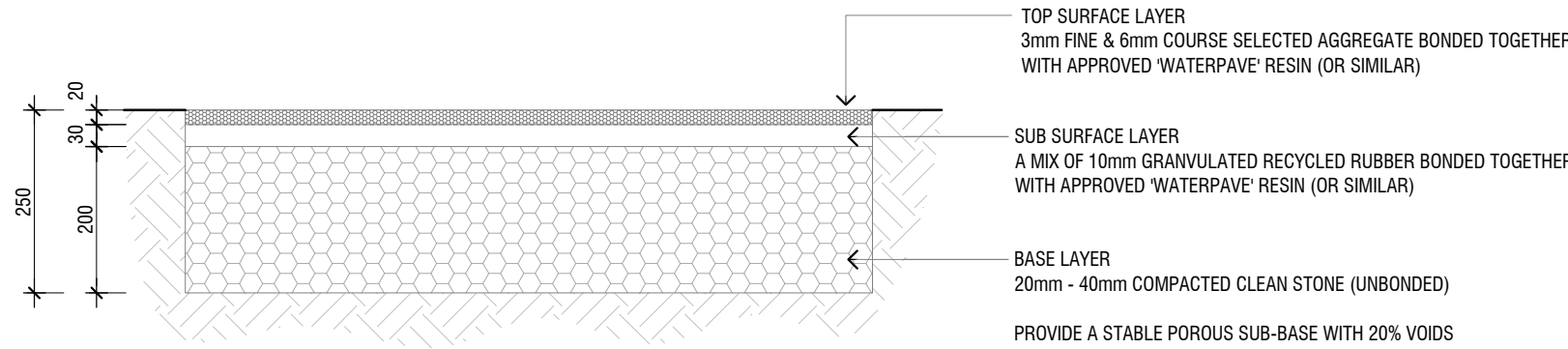
WATER SENSITIVE URBAN DESIGN (WSUD) PLAN  
SCALE 1:100



ABOVE GROUND RAINGARDEN



VEGETABLE GARDEN  
SCALE 1:20



PERMEABLE CONCRETE (FOR VEHICULAR LOADS)  
SCALE 1:10

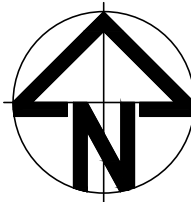
## WSUD LEGEND/TREATMENT METHOD

<div><div>RWT</div></div>	<div>RAIN WATER TANKS</div> <div>3000 LITRES AQUALONG 3008</div> <div>23000 LITRE SQUAT MODLINE</div>	<div>2250mm x 880mm x 1860mm (LxWxH)</div> <div>2300mm x 950mm x 1020mm (LxWxH)</div>
<div>RAIN WATER TANKS ARE TO BE USED ONLY FOR REUSE WITHIN THE DWELLINGS AND ARE COMPLETELY INDEPENDENT OF ANY DETENTION REQUIREMENTS, THROUGH THE L.P.O.D. PROCESS.</div>		
<div></div>	<div>TREATED ROOF AREA TO RAIN WATER TANKS</div>	
<div>TOTAL ROOF CATCHMENT TO TANKS IS 234.7m<sup>2</sup></div> <div><div><div><div>• DWELLING 1 CATCHMENT OF</div><div>68.4 m<sup>2</sup></div><div>TO RWT 1</div></div><div><div>• DWELLING 2 CATCHMENT OF</div><div>53.0 m<sup>2</sup></div><div>TO RWT 2</div></div><div><div>• DWELLING 3 CATCHMENT OF</div><div>113.3 m<sup>2</sup></div><div>TO RWT 3</div></div></div></div>		
<div>METHOD OF DISCHARGE: CHARGED SYSTEM</div>		
<div>CONNECTED TO: TOILETS</div> <div>WASHING MACHINE FOR EACH UNIT</div> <div>IRRIGATION FOR GARDENS BEDS AS FOLLOWS:</div> <div><div><div>RWT1 CONNECTED TO</div><div>6.6m<sup>2</sup> OF GARDEN BEDS</div></div><div><div>RWT2 CONNECTED TO</div><div>12.4m<sup>2</sup> OF GARDEN BEDS</div></div><div><div>RWT3 CONNECTED TO</div><div>14.9m<sup>2</sup> OF GARDEN BEDS</div></div></div>		
<div>ADDITIONAL NOTES: OVERFLOW TO BE CONNECTED TO L.P.O.D</div>		
<div><div>RG</div></div>	<div>100mm ABOVE GROUND PLANTER BOX RAINGARDEN</div>	
<div></div>	<div>TREATED ROOF AREA TO RAINGARDEN</div>	
<div>TOTAL CATCHMENT AREA 62.7m<sup>2</sup></div> <div>DWELLING 1 CATCHMENT OF 34.6m<sup>2</sup> TO DISCHARGE THROUGH RG 1</div> <div>DWELLING 2 CATCHMENT OF 28.1m<sup>2</sup> TO DISCHARGE THROUGH RG 2</div>		
<div>METHOD OF DISCHARGE: GRAVITY FED</div>		
<div>TREATMENT AREA: PLANTER BOX RAINGARDEN</div> <div>1.0m<sup>2</sup> ABOVE GROUND 100mmØ RAINGARDEN</div> <div>(2000mm x 500m x 900mm DEEP)</div>		
<div>ADDITIONAL NOTES: SETBACK MINIMUM 300mm FROM BUILDING/BOUNDARY</div> <div>OVERFLOW TO BE CONNECTED TO L.P.O.D</div>		
<div><div></div></div>	<div>UNTREATED ROOF AREA - 29.2m</div> <div>DWELLING 1 CATCHMENT OF 15.7m<sup>2</sup></div> <div>DWELLING 2 CATCHMENT OF 13.5m<sup>2</sup></div>	
<div>METHOD OF DISCHARGE GRAVITY FED TO L.P.O.D. THROUGH RETENTION SYSTEM</div>		
<div><div></div></div>	<div>UNTREATED DRIVEWAY/PAVING</div> <div>TOTAL CATCHMENT AREA IS 93.5 m<sup>2</sup></div>	
<div><div></div></div>	<div>PERMEABLE CONCRETE DRIVEWAY</div> <div>MINIMUM TOTAL CATCHMENT AREA IS 53.5 m<sup>2</sup></div> <div>EXCESS OVERFLOW ON PERMEABLE PAVING TO BE DIRECTED TO ENGINEER DESIGNED DETENTION SYSTEM WITHIN THE DRIVEWAY WHERE A DRAINAGE PIPE WILL CONNECT THE DETENTION SYSTEM TO THE LEGAL POINT OF DISCHARGE.</div>	
<div><div></div></div>	<div>PERMEABLE PAVING SUCH AS BRICK PAVERS (REFER TO DETAIL)</div>	
<div><div></div></div>	<div>HARD SURFACE DECKING, PAVING, STAIRS OR PEDESTRIAN FOOTPATH TO FALL TO ADJACENT PERMEABLE AREA WHICH HAS NOT BEEN INCLUDED IN THE STORM CALCULATIONS</div>	
<div><div></div></div>	<div>AREA TO BE IRRIGATED BY RAINWATER TANK</div>	
<div>ROOF SYMBOLS</div> <div><div><div>● CDP</div><div>CHARGED DOWNPIPE DISCHARGING TO RAINWATER TANK</div></div><div><div>○ DP</div><div>GRAVITY DOWNPIPE DISCHARGING TO RAINGARDEN OR LPD</div></div><div><div>⇒ OF</div><div>OVERFLOW TO GUTTER WITH 1.2m OF VALLEY</div></div><div><div><div>DOWNPIPE CONNECTION TO RAINGARDEN</div></div></div><div><div>←</div><div>DIRECTION OF FLOW WITHIN GUTTERS</div></div><div><div><div>VENTILATION SHAFT (I.E. WHIRLYBIRD)</div></div></div></div>		
<div><div></div></div>	<div>SOLAR PANELS (340 WATT CAPACITY) WITH MULTI-STRING INVERTER</div> <div>1050 x 1700 mm (1570mm as shown on plans to reflect the 22.5° angle roof fall)</div>	



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Project  
3 Unit Development  
Example Project

Drawing Title  
Water Sensitive Urban Design Plan

Scale 1:100 @ A1	Date 28 / 06 / 2022
Drawing Number TP03 of 03	Revision A