

STORMWATER MANAGEMENT DETAILS

TOTAL SITE AREA = 5191m²
REFURBISHED/ADDITIONAL ROOF AREA = 1920m²

STORAGE

FROM NEWCASTLE CITY COUNCIL DCP SECTION 7.06 STORMWATER, THE VOLUME OF SITE STORAGE REQUIRED IS 25mm PER m² (FIGURE 1). THE PROPOSED ADDITIONAL/REFURBISHED ROOF AREA IS 1,920m². THERE IS NIL INCREASE IN IMPERVIOUS LANDSCAPING AREA COMPARED TO EXISTING CONDITIONS. THEREFORE THE TOTAL SITE STORAGE

= 25mm x 1920m²
= 48kL

A 50kL RAINWATER TANK IS PROPOSED TO RECEIVE RUNOFF FROM THE ENTIRE ADDITIONAL/REFURBISHED ROOF AREA. THIS IS GREATER THAN THE 48kL MINIMUM TOTAL SITE STORAGE CALCULATED ABOVE.

DRAWDOWN

STORED WATER WILL BE USED BY CONNECTING THE RAINWATER TANK TO TOILET CISTERNS AND LANDSCAPE IRRIGATION.

WATER QUALITY

ALL RUNOFF COLLECTED BY ROOF AREAS IS TO BE PASSED THROUGH AN APPROVED FIRST FLUSH DEVICE AND DIRECTED TO THE RAINWATER TANK. RUNOFF FROM AT LEAST 90% OF PAVED AREAS IS DIRECTED TOWARDS LANDSCAPING AND/OR SWALE TREATMENT PRIOR TO DISCHARGING FROM THE SITE.

NOTES:

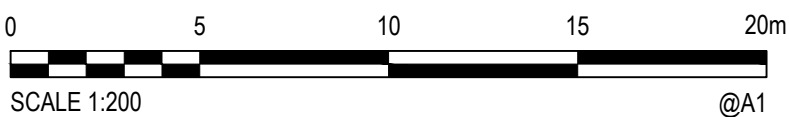
1. DOWNPIPES TO PASS THROUGH APPROVED FIRST FLUSH DEVICE PRIOR TO DISCHARGE TO RAINWATER TANK.
2. LOCATION OF EXISTING SERVICES TO BE CONFIRMED DURING DETAILED DESIGN.

PLAN
SCALE 1:200

LEGEND

	PROPOSED STORMWATER PIT		EXISTING WATER
	PROPOSED STORMWATER PIPE AND SIZE		EXISTING OPTIC FIBRE
	PROPOSED DOWNPIPE		EXISTING ELECTRICITY
	PROPOSED SUBSOIL PIPE AND CLEAN OUT		EXISTING ELECTRICITY UNDERGROUND
	PROPOSED SWALE		EXISTING GAS
	PROPOSED GRATED DRAIN		EXISTING COMMUNICATIONS
	EXISTING PIPE		EXISTING SEWER
			EXISTING SURFACE CONTOURS (INTERVAL = 0.5m)

Rev.	Date	Description	Des.	Verif.	Appd.
2	18/12/18	ISSUED FOR DEVELOPMENT APPLICATION	JS	SGB	-
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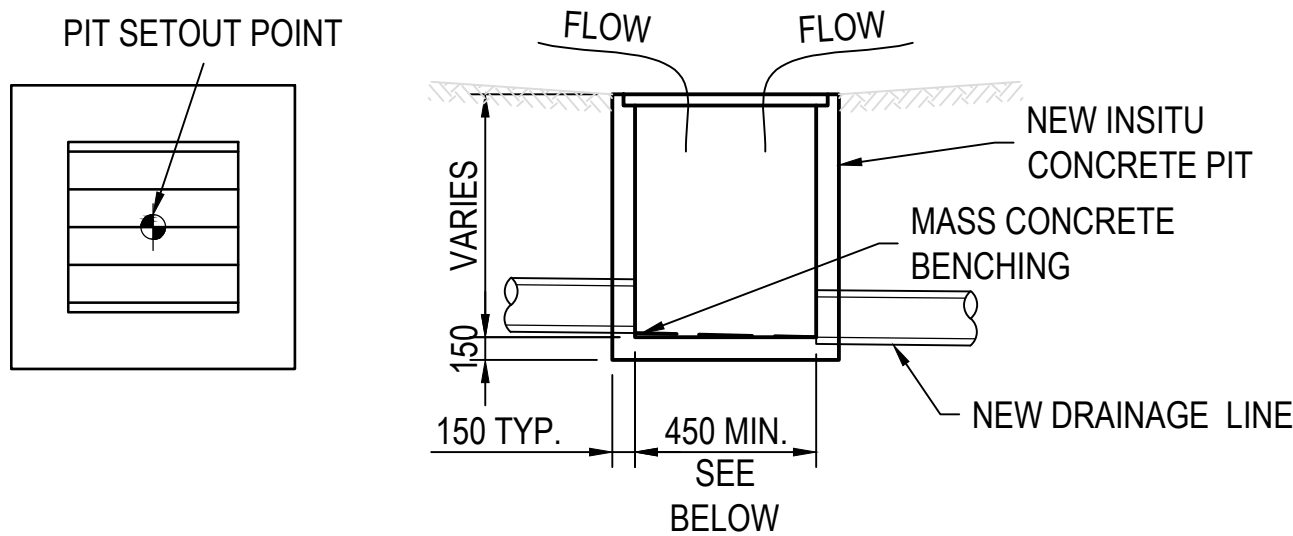
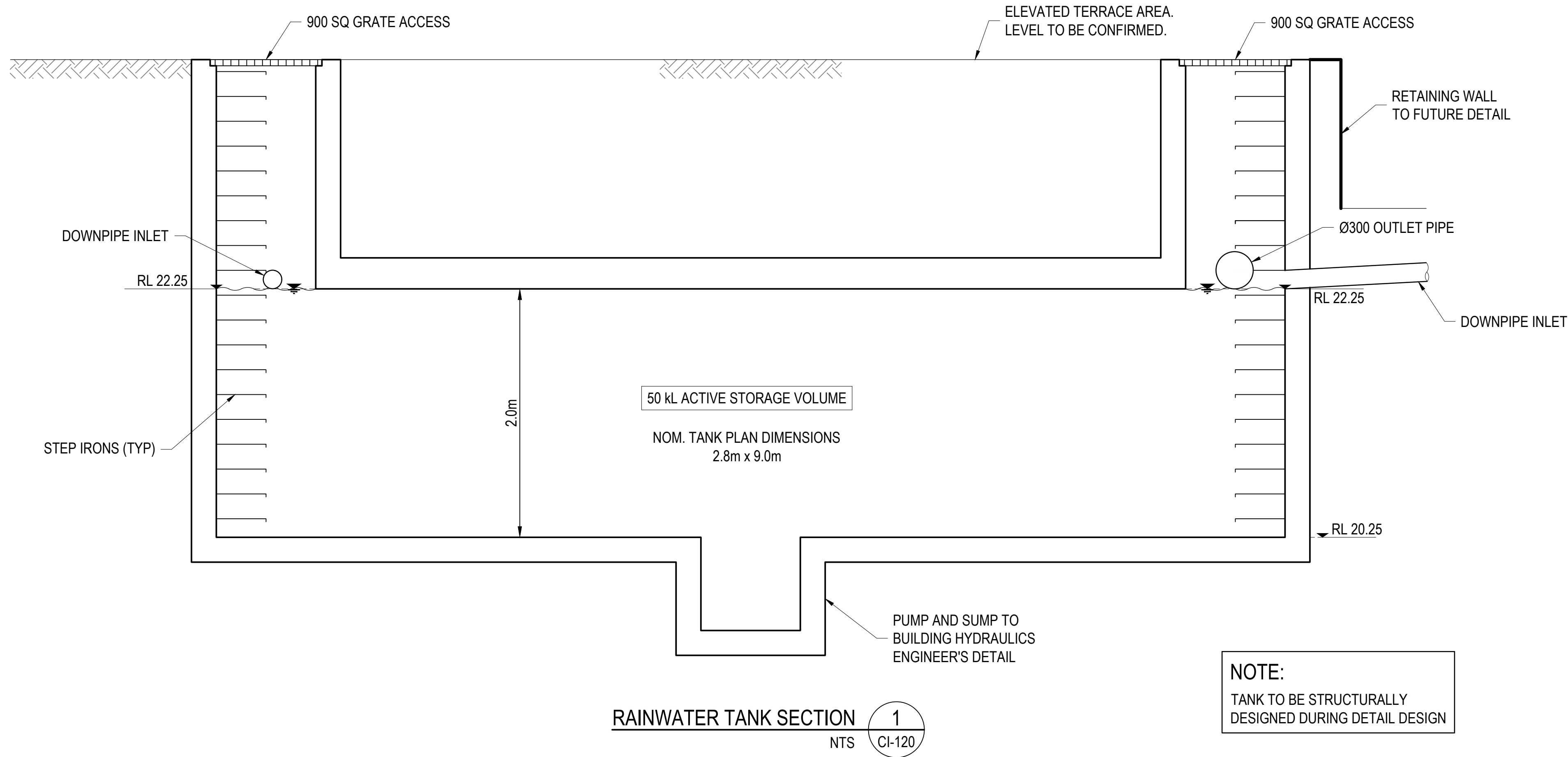


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Drawn LDB	Date DEC 2018	Client AZUSA SEKKI
Checked JS	Date DEC 2018	Project NIHON UNIVERSITY
Designed JS	Date DEC 2018	AUSTRALIA NEWCASTLE CAMPUS PROJECT
Verified SGB	Date DEC 2018	9 CHURCH STREET, NEWCASTLE
Approved	Date	Title CONCEPT STORMWATER DESIGN
		STORMWATER MANAGEMENT PLAN

Status	FOR APPROVAL			
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AHD	-	1:200	A1	
Drawing Number				Revision
81019007-CI-120				2



- GRADED SURFACE INLET PIT DETAIL**
NTS
- 450 x 450 PLAN INTERNAL PIT DIMENSIONS FOR PITS LESS THAN OR EQUAL TO 600 DEEP
600 x 600 PLAN INTERNAL PIT DIMENSIONS FOR PITS 601 TO 900 DEEP
600 x 900 PLAN INTERNAL PIT DIMENSIONS FOR PITS 901 TO 1200 DEEP
900 x 900 PLAN INTERNAL PIT DIMENSIONS FOR PITS GREATER THAN 1200 DEEP
- PIT CONSTRUCTION NOTES:**
- DIMENSIONS ARE IN MILLIMETRES.
 - DO NOT SCALE DRAWING.
 - CONCRETE COMPRESSIVE STRENGTH $F'c = 25 \text{ MPa}$.
 - SIDE WALLS OF ALL PITS DEEPER THAN 1500 ARE TO BE REINFORCED WITH ONE LAYER OF SL82 MESH CENTRALLY FOLDED 300 INTO BASE. HORIZONTAL CORNER BARS CONSISTING OF N12 AT 400 CENTRES WITH CORNER LEGS 400 LONG SHOULD BE INSTALLED AT ALL FOUR CORNERS FOR THE FULL HEIGHT OF PIT.
 - DEPTH OF PIT NOT TO EXCEED 3500.
 - PITS DEEPER THAN 1200 TO BE FITTED WITH GALVANISED STEP IRONS.
 - ALL EXPOSED PIT EDGES TO BE ROUNDED WITH 20 RADIUS.
 - GRATING AND FRAME TO BE WELDLOK GALVANISED STEEL SUMP GRATE OR APPROVED EQUIVALENT. GRATING TO BE AS FOLLOWS:
 - ROADWAYS CLASS D
 - CARPARKING CLASS D
 - LANDSCAPING CLASS B
 - SHAPE ADJACENT SURFACE AREAS TO ASSIST WATER COLLECTION.
 - PRECAST CONCRETE PITS MAY BE SUBSTITUTED SUBJECT TO APPROVAL.
 - BUILD INTO UPSTREAM FACE OF ALL PITS A 3 METRE SUBSOIL LINE FALLING INTO PITS TO MATCH PIT INVERT.

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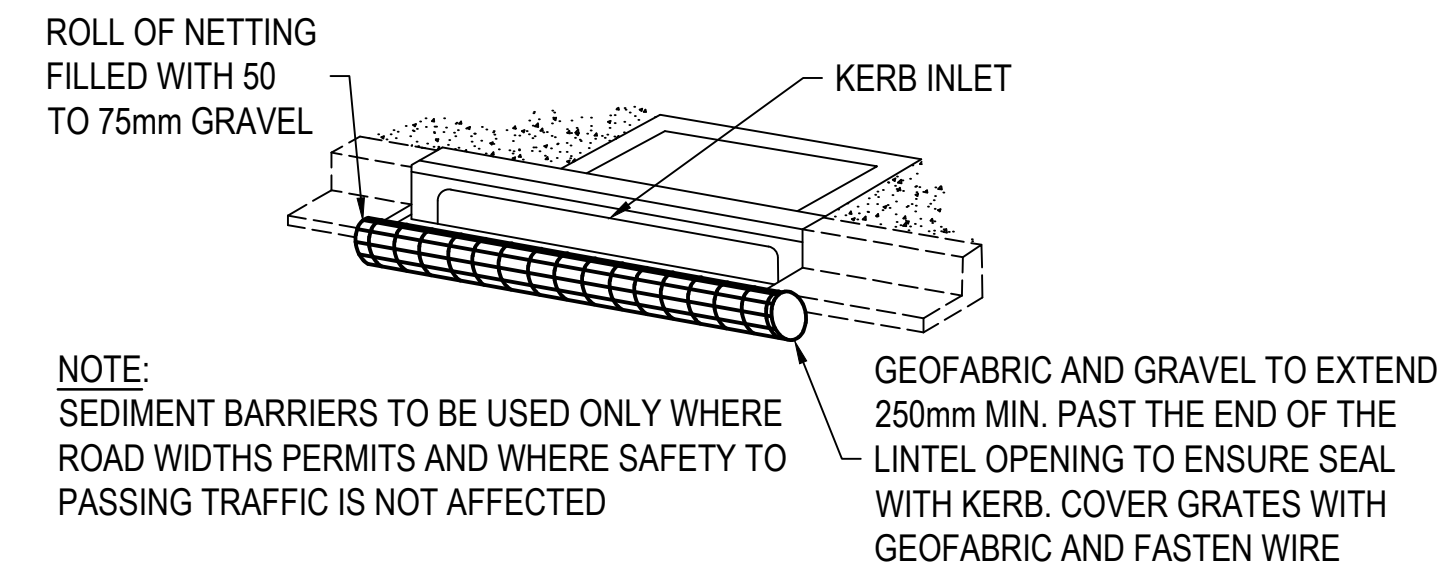
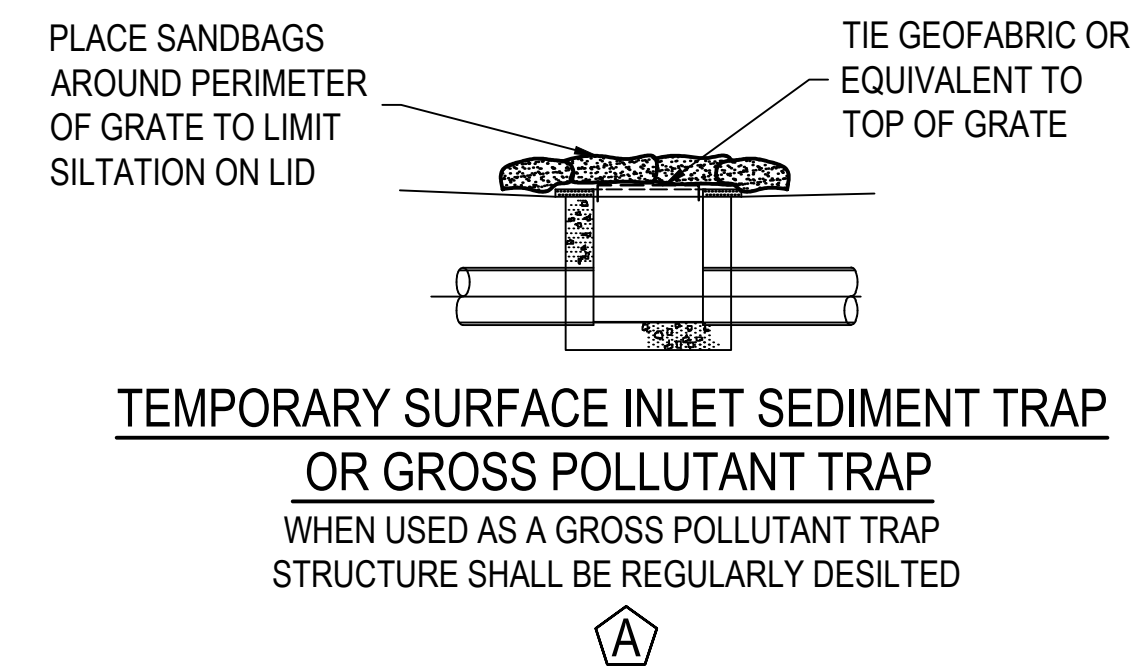
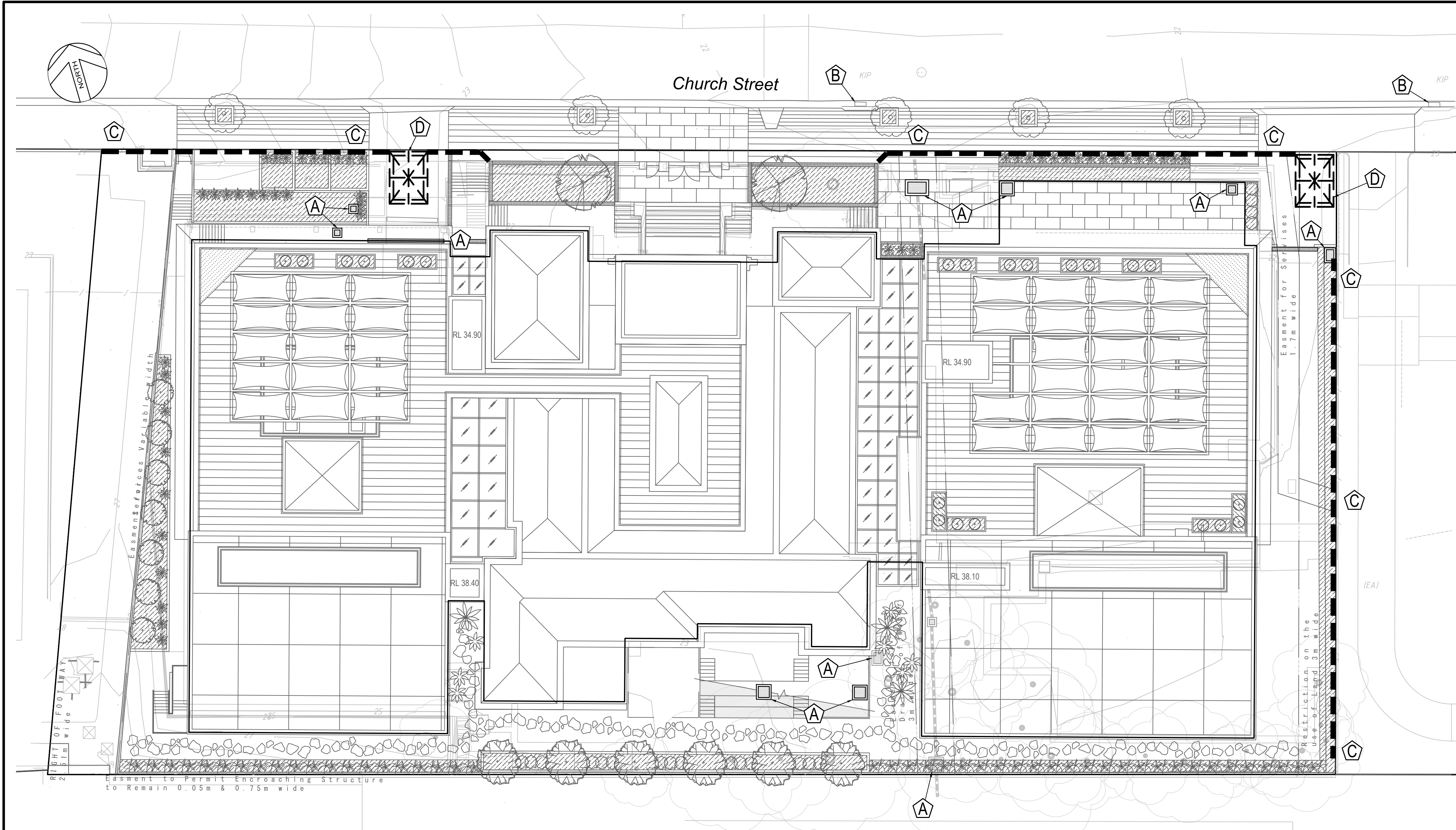
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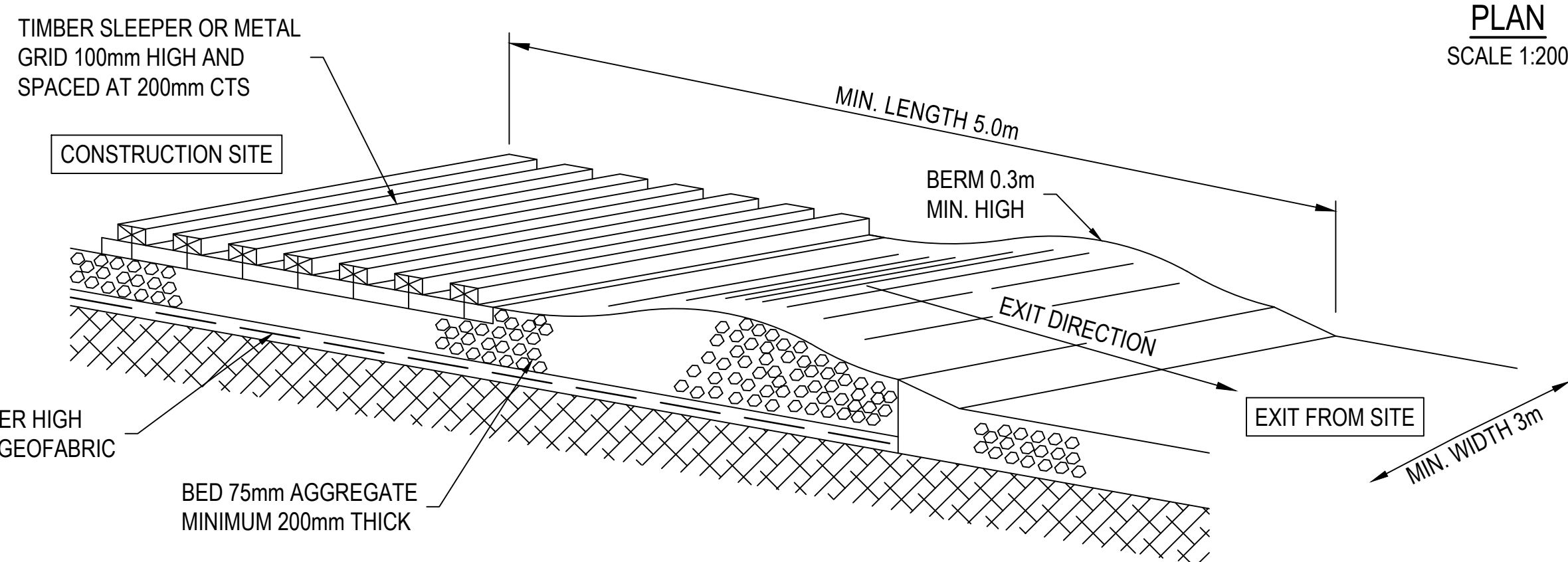
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Client	AZUSA SEKKI
Project	NIHON UNIVERSITY AUSTRALIA NEWCASTLE CAMPUS PROJECT 9 CHURCH STREET, NEWCASTLE
Title	CONCEPT STORMWATER DESIGN TYPICAL SECTIONS AND DETAILS

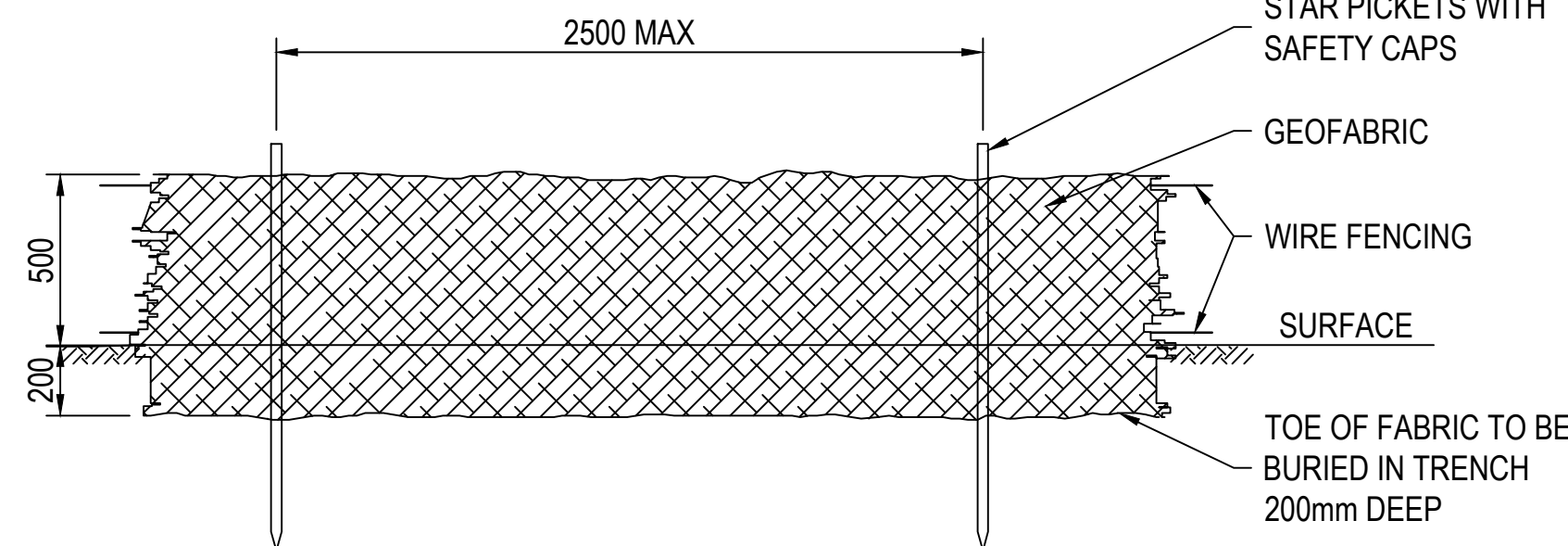
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				A1
Revision	2			



SEDIMENT BARRIER FOR KERB INLET PITS



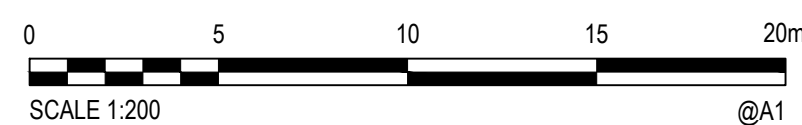
TEMPORARY CONSTRUCTION VEHICLE EXIT



TYPICAL SILT FENCE DETAIL

LEGEND	
	TEMPORARY SURFACE INLET SEDIMENT TRAP OR GROSS POLLUTANT TRAP
	SEDIMENT BARRIER FOR KERB INLET PITS
	SILT FENCE
	TEMPORARY CONSTRUCTION VEHICLE EXIT

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Client	AZUSA SEKKI
Project	NIHON UNIVERSITY AUSTRALIA NEWCASTLE CAMPUS PROJECT 9 CHURCH STREET, NEWCASTLE
Title	CONCEPT STORMWATER DESIGN EROSION AND SEDIMENT CONTROL PLAN AND DETAILS

Status	FOR APPROVAL			
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