

# WESTFIELD PENRITH MONDO

## DEVELOPMENT APPLICATION

CIVIL DRAWING LIST

GENERAL

C001 COVER SHEET AND DRAWING LIST

SITE PREPARATION

C101 EROSION AND SEDIMENT CONTROL PLAN

C111 EROSION AND SEDIMENT CONTROL DETAILS

STORMWATER DRAINAGE

C201 STORMWATER MANAGEMENT PLAN

C221 STORMWATER CATCHMENT PLAN

C231 OSD TANK PLAN, CATCHMENT PLAN AND DETAILS



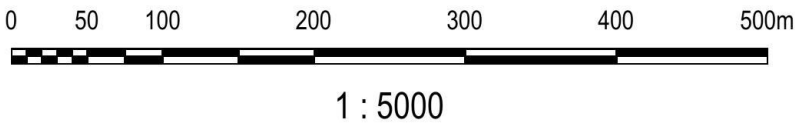
LOCALITY PLAN  
1 : 5000

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03	FINAL ISSUE FOR DEVELOPMENT APPLICATION	27/02/19
02	REVISED ISSUE FOR CLIENT REVIEW	24/08/18
01	ISSUE FOR CLIENT REVIEW	06/06/18
Issue	Description	Date




Client

**SCENTRE GROUP**

Owner and Operator of *Westfield* in Australia and New Zealand

Status <b>DEVELOPMENT APPLICATION NOT TO BE USED FOR CONSTRUCTION</b>	
Scales	1 : 5000
Original	A1
Height Datum	AHD
Grid	MGA
Filename:	C001-10019736-04-nsd-CoverSheetAndDrawingList.dwg
Current Issue Signatures	
Drawn A.ZHAO	
Designed C.DING	
Checked D.BEN-AVRAHAM	
Approved D.BEN-AVRAHAM	

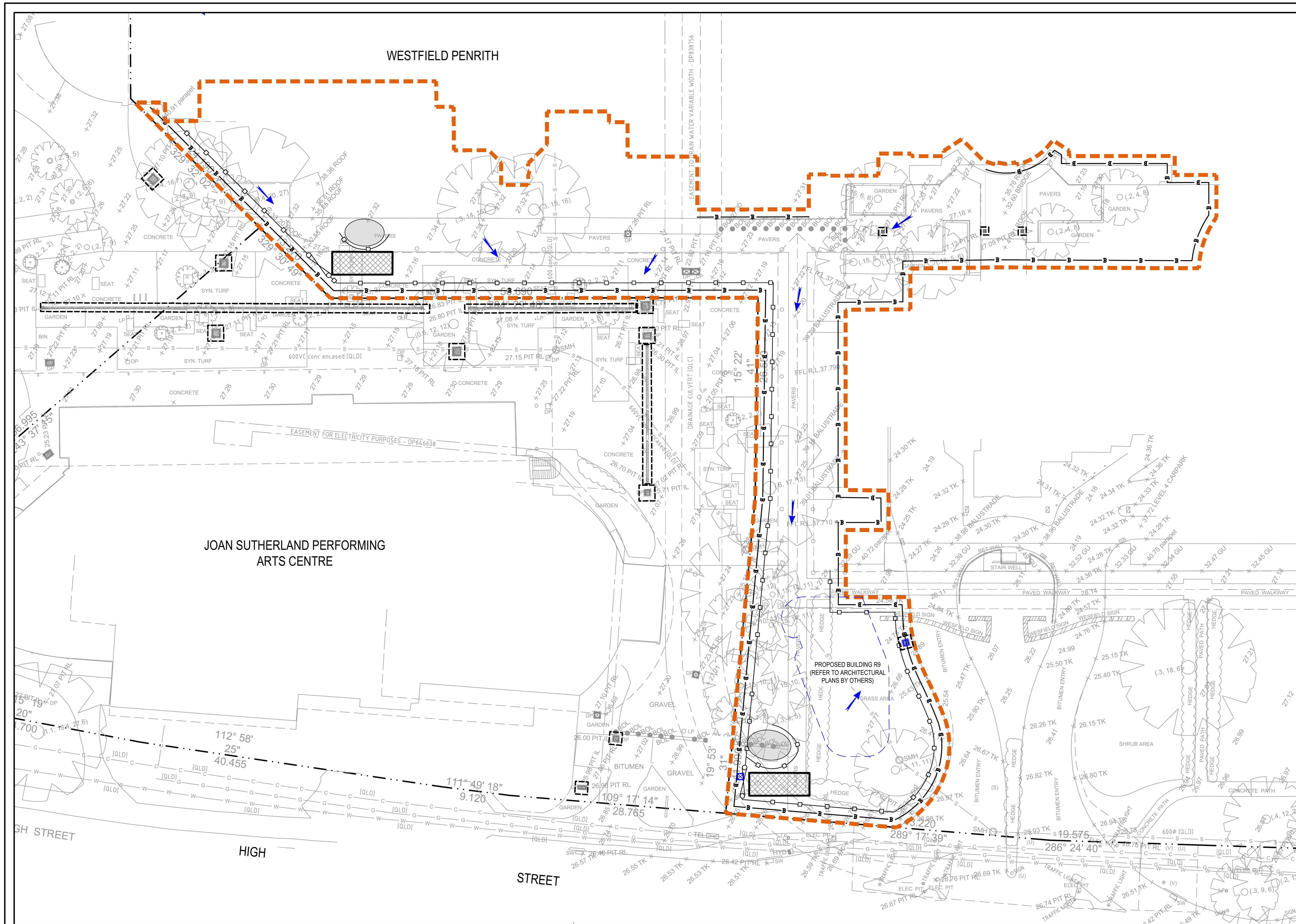
Project <b>WESTFIELD PENRITH MONDO REDEVELOPMENT</b>
Title <b>COVER SHEET AND DRAWING LIST</b>

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Drawing No.	Project No.	Issue
C001	10019736 - 04	03





- LEGEND**
- PROPOSED LIMIT OF WORKS BOUNDARY
  - PROPOSED SEDIMENT FENCE (SD 6-8)
  - PROPOSED 1.8m HIGH CHAINWIRE BARRIER FENCE (LOCATION TO BE CONFIRMED ON SITE BY CONTRACTOR)
  - PROPOSED GEOTEXTILE INLET FILTER (SD 6-12)
  - PROPOSED STABILISED SITE ACCESS (SD 6-14)
  - PROPOSED GATE
  - OVERLAND FLOW DIRECTION
  - PROPOSED TEMPORARY STOCKPILE (SD 4-1)
  - EXISTING GRATED STORMWATER PIT
  - EXISTING SEALED STORMWATER PIT
  - EXISTING GRATED TRENCH DRAIN
  - PROPOSED SEALED STORMWATER PIT
  - PROPOSED GRATED STORMWATER PIT

- NOTES**
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL / RELEVANT AUTHORITY SPECIFICATIONS AND DETAILS.
  - ALL SEDIMENT AND SOIL EROSION CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH THE 'BLUE BOOK' CONTRACTOR TO ENSURE THESE MEASURES ARE IN PLACE AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION WORKS.

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0 5 10 15 20 25m  
1 : 250



Client  
**SCENTRE GROUP**  
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Scales	1 : 250	Current Issue Signatures
	Drawn A.ZHAO	
Original	A1	Designed C.DING
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Grid	MGA	Approved D.BEN-AVRAHAM
Filename: C101-10019736-04-nsd-ErosionAndSedimentControlPlan.dwg		

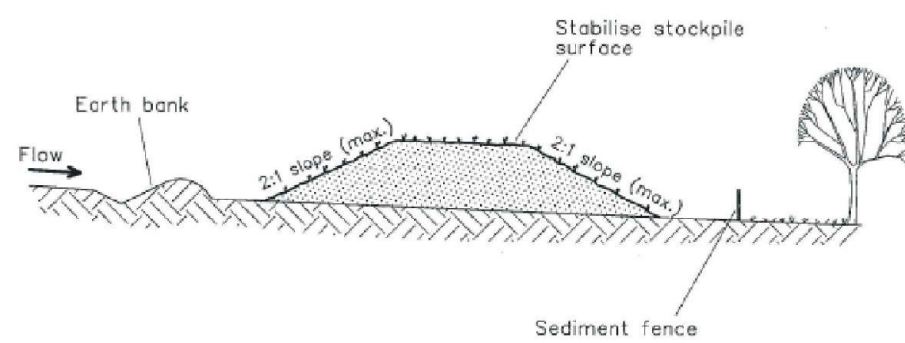
Project  
**WESTFIELD PENRITH MONDO  
REDEVELOPMENT**

Title  
**EROSION AND SEDIMENT  
CONTROL PLAN**

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Drawing No. C101 - 10019736 - 04 - 03  
Project No.  
Issue

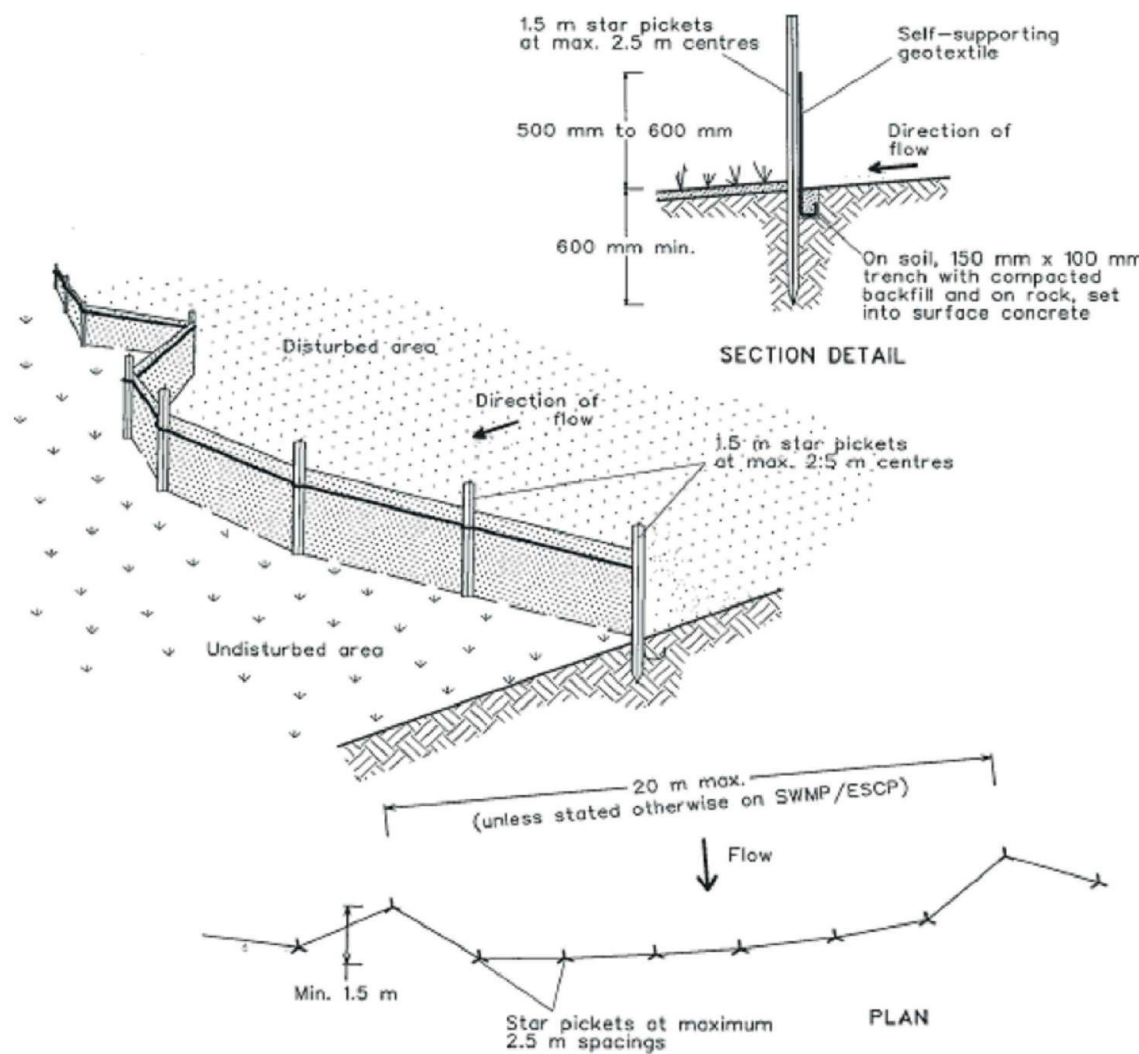




Construction Notes

- Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
- Construct on the contour as low, flat, elongated mounds.
- Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
- Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
- Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

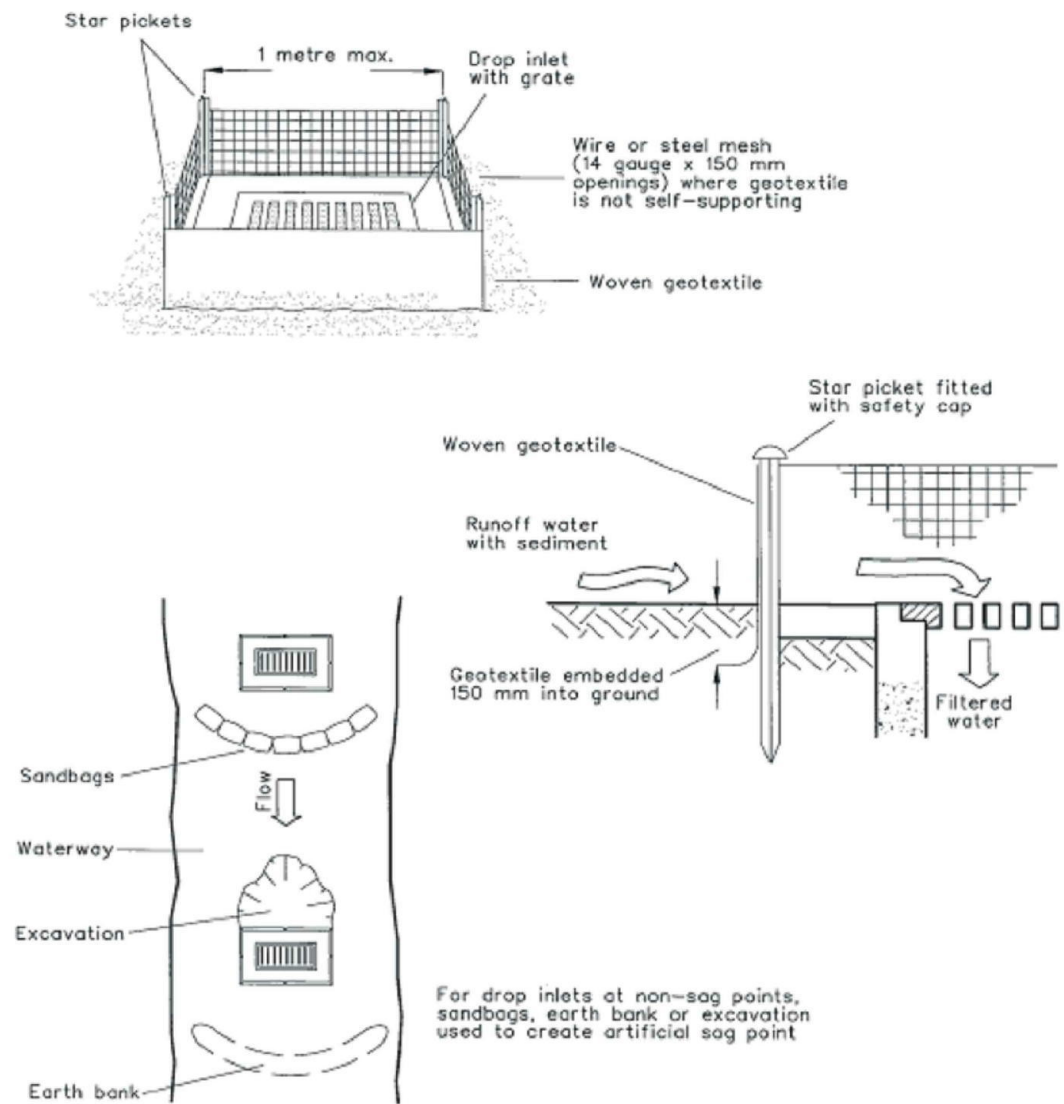
TEMPORARY STOCKPILES (SD 4-1)



Construction Notes

- Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
- Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
- Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
- Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory.
- Join sections of fabric at a support post with a 150-mm overlap.
- Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

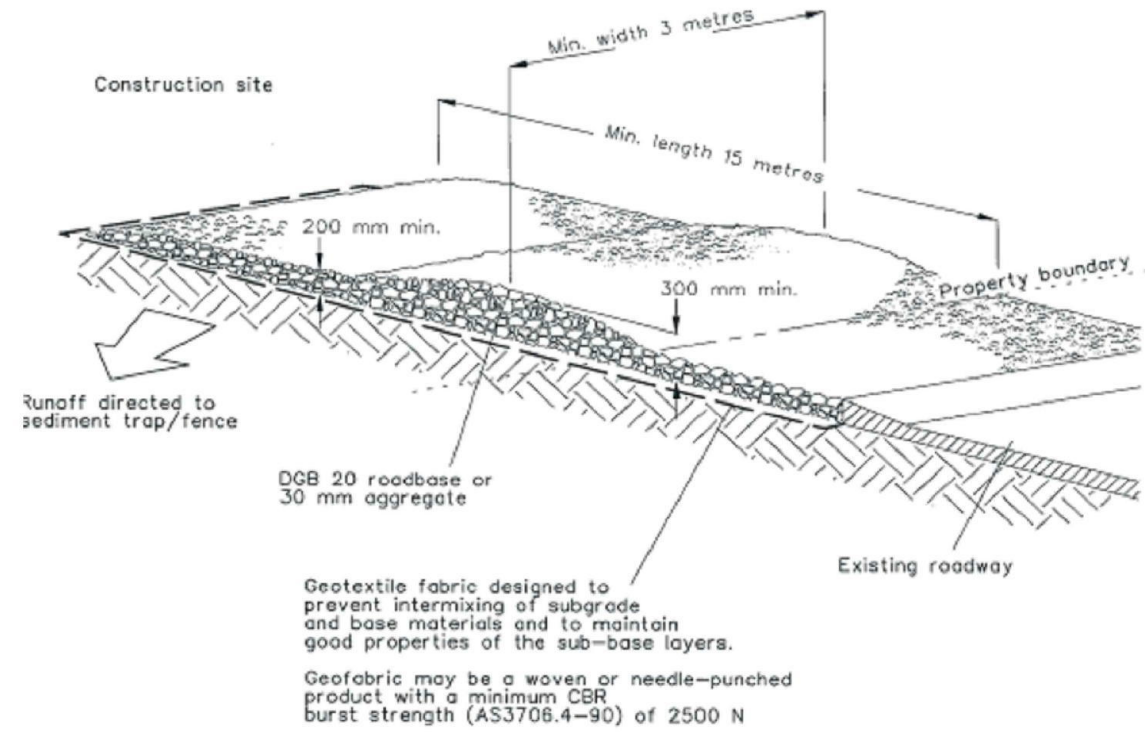
SEDIMENT FENCE (SD 6-8)



Construction Notes

- Fabricate a sediment barrier made from geotextile or straw bales.
- Follow Standard Drawing 6-7 and Standard Drawing 6-8 for installation procedures for the straw bales or geofabric. Reduce the picket spacing to 1 metre centres.
- In waterways, artificial sag points can be created with sandbags or earth banks as shown in the drawing.
- Do not cover the inlet with geotextile unless the design is adequate to allow for all waters to bypass it.

GEOTEXTILE INLET FILTER (SD 6-12)



Construction Notes

- Strip the topsoil, level the site and compact the subgrade.
- Cover the area with needle-punched geotextile.
- Construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.
- Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
- Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

STABILISED SITE ACCESS (SD 6-14)

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Client

SCENTRE GROUP

Owner and Operator of *Westfield* in Australia and New Zealand

Status	DEVELOPMENT APPLICATION NOT TO BE USED FOR CONSTRUCTION	
Scales	N.T.S.	Current Issue Signatures
		Drawn A.ZHAO
Original	A1	Designed C.DING
Height Datum	AHD	Checked D.BEN-AVRAHAM
Grid	MGA	Approved D.BEN-AVRAHAM
Filename: C111-10019736-04-nsd-ErosionAndSedimentControlDetails.dwg		

Project

WESTFIELD PENRITH MONDO  
REDEVELOPMENT

Title

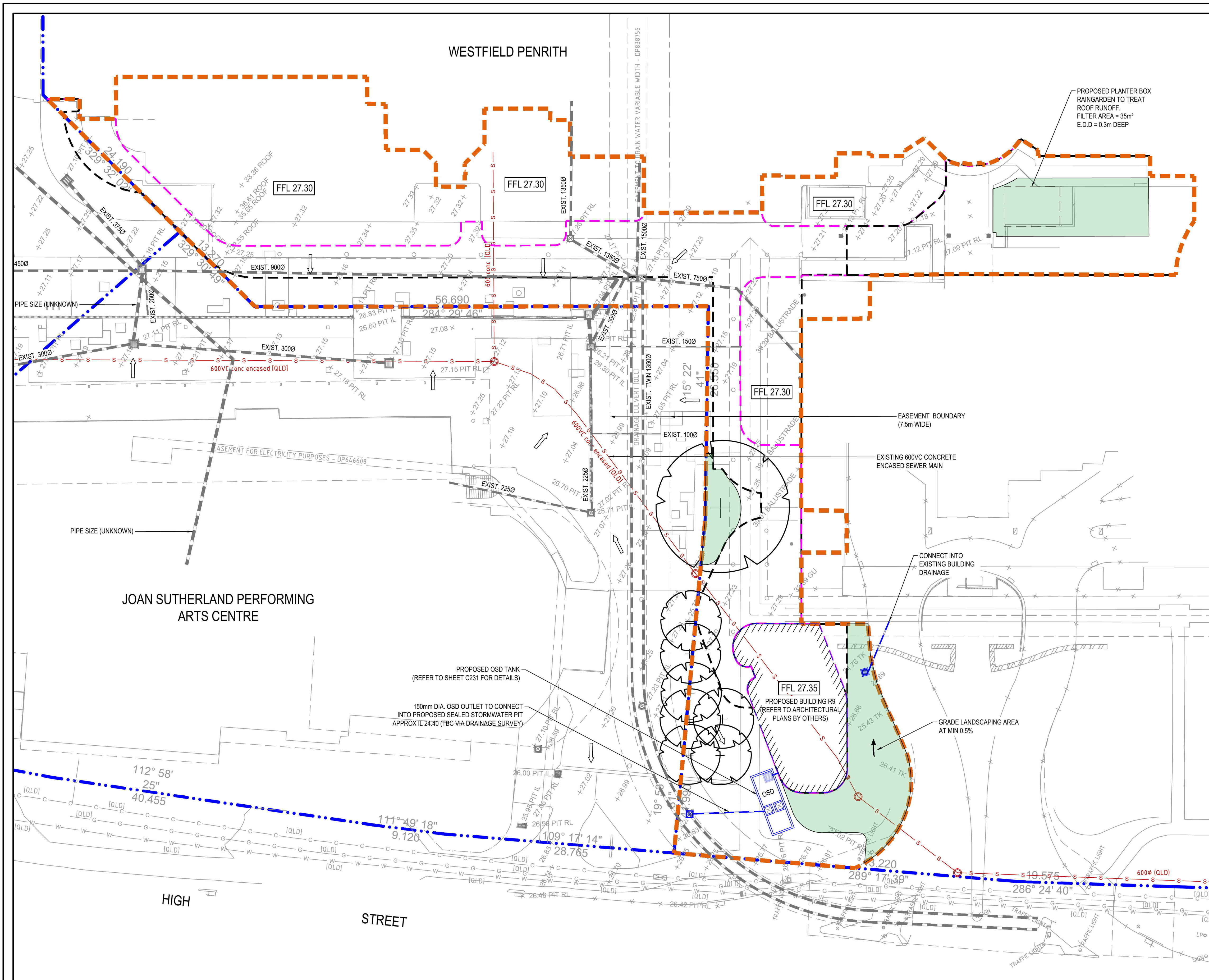
EROSION AND SEDIMENT  
CONTROL DETAILS

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Drawing No. | Project No. | Issue

C111 | 10019736 - 04 | 03





## NOTES

- ALL EXISTING STORMWATER DRAINAGE INFRASTRUCTURE TO BE RETAINED UNLESS NOTED OTHERWISE.
- SUBSOIL DRAINAGE TO BE INCORPORATED INTO ALL LANDSCAPED AREAS.
- SERVICES SHOWN ARE INDICATIVE ONLY AND WERE OBTAINED FROM A DBYD (QUALITY LEVEL D). DETAILED SURVEY OF ALL SERVICES TO BE CONDUCTED TO QUALITY LEVEL A PRIOR TO DETAILED DESIGN.
- DETAILED DRAINAGE SURVEY TO BE CONDUCTED PRIOR TO DETAILED DESIGN TO CONFIRM INVERT LEVELS AND DIMENSIONS OF ALL EXISTING STORMWATER DRAINAGE INFRASTRUCTURE.
- EXISTING STORMWATER DRAINAGE PIPES NOT DRAWN TO SCALE.

## LEGEND

- PROPOSED LIMIT OF WORKS BOUNDARY
- EXISTING LOT BOUNDARY
- PROPOSED ROOF BOUNDARY
- PROPOSED BUILDING LINE
- EXIST #375
- EXISTING STORMWATER DRAINAGE PIPE
- EXISTING GRATED STORMWATER PIT
- EXISTING SEALED STORMWATER PIT
- EXISTING GRATED TRENCH DRAIN
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED GRATED STORMWATER PIT
- PROPOSED SEALED STORMWATER PIT
- LANDSCAPING - REFER TO LANDSCAPE PLANS BY OTHERS
- EXISTING SEWER PIPE
- FLOW DIRECTION

## WATER QUALITY TREATMENT NODES:

- 5KL RAINWATER TANK  
- TO BE INSTALLED FOR PROPOSED FOOD PREMISE R9
- 3KL RAINWATER TANK  
- TO BE INSTALLED FOR EACH PROPOSED FOOD PREMISES R2, R3, R5 AND R6
- STORMWATER 360 ENVIROPOD (20LS)  
- TO BE INSTALLED IN ALL EXISTING AND PROPOSED GRATED STORMWATER PITS
- STORMWATER 360 PSORB FILTER CARTRIDGE (HEIGHT: 690mm)  
- TO BE INSTALLED INSIDE PROPOSED OSD TANK
- PLANTER BOX RAINGARDEN  
- TO BE INCORPORATED WITHIN PROPOSED LANDSCAPE PLANTER BOX  
- EXTENDED DETENTION DEPTH = 300mm  
- FILTER AREA = 35m<sup>2</sup>

## TREATMENT STANDARDS:

POLLUTANT	REDUCTION TARGET	REDUCTION ACHIEVED
GROSS POLLUTANTS	90%	100%
TOTAL SUSPENDED SOLIDS	85%	85.8%
TOTAL PHOSPHORUS	60%	61.6%
TOTAL NITROGEN	45%	57.4%

\* MUSIC MODEL PARAMETERS AND POLLUTANT REDUCTION TARGETS IN ACCORDANCE WITH PENRITH CITY COUNCIL - WSUD TECHNICAL GUIDELINES VERSION 3 (JUNE 2015) AND MUSIC V6.3  
PENRITH CITY COUNCIL MUSIC-LINK  
\*\* NOTE THAT EXISTING AREAS WITHIN THE PRIVATE DOMAIN NOT SUBJECT TO REDEVELOPMENT WORKS AND EXISTING HARDSTAND BYPASS AREAS WERE EXCLUDED FROM THE MUSIC MODEL AS THEY WILL REMAIN CONSISTENT WITH PRE-DEVELOPMENT CONDITIONS

## NON-POTABLE SITE WATER DEMANDS:

USAGE	RATE	DEMAND
TOILETS WITHIN FOOD PREMISES R2, R3, R5, R6 AND R9 (ASSUME 12 TOILETS TOTAL)	0.1 KL/TOILET/DAY	438 KL/YEAR
LANDSCAPE IRRIGATION (330 m2 OF ADJACENT LANDSCAPING)	0.4 KL/m2/YEAR	132 KL/YEAR

NON-POTABLE SITE WATER DEMANDS IN ACCORDANCE WITH PENRITH CITY COUNCIL - WSUD TECHNICAL GUIDELINES VERSION 3 (JUNE 2015)

## OSD TANK REQUIREMENTS:

LAND USE	PSD (L/s/ha)	SSR (m3/ha)
COMMERCIAL	120	280

PENRITH CITY COUNCIL - STORMWATER DRAINAGE GUIDELINES FOR BUILDING DEVELOPMENTS (28 NOVEMBER 2016) TABLE 7

AREA BYPASSING (% OF TOTAL OSD CATCHMENT)	PERMISSIBLE OSD DISCHARGE (L/s/ha)	REQUIRED OSD STORAGE (m3/ha) FOR COMMERCIAL DEVELOPMENTS
11%	52.9	429

PENRITH CITY COUNCIL - STORMWATER DRAINAGE GUIDELINES FOR BUILDING DEVELOPMENTS (28 NOVEMBER 2016) TABLE 8

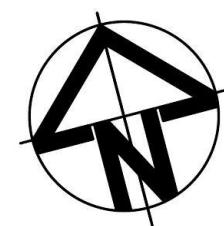
CATCHMENT AREA TO OSD TANK = 0.066 ha  
CATCHMENT AREA TO BYPASS = 0.008 ha  
TOTAL CATCHMENT AREA = 0.074 ha  
PERCENT OF TOTAL CATCHMENT AREA TO BYPASS = 11%  
PSD REQUIREMENT = 8.34 L/s  
SSR REQUIREMENT = 26 m<sup>3</sup>

## OSD TANK AND ORIFICE DETAILS:

PSD ACHIEVED = 8.32 L/s  
VOLUME ACHIEVED = 27.5 m<sup>3</sup>  
REFER TO SHEET C231 FOR MORE DETAILS

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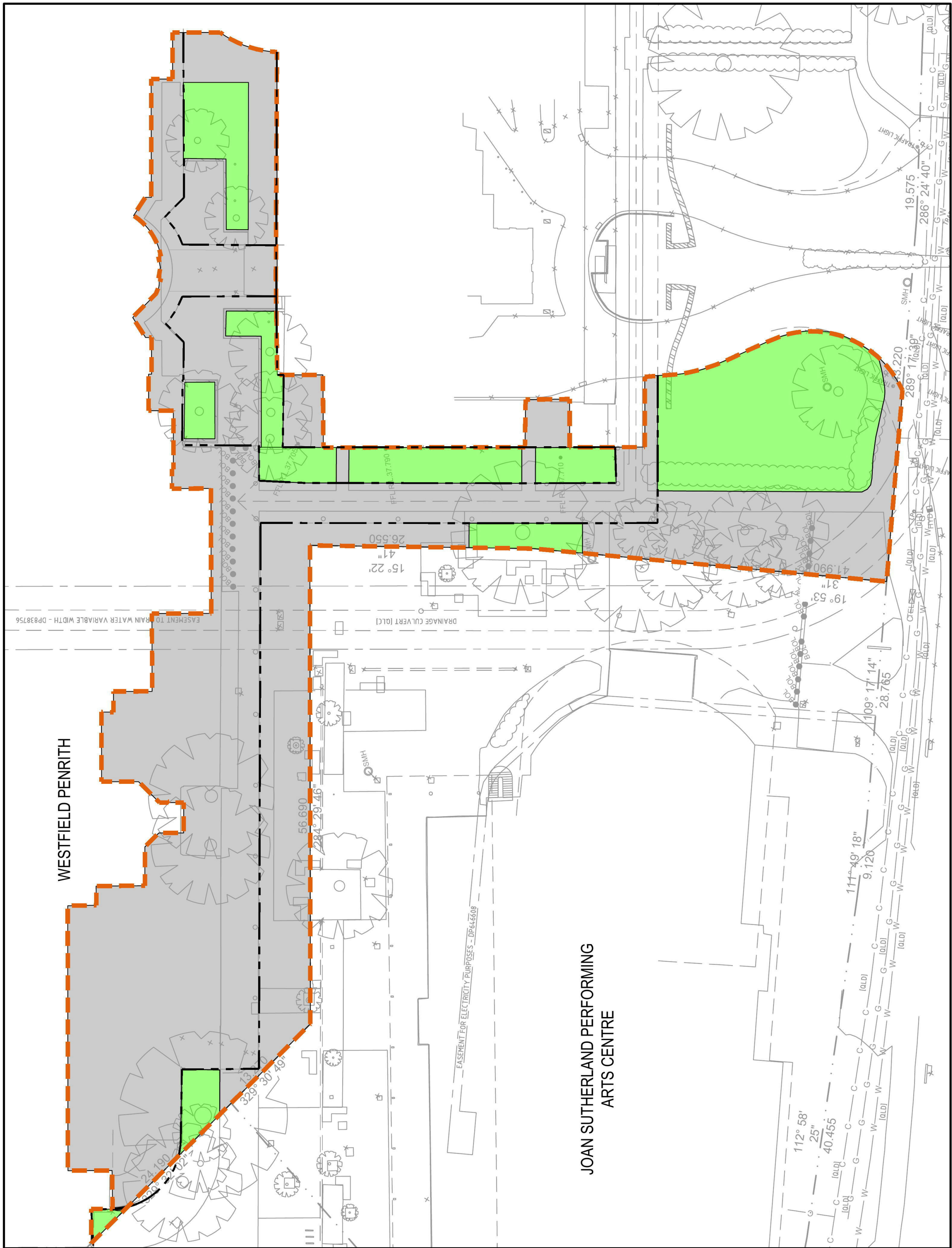
Client  
**SCENTRE GROUP**  
Owner and Operator of **Westfield** in Australia and New Zealand

Status	DEVELOPMENT APPLICATION NOT TO BE USED FOR CONSTRUCTION
Scales	1:250
Original	A1
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Project  
**WESTFIELD PENRITH MONDO REDEVELOPMENT**  
Title  
**STORMWATER MANAGEMENT PLAN**

**ARCADIS**  
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Drawing No. **C201** - Project No. **10019736 - 04** - Issue **03**

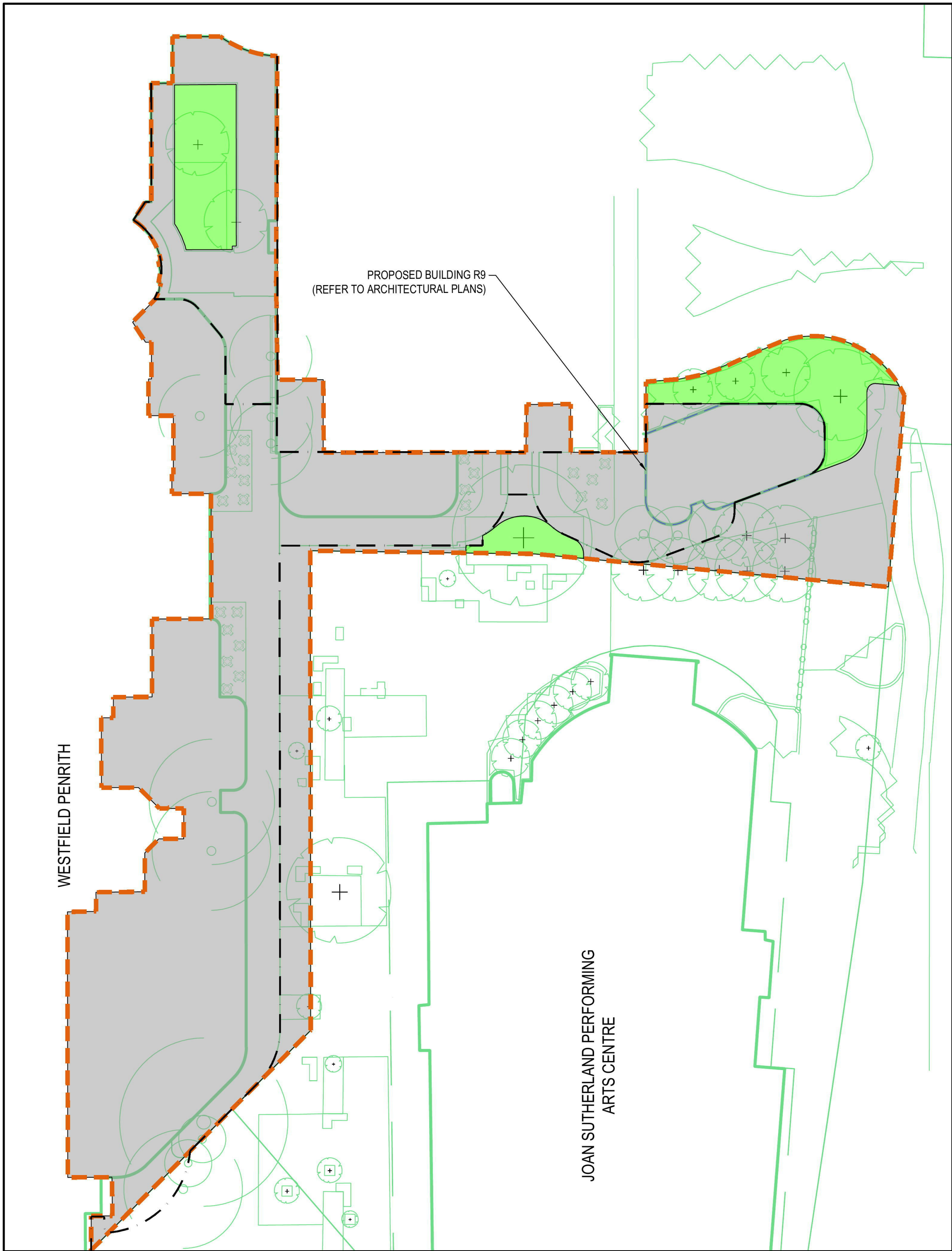




EXISTING CATCHMENT PLAN

SCALE: 1:350

SURFACE TREATMENT	AREA (m2)
IMPERVIOUS	2920
PERVIOUS	849
TOTAL	3769



PROPOSED CATCHMENT PLAN

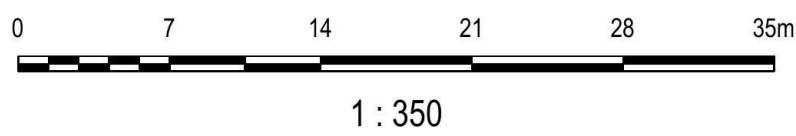
SCALE: 1:350

SURFACE TREATMENT	AREA (m2)
IMPERVIOUS	3399
PERVIOUS	370
TOTAL	3769

LEGEND

- PROPOSED LIMIT OF WORKS BOUNDARY
- EXISTING ROOF BOUNDARY
- PROPOSED ROOF BOUNDARY
- IMPERVIOUS (CONCRETE PAVING, GRAVEL, SYNTHETIC TURF AND ROOF)
- PERVIOUS (VEGETATED LANDSCAPING)

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Project

**WESTFIELD PENRITH MONDO REDEVELOPMENT**

Title

**STORMWATER CATCHMENT PLAN**

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Issue



