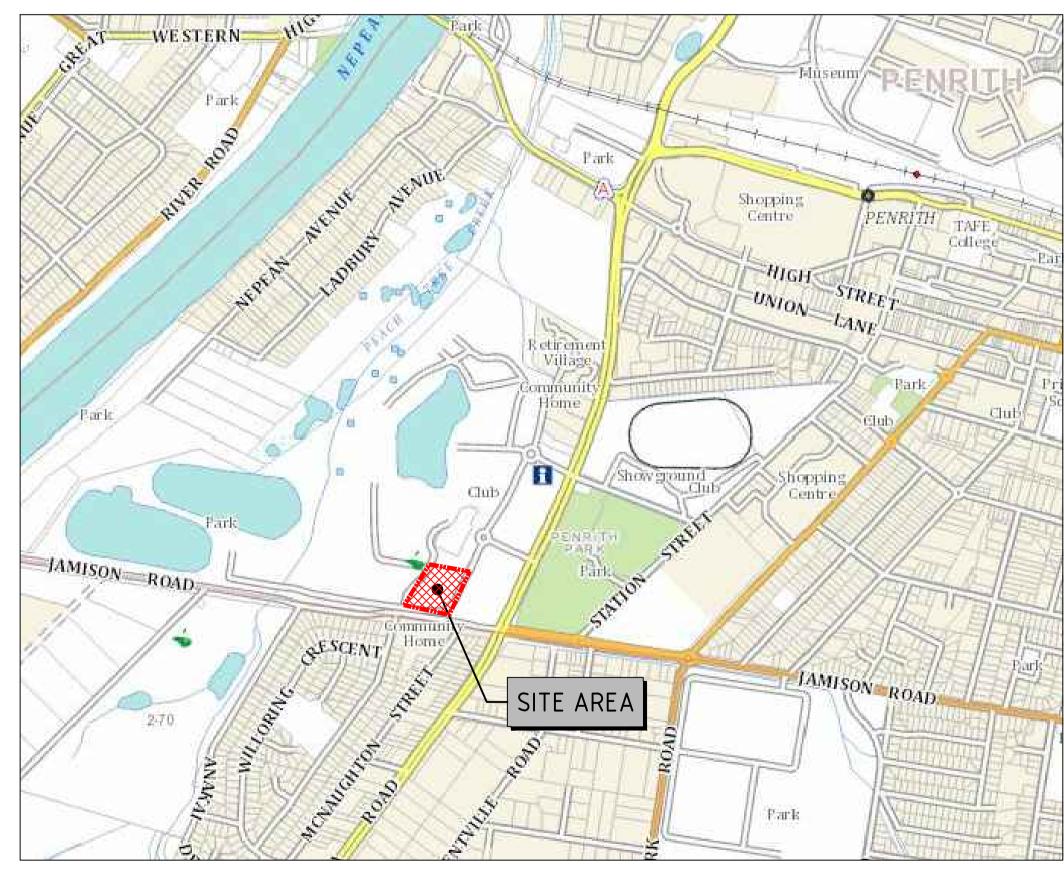
PANTHERS PRECINCT REDEVELOPMENT

NEPEAN MANORS, PENRITH

DA DESIGN CIVIL ENGINEERING INFRASTRUCTURE DRAWINGS

JUNE 2015



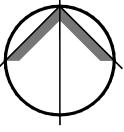
LOCALITY PLAN

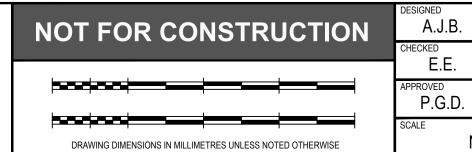
DRAWING LIST

DRAWING No.	REV.	DRAWING TITLE
DA100	В	COVER SHEET, DRAWING LIST AND LOCALITY PLAN
DA101	В	DEMOLITION PLAN
DA102	В	EROSION & SEDIMENT CONTROL PLAN AND DETAILS
DA103	В	ROADWORKS & DRAINAGE PLAN
DA104	Α	ROADWORKS LONG AND TYPICAL SECTION
DA105	В	STORMWATER CALCULATIONS
DA106	В	CATCHMENT PLAN
DA107	В	TRUNCK DRAINAGE PLAN AND LONGITUDINAL SECTION
DA108	В	TURNING PATHS
DA109	В	SERIVES COORDINATION PLAN

FOR DA SUBMISSON

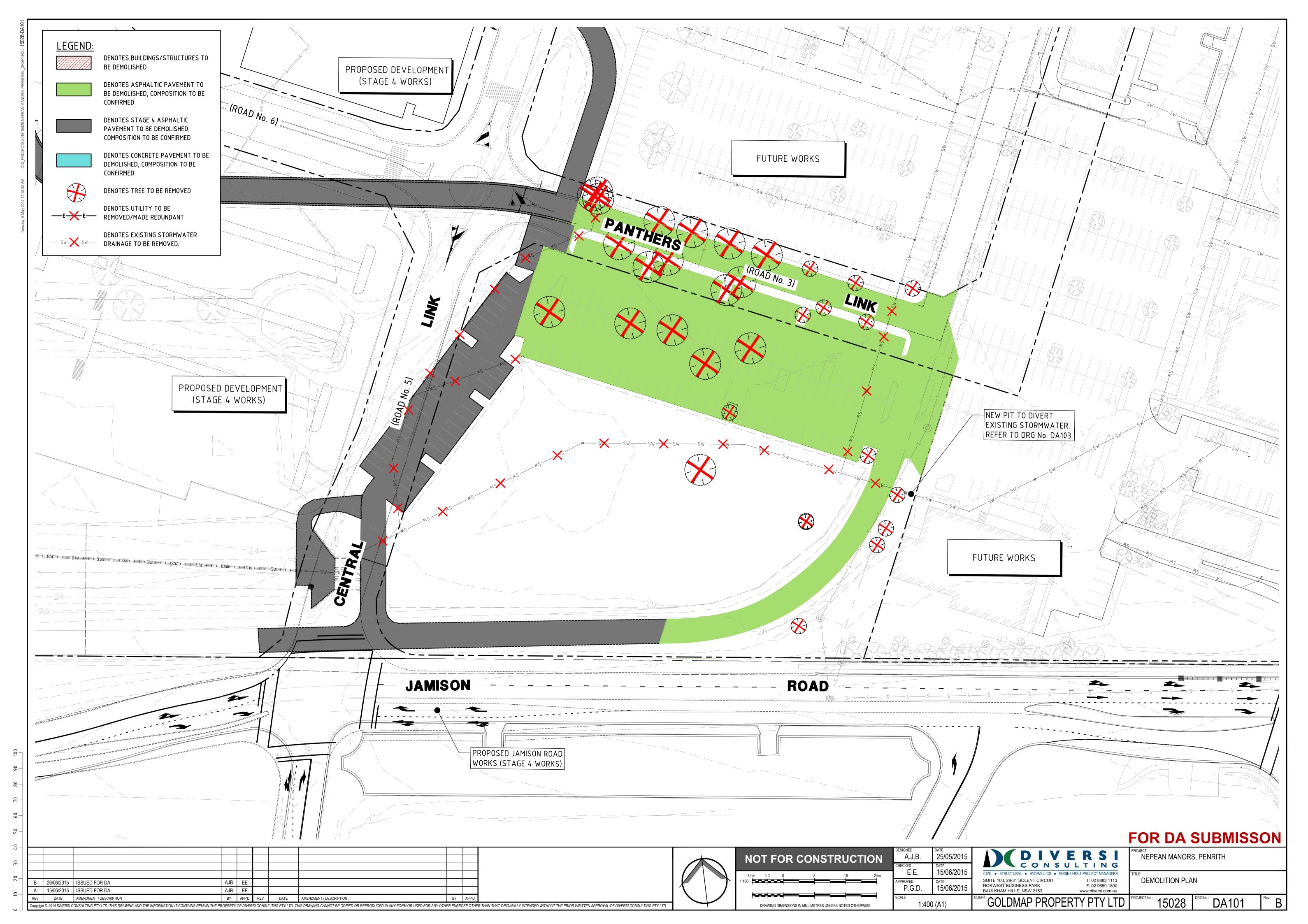
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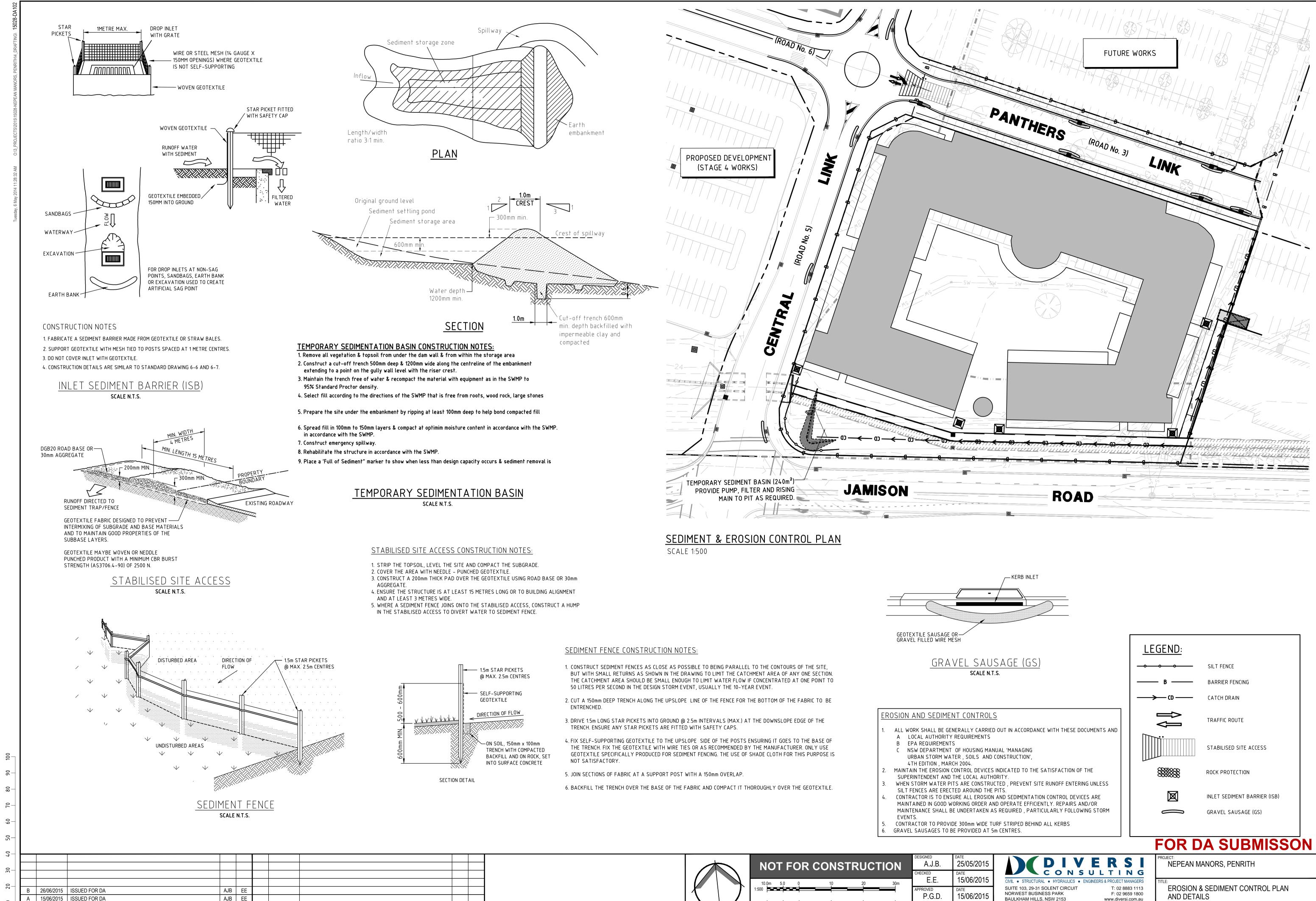




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NEPEAN MANORS, PENRITH COVER SHEET, DRAWING LIST AND F: 02 9659 1800 LOCALITY PLAN





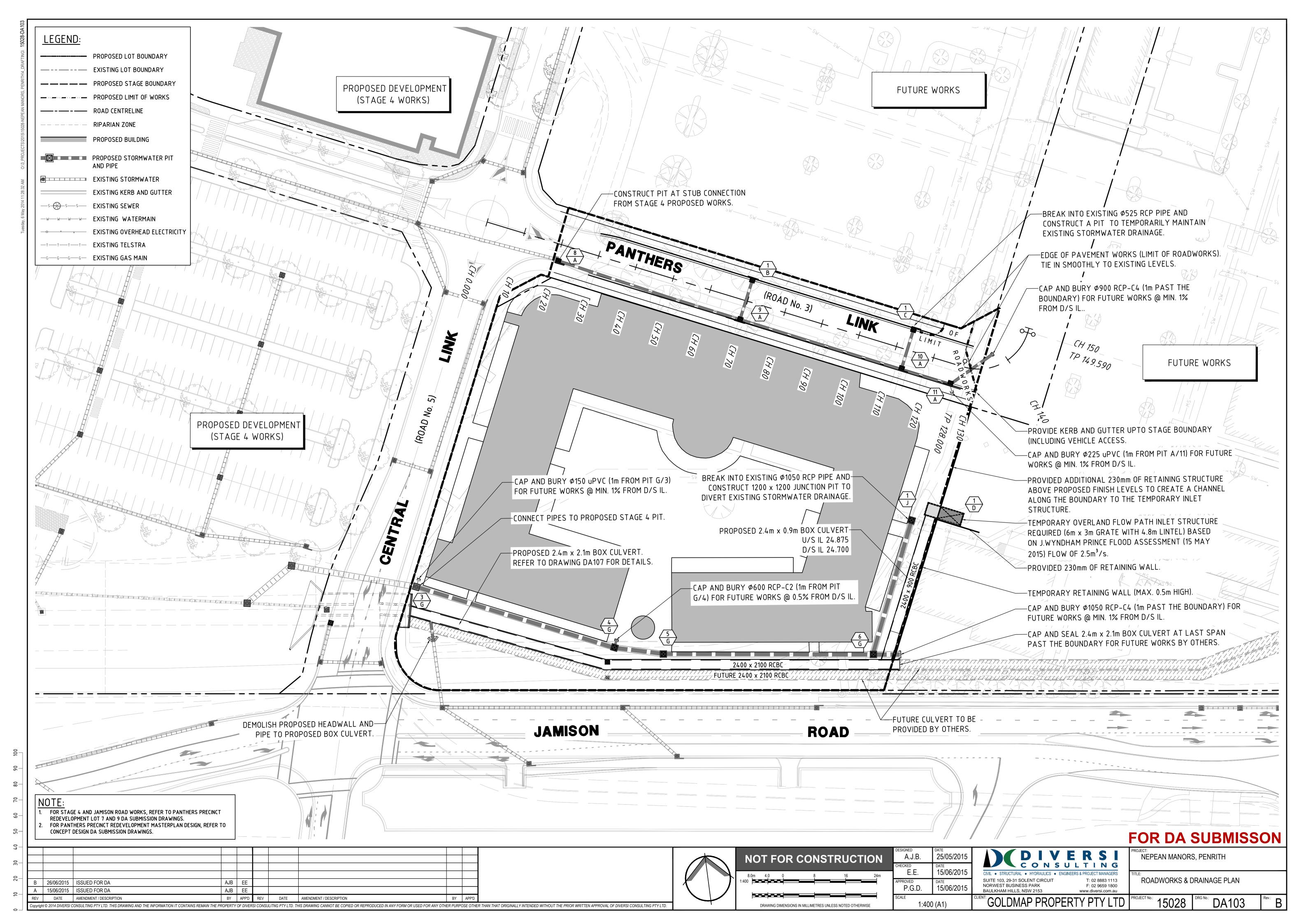
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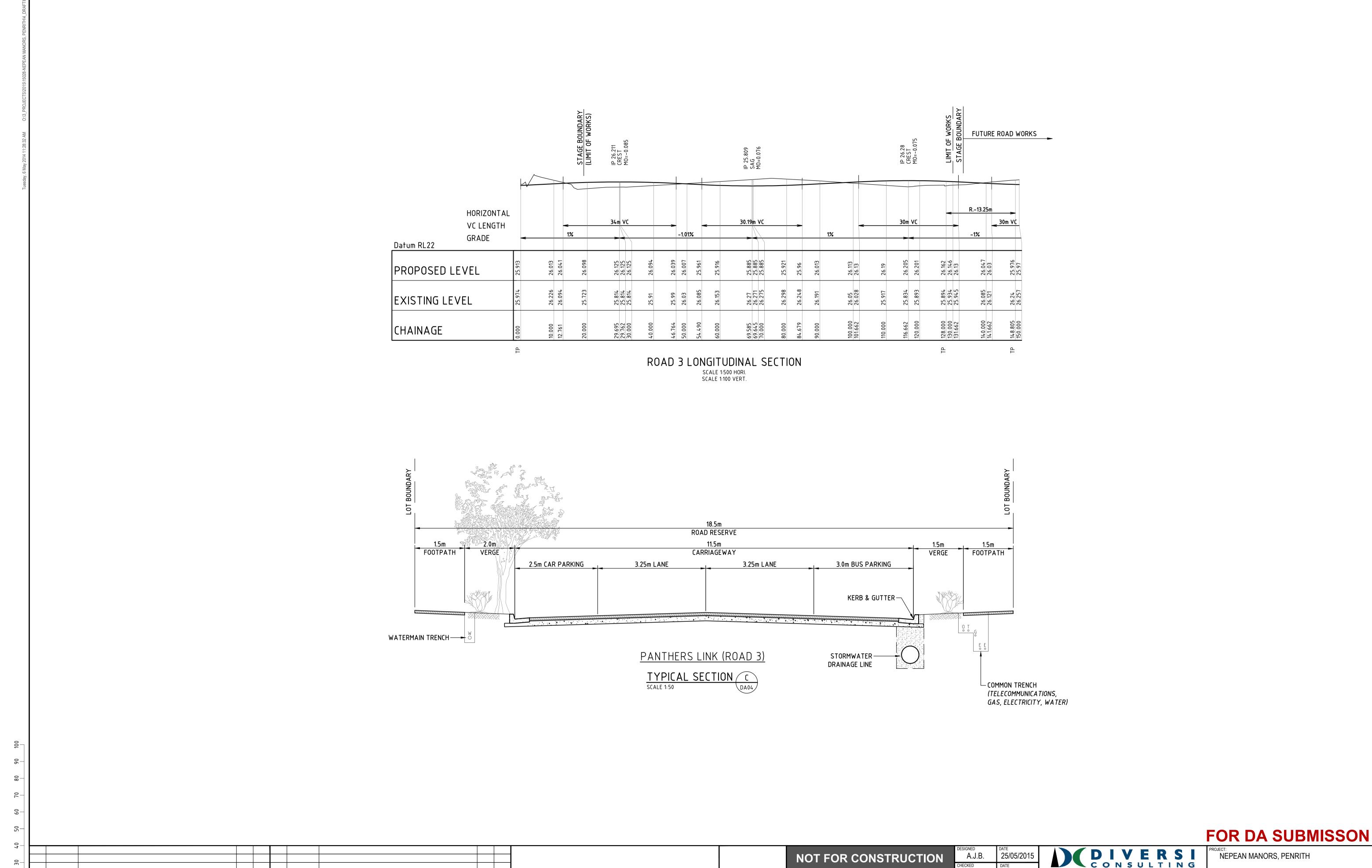
DRAWING DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE

AMENDMENT / DESCRIPTION

DATE AMENDMENT / DESCRIPTION

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ROADWORKS LONG AND TYPICAL SECTION

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STORMWATER RUNOFF CALCULATIONS FOR 1 IN 20 YEAR ARI STORM

				1				PIPE	1						<u> </u>		T		1	Т
																- 1-			חוחר	
						RAINFALL	CATCHMENT	FLOW,		U/S	PIPE		MIN. U/S			D/S		PIPE	PIPE	PIPE FULL
				RUNOFF		INTENSITY,	FLOW, Q	Qp	PIPE DIA	SURFACE	LENGTH	PIPE SLOPE	PIPE COVER	U/S INV	D/S INV	SURFACE	D/S COVER	ROUGHNESS,	CAPACITY	VELOCITY
NODE	D/s NODE	CATCHMENT	AREA (m ²) COEFF,C	Tc (mins)	I (mm/hr)	(m ³ /s)	(m ³ /s)	(mm)	LEVEL	(m)	(%)	(m)	(m)	(m)	LEVEL	(m)	k (mm)	(m ³ /s)	, V (m/s)
G/6	G/5	Lot 4 + 5	Refer to c	drawing DAC	07 and DA08 fo	or calculations	1.359	1.359	1050	26.590	54.020	1.0%	0.60	23.10	22.56	26.336	0.433	0.600	2.979	1.569
G/5	G/4						0.000	1.359	1050	26.336	12.700	1.0%	0.60	22.53	22.40	26.365	2.912	0.600	2.979	1.569
G/4	G/3	Courtyard + Roof	H				0.383	1.742	1050	26.365	53.290	1.0%	0.60	22.37	21.84	26.700	3.810	0.600	2.979	2.012
G/3	G/2	Western Boundary	H				0.011	1.753	1050	26.700	32.560	0.5%	1.10	21.81	21.65	24.600	1.903	0.600	2.102	2.024
G/2	G/1						0.000	1.753	1050	24.600	14.940	0.5%	0.40	21.62	21.54	23.520	0.928	0.600	2.102	2.024
J/1	G/6	Existing culvert diversion	Allowed f	for at node (G/6		0.000	0.000	1050	26.390	35.860	0.5%	2.03	23.31	23.13	26.590	2.409	0.060	2.546	0.000
A/11	A/10	Club, Hotel, Road + Eastern Building	37566	0.86	10.1	158	1.414	1.441	900	25.970	18.100	1.0%	1.10	23.97	23.79	26.282	1.593	0.060	2.443	2.266
A/10	A/9		18	0.86	5.1	167	0.001	1.935	900	26.282	18.100	1.0%	1.10	23.76	23.58	26.224	1.746	0.060	2.443	3.042
A/9	A/8		774	0.86	5.8	167	0.031	1.998	1050	26.224	18.100	1.0%	1.10	23.55	23.37	26.437	2.020	0.060	3.644	2.308
A/8	A/7		76	0.86	5.2	167	0.003	2.001	1050	26.437	18.100	1.0%	1.10	23.34	23.16	25.710	1.504	0.060	3.644	2.311
B/1	A/9		802	0.86	5.8	167	0.032	0.032	375	26.224	24.100	1.0%	1.10	24.75	24.51	26.224	1.341	0.060	0.251	0.290
C/1	A/10	Leisure	14488	0.86	8.0	143	0.493	0.493	525	26.282	24.100	1.0%	1.10	24.66	24.42	26.282	1.341	0.060	0.602	2.278

STORMWATER RUNOFF CALCULATIONS FOR TEMPORARY OVERLAND FLOW INLET PIT 1/D DRAINS INPUT DATA

ЭΙΤ	1	NODE	DFTA	II S

Name	Туре	Family	Size	Ponding	Pressure	Surface	Max Pond	Base	Blocking
				Volume	Change	Elev (m)	Depth (m)	Inflow	Factor
				(cu.m)	Coeff. Ku			(cu.m/s)	
1/D	Sag	100% Intake Structure	Special Pit	5	4.5	26.00	0.2	0	0
1	OnGrade	Junction Pit	Junction Pit		2.5	26.6		0	0
Pit350	OnGrade	Junction Pit	Junction Pit		0.5	26.5		0.113	0
2	Node					26.528		0	
N373	Node							0	

SUB-CA	CHIVIEN	DETA	LS
Name			Ρi

Name	Pit or	Total	Paved	Grass	Supp	Paved	Grass	Supp	Lag Time	Rainfall
	Node	Area	Area	Area	Area	Time	Time	Time	or Factor	Multiplier
		(ha)	%	%	%	(min)	(min)	(min)		
JWyndam Prince Calc	1/D	4.30	100.0	0.0	0.0	5	0	0	0	1

PIPE DETAILS

Name	From	То	Length	U/S IL	D/S IL	Slope	Туре	Dia	Roughness	No. Pipes
			(m)	(m)	(m)	(%)		(mm)		
Pipe1	1/D	1	35	24.875	24.700	0.50	Box culverts	2.4W x 0.9H	0.3	1
Pipe336	1	Pit350	120	23.538	22.938	0.50	Box culverts	2.4W x 2.1H	0.3	1
P366	Pit350	2	7.5	22.938	22.900	0.51	Box culverts	2.4W x 2.1H	0.3	1

OVERFLOW ROUTE DETAILS

OVERI LOVV ROC	JIL DE IAILS							
Name	From	То	Travel	Cross	Safe Depth	SafeDepth	Safe	Bed
			Time	Section	Major Storms	Minor Storms	DxV	Slope
			(min)		(m)	(m)	(sq.m/sec)	(%)
OF1	1/D	N373	1	Overflow across road low point	0.05	0	0.6	0.1
				narahala y = 1E y = 0.2				

DRAINS RESULTS DATA

PIT / NODE DETAILS

Name	Max HGL	Max Pond	Max Surface	Max Pond	Min	Overflow	Constraint
		HGL	Flow Arriving	Volume	Freeboard	(cu.m/s)	
			(cu.m/s)	(cu.m)	(m)		
1/D	25.70	26.19	2.496	3.9	0.30	0.000	Inlet Capacity
1	24.32		0.000		2.28		None
Pit350	23.46		0.000		3.04		None
2	23.30		0.000				

SUB-CATCHMENT DETAILS

300-CATCHIVILIA DEIA	7112						
Name	Max	Paved	Grassed	Paved	Grassed	Supp.	Due to Storm
	Flow Q	Max Q	Max Q	Тс	Тс	Tc	
	(cu.m/s)	(cu.m/s)	(cu.m/s)	(min)	(min)	(min)	
IMyndam Prince Calc	2 496	2 496	0.000	5.00	0.00	0.00	AR&R 100 year 5 minutes storm

PIPE DETAILS

Name	Max Q	Max V	Max U/S	Max D/S	Due to Storm
	(cu.m/s)	(m/s)	HGL (m)	HGL (m)	
Pipe1	2.572	2.98	25.248	25.060	AR&R 100 year, 5 minutes storm
Pipe336	2.668	2.67	23.954	23.459	AR&R 100 year, 5 minutes storm
Dace	2.756	2.00	22 224	22 207	APR 100 year Eminutes storm

OVERFLOW ROUTE DETAILS

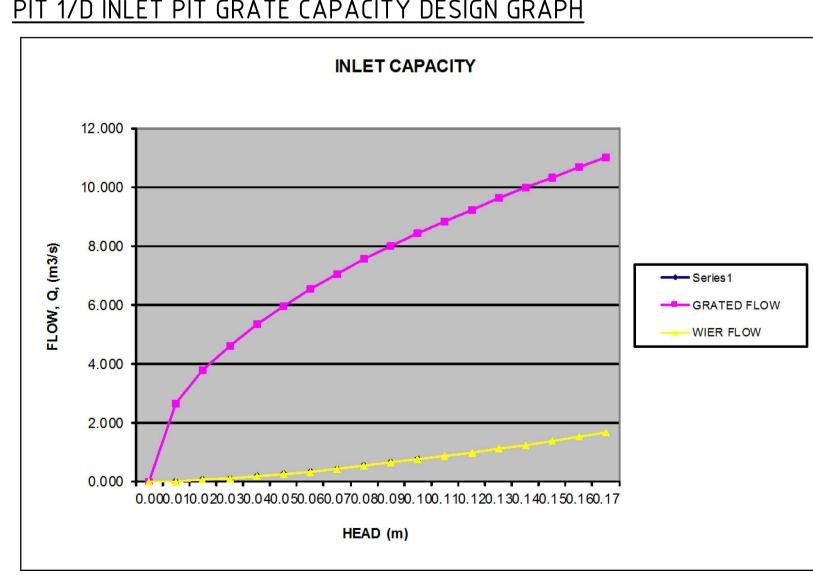
Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max DxV		Max V	Due to Storm
OF1	0	0	0.091	0	0	0	0	n/a

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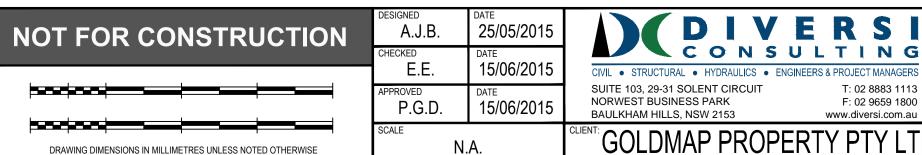
PIT 1/D INLET PIT GRATE CAPACITY DESIGN

	GRATE FLOW							WIER FLOW						
					AFFECTIVE	GRATE					WIER		MIN	
				BLOCKAGE	GRATE	FLOW,					COEFF,	WEIR	FLOW,	
HEAD	PIT SIZE		OPENING	FACTOR	AREA	Qg	WIER LENGTH			С	FLOW, Qw	Q*		
	W	В				m3/s	W1	W2	B1	B2				
0.00	6	3	100%	50%	9.000	0.000	6	4.8	0	3	1.74	0.000	0.000	
0.01	6	3	100%	50%	9.000	2.671	6	4.8	0	3	1.74	0.024	0.024	
0.02	6	3	100%	50%	9.000	3.777	6	4.8	0	3	1.74	0.068	0.068	
0.03	6	3	100%	50%	9.000	4.626	6	4.8	0	3	1.74	0.125	0.125	
0.04	6	3	100%	50%	9.000	5.342	6	4.8	0	3	1.74	0.192	0.192	
0.05	6	3	100%	50%	9.000	5.972	6	4.8	0	3	1.74	0.268	0.268	
0.06	6	3	100%	50%	9.000	6.542	6	4.8	0	3	1.74	0.353	0.353	
0.07	6	3	100%	50%	9.000	7.067	6	4.8	0	3	1.74	0.445	0.445	
0.08	6	3	100%	50%	9.000	7.555	6	4.8	0	3	1.74	0.543	0.543	
0.09	6	3	100%	50%	9.000	8.013	6	4.8	0	3	1.74	0.648	0.648	
0.10	6	3	100%	50%	9.000	8.446	6	4.8	0	3	1.74	0.759	0.759	
0.11	6	3	100%	50%	9.000	8.859	6	4.8	0	3	1.74	0.876	0.876	
0.12	6	3	100%	50%	9.000	9.252	6	4.8	0	3	1.74	0.998	0.998	
0.13	6	3	100%	50%	9.000	9.630	6	4.8	0	3	1.74	1.125	1.125	
0.14	6	3	100%	50%	9.000	9.994	6	4.8	0	3	1.74	1.258	1.258	
0.15	6	3	100%	50%	9.000	10.345	6	4.8	0	3	1.74	1.395	1.395	
0.16	6	3	100%	50%	9.000	10.684	6	4.8	0	3	1.74	1.537	1.537	
0.17	6	3	100%	50%	9.000	11.013	6	4.8	0	3	1.74	1.683	1.683	
0.18	6	3	100%	50%	9.000	11.332	6	4.8	0	3	1.74	1.834	1.834	
0.19	6	3	100%	50%	9.000	11.642	6	4.8	0	3	1.74	1.989	1.989	
0.20	6	3	100%	50%	9.000	11.945	6	4.8	0	3	1.74	2.148	2.148	
0.21	6	3	100%	50%	9.000	12.240	6	4.8	0	3	1.74	2.311	2.311	
0.22	6	3	100%	50%	9.000	12.528	6	4.8	0	3	1.74	2.478	2.478	
0.23	6	3	100%	50%	9.000	12.809	6	4.8	0	3	1.74	2.649	2.649	

PIT 1/D INLET PIT GRATE CAPACITY DESIGN GRAPH



FOR DA SUBMISSON



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