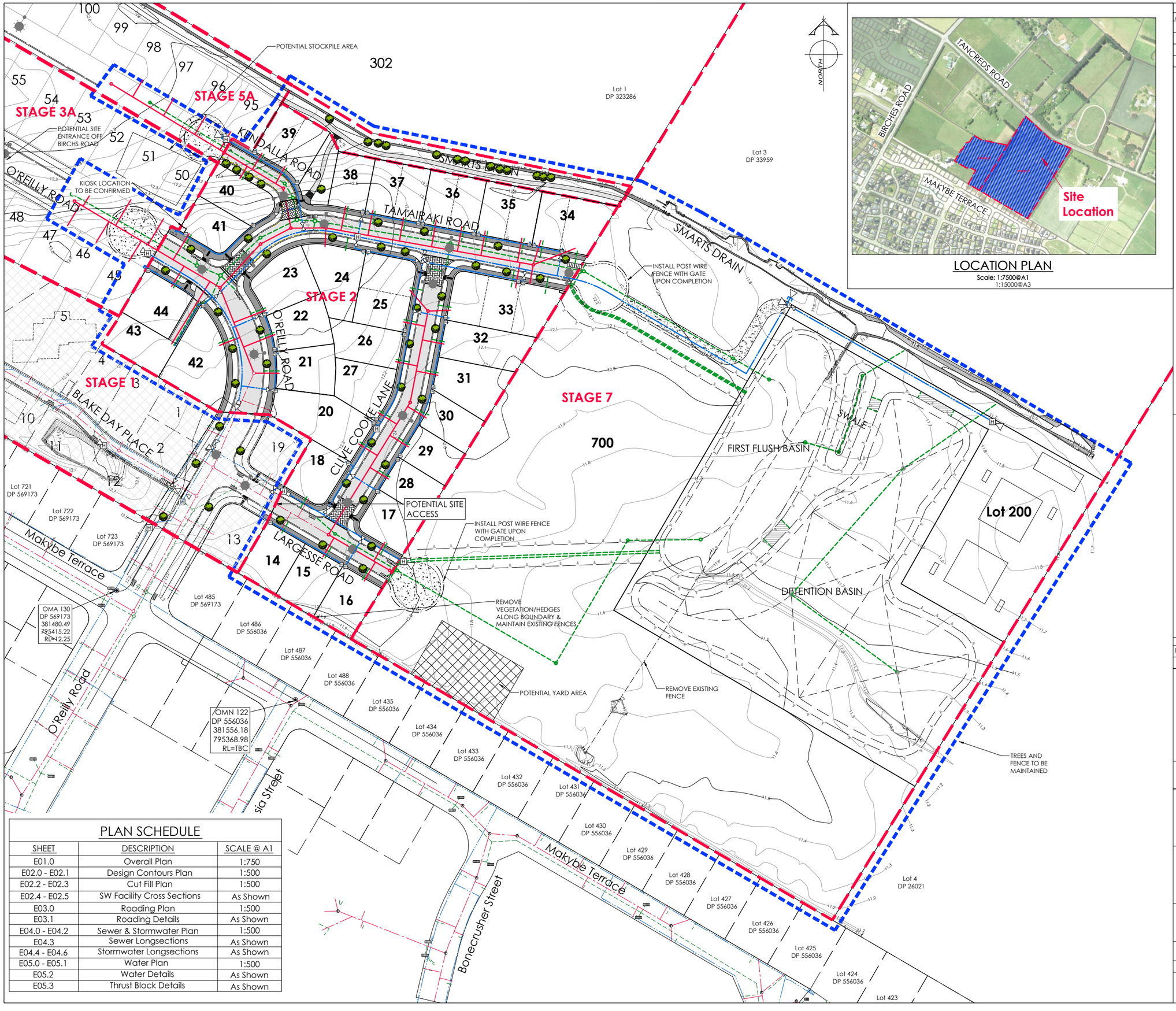


NORTH

LOCATION PLAN
Scale: 1:7500@A1
1:15000@A3

PLAN SCHEDULE

SHEET	DESCRIPTION	SCALE @ A1
E01.0	Overall Plan	1:750
E02.0 - E02.1	Design Contours Plan	1:500
E02.2 - E02.3	Cut Fill Plan	1:500
E02.4 - E02.5	SW Facility Cross Sections	As Shown
E03.0	Roading Plan	1:500
E03.1	Roading Details	As Shown
E04.0 - E04.2	Sewer & Stormwater Plan	1:500
E04.3	Sewer Longsections	As Shown
E04.4 - E04.6	Stormwater Longsections	As Shown
E05.0 - E05.1	Water Plan	1:500
E05.2	Water Details	As Shown
E05.3	Thrust Block Details	As Shown

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	NO CHANGE THIS SHEET
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	NO CHANGE THIS SHEET

NOTES :

1. ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS. IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
2. ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
3. ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
4. TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
5. EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
6. NATURAL CONTOUR INTERVAL: 0.1m MINOR. 0.5m MAJOR.
7. ORIGIN OF LEVELS
   MA67 DP518987 (F5J0)
   RL=11.39

   LEVELS IN TERMS OF NZVD 2016
8. CONTROL OF SW, SEDIMENT AND DUST ON SITE IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.
10. YARD AREA TO BE CONFIRMED.
11. CONTAMINATED AREAS TO BE REMEDIATED PRIOR TO EARTHWORKS.

LEGEND :

- STAGE BOUNDARY
- EXTENT OF WORKS
- FP FLUSHING POINT
- B BOUNDARY BOX
- STREET LIGHT
- EXISTING STREET LIGHT
- PROPOSED TREE
- NEW ASPHALT PAVEMENT
- NEW FOOTPATH
- NEW CHIP SEAL PAVEMENT
- NEW EXPOSED AGGREGATE CONCRETE

EXISTING SERVICES	PROPOSED SERVICES
SANITARY SEWER STD. MH	SANITARY SEWER STD. MH
SANITARY SEWER VENTED MH	SANITARY SEWER VENTED MH
STORMWATER MH	STORMWATER MH
WATER FH VALVE	WATER FH VALVE METER
KERB	KERB CUT DOWN

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

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JOB TITLE:
Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:
Overall Plan

DRAWING STATUS
For Engineering Approval

SCALE : 1:750@A1 1:1500@A3
DATE : October 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E01.0_R14.dwg
DRAWN : JS

DRAWING No : **E.21417**
SHEET No: **E01.0**
REVISION : **R14**



AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R12	25/08/26	NO CHANGE THIS SHEET
R13	31/08/26	NO CHANGE THIS SHEET
R14	20/10/26	NO CHANGE THIS SHEET

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6. CLEARING TO INCLUDE REMOVAL OF ALL INTERNAL FENCING, ALL VEGETATION FROM LOTS. CLEARED AREA TO BE GRASSED AND FREE OF DEBRIS. ALL MATERIAL TO BE REMOVED FROM SITE.
7. CUT FILL CONTOUR INTERVAL: MAJOR 1.0m MINOR 0.1 m.
8. ALL EARTHFILL WORKS TO COMPLY WITH NZS 4431:2022 RELEVANT CERTIFICATION REQUIRED AS PROOF.
9. IF PEAT OR OTHER UNSUITABLE MATERIAL IS LOCATED IN THE SUBGRADE THE ENGINEER IS TO BE CONTACTED FOR INSTRUCTION.
10. ESCMP TO BE IN PLACE PRIOR TO ANY EARTHWORKS.
11. CONTRACTOR MUST READ ALL DISCHARGE CONSENTS PRIOR TO ANY EARTHWORKS.
12. DRAWINGS TO BE DISTRIBUTED AND READ AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

LEGEND :

LEVELS

20.31 PROPOSED LOT LEVELS

25.35 EXISTING LOT LEVELS

SEC. FLOW DIRECTION OF FLOW

EXISTING SERVICES	PROPOSED SERVICES
KERB	KERB

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

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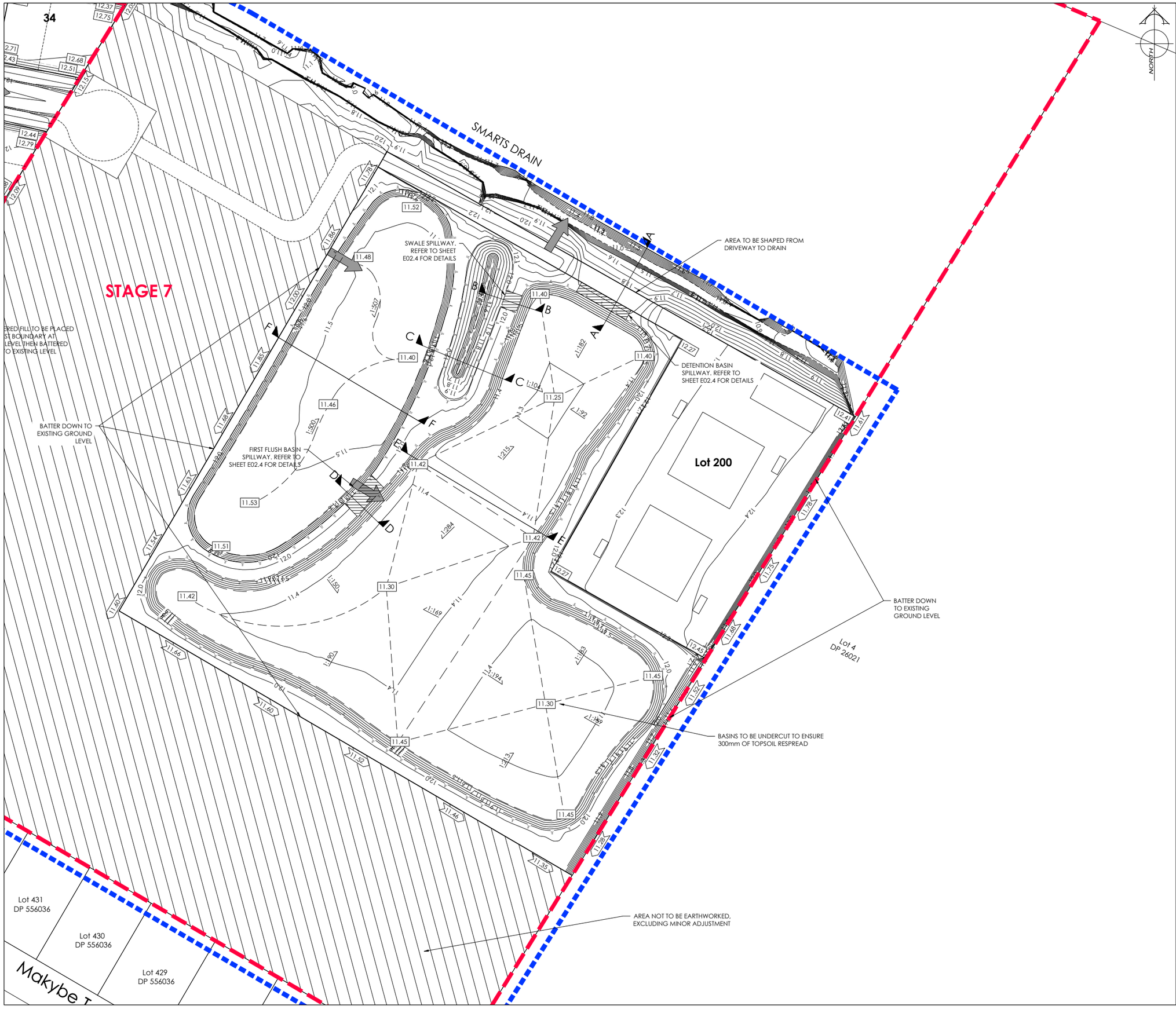
DRAWING STATUS

For Engineering Approval

SCALE : 1:500@A1 1:1000@A3 DATE : July 2026

CAD FILE J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E02.0_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E02.0** REVISION : **R14**



AMENDMENTS :

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R12	25/08/26	NO CHANGE THIS SHEET
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7. CUT FILL CONTOUR INTERVAL: MAJOR 1.0m MINOR 0.2 m.
8. ALL EARTHFILL WORKS TO COMPLY WITH NZS 4431:1989 RELEVANT CERTIFICATION REQUIRED AS PROOF.
9. IF PEAT OR OTHER UNSUITABLE MATERIAL IS LOCATED IN THE SUBGRADE THE ENGINEER IS TO BE CONTACTED FOR INSTRUCTION.
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11. CONTRACTOR MUST READ ALL DISCHARGE CONSENTS PRIOR TO ANY EARTHWORKS.
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LEGEND :

LEVELS

20.31	PROPOSED LOT LEVELS
25.35	EXISTING LOT LEVELS
SEC. FLOW	DIRECTION OF FLOW

EXISTING SERVICES	PROPOSED SERVICES
KERB	KERB

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

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RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Design Contours

DRAWING STATUS

For Engineering Approval

SCALE : 1:500@A1
1:1000@A3

DATE : July 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E02.0_R14.dwg

DRAWN : JS

DRAWING No : **E.21417**

SHEET No: **E02.1**

REVISION : **R14**



TYPICAL RETAINING FENCE
CROSS SECTION- 0.2m HIGH

SCALES: 1:25@A1
1:50@A3

AMENDMENTS :

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R13	31/08/26	NO CHANGE THIS SHEET
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LEGEND :

LEVELS

- 20.31 PROPOSED LOT LEVELS
- 25.35 EXISTING LOT LEVELS
- SEC. FLOW DIRECTION OF FLOW
- ENGINEERING FILL
- CUT

EXISTING SERVICES	PROPOSED SERVICES
KERB	KERB

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

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PLANNING SURVEYING ENGINEERING

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RC245532 & RC245534
Stages 2 & 7

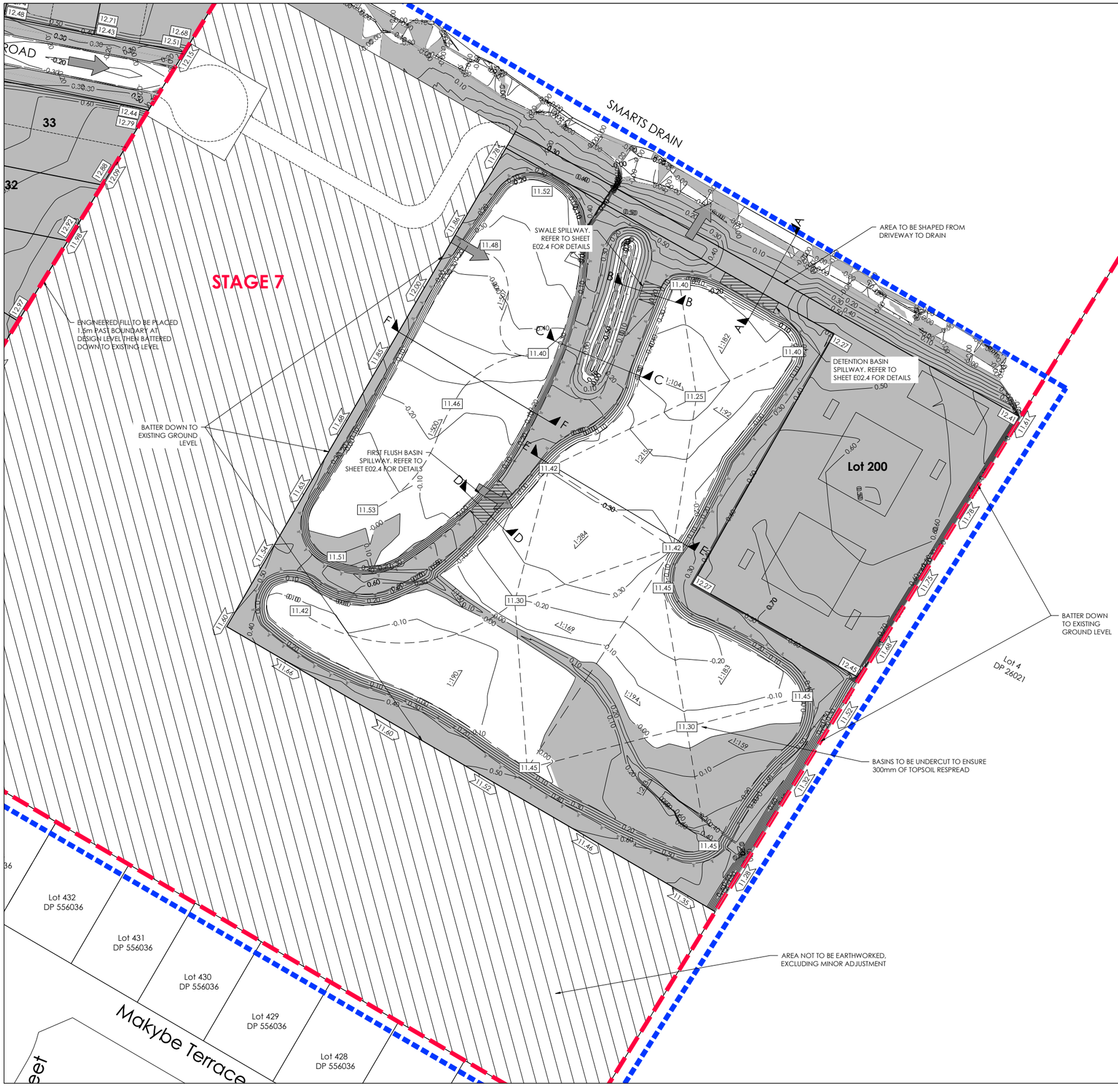
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DRAWING STATUS
For Engineering Approval

SCALE : 1:500@A1 1:1000@A3 DATE : July 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E02.0_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E02.2** REVISION : **R14**



AMENDMENTS :

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R12	25/08/26	NO CHANGE THIS SHEET
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R14	20/10/26	NO CHANGE THIS SHEET

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LEGEND :

LEVELS

- 20.31 PROPOSED LOT LEVELS
- 25.35 EXISTING LOT LEVELS
- SEC. FLOW DIRECTION OF FLOW
- ENGINEERING FILL
- CUT

EXISTING SERVICES	PROPOSED SERVICES
KERB	KERB

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

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JOB TITLE:

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RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Cut Fill Plan

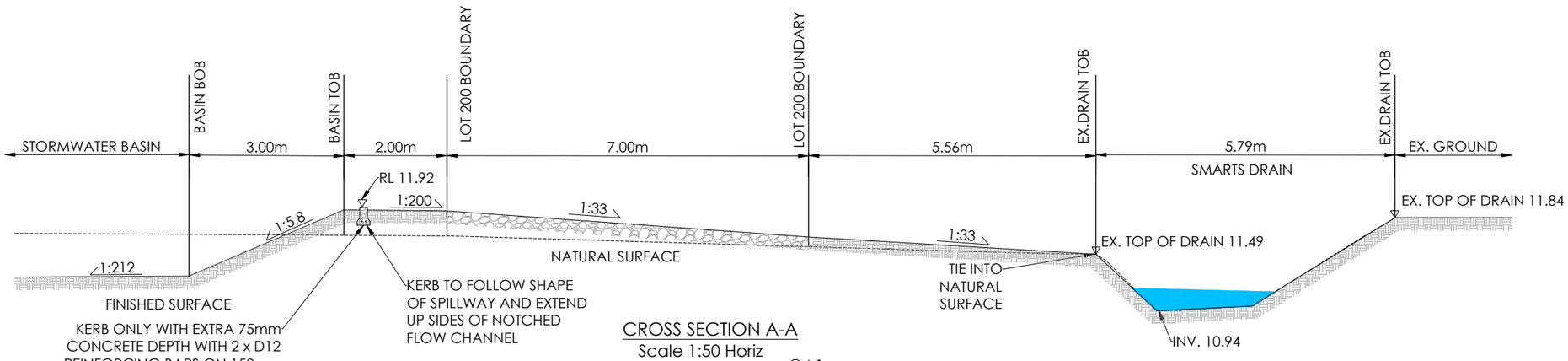
DRAWING STATUS

For Engineering Approval

SCALE : 1:500@A1 1:1000@A3 DATE : July 2026

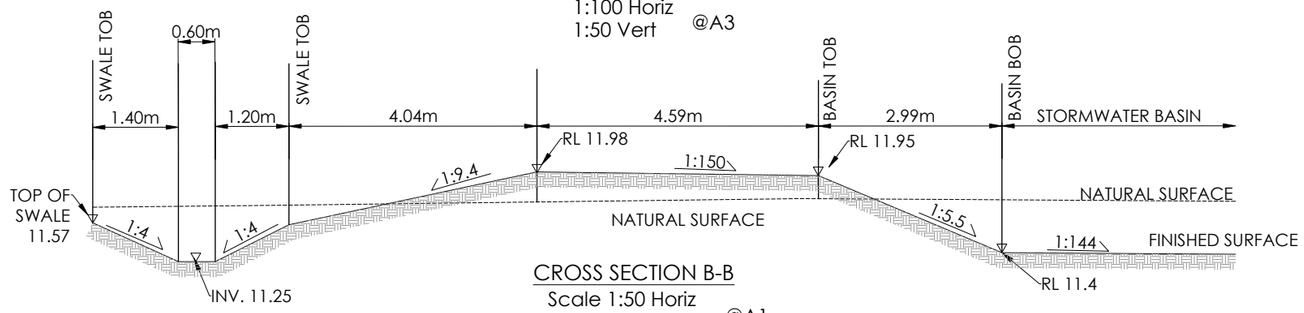
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DRAWING No : **E.21417** SHEET No: **E02.3** REVISION : **R14**



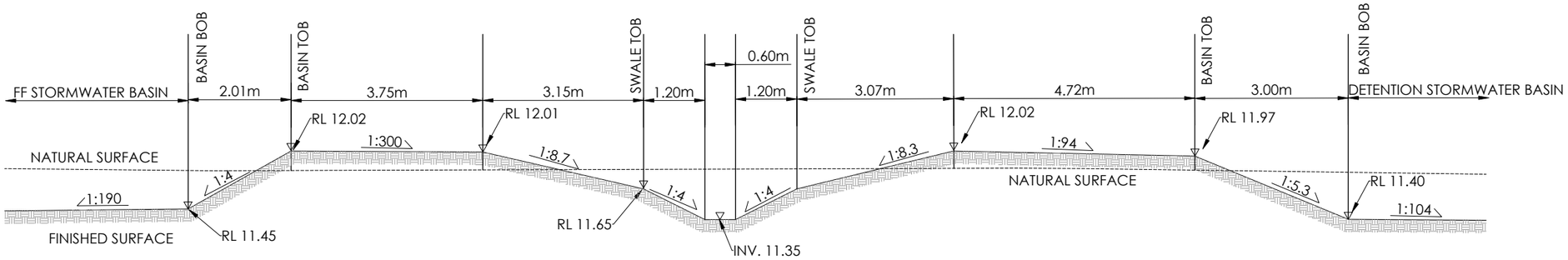
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1:25 Vert
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1:50 Vert



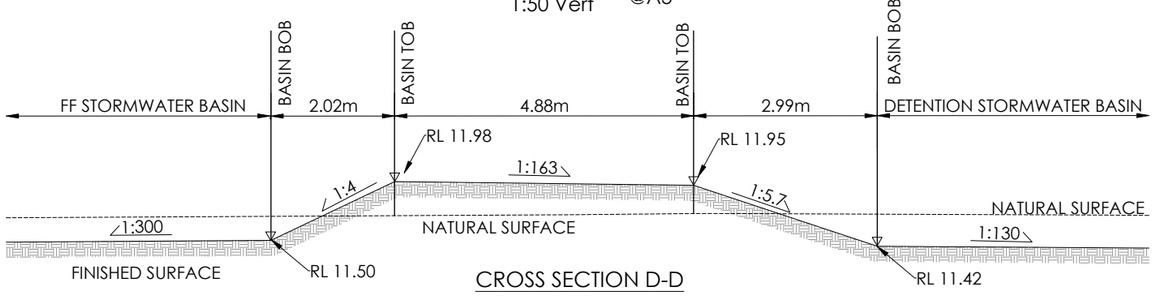
CROSS SECTION B-B

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1:50 Vert



CROSS SECTION C-C

Scale 1:50 Horiz @A1
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1:100 Horiz @A3
1:50 Vert



CROSS SECTION D-D

Scale 1:50 Horiz @A1
1:25 Vert
1:100 Horiz @A3
1:50 Vert

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R12	25/08/26	NO CHANGE THIS SHEET
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LEGEND :

LEVELS

- 20.31 PROPOSED LOT LEVELS
- 25.35 EXISTING LOT LEVELS
- SEC. FLOW DIRECTION OF FLOW
- ENGINEERING FILL
- CUT

EXISTING SERVICES — KERB

PROPOSED SERVICES — KERB

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

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Stages 2 & 7

SHEET TITLE:

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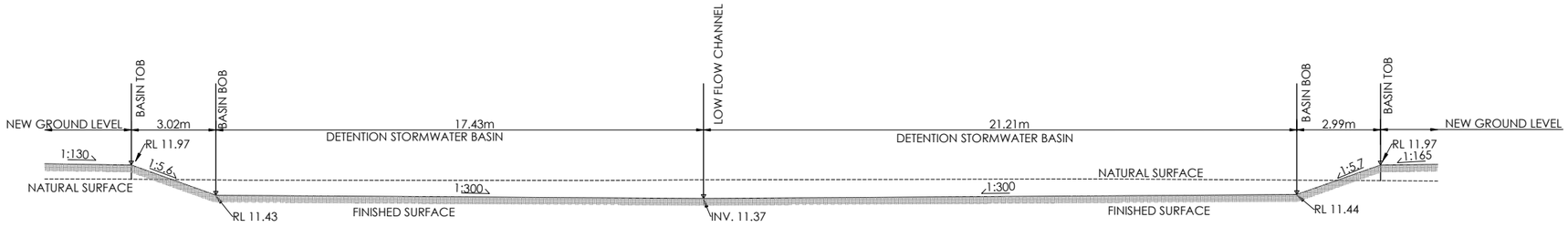
DRAWING STATUS

For Engineering Approval

SCALE : As Shown DATE : July 2026

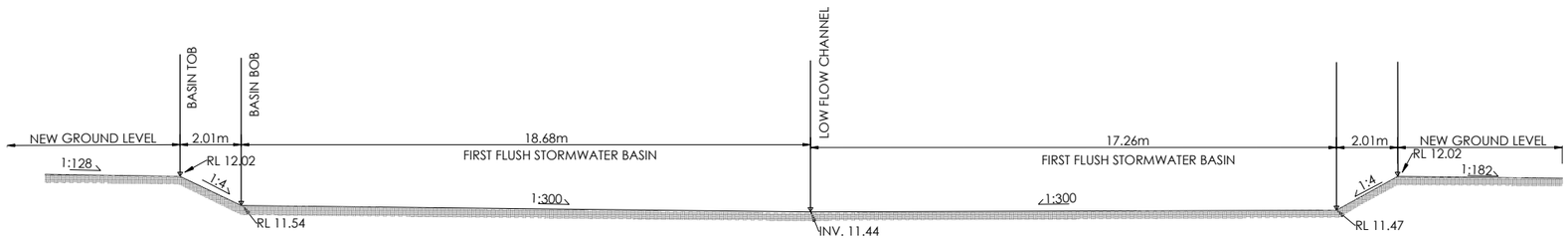
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DRAWING No : **E.21417** SHEET No: **E02.4** REVISION : **R14**



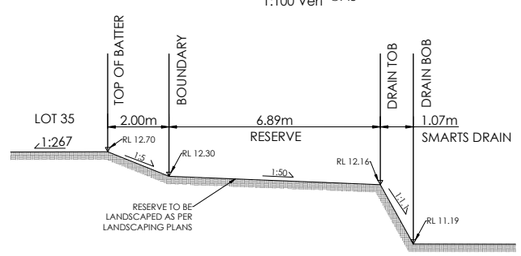
CROSS SECTION E-E

Scale 1:100 Horiz @A1
1:50 Vert
1:200 Horiz@A3
1:100 Vert



CROSS SECTION F-F

Scale 1:100 Horiz @A1
1:50 Vert
1:200 Horiz @A3
1:100 Vert



CROSS SECTION G-G

Scale 1:100 Horiz @A1
1:50 Vert
1:200 Horiz @A3
1:100 Vert

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
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LEGEND :

LEVELS

- 20.31 PROPOSED LOT LEVELS
- 25.35 EXISTING LOT LEVELS
- SEC. FLOW DIRECTION OF FLOW
- ENGINEERING FILL
- CUT

EXISTING SERVICES	PROPOSED SERVICES
KERB	KERB

	NAME	SIGNED	DATE
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PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

SW Facility Cross Sections

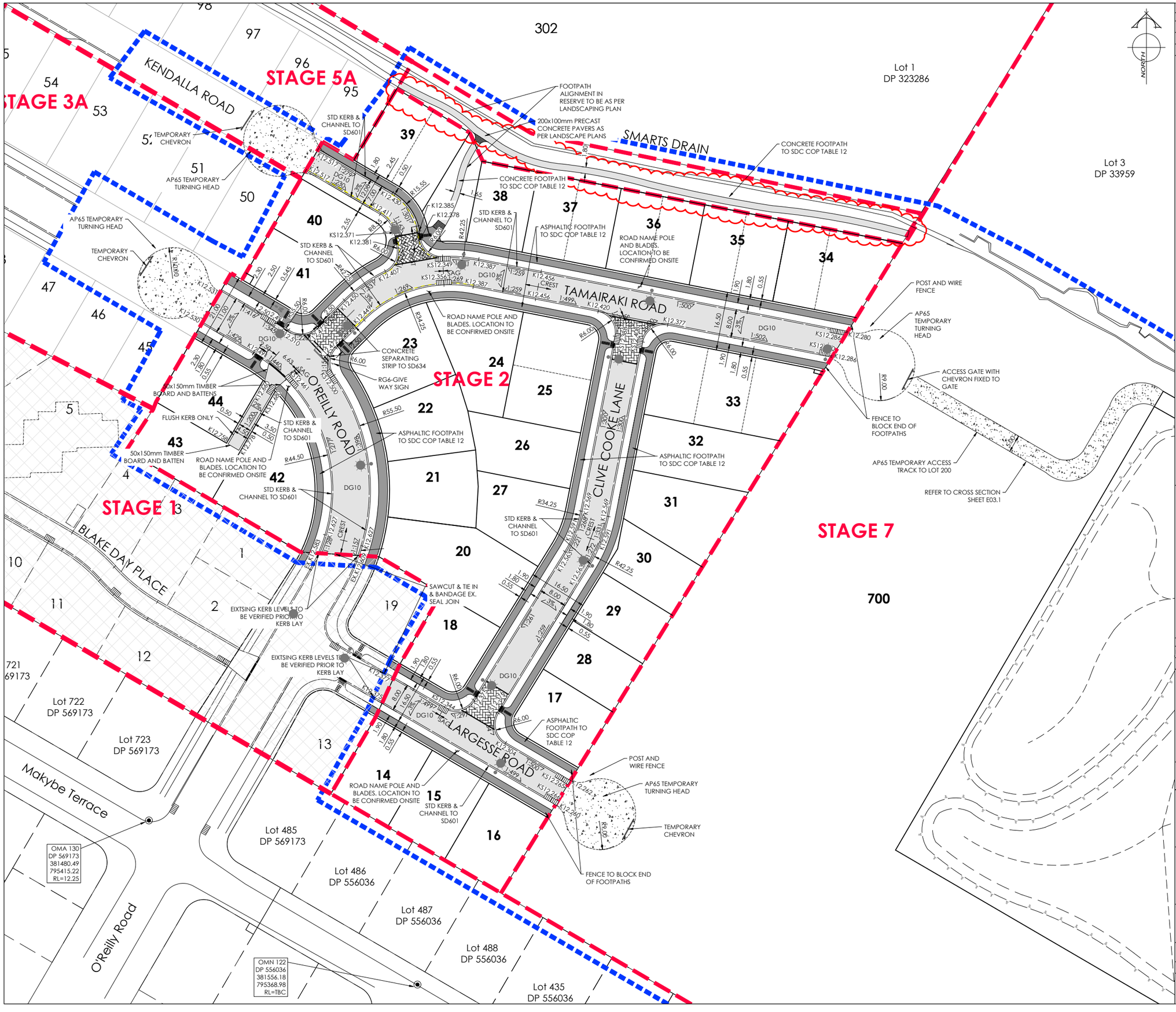
DRAWING STATUS

For Engineering Approval

SCALE : As Shown DATE : July 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E02.0_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E02.5** REVISION : **R14**



AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	RESERVE FOOTPATH UPDATED
R14	29/10/26	RESERVE FOOTPATH UPDATED

NOTES :

1. ALL WORKS IN ACCORDANCE WITH CCC IDS AND CSS PARTS 1-7 CURRENT ISSUE.
2. ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
3. ORIGIN OF LEVELS
   MA67 DP518987 (F5J0)
   RL=11.39
   LEVELS IN TERMS OF NZVD 2016
4. FOOTPATH BASECOURSE TESTING - MINIMUM CLEGG HAMMER VALUE OF 25 REQUIRED FOR FOOTPATHS & RESIDENTIAL CROSSINGS.
5. - MINIMUM CLEGG HAMMER VALUE OF 35 REQUIRED FOR COMMERCIAL CROSSINGS.
6. KERB & CHANNEL BASECOURSE TESTING - MINIMUM DRY DENSITY OF 2100kg/m³ WITH 75% EQUAL OR EXCEEDING 2150kg/m³.
7. CUTDOWNS AT RESIDENTIAL PARKING AREAS TO HAVE 280mm OF CONCRETE AS PER SD611 AND CUT DOWN IN COMMERCIAL PARKING AREAS TO HAVE 280mm OF CONCRETE WITH REINFORCEMENT AS PER SD611.
8. ALL BERMS TO BE AND COVERED WITH A MINIMUM OF 150mm GRADE 1 TOPSOIL AND GRASSED WITH CCC BERM MIX.
9. ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
10. ALL ROAD AND FOOTPATH AREAS TO BE SURFACED USING ASPHALTIC CONCRETE. FOOTPATHS TO BE CONSTRUCTED IN ACCORDANCE WITH CCC REQUIREMENTS WITH 25mm DEPTH AC, WHILE ROAD PAVEMENTS TO BE 30mm DEPTH.
11. METAL DEPTHS TO BE CONFIRMED OR INCREASED PRIOR TO COMMENCEMENT OF WORK FOLLOWING THE CHECKING OF SUBGRADE CBR ON SITE.
12. KERBS AT INTERSECTIONS HAVE A RADIUS OF 6.0m UNLESS SHOWN OTHERWISE.
13. ALL PAVEMENT CROSSFALLS ARE TO BE CONSTRUCTED IN ACCORDANCE SD623.
14. TACTILE PAVERS ARE TO BE INSTALLED AS PER SD623 AND RTS14 GUIDLINES FOR FACILITIES FOR THE BLIND AND VISION -IMPAIRED PEDESTRIANS.
15. ROAD BASECOURSE TESTING - MAXIMUM BENKELMAN BEAM DEFLECTION OF 2.00mm WITH 95% BELOW 1.6mm FOR ROADS AND A MAXIMUM DEFLECTION OF 2.5mm WITH 95% BELOW 2.00mm FOR RIGHT OF WAYS.
16. ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.
17. FOOTPATH AND VEHICLE CROSSING FINISHED BASECOURSE SURFACES SHALL BE TREATED WITH PROPRIETARY WEED KILLER AS PER MANUFACTURER SPECIFICATION PRIOR TO SEALING.

LEGEND :

STREET LIGHT — EXISTING STREET LIGHT
NEW ASPHALT PAVEMENT — NEW AC FOOTPATH
NEW CONCRETE FOOTPATH — COBBLES
NEW AP65

LEVELS
K20.31 PROPOSED KERB LEVEL
B20.31 PROPOSED BOARD & BATTEN LEVEL
N20.31 PROPOSED NIB KERB LEVEL

EXISTING SERVICES — KERB
PROPOSED SERVICES — KERB — CUT DOWN

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

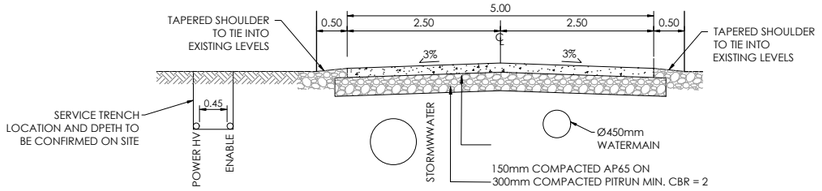
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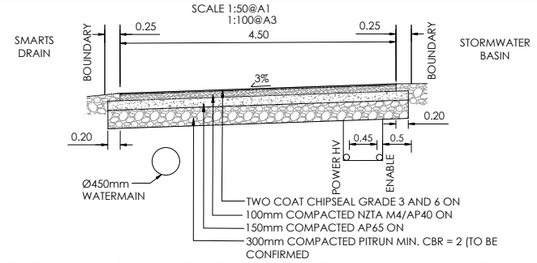
SHEET TITLE:
Roading Layout

DRAWING STATUS
For Engineering Approval

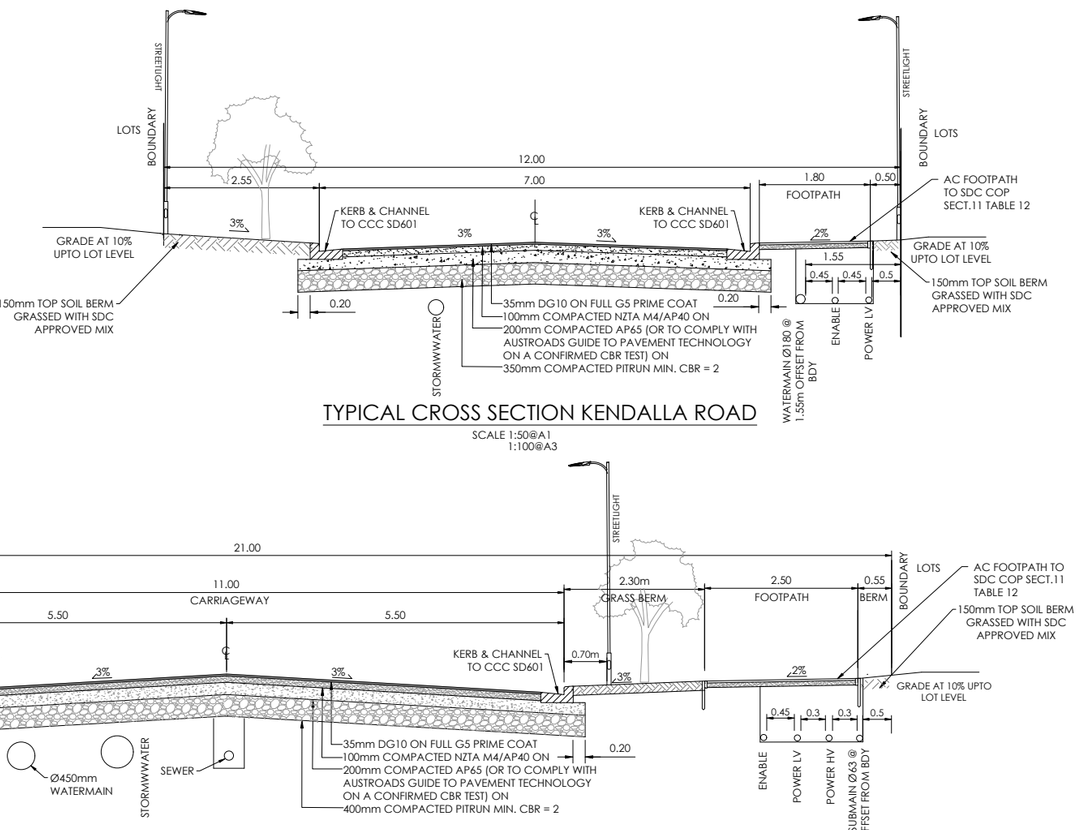
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DATE : October 2026
CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E01.0_R14.dwg
DRAWN : JS
DRAWING No : **E.21417**
SHEET No: **E03.0**
REVISION : **R14**



TYPICAL CROSS SECTION TEMPORARY ACCESS TRACK TO LOT 200

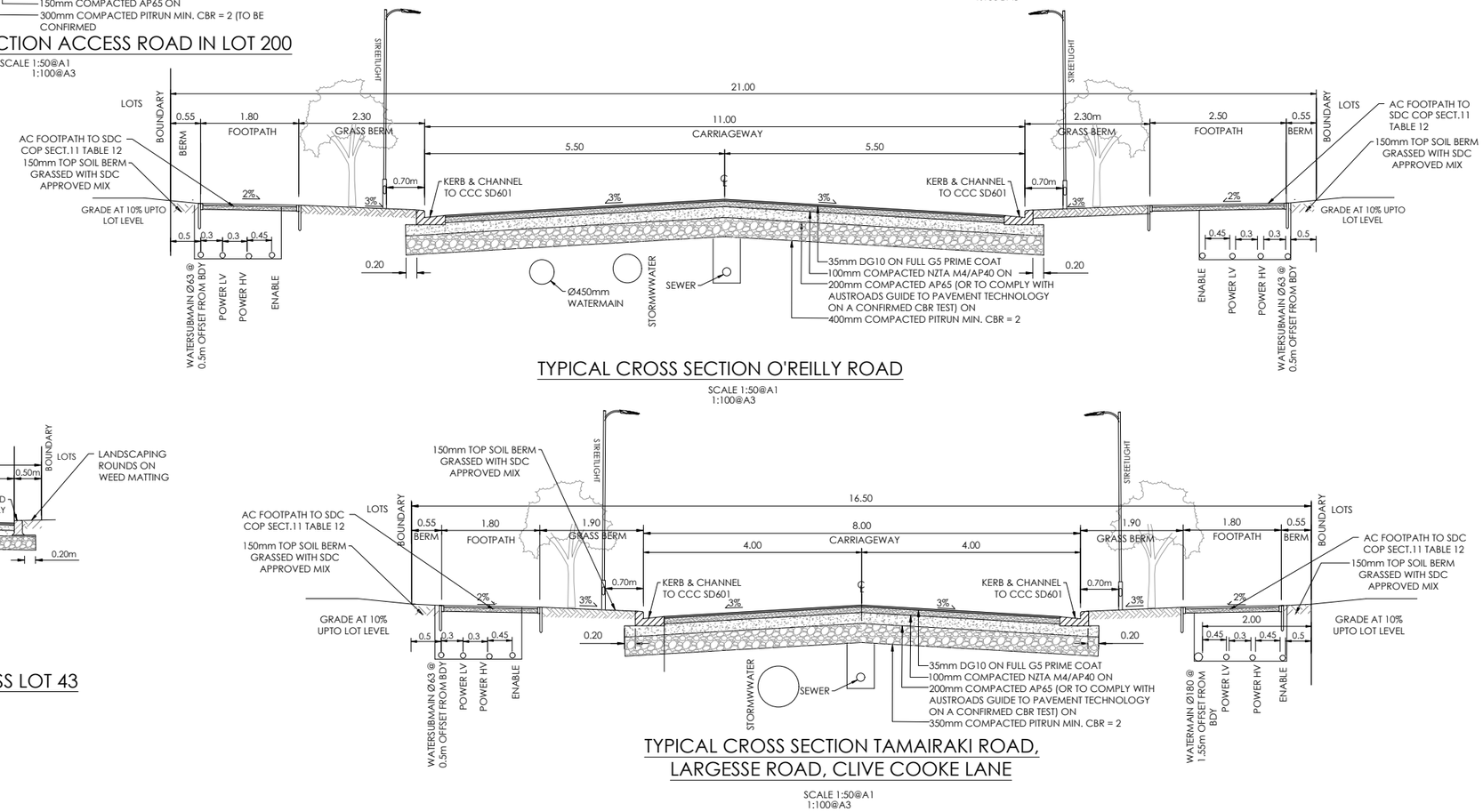


TYPICAL CROSS SECTION ACCESS ROAD IN LOT 200



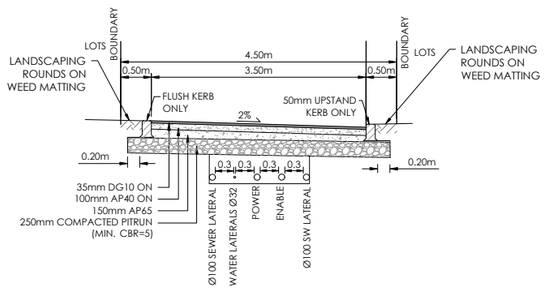
TYPICAL CROSS SECTION KENDALLA ROAD

SCALE 1:50@A1
1:100@A3



TYPICAL CROSS SECTION O'REILLY ROAD

SCALE 1:50@A1
1:100@A3

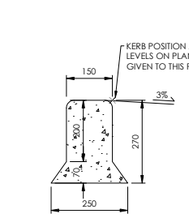


TYPICAL CROSS SECTION ACCESS LOT 43

SCALE 1:50@A1
1:100@A3

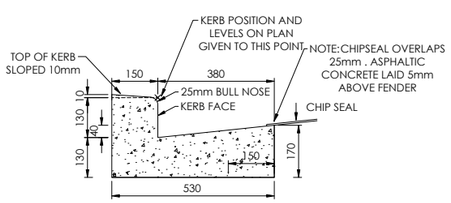
TYPICAL CROSS SECTION TAMAIRAKI ROAD, LARGESSE ROAD, CLIVE COOKE LANE

SCALE 1:50@A1
1:100@A3



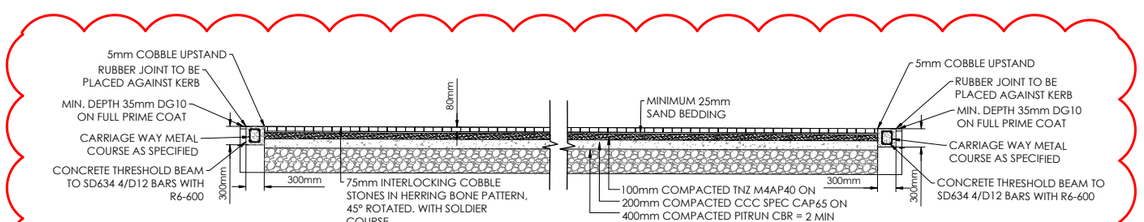
KERB ONLY TO CCC SD602

SCALES 1:10@A1
1:20@A3



KERB & FLAT CHANNEL TO SD601

SCALE 1:10@A1
1:20@A3



COBBLE THRESHOLD DETAIL

SCALE 1:50@A1
1:100@A3

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	Lot 200 ACCESS ROAD ADDED
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	THRESHOLD BEAM DETAIL UPDATED

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	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

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JOB TITLE:
Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

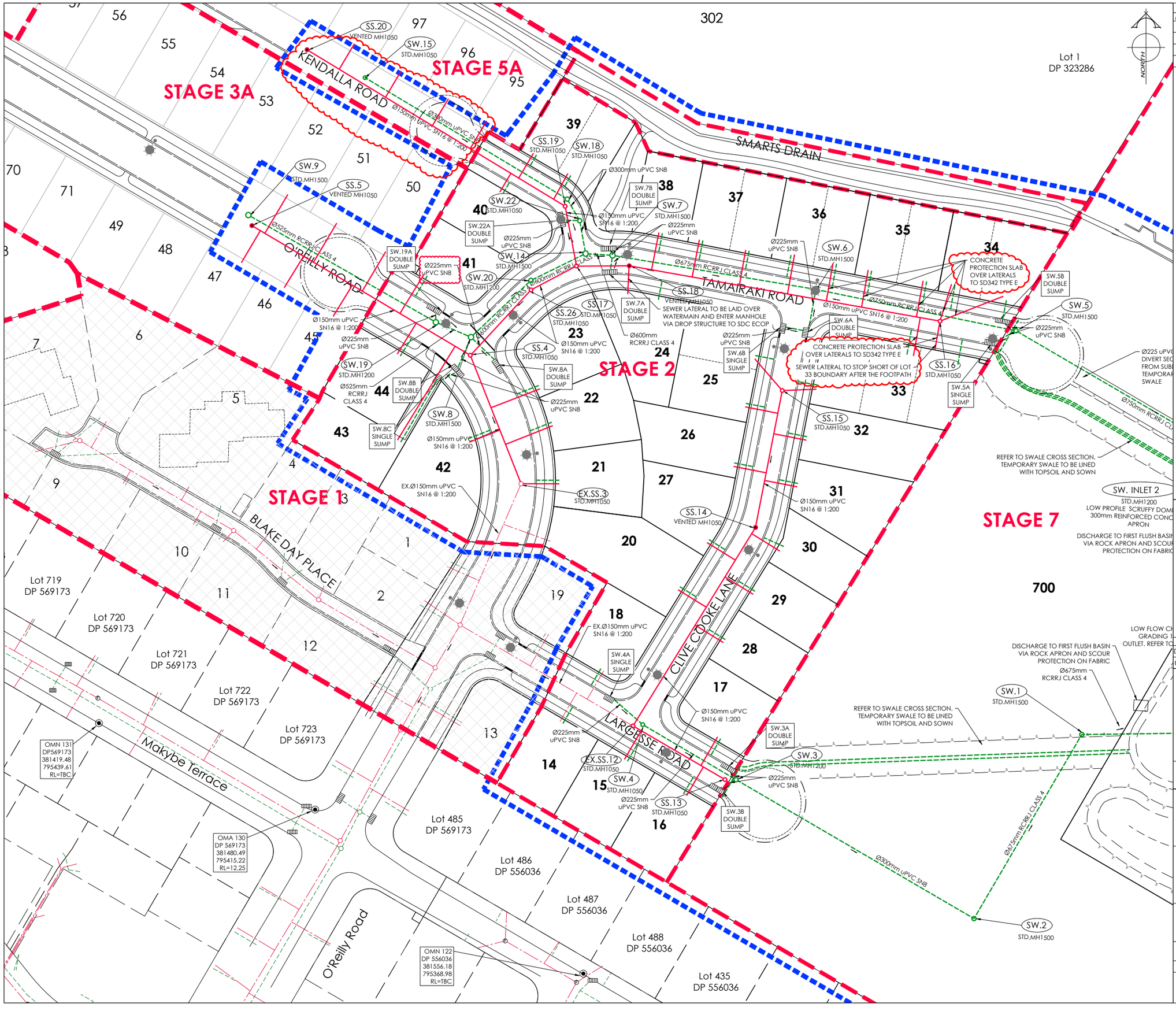
SHEET TITLE:
Roading Sections

DRAWING STATUS
For Engineering Approval

SCALE : As Shown DATE : October 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E01.0_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E03.1** REVISION : **R14**



AMENDMENTS :		
AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	NO CHANGE THIS SHEET
R12	25/08/26	LATERAL AND CONCRETE CAPPING ADDED
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	NO CHANGE THIS SHEET

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4. ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
5. ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.
6. REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
7. ORIGIN OF LEVELS MA67 DP518987 (F5J0) RL=11.39

LEVELS IN TERMS OF NZVD 2016

8. ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60. MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
9. NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
10. ALL RESIDENTIAL STORMWATER LATERALS TO BE 100mm DIAMETER AND INDUSTRIAL LATERALS TO BE A MINIMUM OF 150mm.
11. RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
12. BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
13. ALL SUMPS TO HAVE 450mm WETWELL.
14. ALL LATERAL ENDS TO BE MARKED WITH A RED STAKE.
15. MANHOLE CONNECTIONS SHALL BE STARTERS AND SHORTS AND SHORTS AND FINISHERS.
16. LADDERS ARE REQUIRED FOR MANHOLES DEEPER THAN 1.3m WHEN MEASURING FROM THE TOP OF THE BENCHING TO THE FINISHED LEVEL.

LEGEND :

STREET LIGHT — EXISTING STREET LIGHT

EXISTING SERVICES	PROPOSED SERVICES
SANITARY SEWER STD. MH	SANITARY SEWER STD. MH
SANITARY SEWER VENTED MH	SANITARY SEWER VENTED MH
STORMWATER MH	STORMWATER MH
KERB	STORMWATER CUT DOWN
	KERB

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
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JOB TITLE:

Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Sewer & Stormwater Plan

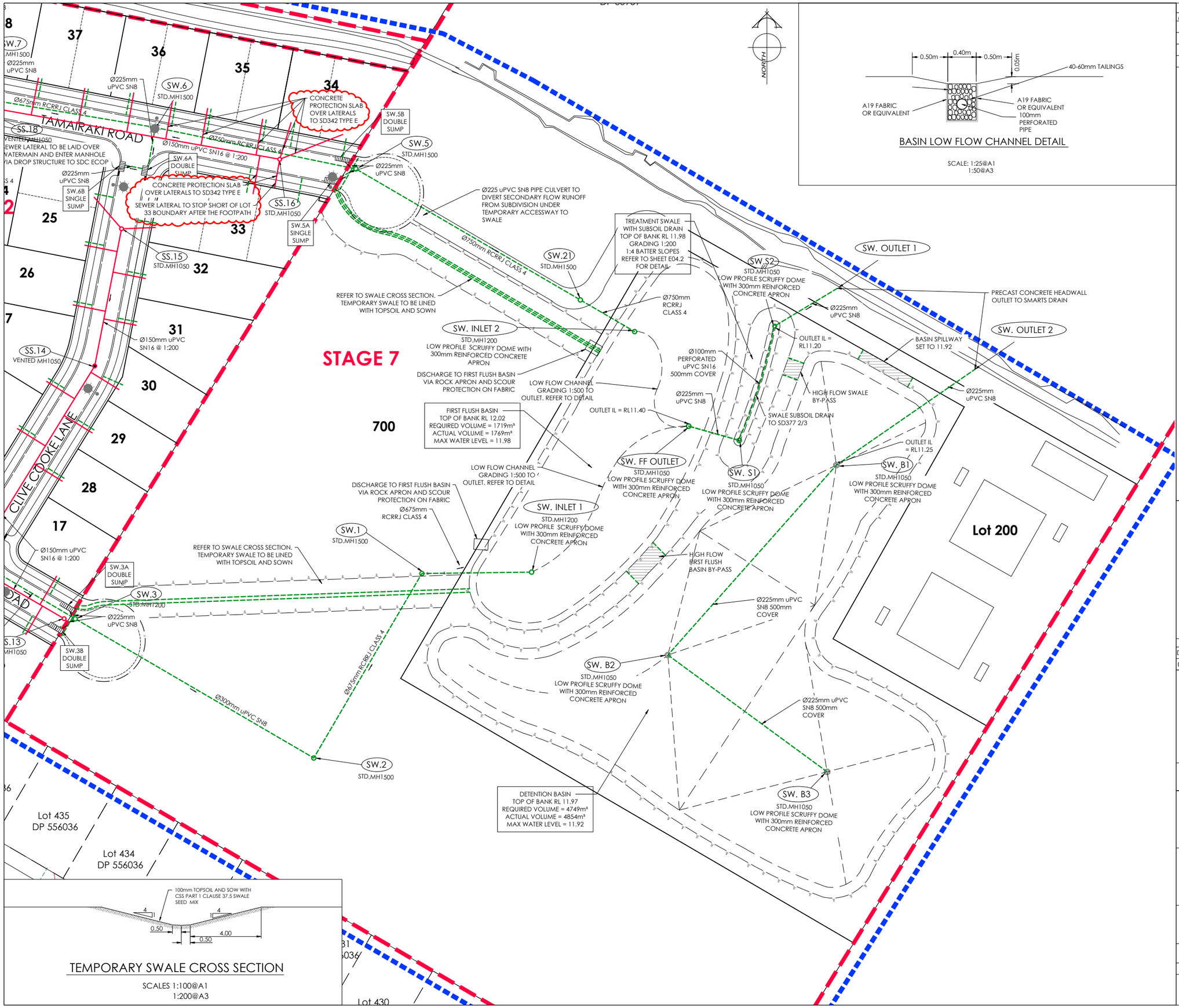
DRAWING STATUS

For Engineering Approval

SCALE : 1:500@A1 1:1000@A3 DATE : October 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E01.0_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E04.0** REVISION : **R14**



BASIN LOW FLOW CHANNEL DETAIL

SCALE: 1:25@A1
1:50@A3

TEMPORARY SWALE CROSS SECTION

SCALES 1:100@A1
1:200@A3

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	NO CHANGE THIS SHEET
R12	25/08/26	LATERAL AND CONCRETE CAPPING ADDED
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	NO CHANGE THIS SHEET

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11. RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
12. BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
13. ALL SUMPS TO HAVE 450mm WETWELL.
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16. LADDERS ARE REQUIRED FOR MANHOLES DEEPER THAN 1.3m WHEN MEASURING FROM THE TOP OF THE BENCHING TO THE FINISHED LEVEL.

LEGEND :

STREET LIGHT
EXISTING STREET LIGHT

EXISTING SERVICES		PROPOSED SERVICES	
SANITARY SEWER	STD. MH	SANITARY SEWER	STD. MH
SANITARY SEWER	VENTED MH	SANITARY SEWER	VENTED MH
STORMWATER	MH	STORMWATER	MH
KERB		KERB	CUT DOWN

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
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Stages 2 & 7

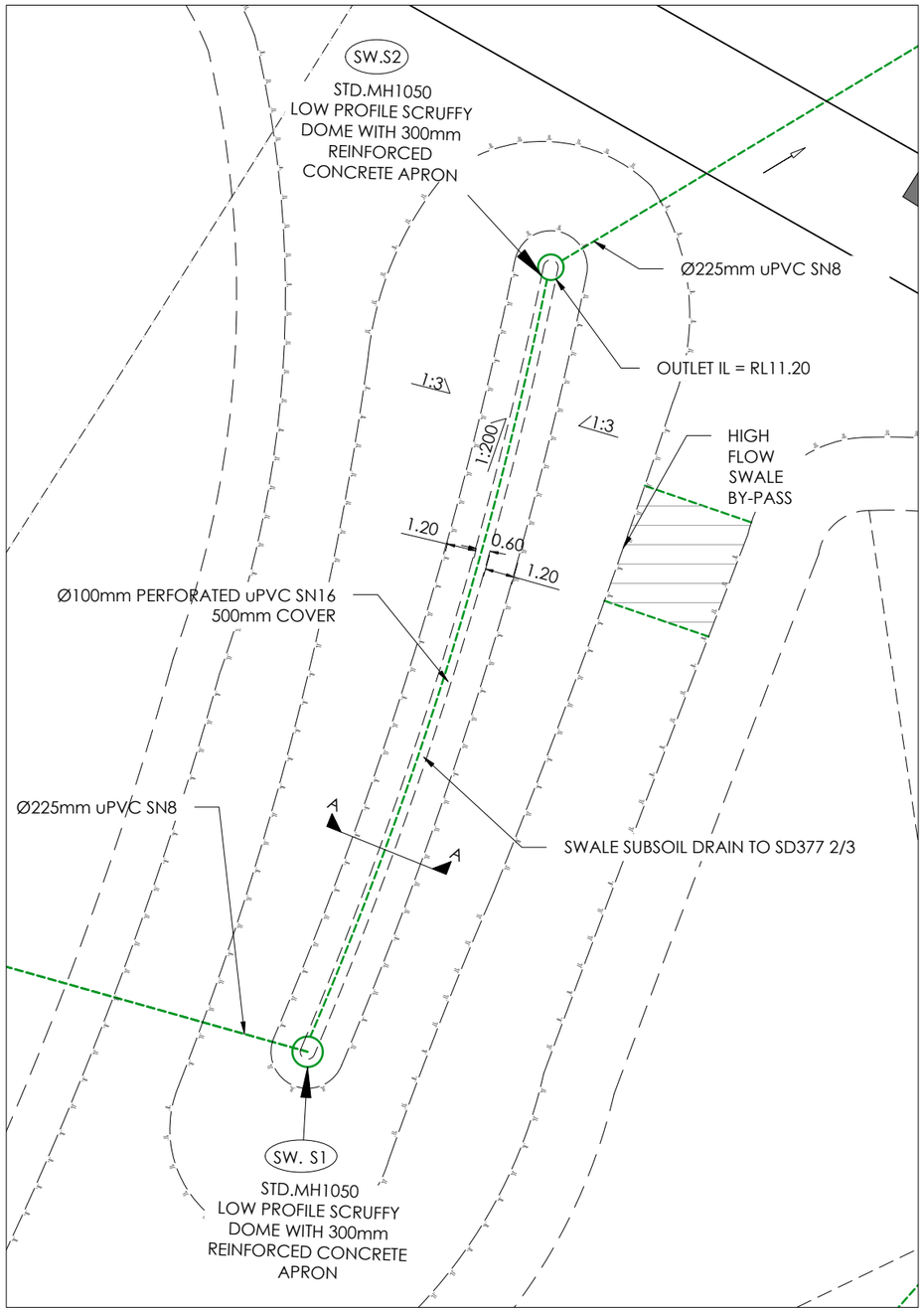
SHEET TITLE:

Sewer & Stormwater Plan

DRAWING STATUS

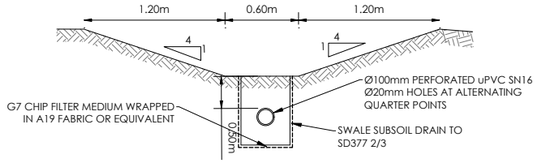
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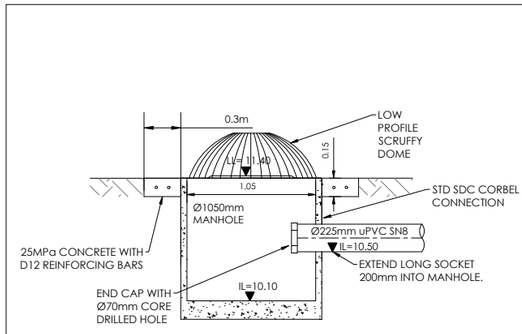
SWALE 1 PLAN VIEW

SCALES 1:125@A1
1:250@A3



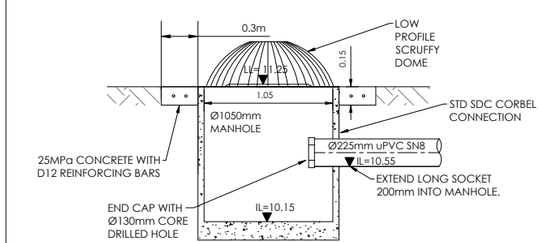
A-A TREATMENT SWALE CROSS SECTION

NOT TO SCALE



SW.FF OUTLET DETAIL

SCALE 1:25@A1
1:50@A3



SW. B1 OUTLET DETAIL

SCALE 1:25@A1
1:50@A3

AMENDMENTS :

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LEGEND :

STREET LIGHT

EXISTING STREET LIGHT

EXISTING SERVICES

SANITARY SEWER — STD. MH
SANITARY SEWER — VENTED MH
STORMWATER — MH
KERB

PROPOSED SERVICES

SANITARY SEWER — STD. MH
SANITARY SEWER — VENTED MH
STORMWATER — MH
KERB — CUT DOWN

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

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RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Sewer & Stormwater Plan

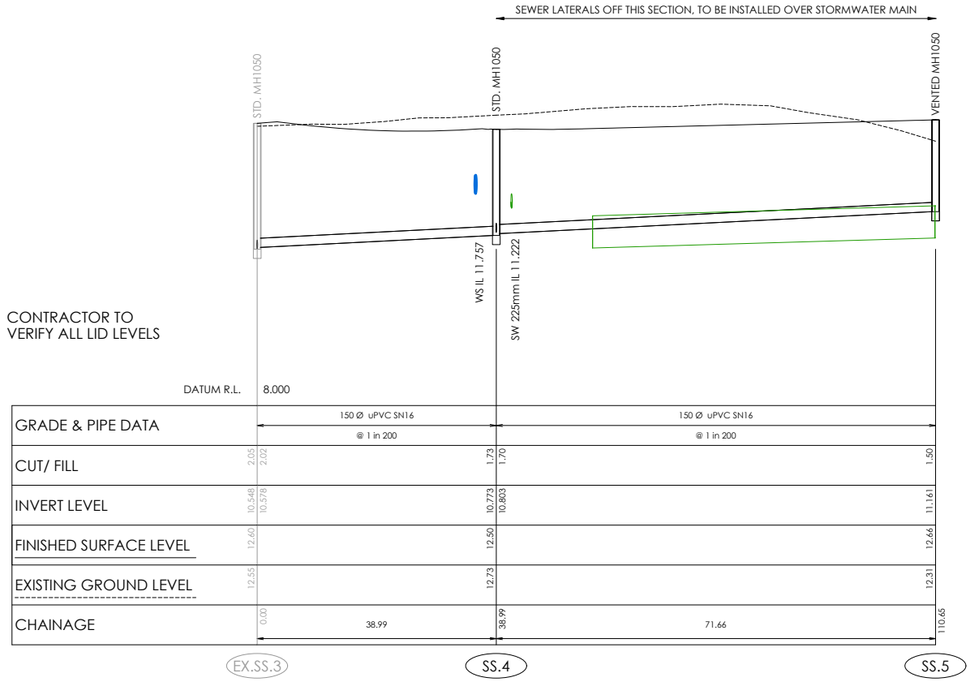
DRAWING STATUS

For Engineering Approval

SCALE : As Shown DATE : October 2026

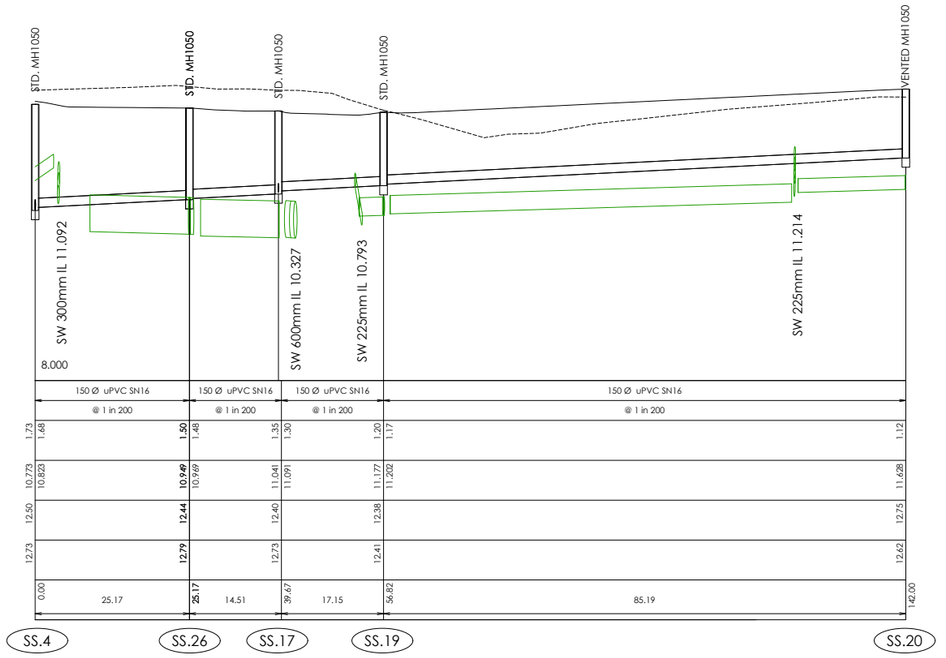
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DRAWING No : **E.21417** SHEET No: **E04.2** REVISION : **R14**



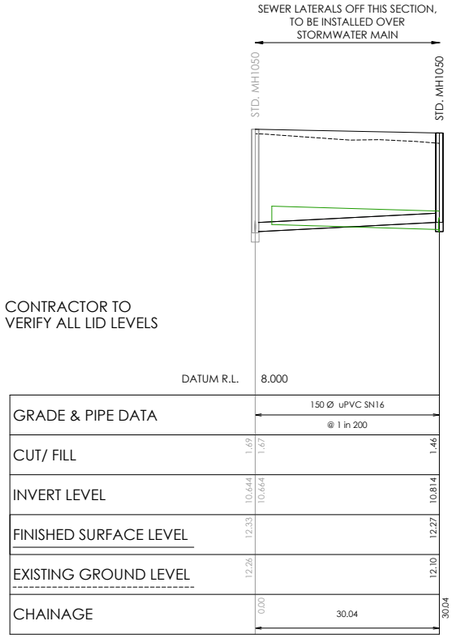
SEWER LONGSECTION
EX.SS.3 TO SS.5

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



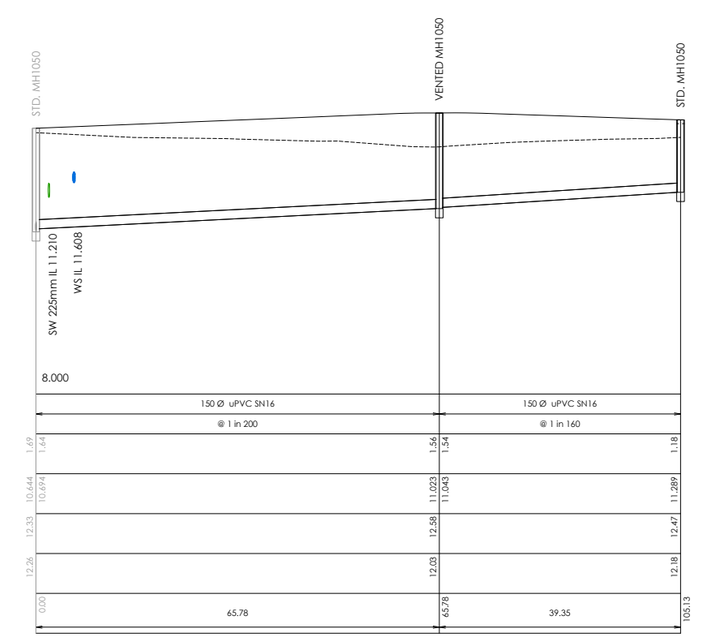
SEWER LONGSECTION
SS.4 TO SS.20

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



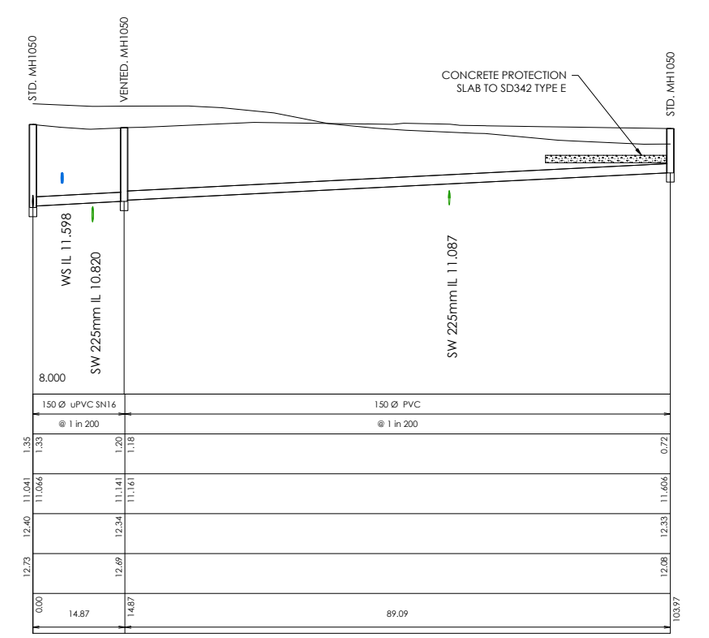
SEWER LONGSECTION
EX.SS.12 TO SS.13

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



SEWER LONGSECTION
EX.SS.12 TO SS.15

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



SEWER LONGSECTION
SS.17 TO SS.16

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	NO CHANGE THIS SHEET
R14	20/10/26	NO CHANGE THIS SHEET

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7. ORIGIN OF LEVELS
   MA67 DP518987 (F5J0)
   RL=11.39

   LEVELS IN TERMS OF NZVD 2016
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9. NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
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11. RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
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16. LADDERS ARE RQUIRED FOR MANHOLES DEEPER THAN 1.3m WHEN MEASURING FROM THE TOP OF THE BENCHING TO THE FINISHED LEVEL.
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DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

555 Birchs Road &
447 Tancreds Road, Lincoln
Stage 2 & 7

SHEET TITLE:

Sewer Longsections

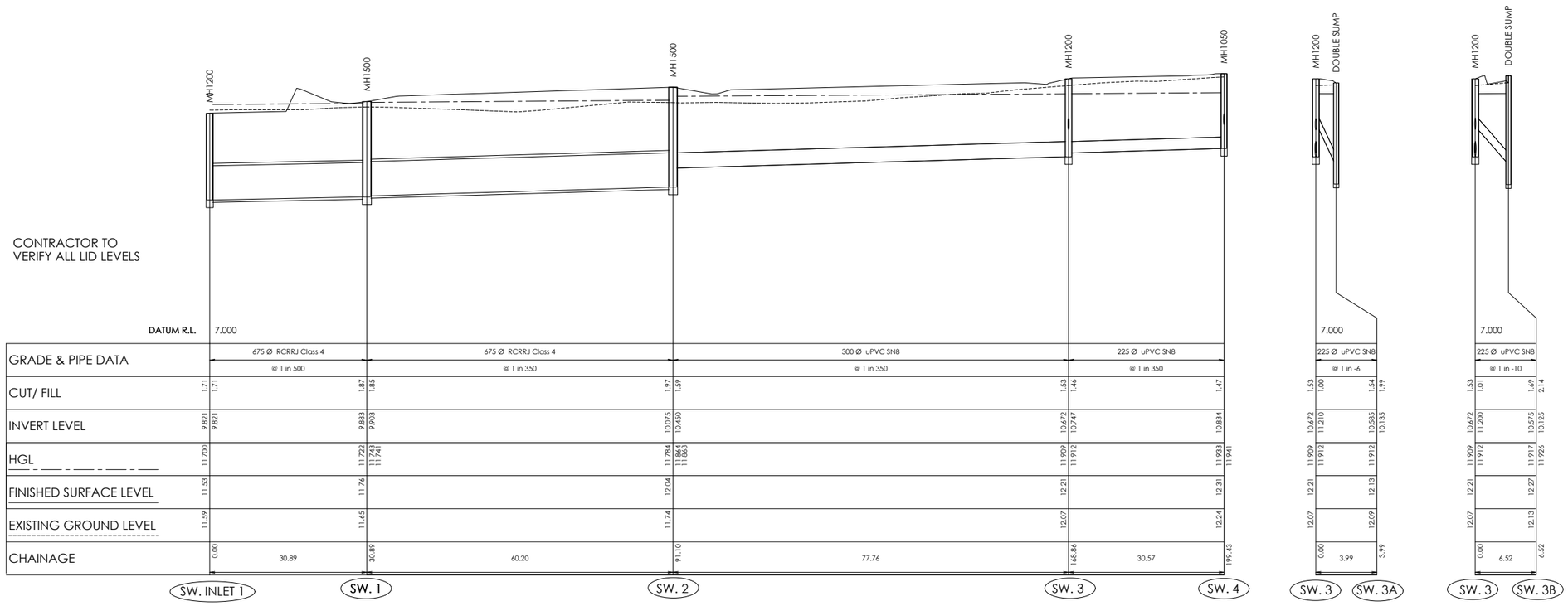
DRAWING STATUS

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SCALE : As Shown DATE : July 2026

CAD FILE :J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E04.3_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E04.3** REVISION : **R14**



SW LONGSECTION
SW.OUTLET 1 TO SW.4

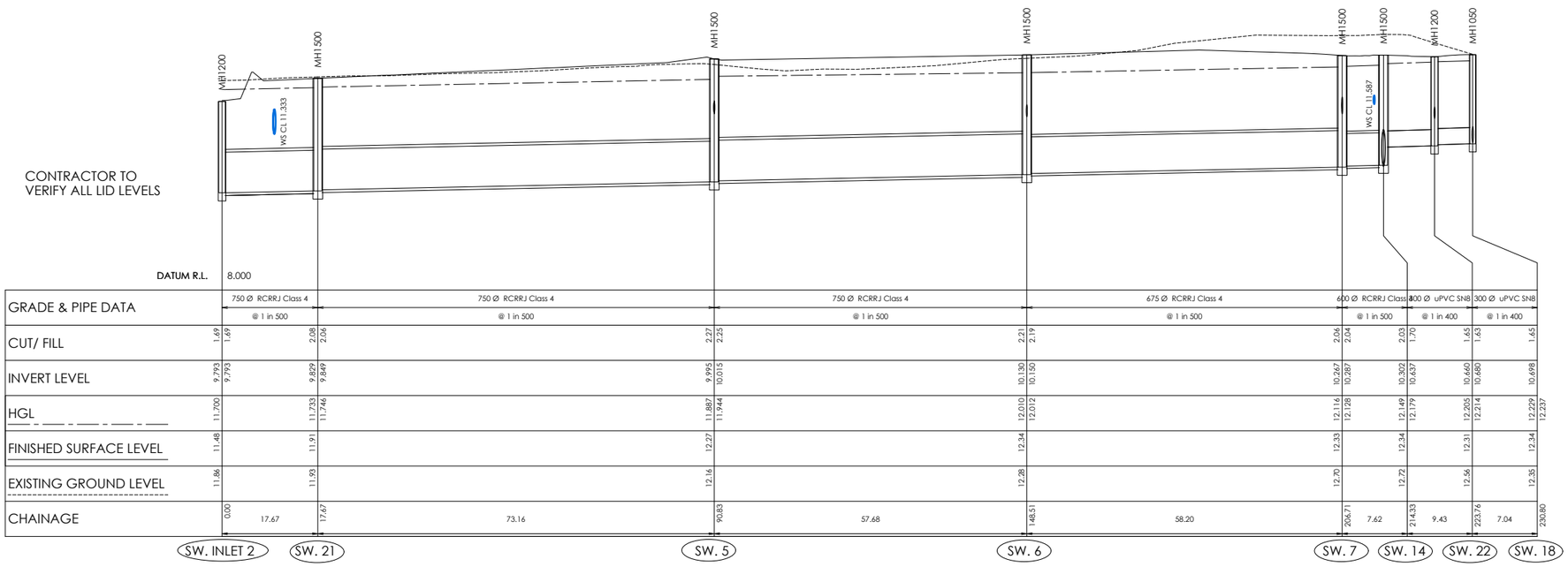
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1:50 Vert @A1
1:1000 Horiz
1:100 Vert @A3

SW LONGSECTION
SW.3 TO SW.3A

Scale 1:500 Horiz
1:50 Vert @A1
1:1000 Horiz
1:100 Vert @A3

SW LONGSECTION
SW.3 TO SW.3B

Scale 1:500 Horiz
1:50 Vert @A1
1:1000 Horiz
1:100 Vert @A3



SW LONGSECTION
SW.OUTLET 2 TO SW.18

Scale 1:500 Horiz
1:50 Vert @A1
1:1000 Horiz
1:100 Vert @A3

SW LONGSECTION
SW.4 TO SW.4C

Scale 1:500 Horiz
1:50 Vert @A1
1:1000 Horiz
1:100 Vert @A3

AMENDMENTS :

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Stage 2 & 7

SHEET TITLE:

Stormwater
Longsections

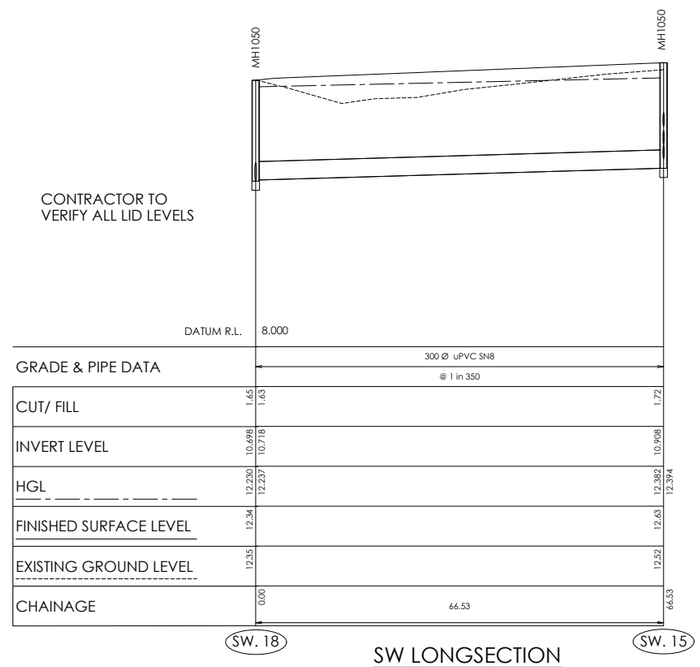
DRAWING STATUS

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SCALE : As Shown DATE : July 2026

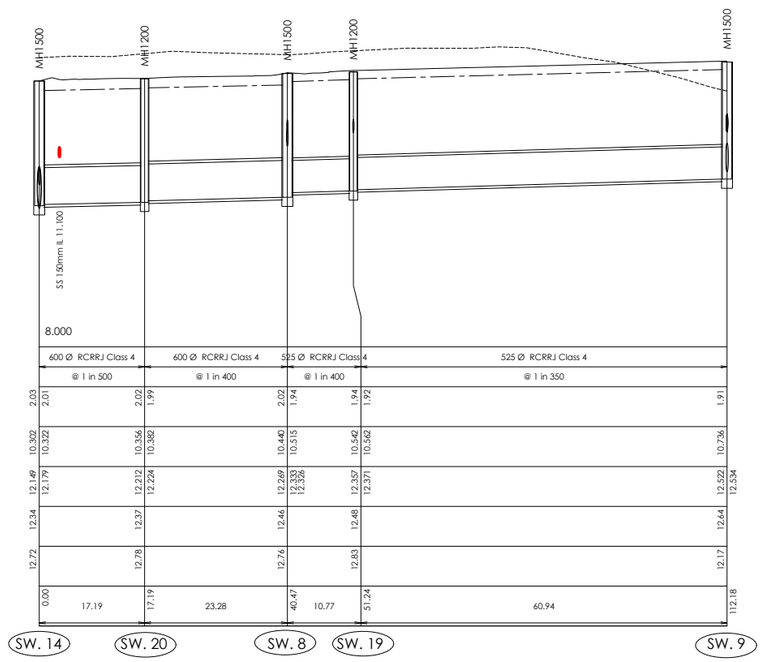
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DRAWING No : **E.21417** SHEET No: **E04.4** REVISION : **R14**



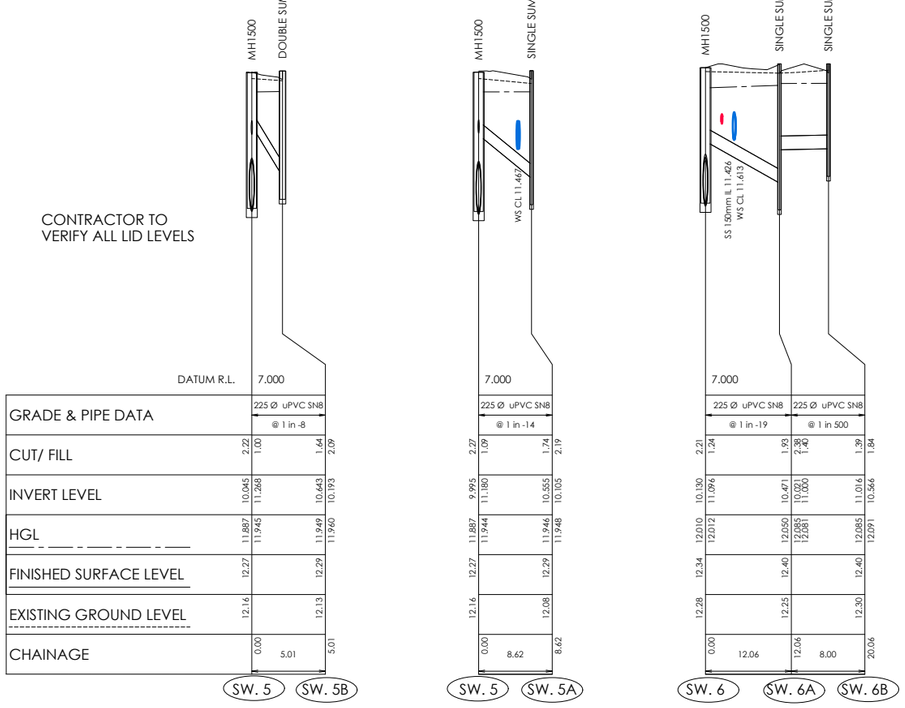
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SW.18 TO SW.15

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1:1000 Horiz @A3
1:100 Vert



SW LONGSECTION
SW.14 TO SW.9

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



SW LONGSECTION
SW.5 TO SW.5B

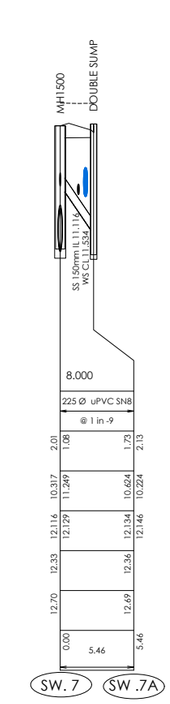
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1:1000 Horiz @A3
1:100 Vert

SW LONGSECTION
SW.5 TO SW.5A

Scale 1:500 Horiz @A1
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1:1000 Horiz @A3
1:100 Vert

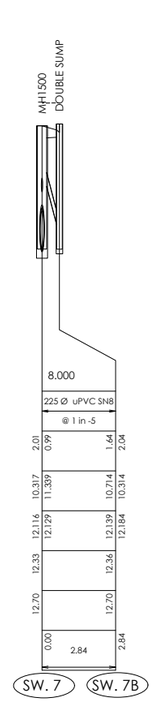
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SW.6 TO SW.6B

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1:1000 Horiz @A3
1:100 Vert



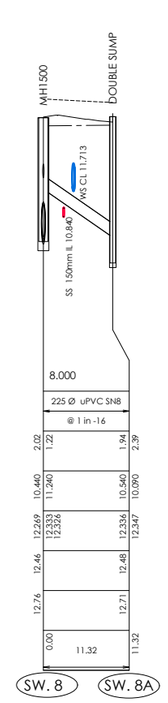
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SW.7 TO SW.7A

Scale 1:500 Horiz @A1
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1:1000 Horiz @A3
1:100 Vert



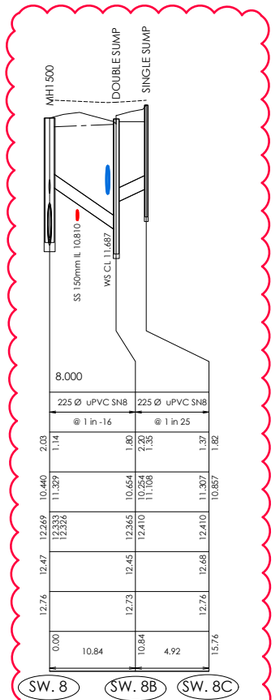
SW LONGSECTION
SW.7 TO SW.7B

Scale 1:500 Horiz @A1
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1:1000 Horiz @A3
1:100 Vert



SW LONGSECTION
SW.8 TO SW.8A

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



SW LONGSECTION
SW.8 TO SW.8D

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	LONGSECTION UPDATED
R14	20/10/26	NO CHANGE THIS SHEET

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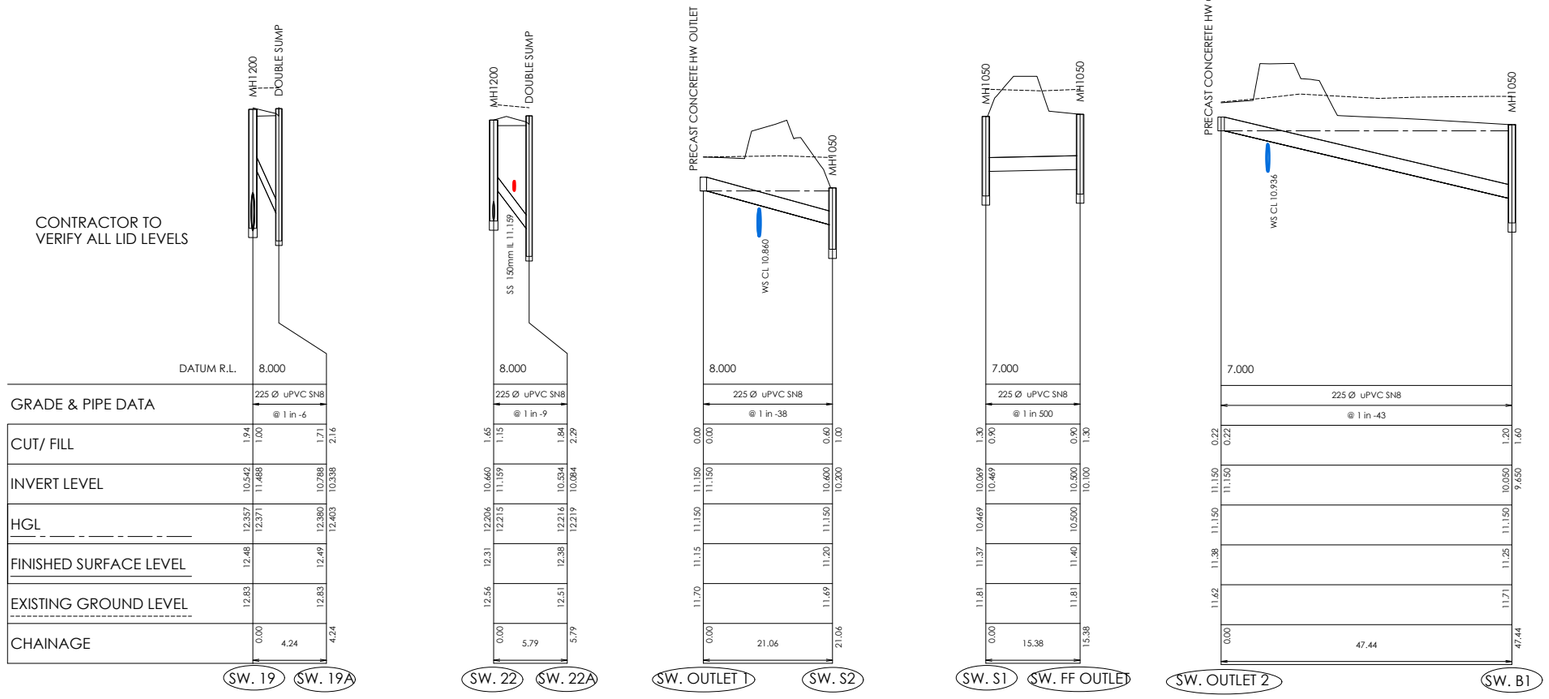
DRAWING STATUS

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CAD FILE : J:\.\21270\Eng\Drawings\Stages 2 & 7\E21417_E04.5_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E04.5** REVISION : **R14**



SW LONGSECTION SW.19 TO SW.19A

Scale 1:500 Horiz @A1
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1:1000 Horiz @A3
1:100 Vert

SW LONGSECTION SW.22 TO SW.22A

Scale 1:500 Horiz @A1
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1:1000 Horiz @A3
1:100 Vert

SW LONGSECTION SW.OUTLET 1 TO SW.S2

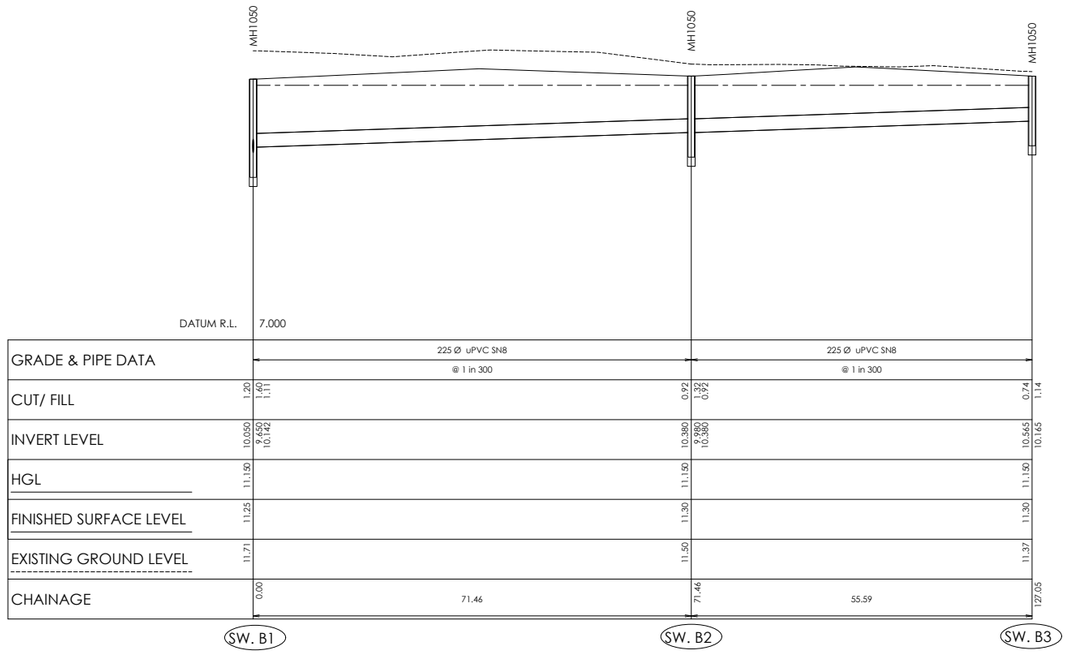
Scale 1:500 Horiz @A1
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1:1000 Horiz @A3
1:100 Vert

SW LONGSECTION SW.S1 TO SW.FF OUTLET

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert

SW LONGSECTION SW.OUTLET 2 TO SW.B1

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert



SW LONGSECTION SW.B1 TO SW.B3

Scale 1:500 Horiz @A1
1:50 Vert
1:1000 Horiz @A3
1:100 Vert

AMENDMENTS :

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Longsections**

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DRAWING No : **E.21417** SHEET No: **E04.6** REVISION : **R14**

ALL SUBMAIN TAKEOFFS ON 450mm ODPE WATERMAIN TO BE E/F SADDLES

STAGE 3A

STAGE 5A

STAGE 2

STAGE 1

STAGE 7

KENDALLA ROAD

O'REILLY ROAD

SMARTS DRAIN

TAMAIRAKI ROAD

CLIVE COOKE LANE

LARGESSE ROAD

Lot 1 DP 323286

Lot 3 DP 33959

Lot 722 DP 569173

Lot 723 DP 569173

Lot 485 DP 569173

Lot 486 DP 556036

Lot 487 DP 556036

Lot 488 DP 556036

Lot 435 DP 556036

700

TEMPORARY Ø150mm HYDRANT, THRUST BLOCK AND Ø150mm BEC. THRUST BLOCK DIMENSIONS AND BEARING CAPACITY TO BE CONFIRMED ON SITE

WATERMAIN TO BE LAID 3m PAST STAGE BOUNDARY

Ø180mm (OD) PE100 PN12.5 WATERMAIN O/S 1.55m FROM BDY

SUBMAIN TO BE EXTENDED THROUGH FUTURE STAGE

Ø63mm PE80B PN12.5 WATER SUBMAIN O/S 0.5m FROM BDY

Ø50mm TAPPING BAND

REFER TO DETAIL B

Ø50mm DI SLUICE VALVE

Ø450mm (OD) PE100 PN12.5 WATERMAIN O/S 1.0m FROM FENDER

Ø150mm DI SLUICE VALVE

Ø375mm HYDRANT & TAPPED RISER TO SD402

TEMPORARY Ø375mm HYDRANT, Ø450mm BEC AND THRUST BLOCK WITH MINIMUM END BEARING DIMENSIONS 3.5m WIDE AND 2.4m DEEP. BEARING CAPACITY TO BE CONFIRMED ON SITE. WATERMAIN TO BE LAID 3m PAST STAGE BOUNDARY

Ø50mm BEC

Ø200mm ON Ø375mm TEE & FLANGED Ø200x Ø150 REDUCER

Ø200mm ON Ø375mm TEE, FLANGED Ø200x Ø150 REDUCER

2 x Ø50mm SLUICE VALVES & TAPPING BAND

2 x E/F SADDLES

DOUBLE METRE BOX WITH TWO CONNECTIONS

Ø32mm OD PE80 LATERAL

Ø375mm ON Ø375mm DI TEE & Ø375mm DI SLUICE VALVE

E/F SADDLE

Ø50mm SLUICE VALVE & TAPPING BAND

Ø180mm (OD) PE100 PN12.5 WATERMAIN O/S 1.55m FROM BDY

Ø150mm HYDRANT

Ø50mm SLUICE VALVE & TAPPING BAND

REMOVE BEC AND RELOCATE EX. HYDRANT TO STAGE BOUNDARY

EXISTING Ø150mm uPVC CONNECTION TO Ø180mm WITH Ø150mm DI PN35 SPOOL WITH PUDDLE FLANGE AND ANCHOR BLOCK

Ø150mm ON Ø150mm DI TEE, Ø150mm DI SLUICE VALVE

REMOVE BEC & CONNECT TO EXISTING Ø63mm PE80B SUBMAIN

Ø180mm (OD) PE100 PN12.5 WATERMAIN O/S 2.0m FROM BDY

Ø150mm HYDRANT, THRUST BLOCK AND Ø150mm BEC. THRUST BLOCK DIMENSIONS AND BEARING CAPACITY TO BE CONFIRMED ON SITE

CONNECT TO EXISTING Ø300mm uPVC WATERMAIN. CONNECTION TO CONSIST OF Ø300mm DI PN35 SPOOL WITH PUDDLE FLANGE, FLANGED Ø375mmx Ø300mm REDUCER AND ACHOR BLOCK AS PER DETAIL SHEET E05.3

Ø450 (OD) PE100 PN12.5 TO BE INSTALLED WITHIN FUTURE ROAD CORRIDOR AND TO HAVE 750mm COVER FROM FUTURE SURFACE

90° DI BEND

2 x Ø375mm DI SLUICE VALVES

REFER TO DETAIL C

REFER TO DETAIL D

REFER TO DETAIL E

REFER TO DETAIL F

REFER TO DETAIL A

OMA 130 DP 569173 381480.49 795415.22 RL=12.25

OMN 122 DP 556036 381556.18 795368.98 RL=TBC

NORTH

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	SUBMAIN SHIFTED
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	NO CHANGE THIS SHEET

NOTES :

1. ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
2. ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
3. TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
4. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
5. ALL WATER PIPES TO BE PE PN12.5 AND ALL FITTINGS TO BE PN16.
6. WATERMAINS AND SUBMAINS TO BE INSTALLED AT THE OFFSET STATED ON THE PLAN AND AGREED WITH ENGINEER.
7. WATERMAINS TO HAVE A MINIMUM COVER OF 0.75m IN ROADS AND 0.6m IN BERMS.
8. CONTRACTOR TO INSTALL WATER MAIN TO ENSURE NO CLASHES WITH OTHER SERVICES. TO BE INSTALLED IN ACCORDANCE WITH THE IDS 7.9.5.
9. ALL WATER CONNECTIONS WILL BE MADE IN ACCORDANCE WITH SDC STANDARD WSP005.
10. BLUE CATS EYES TO BE INSTALLED IN THE CENTRE OF ROADS ADJACENT TO ALL YELLOW PAINTED HYDRANT TRIANGLES.
11. CHLORINATION POINTS TO BE CONFIRMED DURING CONSTRUCTION.
12. THRUST BLOCKS TO BE END BEARING ONTO ORIGINAL SOILS.

LEGEND :

EXISTING SERVICES

WATER

KERB

PROPOSED SERVICES

WATER — FH VALVE METER

KERB — CUT DOWN

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Water Plan

DRAWING STATUS

For Engineering Approval

SCALE : 1:500@A1 1:1000@A3

DATE : October 2026

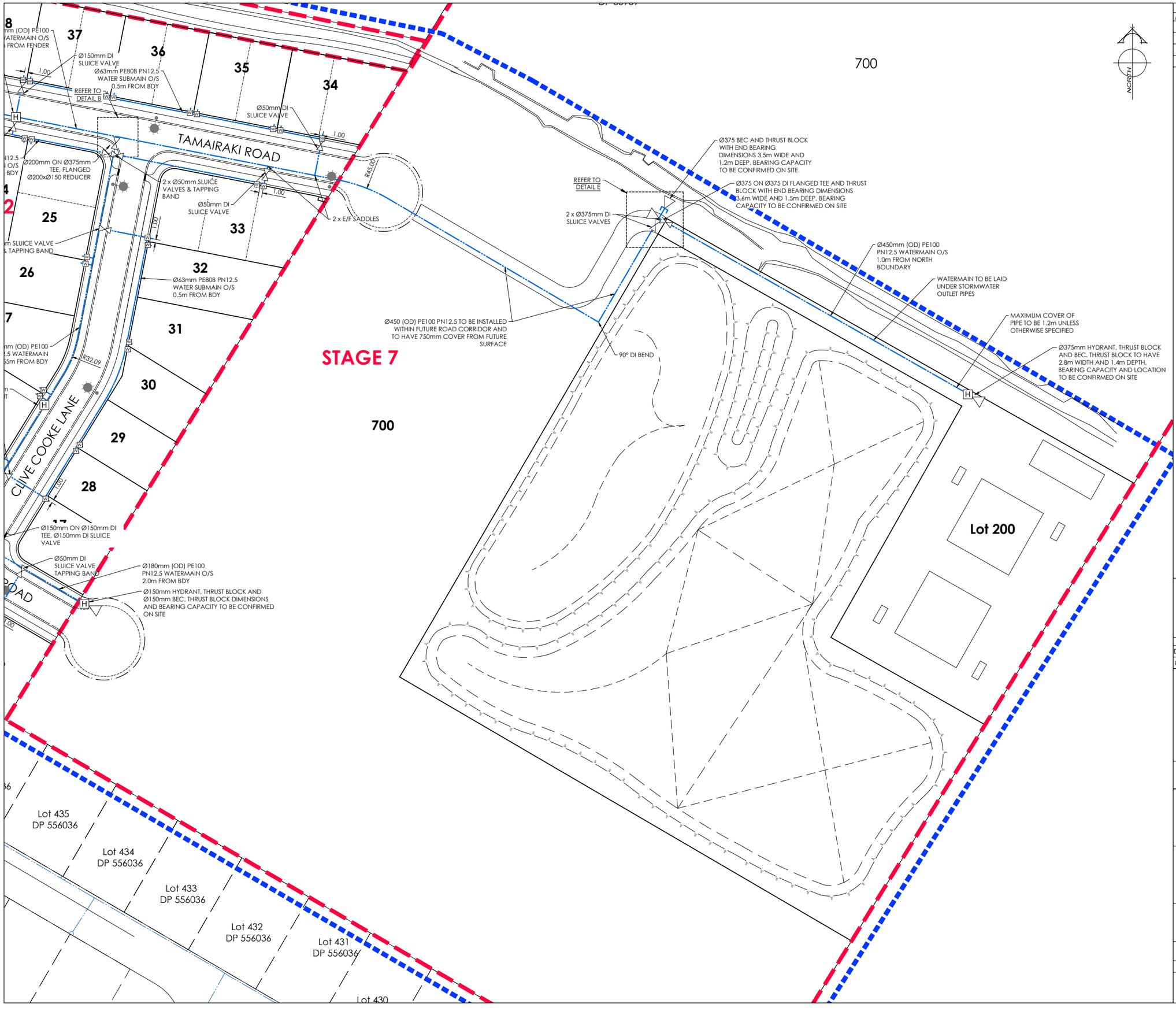
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DRAWN : JS

DRAWING No : **E.21417**

SHEET No: **E05.0**

REVISION : **R14**



AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	NO CHANGE THIS SHEET
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	NO CHANGE THIS SHEET

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3. TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
4. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
5. ALL WATER PIPES TO BE PE PN12.5 AND ALL FITTINGS TO BE PN16.
6. WATERMAINS AND SUBMAINS TO BE INSTALLED AT THE OFFSET STATED ON THE PLAN AND AGREED WITH ENGINEER.
7. WATERMAINS TO HAVE A MINIMUM COVER OF 0.75m IN ROADS AND 0.6m IN BERMS.
8. CONTRACTOR TO INSTALL WATER MAIN TO ENSURE NO CLASHES WITH OTHER SERVICES. TO BE INSTALLED IN ACCORDANCE WITH THE IDS 7.9.5.
9. ALL WATER CONNECTIONS WILL BE MADE IN ACCORDANCE WITH SDC STANDARD WSP005.
10. BLUE CATS EYES TO BE INSTALLED IN THE CENTRE OF ROADS ADJACENT TO ALL YELLOW PAINTED HYDRANT TRIANGLES.
11. CHLORINATION POINTS TO BE CONFIRMED DURING CONSTRUCTION.
12. CONTRACTORS ATTENTION IS DRAWN TO THE COUNCILS REQUIREMENTS FOR PE WELD TESTING.
13. THRUST BLOCKS TO BE END BEARING ONTO ORIGINAL SOILS.

LEGEND :

EXISTING SERVICES		PROPOSED SERVICES	
WATER	FH VALVE	WATER	FH VALVE METER
KERB		KERB	CUT DOWN

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
PLANNING SURVEYING ENGINEERING

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JOB TITLE:

Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Water Plan

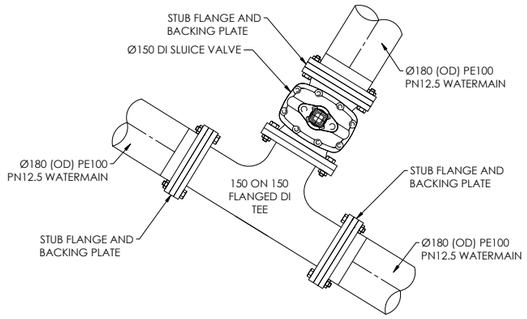
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For Engineering Approval

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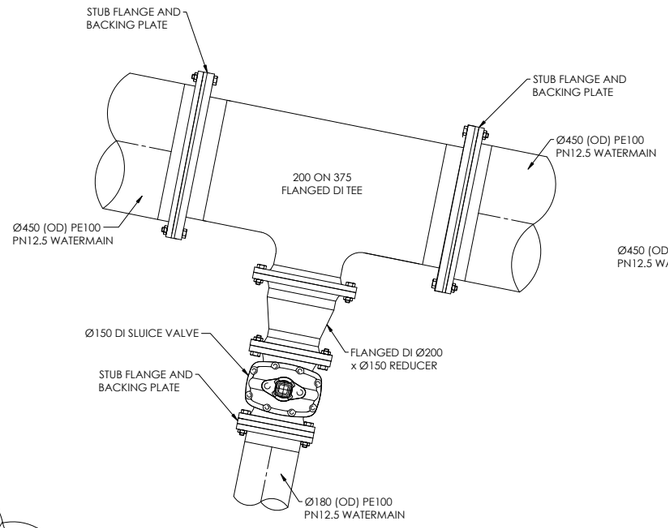
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DRAWING No : **E.21417** SHEET No: **E05.1** REVISION : **R14**



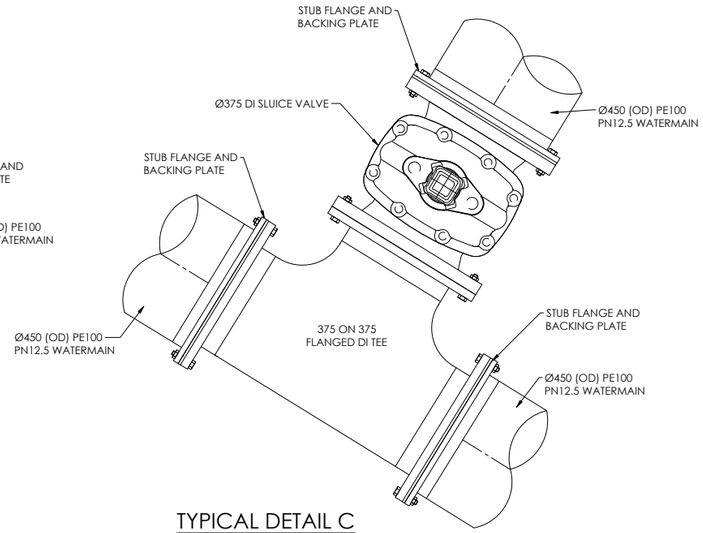
TYPICAL DETAIL A

SCALES 1:10@A1
1:20@A3



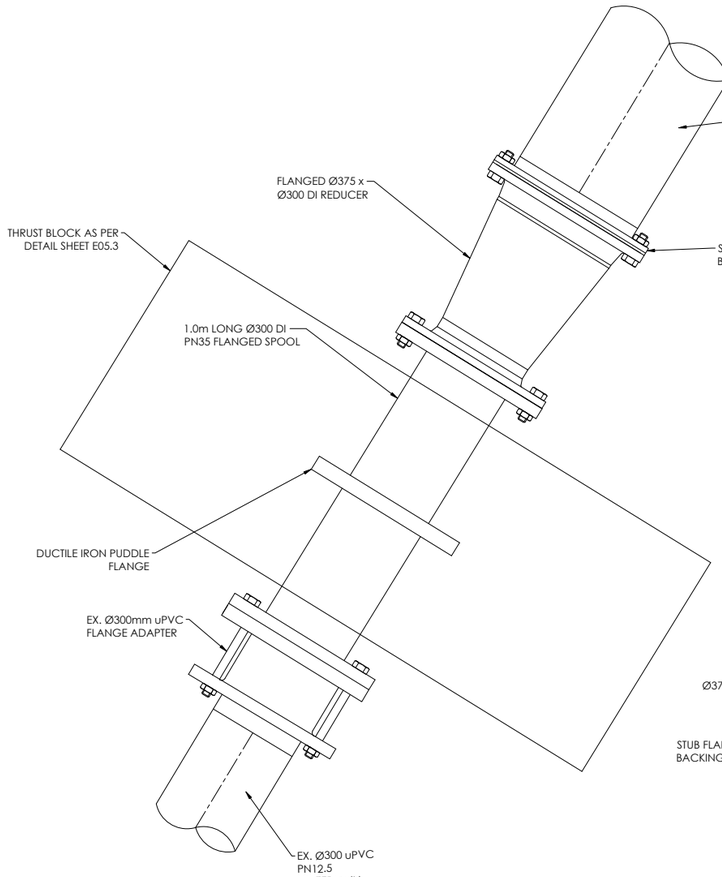
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SCALES 1:10@A1
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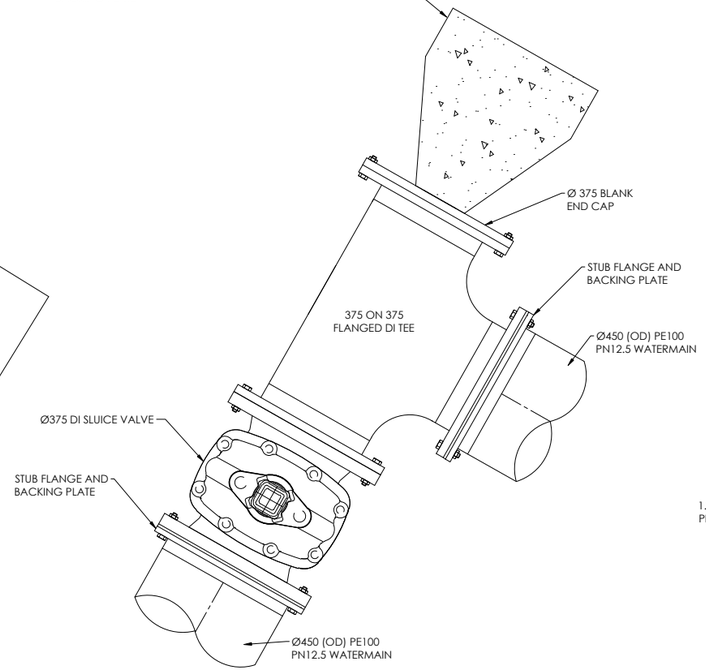
TYPICAL DETAIL C

SCALES 1:10@A1
1:20@A3



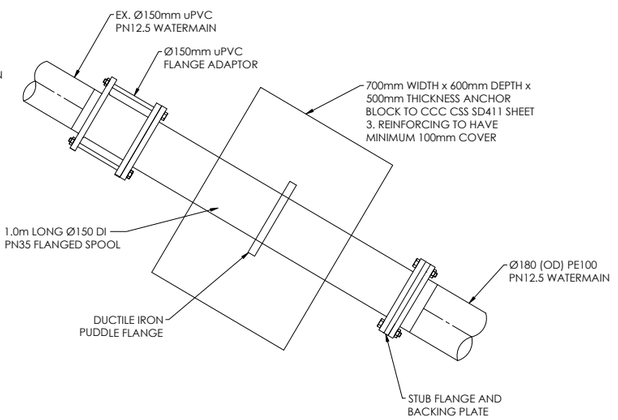
TYPICAL DETAIL D

SCALES 1:10@A1
1:20@A3



TYPICAL DETAIL E

SCALES 1:10@A1
1:20@A3



TYPICAL DETAIL F

SCALES 1:10@A1
1:20@A3

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	NO CHANGE THIS SHEET
R12	25/08/26	NO CHANGE THIS SHEET
R13	15/09/26	NO CHANGE THIS SHEET
R14	29/10/26	NO CHANGE THIS SHEET

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4. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
5. ALL WATER PIPES TO BE PE PN12.5 AND ALL FITTINGS TO BE PN16.
6. WATERMAINS AND SUBMAINS TO BE INSTALLED AT THE OFFSET STATED ON THE PLAN AND AGREED WITH ENGINEER.
7. WATERMAINS TO HAVE A MINIMUM COVER OF 0.75m IN ROADS AND 0.6m IN BERMS.
8. CONTRACTOR TO INSTALL WATER MAIN TO ENSURE NO CLASHES WITH OTHER SERVICES. TO BE INSTALLED IN ACCORDANCE WITH THE IDS 7.9.5.
9. ALL WATER CONNECTIONS WILL BE MADE IN ACCORDANCE WITH SDC STANDARD WSP005.
10. BLUE CATS EYES TO BE INSTALLED IN THE CENTRE OF ROADS ADJACENT TO ALL YELLOW PAINTED HYDRANT TRIANGLES.
11. CHLORINATION POINTS TO BE CONFIRMED DURING CONSTRUCTION.
12. THRUST BLOCKS TO BE END BEARING ONTO ORIGINAL SOILS.

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

DAVIE LOVELL-SMITH
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JOB TITLE:

Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Water Connection Details

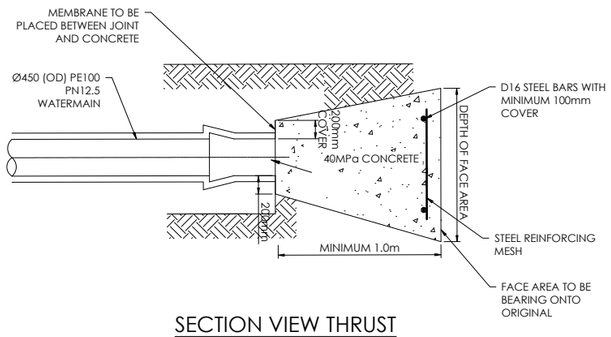
DRAWING STATUS

For Engineering Approval

SCALE : As Shown DATE : October 2026

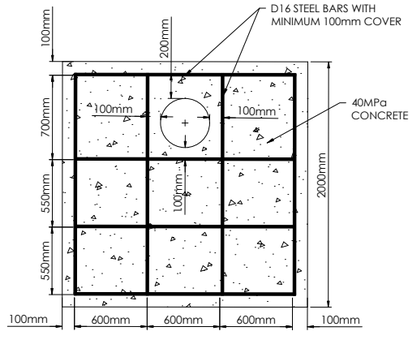
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DRAWING No : **E.21417** SHEET No: **E05.2** REVISION : **R14**



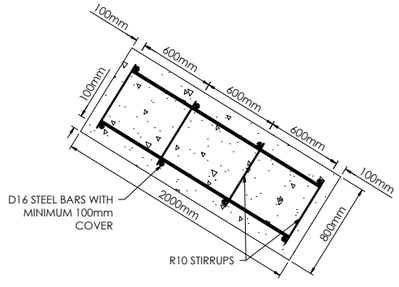
SECTION VIEW THRUST BLOCK DETAIL

NOT TO SCALE



INLINE THRUST BLOCK REINFORCING DETAIL D SECTION VIEW

NOT TO SCALE



INLINE THRUST BLOCK REINFORCING DETAIL D PLAN VIEW

NOT TO SCALE

AMENDMENTS :

AMENDMENT	DATE	DESCRIPTION
R11	13/08/26	NO CHANGE THIS SHEET
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10. BLUE CATS EYES TO BE INSTALLED IN THE CENTRE OF ROADS ADJACENT TO ALL YELLOW PAINTED HYDRANT TRIANGLES.
11. CHLORINATION POINTS TO BE CONFIRMED DURING CONSTRUCTION.
12. ALL THRUST BLOCKS TO BE DESIGNED TO NZS4404 WS-004 AND AGREED WITH ENGINEER UNLESS STATED OTHERWISE. THRUST BLOCKS TO BE END BEARING ONTO ORIGINAL SOILS.

	NAME	SIGNED	DATE
DESIGNED BY	SAM JONES		
CHECKED BY	TODD INNESS		

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PLANNING SURVEYING ENGINEERING

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JOB TITLE:

Birchfield Estates Ltd
RC245532 & RC245534
Stages 2 & 7

SHEET TITLE:

Thrust Block Details

DRAWING STATUS

For Engineering Approval

SCALE : As Shown DATE : October 2026

CAD FILE : J:\21270\Eng\Drawings\Stages 2 & 7\E21417_E01.0_R14.dwg DRAWN : JS

DRAWING No : **E.21417** SHEET No: **E05.3** REVISION : **R14**