

ARGENT LANE TO DAIRY FLAT HIGHWAY

COVER PAGE

DRAWING REGISTER			
DRAWING No.	DRAWING TITLE		Rev
GENERAL			
402828-MM-DWG-02-CV-DD-0000-00	Drawing Register and Locality Plan (this sheet)		F
Roading - Stage 1			
402828-MM-DWG-02-CV-RD-1101	General Layout		E
402828-MM-DWG-02-CV-RD-1201	Longsection - Dairy Flat Highway		E
402828-MM-DWG-02-CV-RD-1202	Longsection - Pine Valley Road		E
402828-MM-DWG-02-CV-RD-1301	Cross-sections - Dairy Flat Highway	Sheet 1 of 2	E
402828-MM-DWG-02-CV-RD-1302	Cross-sections - Dairy Flat Highway	Sheet 2 of 2	E
402828-MM-DWG-02-CV-RD-1311	Cross-sections - Pine Valley Road	Sheet 1 of 2	D
402828-MM-DWG-02-CV-RD-1312	Cross-sections - Pine Valley Road	Sheet 2 of 2	D
402828-MM-DWG-02-CV-RD-1401	Typical cross-sections - Dairy Flat Highway		F
402828-MM-DWG-02-CV-RD-1402	Typical cross-sections - Pine Valley Road		F
402828-MM-DWG-02-CV-RD-1403	Earthworks Plan (Stage 1)		C
Roading - Stage 2			
402828-MM-DWG-02-CV-RD-2101	General Layout		F
402828-MM-DWG-02-CV-RD-2201	Longsection - Dairy Flat Highway		F
402828-MM-DWG-02-CV-RD-2202	Longsection - Pine Valley Road		F
402828-MM-DWG-02-CV-RD-2301	Cross-sections - Dairy Flat Highway	Sheet 1 of 2	F
402828-MM-DWG-02-CV-RD-2302	Cross-sections - Dairy Flat Highway	Sheet 2 of 2	F
402828-MM-DWG-02-CV-RD-2311	Cross-sections - Pine Valley Road	Sheet 1 of 2	D
402828-MM-DWG-02-CV-RD-2312	Cross-sections - Pine Valley Road	Sheet 2 of 2	D
402828-MM-DWG-02-CV-RD-2401	Typical cross-sections - Dairy Flat Highway		F
402828-MM-DWG-02-CV-RD-2402	Typical cross-sections - Pine Valley Road		F
402828-MM-DWG-02-CV-RD-2403	Notice of Requirement Boundaries Plan		F
Stormwater Drawings - Stage 1			
402828-MM-DWG-02-CV-DD-0800	Stormwater General Arrangement Plan		D
402828-MM-DWG-02-CV-DD-0810	Stormwater Drainage Layout	Sheet 1 of 8	D
402828-MM-DWG-02-CV-DD-0811	Stormwater Drainage Layout	Sheet 2 of 8	D
402828-MM-DWG-02-CV-DD-0812	Stormwater Drainage Layout	Sheet 3 of 8	D
402828-MM-DWG-02-CV-DD-0813	Stormwater Drainage Layout	Sheet 4 of 8	D
402828-MM-DWG-02-CV-DD-0814	Stormwater Drainage Layout	Sheet 5 of 8	D
402828-MM-DWG-02-CV-DD-0815	Stormwater Drainage Layout	Sheet 6 of 8	D
402828-MM-DWG-02-CV-DD-0816	Stormwater Drainage Layout	Sheet 7 of 8	D
402828-MM-DWG-02-CV-DD-0817	Stormwater Drainage Layout	Sheet 8 of 8	D
402828-MM-DWG-02-CV-DD-0831	Conveyance Channel Design		D
402828-MM-DWG-02-CV-DD-0840	Typical Road Raingarden Detail	Sheet 1 of 3	C
402828-MM-DWG-02-CV-DD-0841	Typical Road Raingarden Detail	Sheet 2 of 3	C
402828-MM-DWG-02-CV-DD-0842	Typical Road Raingarden Detail	Sheet 3 of 3	D
402828-MM-DWG-02-CV-DD-0843	Super Raingarden Detail		D
402828-MM-DWG-02-CV-DD-0850	Stormwater Pipe Network Catchment Plan		D



LOCALITY DIAGRAM
NOT TO SCALE

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REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOH
DO NOT SCALE OFF THIS DRAWING. VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK.	

CONSULTANT PROJECT NO.	
MOTT MACDONALD :	402828

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M MOTT MACDONALD	

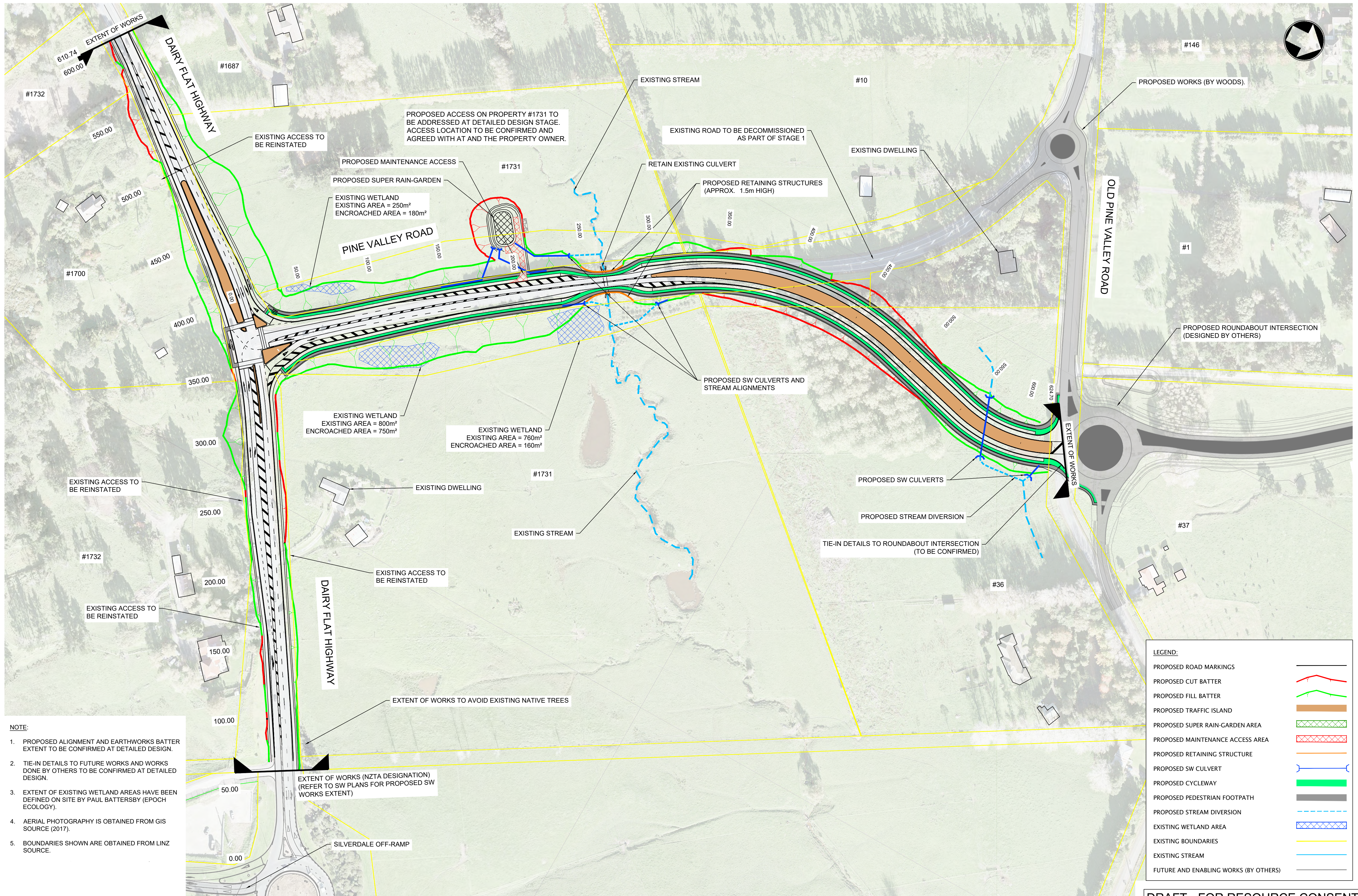
CLIENT	
MILLDALE	

ROAD CONTROLLING AUTHORITY	
Auckland Transport	

PROJECT	
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS	
PROJECT TYPE NEW CONSTRUCTION	PROJECT PHASE PRELIMINARY DESIGN
CONSULTANT PROJECT NO. 402828	

DRAFT - FOR RESOURCE CONSENT	
DRAWING Milldale Development - Argent Lane to Dairy Flat H/W Coverpage	REVISION
DRAWING NO. 402828-MM-DWG-02-CV-DD-0000-00	F
FOR RESOURCE CONSENT	SCALE (A1) -

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- NOTE:**
1. PROPOSED ALIGNMENT AND EARTHWORKS BATTER EXTENT TO BE CONFIRMED AT DETAILED DESIGN.
 2. TIE-IN DETAILS TO FUTURE WORKS AND WORKS DONE BY OTHERS TO BE CONFIRMED AT DETAILED DESIGN.
 3. EXTENT OF EXISTING WETLAND AREAS HAVE BEEN DEFINED ON SITE BY PAUL BATTERSBY (EPOCH ECOLOGY).
 4. AERIAL PHOTOGRAPHY IS OBTAINED FROM GIS SOURCE (2017).
 5. BOUNDARIES SHOWN ARE OBTAINED FROM LINZ SOURCE.

LEGEND:	
PROPOSED ROAD MARKINGS	
PROPOSED CUT BATTER	
PROPOSED FILL BATTER	
PROPOSED TRAFFIC ISLAND	
PROPOSED SUPER RAIN-GARDEN AREA	
PROPOSED MAINTENANCE ACCESS AREA	
PROPOSED RETAINING STRUCTURE	
PROPOSED SW CULVERT	
PROPOSED CYCLEWAY	
PROPOSED PEDESTRIAN FOOTPATH	
PROPOSED STREAM DIVERSION	
EXISTING WETLAND AREA	
EXISTING BOUNDARIES	
EXISTING STREAM	
FUTURE AND ENABLING WORKS (BY OTHERS)	

REV	DESCRIPTION	DATE
A	DRAFT - FOR DISCUSSION ONLY	12/02/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - ADDED NOTE ON PROPERTY #1731 PROPOSED ACCESS	21/08/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	G.BOOOTH
APPROVED	G.BOOOTH

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MOTT MACDONALD : 402828

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An Auckland Council Organisation

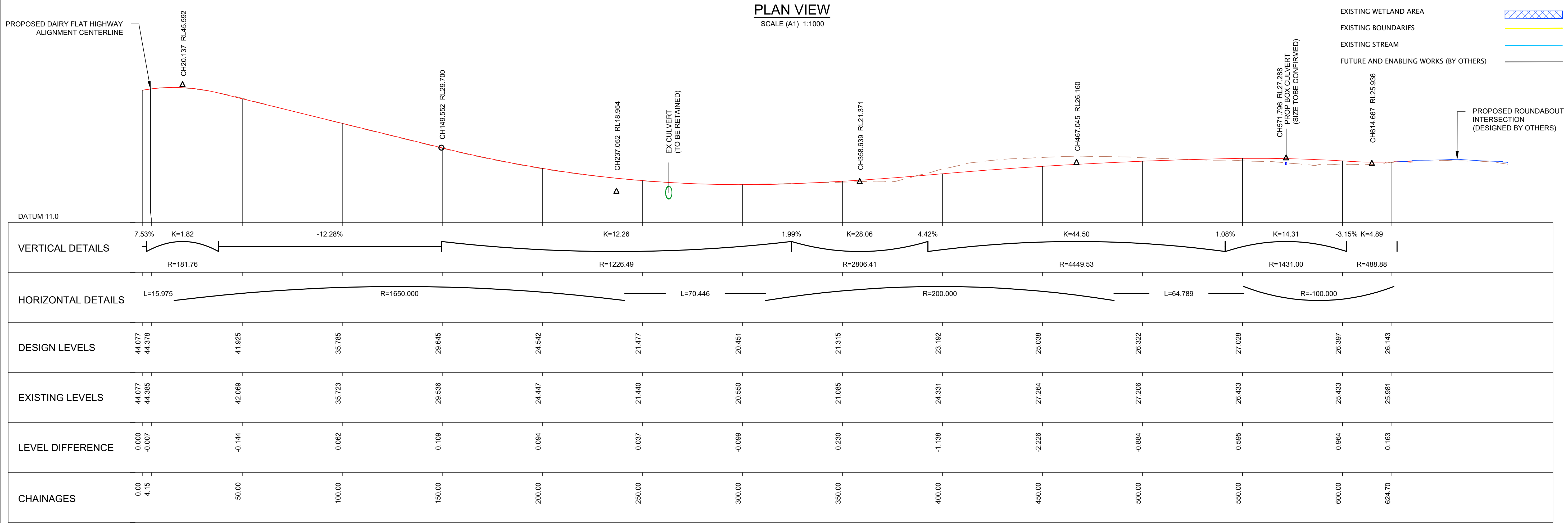
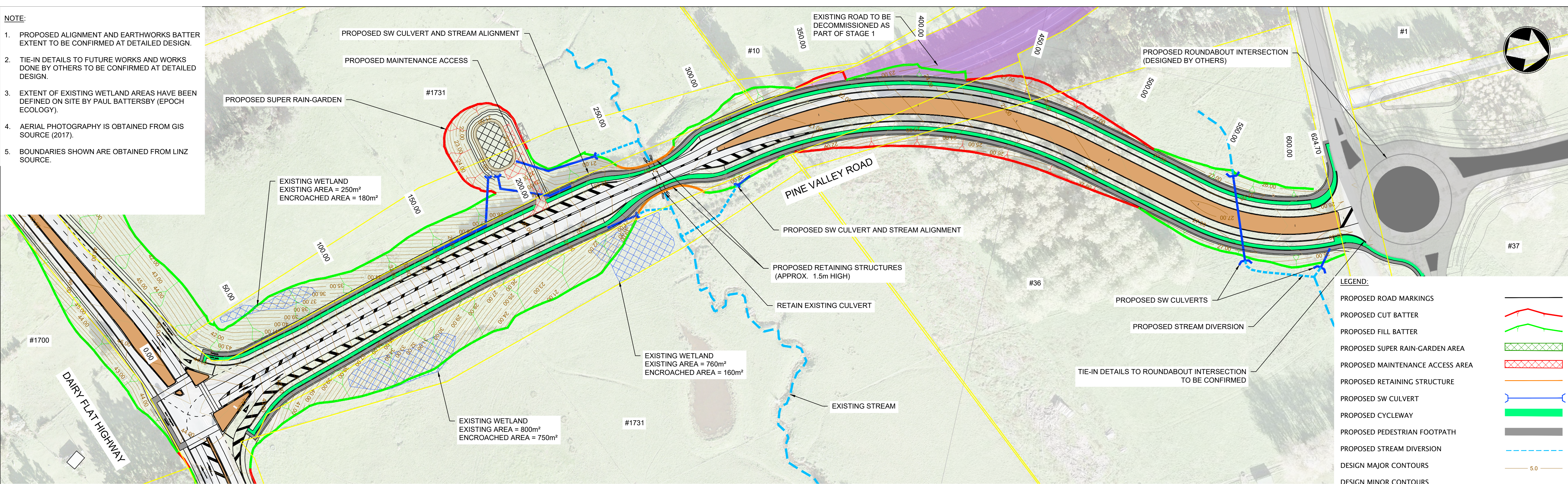
PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

DRAFT - FOR RESOURCE CONSENT

DRAWING
Milldale Development, Argent Lane - Dairy Flat Highway
General Layout, Pine Valley Road (STAGE 1)
DRAWING NO.
402828-MM-DWG-02-CV-RD-1101
REVISION
E
FOR RESOURCE CONSENT
SCALE (A1)
1:1250

NOTE:

1. PROPOSED ALIGNMENT AND EARTHWORKS BATTER EXTENT TO BE CONFIRMED AT DETAILED DESIGN.
2. TIE-IN DETAILS TO FUTURE WORKS AND WORKS DONE BY OTHERS TO BE CONFIRMED AT DETAILED DESIGN.
3. EXTENT OF EXISTING WETLAND AREAS HAVE BEEN DEFINED ON SITE BY PAUL BATTERSBY (EPOCH ECOLOGY).
4. AERIAL PHOTOGRAPHY IS OBTAINED FROM GIS SOURCE (2017).
5. BOUNDARIES SHOWN ARE OBTAINED FROM LINZ SOURCE.



CONTROL LINE - PROPOSED PINE VALLEY ROAD ALIGNMENT (STAGE 1) - HORZ - 1 : 1000 VERT - 1 : 500 (A1)

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D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

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DRAWN I.HO
CHECKED D.ROLLO
APPROVED G.BOOOTH
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PROJECT
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS
PROJECT TYPE NEW CONSTRUCTION
PROJECT PHASE PRELIMINARY DESIGN
CONSULTANT PROJECT NO. 402828

DRAFT - FOR RESOURCE CONSENT

DRAWING Pine Valley Road / Dairy Flat Highway Longsections - Pine Valley Road (STAGE 1)	REVISION
DRAWING NO. 402828-MM-DWG-02-CV-RD-1202	E
FOR RESOURCE CONSENT	SCALE (A1) AS SHOWN

E = 390691.126
N = 828111.665
Z = 39.654

[illegible]

E = 390732.962
N = 828139.047
Z = 38.128

[illegible]

E = 390774.798
N = 828166.429
Z = 35.631

DESIGN LEVELS		35.560	35.560	35.549	35.549		35.625	35.588	35.495	35.398	35.049	35.276	
EXISTING SURFACE		35.560	35.549	35.549			35.625	35.588	35.495	35.398	35.049	35.276	
OFFSETS		-11.456	-10.038	-7.838			-2.000	0.000	3.200	5.383	8.033	10.167	

E = 390816.633
N = 828193.811
Z = 32.692

DESIGN LEVELS		32.692	32.596		32.471	
EXISTING SURFACE		32.692	32.656		32.471	
OFFSETS		0.000	3.200		12.791	

E = 390565.620
N = 828029.518
Z = 42.630

DESIGN LEVELS		38.930		42.446	42.402		42.570	42.630	42.534	42.438	42.602	42.540	
EXISTING SURFACE		38.930		40.451	42.001		42.620	42.657	42.654	41.467	42.454	42.540	
OFFSETS		-25.860		-14.250	-12.050		-2.000	0.000	3.200	6.400	9.050	10.614	

E = 390607.455
N = 828056.900
Z = 41.433

[illegible]

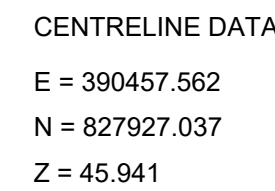
E = 390649.291
N = 828084.282
Z = 40.465

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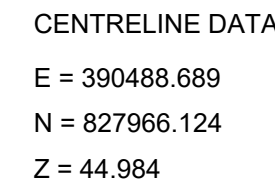
1. REFER TO C-1101 FOR GENERAL LAYOUT
2. REFER TO C-1404 - 1402 FOR TYPICAL CROSS-SECTIONS.
3. RETAINING WALL STRUCTURE TYPE TO BE CONFIRMED.
4. PROPOSED ROADSIDE BARRIER TO BE CONFIRMED.
5. FENCING AND PROPERTY BOUNDARY EXTENT TO BE CONFIRMED
6. REFER TO THE ACRONYMS BELOW:
 - KC - PROPOSED KERB AND CHANNEL
 - KN - PROPOSED KERB AND NIB
 - PED - PROPOSED PEDESTRIAN FOOTPATH
 - CYC - PROPOSED OFF-ROAD CYCLE LANE
 - BDY - EXISTING ROAD CORRIDOR BOUNDARIES
 - PROP BDY - PROPOSED ROAD CORRIDOR BOUNDARIES**

DRAWING	
Pine Valley Road / Dairy Flat Highway	
Cross-sections - Dairy Flat Highway (STAGE 1) - Sheet 1 of 2	
DRAWING NO.	REVISION
402828-MM-DWG-02-CV-RD-1301	E
FOR RESOURCE CONSENT	SCALE (A1) 1:250

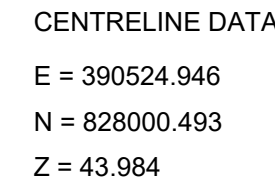
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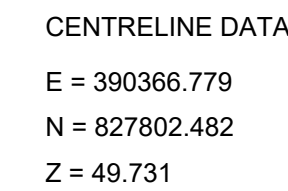
CHAINAGE 450.00



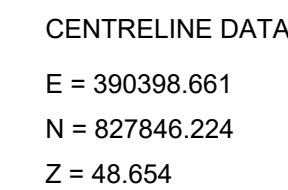
CHAINAGE 400.00



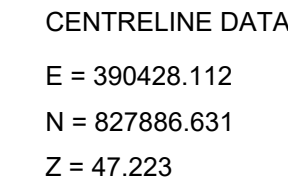
CHAINAGE 350.00



CHAINAGE 604.13



CHAINAGE 550.00



CHAINAGE 500.00

REV	DESCRIPTION	DATE
A	DRAFT - FOR DISCUSSION ONLY	27/08/2019
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
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E	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH

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ROAD CONTROLLING AUTHORITY

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The logo for Auckland Transport (AT) features a stylized 'AT' in dark blue, with a red and green curved element above and below the letters, respectively, all enclosed within a circular border.

PROJECT	
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS	
PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
	CONSULTANT PROJECT NO. 402823

DRAFT - FOR RESOURCE CONSENT

DRAWING		REVISION
Pine Valley Road / Dairy Flat Highway		
Cross-sections - Dairy Flat Highway (STAGE 1) - Sheet 2 of 2		
DRAWING NO.		
402828-MM-DWG-02-CV-RD-1302	E	
FOR RESOURCE CONSENT	SCALE (A1)	1:250

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CENTRELINE DATA
E = 390414.751
N = 828097.969
Z = 29.645

DATUM 23.00

DESIGN LEVELS		27.068		29.828	29.792	29.656	29.612		29.556		29.620	29.645	29.624		29.560		29.496		29.649	29.685	29.821		24.481
EXISTING SURFACE		27.068		27.025	27.539	28.189	28.763		29.376		29.498	29.536	29.624		29.409		28.688		27.818	27.337	26.739		24.481
OFFSETS		-25.779		-14.200	-12.400	-10.300	-8.100		-4.450		-1.250	0.000	1.042		4.242		7.442		10.624	12.424	14.524		36.424

CHAINAGE 150.00

CENTRELINE DATA
E = 390446.941
N = 828059.712
Z = 35.785

DATUM 30.00

DESIGN LEVELS		33.410		35.988	35.932	35.796	35.752		35.696		35.760	35.785		35.716		35.652	35.601		35.765	35.801	35.937		30.716
EXISTING SURFACE		33.410		33.342	33.847	34.451	35.036		35.591		35.704	35.723		35.632		35.110	34.074		33.115	32.463	31.748		30.716
OFFSETS		-24.972		-14.200	-12.400	-10.300	-8.100		-4.450		-1.250	0.000	3.461		6.661		9.193		11.843	13.643	15.743		37.166

CHAINAGE 100.00

CENTRELINE DATA
E = 390480.274
N = 828022.447
Z = 41.925

DATUM 38.00

DESIGN LEVELS		38.593		42.080	42.044	41.908	41.864		41.836		41.900	41.925		40.156			41.695		41.890	41.949	42.113		40.156
EXISTING SURFACE		38.593		39.686	40.000	40.457	40.935		41.905		42.054	42.069		40.156			40.809		40.548	40.371	40.197		40.156
OFFSETS		-30.070		-15.580	-13.780	-11.680	-9.480		-4.450		-1.250	0.000		25.525			9.866		12.530	14.341	16.454		

CHAINAGE 50.00

CENTRELINE DATA
E = 390514.666
N = 827986.155
Z = 44.222

DATUM 43.00

DESIGN LEVELS		44.643																					
EXISTING SURFACE		44.499																					
OFFSETS		-19.028																					

CHAINAGE 0.00

CENTRELINE DATA
E = 390324.486
N = 828217.738
Z = 20.451

DATUM 18.00

DESIGN LEVELS		20.417		21.004	20.988	20.832	20.788		20.577		20.487	20.451	20.408		20.299		20.190	20.354	20.390	20.526		19.322
EXISTING SURFACE		20.417		20.324	20.162	19.877	19.770		20.352		20.498	20.550	20.408		20.399		19.973	19.868	19.822	19.699		19.322
OFFSETS		-17.237		-14.200	-12.400	-10.300	-8.100		-4.450		-1.250	0.000	1.250		4.450		7.650	10.300	12.100	14.200		19.555

CHAINAGE 300.00

CENTRELINE DATA
E = 390353.904
N = 828177.308
Z = 21.477

DATUM 18.00

DESIGN LEVELS		20.747		21.587		21.504		21.452	21.477	21.452	21.387		21.591	19.693		20.165	21.591	19.693					
EXISTING SURFACE		20.747		20.981		21.317		21.419	21.440	21.410	21.324		20.165	19.693		20.165	21.591	19.693					
OFFSETS		-10.636		-9.222		-5.093		-1.250	0.000	1.250	4.523		9.189	10.998		9.189	21.591	19.693					

CHAINAGE 250.00

CENTRELINE DATA
E = 390383.736
N = 828137.185
Z = 24.489

DATUM 19.00

DESIGN LEVELS		19.500		24.725		24.689		24.553		24.453		24.389	24.553	24.589	24.725		19.988
EXISTING SURFACE		22.266		23.166		23.628		24.257		24.268		23.750	22.924	22.363	21.711		19.988
OFFSETS		-36.608		-14.200		-12.400		-10.300		-4.450		7.650	10.300	12.100	14.200		33.689

CHAINAGE 200.00

NOTE:

1. REFER TO C-1101 FOR GENERAL LAYOUT
2. REFER TO C-1404 - 1402 FOR TYPICAL CROSS-SECTIONS.
3. RETAINING WALL STRUCTURE TYPE TO BE CONFIRMED.
4. PROPOSED ROADSIDE BARRIER TO BE CONFIRMED.
5. FENCING AND PROPERTY BOUNDARY EXTENT TO BE CONFIRMED.
6. REFER TO THE ACRONYMS BELOW:
KC - PROPOSED KERB AND CHANNEL
KN - PROPOSED KERB AND NIB
PED - PROPOSED PEDESTRIAN FOOTPATH
CYC - PROPOSED OFF-ROAD CYCLE LANE
BDY - EXISTING ROAD CORRIDOR BOUNDARIES
PROP BDY - PROPOSED ROAD CORRIDOR BOUNDARIES

DRAFT - FOR RESOURCE CONSENT

DRAWING
Pine Valley Road / Dairy Flat Highway
Cross-sections - Pine Valley Road (STAGE 1) - Sheet 1 of 2

DRAWING NO.
402828-MM-DWG-02-CV-RD-1311

FOR RESOURCE CONSENT

SCALE (A1)

1:250

REV	DESCRIPTION	DATE
A	DRAFT - FOR DISCUSSION ONLY	12/02/2020
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C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.
DRAWN I.HO
CHECKED D.ROLLO
APPROVED G.BOOOTH

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MOTT MACDONALD : 402828

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MILDDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport

PROJECT
MILDDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

E = 390288.566
N = 828406.492
Z = 26.322

[illegible]

E = 390279.745
N = 828357.366
Z = 25.038

DESIGN LEVELS	EXISTING SURFACE	OFFSETS
		-21.000
	27.790	27.790
		-14.200
	27.596	27.596
		-12.400
	27.582	27.582
		-10.300
	27.511	27.511
		-8.100
	27.412	27.412
	27.289	-4.450
	27.271	-1.250
		0.000
	27.264	1.250
	27.258	
	27.215	4.450
	27.160	7.650
	27.108	10.300
	27.068	12.100
		14.200
	27.020	
	26.920	20.224

E = 390282.849
N = 828307.593
Z = 23.192

[illegible]

E = 390298.170
N = 828260.135
Z = 21.315

DESIGN LEVELS	EXISTING SURFACE	OFFSETS
	22.433	-16.099
	22.398	-14.200
	21.654	-12.400
	20.742	-10.300
	20.670	-8.100
	20.995	-4.450
	21.131	-1.250
	21.085	0.000
	21.028	1.250
	20.719	4.450
	21.158	7.650
	21.704	10.300
	22.076	12.100
	22.391	14.200
	22.437	17.947

E = 390290.906
N = 828528.288
Z = 26.159

DESIGN LEVELS	EXISTING SURFACE	OFFSETS
		-16.219
	26.048	-14.200
	26.342	-12.400
	26.306	-10.300
	26.170	-8.100
	26.126	
		-4.450
	26.070	
		-1.250
	26.134	0.000
	26.159	1.250
	26.134	
		4.450
	26.070	
		7.650
	26.006	
	26.170	10.300
	26.206	12.100
	26.342	14.200
	26.171	15.605

E = 390300.419
N = 828504.519
Z = 26.397

[illegible]

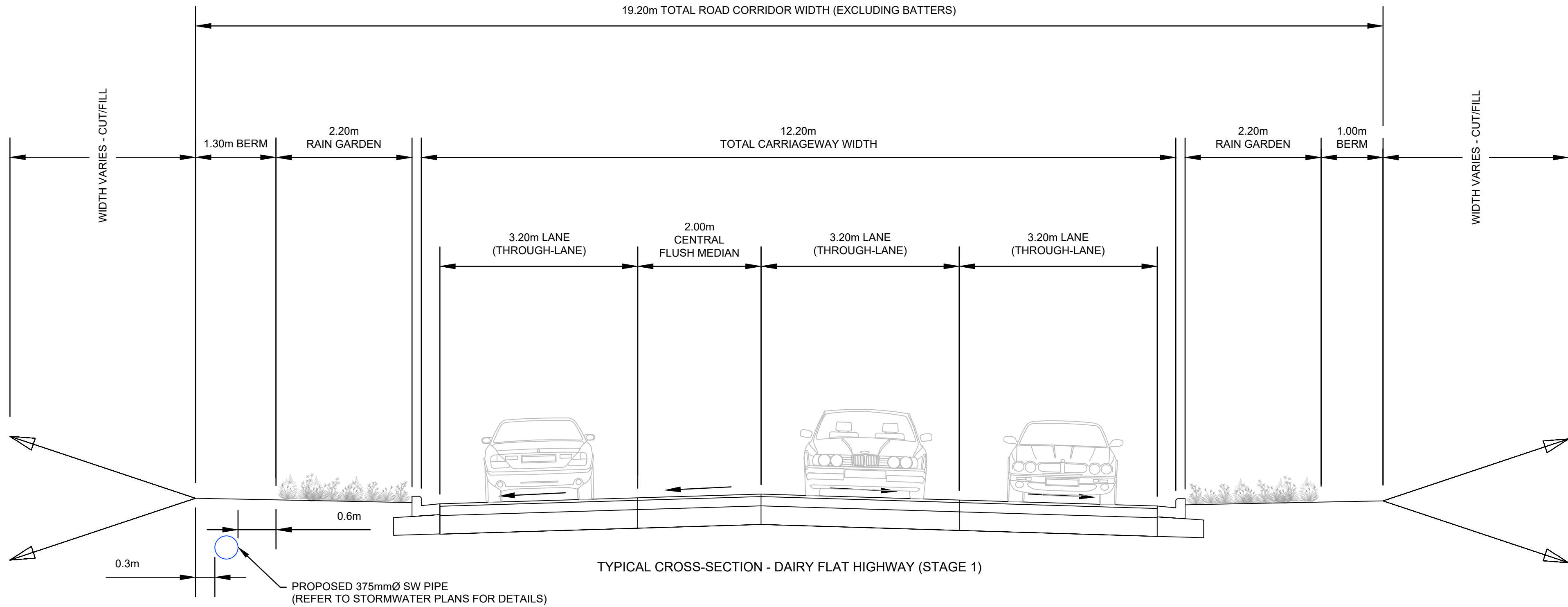
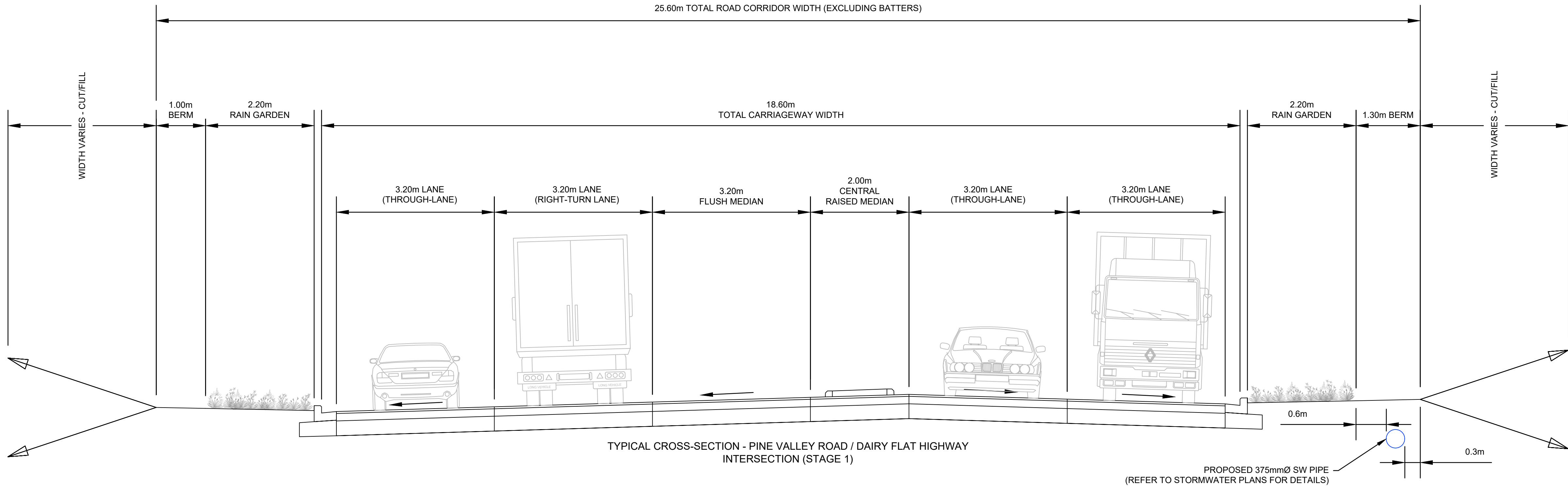
E = 390300.536
N = 828455.038
Z = 27.028

[illegible]

1. REFER TO C-1101 FOR GENERAL LAYOUT
2. REFER TO C-1404 - 1402 FOR TYPICAL CROSS-SECTIONS.
3. RETAINING WALL STRUCTURE TYPE TO BE CONFIRMED.
4. PROPOSED ROADSIDE BARRIER TO BE CONFIRMED.
5. FENCING AND PROPERTY BOUNDARY EXTENT TO BE CONFIRMED
6. REFER TO THE ACRONYMS BELOW:
 - KC - PROPOSED KERB AND CHANNEL
 - KN - PROPOSED KERB AND NIB
 - PED - PROPOSED PEDESTRIAN FOOTPATH
 - CYC - PROPOSED OFF-ROAD CYCLE LANE
 - BDY - EXISTING ROAD CORRIDOR BOUNDARIES
 - PROP BDY - PROPOSED ROAD CORRIDOR BOUNDARIES**

DRAWING NO.	REVISION
402828-MM-DWG-02-CV-RD-1312	D
FOR RESOURCE CONSENT	SCALE (A1) 1:250

- NOTE:
1. REFER TO CROSS-SECTIONS FOR DETAILS.
 2. ROAD PAVEMENT DETAILS TO BE CONFIRMED AT DETAILED DESIGN.



DRAFT - FOR RESOURCE CONSENT

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - AMENDMENTS FROM AT COMMENTS	17/07/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH

DO NOT SCALE OFF THIS DRAWING.
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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CONSULTANT
MOTT MACDONALD
12/100
Auckland 1010
T +64 (0) 9 375 2400

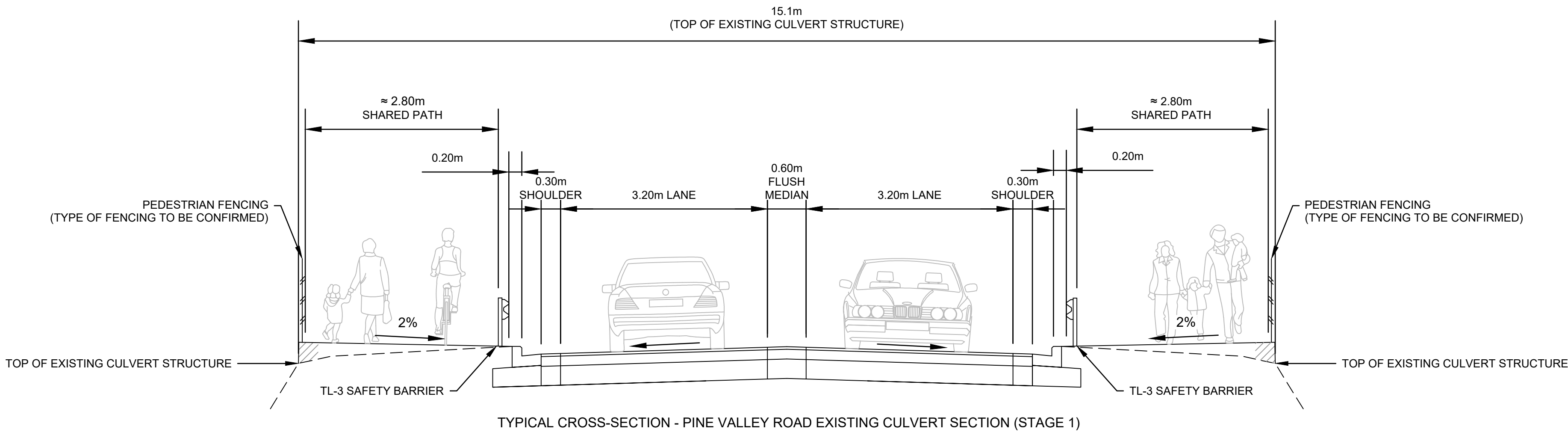
CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport

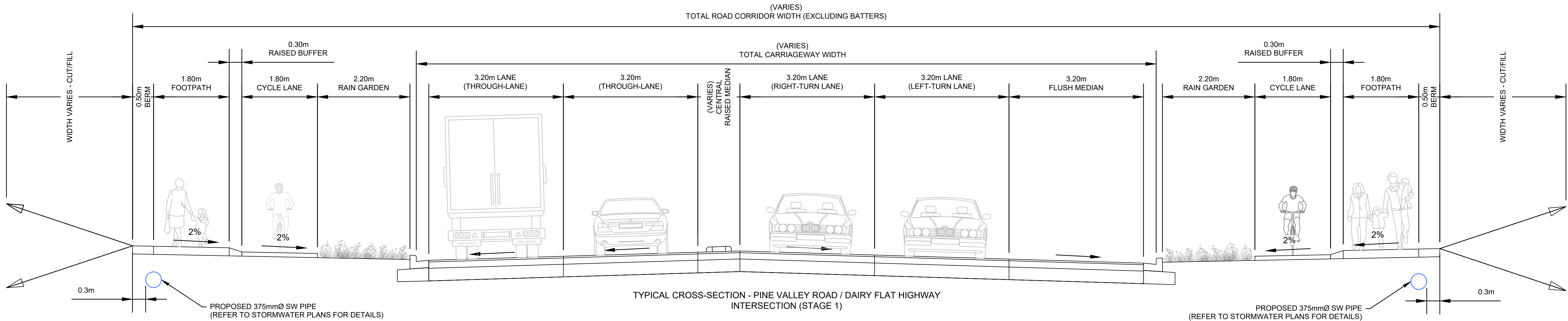
PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

DRAWING
Mildale Development, Argent Lane - Dairy Flat Highway
Typical cross-section - Dairy Flat Highway (STAGE 1)
DRAWING NO.
402828-MM-DWG-02-CV-RD-1401
REVISION
F
FOR RESOURCE CONSENT
SCALE (A1)
1:50

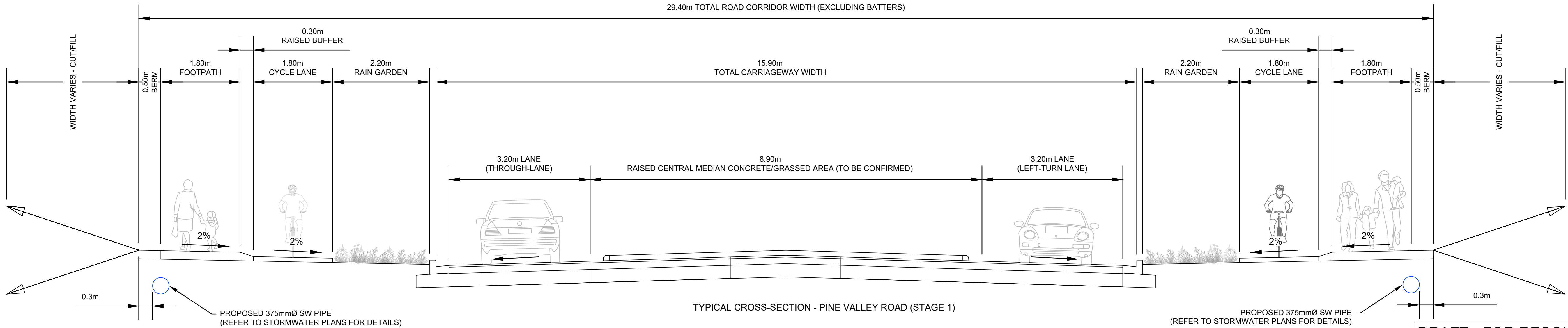
- NOTE:
1. REFER TO CROSS-SECTIONS FOR DETAILS.
 2. ROAD PAVEMENT DETAILS TO BE CONFIRMED AT DETAILED DESIGN.



TYPICAL CROSS-SECTION - PINE VALLEY ROAD EXISTING CULVERT SECTION (STAGE 1)



TYPICAL CROSS-SECTION - PINE VALLEY ROAD / DAIRY FLAT HIGHWAY INTERSECTION (STAGE 1)



TYPICAL CROSS-SECTION - PINE VALLEY ROAD (STAGE 1)

DRAFT - FOR RESOURCE CONSENT

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - AMENDMENTS FROM AT COMMENTS	17/07/20

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH

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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

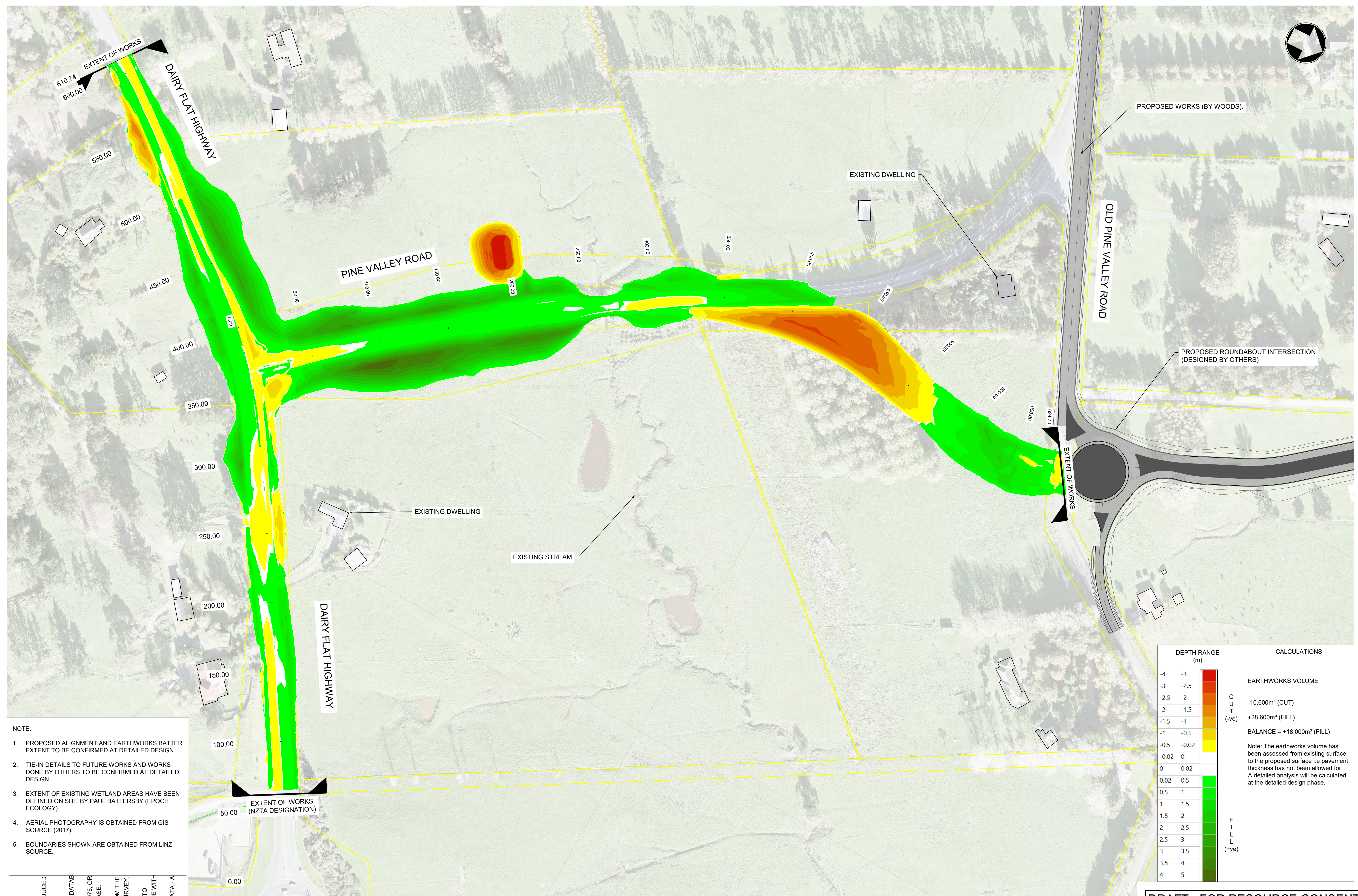
CONSULTANT
MOTT
MACDONALD

CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport

PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

DRAWING
Mildale Development, Argent Lane - Dairy Flat Highway
Typical cross-section - Pine Valley Road (STAGE 1)
DRAWING NO.
402828-MM-DWG-02-CV-RD-1402
FOR RESOURCE CONSENT
REVISION
F
SCALE (A1)
1:50



DEPTH RANGE (m)		CALCULATIONS	
-4	-3	C U T (-ve)	<u>EARTHWORKS VOLUME</u>
-3	-2.5		-10,600m³ (CUT)
-2.5	-2		+28,600m³ (FILL)
-2	-1.5		<u>BALANCE = +18,000m³ (FILL)</u>
-1.5	-1		F I L L (+ve)
-1	-0.5		
+0.5	-0.02		
-0.02	0		
0	0.02		
0.02	0.5		
0.5	1		
1	1.5		
1.5	2		
2	2.5		
2.5	3		
3	3.5		
3.5	4		
4	5		

DRAFT - FOR RESOURCE CONSENT

DRAWING		
Milldale Development, Argent Lane - Dairy Flat Highway Earthworks Plan (STAGE 1)		
DRAWING NO.		REVISION
402828-MM-DWG-02-CV-RD-1403		C
FOR RESOURCE CONSENT	SCALE (A1)	1:1250

QUCED	2 DATAB	976, OR	ASE.	DM THE	URVEY,	: TO	SE WITH	DATA - A
								REV C
								A D
								B D
								C D

REV	DESCRIPTION	DATE
A	DRAFT - FOR RESOURCE CONSENT	15/05/2020
B	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	G.BOOOTH
APPROVED	G.BOOOTH

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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CONSULTANT

Mason Bros. Building
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M

**MOTT
MACDONALD**

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MILLDALE

ROAD CONTROLLING AUTHORITY

Auckland Transport
An Auckland Council Organisation

The Auckland Transport logo, featuring a stylized 'AT' inside a circular graphic with red, blue, and green segments.

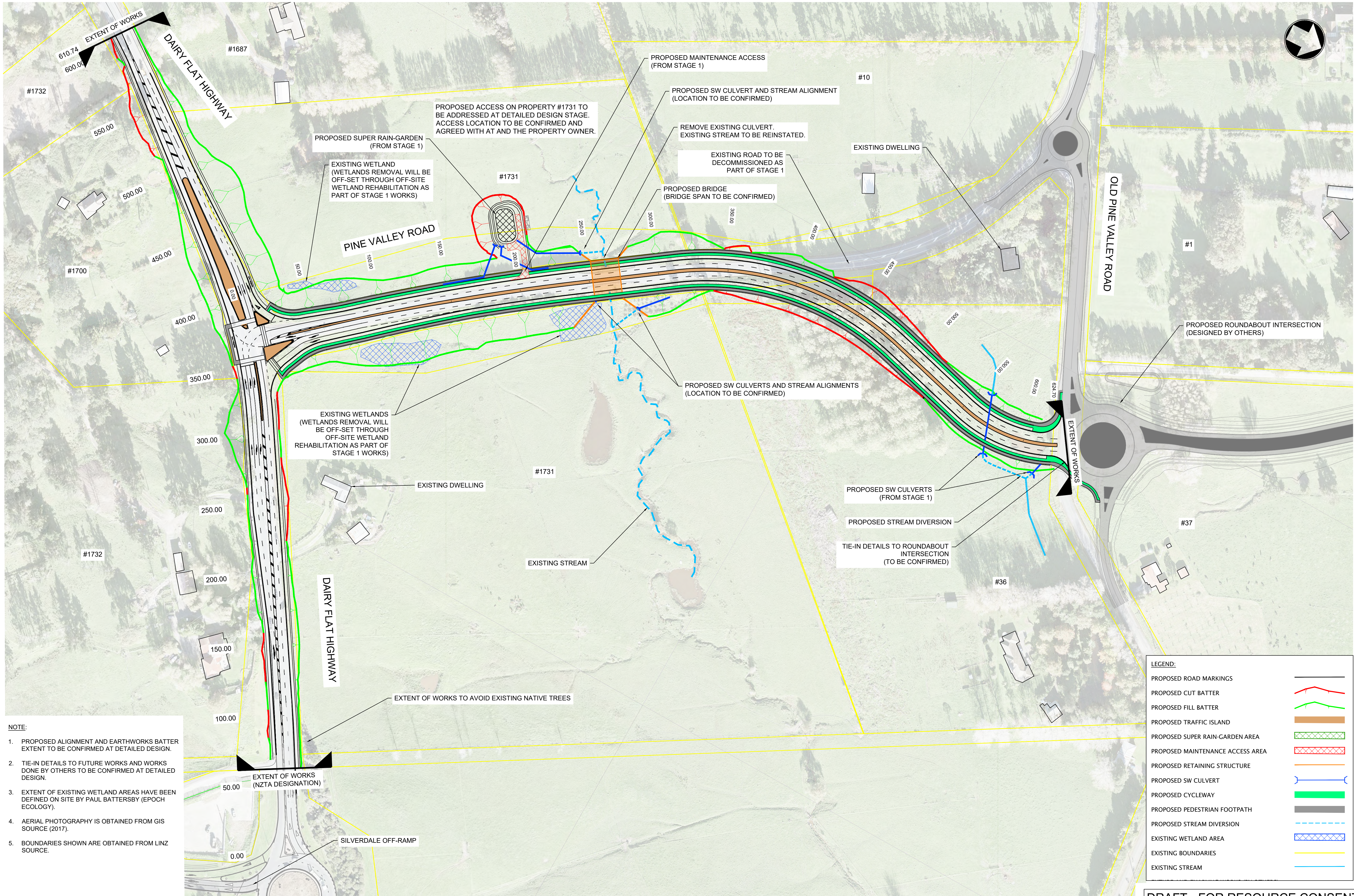
PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

PROJECT TYPE
NEW CONSTRUCTION

PROJECT PHASE
PRELIMINARY DESIGN

CONSULTANT PROJECT NO
402828

C:\Users\H083803\Desktop\124 working\Agent Lane\CAD\Drawings\02 Agent Lane (PVR & DFH)\402828-MM-DWG-02-CV-RD-2101.dwg Sep 10, 2024 - 6:53PM HO383803



- NOTE:**
1. PROPOSED ALIGNMENT AND EARTHWORKS BATTER EXTENT TO BE CONFIRMED AT DETAILED DESIGN.
 2. TIE-IN DETAILS TO FUTURE WORKS AND WORKS DONE BY OTHERS TO BE CONFIRMED AT DETAILED DESIGN.
 3. EXTENT OF EXISTING WETLAND AREAS HAVE BEEN DEFINED ON SITE BY PAUL BATTERSBY (EPOCH ECOLOGY).
 4. AERIAL PHOTOGRAPHY IS OBTAINED FROM GIS SOURCE (2017).
 5. BOUNDARIES SHOWN ARE OBTAINED FROM LINZ SOURCE.

LEGEND:	
PROPOSED ROAD MARKINGS	
PROPOSED CUT BATTER	
PROPOSED FILL BATTER	
PROPOSED TRAFFIC ISLAND	
PROPOSED SUPER RAIN-GARDEN AREA	
PROPOSED MAINTENANCE ACCESS AREA	
PROPOSED RETAINING STRUCTURE	
PROPOSED SW CULVERT	
PROPOSED CYCLEWAY	
PROPOSED PEDESTRIAN FOOTPATH	
PROPOSED STREAM DIVERSION	
EXISTING WETLAND AREA	
EXISTING BOUNDARIES	
EXISTING STREAM	

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH
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CONSULTANT PROJECT NO.	
MOTT MACDONALD :	402828

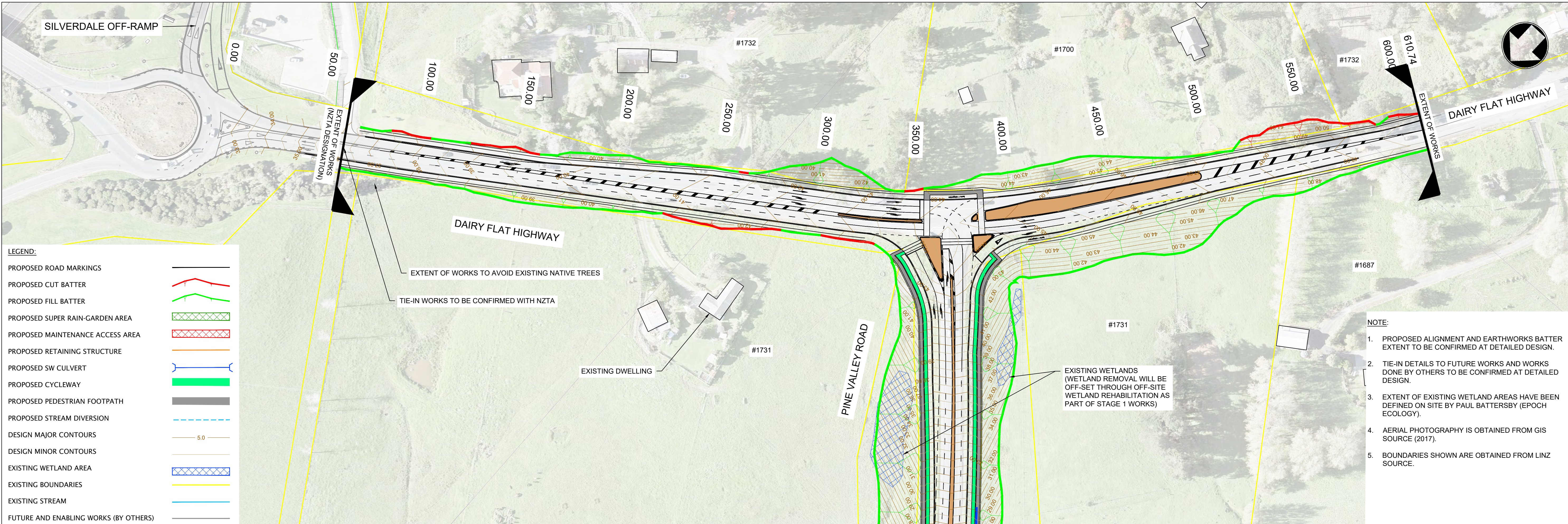
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CLIENT	MILLDALE
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ROAD CONTROLLING AUTHORITY	Auckland Transport
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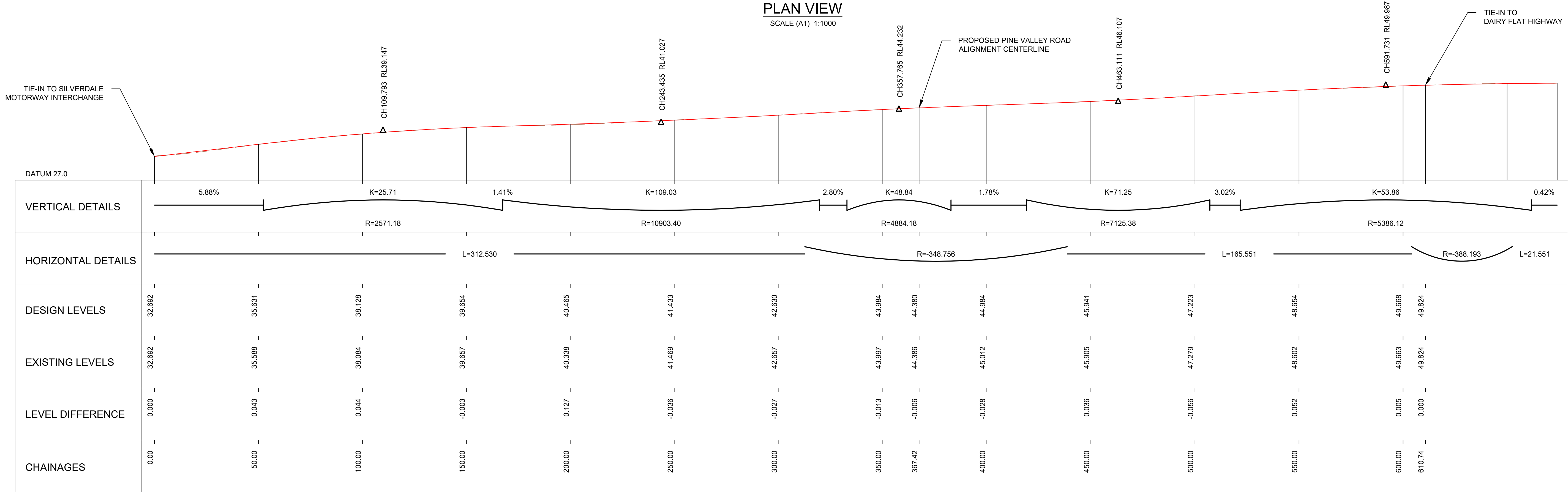
PROJECT	MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS
PROJECT TYPE	NEW CONSTRUCTION
PROJECT PHASE	PRELIMINARY DESIGN
CONSULTANT PROJECT NO.	402828

DRAFT - FOR RESOURCE CONSENT	
DRAWING	Milldale Development, Argent Lane - Dairy Flat Highway General Layout, Pine Valley Road (STAGE 2)
DRAWING NO.	402828-MM-DWG-02-CV-RD-2101
REVISION	F
FOR RESOURCE CONSENT	SCALE (A1) 1:1250



PLAN VIEW

SCALE (A1) 1:1000



CONTROL LINE - PROPOSED DAIRY FLAT HIGHWAY ALIGNMENT (STAGE 2) - HORZ - 1 : 1000 VERT - 1 : 500 (A1)

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REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020

DRAWING Q.A.
DRAWN I.HO
CHECKED D.ROLLO
APPROVED G.BOOOTH

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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

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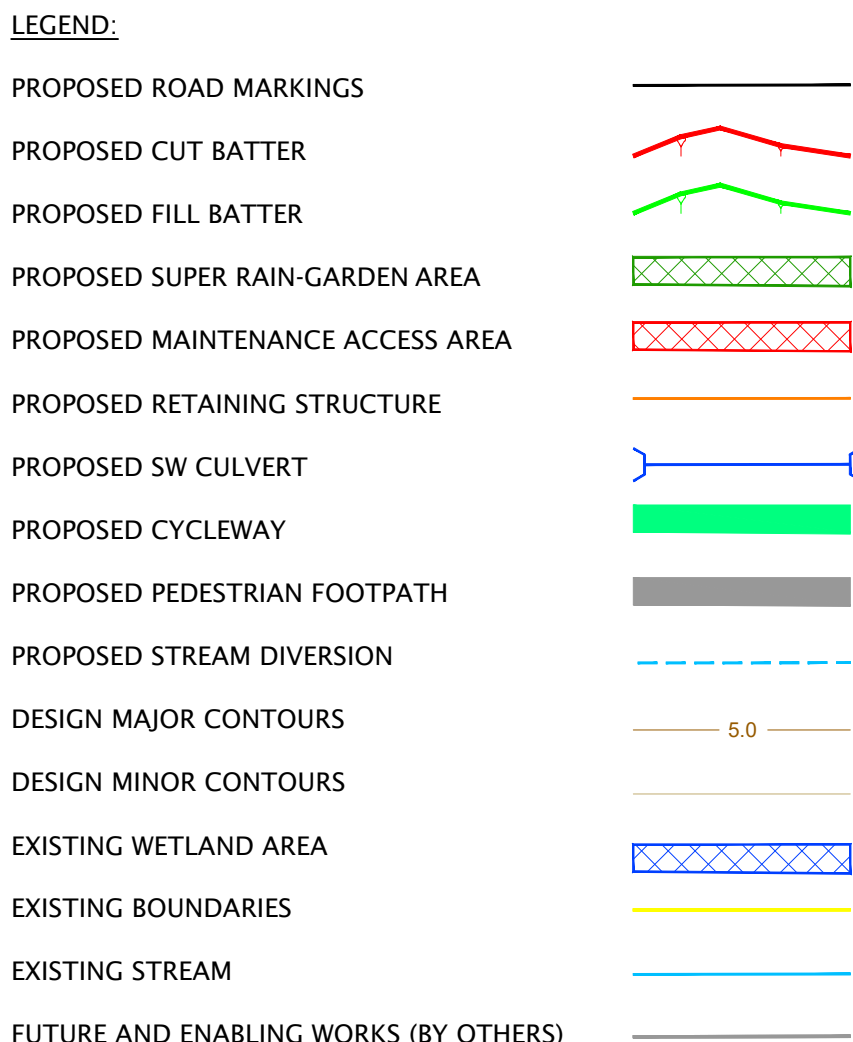
ROAD CONTROLLING AUTHORITY
Auckland Transport

PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

DRAFT - FOR RESOURCE CONSENT

DRAWING
Pine Valley Road / Dairy Flat Highway
Longsections - Dairy Flat Highway (STAGE 2)
DRAWING NO.
402828-MM-DWG-02-CV-RD-2201
FOR RESOURCE CONSENT
REVISION
F
SCALE (A1) AS SHOWN

1. PROPOSED ALIGNMENT AND EARTHWORKS BATTER EXTENT TO BE CONFIRMED AT DETAILED DESIGN.
2. TIE-IN DETAILS TO FUTURE WORKS AND WORKS DONE BY OTHERS TO BE CONFIRMED AT DETAILED DESIGN.
3. EXTENT OF EXISTING WETLAND AREAS HAVE BEEN DEFINED ON SITE BY PAUL BATTERSBY (EPOCH ECOLOGY).
4. AERIAL PHOTOGRAPHY IS OBTAINED FROM GIS SOURCE (2017).
5. BOUNDARIES SHOWN ARE OBTAINED FROM LINZ SOURCE.



SCALE (A1) 1:1000



DRAWING NO. 402828-MM-DWG-02-CV-RD-2202 REVISION F

FOR RESOURCE CONSENT SCALE (A1) AS SHOWN

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	23/06/2020
E	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH

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 BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

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MACDONALD**



PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
	CONSULTANT PROJECT NO.
	402828

E = 390691.126
N = 828111.665
Z = 39.654

[illegible]

E = 390732.962
N = 828139.047
Z = 38.128

[illegible]

E = 390774.798
N = 828166.429
Z = 35.631

[illegible]

E = 390816.633
N = 828193.811
Z = 32.692

DESIGN LEVELS		32.692	32.596	32.308	
EXISTING SURFACE		32.692	32.656	32.471	
OFFSETS		0.000	3.200	12.791	

E = 390565.620
N = 828029.518
Z = 42.630

DESIGN LEVELS		38.930		42.446	42.402		42.570	42.630	42.534	42.438	42.602	42.540
EXISTING SURFACE		38.930		40.451	42.001		42.620	42.657	42.654	41.467	42.454	42.640
OFFSETS		-25.860		-14.250	-12.050		-2.000	0.000	3.200	6.400	9.050	10.614

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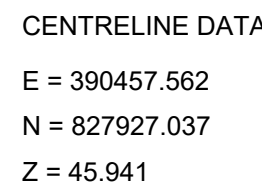
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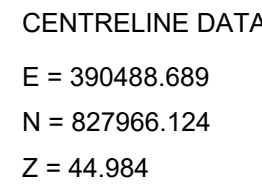
1. REFER TO C-1101 FOR GENERAL LAYOUT
2. REFER TO C-1404 - 1402 FOR TYPICAL CROSS-SECTIONS.
3. RETAINING WALL STRUCTURE TYPE TO BE CONFIRMED.
4. PROPOSED ROADSIDE BARRIER TO BE CONFIRMED.
5. FENCING AND PROPERTY BOUNDARY EXTENT TO BE CONFIRMED
6. REFER TO THE ACRONYMS BELOW:
 - KC - PROPOSED KERB AND CHANNEL
 - KN - PROPOSED KERB AND NIB
 - PED - PROPOSED PEDESTRIAN FOOTPATH
 - CYC - PROPOSED OFF-ROAD CYCLE LANE
 - BDY - EXISTING ROAD CORRIDOR BOUNDARIES
 - PROF BDY - PROPOSED ROAD CORRIDOR BOUNDARIES**

DRAFT - FOR RESOURCE CONSENT		
DRAWING		
Pine Valley Road / Dairy Flat Highway		
Cross-sections - Dairy Flat Highway (STAGE 2) - Sheet 1 of 2		
DRAWING NO.	REVISION	
402828-MM-DWG-02-CV-RD-2301		F
FOR RESOURCE CONSENT	SCALE (A1)	1:250

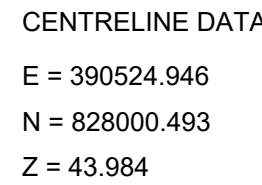
1. REFER TO C-1101 FOR GENERAL LAYOUT
2. REFER TO C-1404 - 1402 FOR TYPICAL CROSS-SECTIONS.
3. RETAINING WALL STRUCTURE TYPE TO BE CONFIRMED.
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 - BDY - EXISTING ROAD CORRIDOR BOUNDARIES
 - PROP BDY - PROPOSED ROAD CORRIDOR BOUNDARIES



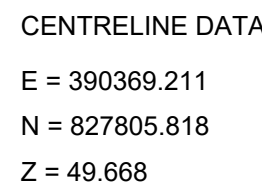
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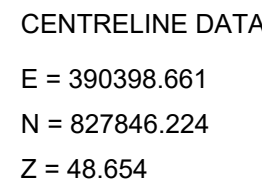
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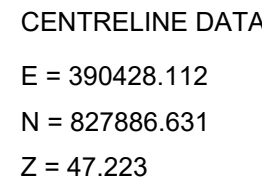
CHAINAGE 350.00



CHAINAGE 604.13



CHAINAGE 550.00



CHAINAGE 500.00

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH

DO NOT SCALE OFF THIS DRAWING.
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BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.

MOTT MACDONALD : 402828

CONSULTANT

Mason Bros. Building
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M
MOTT
MACDONALD

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CLIENT



MILDAL E

ROAD CONTROLLING AUTHORITY

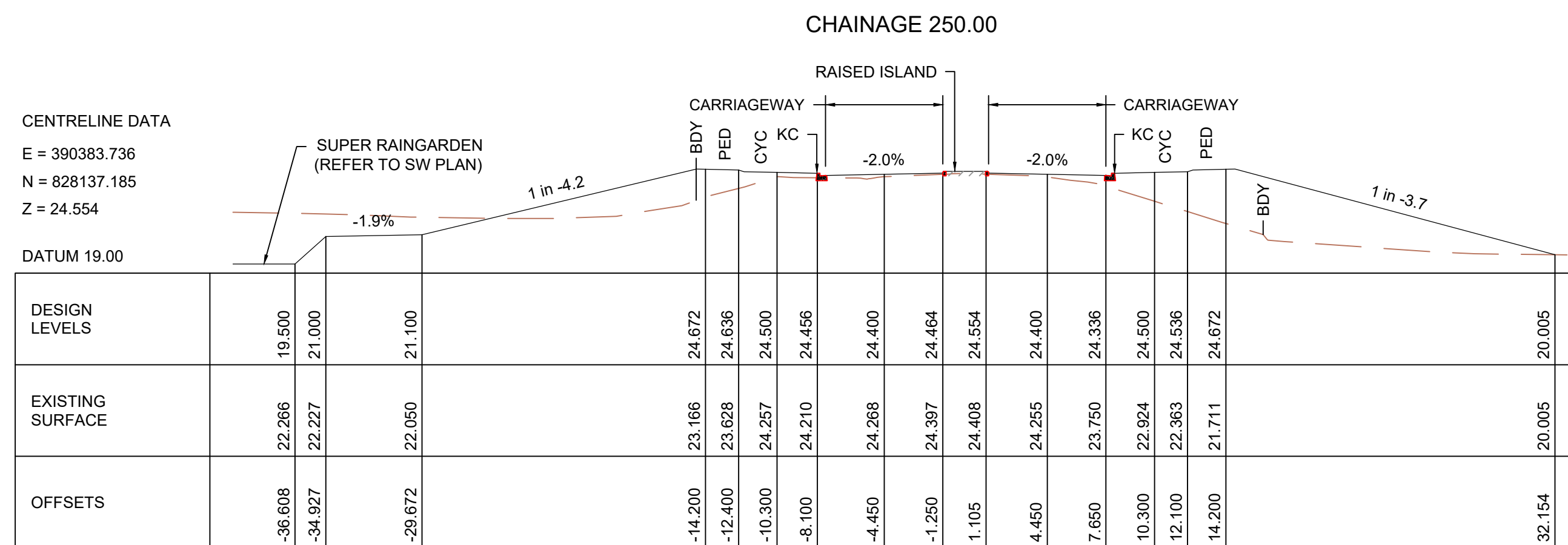
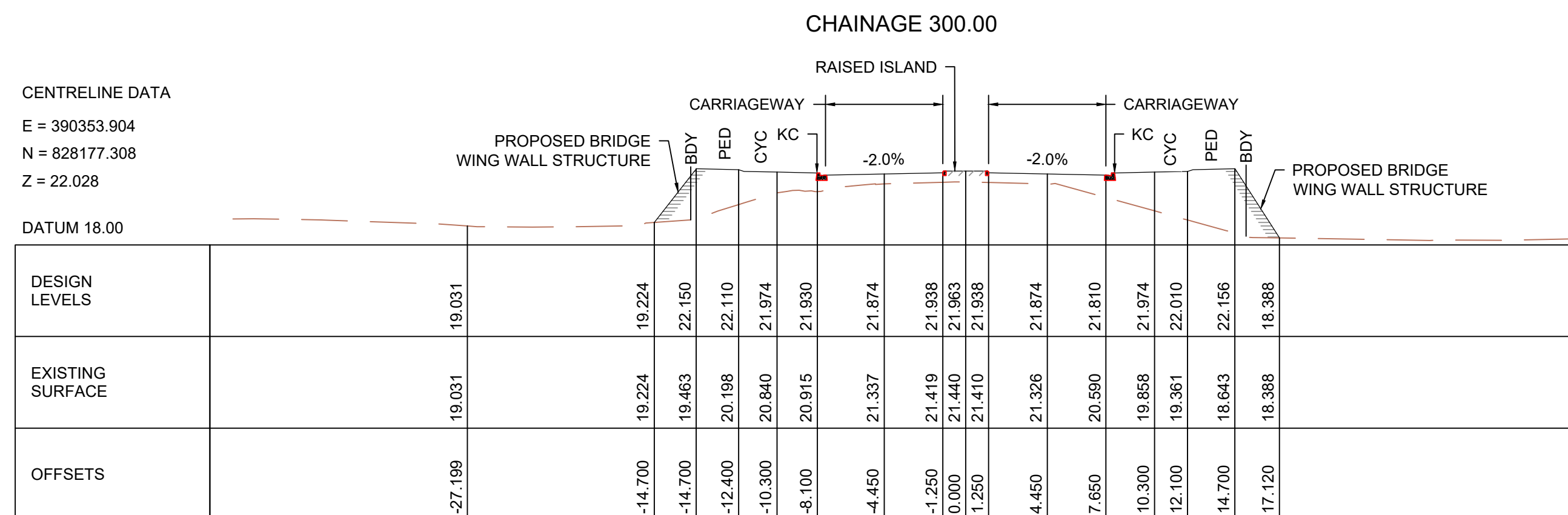
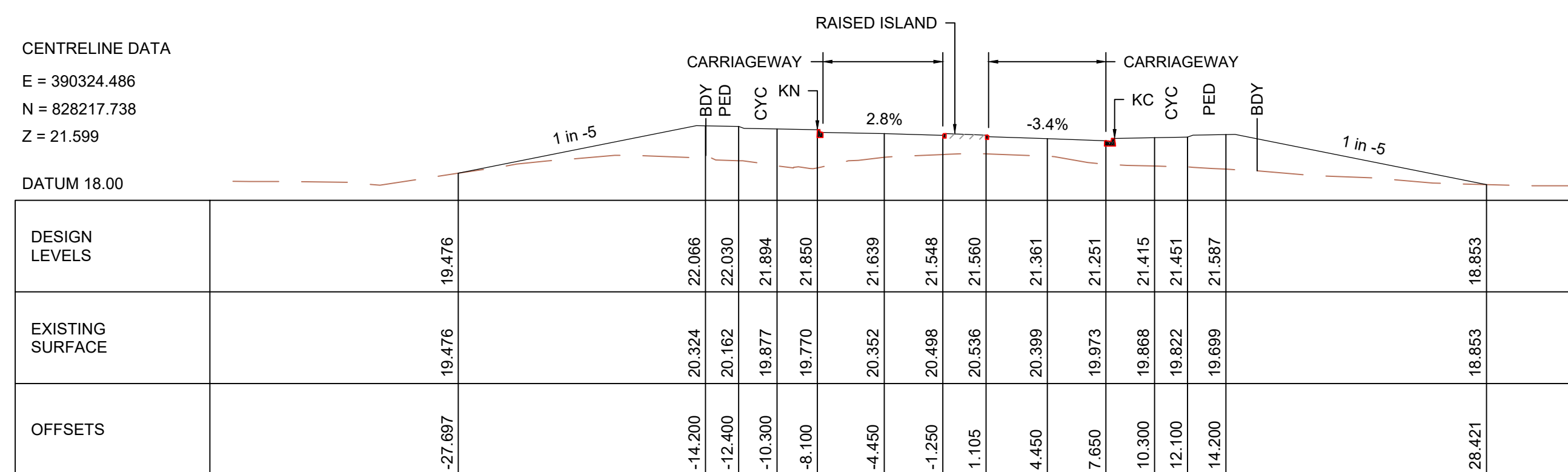
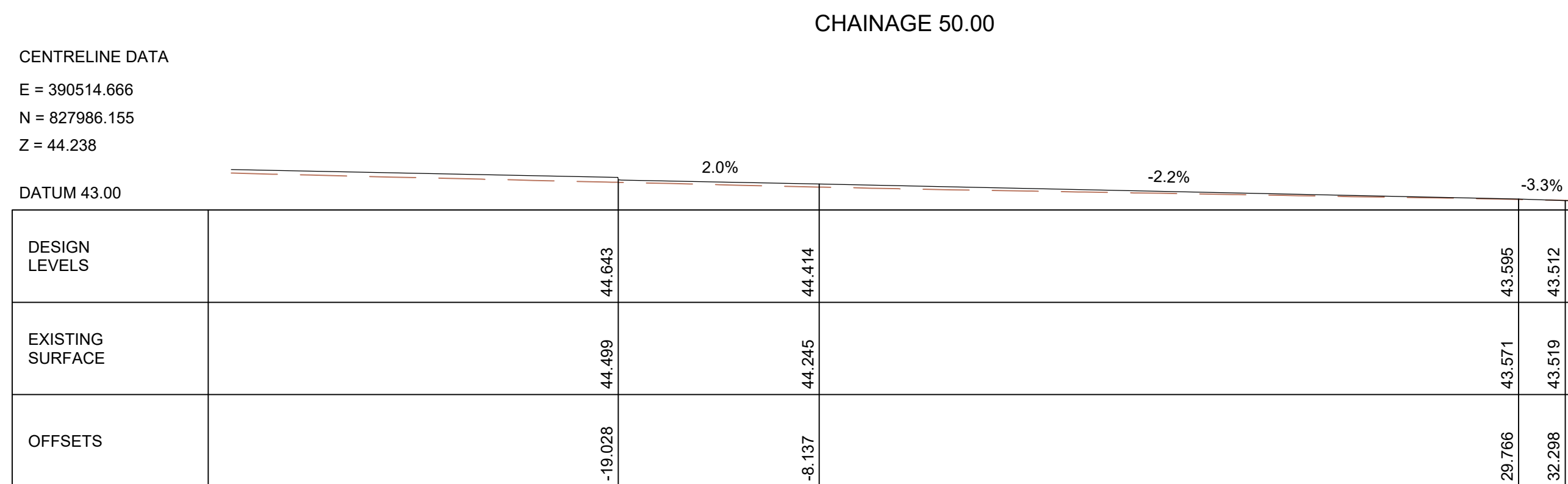
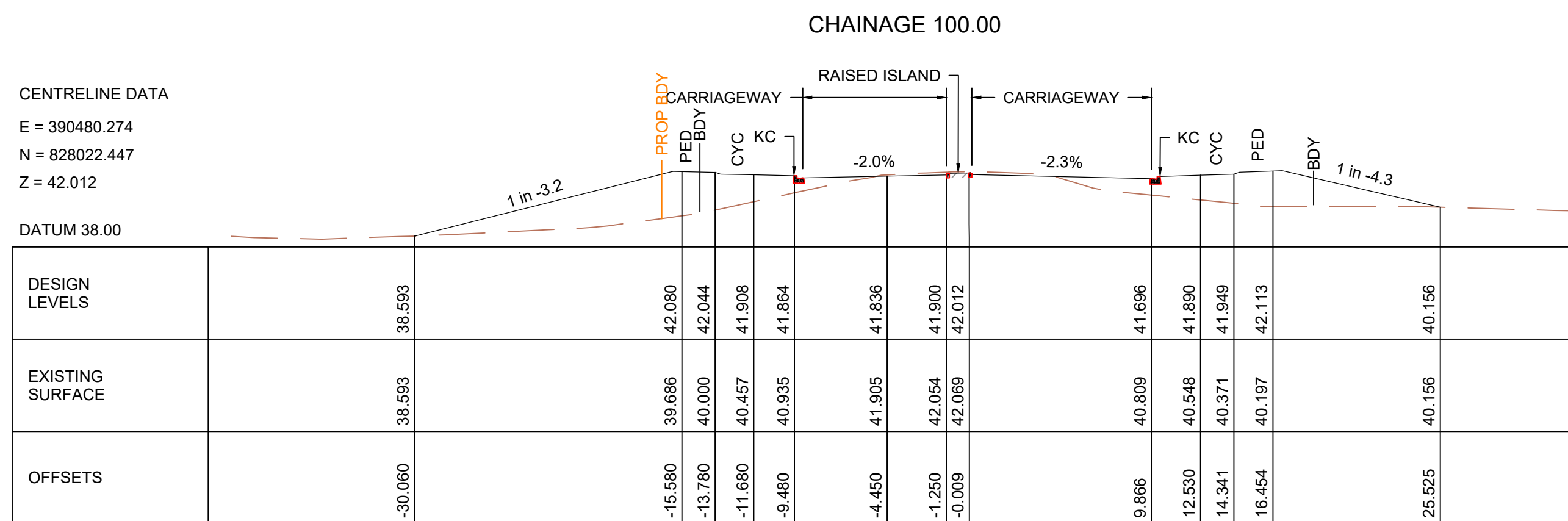
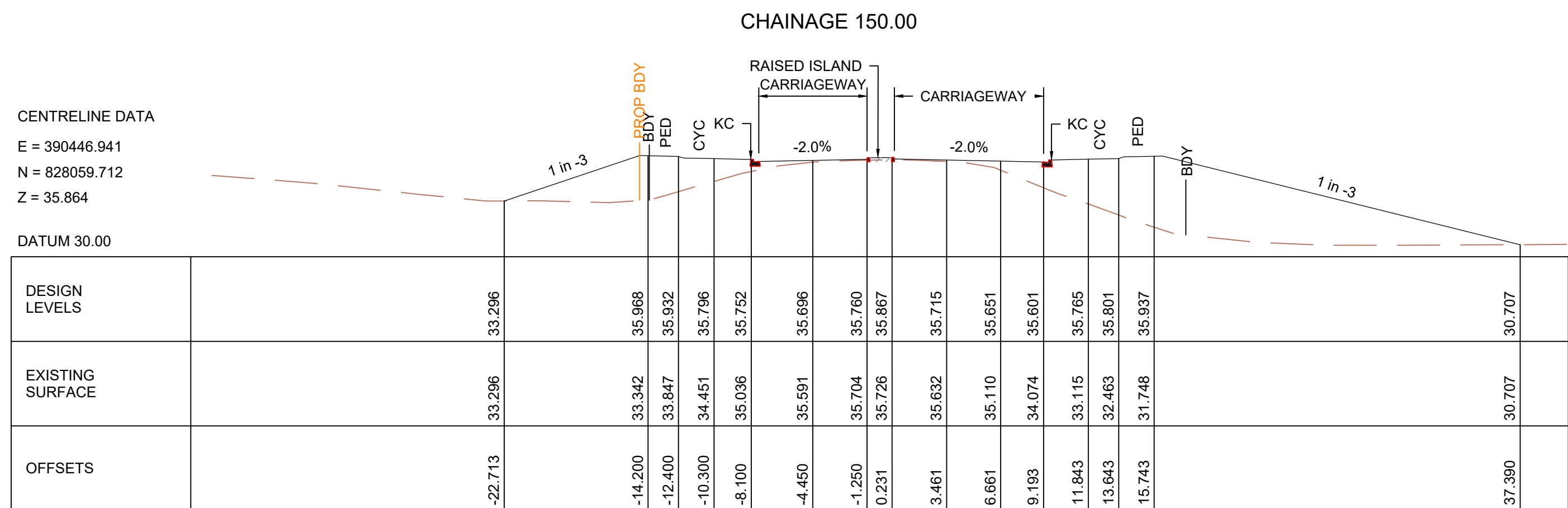
Auckland Transport
An Auckland Council Organisation

The logo for Auckland Transport, featuring a stylized 'AT' in blue and green, with a red and blue circular element above it.

PROJECT	
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS	
PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
	CONSULTANT PROJECT NO. 402828

DRAFT - FOR RESOURCE CONSENT

DRAWING	
Pine Valley Road / Dairy Flat Highway	
Cross-sections - Dairy Flat Highway (STAGE 2) - Sheet 2 of 2	
DRAWING NO.	REVISION
402828-MM-DWG-02-CV-RD-2302	F
FOR RESOURCE CONSENT	SCALE (A1) 1:250



DRAWING NO.	REVISION
402828-MM-DWG-02-CV-RD-2311	D

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N = 828406.492
Z = 26.405

[illegible]

E = 390279.745
N = 828357.366
Z = 25.116

[illegible]

E = 390282.849
N = 828307.593
Z = 23.253

[illegible]

E = 390298.170
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Z = 21.648

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Z = 26.159

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N = 828504.519
Z = 26.462

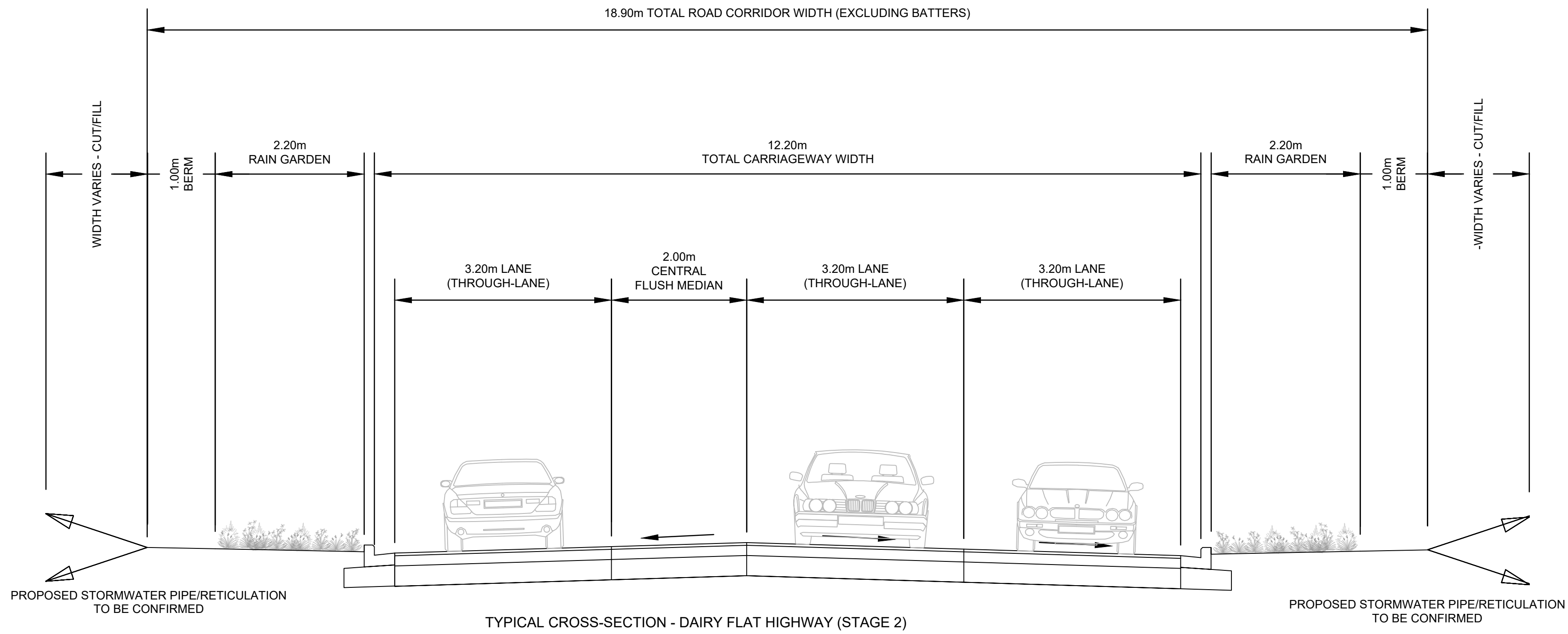
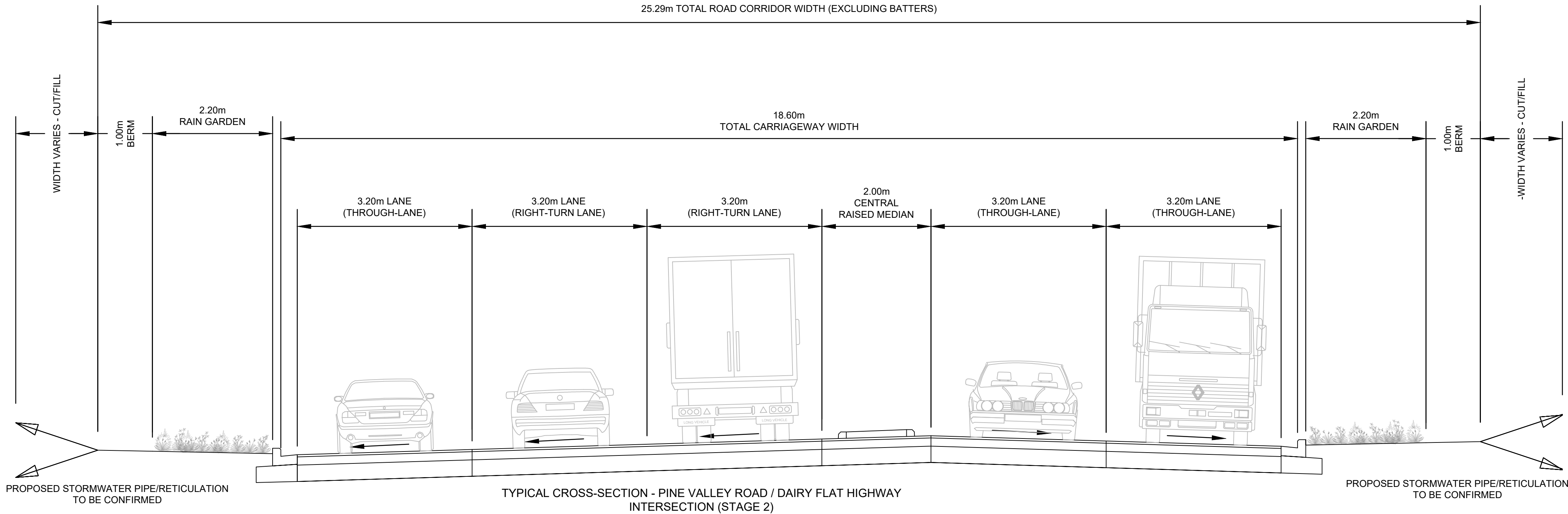
[illegible]

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N = 828455.038
Z = 27.093

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	-14.200	26.289	27.211
	-12.400	26.318	27.175
	-10.300	26.349	27.039
	-8.100	26.368	26.995
	-4.450	26.399	26.939
	-1.250	26.426	27.003
	1.105	26.436	27.093
	4.450	26.486	26.939
	7.650	26.545	26.875
	10.300	26.592	27.039
	12.100	26.616	27.075
	14.200	26.646	27.211
	17.269	26.707	26.707

1. REFER TO C-1101 FOR GENERAL LAYOUT
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 - BDY - EXISTING ROAD CORRIDOR BOUNDARIES
 - PROP BDY - PROPOSED ROAD CORRIDOR BOUNDARIES**

- NOTE:
1. REFER TO CROSS-SECTIONS FOR DETAILS.
 2. ROAD PAVEMENT DETAILS TO BE CONFIRMED AT DETAILED DESIGN.



DRAFT - FOR RESOURCE CONSENT

DRAWING	Mildale Development, Argent Lane - Dairy Flat Highway
Typical cross-section - Dairy Flat Highway (STAGE 2)	
DRAWING NO.	REVISION
402828-MM-DWG-02-CV-RD-2401	F
FOR RESOURCE CONSENT	SCALE (A1) 1:50

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - FOR RESOURCE CONSENT	15/05/2020
C	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020

DRAWING Q.A.	
DRAWN	I.HO
CHECKED	D.ROLLO
APPROVED	G.BOOOTH
DO NOT SCALE OFF THIS DRAWING. VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK.	

CONSULTANT PROJECT NO.	
MOTT MACDONALD :	402828

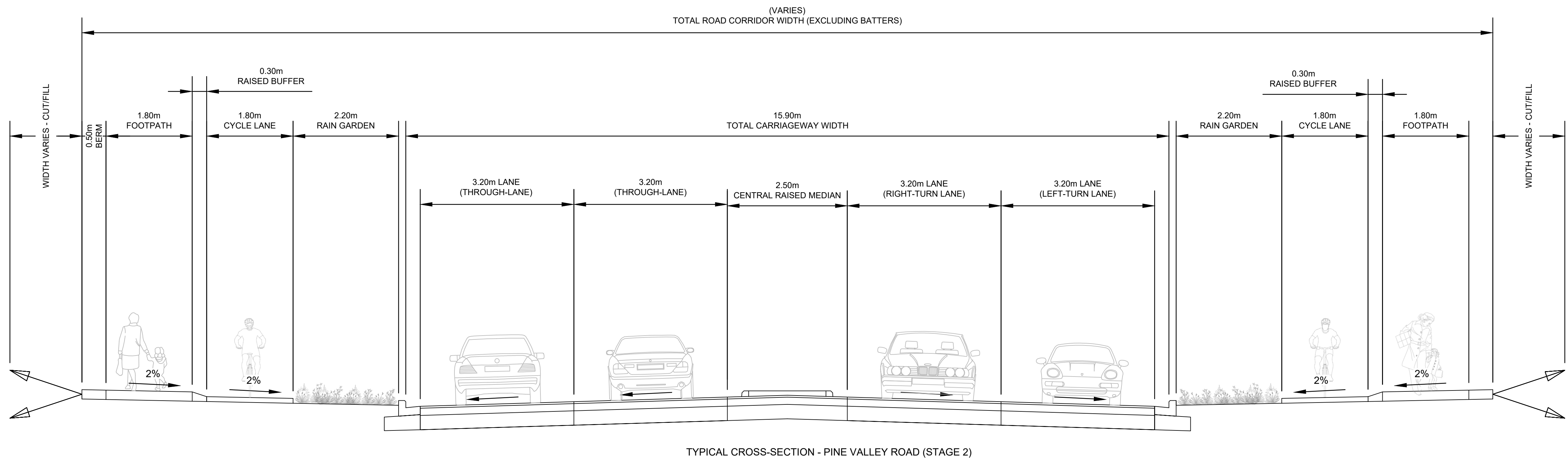
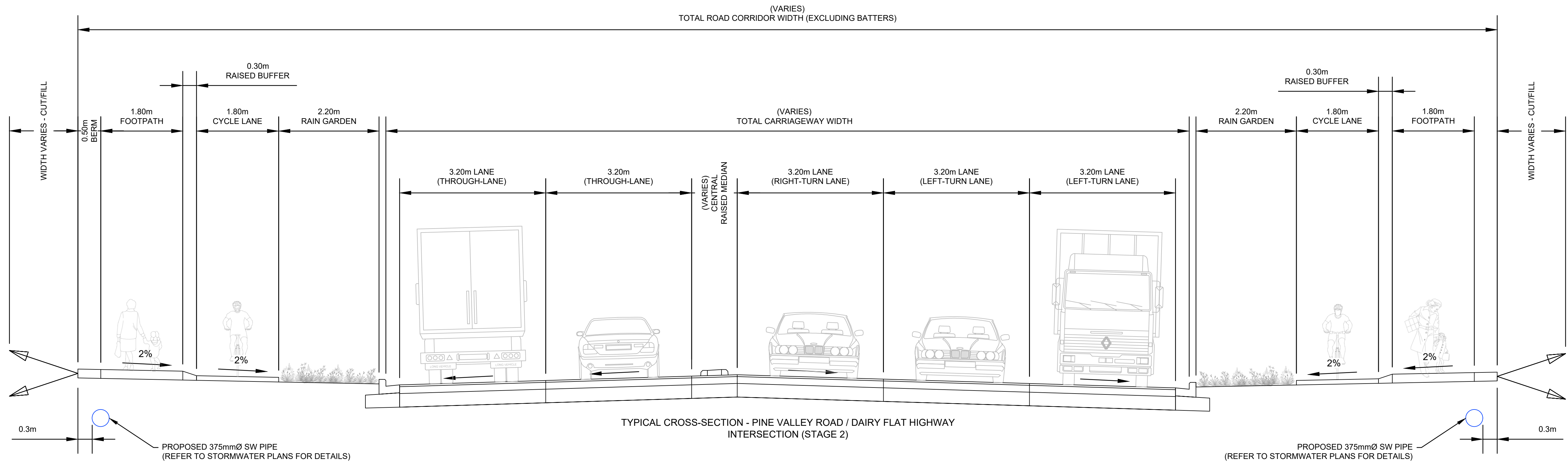
CONSULTANT	
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Mott MacDonald	
12100	
Auckland 1010	
T +64 (0) 9 375 2400	

CLIENT	
MILLDALE	

ROAD CONTROLLING AUTHORITY	
Auckland Transport	

PROJECT	MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS	
PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
	CONSULTANT PROJECT NO.
	402828

- NOTE:
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 - ROAD PAVEMENT DETAILS TO BE CONFIRMED AT DETAILED DESIGN.



DRAFT - FOR RESOURCE CONSENT

REV	DESCRIPTION	DATE
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D	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
E	DRAFT - AMENDMENTS FROM AT COMMENTS	17/07/2020

DRAWING Q.A.
DRAWN I.HO
CHECKED D.ROLLO
APPROVED G.BOOOTH
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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

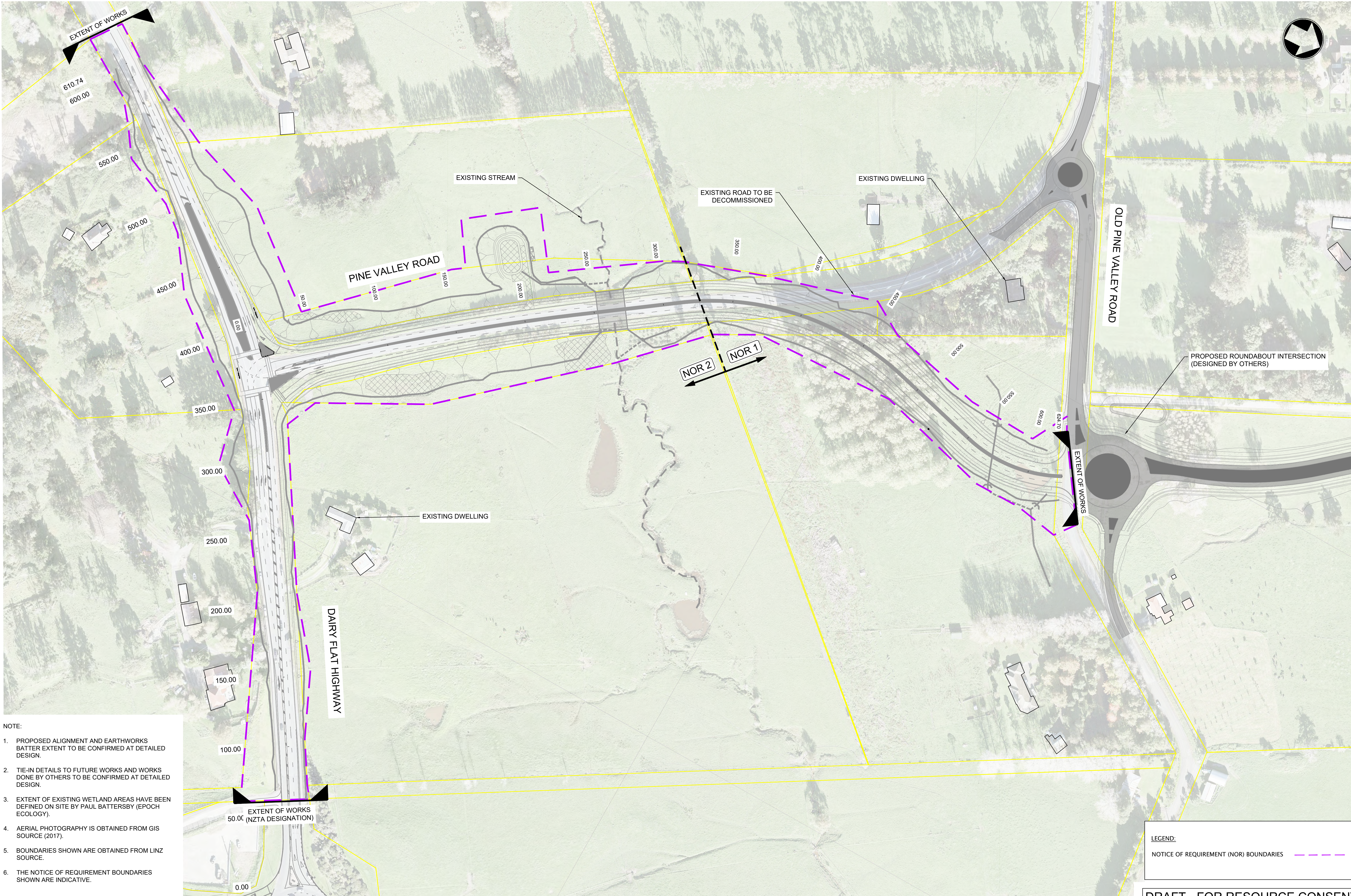
CONSULTANT
M MOTT MACDONALD

CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport An Auckland Council Organisation

PROJECT
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS
PROJECT TYPE NEW CONSTRUCTION
PROJECT PHASE PRELIMINARY DESIGN
CONSULTANT PROJECT NO. 402828

DRAWING
Milldale Development, Argent Lane - Dairy Flat Highway Typical cross-section - Pine Valley Road (STAGE 2)
DRAWING NO. 402828-MM-DWG-02-CV-RD-2402
REVISION F
FOR RESOURCE CONSENT
SCALE (A1) 1:50



- NOTE:
1. PROPOSED ALIGNMENT AND EARTHWORKS BATTER EXTENT TO BE CONFIRMED AT DETAILED DESIGN.
 2. TIE-IN DETAILS TO FUTURE WORKS AND WORKS DONE BY OTHERS TO BE CONFIRMED AT DETAILED DESIGN.
 3. EXTENT OF EXISTING WETLAND AREAS HAVE BEEN DEFINED ON SITE BY PAUL BATTERSBY (EPOCH ECOLOGY).
 4. AERIAL PHOTOGRAPHY IS OBTAINED FROM GIS SOURCE (2017).
 5. BOUNDARIES SHOWN ARE OBTAINED FROM LINZ SOURCE.
 6. THE NOTICE OF REQUIREMENT BOUNDARIES SHOWN ARE INDICATIVE.

LEGEND:

NOTICE OF REQUIREMENT (NOR) BOUNDARIES

DRAFT - FOR RESOURCE CONSENT

DRAWING
Milldale Development, Argent Lane - Dairy Flat Highway
Notice of Requirement Boundaries Plan (STAGE 2)

DRAWING NO.
402828-MM-DWG-02-CV-RD-2403

REVISION
F

FOR RESOURCE CONSENT SCALE (A1) 1:1250

REV	DESCRIPTION	DATE
F	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020
B	DRAFT - AMENDMENTS FROM AT COMMENTS 29/05/20	03/06/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
D	DRAFT - REVISED STAGE 2 DFH LANE CONFIGURATION	17/07/2020
E	DRAFT - REVISED NOR BOUNDARIES	06/08/2020

DRAWING Q.A.
DRAWN I.HO
CHECKED D.ROLLO
APPROVED G.BOOOTH
DO NOT SCALE OFF THIS DRAWING. VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

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T +64 (0) 9 375 2400

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ROAD CONTROLLING AUTHORITY
Auckland Transport

PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

PROJECT TYPE
NEW CONSTRUCTION

PROJECT PHASE
PRELIMINARY DESIGN

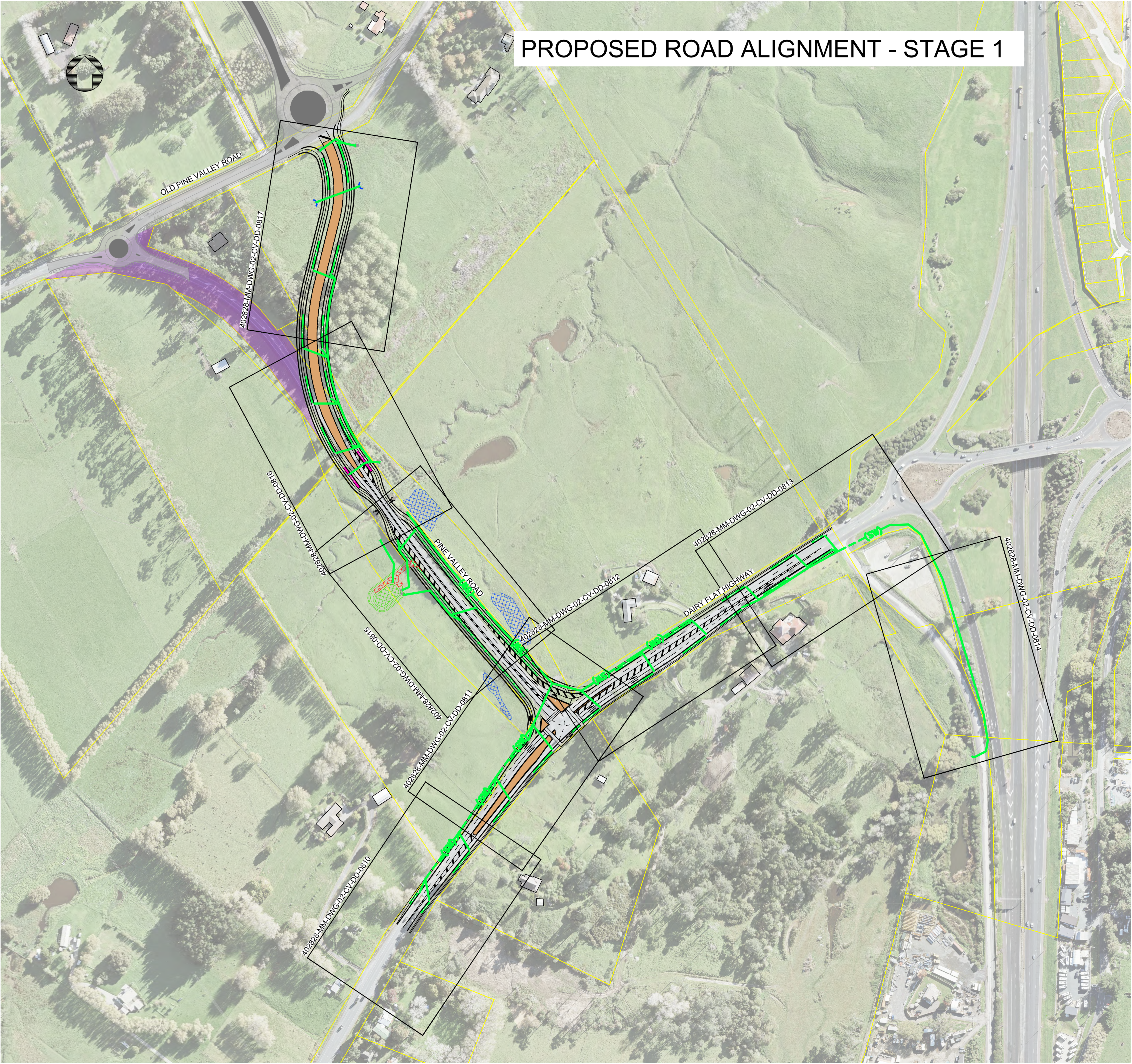
CONSULTANT PROJECT NO.
402828

PROPOSED ROAD ALIGNMENT - STAGE 1

- NOTES:**
- DO NOT SCALE THIS DRAWING.
 - ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
 - ALL LEVELS ARE IN METRES ABOVE DATUM (AUCKLAND VERTICAL DATUM 1946).
 - ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND TRANSPORT AND AUCKLAND COUNCIL AND WHERE RELEVANT IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE REQUIREMENTS.
 - THE CONTRACTOR IS TO SEARCH FOR, LOCATE AND CONFIRM POSITIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS WHETHER SHOWN ON THE DRAWINGS OR NOT AND MAINTAIN RESPONSIBILITY FOR ALL SERVICES.
 - THE EXISTING SERVICES HAVE BEEN EXTRACTED FROM AUCKLAND COUNCIL GEOMAPS AND THE RELEVANT SURVEYS. POSITION AND EXTENT OF THE EXISTING SERVICES MAY NOT BE ACCURATE, THEREFORE ON-SITE VERIFICATION IS REQUIRED.
 - SETOUT COORDINATES ARE IN TERMS OF MT EDEN NZGD 2000.
 - DRAWING IS NOT TO BE USED FOR CONSTRUCTION.

LEGEND:

- | | |
|-----------------|------------------------------|
| — SW — SW — | EXISTING STORMWATER (PUBLIC) |
| — (SW) — (SW) — | PROPOSED STORMWATER |
| | PROPOSED RAINGARDEN TYPE A |
| | PROPOSED RAINGARDEN TYPE B |
| | PROPOSED CONVEYANCE CHANNEL |
| | EXISTING WETLAND |
| | PROPOSED CULVERT |
| | SCRUFFY DOME |
| | RIPRAP |
| | PROPOSED STORMWATER MANHOLE |
| | EXISTING BOUNDARIES |



1:2000 0 100m 200m

REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	25/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.
DRAWN S.PERERA
CHECKED H.LAW
APPROVED P.EVANS

DO NOT SCALE OFF THIS DRAWING.
VERIFY ALL DIMENSIONS ON SITE
BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CONSULTANT
MOTT
MACDONALD
12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport

PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

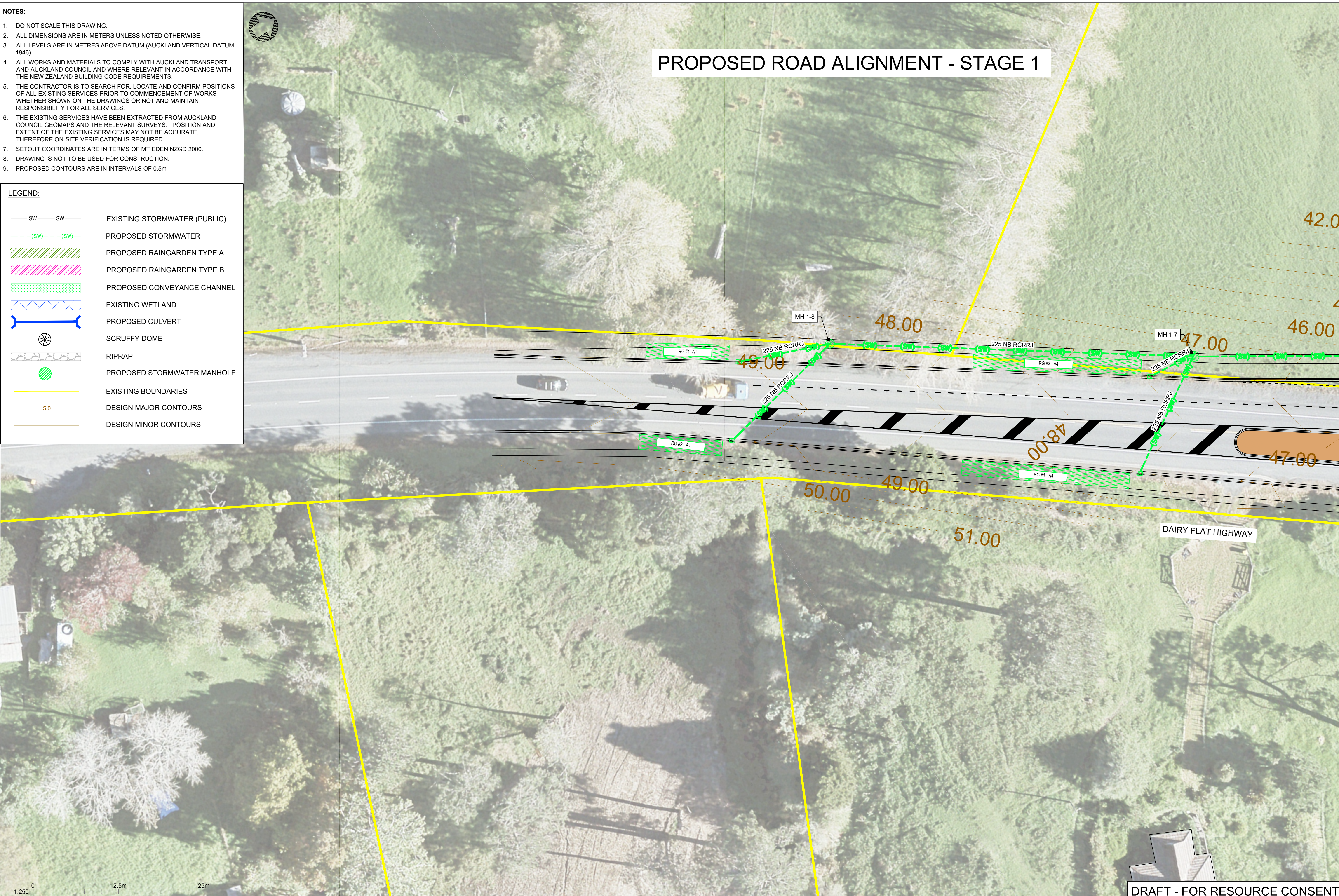
DRAFT - FOR RESOURCE CONSENT

DRAWING
Mildale Development, Argent Lane - Dairy Flat Highway
Stormwater General Arrangement Plan
DRAWING NO.
402828-MM-DWG-02-CV-DD-0800
FOR RESOURCE CONSENT
REVISION
D
SCALE (A1)
1:2000

- NOTES:
- DO NOT SCALE THIS DRAWING.
 - ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
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 - THE CONTRACTOR IS TO SEARCH FOR, LOCATE AND CONFIRM POSITIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS WHETHER SHOWN ON THE DRAWINGS OR NOT AND MAINTAIN RESPONSIBILITY FOR ALL SERVICES.
 - THE EXISTING SERVICES HAVE BEEN EXTRACTED FROM AUCKLAND COUNCIL GEOMAPS AND THE RELEVANT SURVEYS. POSITION AND EXTENT OF THE EXISTING SERVICES MAY NOT BE ACCURATE, THEREFORE ON-SITE VERIFICATION IS REQUIRED.
 - SETOUT COORDINATES ARE IN TERMS OF MT EDEN NZGD 2000.
 - DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
 - PROPOSED CONTOURS ARE IN INTERVALS OF 0.5m

- LEGEND:
- | | |
|-------------------|------------------------------|
| — SW — SW — | EXISTING STORMWATER (PUBLIC) |
| ---(SW)---(SW)--- | PROPOSED STORMWATER |
| | PROPOSED RAINGARDEN TYPE A |
| | PROPOSED RAINGARDEN TYPE B |
| | PROPOSED CONVEYANCE CHANNEL |
| | EXISTING WETLAND |
| | PROPOSED CULVERT |
| | SCRUFFY DOME |
| | RIPRAP |
| | PROPOSED STORMWATER MANHOLE |
| — 5.0 — | EXISTING BOUNDARIES |
| — 5.0 — | DESIGN MAJOR CONTOURS |
| — 5.0 — | DESIGN MINOR CONTOURS |

PROPOSED ROAD ALIGNMENT - STAGE 1



DRAFT - FOR RESOURCE CONSENT

REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	25/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.
DRAWN S.PERERA
CHECKED H.LAW
APPROVED P.EVANS

DO NOT SCALE OFF THIS DRAWING.
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CONSULTANT PROJECT NO.

MOTT MACDONALD : 402828

CONSULTANT

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MACDONALD

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MILLDALE

ROAD CONTROLLING AUTHORITY

Auckland
Transport
An Auckland Council Organisation

PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

PROJECT TYPE
NEW CONSTRUCTION

PROJECT PHASE
PRELIMINARY DESIGN

CONSULTANT PROJECT NO.
402828

DRAWING
Milldale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 1 of 8)

DRAWING NO.
402828-MM-DWG-02-CV-DD-0810

FOR RESOURCE CONSENT
SCALE (A1)
1:250

1. DO NOT SCALE THIS DRAWING.
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3. ALL LEVELS ARE IN METRES ABOVE DATUM (AUCKLAND VERTICAL DATUM 1946).
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6. THE EXISTING SERVICES HAVE BEEN EXTRACTED FROM AIDM AND CO-ORDINATE GEOPACS AND THE RELEVANT SURVEYS. POSITION AND EXTENT OF THE EXISTING SERVICES MAY NOT BE ACCURATE, THEREFORE ON-SITE VERIFICATION IS REQUIRED.
7. SETOUT COORDINATES ARE IN TERMS OF MT EDEN NZGD 2000.
8. DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
9. PROPOSED CONTOURS ARE IN INTERVALS OF 0.5m

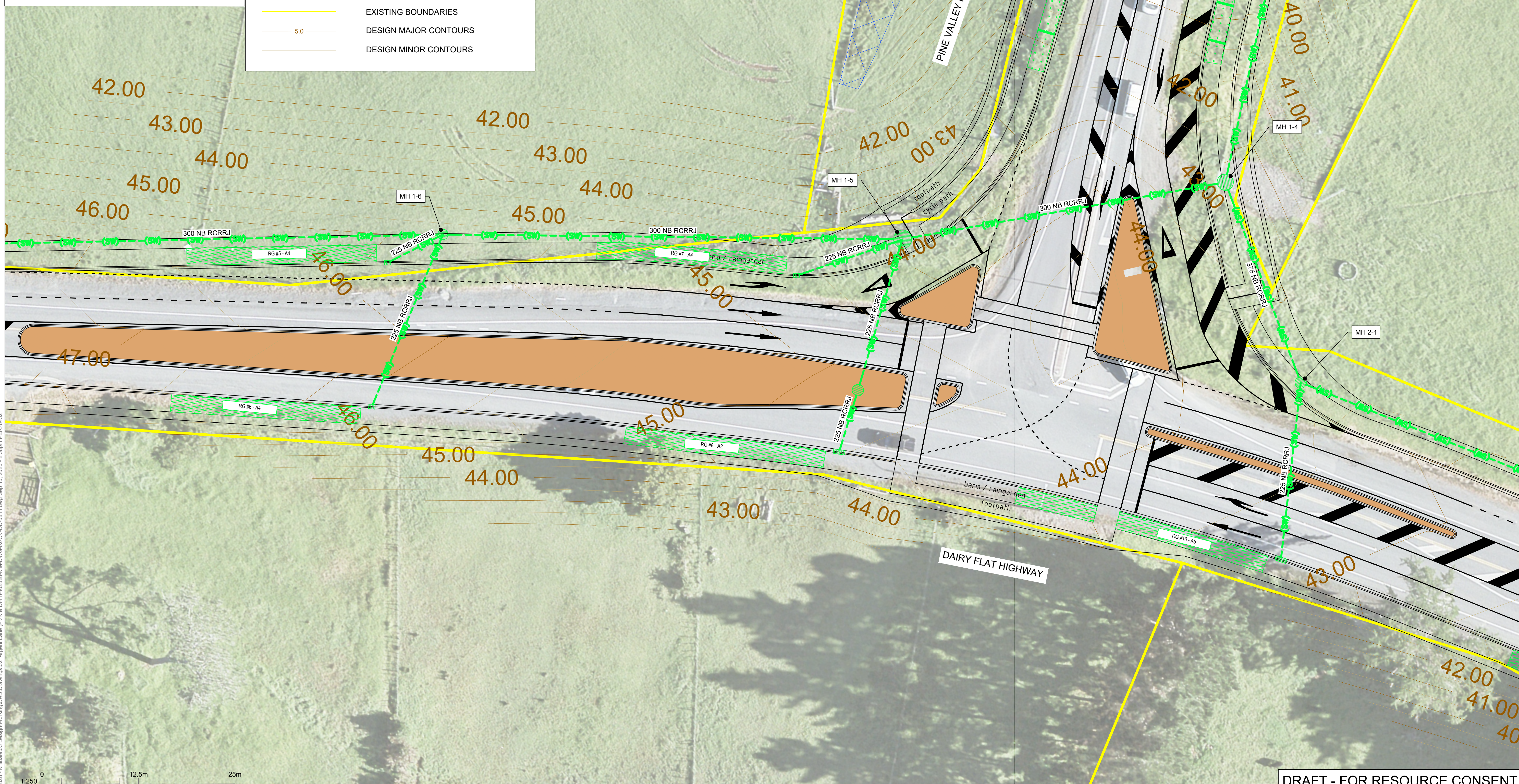
PROPOSED STORMWATER MANHOLE

DESIGN MINOR CONTOURS

PROPOSED CHECK DAMS

PINE VALLEY ROAD

DAIRY FLAT HIGHWAY



DRAWING

Milldale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 2 of 8)

DRAWING NO. 402828-MM-DWG-02-CV-DD-0811 REVISION D

FOR RESOURCE CONSENT SCALE (A1) 1:250

REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	25/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

DO NOT SCALE OFF THIS DRAWING.
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BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.
MOTT MACDONALD 402828

CONSULTANT

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M

**MOTT
MACDONALD**

CLIENT



MILDALE

ROAD CONTROLLING AUTHORITY



PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

PROJECT TYPE
NEW CONSTRUCTION


PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828


PROPOSED ROAD ALIGNMENT - STAGE 1

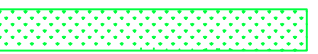
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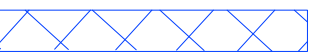
— SW — SW —


---(SW)---(SW)---


 PROPOSED RAINGARDEN TYPE A


 PROPOSED RAINGARDEN TYPE B


 PROPOSED CONVEYANCE CHANNEL


 EXISTING WETLAND


 PROPOSED CULVERT


 SCRUFFY DOME

 RIPRAP

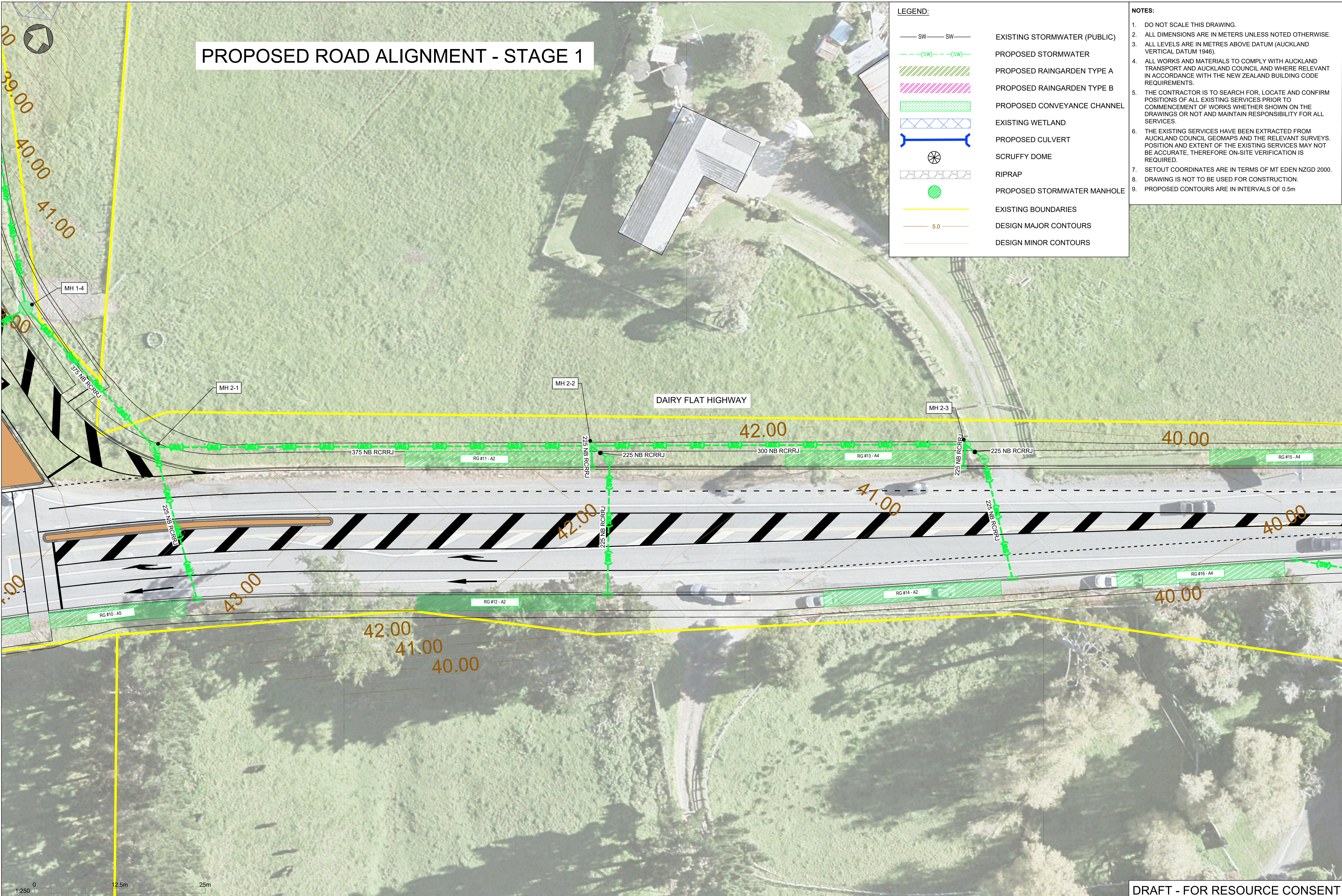
 PROPOSED STORMWATER MANHOLE

 EXISTING BOUNDARIES

 DESIGN MAJOR CONTOURS

 DESIGN MINOR CONTOURS

- NOTES:
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 - ALL LEVELS ARE IN METRES ABOVE DATUM (AUCKLAND VERTICAL DATUM 1946).
 - ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND TRANSPORT AND AUCKLAND COUNCIL AND WHERE RELEVANT IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE REQUIREMENTS.
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 - THE EXISTING SERVICES HAVE BEEN EXTRACTED FROM AUCKLAND COUNCIL GEOMAPS AND THE RELEVANT SURVEYS. POSITION AND EXTENT OF THE EXISTING SERVICES MAY NOT BE ACCURATE, THEREFORE ON-SITE VERIFICATION IS REQUIRED.
 - SETOUT COORDINATES ARE IN TERMS OF MT EDEN NZGD 2000.
 - DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
 - PROPOSED CONTOURS ARE IN INTERVALS OF 0.5m



P:\Auckland\NZL\01 Projects\402828 - Milldale\03 Design\Working\CAO\Drawings\02 Argent Lane (PVR & DFH)\402828-MM-DWG-02-CV-DD-0812.dwg Sep 10, 2020 - 4:16pm PER76432

REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	25/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

DO NOT SCALE OFF THIS DRAWING.
VERIFY ALL DIMENSIONS ON SITE
BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.	402828
MOTT MACDONALD :	

CONSULTANT

M
MOTT
MACDONALD

CLIENT

MILDDALE

ROAD CONTROLLING AUTHORITY

Auckland Transport

PROJECT	MILDDALE DEVELOPMENT INFRASTRUCTURE PROJECTS
PROJECT TYPE	NEW CONSTRUCTION
PROJECT PHASE	PRELIMINARY DESIGN
CONSULTANT PROJECT NO.	402828

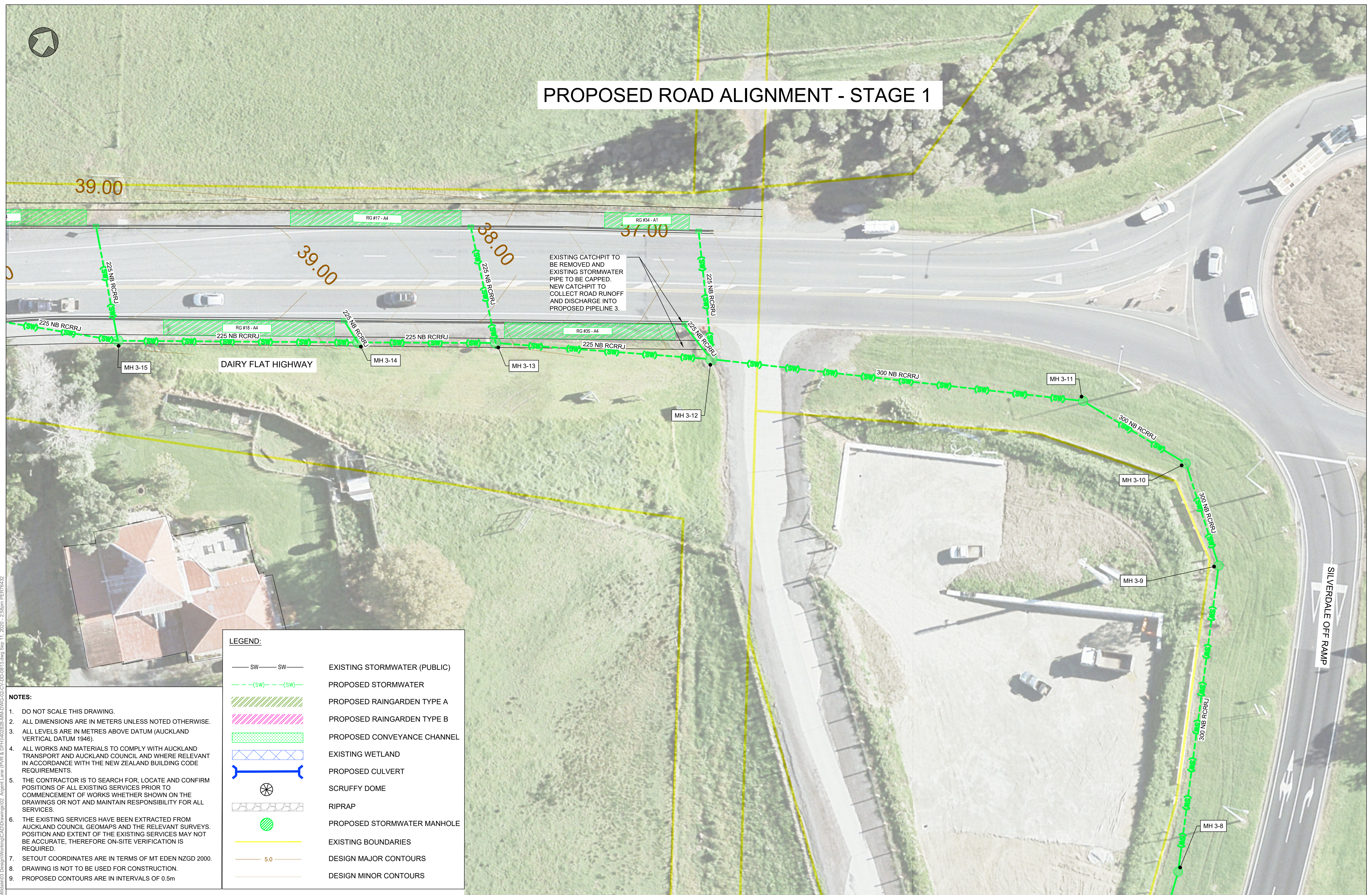
DRAFT - FOR RESOURCE CONSENT

DRAWING

Milldale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 3 of 8)














DRAWING NO.	402828-MM-DWG-02-CV-DD-0812	REVISION	D
FOR RESOURCE CONSENT	SCALE (A1)	1:250	

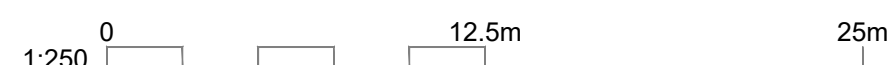
PROPOSED ROAD ALIGNMENT - STAGE 1



NOTES:

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3. ALL LEVELS ARE IN METRES ABOVE DATUM (AUCKLAND VERTICAL DATUM 1946).
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8. DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
9. PROPOSED CONTOURS ARE IN INTERVALS OF 0.5m

	EXISTING STORMWATER (PUBLIC)
	PROPOSED STORMWATER
	PROPOSED RAINGARDEN TYPE A
	PROPOSED RAINGARDEN TYPE B
	PROPOSED CONVEYANCE CHANNEL
	EXISTING WETLAND
	PROPOSED CULVERT
	SCRUFFY DOME
	RIPRAP
	PROPOSED STORMWATER MANHOLE
	EXISTING BOUNDARIES
	DESIGN MAJOR CONTOURS
	DESIGN MINOR CONTOURS



REV	DESCRIPTION	DATE
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D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

DO NOT SCALE OFF THIS DRAWING.
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BEFORE COMMENCING ANY WORK

CONSULTANT PROJECT NO.	
MOTT MACDONALD :	402828

CONSULTANT	
------------	--

at

0

Building
Inham
(0
75 240

Bros. Pake
nd 101
0) 93

Mason
2, 139
Auckland
T +64 (

CLIENT



ROAD CONTROLLING AUTHORITY



PROJECT	MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS
---------	---

PROJECT TYPE
NEW CONSTRUCTION

PROJECT PHASE
PRELIMINARY DESIGN

CONSULTANT PROJECT NO.
100000

DRAFT - FOR RESOURCE CONSENT

DRAWING	<p>Milldale Development, Argent Lane - Dairy Flat Highway</p> <p>Stormwater Drainage Layout (Sheet 4 of 8)</p>
---------	--

DRAWING NO.	REVISION
402828-MM-DWG-02-CV-DD-0813	D

FOR RESOURCE CONCENT	SCALE (A1)	1.250
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PROPOSED ROAD ALIGNMENT - STAGE 1

LEGEND:

- SW — SW —
- (SW) — (SW) —
- PROPOSED STORMWATER
- PROPOSED RAINGARDEN TYPE A
- PROPOSED RAINGARDEN TYPE B
- PROPOSED CONVEYANCE CHANNEL
- EXISTING WETLAND
- PROPOSED CULVERT
- SCRUFFY DOME
- RIPRAP
- PROPOSED STORMWATER MANHOLE
- EXISTING BOUNDARIES
- DESIGN MAJOR CONTOURS
- DESIGN MINOR CONTOURS

NOTES:

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SILVERDALE OFF RAMP

EXISTING NZTA CULVERT

OUTLET WITH RIPRAP FOR EROSION PROTECTION

Outlet 3

MH 3-1

MH 3-2

MH 3-3

MH 3-4

MH 3-5

MH 3-6

MH 3-7

MH 3-8

300 NB RCRRJ

1:250

0 12.5m 25m

DRAFT - FOR RESOURCE CONSENT

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

DO NOT SCALE OFF THIS DRAWING

CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CLIENT



MILLDALE

PROJECT	
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS	
PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
	CONSULTANT PROJECT NO. 402828

Milldale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 5 of 8)

DRAWING NO.	REVISION
402828-MM-DWG-02-CV-DD-0814	D
FOR RESOURCE CONSENT	SCALE (A1) 1:250

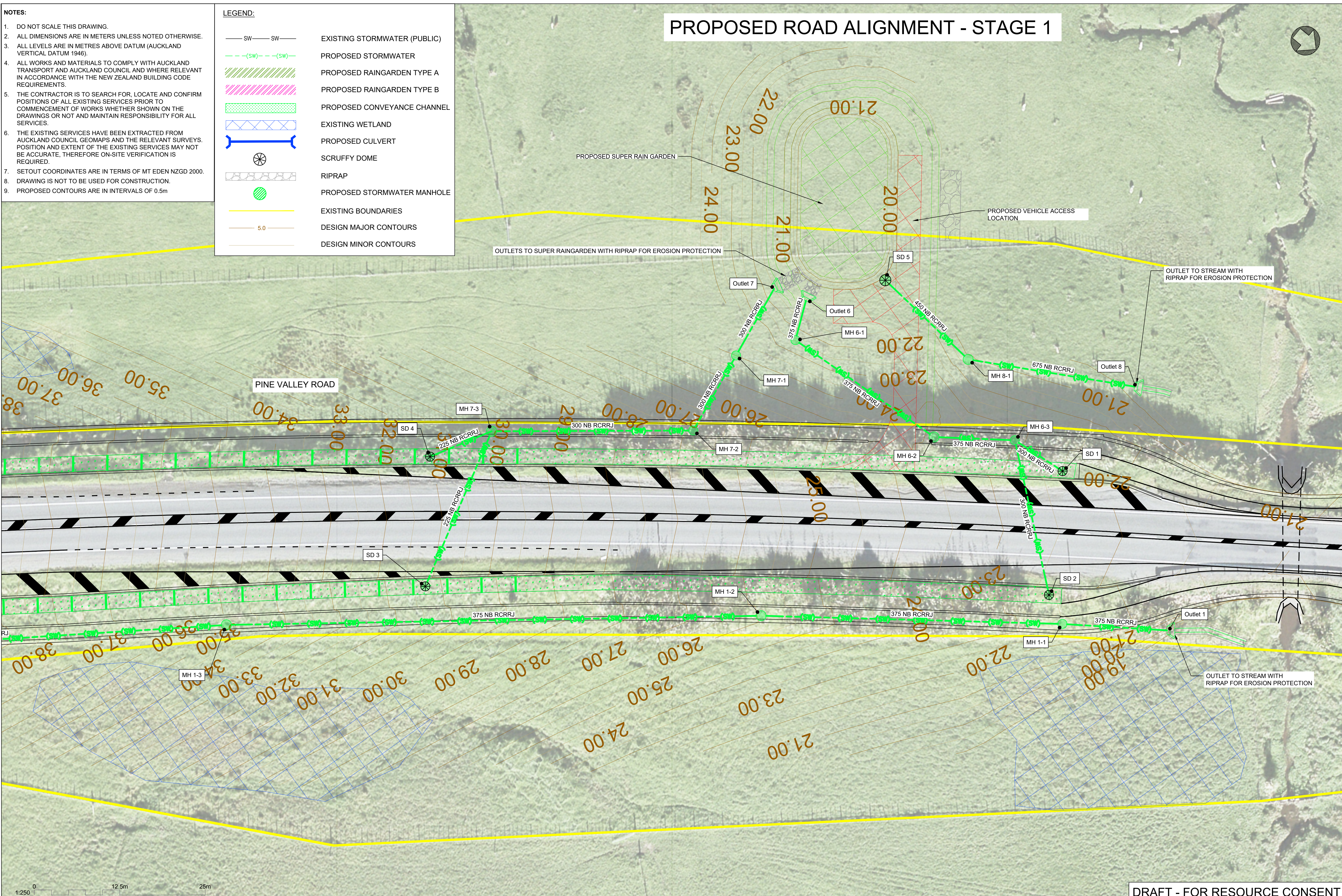
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- PROPOSED CONTOURS ARE IN INTERVALS OF 0.5m

LEGEND:

- SW — SW — EXISTING STORMWATER (PUBLIC)
- (SW) — (SW) — PROPOSED STORMWATER
- PROPOSED RAINGARDEN TYPE A
- PROPOSED RAINGARDEN TYPE B
- PROPOSED CONVEYANCE CHANNEL
- EXISTING WETLAND
- PROPOSED CULVERT
- SCRUFFY DOME
- RIPRAP
- PROPOSED STORMWATER MANHOLE
- EXISTING BOUNDARIES
- DESIGN MAJOR CONTOURS
- DESIGN MINOR CONTOURS

PROPOSED ROAD ALIGNMENT - STAGE 1



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REV	DESCRIPTION	DATE
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B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
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DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

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BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CONSULTANT
MOTT
MACDONALD

CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland
Transport
An Auckland Council Organisation

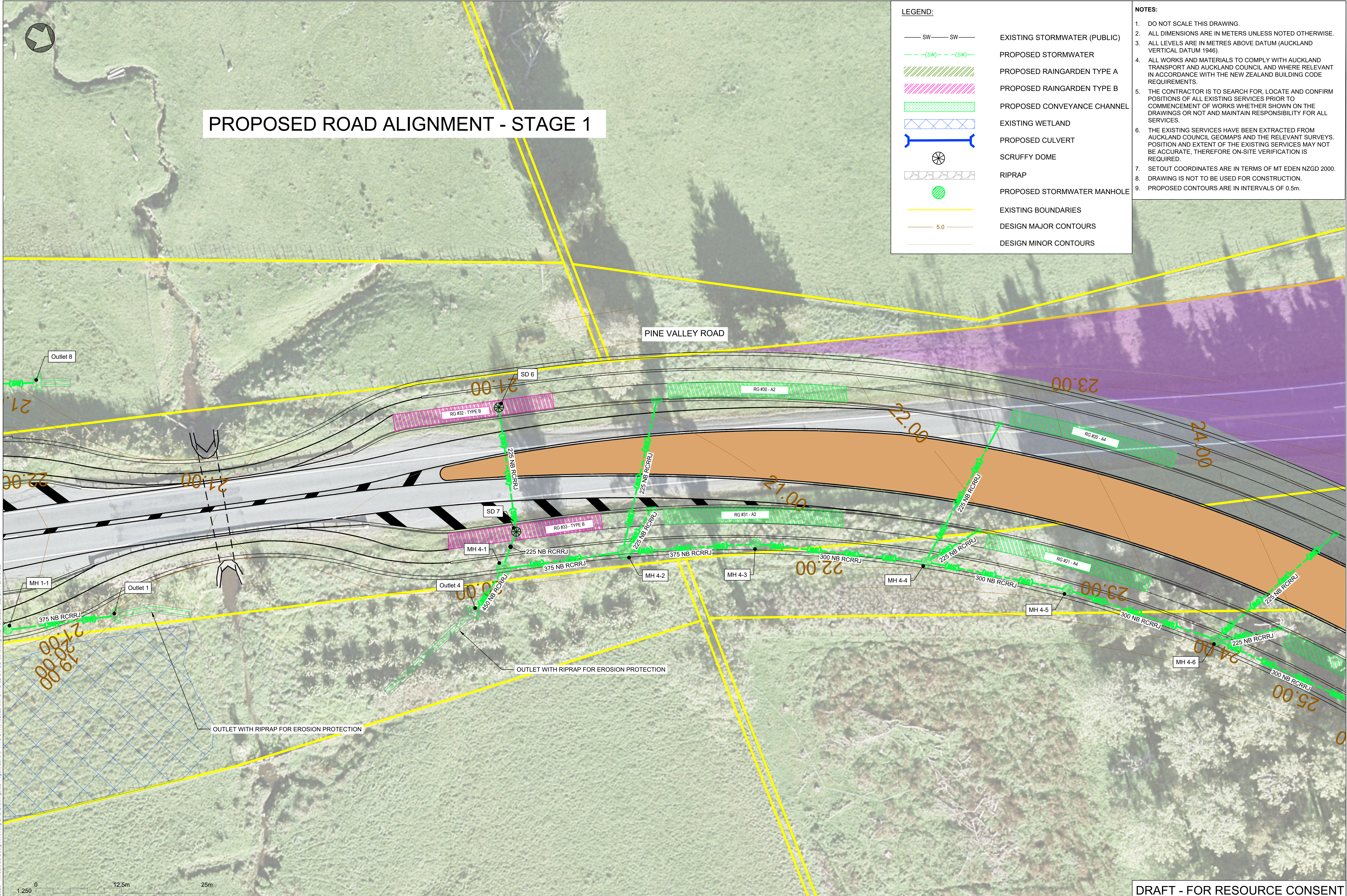
PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

PROJECT TYPE NEW CONSTRUCTION	PROJECT PHASE PRELIMINARY DESIGN
CONSULTANT PROJECT NO. 402828	

DRAFT - FOR RESOURCE CONSENT

DRAWING
Milldale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 6 of 8)

DRAWING NO. 402828-MM-DWG-02-CV-DD-0815	REVISION D
FOR RESOURCE CONSENT	
SCALE (A1)	1:250



LEGEND:

— SW — SW —

— (SW) — (SW) —

EXISTING STORMWATER (PUBLIC)

PROPOSED STORMWATER

PROPOSED RAINGARDEN TYPE A

PROPOSED RAINGARDEN TYPE B

PROPOSED CONVEYANCE CHANNEL

EXISTING WETLAND

PROPOSED CULVERT

SCRUFFY DOME

RIPRAP

PROPOSED STORMWATER MANHOLE

EXISTING BOUNDARIES

DESIGN MAJOR CONTOURS

DESIGN MINOR CONTOURS

- NOTES:
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P:\Auckland\NZL\01 Projects\402828 - Milldale\03 Design\Working\CAO\Drawings\02 Argent Lane (PVR & DFH)\402828-MM-DWG-02-CV-DD-0816.dwg Sep 10, 2020 - 3:27pm PER76432

REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
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C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	26/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS
DO NOT SCALE OFF THIS DRAWING. VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK.	

CONSULTANT PROJECT NO.	402828
MOTT MACDONALD :	

CONSULTANT

M

M

MOTT
MACDONALD

Milford Road Building
12, 13 & 14 St West
Auckland 1010
T +64 (0) 9 375 2400

CLIENT

MILLDALE

ROAD CONTROLLING AUTHORITY

Auckland
Transport
An Auckland Council Organisation

PROJECT	MILDDALE DEVELOPMENT INFRASTRUCTURE PROJECTS
PROJECT TYPE	NEW CONSTRUCTION
PROJECT PHASE	PRELIMINARY DESIGN
CONSULTANT PROJECT NO.	402828

DRAFT - FOR RESOURCE CONSENT

DRAWING

Milddale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 7 of 8)

DRAWING NO.

402828-MM-DWG-02-CV-DD-0816

REVISION

D

FOR RESOURCE CONSENT

SCALE (A1)

1:250

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Legend for Figure 1:

- SW — SW (Solid black line)
- (SW) — (SW) (Dashed black line)
- Green diagonal lines (Green boundary)
- Pink diagonal lines (Pink boundary)
- Green dotted line (Green boundary)
- Blue line with 'X' marks (Blue boundary)
- Blue line with T-shaped ends (Blue boundary)
- Circle with a cross (Well)
- Grey line with circles (Grey boundary)
- Green circle with diagonal lines (Green boundary)

PROPOSED STORMWATER MANHOLE

DESIGN MINOR CONTOURS

EXISTING STREAM

OLD PINE VALLEY ROAD

PINE VALLEY ROAD

26.00

PROPOSED CULVER



NEW CHANNEL TO CONVEY
FLOW TO EXISTING STREAM.
CULVERT INVERT LEVEL WILL
BE 250mm BELOW STREAM BED
LEVEL

Outlet 5

OUTLET TO STREAM WITH RIPRAP FOR EROSION PROTECTION

EXISTING STREAM

1954

100

245

DRAFT - FOR RESOURCE CONSENT

Milldale Development, Argent Lane - Dairy Flat Highway
Stormwater Drainage Layout (Sheet 8 of 8)

DRAWING NO.	REVISION
402828 MM DWG 03 CV DD 0817	D

FOR RESOURCE CONSENT SCALE (A1) 1:250

REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
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D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

son Bros. Building
139 Pakenham St West
Melbourne 3002
Tel: 064 (0) 9 375 2400

CLIENT



MILDALE

ROAD CONTROLLING AUTHORITY

Auckland Transport
An Auckland Council Organisation

The logo for Auckland Transport, featuring a stylized 'AT' in blue and green, with a red and blue circular element above it.

PROJECT	
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS	
PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
CONSULTANT PROJECT NO. 402828	

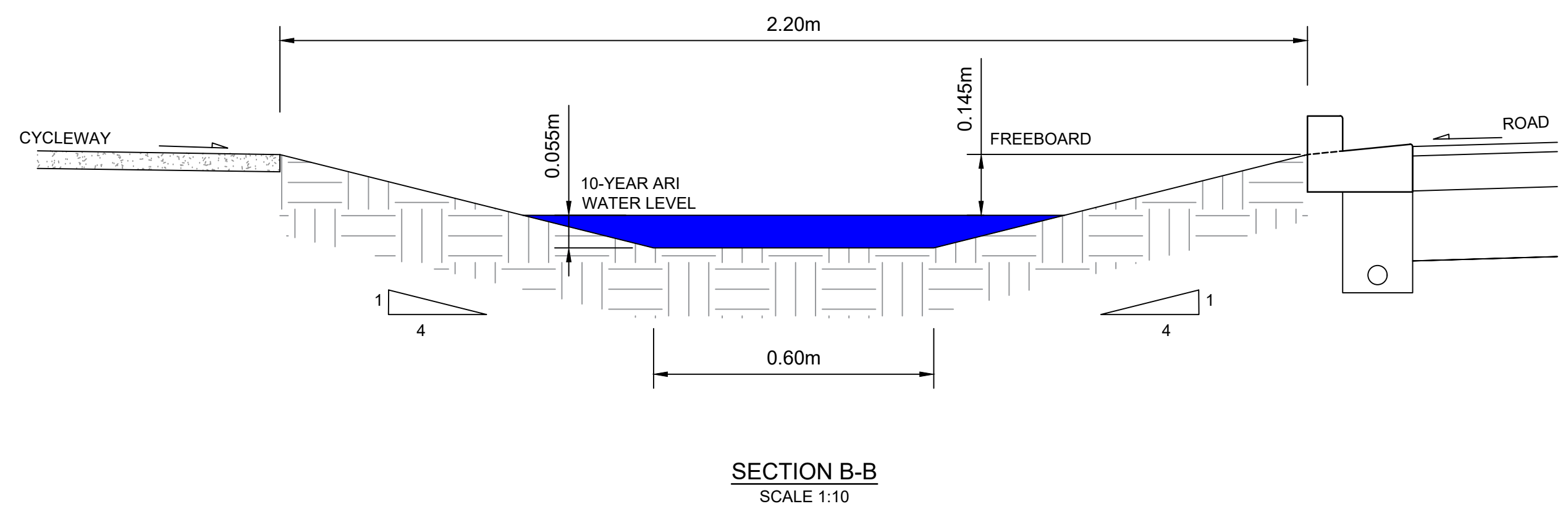
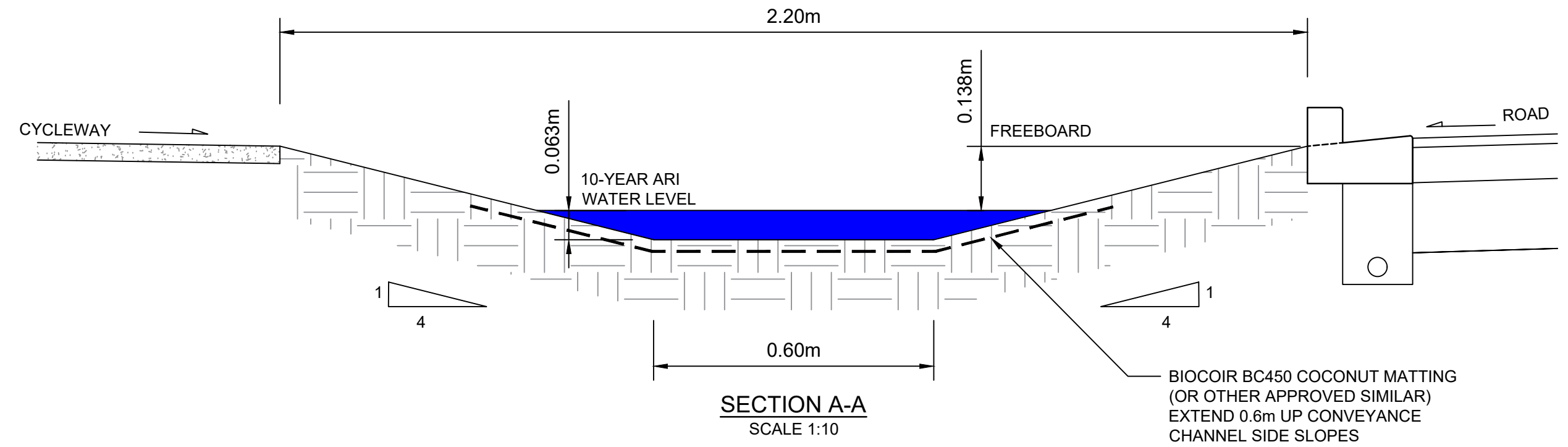
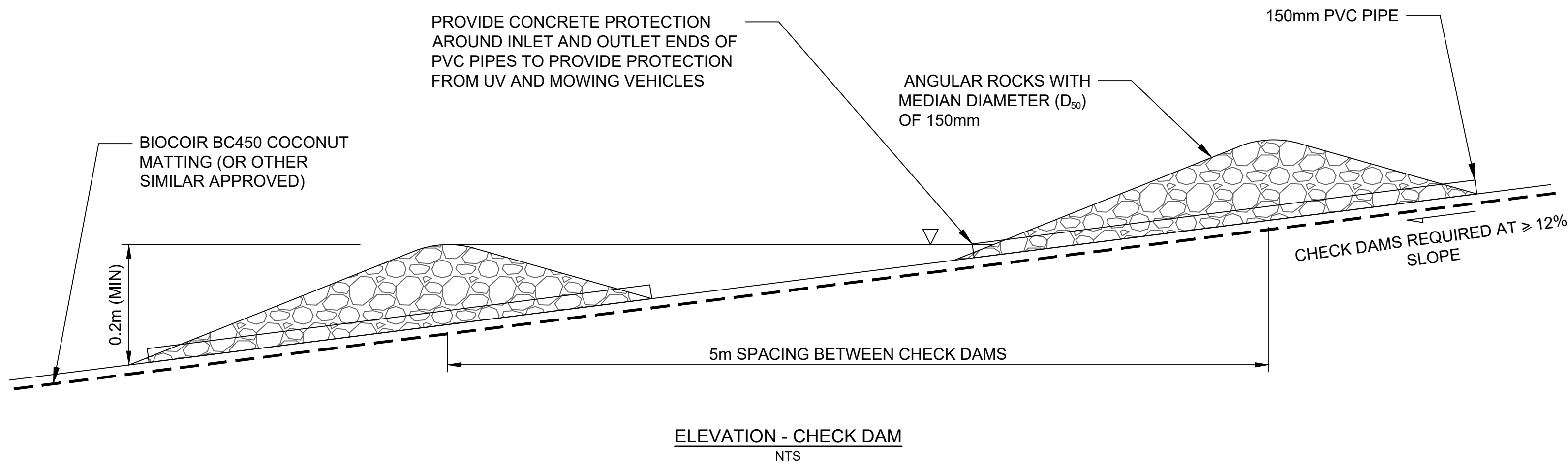
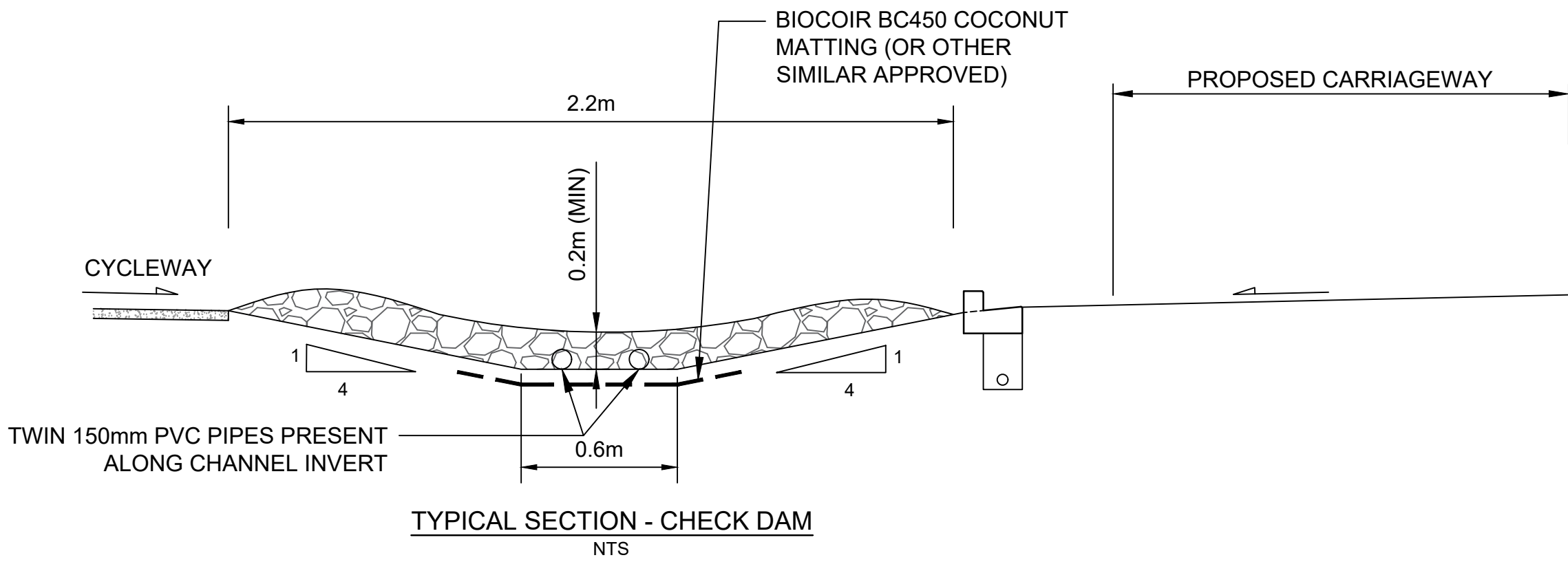
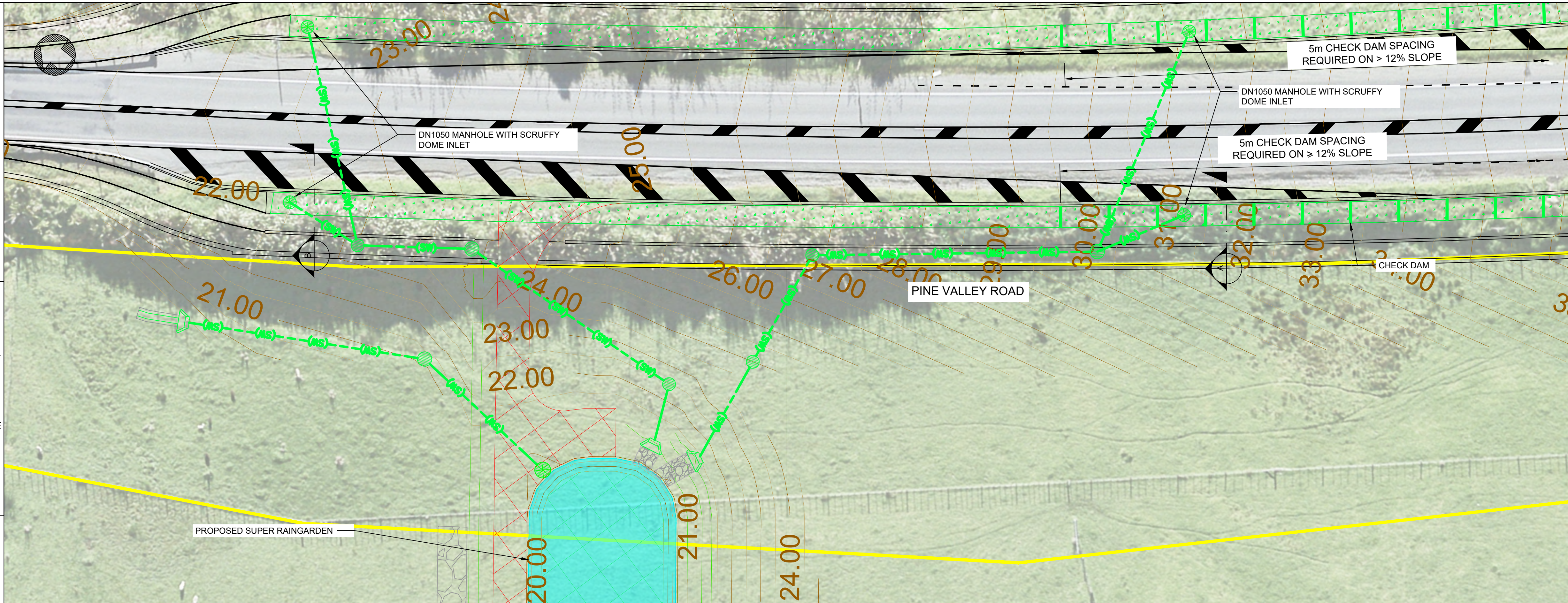
DRAWING NO.		REVISION
402828-MM-DWG-02-CV-DD-0817		D
FOR RESOURCE CONSENT		SCALE (A1) 1:250

NOTES:

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- DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
- THE CHECK DAMS MUST BE CONSTRUCTED ACROSS THE WIDTH OF THE CONVEYANCE CHANNEL AT A UNIFORM HEIGHT OF 0.2m, FOLLOWING THE TRAPEZIUM SHAPE OF THE CONVEYANCE CHANNEL TO ENSURE THAT ANY OVERFLOWS ARE DIRECTED OVER THE CENTRE OF THE DAM
- BIOCOIR BC450 COCONUT MATTING (OR OTHER SIMILAR APPROVED) TO BE CONSTRUCTED ALONG THE CONVEYANCE CHANNEL BASE AND EXTENDED 0.6m UP THE CONVEYANCE CHANNEL SIDE SLOPES. MATTING TO BE CONSTRUCTED AS PER THE THE SUPPLIER SPECIFICATIONS.

LEGEND:

- (SW)---(SW)--- PROPOSED STORMWATER
- PROPOSED CONVEYANCE CHANNEL
- SCRUFFY DOME
- RIPRAP
- PROPOSED STORMWATER MANHOLE
- EXISTING BOUNDARIES
- DESIGN MAJOR CONTOURS
- DESIGN MINOR CONTOURS



P:\Auckland\NZL\01 Projects\402828 - Milldale\03 Design\Working\CAO\Drawings\02 Argent Lane (PVR & DFH)\402828-MM-DWG-02-CV-DD-0831.dwg Sep 10, 2020 - 3:39pm PER\6432

REV	DESCRIPTION	DATE
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DRAWING Q.A.	
DRAWN	H.LAW
CHECKED	C.O'SULLIVAN
APPROVED	P.EVANS

DO NOT SCALE OFF THIS DRAWING.
VERIFY ALL DIMENSIONS ON SITE
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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CONSULTANT
MOTT MACDONALD
12, 130 Park Road
Auckland 1010
T +64 (0) 9 375 2400

CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport
An Auckland Council Organisation

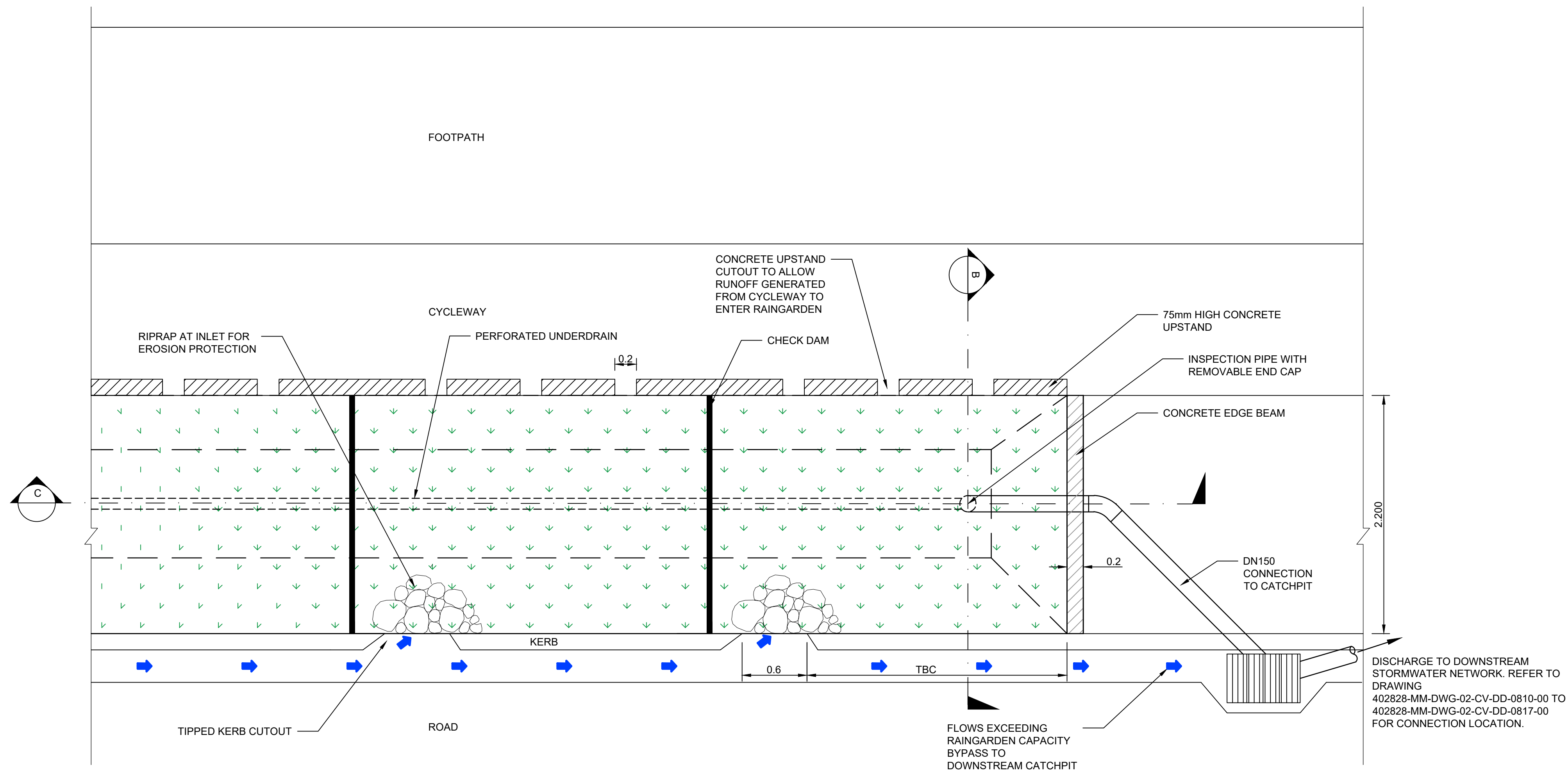
PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

DRAFT - FOR RESOURCE CONSENT

DRAWING
Milldale Development, Argent Lane - Dairy Flat Highway
Conveyance Channel Design
DRAWING NO.
402828-MM-DWG-02-CV-DD-0831
FOR RESOURCE CONSENT
REVISION
D
SCALE (A1)
AS SHOWN

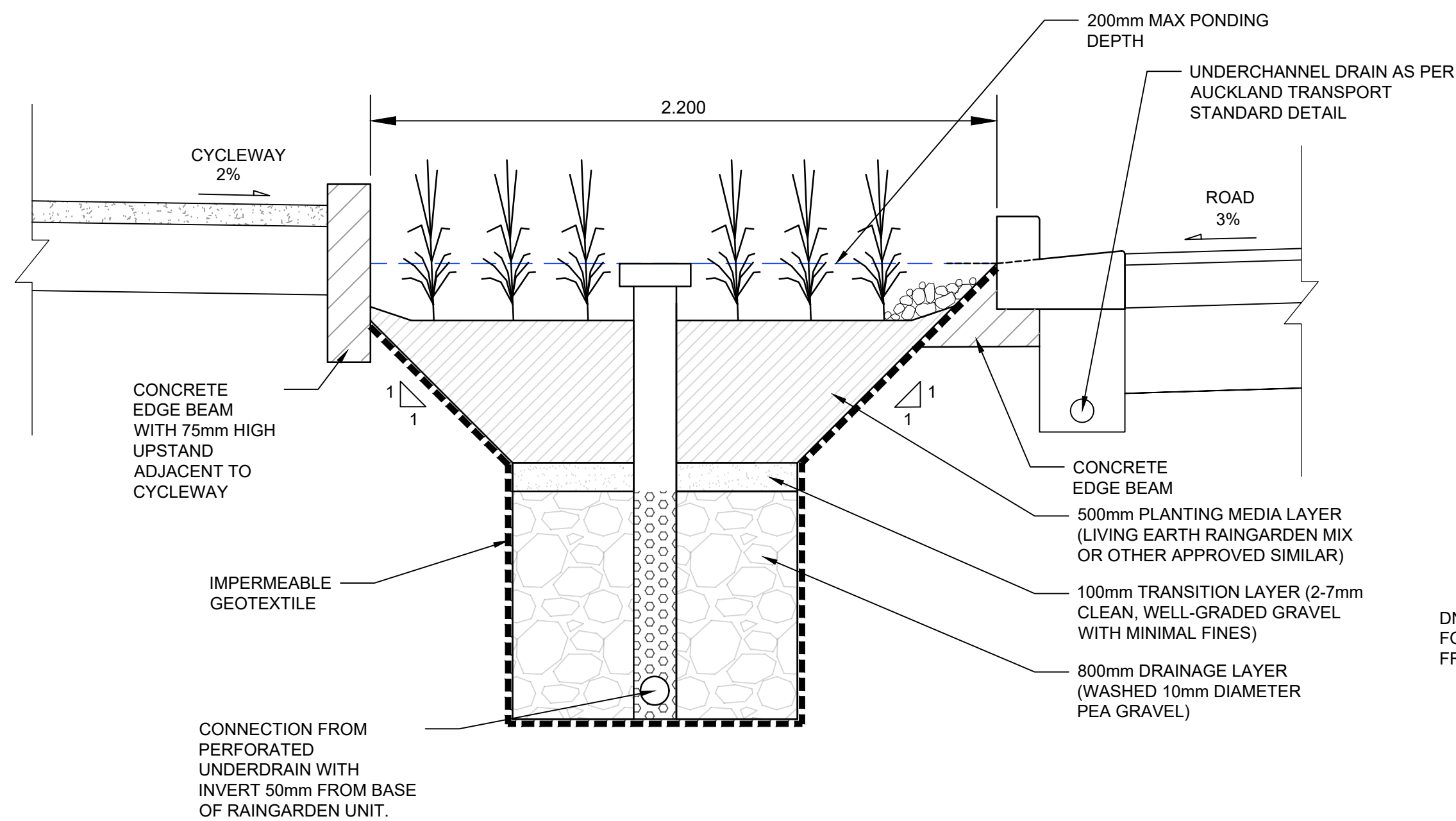
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- RAINGARDENS HAVE BEEN SIZED TO PROVIDE WATER QUALITY TREATMENT AND SMAF 1 DETENTION. RETENTION VOLUME IS TO BE PROVIDED AS DETENTION.
- DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
- PEA GRAVEL FOR DRAINAGE AND STORAGE LAYERS SHOULD HAVE LITTLE OR NO FINES AND A MINIMUM INFILTRATION RATE OF 4.0 MM/HOUR. THIS AGGREGATE SHOULD HAVE A MINIMUM VOID SPACE OF 0.35.
- REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0842-00 FOR CHECK DAM SPACING AND NUMBER OF CHECK DAMS.
- REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0810-00 TO 402828-MM-DWG-02-CV-DD-0817-00 FOR RAINGARDEN LOCATIONS.



TYPICAL RAINGARDEN PLAN VIEW - BATTERED SLOPE RAINGARDEN (TYPE A)

SCALE 1:25

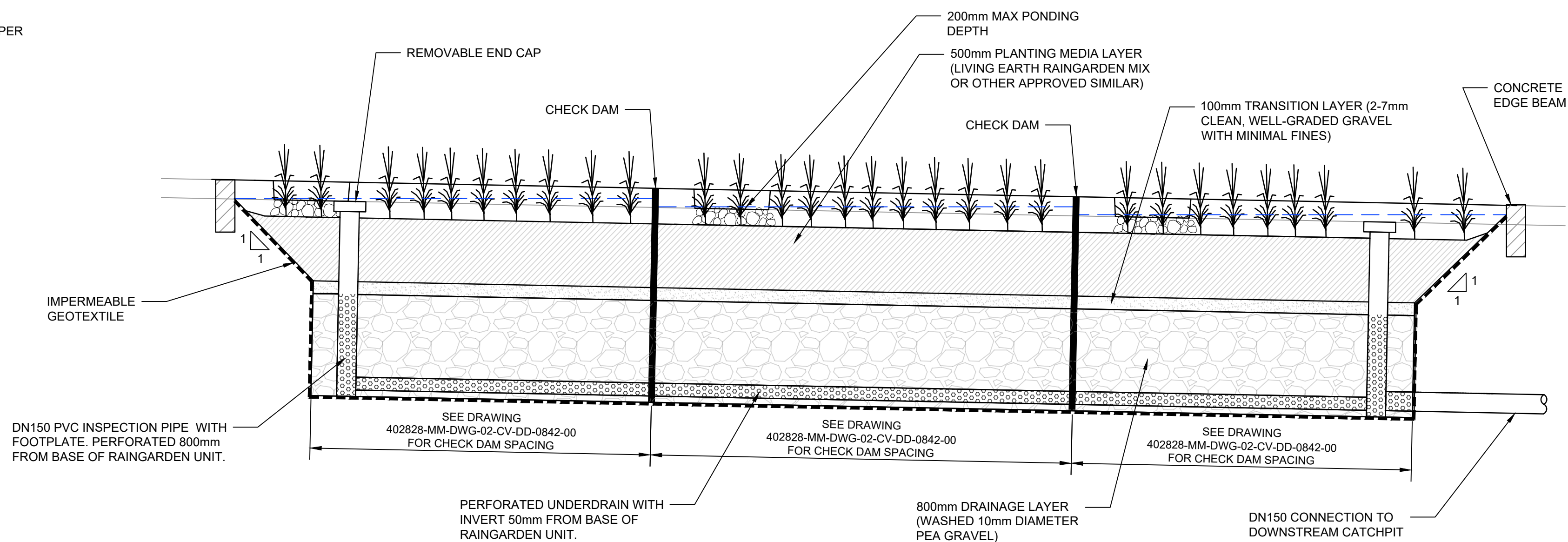


TYPICAL BATTERED SLOPE (TYPE A) RAINGARDEN SECTION B

Detail

B

1:20 (A1)



TYPICAL BATTERED SLOPE (TYPE A) RAINGARDEN SECTION C

Detail

C

1:25 (A1)

REV	DESCRIPTION	DATE
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C	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	H.LAW
CHECKED	C.O'SULLIVAN
APPROVED	P.EVANS

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BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.	
MOTT MACDONALD :	402828

CONSULTANT	
MOTT MACDONALD	

CLIENT	
MILLDALE	

ROAD CONTROLLING AUTHORITY	
Auckland Transport	

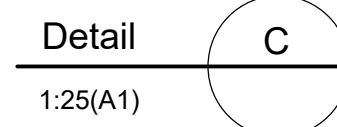
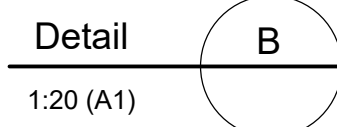
PROJECT	
MILLDALE DEVELOPMENT INFRASTRUCTURE PROJECTS	
PROJECT TYPE	NEW CONSTRUCTION
PROJECT PHASE	PRELIMINARY DESIGN
CONSULTANT PROJECT NO.	402828

DRAFT - FOR RESOURCE CONSENT

DRAWING
Mildale Development, Argent Lane - Dairy Flat Highway
Typical Road Raingarden Detail (Sheet 1 of 3)

DRAWING NO.	REVISION
402828-MM-DWG-02-CV-DD-0840	C
FOR RESOURCE CONSENT	SCALE (A1) AS SHOWN

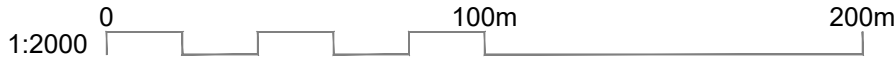
1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
3. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND COUNCIL STANDARDS AND WHERE RELEVANT IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE REQUIREMENTS.
4. THE CONTRACTOR IS TO SEARCH FOR, LOCATE AND CONFIRM POSITIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS WHETHER SHOWN ON THE DRAWINGS OR NOT AND MAINTAIN RESPONSIBILITY FOR ALL SERVICES.
5. RAINGARGENS HAVE BEEN SIZED TO PROVIDE WATER QUALITY TREATMENT AND SMAF1 DETENTION ONLY. RETENTION VOLUME IS TO BE PROVIDED AS DETENTION.
6. DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
7. REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0842-00 FOR INTERNAL RAINGARDEN LENGTH
8. REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0810-00 TO 402828-MM-DWG-02-CV-DD-0817-00 FOR RAINGARDEN LOCATIONS



DRAWING NO. 402828-MM-DWG-02-CV-DD-0841	REVISION C
FOR RESOURCE CONSENT	SCALE (A1) AS SHOWN

- NOTES:
- DO NOT SCALE THIS DRAWING.
 - ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
 - ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND TRANSPORT AND AUCKLAND COUNCIL STANDARDS AND WHERE RELEVANT IN ACCORDANCE WITH THE NEW ZEALAND BUILDING CODE REQUIREMENTS.
 - THE CONTRACTOR IS TO SEARCH FOR, LOCATE AND CONFIRM POSITIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS WHETHER SHOWN ON THE DRAWINGS OR NOT AND MAINTAIN RESPONSIBILITY FOR ALL SERVICES.
 - RAINGARDEN HAVE BEEN SIZED TO PROVIDE WATER QUALITY TREATMENT AND SMAF1 DETENTION ONLY. RETENTION VOLUME IS TO BE PROVIDED AS DETENTION.
 - DRAWING IS NOT TO BE USED FOR CONSTRUCTION.
 - REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0840-00 FOR RAINGARDEN TYPE A DETAILS
 - REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0841-00 FOR RAINGARDEN TYPE B DETAILS
 - REFER TO DRAWING 402828-MM-DWG-02-CV-DD-0810-00 TO 402828-MM-DWG-02-CV-DD-0817-00 FOR RAINGARDEN LOCATIONS

Raingarden Location	Raingarden Number	Total Catchment Area (ha)	Required 95th Percentile Detention Volume (including Retention) (m³)	Raingarden Type	95th Percentile Detention Volume (including Retention) Provided (m³)	Internal Raingarden Length (m)	No. of Check Dams Required	Distance Between Check Dams (m)	External Raingarden Length (m)
Dairy Flat Highway	1	0.03855	7.87	A1	8.64	11.90	2	3.5	12.20
Dairy Flat Highway	2	0.02611	5.33	A1	8.64	11.90	2	3.5	12.20
Dairy Flat Highway	3	0.08078	16.48	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	4	0.05698	11.63	A4	15.98	24.30	6	3.3	24.60
Dairy Flat Highway	5	0.08902	18.17	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	6	0.06946	14.17	A4	15.98	24.30	6	3.3	24.60
Dairy Flat Highway	7	0.08723	17.80	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	8	0.08109	16.55	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	10	0.09850	20.10	A5	22.28	30.00	7	3.6	30.30
Dairy Flat Highway	11	0.09819	20.04	A5	22.28	30.00	7	3.6	30.30
Dairy Flat Highway	12	0.09190	18.75	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	13	0.07477	15.26	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	14	0.08588	17.52	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	15	0.08258	16.85	A2	18.56	25.70	6	3.5	26.00
Dairy Flat Highway	16	0.05136	10.48	A4	15.98	24.30	6	3.3	24.60
Dairy Flat Highway	17	0.07134	14.56	A4	15.98	24.30	6	3.3	24.60
Dairy Flat Highway	18	0.05270	10.75	A4	15.98	24.30	6	3.3	24.60
Pine Valley Road	20	0.06999	14.28	A4	15.98	24.30	6	3.3	24.60
Pine Valley Road	21	0.06423	13.11	A4	15.98	24.30	6	3.3	24.60
Pine Valley Road	22	0.10609	21.65	A5	22.28	30.00	7	3.6	30.30
Pine Valley Road	23	0.10165	20.74	A5	22.28	30.00	7	3.6	30.30
Pine Valley Road	24	0.08104	16.54	A2	18.56	25.70	6	3.5	26.00
Pine Valley Road	25	0.08164	16.66	A2	18.56	25.70	6	3.5	26.00
Pine Valley Road	26	0.09966	20.34	A5	22.28	30.00	7	3.6	30.30
Pine Valley Road	27	0.11660	23.79	A3	26.91	36.20	9	3.5	36.50
Pine Valley Road	30	0.08265	16.87	A2	18.56	25.70	6	3.5	26.00
Pine Valley Road	31	0.08155	16.64	A2	18.56	25.70	6	3.5	26.00
Pine Valley Road	32	0.12922	28.54	B	28.90	23.10	N/A	N/A	23.50
Pine Valley Road	33	0.12110	26.75	B	27.65	22.10	N/A	N/A	22.50
Dairy Flat Highway	34	0.03272	6.68	A1	8.64	11.90	2	3.5	12.20
Dairy Flat Highway	35	0.04971	10.14	A4	15.98	24.30	6	3.3	24.60



REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	24/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.	
DRAWN	S.PERERA
CHECKED	H.LAW
APPROVED	P.EVANS

DO NOT SCALE OFF THIS DRAWING.
VERIFY ALL DIMENSIONS ON SITE
BEFORE COMMENCING ANY WORK.

CONSULTANT PROJECT NO.

MOTT MACDONALD : 402828

CONSULTANT

M
MOTT
MACDONALD

CLIENT



ROAD CONTROLLING AUTHORITY

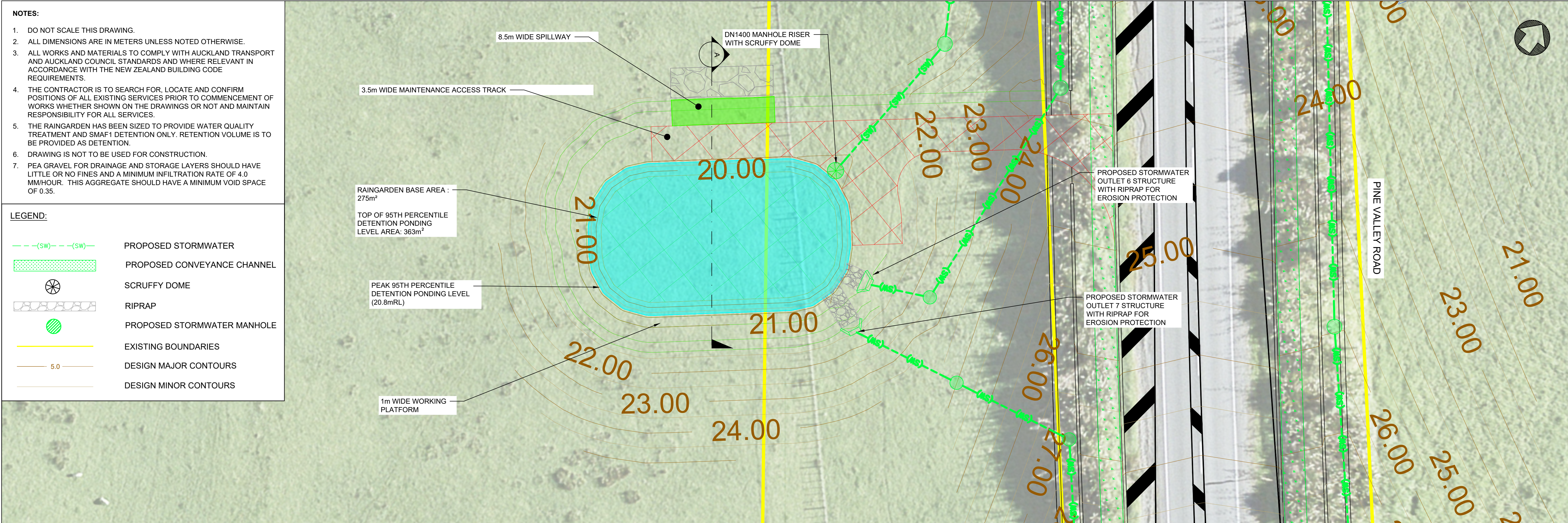


PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS

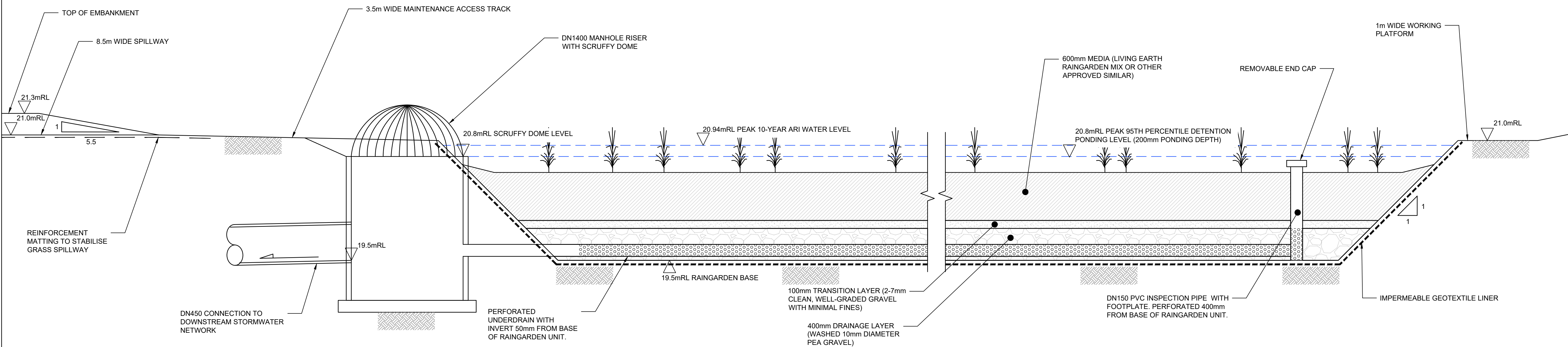
PROJECT TYPE	PROJECT PHASE
NEW CONSTRUCTION	PRELIMINARY DESIGN
	CONSULTANT PROJECT NO. 402828

DRAFT - FOR RESOURCE CONSENT

DRAWING	
Milldale Development, Argent Lane - Dairy Flat Highway Typical Road Raingarden Detail (Sheet 3 of 3)	
DRAWING NO.	REVISION
402828-MM-DWG-02-CV-DD-0842	D
FOR RESOURCE CONSENT	SCALE (A1)



SUPER RAINGARDEN PLAN
SCALE 1:200



SUPER RAINGARDEN SECTION A
SCALE 1:25

0 100m 200m

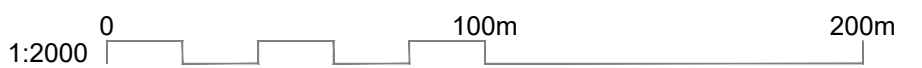
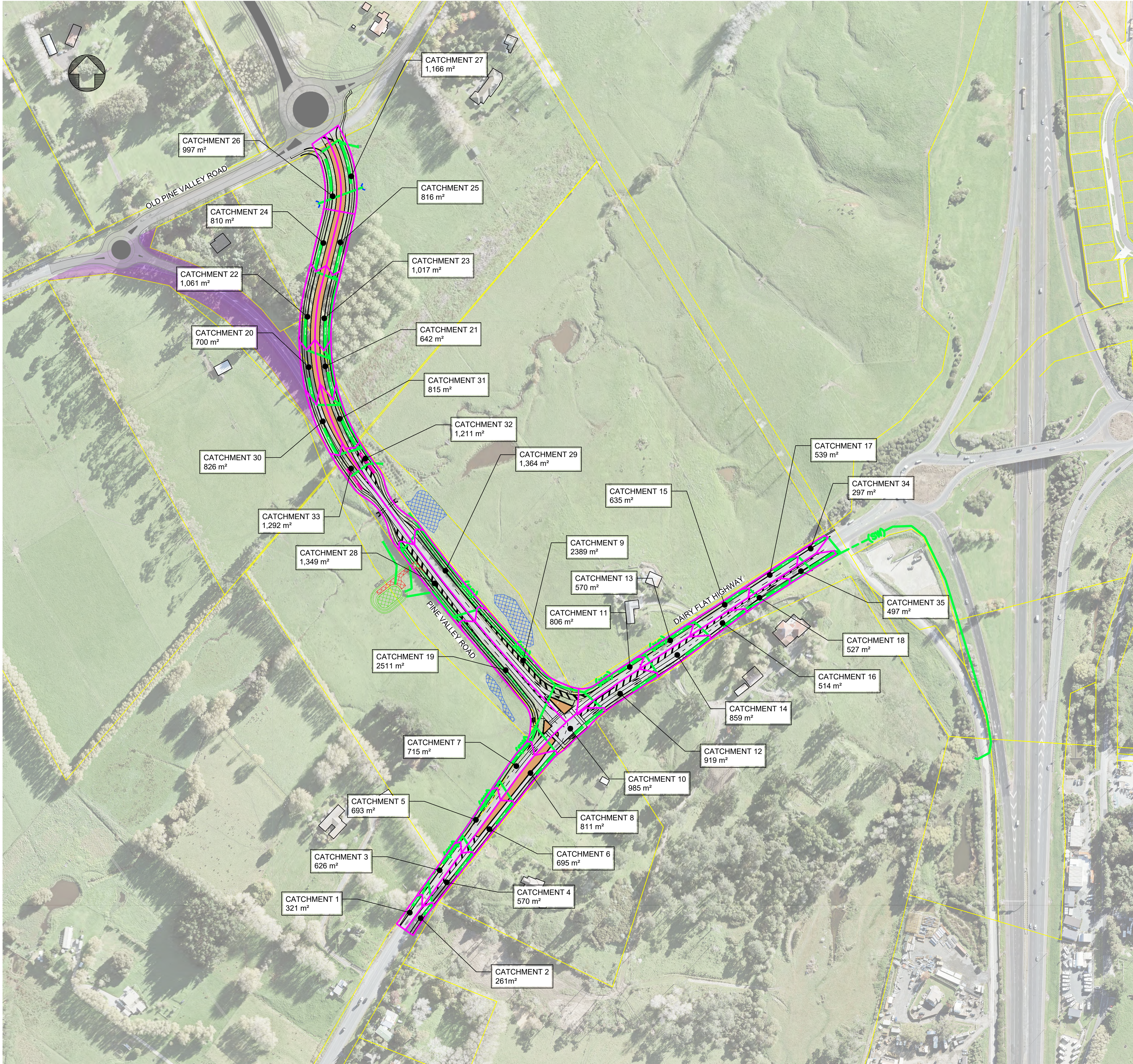
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- NOTES:**
- DO NOT SCALE THIS DRAWING.
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 - ALL LEVELS ARE IN METRES ABOVE DATUM (AUCKLAND VERTICAL DATUM 1946).
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 - THE EXISTING SERVICES HAVE BEEN EXTRACTED FROM AUCKLAND COUNCIL GEOMAPS AND THE RELEVANT SURVEYS. POSITION AND EXTENT OF THE EXISTING SERVICES MAY NOT BE ACCURATE, THEREFORE ON-SITE VERIFICATION IS REQUIRED.
 - SETOUT COORDINATES ARE IN TERMS OF MT EDEN NZGD 2000.
 - DRAWING IS NOT TO BE USED FOR CONSTRUCTION.

LEGEND:

— SW — SW —	EXISTING STORMWATER (PUBLIC)
---(SW)---(SW)---	PROPOSED STORMWATER
	PROPOSED RAINGARDEN TYPE A
	PROPOSED RAINGARDEN TYPE B
	PROPOSED CONVEYANCE CHANNEL
	EXISTING WETLAND
	PROPOSED CULVERT
	SCRUFFY DOME
	RIPRAP
	PROPOSED STORMWATER MANHOLE
—	EXISTING BOUNDARIES



REV	DESCRIPTION	DATE
A	FOR APPROVAL	18/12/2019
B	DRAFT - FOR RESOURCE CONSENT	13/05/2020
C	DRAFT - REVISED DFH TIE-IN AND STAGE 1 OPTION	25/06/2020
D	DRAFT - AMENDMENTS FROM AT COMMENTS 04/09/20	11/09/2020

DRAWING Q.A.
DRAWN S.PERERA
CHECKED H.LAW
APPROVED P.EVANS

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CONSULTANT PROJECT NO.
MOTT MACDONALD : 402828

CONSULTANT
MOTT MACDONALD
12/130, 130A, 130B, 130C, 130D, 130E, 130F, 130G, 130H, 130I, 130J, 130K, 130L, 130M, 130N, 130O, 130P, 130Q, 130R, 130S, 130T, 130U, 130V, 130W, 130X, 130Y, 130Z, 130AA, 130AB, 130AC, 130AD, 130AE, 130AF, 130AG, 130AH, 130AI, 130AJ, 130AK, 130AL, 130AM, 130AN, 130AO, 130AP, 130AQ, 130AR, 130AS, 130AT, 130AU, 130AV, 130AW, 130AX, 130AY, 130AZ, 130BA, 130BB, 130BC, 130BD, 130BE, 130BF, 130BG, 130BH, 130BI, 130BJ, 130BK, 130BL, 130BM, 130BN, 130BO, 130BP, 130BQ, 130BR, 130BS, 130BT, 130BU, 130BV, 130BW, 130BX, 130BY, 130BZ, 130CA, 130CB, 130CC, 130CD, 130CE, 130CF, 130CG, 130CH, 130CI, 130CJ, 130CK, 130CL, 130CM, 130CN, 130CO, 130CP, 130CQ, 130CR, 130CS, 130CT, 130CU, 130CV, 130CW, 130CX, 130CY, 130CZ, 130DA, 130DB, 130DC, 130DD, 130DE, 130DF, 130DG, 130DH, 130DI, 130DJ, 130DK, 130DL, 130DM, 130DN, 130DO, 130DP, 130DQ, 130DR, 130DS, 130DT, 130DU, 130DV, 130DW, 130DX, 130DY, 130DZ, 130EA, 130EB, 130EC, 130ED, 130EE, 130EF, 130EG, 130EH, 130EI, 130EJ, 130EK, 130EL, 130EM, 130EN, 130EO, 130EP, 130EQ, 130ER, 130ES, 130ET, 130EU, 130EV, 130EW, 130EX, 130EY, 130EZ, 130FA, 130FB, 130FC, 130FD, 130FE, 130FF, 130FG, 130FH, 130FI, 130FJ, 130FK, 130FL, 130FM, 130FN, 130FO, 130FP, 130FQ, 130FR, 130FS, 130FT, 130FU, 130FV, 130FW, 130FX, 130FY, 130FZ, 130GA, 130GB, 130GC, 130GD, 130GE, 130GF, 130GG, 130GH, 130GI, 130GJ, 130GK, 130GL, 130GM, 130GN, 130GO, 130GP, 130GQ, 130GR, 130GS, 130GT, 130GU, 130GV, 130GW, 130GX, 130GY, 130GZ, 130HA, 130HB, 130HC, 130HD, 130HE, 130HF, 130HG, 130HH, 130HI, 130HJ, 130HK, 130HL, 130HM, 130HN, 130HO, 130HP, 130HQ, 130HR, 130HS, 130HT, 130HU, 130HV, 130HW, 130HX, 130HY, 130HZ, 130IA, 130IB, 130IC, 130ID, 130IE, 130IF, 130IG, 130IH, 130II, 130IJ, 130IK, 130IL, 130IM, 130IN, 130IO, 130IP, 130IQ, 130IR, 130IS, 130IT, 130IU, 130IV, 130IW, 130IX, 130IY, 130IZ, 130JA, 130JB, 130JC, 130JD, 130JE, 130JF, 130JG, 130JH, 130JI, 130JJ, 130JK, 130JL, 130JM, 130JN, 130JO, 130JP, 130JQ, 130JR, 130JS, 130JT, 130JU, 130JV, 130JW, 130JX, 130JY, 130JZ, 130KA, 130KB, 130KC, 130KD, 130KE, 130KF, 130KG, 130KH, 130KI, 130KJ, 130KK, 130KL, 130KM, 130KN, 130KO, 130KP, 130KQ, 130KR, 130KS, 130KT, 130KU, 130KV, 130KW, 130KX, 130KY, 130KZ, 130LA, 130LB, 130LC, 130LD, 130LE, 130LF, 130LG, 130LH, 130LI, 130LJ, 130LK, 130LL, 130LM, 130LN, 130LO, 130LP, 130LQ, 130LR, 130LS, 130LT, 130LU, 130LV, 130LW, 130LX, 130LY, 130LZ, 130MA, 130MB, 130MC, 130MD, 130ME, 130MF, 130MG, 130MH, 130MI, 130MJ, 130MK, 130ML, 130MN, 130MO, 130MP, 130MQ, 130MR, 130MS, 130MT, 130MU, 130MV, 130MW, 130MX, 130MY, 130MZ, 130NA, 130NB, 130NC, 130ND, 130NE, 130NF, 130NG, 130NH, 130NI, 130NJ, 130NK, 130NL, 130NM, 130NN, 130NO, 130NP, 130NQ, 130NR, 130NS, 130NT, 130NU, 130NV, 130NW, 130NX, 130NY, 130NZ, 130OA, 130OB, 130OC, 130OD, 130OE, 130OF, 130OG, 130OH, 130OI, 130OJ, 130OK, 130OL, 130OM, 130ON, 130OO, 130OP, 130OQ, 130OR, 130OS, 130OT, 130OU, 130OV, 130OW, 130OX, 130OY, 130OZ, 130PA, 130PB, 130PC, 130PD, 130PE, 130PF, 130PG, 130PH, 130PI, 130PJ, 130PK, 130PL, 130PM, 130PN, 130PO, 130PP, 130PQ, 130PR, 130PS, 130PT, 130PU, 130PV, 130PW, 130PX, 130PY, 130PZ, 130QA, 130QB, 130QC, 130QD, 130QE, 130QF, 130QG, 130QH, 130QI, 130QJ, 130QK, 130QL, 130QM, 130QN, 130QO, 130QP, 130QQ, 130QR, 130QS, 130QT, 130QU, 130QV, 130QW, 130QX, 130QY, 130QZ, 130RA, 130RB, 130RC, 130RD, 130RE, 130RF, 130RG, 130RH, 130RI, 130RJ, 130RK, 130RL, 130RM, 130RN, 130RO, 130RP, 130RQ, 130RR, 130RS, 130RT, 130RU, 130RV, 130RW, 130RX, 130RY, 130RZ, 130SA, 130SB, 130SC, 130SD, 130SE, 130SF, 130SG, 130SH, 130SI, 130SJ, 130SK, 130SL, 130SM, 130SN, 130SO, 130SP, 130SQ, 130SR, 130SS, 130ST, 130SU, 130SV, 130SW, 130SX, 130SY, 130SZ, 130TA, 130TB, 130TC, 130TD, 130TE, 130TF, 130TG, 130TH, 130TI, 130TJ, 130TK, 130TL, 130TM, 130TN, 130TO, 130TP, 130TQ, 130TR, 130TS, 130TT, 130TU, 130TV, 130TW, 130TX, 130TY, 130TZ, 130UA, 130UB, 130UC, 130UD, 130UE, 130UF, 130UG, 130UH, 130UI, 130UJ, 130UK, 130UL, 130UM, 130UN, 130UO, 130UP, 130UQ, 130UR, 130US, 130UT, 130UU, 130UV, 130UW, 130UX, 130UY, 130UZ, 130VA, 130VB, 130VC, 130VD, 130VE, 130VF, 130VG, 130VH, 130VI, 130VJ, 130VK, 130VL, 130VM, 130VN, 130VO, 130VP, 130VQ, 130VR, 130VS, 130VT, 130VU, 130VV, 130VW, 130VX, 130VY, 130VZ, 130WA, 130WB, 130WC, 130WD, 130WE, 130WF, 130WG, 130WH, 130WI, 130WJ, 130WK, 130WL, 130WM, 130WN, 130WO, 130WP, 130WQ, 130WR, 130WS, 130WT, 130WU, 130WV, 130WW, 130WX, 130WY, 130WZ, 130XA, 130XB, 130XC, 130XD, 130XE, 130XF, 130XG, 130XH, 130XI, 130XJ, 130XK, 130XL, 130XM, 130XN, 130XO, 130XP, 130XQ, 130XR, 130XS, 130XT, 130XU, 130XV, 130XW, 130XX, 130XY, 130XZ, 130YA, 130YB, 130YC, 130YD, 130YE, 130YF, 130YG, 130YH, 130YI, 130YJ, 130YK, 130YL, 130YM, 130YN, 130YO, 130YP, 130YQ, 130YR, 130YS, 130YT, 130YU, 130YV, 130YW, 130YX, 130YY, 130YZ, 130ZA, 130ZB, 130ZC, 130ZD, 130ZE, 130ZF, 130ZG, 130ZH, 130ZI, 130ZJ, 130ZK, 130ZL, 130ZM, 130ZN, 130ZO, 130ZP, 130ZQ, 130ZR, 130ZS, 130ZT, 130ZU, 130ZV, 130ZW, 130ZX, 130ZY, 130ZZ

CLIENT
MILLDALE

ROAD CONTROLLING AUTHORITY
Auckland Transport

PROJECT
MILLDALE DEVELOPMENT
INFRASTRUCTURE PROJECTS
PROJECT TYPE
NEW CONSTRUCTION
PROJECT PHASE
PRELIMINARY DESIGN
CONSULTANT PROJECT NO.
402828

DRAFT - FOR RESOURCE CONSENT

DRAWING
Mildale Development, Argent Lane - Dairy Flat Highway
Stormwater Pipe Network Catchment Plan
DRAWING NO.
402828-MM-DWG-02-CV-DD-0850
FOR RESOURCE CONSENT
REVISION
D
SCALE (A1)
1:2000