Sugarmill Road Large Lot Residential Precinct
28, 35 and 89 Sugarmill Road; Sapphire Beach

Traffic and Transport Impact Assessment

October 2021

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Development: Sugarmill Road Large Lot Residential Precinct

Site Address: 28, 35 and 89 Sugarmill Road

Prepared for: Grahame Fry
Environmental Planning

Document reference: 002 - GF

Document Status	Issue	By	Issued to	Date
Draft	**A**	**GS**	**GF**	**25 Oct 2021**
Final	**A**	**GS**	**GF**	**9 Nov 2021**

Contents

1 Introduction

1.1 Scope

This Traffic and Transport planning assessment report has been prepared as part of a planning proposal application to Coffs Harbour City Council for rezoning of land at Sugarmill Road Sapphire Beach.

The proposal comprises a potential rezoning of land from RU2 Rural Landscape to R5 Large Lot Residential and E2 Environmental Conservation where appropriate.

This report assesses the impact of the proposed rezoning on the operation of the surrounding transport network infrastructure and levels of service.

2 Existing Conditions

2.1 Location

The planning proposal encompasses three properties at 28,35 and 89 Sugarmill Road, Sapphire Beach. (Lot 12 DP 243972; Lot 91 DP 786155 and Lot 17 DP 249273 respectively).

Figure 1 Site location

The properties jointly encompass approximately 6.4ha and are currently zoned RU2 Rural Landscape. The properties comprise mostly of rural dwellings and associated out buildings with single driveway accesses to Sugarmill Road.

2.2 Existing Transport Network

Roads

Solitary Islands Way is a two-lane rural standard road acting as a service road parallel to the Pacific Highway servicing the northern suburbs of Coffs Harbour through to Woolgoolga. The Solitary Island Way network of service road and grade separated interchange connections to the Pacific Highway was completed in 2016 as part of the Roads and Maritime Services (RMS) Pacific Highway Upgrade program.

Solitary Island Way comprises generally of 3.5m travel lanes, 1.2m shoulders, off-road cycleway and bus lay-bys. The road geometry is generally flat and straight. The speed zone on Solitary Islands Way at the Sugarmill Road Intersection is 80km/h.

Sugarmill Road is a two-lane rural road directly servicing 17 rural lots. The road is approximately 1km in length from the intersection at Solitary Island Way to its western end.

Sugarmill Road has a 6.0m – 6.2m wide pavement with shoulders of variable width. The road environment is generally undulating.

The speed zone on Sugarmill Road is not signposted however the horizontal and vertical geometry of the road would indicate a design speed of 60km/h.

Intersections

The **Sugarmill Road/Solitary Islands Way** intersection was constructed as an Austroads rural CHR type intersection as part of the Sapphire to Woolgoolga Pacific Highway upgrade project.

The intersection provides a 60m storage length right turn bay to Sugarmill Road with good sight distance in both directions.

Figure 2 Sugarmill Road at Solitary Islands Way

2.3 Existing Traffic Volumes

As part of the RMS Pacific Highway upgrade project, post opening traffic surveys were carried out on Solitary Islands Way north of Sugarmill Road in 2014. This AADT data was reported in the *Sapphire to Woolgoolga Pacific Highway upgrade Post-construction Operational Noise Report AUGUST 2015.*

The 2014 traffic surveys showed AADT volumes of only 637 vehicles per day on Solitary Islands Way at the Sugarmill Road intersection.

As validation of these low traffic volumes a peak hour intersection turning movement count was undertaken on Solitary Islands Way near the Sugarmill Road intersection at Wakelands Road. The count was undertaken during the morning and afternoon peak hours on Wednesday 21 October 2020.

The count shows traffic volumes consistent with the 2014 RMS data and confirms that comparatively very little traffic would use the Sugarmill Road intersection compared to the standard of intersection which has been provided.

	Solitary Island Way				**Wakelands Road**	
	Southbound	Left turn in	Northbound	Right turn in	Left turn out	Right turn out
AM	22	14	44	9	11	22
H	2	1	2		2	1
PM	17	12	62	8	6	11
H	3	2	3	1		1

Peak Hour (8:00am - 9:00am, 4:00pm – 5:00pm) Wakelands Road intersection count 21 Oct 2020.

Sugarmill Road is a non through roads so indicative daily traffic volumes can be determined from likely traffic generation from the direct access land uses (predominantly residential). Using a development planning generation rate of 10 vehicle trips per lot / per day, the existing traffic volumes on Sugarmill Road would be in the order of: **170 vehicles per day with peak hour movements (12% of ADT) at 21 vehicles per hour.**

	Solitary Island Way				**Sugarmill Road**	
	Southbound	Left turn in	Northbound	Right turn in	Left turn out	Right turn out
AM	25	5	47	3	5	8
PM	21	7	66	5	3	7

Estimated Peak Hour (8:00am - 9:00am, 4:00pm – 5:00pm) Sugarmill Road intersection movements 2021.

3 Development Description

The development comprises a potential rezoning of the three lots indicated in Figure 1 from RU2 Rural Landscape to R5 Large Lot Residential and E2 Environmental Conservation where appropriate.

A preliminary lot layout has been prepared for each lot taking into account the site constraints on each lot.

The preliminary lot plans result in a yield of only one additional lot for each existing lot, a total of three additional lots resulting from the proposal. This is the likely lot yield for the remaining Sugarmill Road lots which could potentially also proceed with rezoning proposals.

Each lot under the current proposal will utilise either an existing driveway access to Sugarmill Road or a new driveway access located to maximise sight distance to Sugarmill Road. There is potential for the two lots created at 35 Sugarmill Road to utilise a shared access at the existing driveway.

28 Sugarmill Road

Proposed Lot 120	existing driveway
Proposed Lot 121	new driveway access

35 Sugarmill Road

Proposed Lot 910	shared existing driveway
Proposed Lot 911	shared existing driveway

89 Sugarmill Road

Proposed Lot 120	existing driveway
Proposed Lot 121	new driveway access

4 Traffic Impact Assessment

4.1 Development Traffic Generation

The following traffic impact modelling and assessment will consider the cumulative impacts on the road and transport network from all potential Sugarmill Road Large Lot residential rezoning.

Using a daily vehicle trip generation rate of 10 per dwelling, the re-development of all existing lots on Sugarmill Road could generate an additional 170 trips per day on Sugarmill Road yielding in the order of **340 vehicles per day** at 2031.

The resulting daily volumes including traffic generated from the proposed development would be well within the bounds of the environmental and amenity capacity of a two-lane rural road.

Peak Hour traffic generation from the proposal can be estimated from RMS and Austroads data with the highest end peak hour residential traffic generation for regional areas at 1 trip per dwelling.

The future rezoning's will consequently generate only 17 additional peak hour trips to the road network.

4.2 Intersection analysis

Solitary Islands Way / Sugarmill Road intersection

While it is clear that the estimated minor increase in traffic from the proposed rezoning will have no impact on the Solitary Islands Way/Sugarmill Road intersection it would be prudent to carry out a simple assessment of likely intersection performance to gauge the spare capacity of the intersection.

The Solitary Islands Way/Sugarmill Road intersection has been assessed using a SIDRA Intersection model. Input data is the estimated 2021 turning movements from Section 2.3 of this report factored to 2031 volumes (assuming a conservative 3% annual growth) and the likely total potential rezoning development traffic added.

	Solitary Island Way				Sugarmill Road	
	Southbound	Left turn in	Northbound	Right turn in	Left turn out	Right turn out
AM	34	10	65	6	10	16
PM	28	14	90	10	6	14

Estimated Peak Hour intersection turning movements to 2031 (3% growth)

Results of SIDRA modelling of the intersection turning movements are summarised in the tables below (Level of Service (LOS) RMS NSW).

2031 PLUS DEVELOPMENT	Peak Hour	Degree of Saturation	Average Delay	LOS
Movement				
Solitary Islands Way right turn in to Sugarmill Road	AM	0.004	5.9	A
	PM	0.007	6.1	A
Solitary Islands Way left turn in to Sugarmill Road	AM	0.043	5.8	A
	PM	0.059	5.8	A
Sugarmill Road left turn out	AM	0.025	6.1	A
	PM	0.020	6.0	A
Sugarmill Road right turn out	AM	0.025	6.3	A
	PM	0.020	6.5	A

The 2031 plus development SIDRA analysis shows that the Solitary Islands Way / Sugarmill Road intersection remains with significant spare capacity for traffic growth in 2031 following the addition of potential traffic generation from likely rezoning.

4.3 Coffs Harbour DCP 2015

The requirements of Chapter C1.8 (Infrastructure requirements for rural and large lot residential subdivisions) need to be considered for the proposed development.

Section C1.8 (3) of the DCP requires that:

'Where access is provided to service more than three resulting lots, the access is to be dedicated as a public road and constructed in accordance with Council's Development Specifications.'

Road design requirements for new rural roads are specified in Section 3.6 of the Coffs Harbour City Council (CHCC) Development Design Specification 0041 – Geometric Road Layout.

New local rural roads require a minimum 6.0m pavement width with 1.0m shoulders. Sugarmill Road has generally 6.0m-6.2m wide pavement with variable width shoulders. Road verges are structurally sound and clear of obstruction.

The existing Sugarmill road cross section of 6.0m carriageway with wide road verges and clear of hazards is considered adequate for the minor increase in traffic from the proposed development and no road upgrade works are required.

Driveway access points

All existing and proposed vehicular access driveways required under the rezoning will be able to meet Coffs Harbour City Council Development specifications.

The minimum required sight distance for a domestic property access can be found in Fig 3.2 of AS/NZS 2890.1 Parking Facilities Part 1: Off-street car parking.

For a design speed of 60 km/h the minimum sight distance required is 55 m. An 80 km/h design speed would require 95m sight distance.

Sight distance measured at all existing and proposed driveway access points on straight sections of Sugarmill Road exceed 90m.

The existing driveway access at proposed Lot 120 is located within 70m of a horizontal curve on Sugarmill Road on its eastern approach. The design speed at this point would be less than 60km/h. The measured sight distance to the driveway and to a vehicle turning right into the driveway is 70m which exceeds the required sight distance criteria.

Existing access at 28 Sugarmill Road looking west. Proposed Lot 120 (Sight distance >90m)

Existing access at 28 Sugarmill Road looking east.

Proposed Lot 120 (Sight distance >70m)

Proposed access at 28 Sugarmill Road looking west.
Proposed Lot 121 (Sight distance >90m)

Proposed Access at 28 Sugarmill Road looking east.
Proposed Lot 121 (Sight distance >90m)

Existing access at 35 Sugarmill Road looking west.
Proposed Lot 910 and 911 (Sight distance >90m)

Existing access at 35 Sugarmill Road looking east.
Proposed Lot 910 and 911 (Sight distance >90m)

Existing access at 89 Sugarmill Road looking west.
Proposed Lot 171 (Sight distance >90m)

Existing access at 89 Sugarmill Road looking east
Proposed Lot 171 (Sight distance >90m)

Proposed access at 89 Sugarmill Road looking west.
Proposed Lot 170 (Sight distance >90m)

Proposed access at 89 Sugarmill Road looking east.
Proposed Lot 170 (Sight distance >90m)

4.4 Public Transport and Pedestrian/Cycleway access

Sugarmill Road is served by both Town bus and school bus services with designated bus lay byes located on Solitary Islands Way adjacent the Sugarmill Road intersection. A Bus route map and indicative school bus timetable are included in Appendix C.

The majority of the proposed additional lots will be within 400m-600m of the bus stops located on Solitary Islands Way providing good access to public transport services for the proposed land use density.

Solitary Islands Way benefits from a shared path and shared path network connections to Coffs Harbour and the Northern Beaches constructed as part of the Pacific Highway Sapphire to Woolgoolga Upgrade project. The proposed lots will have good access to the local shared path network.

5 Conclusion

1 The proposed Sugarmill Road Large Lot Residential Precinct rezoning will have no impact on traffic safety, level of service or amenity on the Solitary Islands Way - Sugarmill Road intersection.

2 The existing Sugarmill road cross section of 6.0m carriageway with wide road verges and clear of hazards is considered adequate for the minor increase in traffic from the proposed development and no road upgrade works are required.

3 The proposed vehicular access roads and driveways to the lots proposed under the rezoning will be able to meet Coffs Harbour City Council Development specifications.

4 The majority of the proposed residential lots will be within 400m-600m of the bus stops located on Solitary Islands Way providing good access to public transport services for the proposed land use density. The proposed lots will also have good access to the local shared path network.

6 References

Roads and Maritime Services Guide to Traffic Generating Developments

Coffs Harbour City Council AUS-SPEC Specifications

Austroads Guides to Road Design

AS/NZS 2890.1 Parking Facilities Part 1: Off-street car parking

Sapphire to Woolgoolga Pacific Highway upgrade Post-construction Operational Noise Report AUGUST 2015

Appendix A – Plans of Proposed Subdivision

SHEET 1 OF 1 SHEETS

MID NORTH COAST SURVEYING
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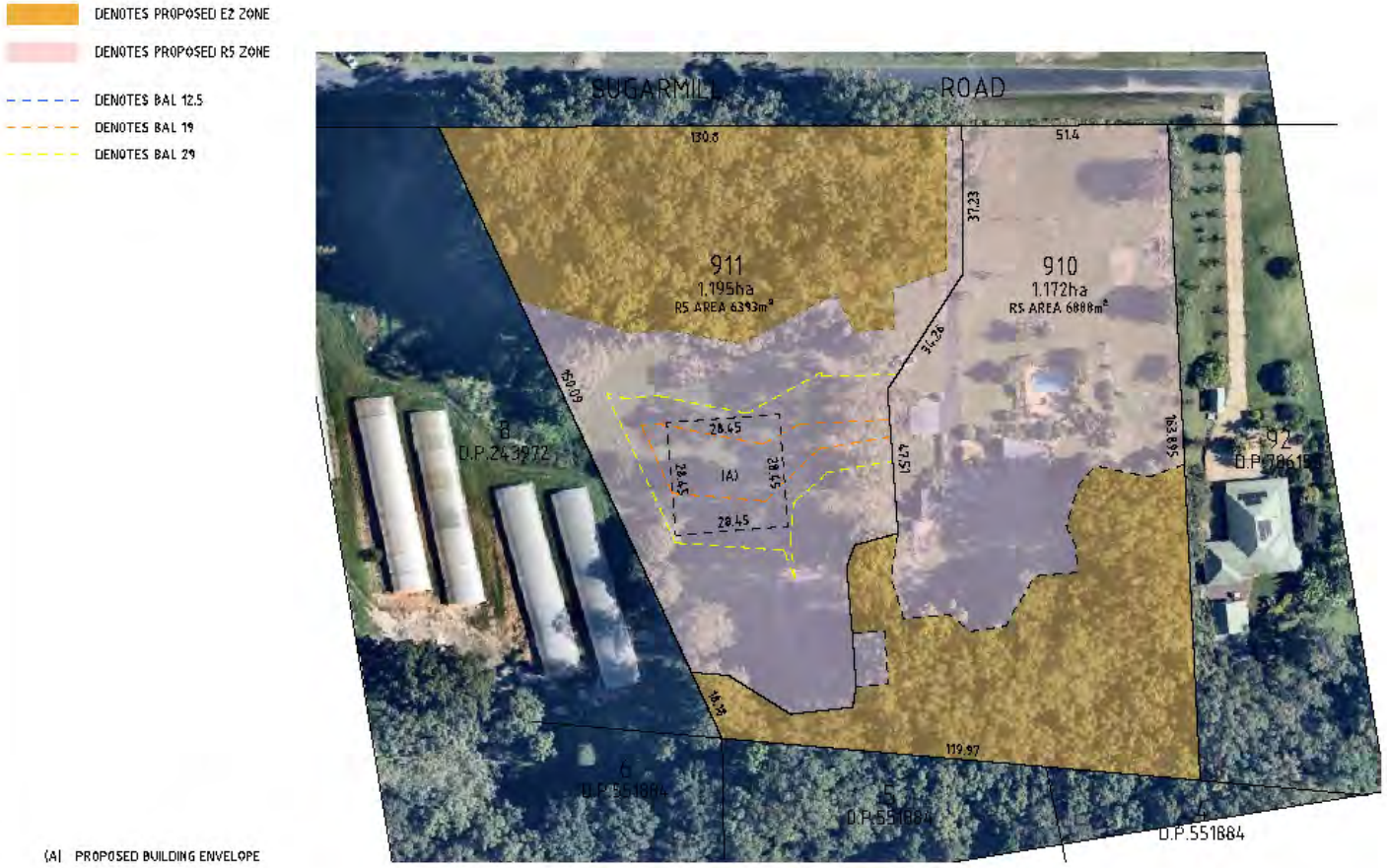
MNC

CLIENT: K GRIMLEY		TITLE: PROPOSED 2 LOT TORRENS SUBDIVISION – B SUGARMILL ROAD RE-ZONING REV. 0
JOB REF: 1442	SURVEYED: M.N.C.S.	PROJECT: LOT 12 IN D.P.243972 AT 28 SUGARMILL ROAD, SAPPHIRE BEACH
DATE: 07.09.2021	DRAWN: B.H.	
SCALE: 1:1000	SHEET SIZE: A3	LGA: COFFS HARBOUR CITY COUNCIL

SHEET 1 OF 1 SHEETS



MID NORTH COAST SURVEYING 8 TOM ALBERT PLACE SAWTELL NSW 2452 Doug Alderman M. 0434 438 110 E. doug@midnorthcoastsurveying.com.au Brock Hyde M. 0408 600 876 E. brock@midnorthcoastsurveying.com.au	MNC	CLIENT: I & S MARTYN	TITLE: PROPOSED 2 LOT TORRENS SUBDIVISION – 8 SUGARMILL ROAD RE-ZONING REV. F
		JOB REF: 1442 SURVEYED: M.N.C.S.	PROJECT: LOT 91 IN D.P.786155 AT 35 SUGARMILL ROAD, SAPPHIRE BEACH
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SHEET 1 OF 1 SHEETS

Appendix B – SIDRA analysis summaries

2031 plus development AM peak

MOVEMENT SUMMARY

Site: 101 [Solitary Islands Way at Sugarmill Road]

Solitary Islands Way intersection 2031 plus development AM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Solitary Islands Way											
1	L2	11	20.0	0.043	5.8	LOS A	0.0	0.0	0.00	0.08	56.8
2	T1	68	4.6	0.043	0.0	LOS A	0.0	0.0	0.00	0.08	59.4
Approach		79	6.7	0.043	0.8	NA	0.0	0.0	0.00	0.08	59.0
North: Solitary Islands Way											
8	T1	36	8.8	0.019	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
9	R2	6	16.7	0.004	5.9	LOS A	0.0	0.1	0.18	0.55	51.9
Approach		42	10.0	0.019	0.9	NA	0.0	0.1	0.03	0.08	58.6
West: Sugarmill Road											
10	L2	11	30.0	0.025	6.1	LOS A	0.1	0.8	0.20	0.56	51.8
12	R2	17	12.5	0.025	6.3	LOS A	0.1	0.8	0.20	0.56	52.0
Approach		27	19.2	0.025	6.2	LOS A	0.1	0.8	0.20	0.56	51.9
All Vehicles		148	9.9	0.043	1.8	NA	0.1	0.8	0.05	0.17	57.5

2030 plus development PM peak

MOVEMENT SUMMARY

Site: 101 [Solitary Islands Way at Sugarmill Road]

Solitary Islands Way intersection 2031 plus development PM peak
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Solitary Islands Way											
1	L2	15	21.4	0.059	5.8	LOS A	0.0	0.0	0.00	0.08	56.7
2	T1	95	4.4	0.059	0.0	LOS A	0.0	0.0	0.00	0.08	59.4
Approach		109	6.7	0.059	0.8	NA	0.0	0.0	0.00	0.08	59.0
North: Solitary Islands Way											
8	T1	29	14.3	0.017	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
9	R2	11	20.0	0.007	6.1	LOS A	0.0	0.3	0.22	0.55	51.6
Approach		40	15.8	0.017	1.6	NA	0.0	0.3	0.06	0.14	57.5
West: Sugarmill Road											
10	L2	6	16.7	0.020	6.0	LOS A	0.1	0.6	0.24	0.56	52.2
12	R2	15	14.3	0.020	6.5	LOS A	0.1	0.6	0.24	0.56	51.8
Approach		21	15.0	0.020	6.3	LOS A	0.1	0.6	0.24	0.56	51.9
All Vehicles		171	9.9	0.059	1.7	NA	0.1	0.6	0.04	0.15	57.7

Appendix C – Bus Service

FOREST North Coast Network Map

Example School bus service – Forest Coaches

Route Number	Route Time	Stops
S851	7:55am	Gaudrons Rd*, (R)Solitary Islands Way, Wakelands Rd*, Maccues Rd*, (R)Solitary Islands Overpass, Moonee Beach Rd, The Corso*, (R)The Corso, (R)Rushton Av, (R)Wansborough Av, Dawn/Wansborough*, (L)Dawn St, (R)Woodhouse Rd, Woodhouse Bus shelter*, (L)Moonee Beach Rd, ABC Childcare Centre*, (R)Pacific Hwy, Korora Interchange 8.10 am*, Pacific Hwy, (L)Orlando St, Harbour Dr, Coffs High School 8.20 am*

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11 July 2023

23147

Keiley Hunter
Keiley Hunter Town Planning
keiley@keileyhunter.com.au

Dear Keiley

SUGARMILL ROAD ASSESSMENT
PROPOSED SUBDIVISION OF LOTS 12, 19 & 91.

This letter reports on an assessment of the existing Sugarmill Road's geometry and its suitability to support the proposed subdivision of No. 28, 35 & 71, being lots 12 DP243972, 91 DP786155 and 17 DP249273 respectively.

The existing Sugarmill Road is a no-through road approximately 1 km long running east-west. It connects to Solitary Islands Way at its eastern end. A no-through private road continues from its western end, servicing six properties. The land is currently zoned Rural Landscape RU2 with the road servicing a total of approximately 23 properties, typically of 2 to 4 Ha in size. As it is no-through it only serves these properties and carries no through traffic.

The proposed subdivisions will create one extra lot within each of three subject lots, lifting the properties serviced to 26. At an average of 9 vehicle trips per dwelling per day (Guide to Traffic Generating Development, RTA 2002), this amounts to 207 vehicles per day (vpd), increasing to 234 vpd with the development. This is the expected traffic at the intersection of Sugarmill Road and Solitary Islands Way. It will diminish with distance along Sugarmill Road past each property access.

Sugarmill Road has a flexible gravel pavement with a nominal 6m wide bitumen spray seal wearing surface with grassed shoulders and roadside table drains with no kerb and gutter. The bends have superelevation, there are several crests, sags with culverts and longitudinal grades of up to 20%.

Under Council's current Auspec 0041 Geometric Road Layout and the land zoning, the required geometry is given in Table 3.2. At 234 vpd, the road, or at least its eastern end, can be classified as a Local Major Road (200 – 2000 vpd). Further west it can be classified as a Local Minor Road (<200 vpd). The difference in classification is somewhat irrelevant as both have the same geometric requirements of 6 m seal width and 1 m shoulders (that can be unsealed) within a 20 m wide road reserve.

Where topography and geometry allow, Local Major roads are to be designed for 80 kmph while Local Minor roads are to be designed for 60 kmph. There is no posted speed limit on the existing road and the legal speed limit carries through from Soilitary Islands Way at 80 kmph. The road geometry and sight distances are such that few motorist would reach the speed limit. The 85th percentile speed is more likely only 60 kmph.

A site inspection was undertaken on 10 July 2023. The existing pavement and seal are in reasonably good condition. It is unknown if any major repairs or re-seals have been undertaken since the road's construction of more than thirty years ago. If not, then their condition is remarkably good given the pavement's age.

The existing road has been surveyed by MNC Surveying with the seal width measured every 30 m as per the attached. The widths vary from 5.32 to 6.33 m, with an average of 5.97 m. On initial inspection, the road has grassed shoulders. These generally propagate for a metre or so on the same plane as the bitumen seal but sit a little proud. Upon probing, these are in fact gravel shoulders that, over the years, grass has colonised. The grass, trapping sediment washed off the road, has slowly grown slightly proud of the seal.

Beyond the shoulders and where in cutting, the surface generally dips to shallow grassed longitudinal table drains before battering up. Where in fill runoff sheets off the shoulders, down any batters and off into the adjacent properties. Runoff off the seal is in places interrupted by the proud grass over the shoulders. In heavy rain, some channelling of runoff along the seal edges will result.

When compared against the AUSPEC design requirements, the road formation is mostly compliant. Although colonised by grass, it has trafficable shoulders on much the same plane as the adjacent seal. The seal width varies with approximately half the length less than 6 m and half over. Generally, that less than 6 m is only by 0.1 m.

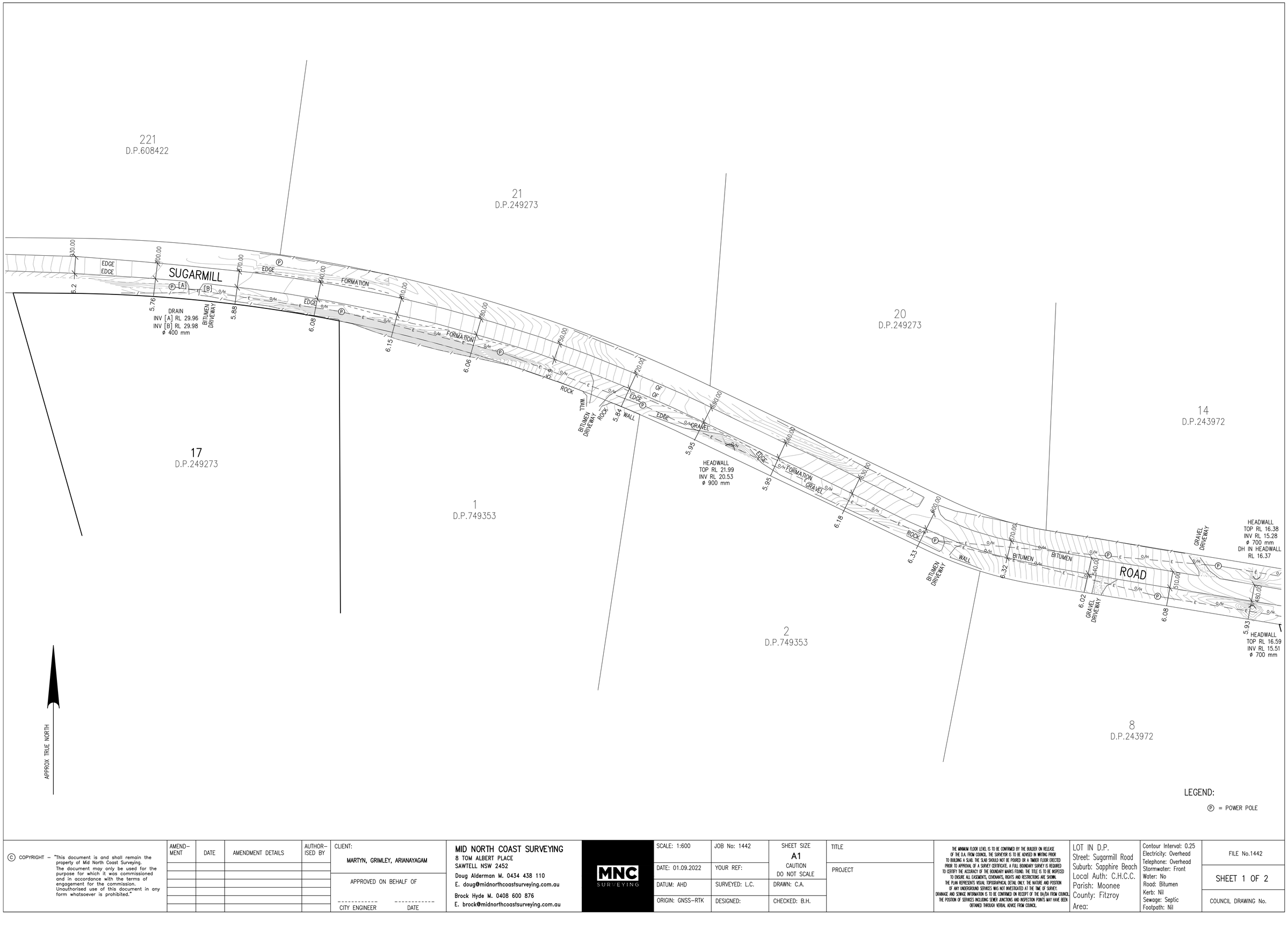
Works to widen the seal to 6 m along most of the narrow sections would achieve very little, be expensive and potentially cause more harm than good to the existing pavement that, over the years, has proved to be durable. Given the slight increase in traffic generated by the proposal, such works are not considered warranted with one exception.

One section, the narrowest, does warrant some widening works. The third drawing attached shows the bend between CH 140 and 280 where the seal is at its narrowest. Being on a bend with reduced sight distance, widening of the seal to at least 6.0 m is warranted, with this work best undertaken on the north side (inside of bend). Further, the longitudinal gradient through the section is quite flat as the road also passes over a gentle crest. Accumulated sediment and grass growth has all but filled the original shallow table drain on the north side. With the seal widening, the reshaping of a 1m wide gravel shoulder and a deepening of the grass table drain should also be undertaken.

Yours sincerely

Graham Knight

Director



AMEND-MENT	DATE	AMENDMENT DETAILS	AUTHOR-ISED BY

CLIENT: MARTYN, GRIMLEY, ARIANAYAGAM

APPROVED ON BEHALF OF

CITY ENGINEER ---------- DATE ----------

MID NORTH COAST SURVEYING
8 TOM ALBERT PLACE
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MNC SURVEYING

SCALE: 1:600	JOB No: 1442	SHEET SIZE A1 CAUTION DO NOT SCALE	TITLE
DATE: 01.09.2022	YOUR REF:		PROJECT
DATUM: AHD	SURVEYED: L.C.	DRAWN: C.A.	
ORIGIN: GNSS-RTK	DESIGNED:	CHECKED: B.H.	

THE MINIMUM FLOOR LEVEL IS TO BE CONFIRMED BY THE BUILDER ON RELEASE OF THE D.A. FROM COUNCIL. THE SURVEYOR IS TO BE ADVISED IN WRITING PRIOR TO BUILDING A SLAB. THE SLAB SHOULD NOT BE POURED OR A TIMBER FLOOR ERECTED PRIOR TO APPROVAL OF A SURVEY CERTIFICATE. A FULL BOUNDARY SURVEY IS REQUIRED TO CERTIFY THE ACCURACY OF THE BOUNDARY MARKS FOUND. THE TITLE IS TO BE INSPECTED TO ENSURE ALL EASEMENTS, COVENANTS, RIGHTS AND RESTRICTIONS ARE SHOWN. THE PLAN REPRESENTS VISUAL TOPOGRAPHICAL DETAIL ONLY. THE NATURE AND POSITION OF ANY UNDERGROUND SERVICES WAS NOT INVESTIGATED AT THE TIME OF SURVEY. DRAINAGE AND SEWAGE INFORMATION IS TO BE CONFIRMED ON RECEIPT OF THE DA/CA FROM COUNCIL. THE POSITION OF SERVICES INCLUDING SEWER JUNCTIONS AND INSPECTION POINTS MAY HAVE BEEN OBTAINED THROUGH VERBAL ADVICE FROM COUNCIL.

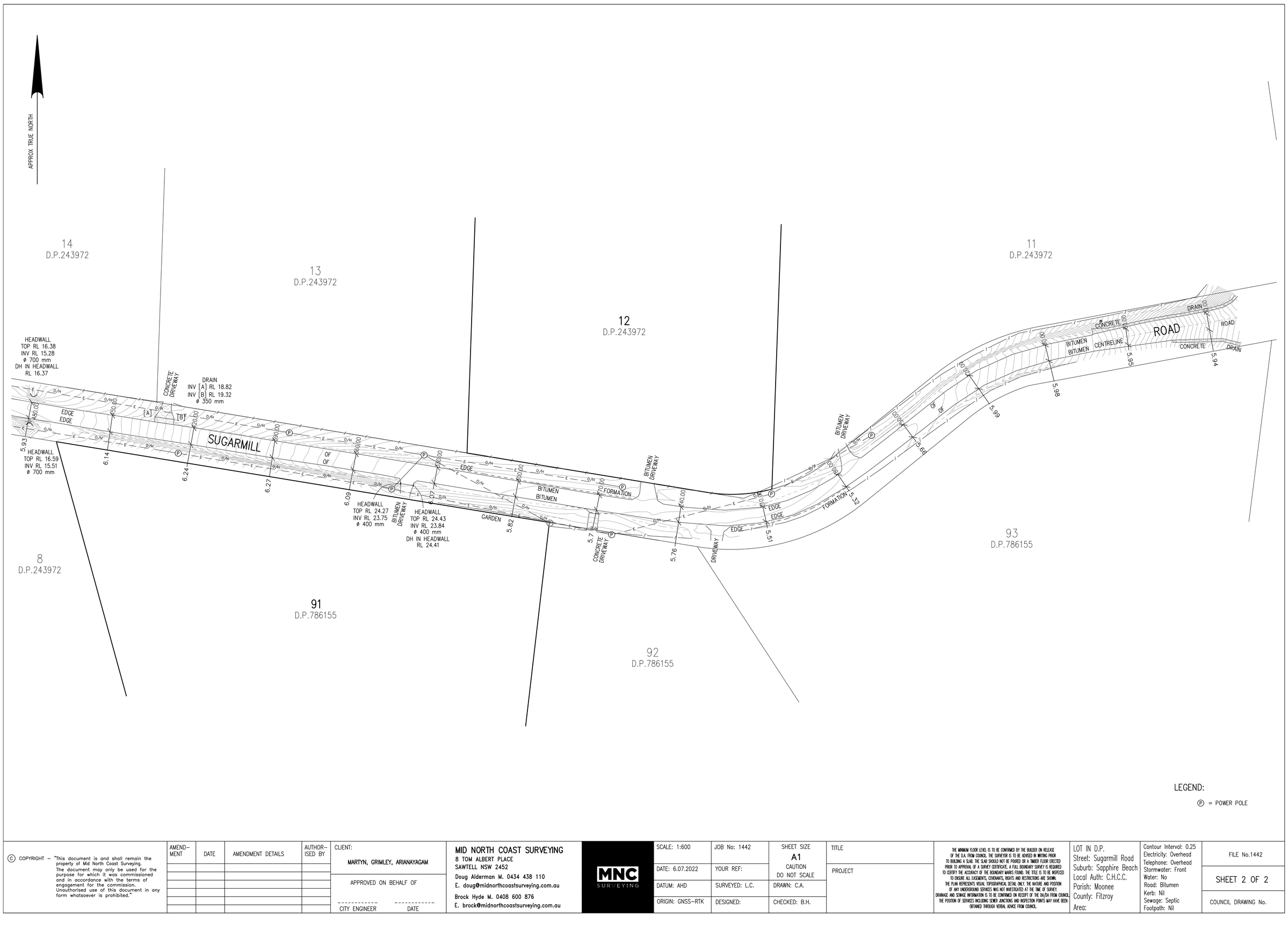
LOT IN D.P.
Street: Sugarmill Road
Suburb: Sapphire Beach
Local Auth: C.H.C.C.
Parish: Moonee
County: Fitzroy
Area:

Contour Interval: 0.25
Electricity: Overhead
Telephone: Overhead
Stormwater: Front
Water: No
Road: Bitumen
Kerb: Nil
Sewage: Septic
Footpath: Nil

FILE No.1442

SHEET 1 OF 2

COUNCIL DRAWING No.



LEGEND:

Ⓟ = POWER POLE

AMEND-MENT	DATE	AMENDMENT DETAILS	AUTHOR-ISED BY

CLIENT: MARTYN, GRIMLEY, ARIANAYAGAM

APPROVED ON BEHALF OF

CITY ENGINEER ---------- DATE ----------

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MNC SURVEYING

SCALE: 1:600	JOB No: 1442	SHEET SIZE A1 CAUTION DO NOT SCALE	TITLE
DATE: 6.07.2022	YOUR REF:		PROJECT
DATUM: AHD	SURVEYED: L.C.	DRAWN: C.A.	
ORIGIN: GNSS-RTK	DESIGNED:	CHECKED: B.H.	

THE MINIMUM FLOOR LEVEL IS TO BE CONFIRMED BY THE BUILDER ON RELEASE OF THE D.A. FROM COUNCIL. THE SURVEYOR IS TO BE ADVISED IN WRITING PRIOR TO BUILDING A SLAB. THE SLAB SHOULD NOT BE POURED OR A TIMBER FLOOR ERECTED PRIOR TO APPROVAL OF A SURVEY CERTIFICATE. A FULL BOUNDARY SURVEY IS REQUIRED TO CERTIFY THE ACCURACY OF THE BOUNDARY MARKS FOUND. THE TITLE IS TO BE INSPECED TO ENSURE ALL EASEMENTS, COVENANTS, RIGHTS AND RESTRICTIONS ARE SHOWN. THE PLAN REPRESENTS VISUAL TOPOGRAPHICAL DETAIL ONLY. THE NATURE AND POSITION OF ANY UNDERGROUND SERVICES WAS NOT INVESTIGATED AT THE TIME OF SURVEY. DRAINAGE AND SEWAGE INFORMATION IS TO BE CONFIRMED ON RECEIPT OF THE BA/DA FROM COUNCIL. THE POSITION OF SERVICES INCLUDING SEWER JUNCTIONS AND INSPECTION POINTS MAY HAVE BEEN OBTAINED THROUGH VERBAL ADVICE FROM COUNCIL.

LOT IN D.P.
Street: Sugarmill Road
Suburb: Sapphire Beach
Local Auth: C.H.C.C.
Parish: Moonee
County: Fitzroy
Area:

Contour Interval: 0.25
Electricity: Overhead
Telephone: Overhead
Stormwater: Front
Water: No
Road: Bitumen
Kerb: Nil
Sewage: Septic
Footpath: Nil

FILE No.1442

SHEET 2 OF 2

COUNCIL DRAWING No.

RECOMMENDED PAVEMENT WIDENING, SUGAR MILL ROAD

4 0 4 8 12 16 20

SCALE OF METRES 1:200 (A1) 1:400(A3)

George Stulle Traffic Engineering – 3 Montgomery Close Safety Beach NSW 2456

Ph. 0418 2193 58
Email george.stulle@exemail.com.au

27 June 2022

The General Manager
Coffs Harbour City Council
Locked Bag 155
Coffs Harbour
NSW 2450
coffs.council@chcc.nsw.gov.au

Dear Sir,

RE: Planning Proposal PP-2022-107, 28, 35 and 89 Sugarmill Road Sapphire Beach

I refer to Council correspondence of 27 May 2022 requesting additional information to support the Planning Proposal application PP-2022-107, 28, 35 and 89 Sugarmill Road Sapphire Beach.

This letter addresses the issues raised in relation to sight distance assessments undertaken in the Traffic and Parking Impact Assessment report October 2021 included as part of the application.

- *Please provide clarification in relation to the sight distance requirements. Noting that the sight distance requirements are for the posted or general speed limit unless the 85th percentile speed is more than 5km above the limit, in which case the tabulated speed to the nearest 85th percentile should be adopted;*
- *Please relocate the existing access to Lot 120 at 28 Sugarmill Road to be compliant with AS2890.1;*

Table 3.2.4 of AS 2890.1 provides entering sight distance requirements at vehicular access driveways for increments of 'frontage road speed' and includes a notation, as detailed in Councils letter, that the frontage road speed to be used in the table should be the posted or general speed limit unless there is evidence that the 85th percentile speed is higher.

To be reasonably applied, this notation must rely on the 'frontage road' having been subject to a speed review to determine whether the general speed limit should apply, as it would obviously be correct to use the table if the 85th percentile speed could be shown to be lower than the general limit on an unposted road.

Section 2.3 of the Transport for NSW Speed Zoning guidelines specifies that:

> *The speed limit must not exceed the maximum assessed speed for the road, taking into account key factors such as crash profile, road function, road use, roadside development, road characteristics, traffic mix, crash history, the presence of vulnerable road users, and the number, type and frequency of driveways and intersections which indicate potential conflict points.*

As detailed in the Sugarmill Road Traffic Impact Assessment report, Sugarmill Road demonstrates clear horizontal and vertical alignment road characteristics, roadside development and traffic mix which would warrant a speed zone of 60km/h. This would be consistent with nearby roads of similar characteristics such as Gaudrons Road and Wakelands Road which do have 60km/h speed zones.

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Nevertheless, the sight distance assessments undertaken in the Sugarmill Road Traffic Impact Assessment report were based on the higher criteria for an 80km/h speed environment. This was based on physical assessment of the speed environment which demonstrates a comfortable driving speed of 60km/h and a driving imit due to horizontal and vertical alignment of 80km/h.

It was also noted in the report that Sugarmill Road is not a through road and is only 1.0km in length providing access to a limited number of rural residential lots. Traffic characteristics on Sugarmill Road will therefore be predominantly local traffic with good knowledge of road and access features further limiting the likelihood of excessive speeds.

Regarding the existing driveway to proposed Lot 120 at 28 Sugarmill Road, as detailed in the Sugarmill Road Traffic Impact Assessment report this access services an existing house with well-established crossover and driveway. The existing driveway has no crash history and the rezoning proposal does not alter any traffic generation or road safety considerations as traffic volumes on Sugarmill Road remain low.

The driveway is located close to a horizontal curve on Sugarmill Road on its eastern approach with radius such that the 85th percentile speed on the curve would be less than 60km/h. Right turn movements from the driveway will not be required so the critical sight distances will be to the west and to a vehicle turning in to the property from the east. Sight distance to the west exceed the 95m required for an 80km/h speed environment and the measured sight distance from the east to a vehicle turning right into the driveway is 70m which exceeds the required sight distance criteria.

The sight distance assessments undertaken as part of the Sugarmill Road Traffic Impact assessment show that the proposed driveway access points can meet the requirements of Section 3.2.4 of AS 2890.1 sight distance at access driveway exits. The existing access to proposed Lot 120 at 28 Sugarmill Road is compliant with AS2890.1 and does not warrant relocation.

Please contact me if any further information is required.

Kind regards,

George Stulle BEng
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P. 0418219358