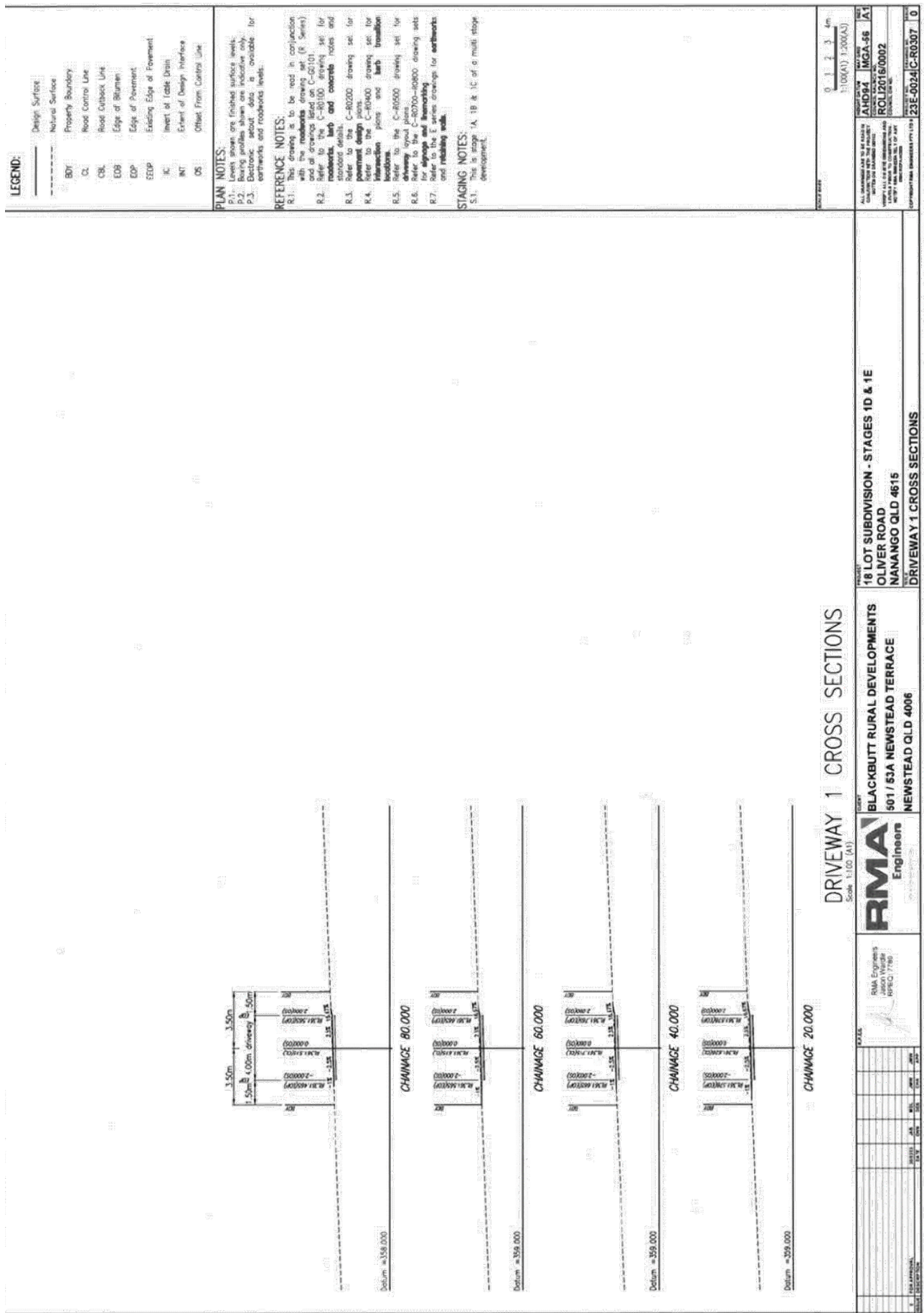


DRIVEWAY 1 LAYOUT PLAN
Scale 1:500 (A1)

DRIVEWAY 1 LONGITUDINAL SECTION
Scale 1:500 (A1), 1:500 (A1)

Vertical Geometry Grade (%)	Vertical Grade Length (m)	Stationing	Grade
2.00%	4.581m	11.197 HT 361.484	2.00%
-0.50%	37.807m	41.197 HT 361.709	-0.50%
-0.04%	10.000m	51.197 HT 361.704	-0.04%
-0.07%	10.000m	61.197 HT 361.665	-0.07%
-0.04%	10.000m	71.197 HT 361.665	-0.04%
-0.07%	10.000m	81.197 HT 361.665	-0.07%
-0.04%	10.000m	91.197 HT 361.665	-0.04%
-0.07%	10.000m	101.197 HT 361.665	-0.07%
-0.04%	10.000m	111.197 HT 361.665	-0.04%
-0.07%	10.000m	121.197 HT 361.665	-0.07%
-0.04%	10.000m	131.197 HT 361.665	-0.04%
-0.07%	10.000m	141.197 HT 361.665	-0.07%
-0.04%	10.000m	151.197 HT 361.665	-0.04%
-0.07%	10.000m	161.197 HT 361.665	-0.07%
-0.04%	10.000m	171.197 HT 361.665	-0.04%
-0.07%	10.000m	181.197 HT 361.665	-0.07%
-0.04%	10.000m	191.197 HT 361.665	-0.04%
-0.07%	10.000m	201.197 HT 361.665	-0.07%
-0.04%	10.000m	211.197 HT 361.665	-0.04%
-0.07%	10.000m	221.197 HT 361.665	-0.07%
-0.04%	10.000m	231.197 HT 361.665	-0.04%
-0.07%	10.000m	241.197 HT 361.665	-0.07%
-0.04%	10.000m	251.197 HT 361.665	-0.04%
-0.07%	10.000m	261.197 HT 361.665	-0.07%
-0.04%	10.000m	271.197 HT 361.665	-0.04%
-0.07%	10.000m	281.197 HT 361.665	-0.07%
-0.04%	10.000m	291.197 HT 361.665	-0.04%
-0.07%	10.000m	301.197 HT 361.665	-0.07%
-0.04%	10.000m	311.197 HT 361.665	-0.04%
-0.07%	10.000m	321.197 HT 361.665	-0.07%
-0.04%	10.000m	331.197 HT 361.665	-0.04%
-0.07%	10.000m	341.197 HT 361.665	-0.07%
-0.04%	10.000m	351.197 HT 361.665	-0.04%
-0.07%	10.000m	361.197 HT 361.665	-0.07%
-0.04%	10.000m	371.197 HT 361.665	-0.04%
-0.07%	10.000m	381.197 HT 361.665	-0.07%
-0.04%	10.000m	391.197 HT 361.665	-0.04%
-0.07%	10.000m	401.197 HT 361.665	-0.07%
-0.04%	10.000m	411.197 HT 361.665	-0.04%
-0.07%	10.000m	421.197 HT 361.665	-0.07%
-0.04%	10.000m	431.197 HT 361.665	-0.04%
-0.07%	10.000m	441.197 HT 361.665	-0.07%
-0.04%	10.000m	451.197 HT 361.665	-0.04%
-0.07%	10.000m	461.197 HT 361.665	-0.07%
-0.04%	10.000m	471.197 HT 361.665	-0.04%
-0.07%	10.000m	481.197 HT 361.665	-0.07%
-0.04%	10.000m	491.197 HT 361.665	-0.04%
-0.07%	10.000m	501.197 HT 361.665	-0.07%
-0.04%	10.000m	511.197 HT 361.665	-0.04%
-0.07%	10.000m	521.197 HT 361.665	-0.07%
-0.04%	10.000m	531.197 HT 361.665	-0.04%
-0.07%	10.000m	541.197 HT 361.665	-0.07%
-0.04%	10.000m	551.197 HT 361.665	-0.04%
-0.07%	10.000m	561.197 HT 361.665	-0.07%
-0.04%	10.000m	571.197 HT 361.665	-0.04%
-0.07%	10.000m	581.197 HT 361.665	-0.07%
-0.04%	10.000m	591.197 HT 361.665	-0.04%
-0.07%	10.000m	601.197 HT 361.665	-0.07%
-0.04%	10.000m	611.197 HT 361.665	-0.04%
-0.07%	10.000m	621.197 HT 361.665	-0.07%
-0.04%	10.000m	631.197 HT 361.665	-0.04%
-0.07%	10.000m	641.197 HT 361.665	-0.07%
-0.04%	10.000m	651.197 HT 361.665	-0.04%
-0.07%	10.000m	661.197 HT 361.665	-0.07%
-0.04%	10.000m	671.197 HT 361.665	-0.04%
-0.07%	10.000m	681.197 HT 361.665	-0.07%
-0.04%	10.000m	691.197 HT 361.665	-0.04%
-0.07%	10.000m	701.197 HT 361.665	-0.07%
-0.04%	10.000m	711.197 HT 361.665	-0.04%
-0.07%	10.000m	721.197 HT 361.665	-0.07%
-0.04%	10.000m	731.197 HT 361.665	-0.04%
-0.07%	10.000m	741.197 HT 361.665	-0.07%
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-0.07%	10.000m	761.197 HT 361.665	-0.07%
-0.04%	10.000m	771.197 HT 361.665	-0.04%
-0.07%	10.000m	781.197 HT 361.665	-0.07%
-0.04%	10.000m	791.197 HT 361.665	-0.04%
-0.07%	10.000m	801.197 HT 361.665	-0.07%
-0.04%	10.000m	811.197 HT 361.665	-0.04%
-0.07%	10.000m	821.197 HT 361.665	-0.07%
-0.04%	10.000m	831.197 HT 361.665	-0.04%
-0.07%	10.000m	841.197 HT 361.665	-0.07%
-0.04%	10.000m	851.197 HT 361.665	-0.04%
-0.07%	10.000m	861.197 HT 361.665	-0.07%
-0.04%	10.000m	871.197 HT 361.665	-0.04%
-0.07%	10.000m	881.197 HT 361.665	-0.07%
-0.04%	10.000m	891.197 HT 361.665	-0.04%
-0.07%	10.000m	901.197 HT 361.665	-0.07%
-0.04%	10.000m	911.197 HT 361.665	-0.04%
-0.07%	10.000m	921.197 HT 361.665	-0.07%
-0.04%	10.000m	931.197 HT 361.665	-0.04%
-0.07%	10.000m	941.197 HT 361.665	-0.07%
-0.04%	10.000m	951.197 HT 361.665	-0.04%
-0.07%	10.000m	961.197 HT 361.665	-0.07%
-0.04%	10.000m	971.197 HT 361.665	-0.04%
-0.07%	10.000m	981.197 HT 361.665	-0.07%
-0.04%	10.000m	991.197 HT 361.665	-0.04%
-0.07%	10.000m	1001.197 HT 361.665	-0.07%



DRIVEWAY 1 CROSS SECTIONS
Scale: 1:100 (A1)

RMA Engineers
RMA Engineers
Jason Wright
RP/EC/718

18 LOT SUBDIVISION - STAGES 1D & 1E
OLIVER ROAD
NANANGO QLD 4615

PROJECT: 23E-0024 (C-R0307) 1.0
DATE: 13/06/23 (1:500(A1))
CLIENT: MGA-58 (A1)
PROJECT NO.: ROL2016/0002

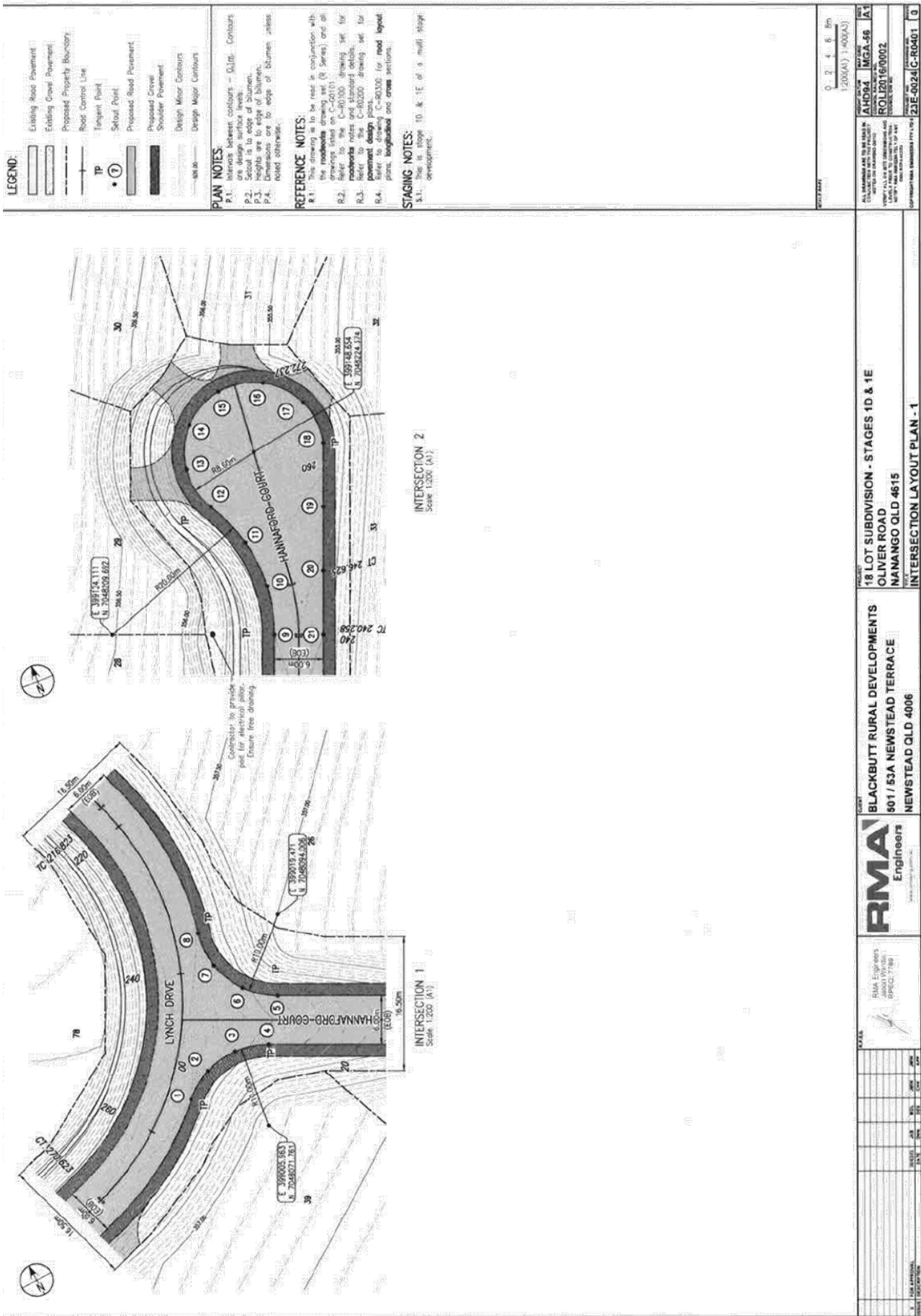
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ROADWORKS DRAWING SET (R SERIES) AND ALL DRAWINGS LISTED ON C-6010. THIS DRAWING IS NOT TO BE USED FOR EARTHWORKS AND ROADWORKS LEVELS. DRAWING NO. 23E-0024 (C-R0307) 1.0

TABLE OF SETOUT COORDINATES

POINT	EASTING	NORTHING	LOVE
1	396998.175	7048079.104	358.196
2	396902.721	7048081.221	358.147
3	396906.820	7048081.724	358.048
4	396910.798	7048080.532	357.930
5	396914.661	7048085.238	357.894
6	396911.354	7048098.185	358.046
7	396909.830	7048092.230	358.215
8	396908.820	7048096.645	358.292
9	396914.725	7048202.379	355.501
10	396914.062	7048208.296	355.565
11	396914.563	7048214.341	355.629
12	396914.1274	7048219.959	355.693
13	396914.0111	7048225.398	355.752
14	396914.2471	7048230.351	355.812
15	396914.2381	7048232.879	355.871
16	396915.2816	7048231.900	355.883
17	396915.6305	7048227.817	355.794
18	396915.004	7048222.314	355.739
19	396915.106	7048214.938	355.659
20	3969151.298	7048207.561	355.579
21	3969148.310	7048206.186	355.500

INTERSECTION SETOUT COORDINATES

		PROJECT NO: 23E-0024 CLIENT: BLACKBUTT RURAL DEVELOPMENTS 501 / 53A NEWSTEAD TERRACE NEWSSTEAD QLD 4006	PROJECT NO: 23E-0024 CLIENT: BLACKBUTT RURAL DEVELOPMENTS 501 / 53A NEWSTEAD TERRACE NEWSSTEAD QLD 4006
ALL DIMENSIONS ARE TO BE TAKEN TO THE CENTERLINE UNLESS OTHERWISE SPECIFIED. VERIFY ALL DIMENSIONS AND SETOUT WITH A TOTAL STATION. CONTRACTOR TO VERIFY DIMENSIONS WITH THE SURVEYOR.		PROJECT NO: 23E-0024 CLIENT: BLACKBUTT RURAL DEVELOPMENTS 501 / 53A NEWSTEAD TERRACE NEWSSTEAD QLD 4006	PROJECT NO: 23E-0024 CLIENT: BLACKBUTT RURAL DEVELOPMENTS 501 / 53A NEWSTEAD TERRACE NEWSSTEAD QLD 4006



STORMWATER DRAINAGE NOTES

Black Butter Regional Council

GENERAL

- G1. This drawing is to be read in conjunction with Project Notes or drawing CDQ102.
- G2. In some instances a note may not apply and therefore can be ignored. It is the Contractor's responsibility to confirm whether a note applies or not with the Superintendent.

PIPEWORK

- P1. Pipe sizes are based on the longitudinal section.
- P2. All pipe sections must be installed in accordance with the manufacturer's specifications. Callings in pipe materials, manholes, catchpits, and other structures shall be in accordance with the manufacturer's specifications.
- P3. All pipe joints shall be "Butt", "Butt", or "C/M" product, installed in accordance with the manufacturer's specifications.
- P4. All pipe joints shall be installed in accordance with the manufacturer's specifications.
- P5. All trench manholes shall be installed in accordance with the manufacturer's specifications.
- P6. All trench manholes shall be installed in accordance with the manufacturer's specifications.

ROAD RESERVE

- R1. 1:000 Reinforced concrete class (D) minimum outer ring pipe.
- R2. 1:000 Reinforced concrete class (D) minimum outer ring pipe with external rubber lining.

INSTALLATION

- I1. Reinforced Concrete Class (D) minimum outer ring pipe or
- I2. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I3. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I4. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I5. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I6. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I7. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I8. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I9. 1:000 Reinforced concrete class (D) minimum outer ring pipe or
- I10. 1:000 Reinforced concrete class (D) minimum outer ring pipe or

JUNCTIONS

- J1. Gully and pipe type and size are based on the longitudinal section.
- J2. All gully pipe are to be in line unless noted otherwise.
- J3. All gully pipe shall be "Butt", "Butt", or "C/M" product, installed in accordance with the manufacturer's specifications.
- J4. Gully pipe shall be installed in accordance with the manufacturer's specifications.
- J5. All gully pipe shall be installed in accordance with the manufacturer's specifications.
- J6. All gully pipe shall be installed in accordance with the manufacturer's specifications.
- J7. All gully pipe shall be installed in accordance with the manufacturer's specifications.
- J8. All gully pipe shall be installed in accordance with the manufacturer's specifications.
- J9. All gully pipe shall be installed in accordance with the manufacturer's specifications.
- J10. All gully pipe shall be installed in accordance with the manufacturer's specifications.

MANHOLES

- M1. Manhole type and size are based on the longitudinal section.
- M2. All manhole are to be in line unless noted otherwise.
- M3. All manhole shall be installed in accordance with the manufacturer's specifications.
- M4. All manhole shall be installed in accordance with the manufacturer's specifications.
- M5. All manhole shall be installed in accordance with the manufacturer's specifications.
- M6. All manhole shall be installed in accordance with the manufacturer's specifications.
- M7. All manhole shall be installed in accordance with the manufacturer's specifications.
- M8. All manhole shall be installed in accordance with the manufacturer's specifications.
- M9. All manhole shall be installed in accordance with the manufacturer's specifications.
- M10. All manhole shall be installed in accordance with the manufacturer's specifications.

LIDS

- L1. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L2. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L3. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L4. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L5. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L6. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L7. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L8. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L9. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.
- L10. The gully lid shall be 400mm cast iron Type D, finished trafficable and levelled.

CULVERTS

- C1. Culvert type and size are based on the longitudinal section.
- C2. All culverts, pipe, sabb, access and headwalls shall be installed in accordance with the manufacturer's specifications.
- C3. Culvert for sabb (where applicable) shall be installed in accordance with the manufacturer's specifications. The sabb shall accommodate a minimum deep loading of 7.

HEADWALLS

- H1. Setout, extent and cover angle are shown on the layout plan.
- H2. Precast headwalls (single sabb only) shall be installed in accordance with the manufacturer's specifications.
- H3. All multi-cell headwalls, wingwalls and aprons shall be installed in accordance with the manufacturer's specifications.
- H4. The culvert can enter headwalls, wingwalls and aprons shall be installed in accordance with the manufacturer's specifications.
- H5. Pipe culvert can enter headwalls, wingwalls and aprons shall be installed in accordance with the manufacturer's specifications.
- H6. Culvert can enter headwalls, wingwalls and aprons shall be installed in accordance with the manufacturer's specifications.
- H7. Road surf level structures located directly downstream on the sabb aprons shall be installed in accordance with the manufacturer's specifications.

CONNECTION STUBS

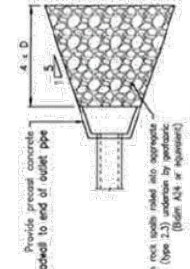
- CS1. All connection stubs shall be constructed in accordance with the Council's standard drawing 01/15/001.
- CS2. All connection stubs shall be DN400mm uPVC Class (DN6) pipe, cut to suit, and brought to within the specified surface level and finished with a joint on end and day-jointed butt.
- CS3. All connection stubs shall be installed in accordance with the manufacturer's specifications.
- CS4. Connection stubs cut or modified shall be installed in accordance with the manufacturer's specifications.
- CS5. Connection stubs shall extend a minimum 120mm beyond any parallel sewerage lines.
- CS6. All connection stubs shall be installed in accordance with the manufacturer's specifications.
- CS7. All connection stubs shall be installed in accordance with the manufacturer's specifications.
- CS8. All connection stubs shall be installed in accordance with the manufacturer's specifications.

KERB ADAPTERS

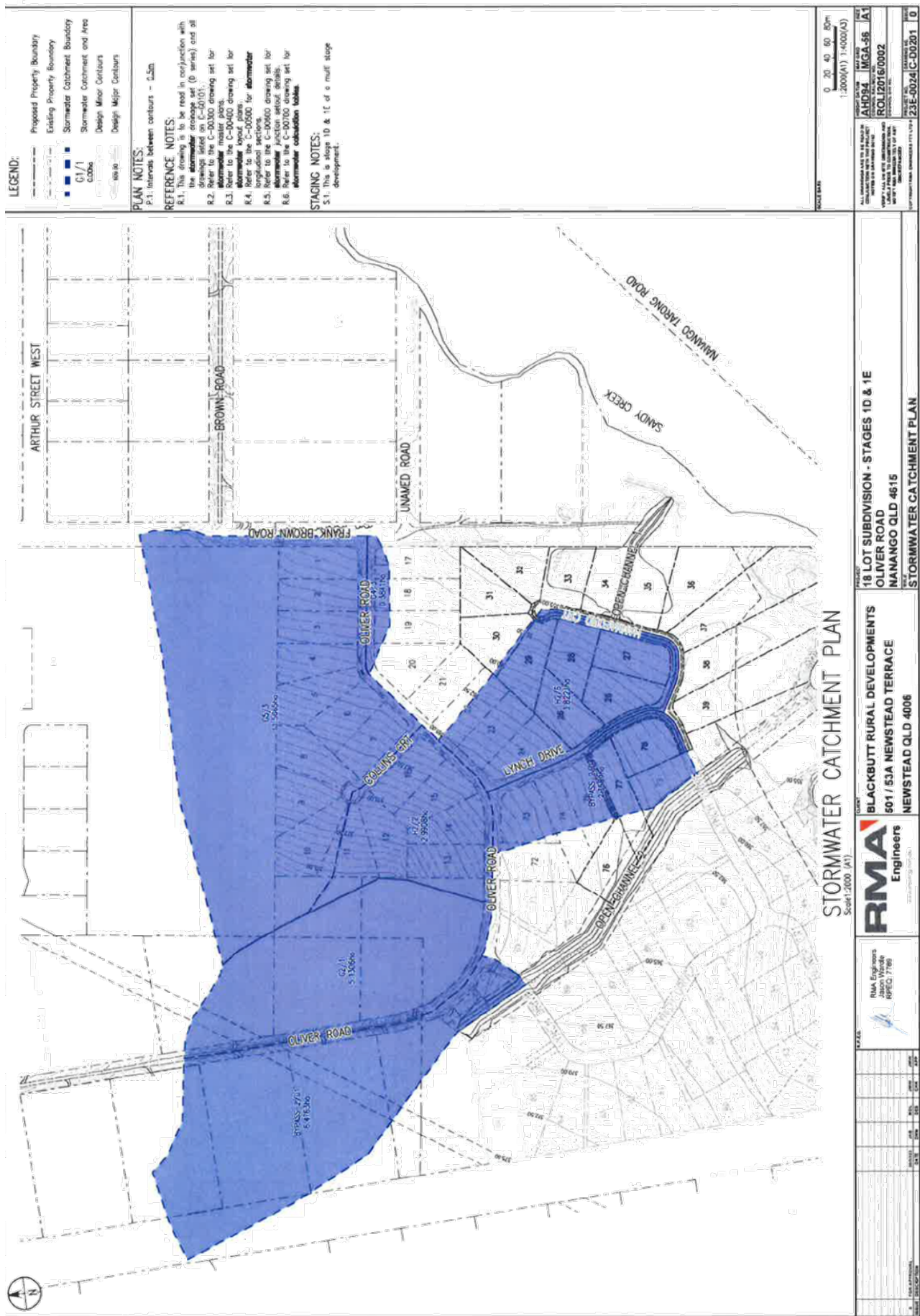
- K1. Fabricated kerb adapters shall be installed in accordance with the Council's standard drawing 01/15/001.
- K2. Kerb adapters shall be installed for all lots, which are able to drain to the street unless noted otherwise.
- K3. Property boundary effects from the kerb adapters shall typically extend 150mm upstream of the kerb edge.
- K4. Kerb adapters shall not be used.
- K5. Where new concrete kerbs are to be constructed, kerbs shall be installed perpendicular to the property boundary.

VERIFICATION

- V1.1. Site to be verified by Certified Engineer (minimum graduation requirements).
- V1.2. Pre-qualify and test.
- V1.3. Joint reinforcement and bands.
- V1.4. Lifting point plug and/or fill.
- V1.5. Site preparation and/or fill (include all pipes and 100mm).
- V1.6. Site preparation and/or fill (include all pipes and 100mm).
- V1.7. Site preparation and/or fill (include all pipes and 100mm).
- V1.8. Site preparation and/or fill (include all pipes and 100mm).
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<p>ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED</p> <p>UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED</p> <p>UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED</p>		<p>PROJECT NO: MCA-56</p> <p>PROJECT NAME: ROL12016/0002</p> <p>PROJECT DATE: 23E-0024 C-00101 0</p>
<p>18 LOT SUBDIVISION - STAGES 1D & 1E</p> <p>OLIVER ROAD</p> <p>NANANGO QLD 4615</p> <p>STORMWATER NOTES AND STANDARD DETAILS</p>		<p>BLACKBUTT RURAL DEVELOPMENTS</p> <p>501 / 53A NEWSTEAD TERRACE</p> <p>NEWS TEAD QLD 4006</p>
<p>RMA Engineers</p> <p>Engineers</p> <p>REG. 1718</p>		<p>DATE: 23/08/23</p> <p>SCALE: AS SHOWN</p> <p>BY: [Signature]</p> <p>CHECKED: [Signature]</p> <p>APPROVED: [Signature]</p>





STORM	SEWERAGE		STORM		STORM		STORM		STORM		STORM		STORM		STORM		STORM		STORM		STORM		STORM		STORM															
	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM	NO	DIAM														
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PROJECT: 18 LOT SUBDIVISION - STAGES 1D & 1E
OLIVER ROAD
NANANGO QLD 4615
STORMWATER CALCULATION TABLES - 2


CLIENT: BLACKBUTT RURAL DEVELOPMENTS
501 / 53A NEWSTEAD TERRACE
NEWSTEAD QLD 4006

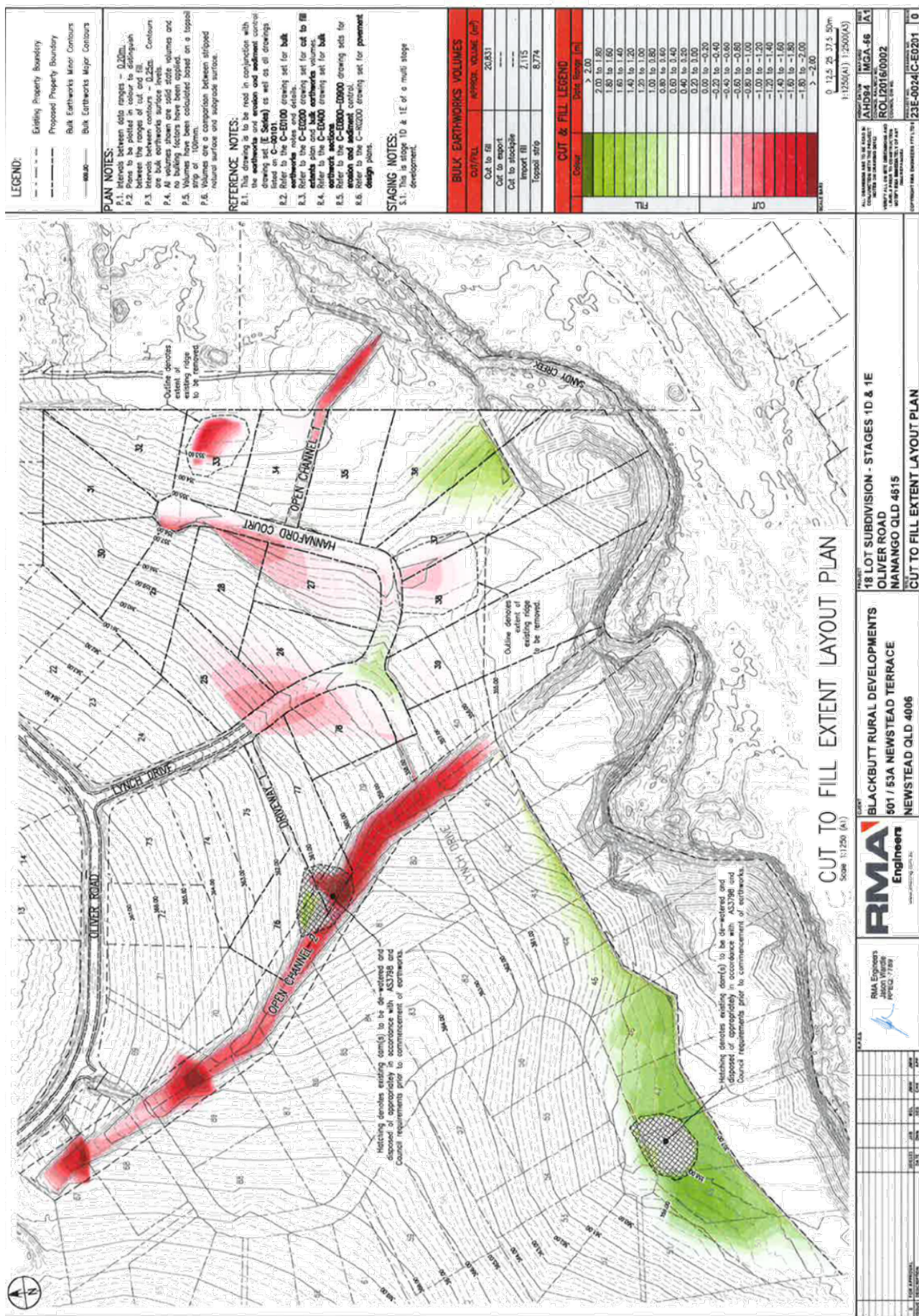
DATE: 23/08/2023

SCALE: 1:100

PROJECT NO: 23E-0024/C-00702

PROJECT: 18 LOT SUBDIVISION - STAGES 1D & 1E
OLIVER ROAD
NANANGO QLD 4615
STORMWATER CALCULATION TABLES - 2

EARTHWORKS NOTES		PROJECT		DRAWING		REVISIONS	
<p>GENERAL</p> <p>C.1. The drawing is to be read in conjunction with Project Notes on Drawing C-00102.</p> <p>C.2. In some instances a note may not apply and therefore can be ignored. It is the Contractor's responsibility to confirm whether a note applies or not with the Superintendent.</p>		<p>18 LOT SUBDIVISION - STAGES 1D & 1E</p> <p>OLIVER ROAD</p> <p>NANANGO QLD 4615</p>		<p>AHD94 MGA-56 A.1</p> <p>ROL2016/0002</p>		<p>23E-0024 C-ED101 0</p>	
<p>BULK EARTHWORKS</p> <p>EXISTING CONDITIONS</p> <p>B.1. Existing underground utilities to be removed and recompacted in layers as specified in these notes.</p> <p>B.2. All utilities will typically be maximum 100mm (4") unless specifically identified otherwise on the drawings.</p> <p>B.3. Prior to maintenance, all utilities deeper than 100mm (4") and greater than 1.5m in height shall be covered with synthetic BDM (1.4).</p> <p>COMPACTION REQUIREMENTS</p> <p>C.1. All fill material and cut platforms are to be compacted to 98% standard compaction.</p> <p>C.2. Subgrade material for new roadways shall be compacted to 98% standard compaction.</p> <p>TESTING REQUIREMENTS BUILDING PADS / ALLOTMENTS</p> <p>C.3. All building pads and allotments shall be tested to 98% standard compaction.</p> <p>C.4. Testing may be undertaken when all depths exceed 200mm.</p> <p>C.5. Level 1 inspector and testing to AS 1798.</p> <p>TESTING REQUIREMENTS SERVICE / DRAINAGE TRENCHES</p> <p>C.6. All testing to conform with AS 2798 and AS 1298.</p> <p>C.7. All tests to be completed in 10 business days.</p> <p>NUMBER OF COMPACTION TESTS</p> <p>C.8. Road crossings - 1 compaction test each 300 mm layer (all road crossings).</p> <p>C.9. Trafficable areas - 1 compaction test each 200 mm layer (maximum 50m width).</p> <p>C.10. Non-trafficable areas - 1 compaction test each 800mm layer (maximum 100% covered).</p> <p>C.11. Retention of the notes - 1 compaction test per 100m² after installing a road system.</p> <p>CERTIFICATION</p> <p>C.12. The contractor shall submit certification of all test results which establish the compliance of all compacted material with the Certifying Engineer.</p> <p>C.13. The contractor has ten (10) days to submit compaction test results after proof rolling each layer.</p> <p>PROOF ROLLING</p> <p>P.1. As a minimum, the contractor shall proof roll the following:</p> <ul style="list-style-type: none"> P.1.a. Sub-grade layer P.1.b. All sub-base layers P.1.c. All base layers P.1.d. Forward subgrade method bedding material <p>P.2. The Certifying Engineer, at their discretion, may require cut and fill road pavement layer if the site receives more than 10 mm of rain during any 24 hour period.</p> <p>PROOF ROLLING</p> <p>V.1. Site work by Certified Engineer (minimum indication requirements).</p> <p>V.1.a. Refer to Certification and Proof Rolling notes.</p>		<p>BLACKBUTT RURAL DEVELOPMENTS</p> <p>601 / 53A NEWSTEAD TERRACE</p> <p>NEWSSTEAD QLD 4006</p>		 <p>RMA Engineers Rural & Infrastructure 10/1100</p>		<p>18 LOT SUBDIVISION - STAGES 1D & 1E</p> <p>OLIVER ROAD</p> <p>NANANGO QLD 4615</p> <p>BULK EARTHWORKS NOTES AND STANDARD DETAILS</p>	



EROSION AND SEDIMENT CONTROL NOTES

GENERAL

- E.1. This drawing is to be read in conjunction with Project Notes on drawing C-001-02.
- E.2. In some instances a note may not apply and therefore can be ignored. It is the Contractor's responsibility to confirm whether a note applies or not to the Superintendent.

GENERAL CONTROL OF SEDIMENT

- E.3. The sediment and erosion management of the site during construction (inclusive of the maintenance period) is the responsibility of the Contractor. The Superintendent will monitor the Contractor's performance in this regard. The Superintendent will issue instructions to the Contractor to ensure that the site is maintained in accordance with the requirements of this drawing.
- E.4. The Contractor shall be responsible for the protection of the public infrastructure network from sediment. All drainage lines, roads and public infrastructure shall be cleared of all sediment and debris prior to or during construction.
- E.5. Any erosion and sediment control measures shown within the documentation is to be installed and maintained by the Contractor. The Contractor is responsible for maintaining any erosion and sediment control measures in accordance with the requirements of this drawing.
- E.6. The Contractor shall engage a suitably qualified person to prepare a certified erosion and sediment control plan with relevant design capabilities to cover all works activities. A suitably qualified person may be a QPESC (Certified Professional in Erosion and Sediment Control), RPEQ or an otherwise qualified person by the relevant authority.
- E.7. The Contractor is responsible for monitoring and modification of all erosion and sediment control measures. The Contractor shall ensure that all erosion and sediment control measures are maintained in accordance with the requirements of this drawing.
- E.8. It is the Contractor's responsibility to comply with all statutory requirements, environmental guidelines and relevant authority requirements relating to erosion and sediment control at all times during the construction period.
- E.9. All erosion areas shall be stabilised at the end of the construction works. Stabilisation costs are to be borne by the Contractor as part of the overall sediment and erosion control plan.
- E.10. The Contractor is to implement suitable dust control measures at all times.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

- E.11. Avoid activities and materials until necessary.
- E.12. Construction of an embankment to the site should be managed so that sediment is not washed off the site.

BULK EARTHWORKS

- E.13. Topsoil should be stockpiled on site for later use.
- E.14. Where practicable maintain vegetation in a healthy state during the construction process.
- E.15. Any areas of bare earth should be covered with a suitable material to prevent erosion of soil from through an undisturbed area.

CONSTRUCTION OPERATIONS

- E.16. These plans suggest minimum conceptual sediment and erosion protection for the construction period of the development. The Contractor shall be responsible for all erosion and sediment control measures on site during the construction and defects liability period of the development.
- E.17. Advise to stormwater risk protection (diagram on SMPA) standard drawing DS-041 or detail as noted by suitably qualified QPESC/CPESC engaged by Contractor.
- E.18. Place 120mm thick plate over manholes with C1 frames and ISI cover. This is to keep sediment out of drainage system.
- E.19. Check dams for new roads are to be placed at 42° to the road as specified.
- E.20. Road grade (5% x 100m) - 40m maximum centres.
- E.21. Road grade (10% x 100m) - 20m maximum centres.
- E.22. Erosion material (including accidental spillage and leakage) must be prevented from entering the road network.
- E.23. Road grade (5% x 100m) - 40m maximum centres.
- E.24. Road grade (10% x 100m) - 20m maximum centres.
- E.25. Erosion material (including accidental spillage and leakage) must be prevented from entering the road network.
- E.26. All water should be swept from the road, not washed down the gutter.
- E.27. All water should be stored on site in such a manner that it is prevented from leaving the site either by the action of wind or water.
- E.28. Smaller materials, such as silt, should be contained in covered bins.

STOCKPILES

- E.29. Stockpiles are not to be sited on the footprint of the road reserve, unless approved by the relevant authority.
- E.30. Where necessary stockpile bases can be constructed with the use of cover.
- E.31. All stockpiles and building materials should be located within the sediment control zone.
- E.32. To prevent erosion and the loss of silt and soil, stockpiles should not be located within a sediment control zone. If a stockpile must be located within a sediment control zone, the Contractor shall ensure that the stockpile is protected from erosion by the use of a sediment control measure around the stockpile.

SEDIMENT BARRIERS

- E.33. Install sediment (fence) along the low side of the site and ideally along a line of constant land level to prevent the concentration of stormwater runoff. In areas where it is either undesirable or impractical to bury the lower edge of the sediment fence, the lower 200mm (minimum) portion of the fence should be placed on the ground surface. The fence should be constructed in accordance with the requirements of this drawing. The fence should be constructed in accordance with the requirements of this drawing.

FIELD INLET BOLLIES

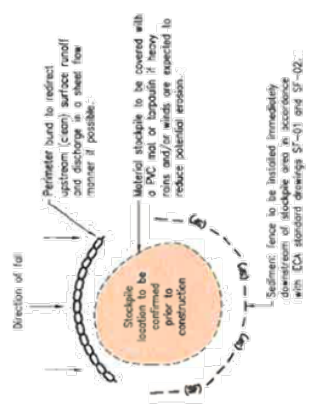
- E.34. Sediment controls for stormwater inlets located within the property boundaries may consist of a perimeter bolly either along the edge of the inlet or around the inlet support by a post-and-rail system. During storms, ponding should be allowed to occur around the stormwater inlet to assist in the settling out of sediments. Refer DWGA DS-441 for detail as noted by suitably qualified QPESC/CPESC engaged by Contractor.
- E.35. Near road inlet bollies are to be installed, so that it should not be allowed to fully block the inlet. Bollies should be installed in a manner that allows for the inlet to be cleared from silt and gravel bags at least 4 metres up slope from the inlet.

GRASS SEEDING AND TURFING

- E.36. All disturbed areas are to be seeded, as specified, within seven days of final finishing.
- E.37. After final finishing of locality provide two kilos of turf minimum (40m wide to back of slab) and turfing as specified.

MAINTENANCE

- E.38. Sediment control measures should be inspected if the fabric is ripped or otherwise damaged. The fabric should be replaced if it is damaged. The Contractor shall be responsible for the replacement of the fabric when the fence is 20% full.
- E.39. Following storm events, the road reserve and all sediment barriers should be inspected and any necessary sediment removal should be appropriately removed.
- E.40. The Contractor shall maintain all sediment control devices for the full extent of the defects liability period.



TYPICAL STOCKPILE DETAIL

Bags will primarily be 30-40kg fertilizer bags filled to 75% capacity with a sand based material. Bags to be mentioned with vegetation is stabilisation.

ROAD GRADE	CHECK DAM SPACING
0%	24.00 (m)
> 4.5%	42.00 (m)
5% - 10%	30.00 (m)

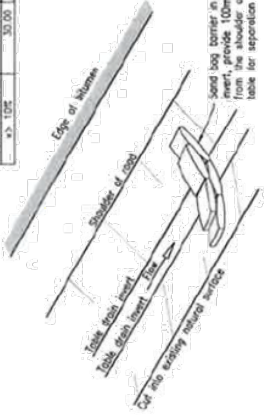
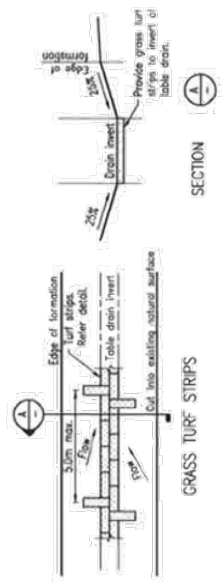


TABLE DRAIN SEDIMENT & EROSION CONTROL



BLACKBUTT RURAL DEVELOPMENTS
601 / 53A NEWSTEAD TERRACE
NEWS TEAD QLD 4006

RMA Engineers
 RMA Engineers
 10/100 WINDYBUSH ROAD
 WINDYBUSH QLD 4006

PROJECT INFORMATION
 PROJECT NO: 23E-0924
 SHEET NO: 01
 DATE: 23/08/2023

CLIENT INFORMATION
 CLIENT: RMA Engineers
 PROJECT: 601 / 53A NEWSTEAD TERRACE
 SHEET NO: 01
 DATE: 23/08/2023

DESIGNER INFORMATION
 DESIGNER: RMA Engineers
 PROJECT: 601 / 53A NEWSTEAD TERRACE
 SHEET NO: 01
 DATE: 23/08/2023

APPROVALS
 APPROVED BY: [Signature]
 DATE: 23/08/2023
 APPROVED BY: [Signature]
 DATE: 23/08/2023

LEGEND
 1. EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SCALE
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NOTES
 ALL DIMENSIONS ARE TO BE AS SHOWN UNLESS OTHERWISE SPECIFIED.
 REFER TO THE PROJECT INFORMATION SHEET FOR THE PROJECT DETAILS.
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PROJECT INFORMATION
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 SHEET NO: 01
 DATE: 23/08/2023

CLIENT INFORMATION
 CLIENT: RMA Engineers
 PROJECT: 601 / 53A NEWSTEAD TERRACE
 SHEET NO: 01
 DATE: 23/08/2023

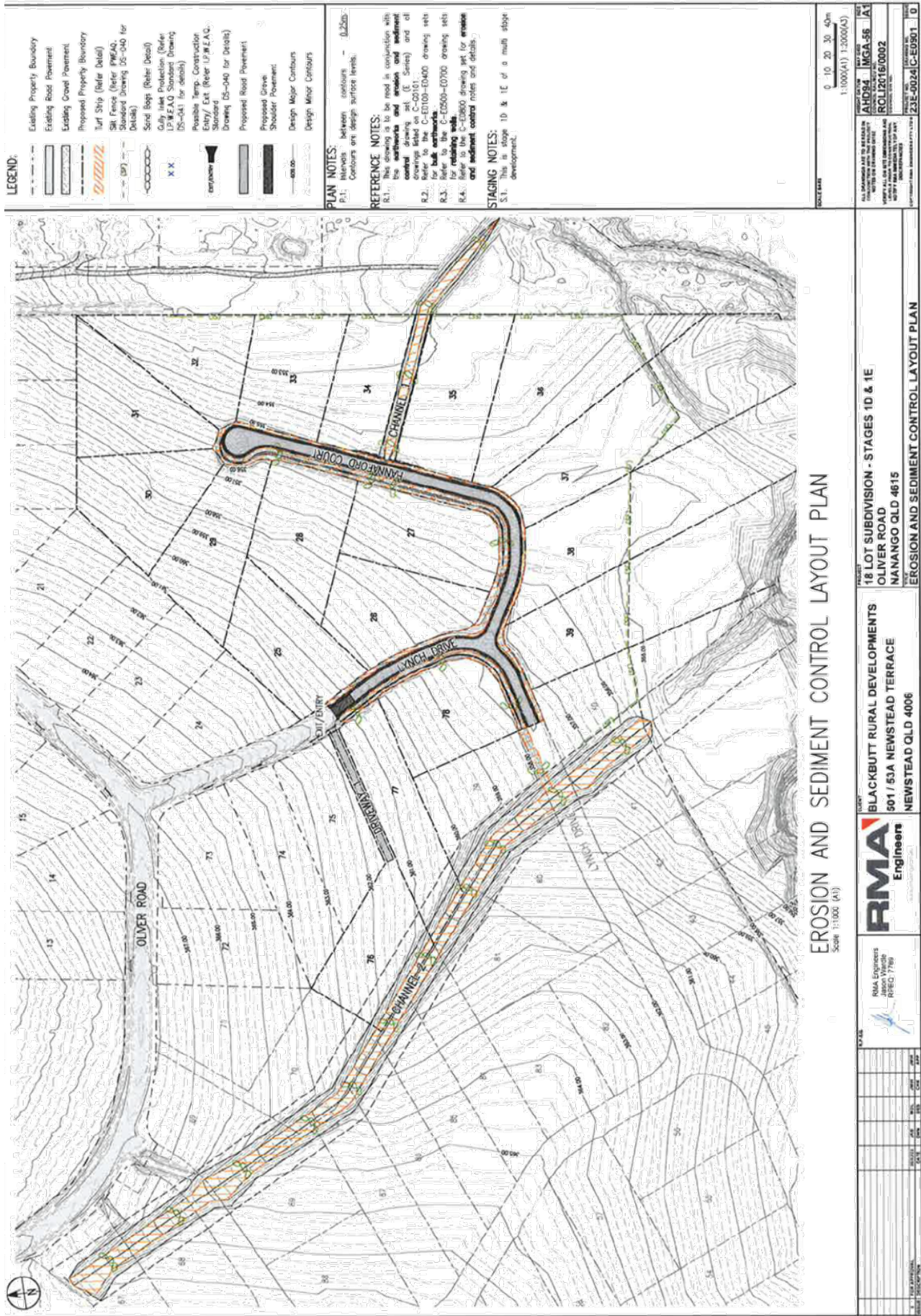
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 PROJECT: 601 / 53A NEWSTEAD TERRACE
 SHEET NO: 01
 DATE: 23/08/2023

APPROVALS
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 DATE: 23/08/2023
 APPROVED BY: [Signature]
 DATE: 23/08/2023

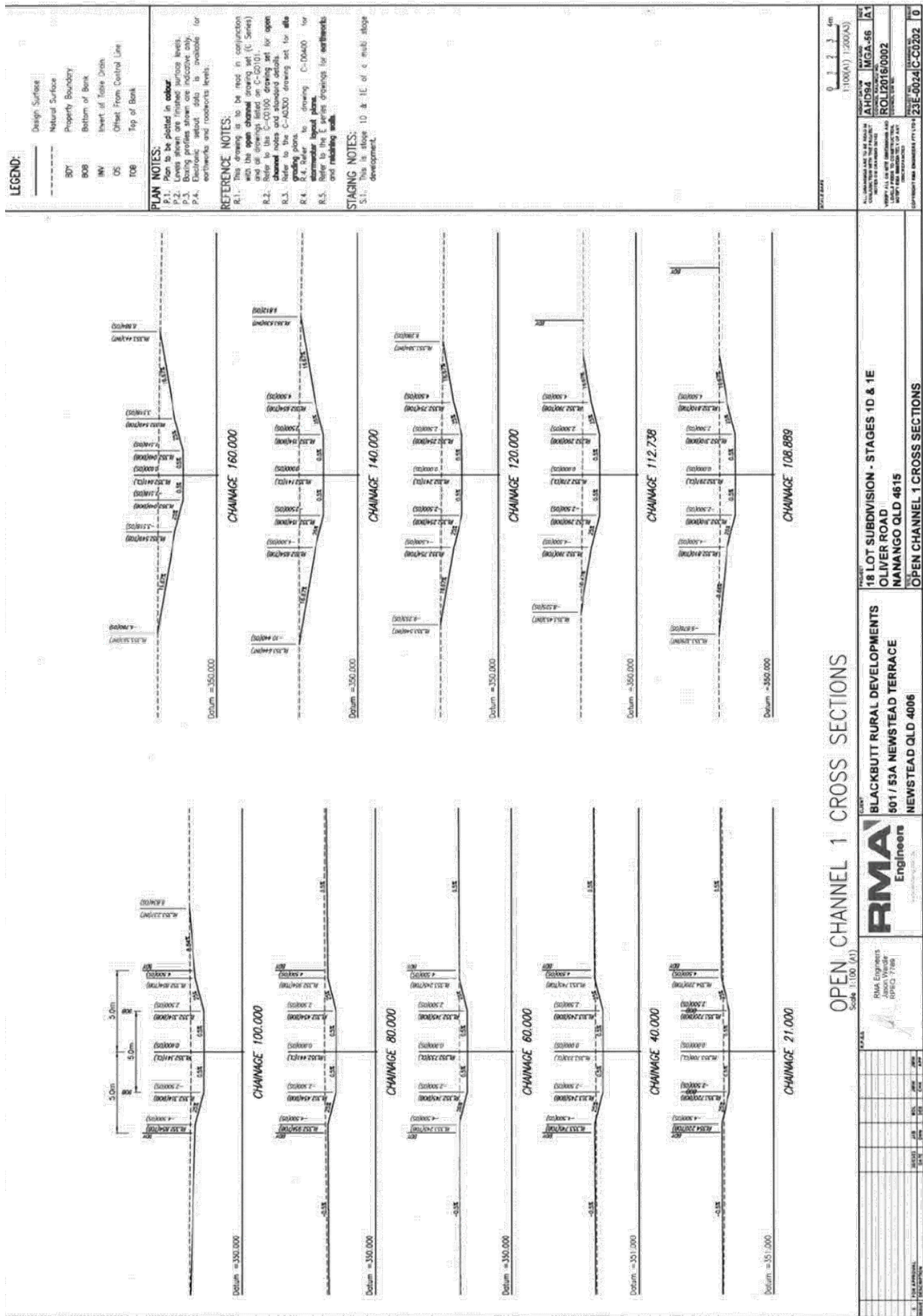
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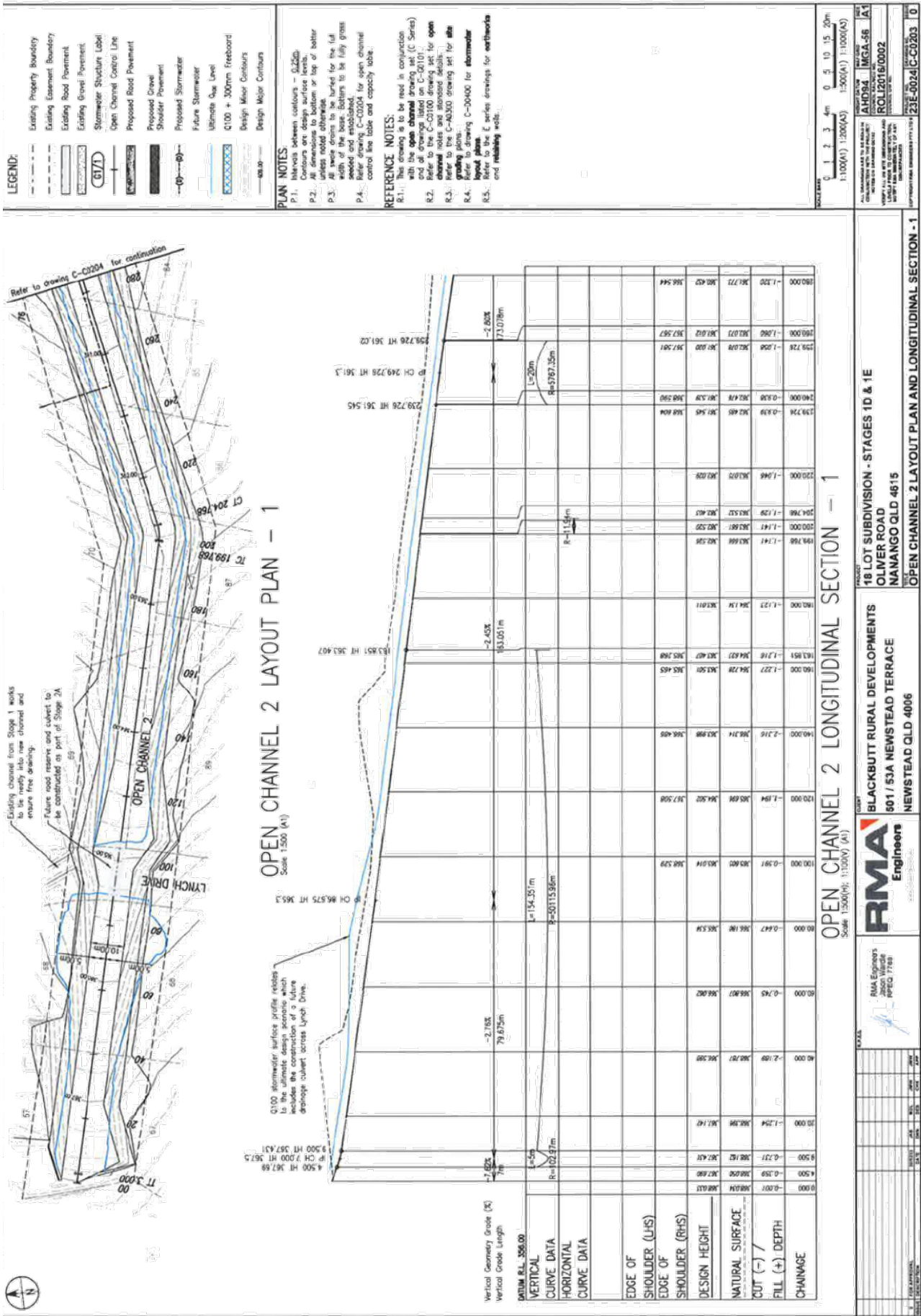
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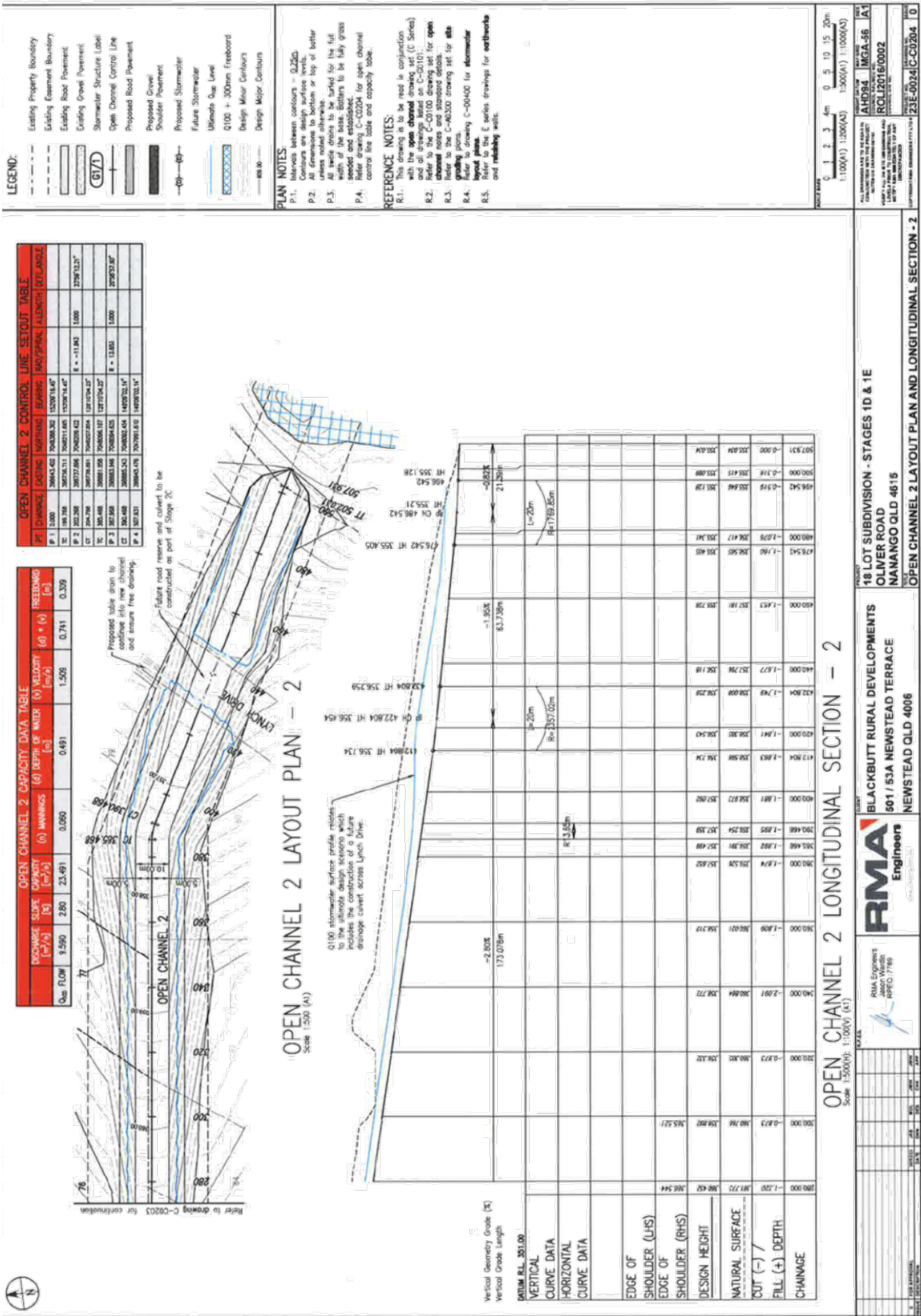
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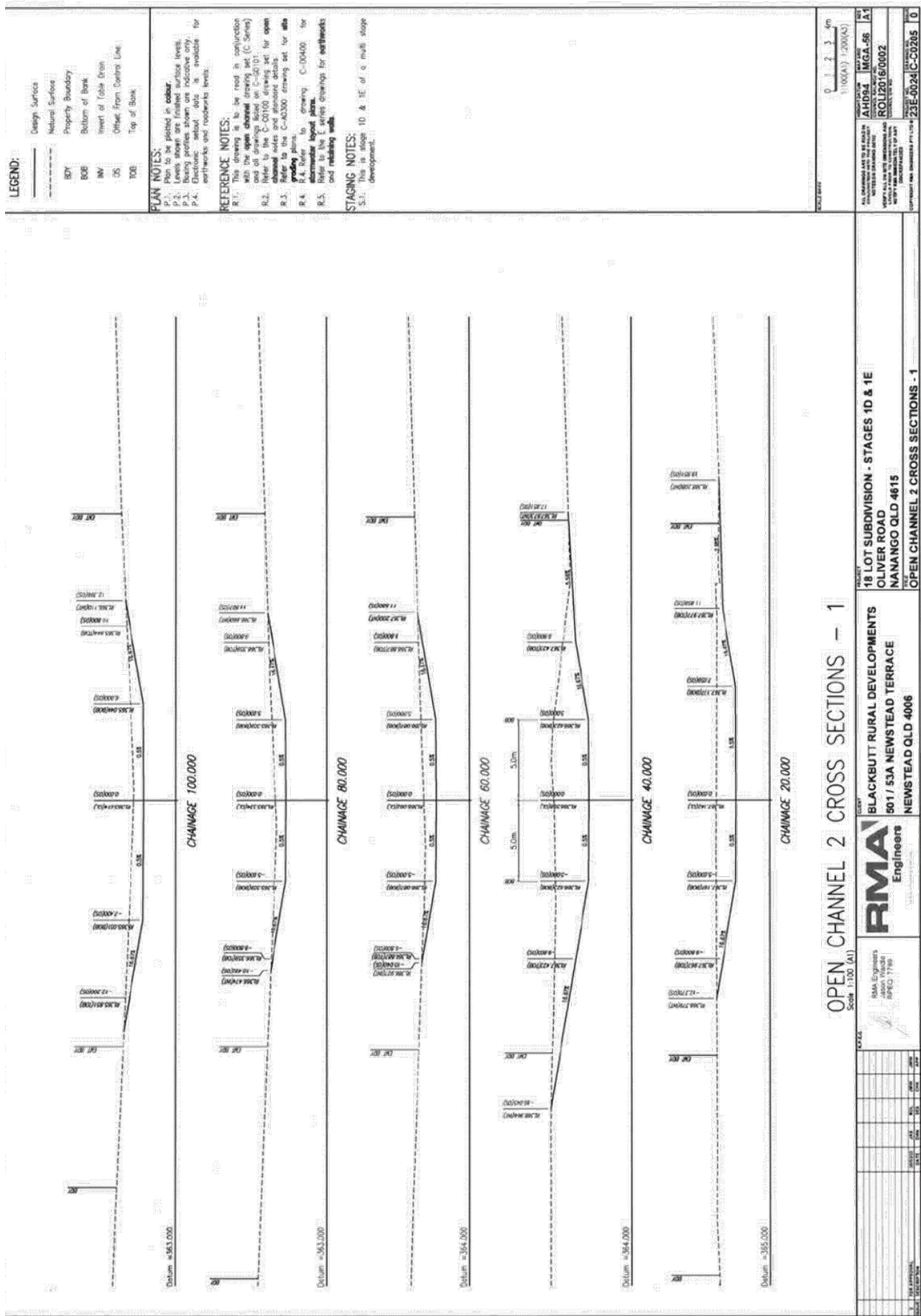


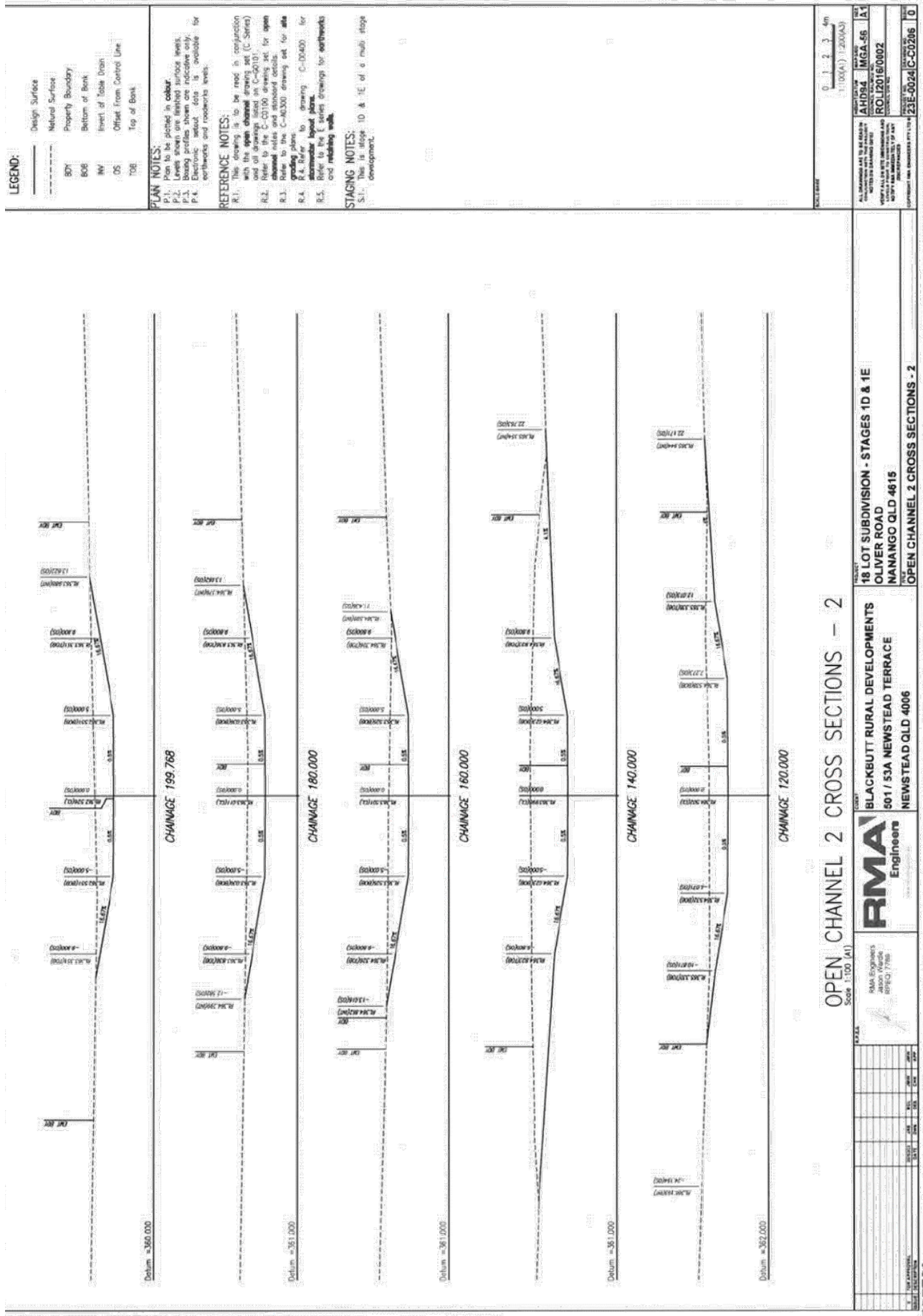


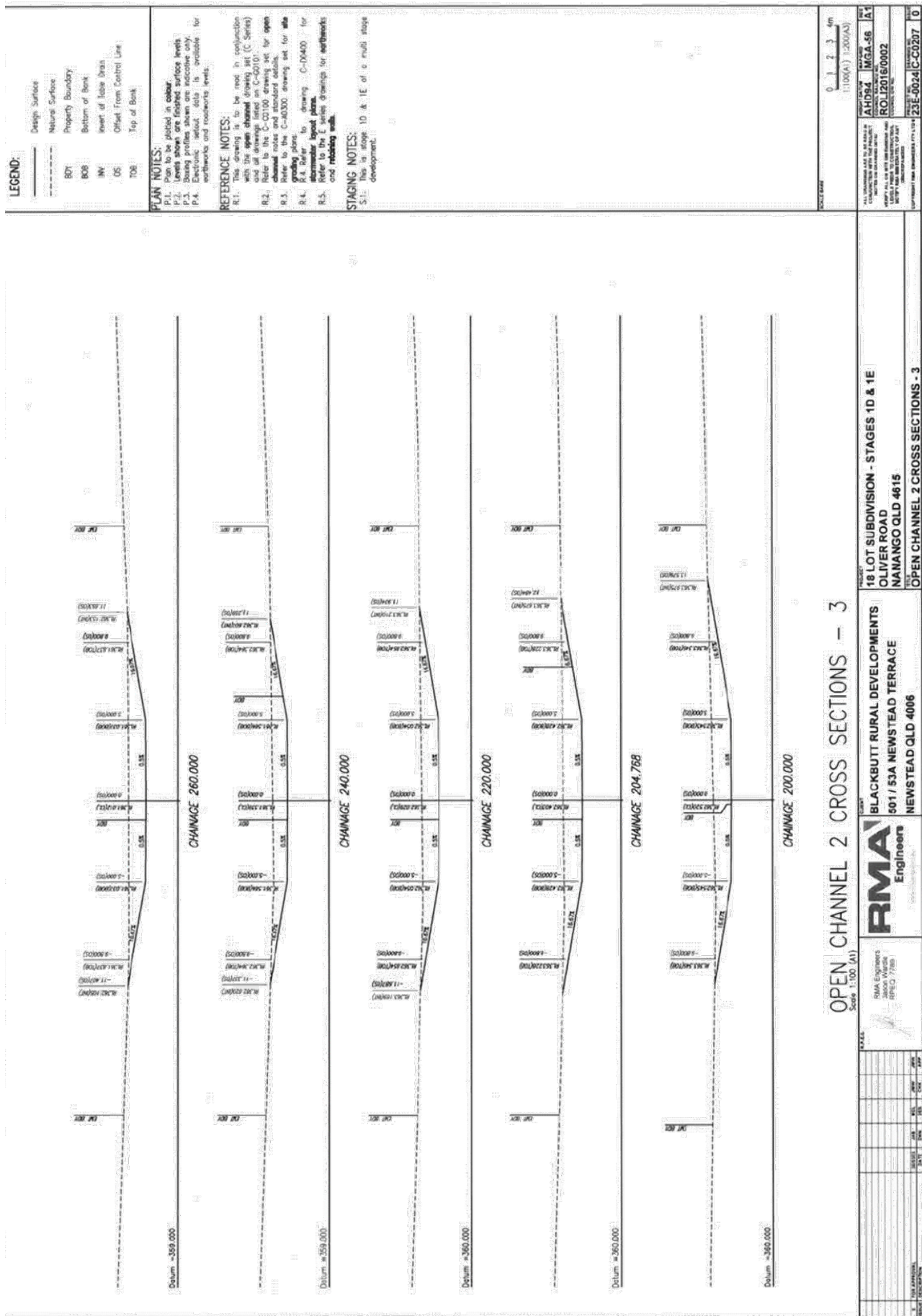


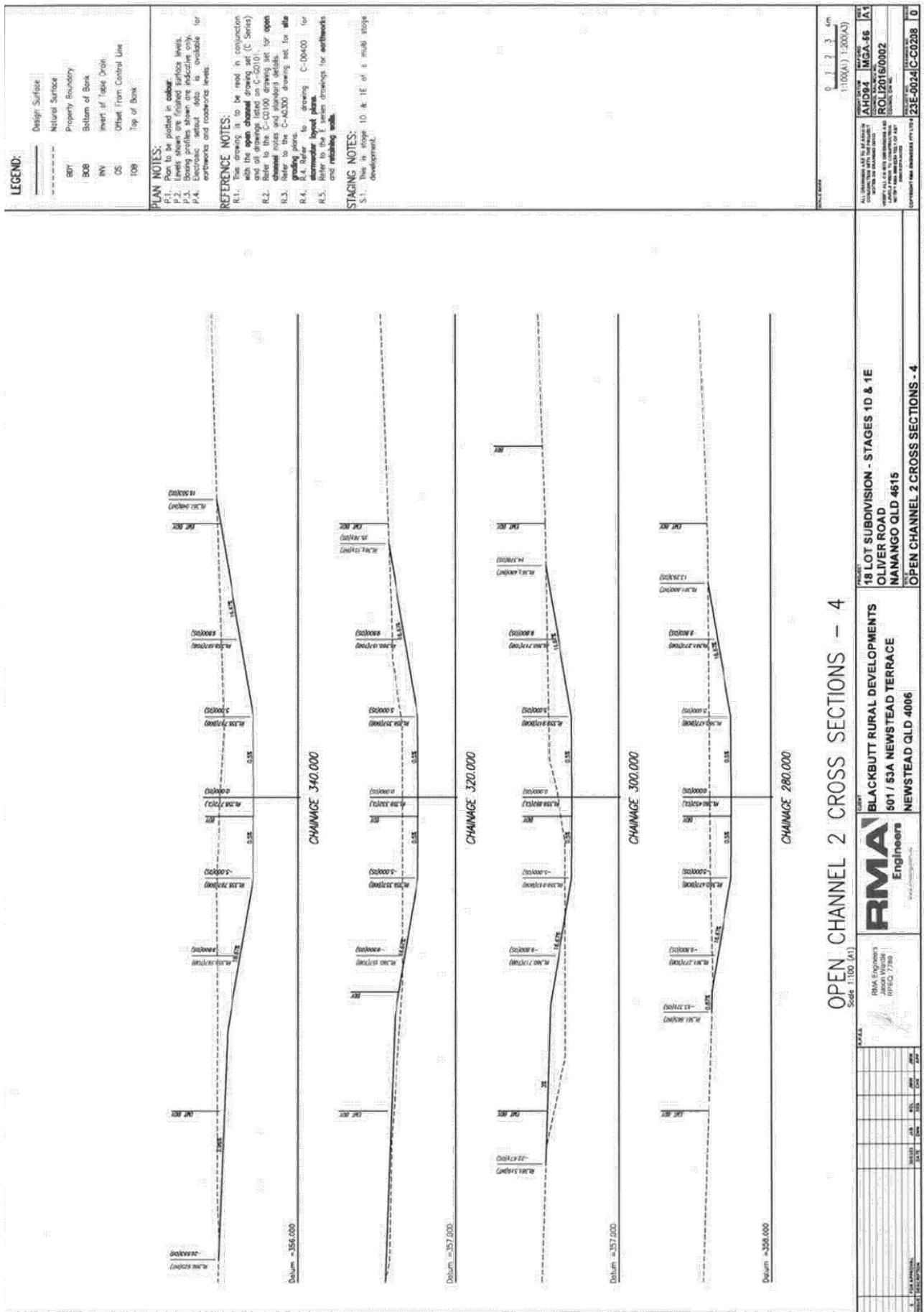


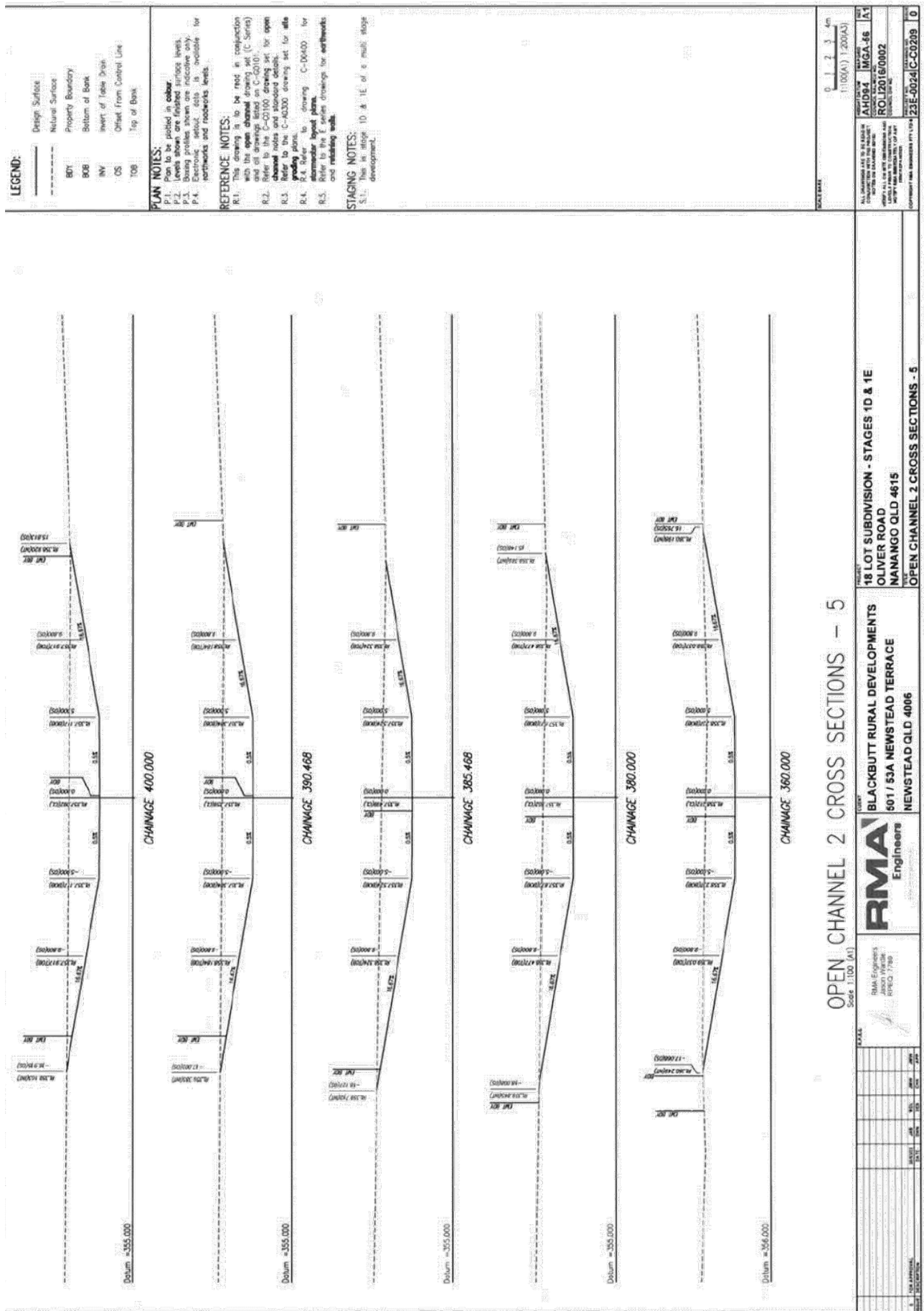


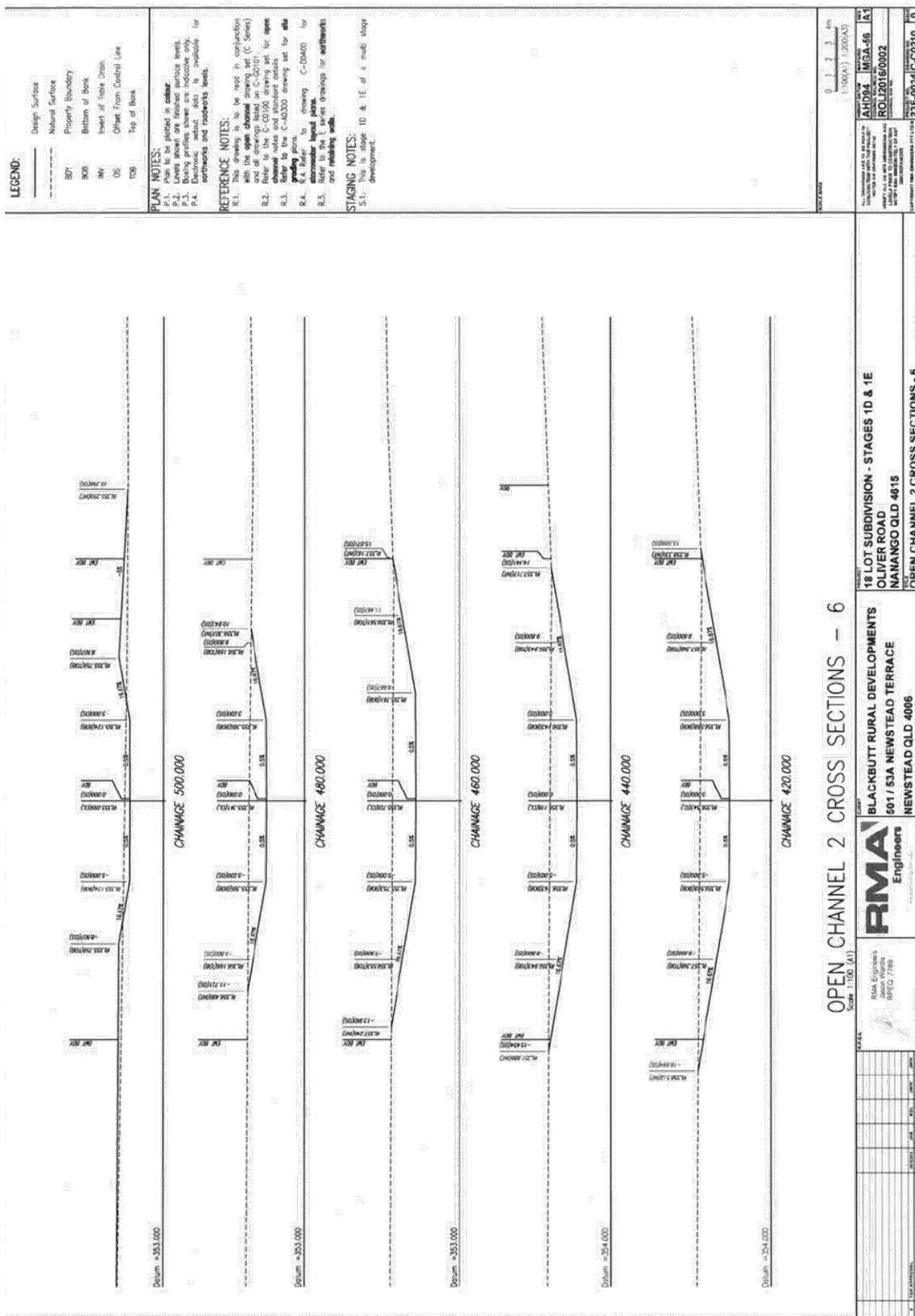












OPERATIONAL WORK (ROADWORK, STORMWATER, WATER INFRASTRUCTURE, DRAINAGE WORK, EARTHWORKS & SEWERAGE INFRASTRUCTURE) AT PLAYER STREET (AND DESCRIBED AS LOT 200 ON SP2499032). APPLICANT: B S HEDGE

File Number: OPW23/0008
Author: Engineering Contractor, Development Services
Authoriser: Chief Executive Officer

Coordinator development services MANAGER	SIGNATURE	DATE
Acting G-M	[Redacted Signature]	06/07/23
CEO	[Redacted Signature]	7/7/23
		7.7.2023

PRECIS

Operational Work (Roadwork, Stormwater, Water Infrastructure, Drainage Work, Earthworks & Sewerage Infrastructure) at Player Street (and described as Lot 200 on SP2499032). Applicant: B S Hedge

SUMMARY

- Development application for a Development Permit for Operational Work (Roadwork, Stormwater, Water Infrastructure, Drainage Work, Earthworks & Sewerage Infrastructure) at Player Street Nanango;
- Development Permit for Operational Work is a requirement to fulfil the Conditions of Approval for RAL22/0013;
- The proposed Development Permit for Operational Work is recommended for approval subject to conditions.
- The conditions proposed in the officer's recommendation are in accordance with South Burnett Regional Council's Planning Scheme, development guidelines and best practices.

OFFICER'S RECOMMENDATION

It is recommended that Council approve the development application for Operational Work (Roadworks, Stormwater, Water Infrastructure, Drainage Work, Earthworks & Sewerage Infrastructure) on land described as Lot 200 on SP149902 and situated at Player Street, Nanango, subject to the following conditions:

GENERAL

- ENG 1 Compliance with the plans and specifications submitted with Development Application OPW23/0008, approval conditions, all Council Planning Scheme Policies and Reconfiguration of a Lot Approval No. RAL22/0013.
- ENG 2 This approval extends to Engineering works, Stormwater, Water Supply and Sewer, Roadworks, and Earthworks as detailed, and is conditional upon a set of "Issued for Construction" drawings, amended if required by the conditions of this approval, being submitted to Council for endorsement, prior to pre-start meeting.
- ENG 3 Undertake all approved works and works required by conditions of this development approval at no cost to Council.
- ENG 4 Submit to Council, electrical underground power and street lighting plans certified by a suitably qualified Engineer (RPEQ – Electrical) for endorsement, prior to Council's endorsement of the Plan of Survey. Be responsible to check and ensure that electrical drawings do not conflict with the civil engineering design.
- ENG 5 Submit to Council for approval, an Inspection and Test Plan certified by a suitably qualified Engineer (RPEQ – Civil) prior to commencement of any work and prior to any pre-start meeting.

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25 December 2030

ENG 6 Pay to Council, inspection fees based on Council's Fees and Charges current at the time of commencement of works and based on the estimated project cost as estimated or accepted by Council prior to the pre-start meeting.

ENG 7 Adhere to the following hours of construction unless otherwise approved in writing by Council:

Monday to Saturday:	7.00am to 6.30pm	Noise permitted
Monday to Sunday:	6.30pm to 7.00am	No noise permitted
Sunday and Public Holidays:		No noise permitted

Do not conduct work or business that causes audible noise from or on the site outside the above hours.

ENG 8 Be responsible to carry out Work Health and Safety legislative requirements.

ENG 9 Ensure all work sites are maintained in a clean, orderly state at all times.

ENG 10 Manage all waste in accordance with the relevant legislation and regulations and dispose of regulated waste at a licensed facility of South Burnett Regional Council by a licensed regulated waste disposal contractor.

ENG 11 Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG 12 Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development, immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damage immediately upon completion of works associated with the development.

ENG 13 Submit to Council, a Certification from a suitably qualified Engineer (RPEQ) that the works have been undertaken in accordance with the approved plans and specifications and to Council's requirements, prior to Council's endorsement of the Plan of Survey/commencement of the use.

ENG 14 Submit to Council, a Condition Compliance Checklist confirming all conditions of approvals have been complied with prior to submission of the Survey Plan for endorsement by Council.

ENG 15 Works are to be constructed generally in accordance with the specification requirements outlined in Aus-Spec #1 and the IPWEAQ Standard Drawings unless otherwise approved by South Burnett Regional Council.

ROADWORKS

ENG 16 Submit to Council for approval, final pavement designs certified by an RPEQ to Austroads' or the Department of Transport and Main Roads' design standards after stripping of topsoil and assessment of soaked sub-grade CBR values.

ENG 17 Ensure fill placed under the road formation in embankment situations is compacted to achieve 98% standard compaction. Testing and supervision of such fill must be in accordance with the testing requirements of EDROC and at Level 2 Supervision of AS3798.

ENG 18 Ensure that backfilling of road crossings with an insitu material to subgrade level is compacted to achieve 97% standard compaction.

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25 December 2030

- ENG 19 Base gravel is to be Type 3, Subtype 2 material unless otherwise approved by Council. Provide recently undertaken compliance testing from the stockpile used for the project for materials from non-certified Quarries by Council.
- ENG 20 Sub-base gravel is to be Type 3, Subtype 3 material unless otherwise approved by Council. Provide recently undertaken compliance testing from the stockpile used for the project for materials from Quarries non-certified by Council.
- ENG 21 The AC10 surfacing shall be a minimum of 40mm thick, over a hot bitumen primer-seal with 7mm aggregate cover material, or as approved otherwise by Council.
- ENG 22 Provide temporary signage and traffic control for construction in dedicated road reserves in accordance with Part 3 (Works on Roads) of Manual of Uniform Traffic Control Devices (MUTCD) - Department of Transport and Main Roads.
- ENG 23 Install and/or modify all street signs and linemarking to suit the new works in accordance with the MUTCD. Install new or relocated signage using V-Lok installation system. All new signage shall be Class 1 retro-reflective material to AS1743.
- ENG 24 Submit to Council for approval, a Traffic Management Plan prior to commencement of any works involving closing of Council roads or working on or adjacent to existing roads.

STREET TREES

- ENG 25 Street trees shall be planted at a maximum spacing of 15m on both side of the new roads. Submit a plan to Council for approval the proposed tree types and construction requirements. The South Burnett Regional Council "*Branching Out*" guide shall be used to determine suitable tree species.

STORMWATER

- ENG 26 Provide a Closed Circuit Television (CCTV) inspection undertaken by an accredited provider, of all underground stormwater drainage.
- ENG 27 Ensure that earthworks and fill on the subject land do not lead to ponding of stormwater or actionable nuisance and ensure all lots, both internal and adjoining, drain freely to a lawful point of discharge in accordance with the Queensland Urban Drainage Manual.
- ENG 28 Do not concentrate stormwater onto adjoining properties.
- ENG 29 Energy dissipation and scour protection measures at culvert outlets shall be twice the size recommended in QUDM.
- ENG 30 Stormwater Line 1 shall be redesigned to relocate manhole P3/1 outside of the roadway, unless otherwise approved by Council. Any changes to the design shall be approved by Council prior to construction.

DEVELOPMENT WORKS

- ENG 31 Maintain erosion and sedimentation controls at all times during the course of the project and the ensuing defects liability period. Council Officers will inspect and assess the sediment and erosion control measures and temporary fencing implemented, and any alterations and/or supplementary works required must be incorporated.
- ENG 32 Implement measures to prevent site vehicles tracking sediment and other pollutants from the site onto adjoining streets during the course of the project, and to prevent dust nuisance during construction.

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25 December 2030

- ENG 33 Be responsible for protecting nearby property owners from dust pollution arising from construction and maintenance of the works required by this approval, and comply with any lawful instructions from the Assessment Manager if, in his opinion, a dust nuisance exists.
- ENG 34 Waste material as a result of demolition work and excavation work must not be used as fill as described within the *Waste Reduction and Recycling Act 2011*.

EARTHWORKS

- ENG 35 Supervise bulk earthworks to Level 1 or Level 2 as applicable, and have a frequency of field density testing carried out in accordance with Table 8.1 of AS3798.
- ENG 36 Contain cut or fill batters wholly within the subject land. Do not place fill on adjacent properties without providing Council with written permission from the respective property owner(s).
- ENG 37 Do not store plant or material on adjoining lands without written permission from the respective property owner(s).
- ENG 38 Do not use contaminated material as fill on the site. Undertake any filling using inert materials only, with a maximum particle size of 75mm.
- ENG 39 Ensure open drains and fill platforms are constructed with a longitudinal grade on no less than 0.1%.
- ENG 40 Submit to Council, the following for approval in the event it is proposed to import material to or export material from the site, prior to commencement of the work:
 - details of the location of any material to be sourced for fill including the volume of fill to be moved from any particular source site;
 - details of the final location for any material to be exported from the site from excavations including the volume to be moved to any particular site; and
 - the proposed haulage route(s) and truck sizes for carting of the material.

Note: Further Development Applications may be required to be submitted to and approved by Council for sites proposed to import material from or export material to, or conditions may be applied to any sites endorsed in accordance with this condition, eg submit a Traffic Management Plan to Council for acceptance, or rehabilitation of the site. Any required approvals are to be in place prior to commencement of the work.

This approval does not extend to any material proposed to be imported to or exported from the site:

- other than from or to site(s) that have a current Development Approval enabling them to export/accept any material; or
- the material is being exported to and accepted at a licensed Council refuse facility.

SEWERAGE

- ENG 41 Construct sewerage networks in accordance with the *WBBROC Design and Construction Standards*, Council Specifications, and Customer Service Standards.
- ENG 42 Conduct vacuum testing, cleaning and CCTV video inspection to a Council approved standard.
- ENG 43 Provide Council's Engineering Services with a minimum of 2 working days notice when any temporary stoppages to sewage flow are expected.

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25 December 2030

- ENG 44 All live works associated with sewerage must be performed by South Burnett Regional Council (or under the supervision of a South Burnett Regional Council Officer if considered appropriate).
- ENG 45 All house connection branches are at the developers expense, even if carried out by Council. House connection branches shall be constructed in accordance with Council requirements.
- ENG 46 Mark house connection branches with a single vertical PVC electrical conduit (or similar material) 40mm in diameter and 2,000mm long, placed at the invert of the HCB and brought to surface, and mark with the Words "*Sewer Connection 2 M*".

Comment: The existing sewer main on the eastern side of the development is asbestos concrete. Appropriate safety and construction measures shall be implemented when working with, or in proximity to the sewer.

WATER SUPPLY

- ENG 47 Construct water supply networks in accordance with the *WBBROC Design and Construction Standards*, Council Specifications, and Customer Service Standards.
- ENG 48 All live works associated with water must be performed by South Burnett Regional Council (or under the supervision of a South Burnett Regional Council Officer if considered appropriate).
- ENG 49 Install valve markers and hydrant markers including RPMs on the completed roads to Council's standards.
- ENG 50 Water mains are to conform to a minimum Class 16 pipe and ensure construction works are completed, cleaned, super chlorinated, swabbed, and bacteriologically tested in accordance with the *WBBROC Design and Construction Standards* prior to connection to existing Council mains.
- ENG 51 Provide fire hydrants in all new roads at intervals of not more than 80 metres.
- ENG 52 Provide property connections in accordance with Council's Water Service Connection requirements for every lot. Ensure services are:
- (a) terminated with an approved stop tap in accordance with the Standard Drawing;
 - (b) "live" during water main testing and shall be left live after construction; and
 - (c) "open" for testing at the on-maintenance inspection.
- ENG 53 Do not keep any external water services interrupted for more than a cumulative total of three hours during development works, and a minimum of five (5) days notice of any interruptions must be provided to Council and any relevant consumers.

INSPECTIONS AND TESTING

- ENG 54 Submit to Council the pre-start meeting agenda at the confirmation of a date and time for the meeting.
- ENG 55 Provide Council with a minimum of two clear working days' notice to undertake compulsory inspections and meetings at the following stages:
- (a) Pre-start meeting with Council, Contractor, Supervising Engineer and developer;
 - (b) Water: in accordance with Council's Minimum Requirements for Water and Sewerage Works, and:
 - (i) prior to backfilling of each water main;
 - (ii) prior to backfilling of each water connection point;
 - (iii) prior to connection of any works to the reticulated water supply systems;
 - (iv) at the time of super-chlorination works and swabbing of mains; and

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- (v) at the time of any testing of each and every water main;
 - (c) Sewer: in accordance with Council's Minimum Requirements for Water and Sewerage Works, and:
 - (i) prior to backfilling of each sewer main;
 - (ii) prior to backfilling of each property connection point;
 - (iii) prior to connection of any works to the existing sewer network;
 - (iv) at the time of any testing of each and every sewer main; and
 - (v) at the time of CCTV inspection to facilitate Council's acceptance of the works on and off-maintenance;
 - (d) Stormwater:
 - (i) prior to backfilling of any stormwater drainage works; and
 - (ii) at the time of CCTV inspection to facilitate Council's acceptance of the works on and off-maintenance;
 - (e) Structural steel inspection prior to pouring of any structural concrete including cast in-situ stormwater and sewer manholes and gully pits;
 - (f) prior to back filling road crossings;
 - (g) following preparation and compaction of road sub-grade;
 - (h) following placement and compaction of each road pavement layer and prior to laying of the next pavement layer or surfacing layer;
 - (i) of the finished pavement surface prior to any bitumen primer-seal or prime or asphalt surfacing;
 - (j) at the point of completion of all works before placing on-maintenance; and
 - (k) at the point of requesting Council to accept the works off-maintenance.
- ENG 56 Submit to Council, all inspection and test data in its entirety prepared by the applicant, Engineer, Principal Contractor or by Subcontractors in relation to the Operational Work or as described in the application prior to Council's endorsement of the Survey Plan. Undertake any further inspection, testing or analysis required, due to failure of work to meet specifications or where the testing previously provided is considered insufficient on behalf of the Principal Contractor by a NATA accredited entity (where applicable).
- ENG 57 Uncover all works covered prior to inspection to allow inspection by Council at Council's sole discretion.
- ENG 58 Allow Council to enter a work site to which this approval relates and undertake testing or analysis of any part of the construction, and Council is not liable for the rectification of or compensation for any damage caused in the testing or analysis process. Should work be found to be not constructed to specification or of poor quality, any reasonable instruction given by Council Officers must be considered to be a condition of approval and undertaken by the Principal Contractor.
- ENG 59 Where complete or incomplete works under this approval adversely affect adjoining properties, Council land, roads or other infrastructure, Council requires by notice, works to be completed.
- ENG 60 Undertake any works for the safety or health of the community or protection of infrastructure where Council deems it necessary.
- MAINTENANCE**
- ENG 61 Submit to Council, a written request to place constructed works on-maintenance or off-maintenance from the developer's certifying Engineer stating that all approved works have been completed and are ready for Council inspection.
- ENG 62 Submit to Council, a Closed-Circuit Television (CCTV) inspection for all underground stormwater drainage, inter-allotment drainage and sewerage works undertaken by an accredited provider at on and off-maintenance. A certified copy of the report including a

disk or storage device is to be submitted to Council for review and endorsement prior to Council's acceptance of the works on or off-maintenance.

- ENG 63 Pay to Council, a maintenance bond of 5% of the cost of the operational work as estimated or accepted by Council, prior to commencement of the on-maintenance period.
- ENG 64 Maintain all works that will become Council infrastructure for a period of 12 months (maintenance period) from commencement of the on-maintenance period. Undertake any necessary maintenance or repairs to non-conforming work, defects and/or damage to any works undertaken in relation to this approval, even where damage has resulted from a third-party activity within the maintenance period.
- ENG 65 The maintenance bond will be entirely forfeited to Council should there be any failure by the applicant to undertake any such works considered by Council as necessary, to rectify any non-compliant works and to protect public safety. In the event that the bond is insufficient to address the non-compliant works, Council reserves the right to seek restitution. After expiration of the maintenance period and where required maintenance is suitably undertaken to Council's satisfaction, the bond will be returned accordingly, after the project is accepted off-maintenance.
- ENG 66 The on-maintenance period commences only when Council provides written confirmation that all of the following are completed:
- (a) satisfactory completion of all works and conditions of Operational Work approval including associated Reconfiguring a Lot approval;
 - (b) provision of all necessary test and quality audit requirements;
 - (c) lodgement with Council, of certification from an RPEQ that the works have been undertaken in accordance with the approved plans and specifications and to Council's requirements;
 - (d) lodgement of a maintenance bond of 5% of the cost of the operational work as accepted by Council;
 - (e) submission of "As Constructed" data in the required format; and
 - (f) compliance with the conditions of approval for any Operational Work and associated Reconfiguring a Lot approval and any other approvals on the subject site.

AS CONSTRUCTED INFORMATION

- ENG 67 Submit to Council within 10 working days of completion of the operational work, suitable "As Constructed" drawings in hard copy and AutoCAD format and on GDA Zone 56 coordinates. The "As Constructed" drawings or data capture methods as required by Council must be certified by a Registered Professional Engineer of Queensland (RPEQ) on every drawing and shall be to an appropriate electronic format and standard as required by Council's Infrastructure Services General Manager.
- ENG 68 Provide "As Constructed" data for the following elements, where applicable:
- (a) sewerage;
 - (b) water supply;
 - (c) roadworks; and
 - (d) stormwater drainage.

APPROVED PLANS

The approval is subject to construction being undertaken in accordance with the Approved Plans prepared by Baker Rossow Consulting Engineers as listed below:

Drawing No.	Sheet	Rev	Drawing Title	Date
210435	101	A	ROAD TYPE SECTION AND PAVEMENT DESIGN	23/3/23
210435	102	A	GENERAL ARRANGEMENT	23/3/23
210435	103	A	PLAN EXISTING OVERALL LAYOUT PLAN	23/3/23
210435	104	A	DEVELOPED OVERALL LAYOUT PLAN	23/3/23
210435	105	A	GENERAL LAYOUT PLAN - SHEET 1 OF 3	23/3/23
210435	106	A	GENERAL LAYOUT PLAN - SHEET 2 OF 3	23/3/23
210435	107	A	GENERAL LAYOUT PLAN - SHEET 3 OF 3	23/3/23
210435	201	A	DEPTH BANDING PLAN - SHEET 1 OF 3	23/3/23
210435	202	A	DEPTH BANDING PLAN - SHEET 2 OF 3	23/3/23
210435	203	A	DEPTH BANDING PLAN - SHEET 3 OF 3	23/3/23
210435	301	A	ROAD CL SETOUT PLAN - SHEET 1 OF 3	23/3/23
210435	302	A	ROAD CL SETOUT PLAN - SHEET 2 OF 3	23/3/23
210435	303	A	ROAD CL SETOUT PLAN - SHEET 3 OF 3	23/3/23
210435	304	A	CONTROL LINE 1 LONGITUDINAL SECTION	23/3/23
210435	305	A	CONTROL LINE 1 CROSS SECTIONS	23/3/23
210435	306	A	CONTROL LINE 2 LONGITUDINAL SECTION	23/3/23
210435	307	A	CONTROL LINE 2 CROSS SECTIONS - SHEET 1 OF 2	23/3/23
210435	308	A	CONTROL LINE 2 CROSS SECTIONS - SHEET 2 OF 2	23/3/23
210435	309	A	INTERSECTION A - SETOUT AND DETAILS	23/3/23
210435	310	A	CUL-DE-SAC A - SETOUT AND DETAILS	23/3/23
210435	311	A	CUL-DE-SAC B - SETOUT AND DETAILS	23/3/23
210435	312	A	REINFORCED CONCRETE FOOTPATH DETAILS	23/3/23
210435	401	A	SEWER LAYOUT PLAN - SHEET 1 OF 3	23/3/23
210435	402	A	SEWER LAYOUT PLAN - SHEET 2 OF 3	23/3/23
210435	403	A	SEWER LAYOUT PLAN - SHEET 3 OF 3	23/3/23
210435	501	A	STORMWATER LAYOUT PLAN - SHEET 1 OF 3	23/3/23
210435	502	A	STORMWATER LAYOUT PLAN - SHEET 2 OF 3	23/3/23
210435	503	A	STORMWATER LAYOUT PLAN - SHEET 3 OF 3	23/3/23
210435	504	A	STORMWATER LINE 1 - LONGITUDINAL SECTION	23/3/23

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210435	505	A	STORMWATER LINES 2 & 3 - LONGITUDINAL SECTIONS	23/3/23
210435	506	A	POST-DEVELOPMENT STORMWATER CATCHMENT PLAN	23/3/23
210435	507	A	STORMWATER DRAINAGE NOTES AND DETAILS	23/3/23
210435	508	A	STORMWATER OVERFLOW CHANNEL DETAILS	23/3/23
210435	509	A	PIPE DESIGN TABLE AND MANHOLE DETAILS	23/3/23
210435	510	A	STORMWATER DRAINAGE CALCULATION TABLES	23/3/23
210435	601	A	WATER LAYOUT PLAN - SHEET 1 OF 3	23/3/23
210435	602	A	WATER LAYOUT PLAN - SHEET 2 OF 3	23/3/23
210435	603	A	WATER LAYOUT PLAN - SHEET 3 OF 3	23/3/23
210435	604	A	WATER RETICULATION NOTES AND DETAILS	23/3/23
210435	701	A	EROSION AND SEDIMENT CONTROL PLAN - SHEET 1 OF 3	23/3/23
210435	702	A	EROSION AND SEDIMENT CONTROL PLAN - SHEET 2 OF 3	23/3/23
210435	703	A	EROSION AND SEDIMENT CONTROL PLAN - SHEET 3 OF 3	23/3/23
210435	704	A	EROSION AND SEDIMENT CONTROL PLAN - SHEET 1 OF 2	23/3/23
210435	705	A	EROSION AND SEDIMENT CONTROL PLAN - SHEET 2 OF 2	23/3/23

ADVICE NOTES

The applicant be advised that:

- (a) Prior to commencement of the use or endorsement of the survey plan as applicable, the applicant shall contact Council to arrange a Development Compliance Inspection.
- (b) The applicant must ensure compliance with environmental conditions whether required to hold an Environmental Authority or not. These include, but are not limited to water quality, air quality, noise levels, waste waters, lighting and visual quality as a result of any activity or by-product or storage of materials within the confines of the building(s) and property boundaries.

Any amendment, alteration or addition to the development approval will require further consideration by Council in assessing any changes to the environmental conditions.

- (c) The Aboriginal Cultural Heritage Act 2003 (ACHA) is administered by the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs (DATSIMA). The ACHA establishes a duty of care to take all reasonable and practicable measures to ensure any activity does not harm Aboriginal cultural heritage. This duty of care:
 - (i) is not negated by the issuing of this development approval;
 - (ii) applies on all land and water, including freehold land;
 - (iii) lies with the person or entity conducting an activity; and
 - (iv) if breached, is subject to criminal offence penalties.

Those proposing an activity involving surface disturbance beyond that which has already occurred at the proposed site must observe this duty of care. Details of how to fulfil this duty of care are outlined in the duty of care guidelines gazetted with the ACHA. The

applicant should contact DATSIP's Cultural Heritage Co-ordination Unit on telephone (07) 3224 2070 for further information on the responsibilities of developers under the ACHA.

- (d) The **relevant period** for the development approval (Operational Work) shall be **two (2) years** starting the day the approval is granted or takes effect. In accordance with Section 85(1)(c) of the Planning Act 2016 (PA), the development approval for Operational Work lapses if the development does not substantially start within the abovementioned **relevant period**.

An applicant may request Council to extend the **relevant period** provided that such request is made in accordance with Section 86 of PA and before the development approval lapses under Section 85 of the PA.

- (e) Council is to be indemnified against any claims arising from works carried out by the applicant on Council's property.
- (f) The relevant Planning Scheme for this Development Permit is the South Burnett Regional Council Planning Scheme 2017. All references to the Planning Scheme and Schedules within these conditions refer to the above Planning Scheme.

FINANCIAL AND RESOURCE IMPLICATIONS

No implication can be identified.

LINK TO CORPORATE/OPERATIONAL PLAN

Growing our Region's Economy and Prosperity

- GR8 Support and advocate for appropriate growth and development with responsive planning schemes, process, customer service and other initiatives.

COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Refer to CONSULTATION in this report.

LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

No implication identified.

POLICY/LOCAL LAW/DELEGATION IMPLICATIONS

No implication can be identified.

ASSET MANAGEMENT IMPLICATIONS

The new road, water mains, sewer mains, and stormwater infrastructure will become a Council asset after the maintenance period has expired.

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REPORT**1. APPLICATION DETAILS**

Site address	Player Street, Nanango		
Real property description	Lot 200 on SP249902		
Easements or encumbrances on title	N/A		
Area of Site	2.391 ha		
Current Use	Rural		
Environmental Management Register or Contaminated Land Register	Nil		
Applicant's name	Blake & Alison Hedge		
Zone	Residential		
Applicable Overlays	Nil		
Proposed use as defined	N/A - Operational Work		
Details of proposal	Construction of Player Street extension with new road, water, sewer and stormwater.		
Application type	Aspects of Development	Type of Approval Requested	
		Preliminary Approval	Development Permit
	Material Change of Use (MCU)		
	Reconfiguration of a Lot (RAL)		
	Building Work (BW)		
	Operational Work (OPW)		X
Level of Assessment	Code Assessment		
Pre-lodgement Consultation history /	NIL		
Key planning issues e.g. vegetation, waterway corridors, overland flow	Nil		
Referral agencies	Agency	Concurrence/ Advice	
	NA	NA	
Public notification	NA		
Planning Regulation 2017	-		

2. THE SITE

This section of the report provides a description of the site, details about the existing use and notable characteristics of the site, the standard of servicing, and the form of development in the immediately locality.

2.1. SITE DESCRIPTION & EXISTING USE

The existing site is currently a vacant lot and the end of Player Street, Nanango.



The lot is zoned residential and abuts adjacent residential development to the east, with a Council reserve to the west and north, and rural lot to the south.

3. PROPOSAL DETAILS

The proposal plans are set out in the approved plans table above.

3.1. REFERRAL AGENCIES

To determine whether the development application requires referral to the State Assessment and Referral Agency (SARA) or 'another entity', an assessment of the proposal against Schedule 10 of the Regulation has been undertaken.

The application does not require referral to any referral agencies prescribed under Schedule 10.

3.2. DEVELOPMENT CODE ASSESSMENTS

The proposal has been assessed against the relevant codes and requirements of the Planning Scheme, and is considered to comply without exception, or where identified as non-compliant, has been addressed through conditions.

SERVICE AND WORKS CODE

Performance outcomes	Assessment benchmarks	Assessment
General		
PO1 The development is planned and designed considering the land use constraints of the site for achieving stormwater design objectives.	AO1.1 A stormwater quality management plan provides for achievable stormwater quality treatment measures that meet the design objectives identified in Table 9.4.4.	N/A for Operational Work
PO2 Development does not discharge wastewater to a waterway or off-site unless demonstrated to be best practice environmental management for that site.	AO2.1 A wastewater management plan prepared by a suitably qualified person and addresses : (a) wastewater type; (b) climatic conditions; (c) water quality objectives; (d) best-practice environmental management; AND AO2.2 Wastewater is managed in accordance with a waste management hierarchy that: (a) avoids wastewater discharge to waterways; or (b) minimises wastewater discharge to waterways by re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater.	N/A
PO3 Construction activities avoid or minimise adverse impacts on stormwater quality.	AO3.1 An erosion and sediment control plan addresses the design objectives for the construction phase in Table 9.4.4.	Erosion and sediment control plans have been submitted and approved.
PO4 Operational activities avoid or minimise changes to waterway hydrology from adverse impacts of altered stormwater quality and flow.	AO4.1 Development incorporates stormwater flow control measures to achieve the design objectives for the post-construction phase in Table 9.4.4.	Stormwater discharges to the adjacent gully. Erosion protection design at the culvert outlets.
Infrastructure		
PO5 Development is provided with infrastructure which: (a) conforms with industry standards for quality; (b) is reliable and service failures are minimised; and (c) is functional and readily augmented.	AO5.1 Except in the Rural zone, all development occurs on a site with frontage to a sealed road. AND AO5.2 Infrastructure is designed and constructed in accordance with the standards contained in PSP1 – Design and Construction Standards.	N/A Infrastructure has been designed in accordance with the PSP1, and/or in accordance with relevant engineering standards.

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Performance outcomes	Assessment benchmarks	Assessment
Vehicle parking		
PO6 Vehicle parking and access is provided to meet the needs of occupants, employees, visitors and other users.	<p>AO6.1 Vehicle parking spaces are provided on-site in accordance with Table 9.4.5.</p> <p>AND</p> <p>AO6.2 A service bay is provided on-site for the service vehicle nominated in Table 9.4.5.</p> <p>AND</p> <p>AO6.3 Driveway crossings are provided to the standard contained in PSP1 – Design and Construction Standards.</p> <p>AND</p> <p>AO6.4 Vehicle parking and manoeuvring areas are provided in accordance with the standards contained in PSP1 – Design and Construction Standards.</p>	N/A
Landscaping		
PO7 Landscaping is appropriate to the setting and enhances local character and amenity.	<p>AO7.1 Landscaping is provided in accordance with the relevant zone code provisions.</p> <p>AND</p> <p>AO7.2 Where shade tree planting is required in vehicle parking areas each planting bed has a minimum area of 2m² and is unsealed and permeable.</p> <p>AND</p> <p>AO7.3 Plantings along frontages or boundaries are in the form of defined gardens with three tier planting comprised of groundcovers, shrubs (understorey), and trees (canopy) and provided with a drip irrigation system, mulching and border barriers.</p>	N/A
PO8 Plant species avoid adverse impacts on the natural and built environment, infrastructure and the safety of road networks.	<p>AO8.1 Landscaping utilises plant species that are appropriate for the location and intended purpose of the landscaping.</p> <p>AND</p> <p>AO8.2 Species selection avoids non-invasive plants.</p> <p>Editor's Note: Guidance on plant selection is provided in Branching Out - Your Handy Guide to tree Planting in the South Burnett available from Council.</p>	N/A

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Performance outcomes	Assessment benchmarks	Assessment
Filling and excavation		
<p>PO9 Development results in ground levels that retain:</p> <ul style="list-style-type: none"> (a) access to natural light; (b) aesthetic amenity; (c) privacy; and (d) safety. 	<p>AO9.1 The depth of:</p> <ul style="list-style-type: none"> (a) fill is less than 2m above ground level; or (b) excavation is less than 2m below ground level. <p>AND</p> <p>AO9.2 The toe of the fill, or top of the excavation is not less than 0.5m inside the site property boundary.</p> <p>AND</p> <p>AO9.3 Works do not occur on slopes over 15% in grade.</p> <p>AND</p> <p>AO9.4 Retaining walls over 1m in height are terraced 1.5m for every 1m in height and landscaped.</p> <p>AND</p> <p>AO9.5 Batter slopes are not steeper than 25% and are grassed and terraced 1.5m for every 1m in height.</p> <p>AND</p> <p>AO9.6 Filling or excavation for the purpose or retention of water:</p> <ul style="list-style-type: none"> (a) is certified by an RPEQ engineer to safely withstand the hydraulic loading; (b) directs overflow such that no scour damage or nuisance occurs on adjoining lots. 	<p>Minor filling is required for the creation of the lots, and to provide adequate cover over some services.</p>
<p>PO10 Filling or excavation does not cause damage to public utilities.</p>	<p>AO10.1 Filling or excavation does not occur within 2m horizontally of any part of an underground water supply, sewerage, stormwater, electricity or telecommunications system.</p>	<p>No filling proposed within proximity to existing infrastructure.</p>

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Performance outcomes	Assessment benchmarks	Assessment
PO11 Filling and excavation avoids water ponding on the premises or nearby premises that will adversely impact on the health of the community.	AO11.1 Following filling or excavation: (a) the premises: (i) are self-draining; and, (ii) has a minimum slope of 0.25%; and, (b) surface water flow is: (i) directed away from neighbouring properties; or (ii) discharged into a stormwater drainage system designed and constructed in accordance with AS3500 section 3.2.	Proposed lots are self draining.
All operational work subject to an overlay		
Biodiversity overlay		
PO12 Development avoids, minimises or mitigates adverse impacts on areas of environmental significance.	AO12.1 Uses and associated works are confined to areas not identified on Overlay Map 05. OR AO12.2 Development is compatible with the environmental values of the area. OR AO12.3 Where development within an area identified on Overlay Map 05 is unavoidable, measures recommended by a suitably qualified ecologist are incorporated to protect and retain the environmental values and underlying ecosystem processes within or adjacent to the development site to the greatest extent practical.	N/A
PO13 Biodiversity values of identified areas of environmental significance are protected from the impacts of development	AO13.1 Development adjacent to Protected Areas identified on Overlay Map 05 is set back a minimum of 100m from the park boundaries in the absence of any current 'Management Plans' for these areas.	N/A
PO14 There are no significant adverse effects on water quality, ecological and biodiversity values.	AO14.1 Uses and associated works are confined to areas outside overland flow paths and natural drainage features. AND AO14.2 The Waterway Corridors identified on Overlay Map 05 are maintained in a natural state.	N/A

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Performance outcomes	Assessment benchmarks	Assessment
Flood hazard overlay		
PO15 Development directly, indirectly and cumulatively avoids any significant increase in water flow, velocity or flood level, and does not increase the potential for flood damage either on site or other properties.	AO15.1 Works associated with the proposed development do not: (a) involve a net increase in filling greater than 50m ³ in the area identified on Overlay Map 03; (b) result in any reductions of on-site flood storage capacity and contain within the site any changes to depth / duration/velocity of flood waters; or (c) change flood characteristics outside the site in ways that result in: (i) loss of flood storage; (ii) loss of/changes to flow paths; (iii) acceleration or retardation of flows; or (iv) any reduction in flood warning times.	N/A
Regional infrastructure overlay		
PO16 Earthworks do not restrict access to and along major electricity infrastructure corridors by the electricity providers, using their normal vehicles and equipment.	AO16.1 Earthworks do not alter levels along the boundaries of existing easements by more than 300mm and do not result in increased inundation of electricity infrastructure.	Nearby easements will be unaffected by the project.
PO17 There is no worsening of drainage or erosion conditions affecting the bulk supply and linear infrastructure.	No outcome specified.	N/A
Water catchments overlay		
PO18 There are no significant adverse effects on the water quality of the Region's drinking water supply.	AO18.1 Development within the Bjelke-Petersen Dam Water Resource Catchment Area and the 800m buffer to Boondooma and Gordonbrook Dams shown on Overlay Map 06 has no significant adverse effect on the quantity and availability of raw water for consumption, as determined by a suitably qualified water quality expert. OR AO18.2 Development within the Cooyar Creek water supply buffer area shown on Overlay Map 06 complies with the specific outcomes and measures of the <i>Seqwater Development Guidelines: Development Guidelines for Water Quality Management in Drinking Water Catchments 2012</i> .	Site is not within a water supply catchment

4. CONSULTATION

Referral Agencies

No referral agencies

Council Referrals

<i>INTERNAL REFERRAL SPECIALIST</i>	<i>REFERRAL / RESPONSE</i>
Development Engineer	Council's Development Engineer has carried out the assessment

5. RECOMMENDATION

The proposed development has been assessed against the requirements of the South Burnett Regional Council Planning Scheme. It is considered that the proposed development generally complies with the requirements of the Planning Scheme and as such, the applicant should be provided with a Development Permit. The Development Permit should contain the conditions detailed in the Officer's Recommendation in order to ensure that the proposal complies with the South Burnett Regional Council Planning Scheme.

ATTACHMENTS

1. Attachment A - Approved Plans

Delegated Authority

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OPERATIONAL WORKS - WATER INFRASTRUCTURE (EXTENSION TO EXISTING WATER MAIN ON BOAT MOUNTAIN ROAD) AT 155 BOAT MOUNTAIN ROAD, MURGON (AND DESCRIBED AS LOT 9 ON SP287687 - APPLICANT: BARRIE BRAITHWAITE

File Number: OPW23/0009
Author: Engineering Contractor, Development Services
Authoriser: Chief Executive Officer

SIGNATURE	DATE
<i>MANAGER</i>	18/07/23
<i>GM Acting</i>	19/7/23
<i>CEO</i>	19.7.2023

PRECIS

Development Application for Operational Work – Water Infrastructure (Extension to Existing Water Main on Boat Mountain Road) at 155 Boat Mountain Road – Lot 9 on SP287687 – OPW23/0009.

SUMMARY

- Application for Operational Work – Water Infrastructure (Extension to Existing Water Main on Boat Mountain Road) at 155 Boat Mountain Road – Lot 9 on SP287687;
- An Operational Work application was conditioned in the Conditions of Approval for development approval Council Ref. IR1185122, Reconfiguring a Lot 1 into 9 lots;
- The proposed Operational Work is approved with conditions.
- These conditions are seen to be in accordance with South Burnett Regional Council Planning Scheme 2017, development guidelines and best practices.

OFFICER’S RECOMMENDATION

It is recommended that Council approve the development application for Operational Work – Water Infrastructure (Extension to Existing Water Main on Boat Mountain Road) at 155 Boat Mountain Road – Lot 9 on SP287687, subject to the following conditions:

GENERAL

- ENG 1 Compliance with the plans and specifications submitted with Development Application OPW23/0009, approval conditions, all Council Planning Scheme Policies and Reconfiguration of a Lot Approval No. IR1185122.
- ENG 2 This approval extends to Engineering works, as detailed, and is conditional upon a set of “Issued for Construction” drawings, amended if required by the conditions of this approval, being submitted to Council for endorsement, prior to pre-start meeting.
- ENG 3 Submit to Council for approval, an Inspection and Test Plan certified by a suitably qualified Engineer (RPEQ – Civil) prior to commencement of any work and prior to any pre-start meeting.
- ENG 4 Pay to Council, inspection fees based on Council’s Fees and Charges current at the time of commencement of works and based on the estimated project cost as estimated or accepted by Council prior to the pre-start meeting.
- ENG 5 Ensure that supervision of all construction works are carried out by a suitably qualified and experienced Engineer (RPEQ).
- ENG 6 Adhere to the following hours of construction unless otherwise approved in writing by Council:
- i. Monday to Saturday: 6.30am to 6.30pm Noise permitted
 - ii. Monday to Sunday: 6.30pm to 6.30am No noise permitted
 - iii. Sunday and Public Holidays: No noise permitted
 - iv. Do not conduct work or business that causes audible noise from or on the site outside the above hours.

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- ENG 7 Be responsible to carry out Work Health and Safety legislative requirements.
- ENG 8 Ensure all work sites are maintained in a clean, orderly state at all times.
- ENG 9 Manage all waste in accordance with the relevant legislation and regulations and dispose of regulated waste at a licensed facility of South Burnett Regional Council by a licensed regulated waste disposal contractor.
- ENG 10 Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.
- ENG 11 Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development, immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damage immediately upon completion of works associated with the development.
- ENG 12 Submit to Council, a Certification from a suitably qualified Engineer (RPEQ) that the works have been undertaken in accordance with the approved plans and specifications and to Council's requirements, prior to Council's endorsement of the Plan of Survey.
- ENG 13 Works are to be constructed generally in accordance with the specification requirements outlined in Aus-Spec #1 and the IPWEAQ Standard Drawings unless otherwise approved by South Burnett Regional Council.

WATER SUPPLY

- ENG 14 Construct water supply networks in accordance with the *Water Act 2000*, *WSAA Code 2006*, Council's Minimum Specifications and Customer Service Standards.
- ENG 15 All live works associated with water must be performed by South Burnett Regional Council (or under the supervision of a South Burnett Regional Council Officer if considered appropriate).
- ENG 16 Install valve markers and hydrant markers including RPMs on the completed roads to Council's standards.
- ENG 17 Water mains are to conform to a minimum Class 16 pipe and ensure construction works are completed, cleaned, tested, chlorinated and swabbed in accordance with the *WSAA Code* prior to connection to existing Council mains.
- ENG 18 Provide property connections in accordance with Council's Water Service Connection Standard, in particular, 25mm diameter connections for each lot. Ensure services are:
(a) terminated with an approved stop tap in accordance with the Standard Drawing;
(b) "live" during water main testing and shall be left live after construction; and
(c) "open" for testing at the on-maintenance inspection.
- ENG 19 The existing house connection to the existing water meter on proposed Lot 1 shall be disconnected, and the existing house be connected to a new water meter to be installed on proposed Lot 10, at the location shown on Morris Water drawing SBRC29.1-04.
- ENG 20 Do not keep any external water services interrupted for more than a cumulative total of three hours during development works, and a minimum of five (5) days notice of any interruptions must be provided to Council and any relevant consumers.

INSPECTIONS AND TESTING

- ENG 21 Submit to Council the pre-start meeting agenda at the confirmation of a date and time for the meeting.

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- ENG 22 Provide Council with a minimum of two clear working days notice to undertake compulsory inspections and meetings at the following stages:
- (a) Pre-start meeting with Council, Contractor, Supervising Engineer and developer;
 - (b) Water: in accordance with Council's Minimum Requirements for Water and Sewerage Works, and:
 - (i) prior to backfilling of each water main;
 - (ii) prior to backfilling of each water connection point;
 - (iii) prior to connection of any works to the reticulated water supply systems;
 - (iv) at the time of super-chlorination works and swabbing of mains; and
 - (v) at the time of any pressure testing of each and every water main;
 - (c) at the point of completion of all works before placing on-maintenance; and
 - (d) at the point of requesting Council to accept the works off-maintenance.
- ENG 23 Submit to Council, all inspection and test data in its entirety prepared by the applicant, Engineer, Principal Contractor or by Subcontractors in relation to the Operational Work or as described in the application prior to Council's endorsement of the Survey Plan. Undertake any further inspection, testing or analysis required, due to failure of work to meet specifications or where the testing previously provided is considered insufficient on behalf of the Principal Contractor by a NATA accredited entity (where applicable).
- ENG 24 Uncover all works covered prior to inspection to allow inspection by Council at Council's sole discretion.
- ENG 25 Allow Council to enter a work site to which this approval relates and undertake testing or analysis of any part of the construction, and Council is not liable for the rectification of or compensation for any damage caused in the testing or analysis process. Should work be found to be not constructed to specification or of poor quality, any reasonable instruction given by Council Officers must be considered to be a condition of approval and undertaken by the Principal Contractor.
- ENG 26 Where complete or incomplete works under this approval adversely affect adjoining properties, Council land, roads or other infrastructure, Council requires by notice, works to be completed.
- ENG 27 Undertake any works for the safety or health of the community or protection of infrastructure where Council deems it necessary.

MAINTENANCE

- ENG 28 Submit to Council, a written request to place constructed works on-maintenance or off-maintenance from the developer's certifying Engineer stating that all approved works have been completed and are ready for Council inspection.
- ENG 29 Pay to Council, a maintenance bond of 5% of the cost of the operational work as estimated or accepted by Council, prior to commencement of the on-maintenance period.
- ENG 30 Maintain all works that will become Council infrastructure for a period of 12 months (maintenance period) from commencement of the on-maintenance period. Undertake any necessary maintenance or repairs to non-conforming work, defects and/or damage to any works undertaken in relation to this approval, even where damage has resulted from a third party activity within the maintenance period.
- ENG 31 The maintenance bond will be entirely forfeited to Council should there be any failure by the applicant to undertake any such works considered by Council as necessary, to rectify any non-compliant works and to protect public safety. In the event that the bond is insufficient to address the non-compliant works, Council reserves the right to seek restitution. After expiration of the maintenance period and where required maintenance is

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suitably undertaken to Council's satisfaction, the bond will be returned accordingly, after the project is accepted off-maintenance.

- ENG 32 The on-maintenance period commences only when Council provides written confirmation that all of the following are completed:
- (a) satisfactory completion of all works and conditions of Operational Work approval including associated Reconfiguring a Lot approval;
 - (b) provision of all necessary test and quality audit requirements;
 - (c) lodgement with Council, of certification from an RPEQ that the works have been undertaken in accordance with the approved plans and specifications and to Council's requirements;
 - (d) lodgement of a maintenance bond of 5% of the cost of the operational work as accepted by Council;
 - (e) submission of "As Constructed" data in the required format; and

AS CONSTRUCTED INFORMATION

- ENG 33 Submit to Council within 10 working days of completion of the operational work, suitable "As Constructed" drawings in hard copy and AutoCAD format and on GDA Zone 56 coordinates. The "As Constructed" drawings or data capture methods as required by Council must be certified by a Registered Professional Engineer of Queensland (RPEQ) on every drawing and shall be to an appropriate electronic format and standard as required by Council's Infrastructure Services General Manager.

- ENG 34 Provide "As Constructed" data for the following elements, where applicable:
- (a) water supply.

APPROVED PLANS

The approval is subject to construction being undertaken in accordance with the Approved Plans prepared by Morris Water as listed below:

Drawing No.	Rev	Drawing/Plan Title	Date
SBRC29.1-01	C	Locality Plan and Drawing Schedules	6/04/2023
SBRC29.1-02	C	Notes, Legend and Survey Details	6/04/2023
SBRC29.1-03	C	General Arrangement Plan	6/04/2023
SBRC29.1-04	C	Detailed Layout Plan	6/04/2023
SBRC29.1-05	C	Connection Details and Schedules of Quantities	6/04/2023
SBRC29.1-06	C	Typical Trench Details and Project Quantities	6/04/2023
SBRC29.1-07	C	Safety in Design Plan	6/04/2023

ADVICE NOTES

The applicant be advised that:

- (a) Prior to commencement of the use or endorsement of the survey plan as applicable, the applicant shall contact Council's Compliance Senior Officer to arrange a Development Compliance Inspection.
- (b) The applicant must ensure compliance with environmental conditions whether required to hold an Environmental Authority or not. These include, but are not limited to water quality, air quality, noise levels, waste waters, lighting and visual quality as a result of any activity or by-product or storage of materials within the confines of the building(s) and property boundaries.

Any amendment, alteration or addition to the development approval will require further consideration by Council in assessing any changes to the environmental conditions.