COL JAMES STUDENT ACCOMODATION 83-123 EVELEIGH STREET, REDFERN NSW

STORMWATER CONCEPT PLAN

NOTES

GENERAL

- 1. THE DRAWINGS SHALL BE READ AS REQUIRED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS
- 2. ALL DIMENSIONS ARE IN mm UNO. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
- 3. THE PROPOSED WORKS DETAILED SHALL BE CONSTRUCTED TO THE REQUIREMENTS OF COUNCIL, GENERALLY AS DETAILED HEREUNDER
- 4. ALL EXISTING SERVICES SHALL BE VERIFIED FOR DEPTH AND HORIZONTAL POSITION BY PHYSICAL MEANS PRIOR TO EXCAVATION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE SUPERINTENDENTS ATTENTION

STORMWATER DRAINAGE MATERIALS

ON THE DRAWINGS:

- 5. SELECT FILL SHALL BE MATERIAL OBTAINED FROM EXCAVATION OF THE PIPE TRENCH OR IMPORTED WITH A PARTICLE SIZE FOR ROCK NOT GREATER THAN 75mm OR FOR OTHER THAN ROCK NOT GREATER THAN 150mm
- 6. IMPORTED FILL SHALL BE EITHER, & GENERALLY CONSIST OF SINGLE SIZED AGGREGATE WITH PARTICLE SIZE NOT GREATER THAN 5mm WRAPPED ALL AROUND WITH GEOTEXTILE FILTER FABRIC OR APPROVED HIGH COMPACTION SAND OR APPROVED CRUSHED ROAD GRAVEL CONFORMING TO RTA FORM 3051 OR SIMILAR
- 7. CONCRETE SHALL HAVE A SLUM OF 80mm. A MAXIMUM AGGREGATE SIZE OF 20mm & STRENGTH GRADE OF 25mPa (KERBS, EDGE STRIPS & CONCRETE ENCASEMENT) & 32mPa ELSEWHERE
- 8. ALL PIPES & FITTINGS FOR STORMWATER DRAINAGE SHALL BE AS FOLLOWS UNO
- a) UNPLASTISIZED POLYVINYL CHLORIDE (UPVC) WITH SOLVENT WELDED JOINTS FOR DRAINAGE UP TO 300mm
- b) FIBRE REINFORCED CEMENT WITH RUBBER RINGS FOR PIPE DIAMETERS GREATER THAN 300mm UNO
- c) REINFORCED CONCRETE WHERE REQUIRED BY AS3500 FOR EXCESSIVE DEPTH
- d) INSTALL IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS
- 9. ALL INGROUND DRAINAGE PIPEWORK SERVING DOWNPIPES SHALL BE MINIMUM 100mm DIAMETER UNO
- 10. ALL GRATED DRAINS SHALL BE 225mm UNO WIDTH IN TRAFFICABLE AREAS
- 11. ALL GUTTERS TO BE SIZED AT CONSTRUCTION CERTIFICATION STAGE

EARTHWORKS AND RESTORATION

- 12. EXCAVATE TRENCHES & STOCKPILE ALL MATERIAL FOR INSPECTION WITH REGARD TO RE-USE
- 13. BEDDING MATERIAL SHALL CONSIST OF IMPORTED FILL ONLY. THICKNESS OF BEDDING LAYER SHALL BE 75mm IN O.T.R. & 200mm IN ROCK
- 14. EMBED ALL PIPES WITH IMPORTED FILL. PROVIDE 200mm SIDE SUPPORT & 150mm OVERLAY ABOVE PIPE CROWN
- 15. TRENCH FILL ABOVE THE EMBEDMENT ZONE TO THE UNDERSIDE OF THE ROAD PAVEMENT OR FOOTWAY FILL MATERIAL SHALL BE AS FOLLOWS:

UNDER ROADWAY:

TRENCH FILL MATERIAL SHALL CONSIST OF IMPORTED FILL AS SPECIFIED OR EITHER HIGH GRADE COMPACTION SAND OR APPROVED CRUSHED ROAD GRAVEL CONFORMING TO RTA FORM 3051 OR SIMILAR

OTHER THAN ROADWAY:

TRENCH FILL MATERIAL EXCAVATED SHALL CONSIST OF SELECT FILL AS SPECIFIED & SHALL NOT CONTAIN MORE THAN 20% OF STONES OF SIZE BETWEEN 25mm & 150mm AND NONE LARGER THAN 150mm.

PRIOR TO USE OF THE EXCAVATED MATERIAL IT SHALL BE INSPECTED & APPROVED BY THE CONSULTANT

16. COMPACT BEDDING, EMBEDMENT & TRENCH FILL MATERIALS AS FOLLOWS:

EMBEDMENT:

FOR GRANULAR FILL MATERIAL (NON-COHESIVE SOILS) EG: COARSE AGGREGATE FILL, HIGH GRADE COMPACTION SAND, THE DENSITY INDEX (ID) SHALL BE NOT LESS THAN 65%

TRENCH FILL::

FOR GRANULAR MATERIAL (NON-COHESIVE SOILS) THE DENSITY INDEX (ID) SHALL BE NOT LESS THAN 85%

FOR NON-GRANULAR FILL MATERIAL (COHESIVE SOILS) THE DRY DENSITY RATIO (RD) SHALL BE NOT LESS THAN 95%

- 17. RESTORE ALL TRAFFIC AREAS PER STRUCTURAL ENGINEERS DETAILS OR OTHERWISE AS REQUIRED BY COUNCIL
- 18. FOR ALL SURFACES OTHER THAN IN TRAFFIC AREAS RESTORE DISTURBED SURFACES TO PRE-EXISTING CONDITIONS UNO ON ARCHITECTURAL OR LANDSCAPE ARCHITECTS DRAWINGS & COMPACT AS SPECIFIED

INSTALLATION OF PIPE SYSTEM

19. MINIMUM GRADES FOR GRAVITY STORMWATER DRAINAGE SHALL CONFORM TO AS3500 PART 3 AS FOLLOWS, UNO:

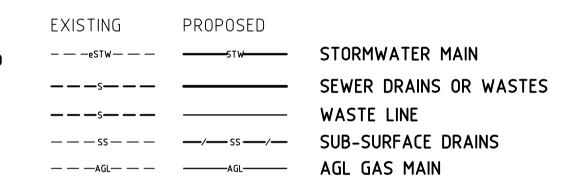
1% FOR 100 DIAMETER
0.5% FOR 150 & 225 DIAMETER
0.4% FOR 300mm DIAMETER
0.35% FOR 375mm DIAMETER

- 20. PIPES SHALL BE TRUE TO GRADES SHOWN & ALIGNED SO THAT THE CENTRES OF THE INLET PIPES INTERSECT WITH THE CENTRE OF THE OUTLET PIPE AT THE DOWNSTREAM FACE OF THE PIT
- 21. MINIMUM DEPTH OF COVER SHALL BE:
 300mm FOR NON-TRAFFICABLE AREAS
 450mm FOR TRAFFICABLE AREAS
 600mm FOR HEAVY VEHICLE TRAFFIC AREAS
- 22. BED ALL PIPES FIRMLY & EVENLY ONTO IMPORTED BEDDING FILL MATERIAL
- 23. LOCATIONS & FIXING OF PIPEWORK SHALL BE SUBJECT TO CO-ORDINATION WITH OTHER DESIGN DISCIPLINES EG: PENETRATIONS THROUGH CONCRETE ELEMENTS

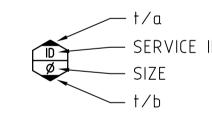
APPROVALS

- 24. THE AS CONSTRUCTED WORKS SHALL BE INSPECTED BY COUNCIL BUILDING INSPECTOR OR DESIGN CONSULTANT. MINIMUM 48 HOURS NOTICE SHALL APPLY TO ALL INSPECTIONS
- 25. COUNCIL ENGINEER TO BE GIVEN 48 HOURS NOTICE OF INTENTION TO COMMENCE CONNECTION TO EXISTING COUNCIL MAIN
- 26. SUBMIT WORK AS EXECUTED DRAWINGS IN HARD COPY FORMAT. VERIFY ALL CONSTRUCTION WORKS SHOWN
- 27. CERTIFY THAT THE AS CONSTRUCTED SYSTEM HAS BEEN BUILT IN ACCORDANCE WITH THE APPROVED PLANS ISSUED FOR CONSTRUCTION

LEGEND



Ζ	NON RETURN VALVE	— FP	FLUSHING POINT
	NON RETURN VALVE		
⊞BT	BUCKET TRAP	JU/C0	JUMP UP TO CLEAR OUT
⊞ ST	SILT TRAP	1	
TG	TRENCH GRATE	Å AP	ALTERING PIPE
⊕ FW	FLOOR WASTE		EXISTING SEWER MAIN HOLE
E)	EXPANSION JOINT	O	EXISTING SEWEN FIXIN FISEE
<u>CO</u>	CLEAR OUT POINT		STREET FIRE HYDRANT
0	INSPECTION OPENING		OVERLAND FLOW PATH

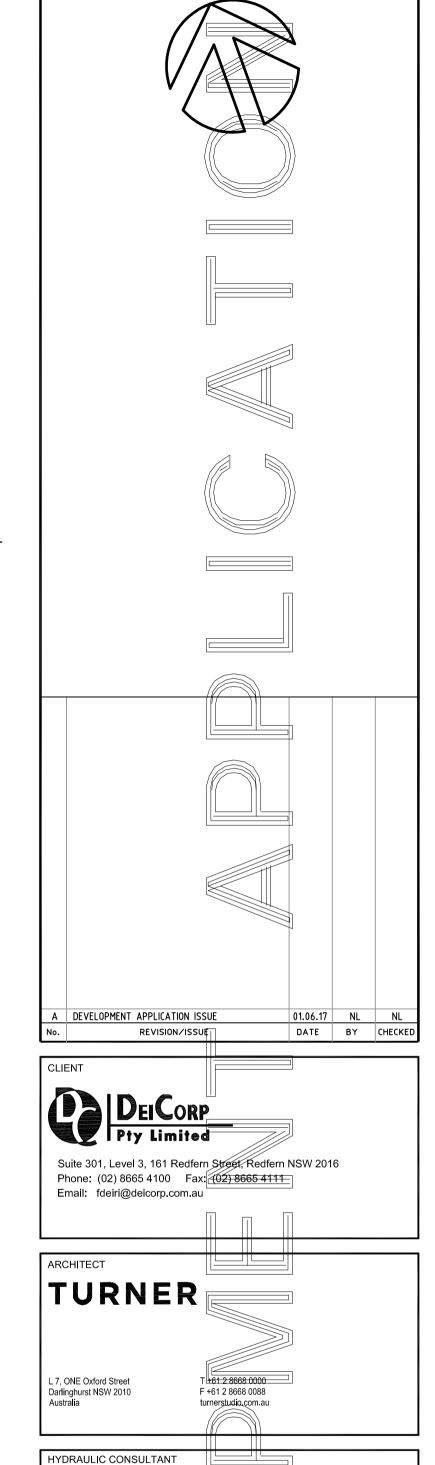


DP

ABBREVIATIONS

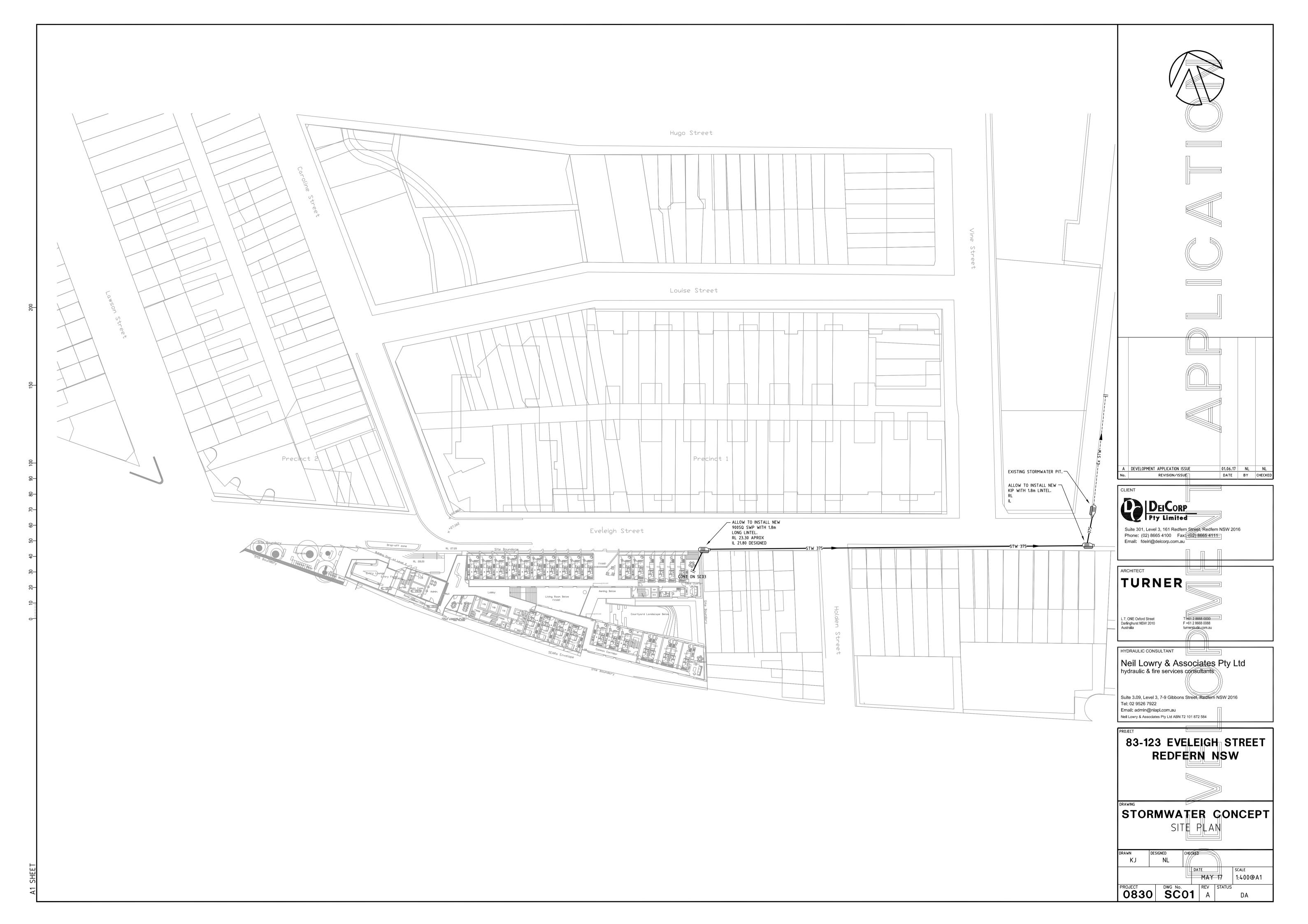
DOWNPIPE

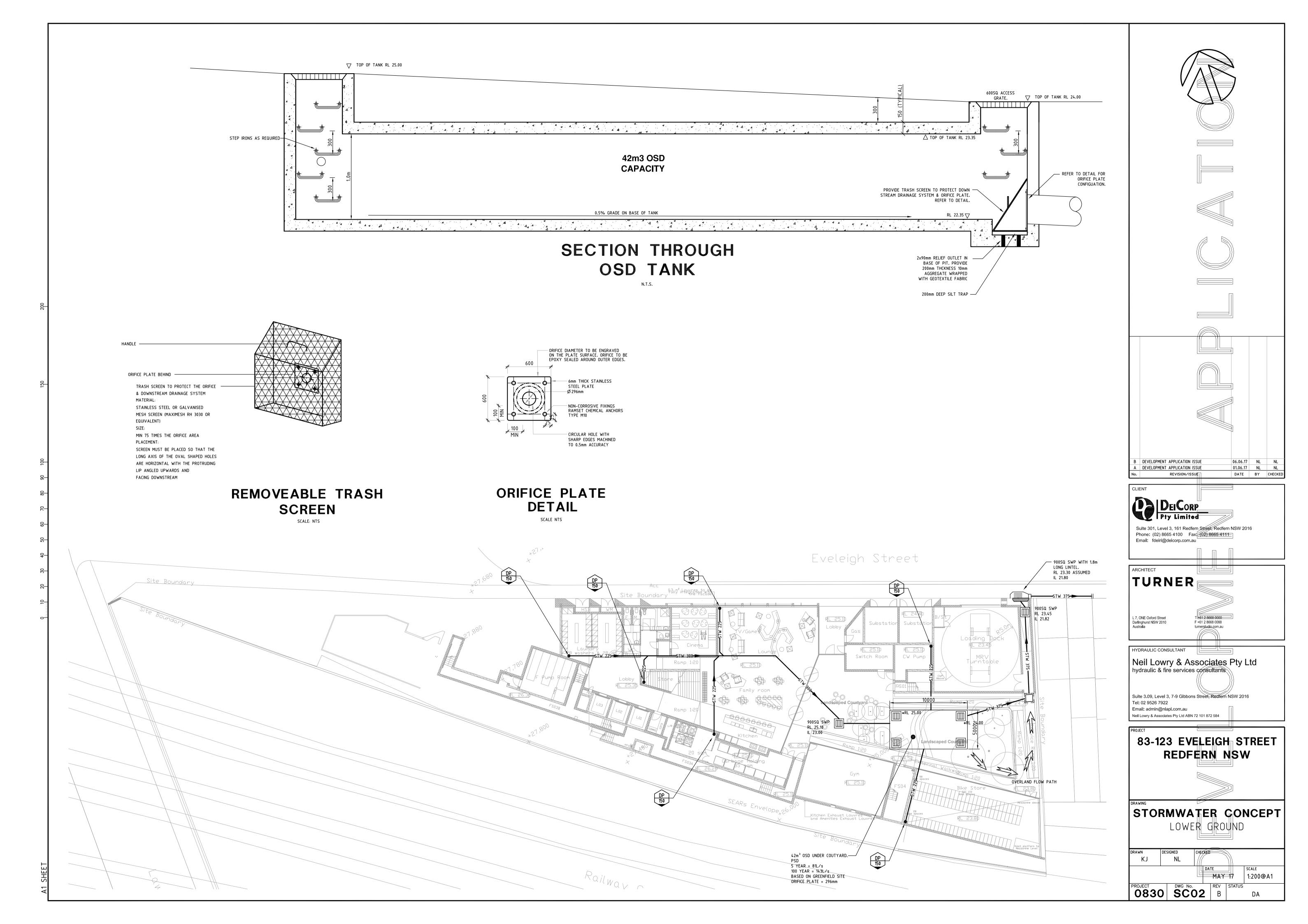
eFH	EXISTING FIRE HYDRANT.	MH	MANHOLE.
EX	EXISTING	VR	VERTICAL RISER.
10	INSPECTION OPENING	JU	JUMP UP.
UPVC	UNPLASTICIZED POLYVINYL CHLORIDE.	AP	ALTERING PIPE.
K0	KERB OUTLET	CO	CLEAR OUT.
FP	FLUSHING POINT	RWT	RAINWATER TANK
RW0	RAIN WATER OUTLET	OSD	ONSITE DETENTION
TG	TRENCH GRATE	SWP	STORMWATER PIT
HP	HIGH PONT		
RWH	RAINWATER HARVEST		

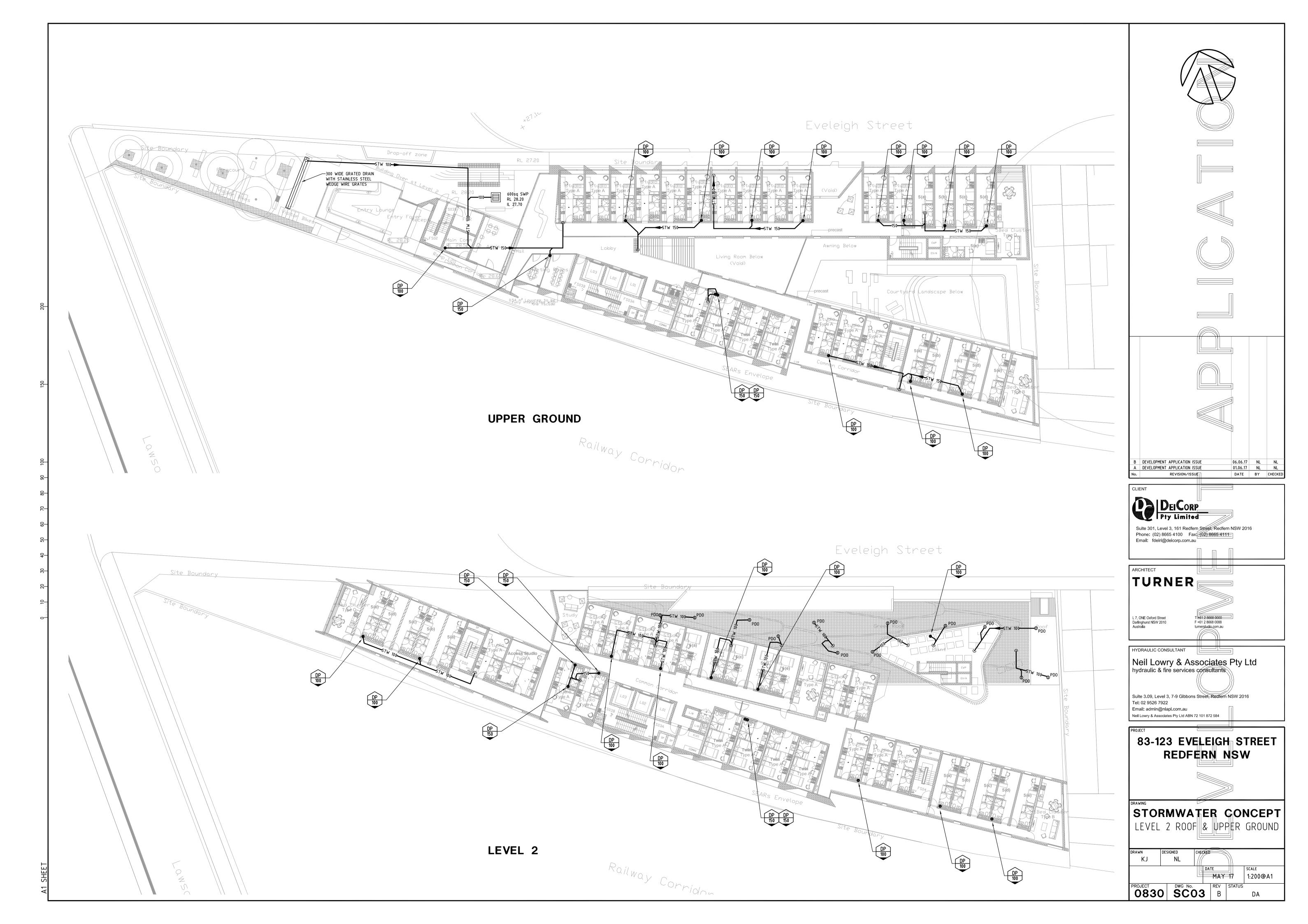


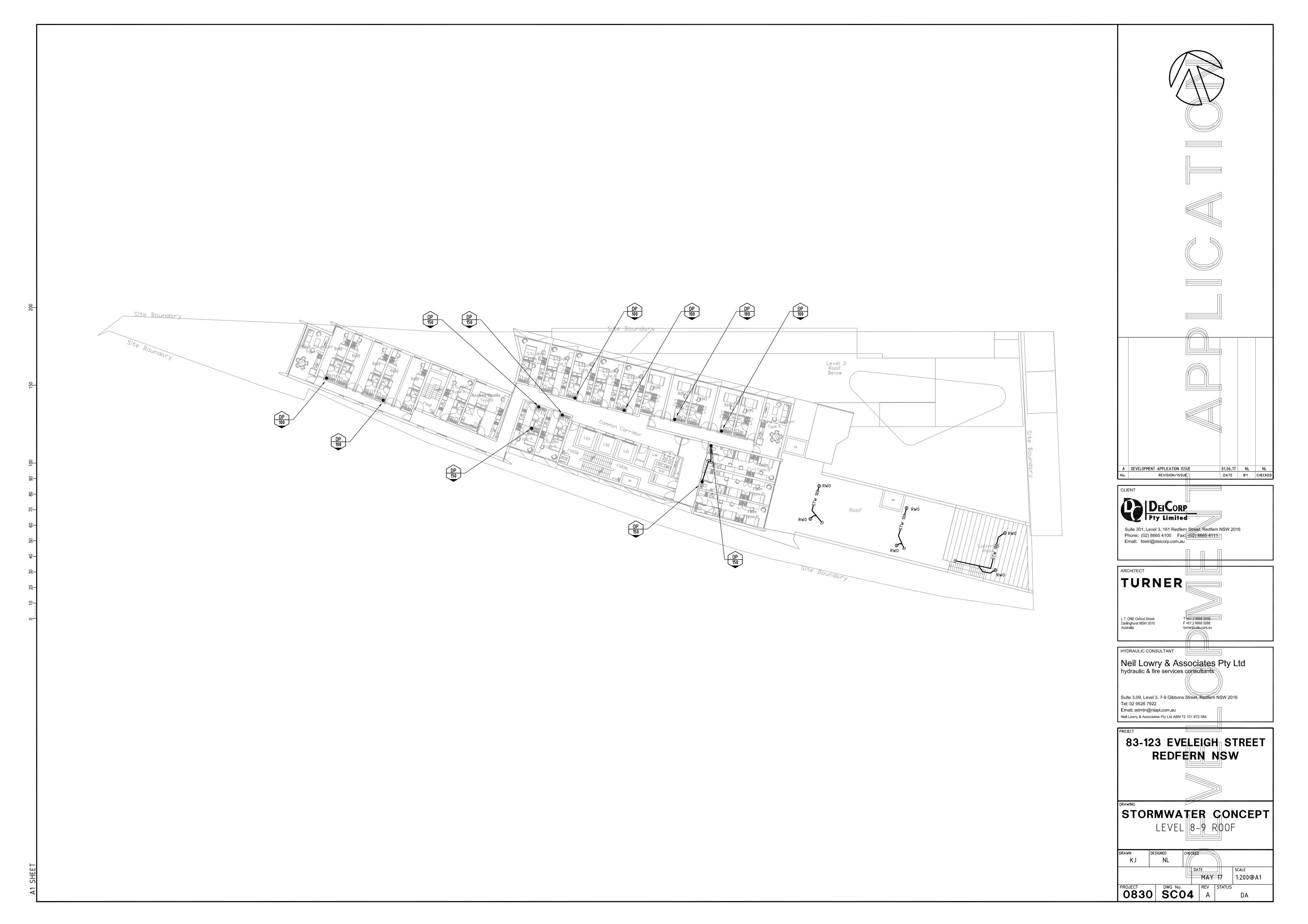


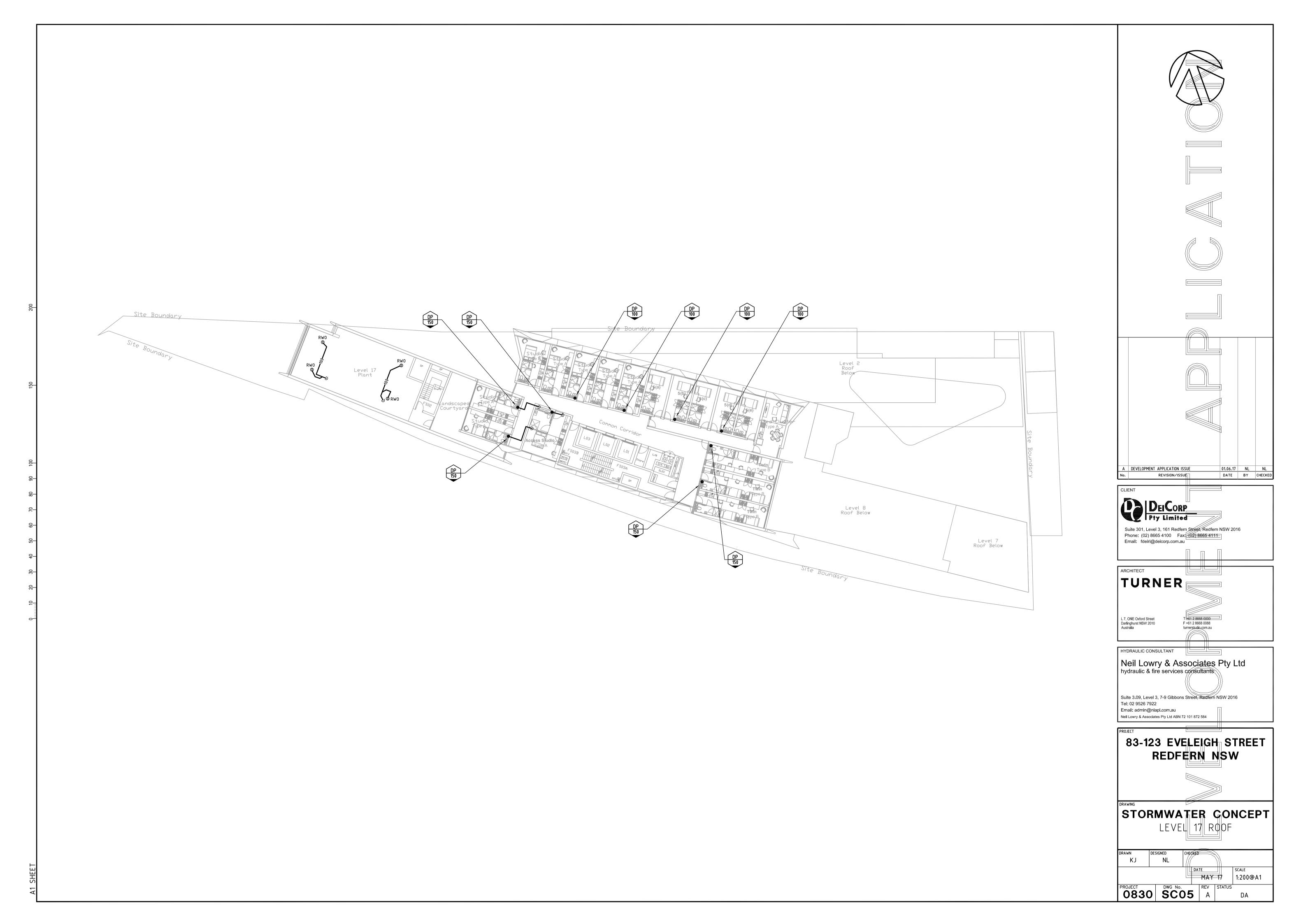


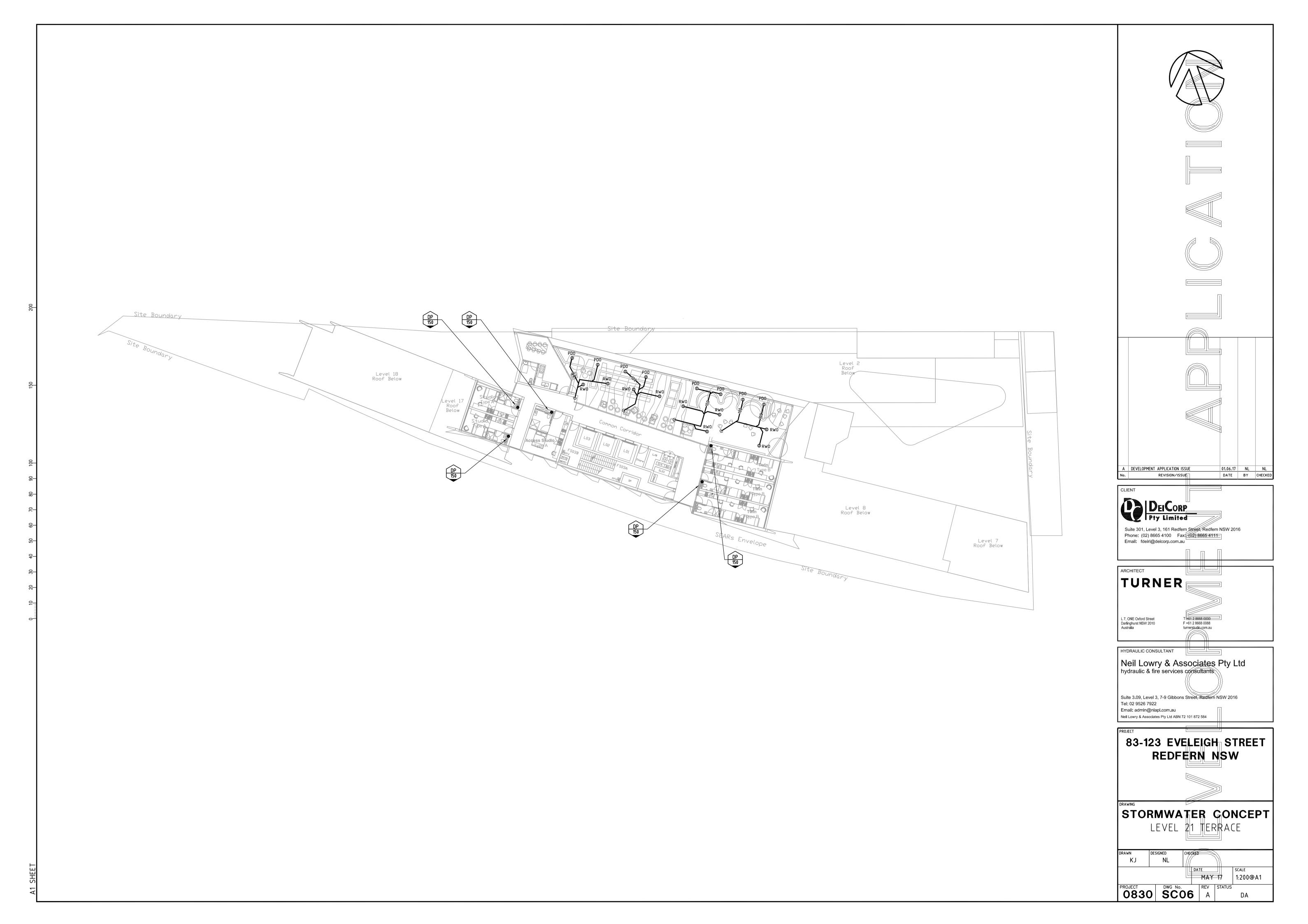


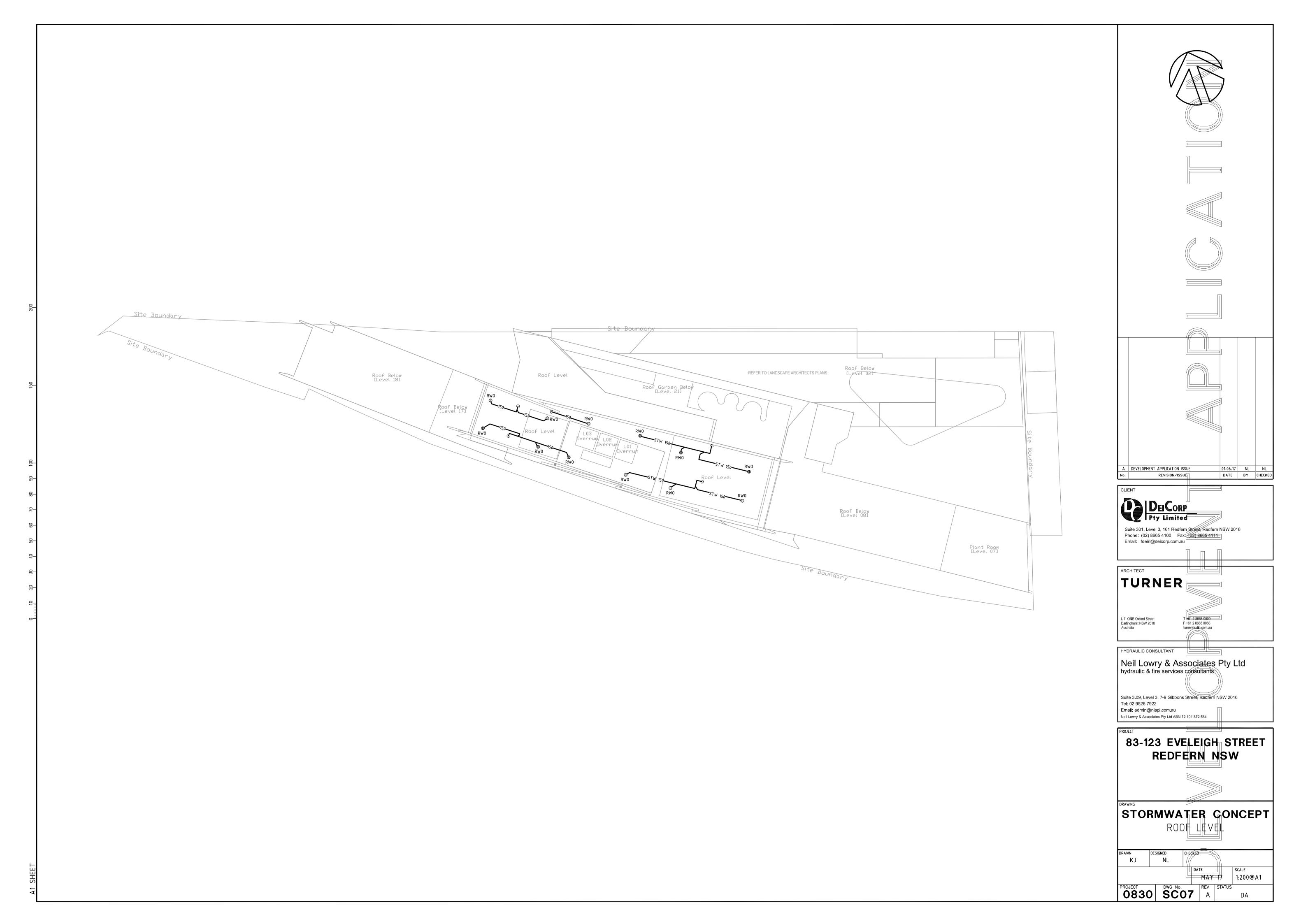












Spillway ~

Sub-copenies of the post of th	NCT 1	AND 3		of Struc	cture	Notes
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Sub-c PC1 0.68 0.68	eatchm PC3 0.25 0.25 known	ent or		of Struc	cture	Notes
PC1 0.68 0.68 pe if l	PC3 0.25 0.25 known		Name	of Struc	cture	Notes
PC1 0.68 0.68 pe if l	PC3 0.25 0.25 known		Name	of Stru	cture	Notes
PC1 0.68 0.68 pe if l	PC3 0.25 0.25 known		Name	OI Stru	cture	Notes
0.68 pe if l	0.25	or lab				
pe if l	known	or lab				1
		or lak		1		
			orator	v partic	le siz	e data)
	1	, 51 101	orator	ypurue	iic oiz	From Appendix C (if known)
						Enter the percentage of each soil
						fraction. E.g. enter 10 for 10%
						E.g. enter 10 for dispersion of 10%
						See Section 6.3.3(e). Auto-calculated
D	D					Automatic calculation from above
_	_					
						See Section 6.3.4 and, particularly,
						Table 6.3 on pages 6-24 and 6-25.
43.6	43.6					
						Only need to enter one or the other he
13	13					,
3650	3650					Auto-filled from above
0.06	0.06					
80	80					
6	4.5					RUSLE LS factor calculated for a high
1.47	1.05					rill/interrill ratio.
1.3	1.3	1.3	1.3	1.3	1.3	
1	1	1	1	1	1	
/f T	D	/C basi				le for Time Charine
_	-					Minimum is generally 2 months
	Alexandra (See Table F2, page F-4 in Appendix F
	5 75 43.6 13 3650 0.06 80 6 1.47 1.3	5	5	5	5	5

TYPICAL DETAIL DRAWING OF TYPE D/F SEDIMENT BASIN

SEDIMENT BASIN CALCULATION

SOIL WATER MANAGEMENT PLAN

NOTE:

VERIFY THE SOIL TEXTURE GROUP. IF TYPE D (DISPERSIBLE SOIL)
 FLOCCULATE WATER IN BASIN TO SETTLE AS REQUIRED FOR
 DISCHARGING PRIOR TO STORMWATER.

B FOR CONSTRUCTION

A FOR CONSTRUCTION

B FOR CONSTRUCTION

A FOR CONSTRUCTION

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PEMULWAY PROJECT REDFERN, NSW



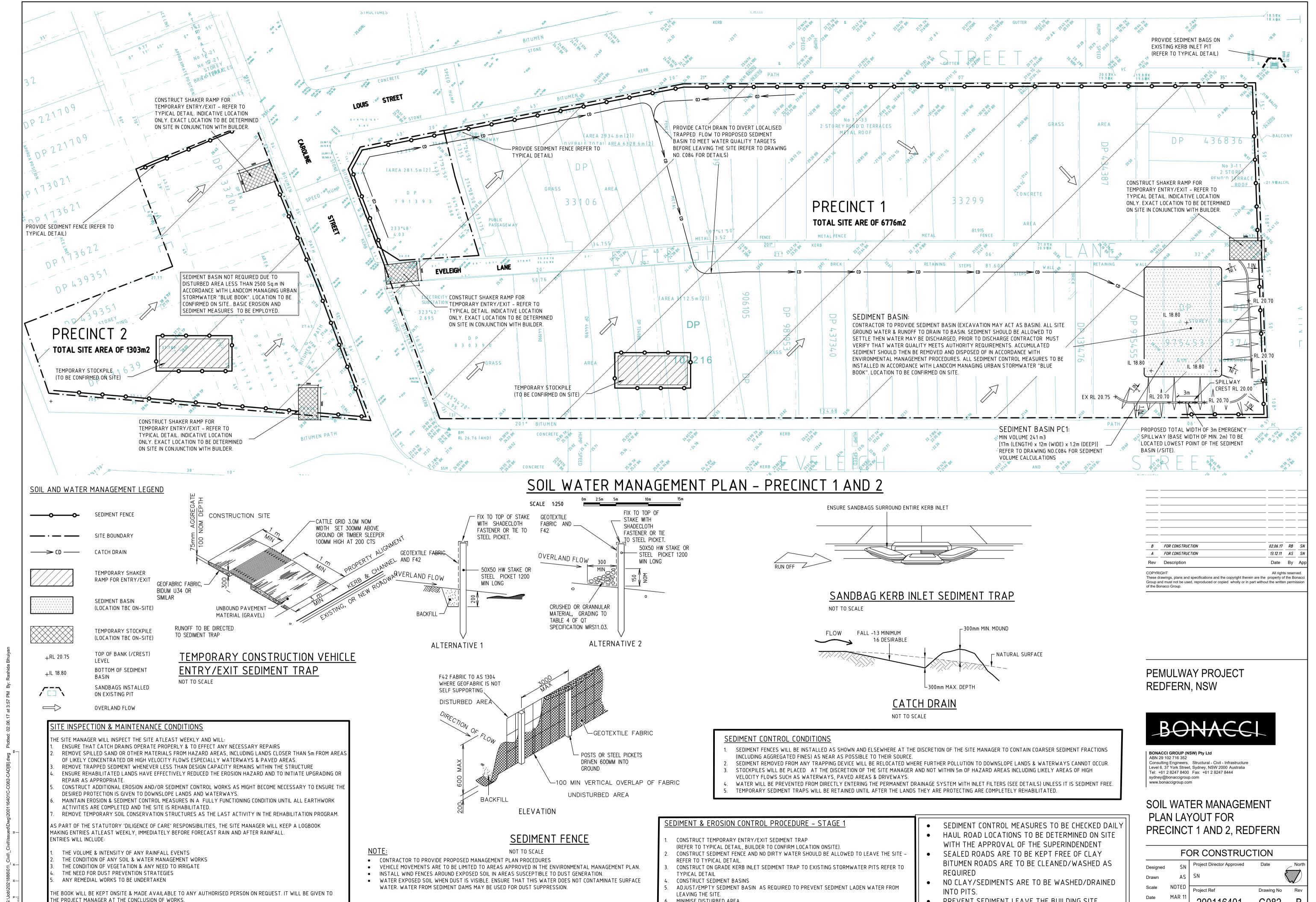
BONACCI GROUP (NSW) Pty Ltd

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Consulting Engineers, Structural - Civil - Infrastructure Level 6, 37 York Street, Sydney, NSW 2000 Australia Tel: +61 2 8247 8400 Fax: +61 2 8247 8444 sydney@bonaccigroup.com

SEDIMENT BASIN DETAIL
DRAWING AND CALCULATION
REDFERN

	FOR CONSTRUCTION				
signed	SN	Project Director Approved	Date	North	
awn	AS	SN			
ale	NOTED	Project Ref	Drawing No	Rev	
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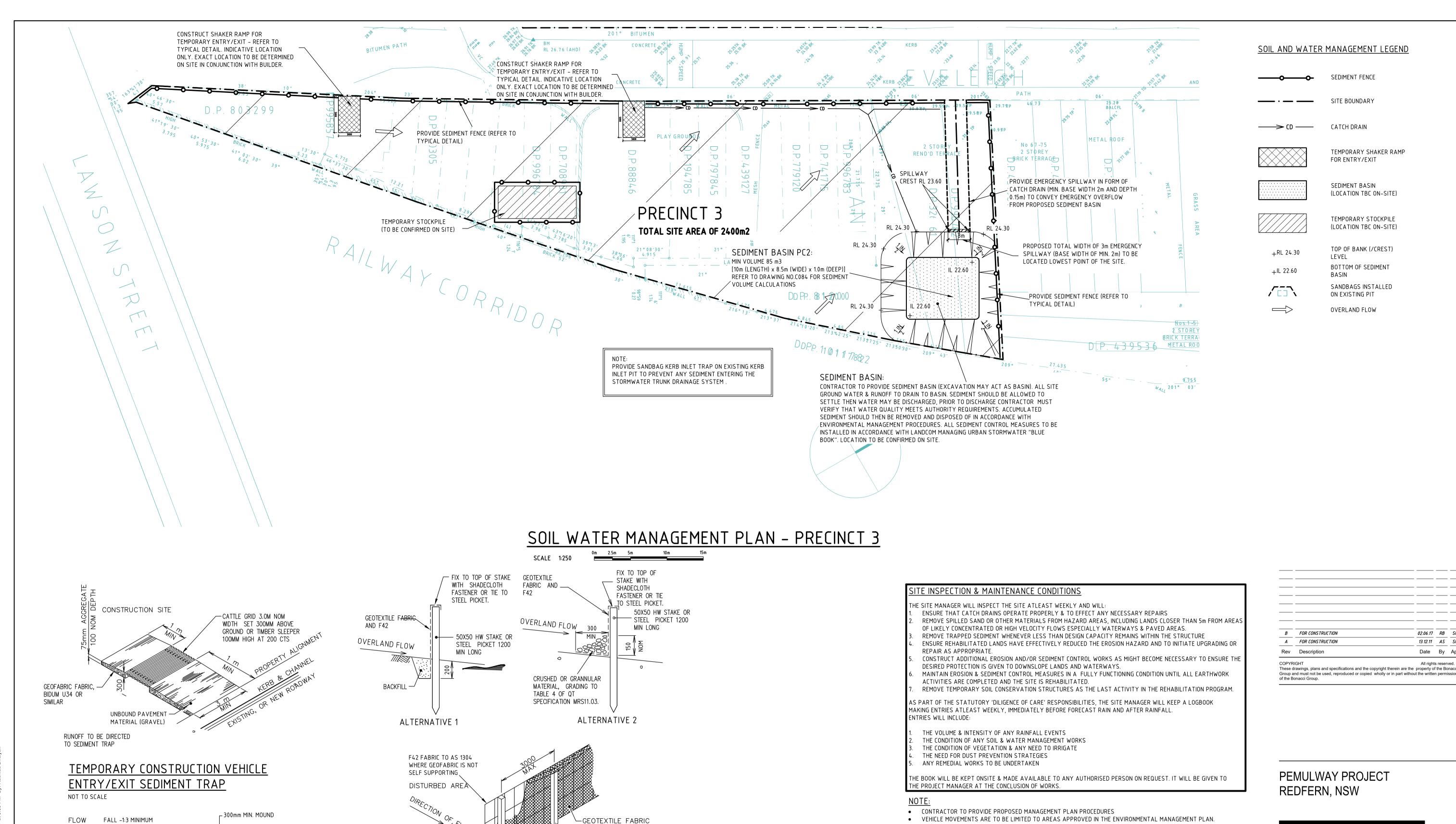


MINIMISE DISTURBED AREA.

C082

200116401

PREVENT SEDIMENT LEAVE THE BUILDING SITE





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SOIL WATER MANAGEMENT LAYOUT FOR PRECINCT 3, REDFERN

FOR CONSTRUCTION					
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Drawn	AS	SN	,		
Scale	NOTED	Project Ref	Drawing No	Rev	
Date	MAR 11	200116401	C083	В	
Sheet		200110 4 01	0000	ט	

SEDIMENT FENCES WILL BE INSTALLED AS SHOWN AND ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER TO CONTAIN COARSER SEDIMENT FRACTIONS (INCLUDING AGGREGATED FINES) AS NEAR AS POSSIBLE TO THEIR SOURCE.

SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS & WATERWAYS CANNOT OCCUR. STOCKPILES WILL BE PLACED WHERE SHOWN ON DRAWING C052 OR ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER AND NOT WITHIN 5m OF HAZARD AREAS INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS & DRIVEWAYS.

- NATURAL SURFACE

1:6 DESIRABLE

L300mm MAX. DEPTH

CATCH DRAIN

NOT TO SCALE

- WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM WITH INLET FILTERS (SEE DETAILS) UNLESS IT IS SEDIMENT FREE.
- TEMPORARY SEDIMENT TRAPS WILL BE RETAINED UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.

SEDIMENT & EROSION CONTROL PROCEDURE – STAGE 1

- CONSTRUCT TEMPORARY ENTRY/EXIT SEDIMENT TRAP
- (REFER TO TYPICAL DETAIL, BUILDER TO CONFIRM LOCATION ONSITE). CONSTRUCT SEDIMENT FENCE AND NO DIRTY WATER SHOULD BE ALLOWED TO LEAVE THE SITE -
- REFER TO TYPICAL DETAIL

- POSTS OR STEEL PICKETS DRIVEN 600MM INTO

-100 MIN VERTICAL OVERLAP OF FABRIC

GROUND

BACKFILL

ELEVATION

UNDISTURBED AREA

- CONSTRUCT ON GRADE KERB INLET SEDIMENT TRAP TO EXISTING STORMWATER PITS REFER TO TYPICAL DETAIL
- CONSTRUCT SEDIMENT BASINS.
- ADJUST/EMPTY SEDIMENT BASIN AS REQUIRED TO PREVENT SEDIMENT LADEN WATER FROM
- LEAVING THE SITE. MINIMISE DISTURBED AREA

SEDIMENT CONTROL CONDITIONS

INSTALL WIND FENCES AROUND EXPOSED SOIL IN AREAS SUSCEPTIBLE TO DUST GENERATION.

WATER. WATER FROM SEDIMENT DAMS MAY BE USED FOR DUST SUPPRESSION

WATER EXPOSED SOIL WHEN DUST IS VISIBLE. ENSURE THAT THIS WATER DOES NOT CONTAMINATE SURFACE

- SEDIMENT CONTROL MEASURES TO BE CHECKED DAILY
- HAUL ROAD LOCATIONS TO BE DETERMINED ON SITE
- WITH THE APPROVAL OF THE SUPERINDENDENT SEALED ROADS ARE TO BE KEPT FREE OF CLAY BITUMEN ROADS ARE TO BE CLEANED/WASHED AS
- REQUIRED NO CLAY/SEDIMENTS ARE TO BE WASHED/DRAINED
- PREVENT SEDIMENT LEAVE THE BUILDING SITE