






**HARRIS PAGE & ASSOCIATES**  
**STORMWATER CONCEPT PLAN**  
**FOR DEVELOPMENT APPLICATION OF**  
**NEW LEARNING CENTRE**  
**6A WATSFORD ROAD, CAMPBELLTOWN**

## STORMWATER SERVICES LEGEND

## PIPEWORK




















	STORMWATER DRAINAGE
	SUB SOIL SERVICE
	COLD WATER SERVICE
	SANITARY DRAINAGE
	VENT SERVICE






### DRAWING SCHEDULE

DWG No.	Scale	Drawing Title
SW-00	NTS	STORMWATER SERVICES COVER SHEET, LEGEND & DRAWING SCHEDULE
SW-01	1:200	STORMWATER SERVICES- SITE PLAN
SW-02	1:100	STORMWATER SERVICES- ROOF
SW-03	NTS	STORMWATER SERVICES- DETAIL SHEET
SW-04	NTS	STORMWATER SERVICES- SEDIMENT CONTROL PLAN

ABBREVIATIONS, SYMBOLS AND LINETYPES IN THE LEGEND MAY NOT APPEAR ELSEWHERE ON THE DRAWINGS. THIS LEGEND SHOULD BE USED AS A GUIDE ONLY

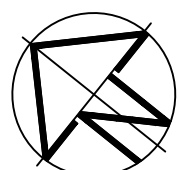
## SYMBOLS

	RISER
	DROPPER
	TEE DROPPER
	PIPEWORK CAP
	DIRECTION ARROW
	NEW CONNECTION
	CONTINUATION
	TERMINATOR 1
	TERMINATOR 2
	STOP VALVE
	DOUBLE CHECK VALVE
	REFLUX VALVE
	CHECK VALVE
	OVERFLOW
RWO 	RAIN WATER OUTLET
	GRATED TRENCH DRAIN
	GRATED STW PIT
	SEALED STW PIT
	SPREADER

 PUMP  
 CLEAR OUT  
 REVISION  
 REVISION CLOUD  


## ABBREVIATIONS

A/B	ABOVE	m	METRES
@	AT	MAX	MAXIMUM
BO	BALCONY OUTLET	MIN	MINIMUM
BT	BOUNDARY TRAP	MM	MILLIMETERS
CIS	CAST IN SLAB	N.T.S	NOT TO SCALE
CO	CLEAROUT	O/F	OVER FLOW
CONT	CONTINUATION	%	PERCENTAGE
CV	CHECK VALVE	RL	REDUCED LEVEL
DCV	DOUBLE CHECK VALVE	RWH	RAIN WATER HEAD
DIA	DIAMETER	RWR	RAINWATER REUSE
DP	DOWNPIPE	RWO	RAINWATER OUTLET
e	EXISTING	RV	REFLUX VALVE
EL	ELECTRICAL CONDUIT	S	SEWER
FW	FLOOR WASTE	SMH	SEWER MANHOLE
GA	GREASE ARRESTOR	SS	SUB SOIL DRAINAGE
HDPE	HIGH DENSITY POLYETHYLENE	S/STEEL	STAINLESS STEEL
H/L	HIGH LEVEL	STW	STORMWATER
HP	HIGH POINT	SV	STOP VALVE
H.S.A.S	HEEL SAFE ANTI-SLIP	SWP	STORMWATER PIT
IL	INVERT LEVEL	TD	TUNDISH
KIP	KERB INLET PIT	U/S	UNDERSIDE
L	LITRE	UV	ULTRA-VIOLET
L/L	LOW LEVEL		
L/s	LITRES PER SECOND		



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P3	DRAFT DA SUBMISSION - FOR APPROVAL	25.10.19
P2	DRAFT DA SUBMISSION	17.10.19
P1	DRAFT DA SUBMISSION	01.10.19
ISSUE	AMENDMENT	DATE

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PROJECT

**NEW LEARNING CENTRE**  
6A WATSFORD ROAD, CAMPBELLTOWN

DRAWING TITLE

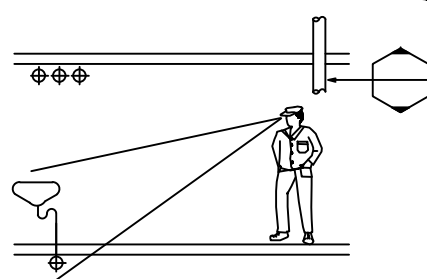
# HYDRAULIC SERVICES

## COVER SHEET, LEGEND

### & DRAWING SCHEDULE

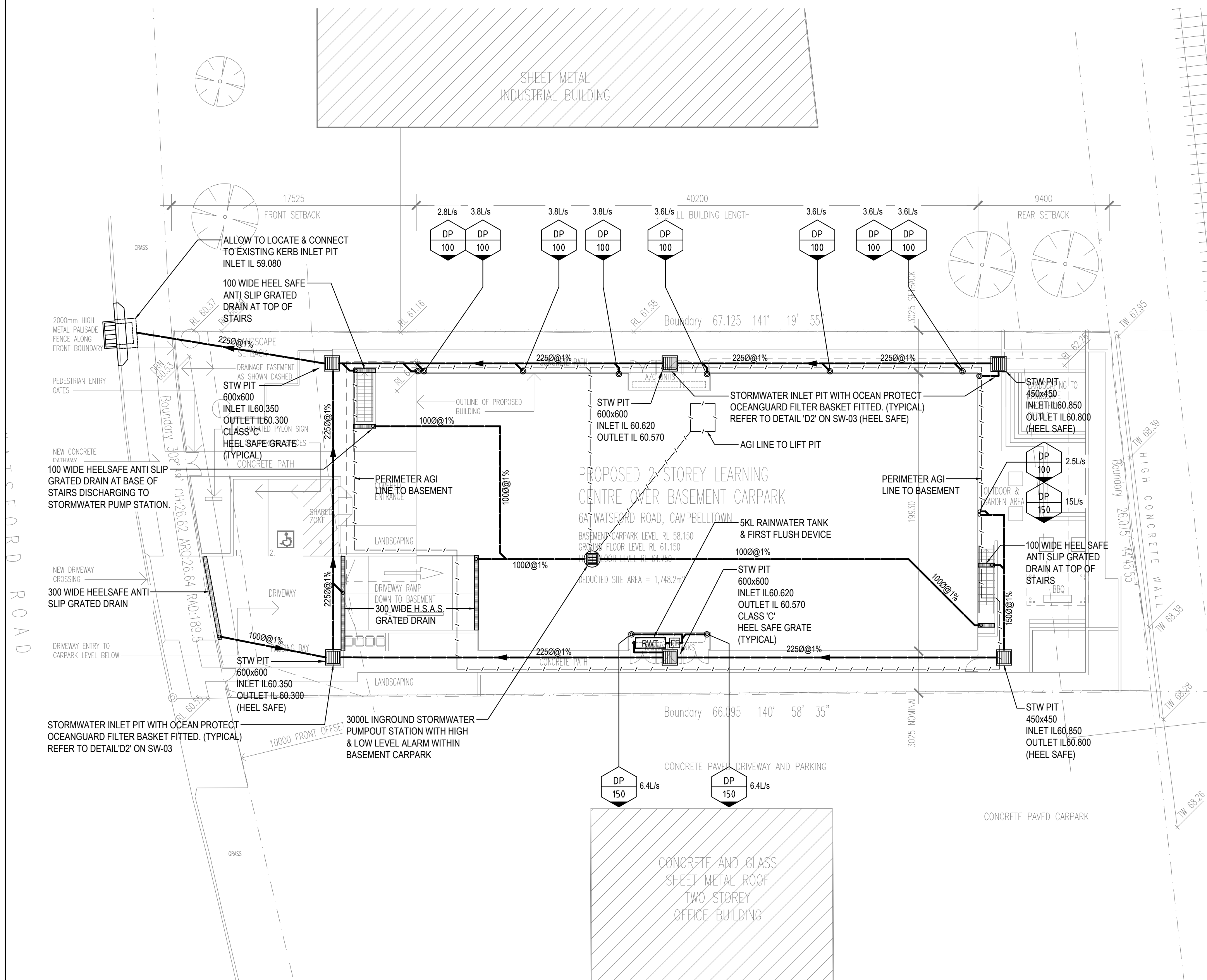
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SEP. 2019	KJ/KP	DP	1 OF 5	NTS @ A1
PROJECT No.		DRAWING No.		REVISION
6444		SW-00		P3

SERVICES ON THIS  
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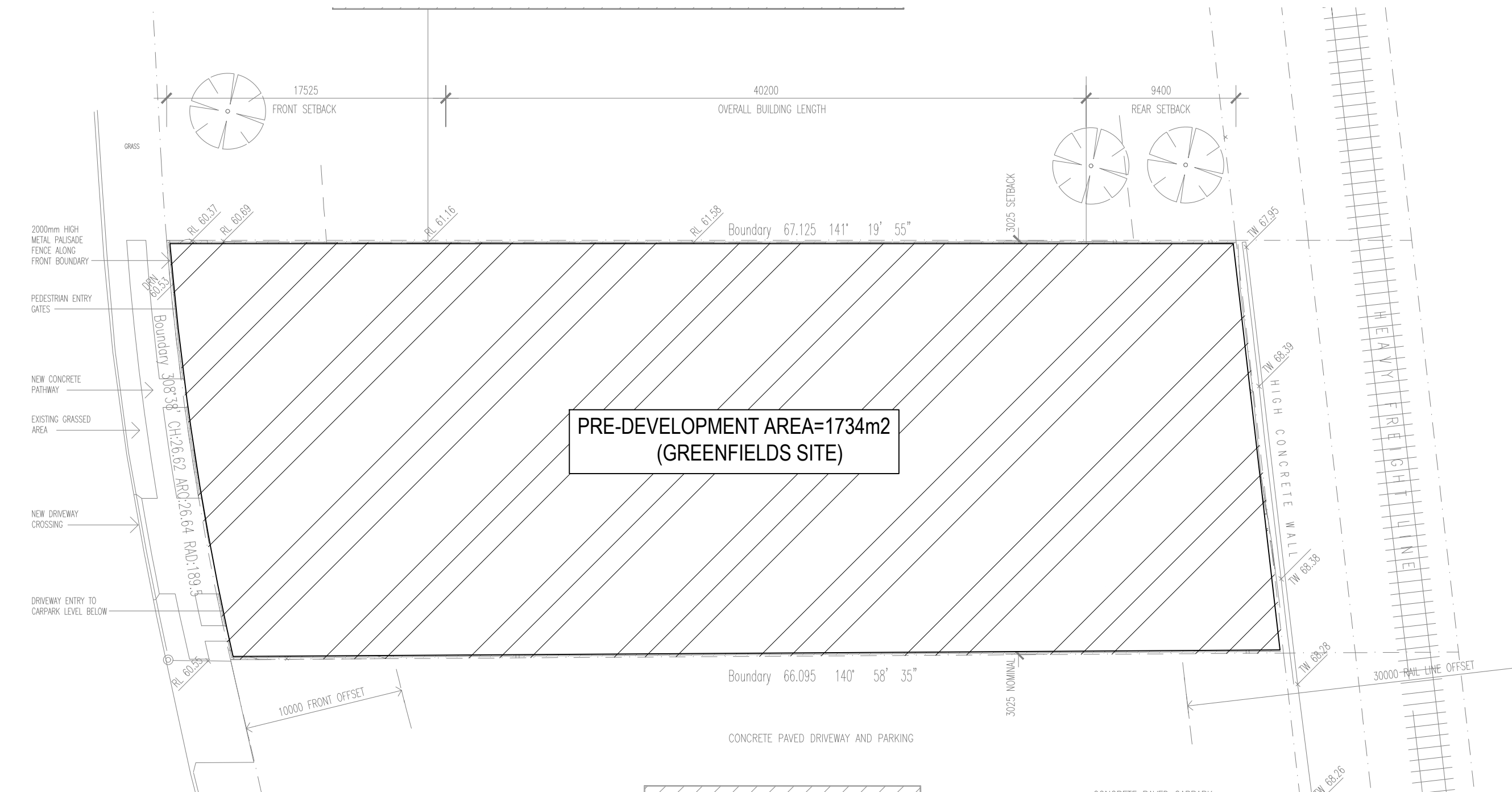


REFERENCE DRAWINGS

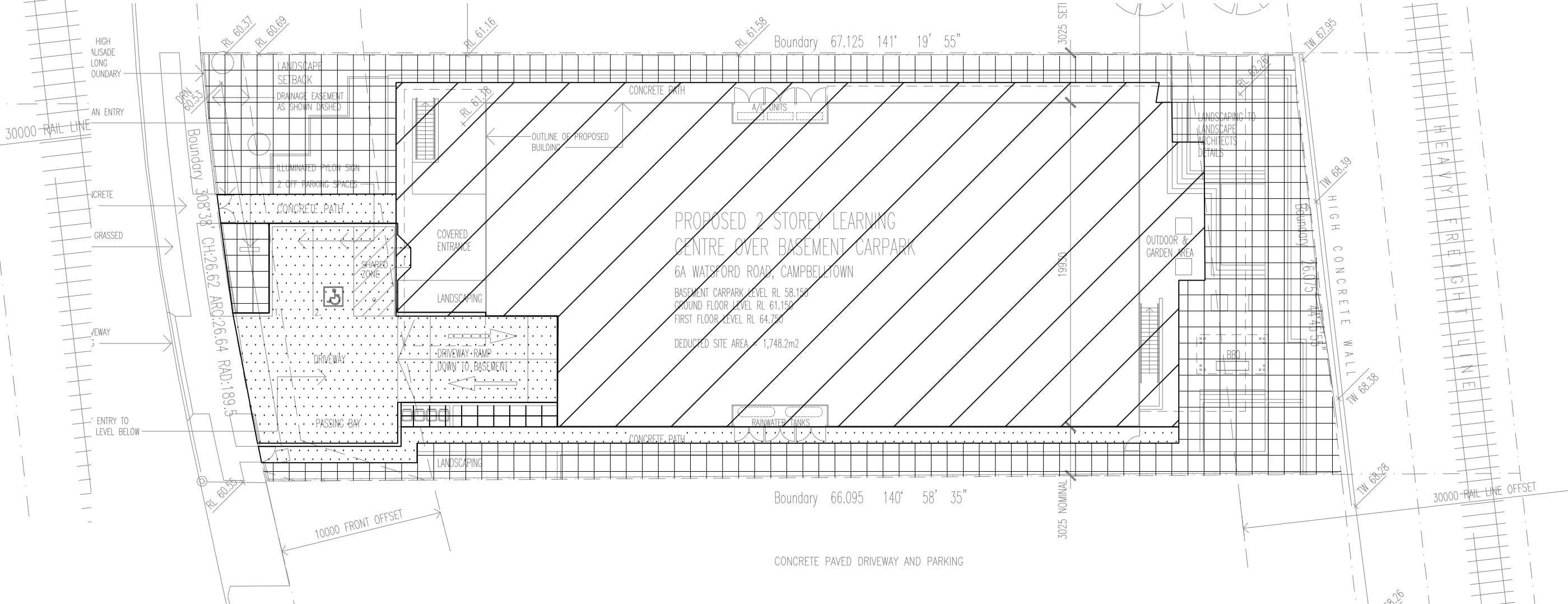
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DISCIPLINE	DRAWING NUMBER	REV	DATE



SITE PLAN  
SCALE: 1:200

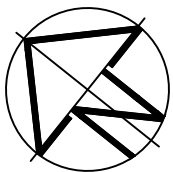


PRE-DEVELOPMENT CATCHMENT AREA  
NTS



POST-DEVELOPMENT CATCHMENT AREA  
NTS

CATCHMENT PLAN TOTAL SITE AREA = 1734m <sup>2</sup>		
SECTION	AREA	TYPE
	1065m <sup>2</sup>	ROOF
	533 <sup>2</sup>	LANDSCAPE
	147 <sup>2</sup>	HARDSCAPE



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PROJECT

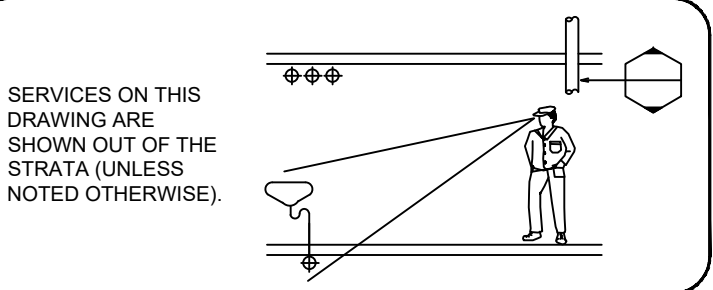
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6A WATSFORD ROAD, CAMPBELLTOWN

DRAWING TITLE

**HYDRAULIC SERVICES**  
**SITE PLAN**  
**STORMWATER CONCEPT PLAN**

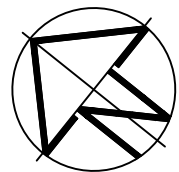
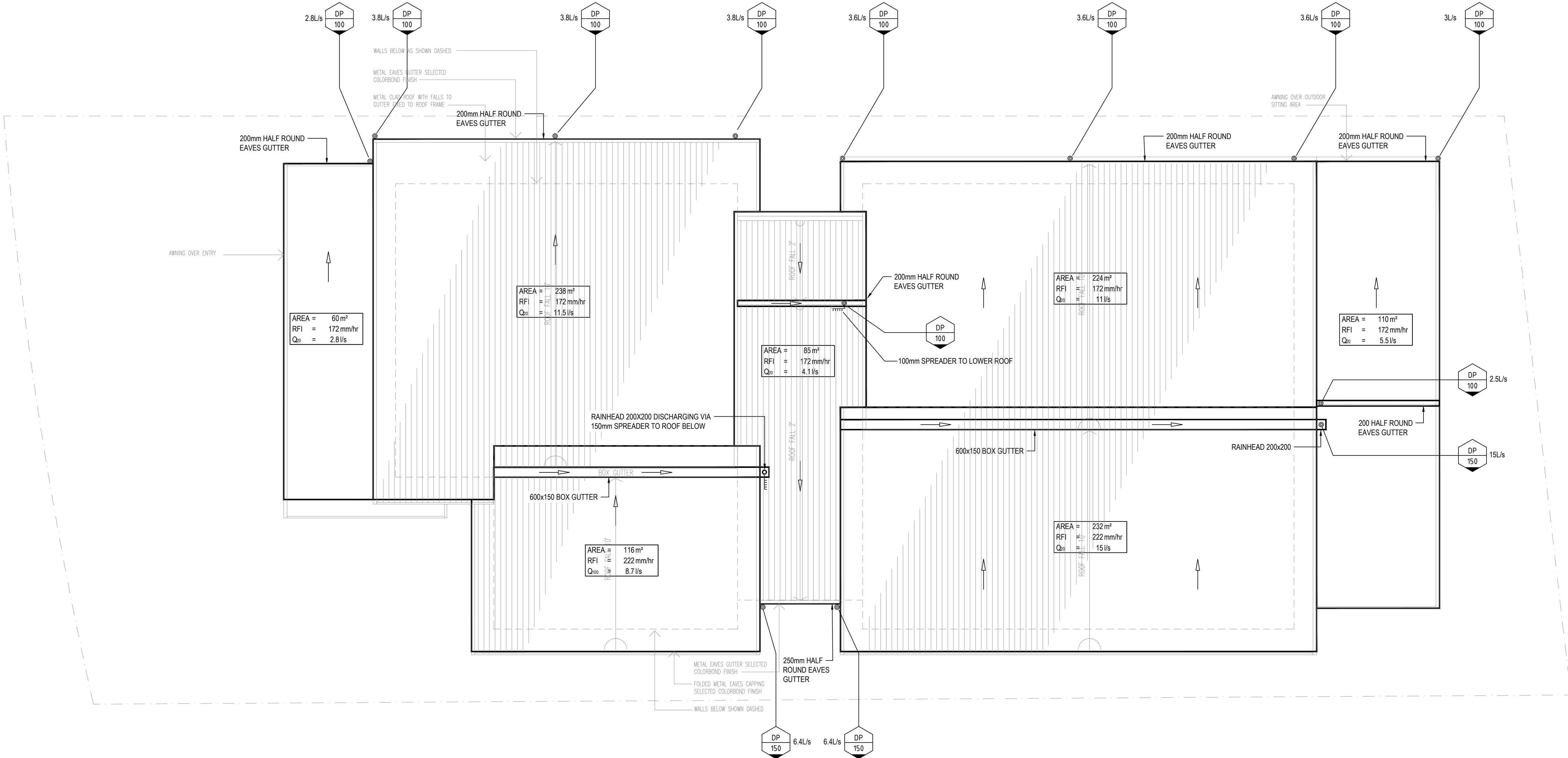
DATE	DRAWN	CHECKED	No IN SET	SCALE
SEP. 2019	KJ/KP	DP	2 OF 5	1:200 @ A1
PROJECT No.		DRAWING No.		REVISION
6444		SW-01		P3





REFERENCE DRAWINGS			
STRUCT			
MECH			
ELEC			
RCP			
ARCH	A-05	C	
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- NOTES:
1. TERMINATE OVERFLOW PIPES ABOVE FINISHED FLOOR LEVEL AND DIRECTED AWAY FROM BUILDING.



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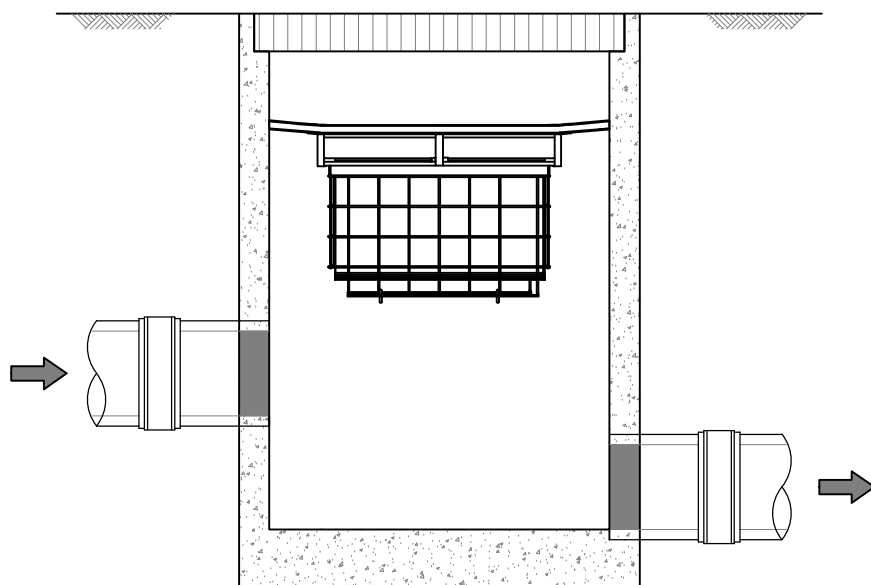
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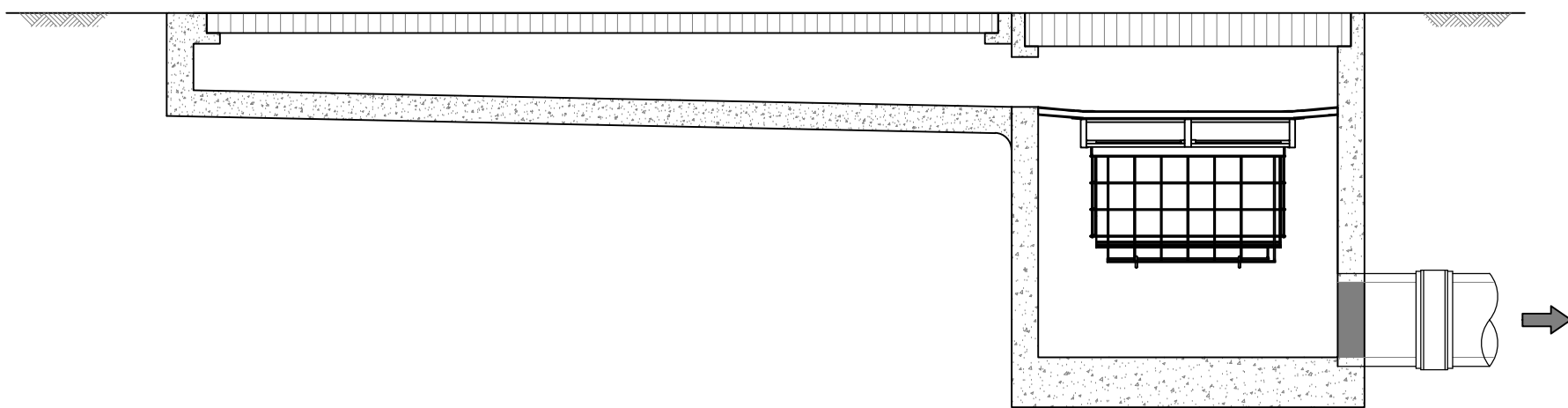
PROJECT  
**NEW LEARNING CENTRE**  
6A WATSFORD ROAD, CAMPBELLTOWN

DRAWING TITLE  
**HYDRAULIC SERVICES**  
ROOF PLAN  
STORMWATER CONCEPT PLAN

DATE	DRAWN	CHECKED	No IN SET	SCALE
SEP. 2019	KJ/KP	DP	3 OF 5	1:100 @ A1
PROJECT No.	DRAWING No.	REVISION		
<b>6444</b>	<b>SW-02</b>	<b>P3</b>		



PIPE FLOW  
CONFIGURATION



D2  
-  
NTS

GRADED STRIP DRAIN CONFIGURATION

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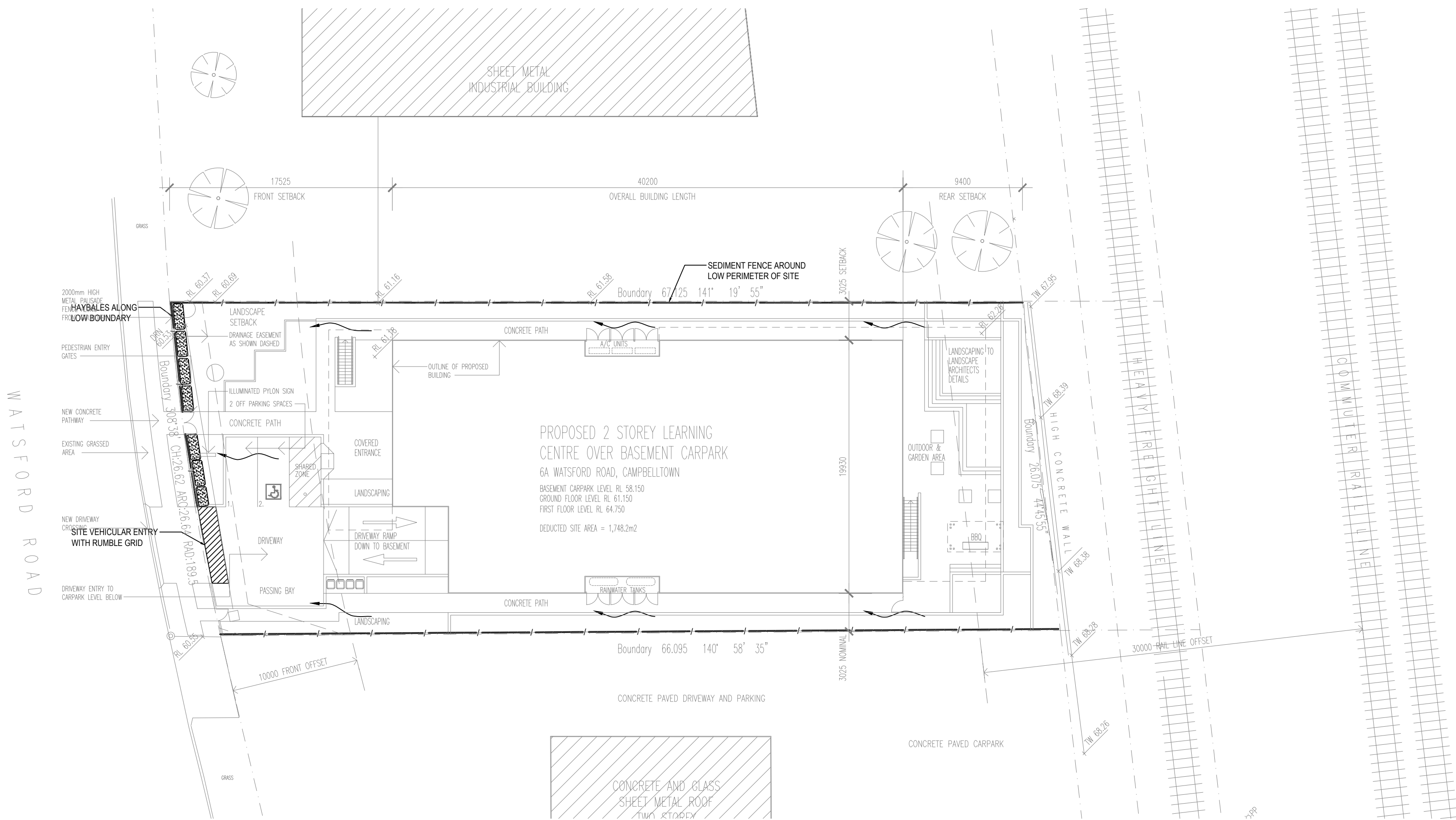
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NEW LEARNING CENTRE  
6A WATSFORD ROAD, CAMPBELLTOWN

DRAWING TITLE  
HYDRAULIC SERVICES  
DETAIL SHEET

DATE	DRAWN	CHECKED	No IN SET	SCALE
SEP. 2019	KJ/KP	DP	4 OF 5	NTS @ A1
PROJECT No. 6444	DRAWING No. SW-03	REVISION P3		





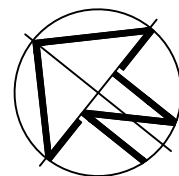
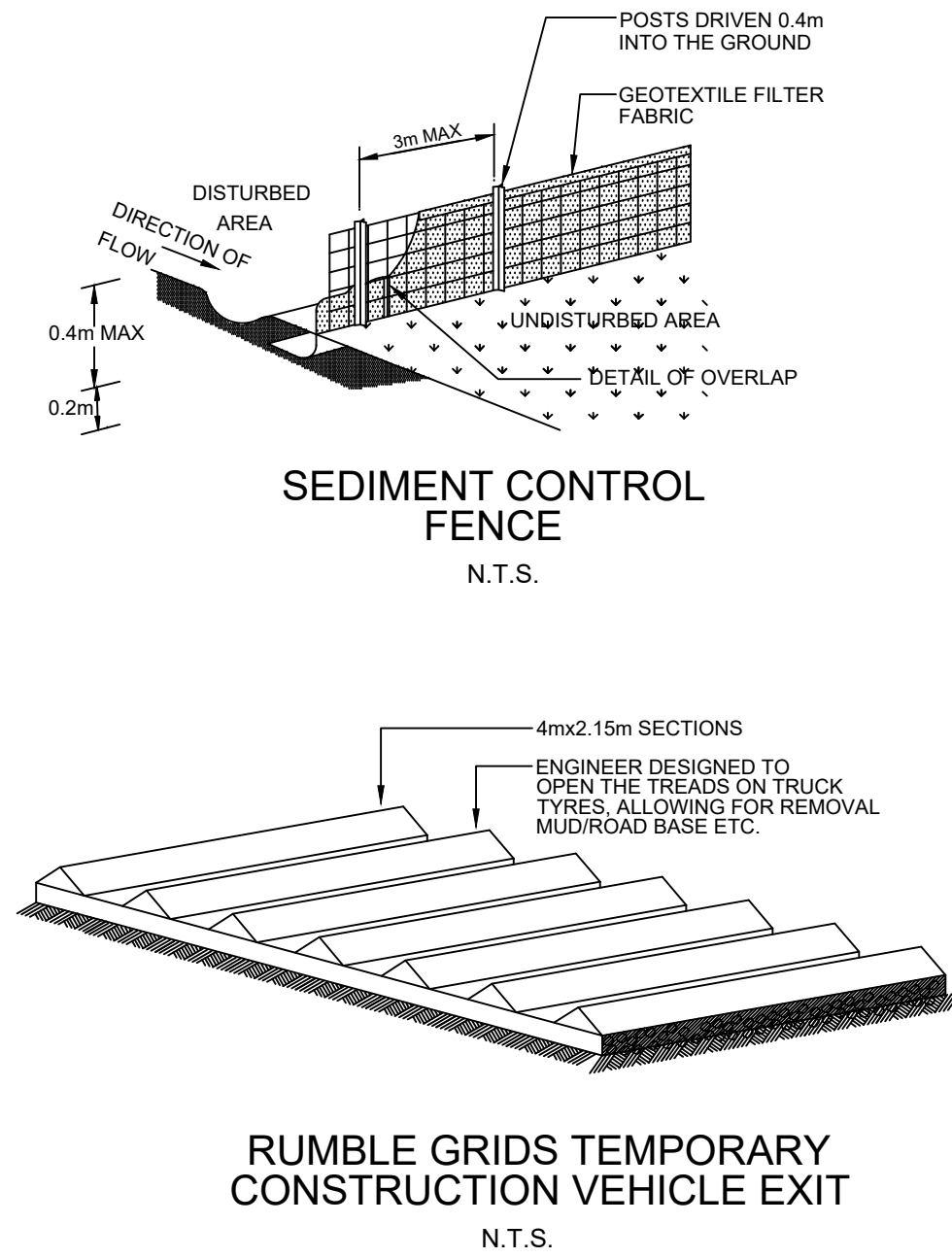
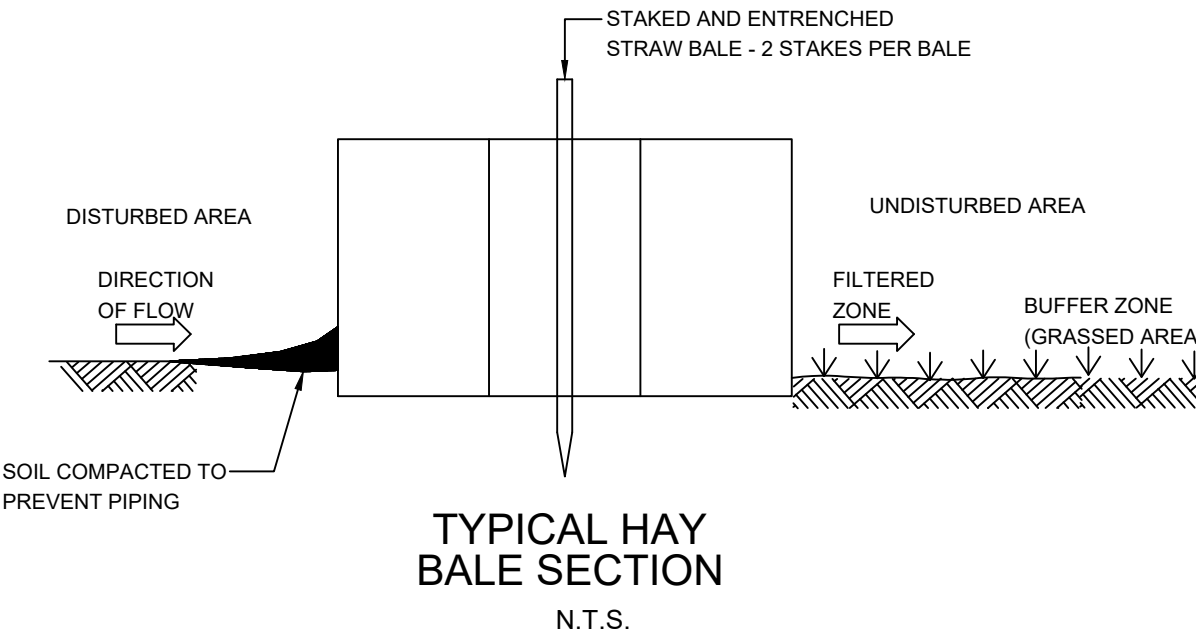
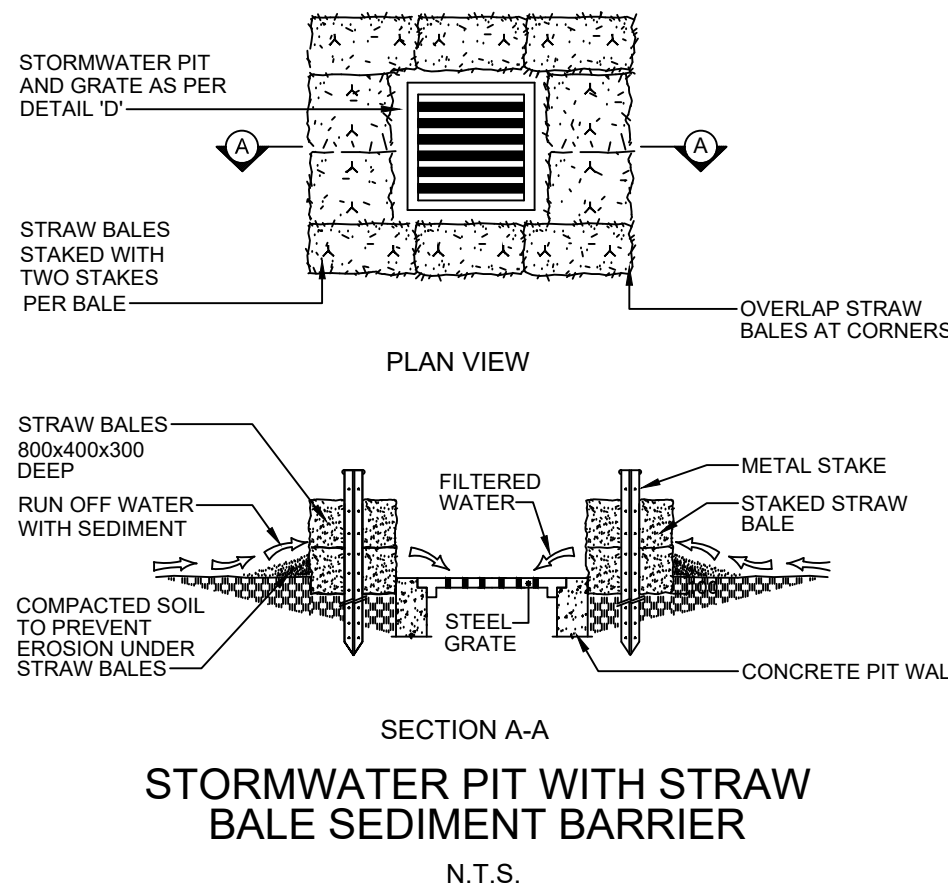
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DISCIPLINE	DRAWING NUMBER	REV	DATE

LEGEND

- SEDIMENT FENCE
- HAY BALES
- FLOW ARROW

SEDIMENT & EROSION CONTROL NOTES

- THIS PLAN SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL AND ENGINEERING PLANS AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED.
- THE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS SHOWN ON THIS DRAWING.
- PROTECT ALL NEW PITS FROM SEDIMENT INFILTRATION PROGRESSIVELY, AS THEY ARE CONSTRUCTED.
- ALL DOWNSTREAM STORMWATER PITS ARE TO BE PROTECTED FROM SEDIMENT INFILTRATION DURING CONSTRUCTION.
- ALL SUB-CONTRACTORS ON SITE SHALL BE MADE AWARE OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO WATER COURSES AND WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO ACHIEVE, WORKS SHOULD BE CARRIED OUT AS FOLLOWS
  - 1) INSTALL ANY NECESSARY SECURITY/BOUNDARY FENCES FOR THE SITE
  - 2) CONSTRUCT "SILT" FENCING AS DETAILED ALONG BOTH DOWNSLOPE BOUNDARIES.
- DURING WINDY WEATHER, LARGE UNPROTECTED AREAS SHALL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- FINAL SITE LANDSCAPING SHALL BE UNDERTAKEN AS SOON AS POSSIBLE, AND WITHIN TWENTY WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- SAND USED IN THE CONCRETE CURING PROCESS SHALL BE REMOVED ASAP, AND WITHIN TEN WORKING DAYS FROM PLACEMENT.
- WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM, UNLESS IT IS RELATIVELY SEDIMENT-FREE; ie. THE CATCHMENT AREA HAS BEEN LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
- TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- THE CONTRACTOR SHALL PROVIDE ACCEPTABLE RECEPTORS FOR CONCRETE & MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER, ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
- EVERY WEEK, FOR THE DURATION OF WORKS THE CONTRACTOR SHALL INSPECT THE SITE FOR THE FOLLOWING ITEMS:
  - ENSURE DRAINS OPERATE EFFECTIVELY, AND INITIATE REPAIR OR MAINTENANCE AS REQUIRED
  - REMOVE SPILLED SAND (OR OTHER MATERIALS) FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 2 METRES FROM AREAS OF CONCENTRATED OR HIGH-VELOCITY FLOWS SUCH AS WATERCOURSES, OVERLAND FLOW PATHS, GUTTERS, PAVED AREAS, DRIVEWAYS AND ROADS.
- CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT WORKS IS NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS, ie. MAKE ONGOING CHANGES TO THE PLAN.
- MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN A FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE REHABILITATED
- REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS A LAST ACTIVITY IN THE REHABILITATION PROGRAMME
- THE CONTRACTOR SHALL KEEP A LOG BOOK, MAKING ENTRIES AT LEAST WEEKLY, AND AFTER RAINFALL AND/OR SITE CLOSURE. RECORD:
  - 1) THE VOLUME OF ANY RAINFALL EVENTS (CHECK WEATHER BUREAU)
  - 2) THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS
  - 3) REMEDIAL WORKS



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PROJECT  
NEW LEARNING CENTRE  
6A WATSFORD ROAD, CAMPBELLTOWN

DRAWING TITLE  
**HYDRAULIC SERVICES**  
SEDIMENT & EROSION  
CONTROL PLAN

DATE	DRAWN	CHECKED	No IN SET	SCALE
SEP. 2019	K/J/KP	DP	5 OF 5	NTS @ A1
PROJECT No.	DRAWING No.	REVISION		
6444	SW-04	P3		