

SUBMISSION
NORDS WHARF VILLAGE –CONCEPT PLAN MODIFICATION
APPLICATION No: MP 10_0088 MOD.1

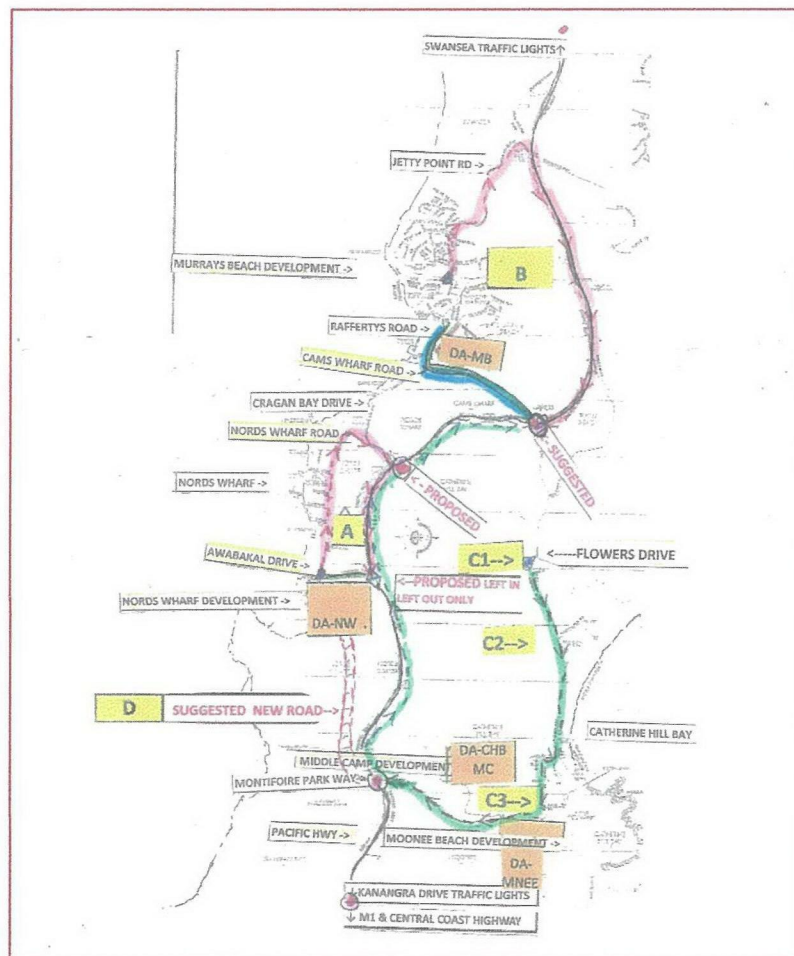
From: Brian Fallon, 46 Government Road, Nords Wharf 2281 (brianpfallon@yahoo.com)

To: The Minister and whom it may concern within State Development and Roads Administration.

Dear Minister and whom it may concern

Formal Objection with reasoning and alternative suggestion, is provided below aimed at: Maintaining the comforts, enjoyments, equities, investments and safeties of the existing Nords Wharf Community and surrounding communities. With equal importance, alternate-recommendations are provided to protect the ongoing effectiveness of the Pacific Highway: Representing an essential inter-city / inter-urban artery linking to the M1 and the Central-Coast highways. An annotated Situation-Map, providing overview with “points of reference”, is provided in support of this submission (An expanded version is provided as **APPENDIX.2**)

LOCAL AREA DEVELOPMENT MAP - SITUATION-OVERVIEW



Department of Planning
Received
15 JUN 2017
Scanning Room

Development-Impact Areas are referenced **A, B, C, & D**, Development Areas **DA-NW** Etc.,

DEVELOPMENT AREA REF	DEVELOPMENT AREA
DA-NW	NORDS WHARF
DA-MB	MURRAYS BEACH
DA-CHB MC	CATHERINE HILL BAY MIDDLE CAMP
DA-MNEE	MOONEE BEACH

The Pacific Highway is mapped between the Kanangra Drive Crangan Bay traffic-lights in the south, and the Swansea traffic-lights in the north. The colouring of roads: Pink and Green represent forced traffic detours consequent to proposed road and intersection changes: Such as “Left-In Left-Out only” at Awabakal Drive Nords Wharf Village. This submission also relies on mutual agreement with the Values / Obligations underpinning Development-Planning as set out in **Appendix.3**

EXECUTIVE: SITUATION-OVERVIEW AND SUMMARY RECOMMENDATION

This submission accepts the need, and supports State-Government’s aims for Housing-Development and the ongoing maintenance of highway traffic-flow efficiencies. The State and Local-Community impact consequences, of the multiple Housing-Developments (illustrated within the Situation-Overview Map above) converge at a level above the Road Modification-Proposals and objections relating just to Nords Wharf. This complex situation and impact-detail, including yet unaddressed-factors assisting efficiency of existing Highway traffic-flows and merge-options, is addressed in detail below.

This submission, it’s reasoning for objection and provision for alternate-Recommendations is primarily-based in the collection and analysis of additional and more relevant Statistical-Data relating to the nature of the local Pacific Highway traffic-Flow. This analysis is provided in **APPENDIX.1** and should be read prior to that provided below.

Acceptance of the Proposed Road-Intersection Modifications rest, in the first instance, rest on a weak foundation (**UNCERTAINTY as to need**) articulated within the “Intersect Traffic” (Traffic and Civil Engineering Consultants) Conclusions and Recommendation. Secondly, on Resident-Determined Fact-Based observation (Appendix.1) confirming the absence of NEED relating to the proposal.

The Intersect Report-Conclusions at **Dot-Point.6** stating that “*the RMS and Lake Macquarie Council Could Support Left-in Left-Out at Awabakal Drive and signalisation of Nords Wharf Rd Intersection*”: is based on Sidra Modelling predicting “*significant right-turn merge delay in 2026*” (**Dot Point.2**), whilst at **Dot-Point.3** it admitted “*Sidra modelling for right turn movement out of Awabakal did not match the observed delays*”: In fact no significant delay at all as confirmed by detailed resident-based observation data-collection, and statistical analysis. The Transport Roads & Maritime Services letter from the A/Manager Land Use Assessment to Urbanise Consulting, dated 12 Oct. 2016 acknowledged, under a Road-Safety Heading: “That the modelled results did not match observed delay” finally “reserving Road and Maritime’s “right to change its position”. Which this submission hopes to support and encourage.

Decision-Making, relating to significant-change, involving high-level State and Community consequence, cannot rest on such uncertain-foundation, particularly in absence of the actual facts of matters, and higher-reaching alternative.

Executive- Summary: Strategic-Recommendations arising within this submission;

RECOMMENDATIONS: Removing reasons for OBJECTION, eliminating identified adverse development proposal impact-consequences on road efficiencies and the existing local-communities.

1. **Traffic-Lights** be installed at the Intersection of Cams Wharf Road, Flowers Drive and The Pacific Highway (Rendering the intersection safe and traffic-calming, supporting a dual-exit options south from the expanding Murrays Beach development, and maintaining safe and efficient access and exit the north, via Flowers Road for the Community of the Historic Catherine Hill Bay Villages;
2. Cams Wharf Road, joining with Murrays Beach, via an in-progress extension of Raffertys Road, be upgraded as an Arterial-Road Link (Providing a time-efficient and additional exit / evacuation option for the expanding Murrays Beach community.
3. The modification-proposal for Awabakal Drive Nords Wharf Intersection: Left in left out only, be amended to: The installations of a middle-highway wait and merge lane only (For reasons provided below).
4. The modification proposal for Nords Wharf Road: Traffic Lights be scrapped (Being unnecessary and problematic)
5. A developer based Contingency-Fund for a possible Future-Need for "North-Only Traffic Lights" at Awabakal be put in place.
6. If geographically feasible, that: A new road be constructed on the south-side of the Nords Wharf Development Area connecting with, and creating, a four-way intersection at Montefiore Park-Way Crangan Bay (Providing safe exist and entry to the Pacific-Highway for all three of the new development areas -> Moonee Beach, Middle Camp and the Scout-Camp Area at Nords Wharf).

Recommendations 1 and 2: Were discussed with and are supported by Estate-Manager of the Murrays Beach housing-development, Mr. Warren Tresidder.

Recommendations 3, 4 and 5: Are based on statistical data and analysis **confirming: A Quantum (or Intermittent) Flow-Characteristics of the local Pacific Highway Traffic** assisting significant and time efficient "Right-In and Right-Out Turn" opportunities at Awabakal Drive. This enabling flow-characteristic will be entrenched if the alternate Recommendation.1 for Traffic Lights at the Cams Wharf Pacific Hwy above is accepted.

Recommendation 6: Represents a strategy to curtail adverse traffic-flow consequences emerging from the new development area {DA-NW}, into the existing and inadequate Nords Wharf internal Road system: **A problematic-situation that would need major Redress at Development-Cost:** Comprehensive footpath-installation, road and intersection construction and reconstruction, etc., in Nords Wharf Village.

DETAILED SUBMISSION

DEVELOPMENT AREA: A - NORDS WHARF

- A. Proposed: LEFT-IN LEFT OUT ONLY AT the AWABAKAL DRIVE intersection, is OPPOSED:** Being oppressive, fire escape risk-enhancing, functionally-problematic and unnecessary. Outside other issues to be articulate, with a local fire rating of 100, physically preventing an alternate fire-escape route south, onto the Pacific Highway south by whatever means, represents nothing less than a **Gross-Negligence** in regard the elevated-risk to life within Nords Wharf Village and for the residents on new Development-Area. Resident-experience, of recent fire and storm incidents, required alternate evacuation-points, confirmed life-based risk.
- Alternate Recommendation: That a right-turn south, mid-highway, Wait and Merge lane be installed and if,** further road-modification at Awabakal Drive is still deemed necessary, In the face of this and other submissions received, that
 - North-Only lights be installed at the Awabakal Drive complementing the South-Only lights at Montefiore Pkwy / Pacific Hwy intersection.**
- B. The Proposed: Upgrade of Entry to Awabakal Drive:** Being necessary, is **SUPPORTED**.
- C. Proposed: The installation of Traffic-lights at the Nords Wharf Road and Pacific Highway Intersection is OPPOSED:** as problematic, unnecessary, life-risk enhancing and misplaced at the northern-boundary of Nords Wharf Village.
- Recommendation: If lights are required in assisting exit, to the south, from Nords Wharf then: the option for North-Only lights at Awabakal Drive (at the southern boundary of Nords Wharf Village)** will better serve the current community and the residents of the proposed development. The adverse-impact factors on Nords Wharf roads and community, have been adequately set out in the Nords Wharf Progress Association document-extract at **Appendix.4**
 - Recommendation: In place of the proposed Traffic-Lights, the North bound merge-lane from Nords Wharf Rd, be extended to an RTA determined sufficient merge-distance. No other modification of this intersection is deemed as required**
- D. Nords Wharf Development Area (NWDA) Proposal – Map Area [DA-NW]: Increasing the lot numbers: is ACCEPTED** as relatively immaterial in overall context: **EXCEPT for -> Adverse Traffic-Impact on:**
- The existing Nords Warf Village road-infrastructure, its limitations and deficiencies;
 - The existing comfort, safety and equities enjoyed by of the existing Nords Wharf Village community. A community that will be further impacted, in terms of highway traffic levels and access, consequent to developments at Moonee Beach, Middle Cam, and possibly by proposed road-changes (Involving redirection), that will adversely affect the existing community at Catherine Hill Bay.

- A. **Recommendation:** [See local Area Development Map - **[D – Suggested New Road]**]: That an alternative entry and exit road, a secondary fire-escape option, if feasible, be constructed to the south of the development-area, connecting with the new traffic lights at the Pacific Hwy / Montefiore Pkwy Intersection.
- B. **Recommendation:** That the Traffic lights at Montefiore be converted to a 4-way intersection servicing highway-access for three new Development-Areas: Nords Wharf, Moonee Beach, and Middle Camp.

COMMUNITY IMPACT COMPENSATION and REDRESS: If alternate recommendations are not agreed and the proposed road modifications are put in place then:

The Developer and or the State Government, within obligation to maintain existing community equities and safety provisions, must initiate internal road and related infrastructure reconstruction within Nords Wharf Village. The Inadequacy and life risk is based on: The existence of Schools and Child-Care facilities, bounded by the only two cross-community roads, Government Rd and Marine Parade (with their inadequacies), including two blind and steep-hills and the blind and dangerous intersection at Nords Wharf Rd and Government Road. All this complicated by the all but absence of footpaths and bicycle-tracks: - Requiring School and other children to walk, ride and play on the road, and mothers with prams and push-carts, to also use the roads. Compensation work would at least involve:

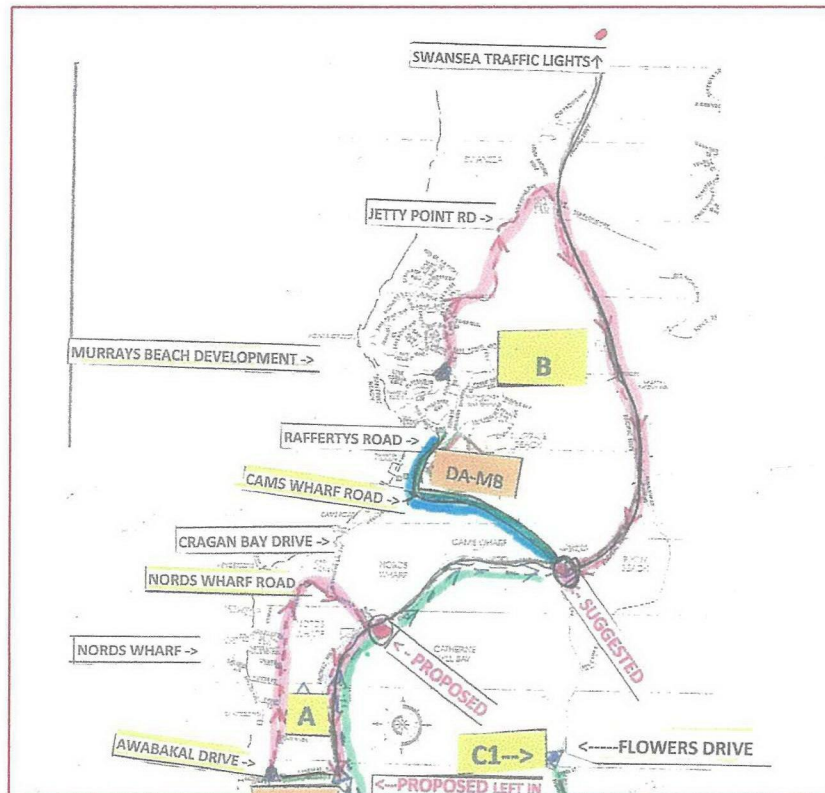
- Footpaths being installed along all internal-roads,
- A bicycle track for children in Baxter Park,
- Drop-off and Pick-Up Bay construction at the School and Child Care Centre; and
- The blind right-turn Intersection at Government Road & Nords Wharf Road rendered safe

E. Flora and Fauna Impact: Overall support for the Development IS CONDITIONAL on:

- a. **Care to Preserve and Render Safe: The Forest and Migration-Corridors** from Crangan Bay that cross Awabakal, Nords Wharf and Cams Wharf Roads must be preserved. This particularly applies to protecting the annual **echidna-migration** that, during the breeding season, moves through these environments and across these two roads at night. Echidna are a very-slow moving species, and relatively rare (particularly in close-proximity to developed communities).
- b. **Road Risk: That adequate Road-Signage is put in place REQUIRING “Care” by drivers, and the use of high-beam at night”. Speed limits should reflect the risk involved i.e., 60 KPH on these three roads. Low intensity lighting might also be put in place.**
- c. **Forest Clearance within the Development Area: That the National Parks and Wild Service, or other appropriate agency, be charged to organise or supervise the relocation of species and endangered species during Development-Area forest-clearances.**

The Development-Areas below combine in regard development and road impact.

AREA-B – MURRAYS BEACH DEVELOPMENT [DA-MB]



Currently, the only access to and from Murrays Beach is via Jetty Point Road to the north. This road its connection with the Pacific Hwy and south to the Cams Wharf Rd Intersection is coloured pink.

Rafferty's Road to the south, currently servicing Rafferty's Resort, is being extended into Murrays Beach. The road-extension will service new housing-development expansion at the southern-end of Murray Beach. It will also provide an additional and more efficient access /exit option particularly in regard fire-evacuation emergency. It is reasonable to predict that, when open, additional traffic will flow into Cams Wharf Road, **saving some four (4) kilometres in current distance**, when seeking to travel south on the Pacific Highway. This road connection is coloured blue

This traffic may also flow, due to intersection-dangers and merge-problems caused by the absence of lights at the Cams Wharf Rd / Pacific Hwy four (4) way intersection. May also divert Murrays Beach traffic, via Crangan Bay Drive, into the already-problematic Nords Wharf Road due to the proposal for Traffic Lights there. This outcome would further aggravate the adverse traffic-impact on Nords Wharf consequent to proposed diverted flows from the new development at Nords Wharf

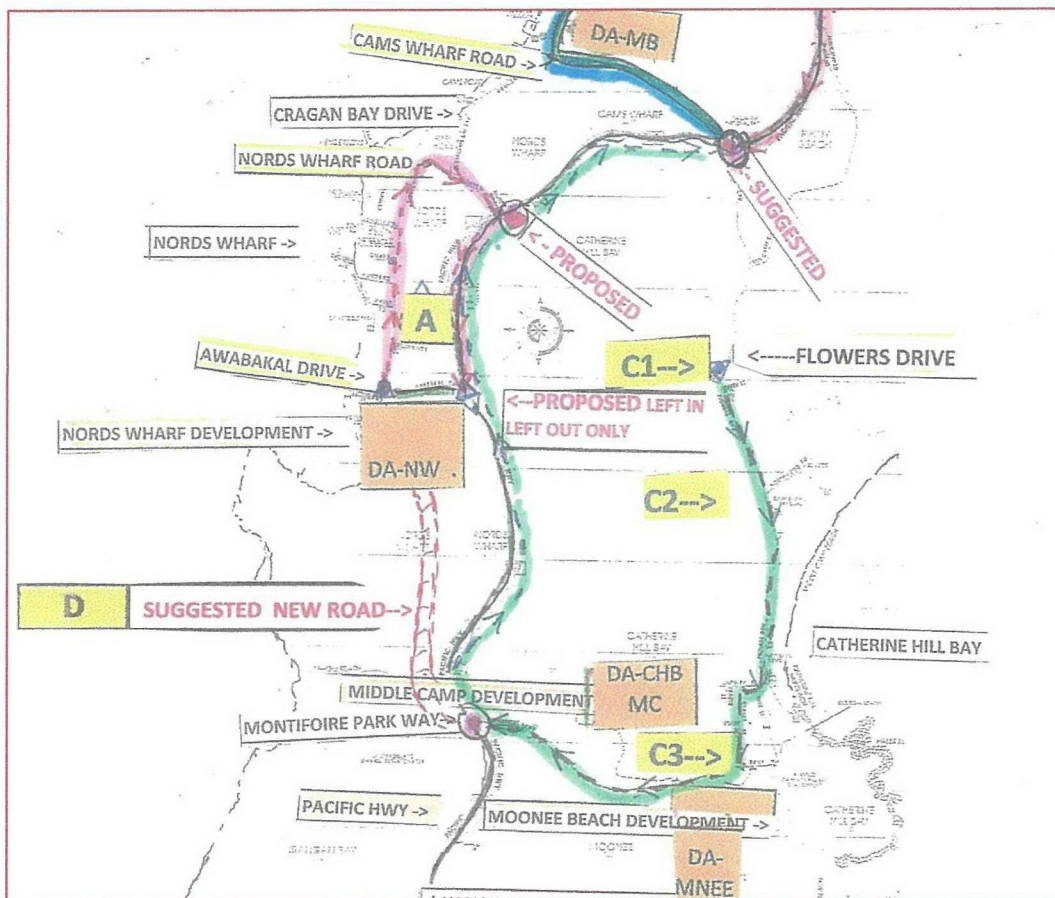
AREA-A [DA-NW] .

This 3.2 km traffic diversion, via Government Road Nords Wharf, is traced in Pink

Thus the: Recommendation:

- Traffic Lights be installed at Cams Wharf Road, and
- Cams Wharf Road, being most-suitable, be ungraded accordingly; and
- The Proposal for lights at Nords Wharf Rd be rejected as unnecessary and problematic

AREA-C – CATHERINE HILL BAY – MIDDLE CAMP [DA-CHB]



Advice has been received that a proposal is in place to render the intersection of Flowers Road with the Pacific Highway **left turn only**.

The proposal, possibly aimed at stopping the flow of traffic from the new developments at Middle Camp [DA-CBH] and Moonee Beach [DA-MNEE] Middle Camp [DA-CBH], into Flowers drive overpowering both the Historic Catherine Hill Bay (CHB) communities and the already dangerous and problematic intersection with the Pacific Hwy. The proposal, if in place, is untenable and unnecessary for the following reasons:

1. Swansea, to the north, is the closest local shopping-centre. Location [C1-->], representing the northern-end of the CHB Village, is currently 1.1 Kilometres from the Flowers Rd / Pac. Hwy Intersection, [C2-->], in the middle, 2.1 Kms, and [C1-->] the Surf-Club / Hotel Area at the southern-end 3.1 Kms. The **Light-Green road-trace** on the map represents the path and length of the Travel-Distance diversion that would be imposed on these CHB communities: That is an

extra 6.7, 7.7 and 8.7 kilometres respectively and a minimum 3.5 to 8.5 minutes extra travel time.

2. The believed premise upon which this oppressive-option is based **suggests a Fundamental-Wrong**. Montefiore Pkwy has been upgraded and represents the most convenient and efficient means of accessing the high-speed Pacific Hwy (North or South) -> for the Moonee and Middle-Camp Communities [DA-CHB MC] and [DA-MNEE].
3. A left-turn only option re: Experience with recent fire emergency and needed exit strategy options, would render a left-turn only option (as with proposals for the Awabakal Dive Intersection) a GROSS NEGLIGENCE.

TABLE: TRAVEL-DIVERSION -> DISTANCE AND TIME- IMPACT ON LOCAL COMMUNITIES

REF	PROPOSED CHANGES / DETOURS FOR EXIT TO PACIFIC HWY	CURRENT TRAVEL DIST Kms	PROPOSED SUGGESTED CHANGE Kms	TRAVEL DIST Kms	TRAVEL TIME Min
A	MODIFICATION PROPOSED: NORDS WHARF - AWABARKAL DRIVE: LEFT IN LEFT OUT ONLY	0.4	3.2	2.8 Kms EXTRA	4.5 Min EXTRA
B	MURRAYS BEACH: JETTY POINT RD (CURRENT ONLY OPTION) - To Cams Warf Rd / Flowers Rd & Pacific Hwy Intersection	6	ONLY OPTION		
B	SUBMISSION-SUGGESTED-EXIT VIA NEW MURRAYS-LINK ROAD, RAFFERTYS ROAD & CAMS WHARF RD to Pacific Hwy Intersection	CURRENTLY (EMERGENCY EXIT ONLY)	1.9	4.1 Kms SAVED	3.0 Min SAVED
C	MODIFICATION PROPOSED: CATHERINE HILL BAY - FLOWERS DRIVE: LEFT OUT ONLY				
C1	CATHERINE HILL BAY NORTH - HISTORIC VILLAGE	1.1	8.7	7.6 Kms EXTRA	8.5 Min EXTRA
C2	CATHERINE HILL BAY CENTRE - HISTORIC-VILLAGE	2.1	7.7	5.6 Kms EXTRA	5.0 Min EXTRA
C3	CATHERINE HILL BAY SOUTH - HISTORIC VILLAGE	3.1	6.7	3.6 Kms EXTRA	3.5 Min EXTRA
C4	NEW - MOONEE DEVELOPMENT			NO EFFECT	VIA
C5	NEW - MIDDLE CAMP DEVELOPMENT			NO EFFECT	Montifore Pkwy

This insensitive proposal – should rightly generate anger and frustration

Thus again (NEED) – for the Recommendation:

Traffic-Lights at the Cams Wharf Rd / Flowers Drive Intersection with the Pacific Hwy. Rendering obsolete the any need for “left out only” from Flowers Drive. Maintaining the current comforts, equities, investments and safeties enjoyed by the existing Catherine Hill Bay Communities.

CONCLUSION

The Submission above is provided in good faith and care, but without opportunity for prior Government, Developer or Local-Community consultation. Thus it is an individual-submission based on individual research and assessment. Thus it is provided with apologies for possible absence or misunderstandings consequent to the limited-time provided for response to the Nords Wharf Concept Plan Modification MP 10_0088 MOD.1

TRAFFIC FLOW STATISTICAL ANALYSIS

Nords Wharf Concept Plan Modification – Application Number 10_088 MOD.1

AWABAKAL DRIVE -NORDS WHARF / PACIFIC HWY INTERSECTIONS

RESIDENT OBJECTION

To: The Minister, Department of Planning and the RTA and whom it may concern

Dear Ministers and others

On 21 March 2017 – Intersect Traffic [Traffic and Civil Engineering Consultants] provided a Traffic Review the above intersections. Within the Reports-Conclusions it states:

1. *“Updated traffic counts and Sidra modelling of the intersection shows that all movements at these intersections currently operate satisfactorily except for the right-turn movement out of Awabakal Drive.*
2. **Sidra modelling** of the Pacific / Awabakal Drive intersection shows the right turn movement out of Awabakal Drive experiences significant delays and that by 2026 , with just background traffic growth these delays would reach unacceptable levels
3. **The delays predicted by Sidra** modelling for right hand turn movement out of Awabakal Drive at the Pacific Highway **did not match the observed delays** indicating drivers are already accepting less than the recommended minimum headway gap in undertaking this movement.
4. **Etc.,**

The Report “Conclusions” go on to a **Recommendation:**

“Having undertaking this traffic analysis of the proposed 101 lot subdivision it is considered that the NSW RMS and Lake Macquarie Council **could support the proposal** which includes the conversion of the Pacific Highway / Awabakal Drive intersection to a left in and left out intersection and the signalisation of the Pacific Highway /Nords Wharf Road Intersection **as the proposal would not adversely impact on the state and local roads network.**”

FEEDBACK: A RESIDENT-VIEW and STATISTICAL-SURVEY: Questioning the results, conclusions and recommendations supporting the intersection modification-proposal

As a resident of Nords Wharf for eight years who regularly exercises a right-turn from Awabakal south in order to pick up grand-children from School or for other reason, we have never experiences any delay much less significant of unacceptable. This reality includes the fact that the turn is not assisted by a middle lane wait-merge lane as exists at the Nords Wharf Road intersection. This is no doubt why **“observed delays” did not match** the ‘Sidra Modelling’ as stated in conclusion 3. Above.

In order to create **Fact-Based** support to RESIDENT-OBJECTION: two Statistical-Analysis, of the Traffic Flow characteristic, were performed to explore the actual-nature of the Traffic and Traffic-Gaps supporting Right Turn into and out of Awabakal Drive. A summary of results is provided over.

TRAFFIC FLOW / MERGE ANALYSIS

PACIFIC HIGHWAY TRAFFIC FLOW - RIGHT TURN IN AND OUT OF THE AWABAKAL DRIVE INTERSECTION

COMPARATIVE DATA – between RESIDENT Data-Collection and INTERSECT TRAFFIC (Traffic and Civil Engineering Consultants) DATA-Collection.

This statistical report is provided in **Support of OBJECTION** to the proposed: Left-In Left Out only at the Awabakal / Pacific Hwy Intersection. The suggestion that the centre-road safety fence be extended to fully block a right-turn option from Awabakal - lifts the Modification Proposal to the level of a **Gross-Negligence**. Hopefully, the analysis below, and alternate-suggestions provided in this Submission, will see the proposed changes at Awabakal and Nords Wharf Road as unnecessary and in fact strategically negative Re: immediate and future adverse-Impact

Note: The resident data-collection primarily involved detailed analysis of the **Intermittent-Nature** and related underlying causes of the traffic-flow, plus detail on the vehicle-numbers turning right, in and out, of Awabakal-Drive. Intersect-Traffic also collected this latter-data, but otherwise seemed to have concentrated on numbers relating to overall flow on the highway: Apparently then using SIDRA-Modelling to predict future intersection, access / exit numbers for Awabakal Drive and Nords Wharf Road.

TABLE 1.A

TABLE.1A				
"INTERSECT TRAFFIC" / RESIDENT DATA COMPARISON	RIGHT IN	RIGHT OUT	LEFT OUT	LEFT IN
RESIDENT DATA				
30-May-17	1	20	5	#
9-Jun-17	2	24	3	18
SUM >	3	44	8	18
AVGE >	1.5	25	4	18
INTERSECT TRAFFIC				
Friday 29/7/16	4	25	11	16
		CORRELATES		CORRELATES

It is pleasing that both sets of data, combined in Table.2, have a high level of correlation: Assisting confidence in both Intersect-Traffic's flow-data prior to modelling, and the resident collected intermittent traffic-flow data represented in Table.1

RESIDENT ANALYSIS - Method: Examining the Flow-Characteristic of Traffic on the Pacific Hwy, crossing Awabakal Drive in a northerly direction, by recording and analysing the **NUMBER and TIME-Length of FLOW-GAPS, per minute**, in the traffic flow. The survey covers two, one hour, Peak-Flows between 8 and 9am.

It was noted that right-turn onto the Pacific Highway South from Awabakal took less than 3 seconds once vehicle movement commenced. Also, that a minimum Time-Gap of 8 seconds, constrained by the length vision regarding approaching-traffic, sufficed for a single-vehicle to safely turn right from Awabakal Drive. Two vehicles were however observed to exit in this time period - watched by a Highway Traffic Officer parked at the intersection, who remained unconcerned. No material-delay, in turning right, was noted during two separate days of data collection. Most cars managed the right-turn either immediately or under 10 seconds. No wait longer than 20 seconds was observed. The Statistics provided in Table.1 explain why.

TABLE.1B - SUMMARY DATA: TRAFFIC FLOW-GAP STATISTICS – PACIFIC HWY NIRDS WHARF - PER HOUR AND MINUTE.

TABLE.1B	RESIDENT COLLECTED DATA ANALYSIS							
DATE & REF	PACIFIC HWY: NORTH: GAPS - PER MINUTE ->	1 Gap	2 Gaps	3 Gaps	4 Gaps	5 Gaps	TOTAL PER HOUR	MEASURE
RESIDENT DATA								
Tues 30/5/17	GAPS PER HOUR / per minute >	60	56	34	8	1	159	
Friday 9/6/17		60	58	33	7	1	159	
	SUM	120	114	67	15	2	318	
STAT-A	AVERAGE: GAPS per hour	60	57	34	8	1	159	
STAT-B	PROBABILITY: Gaps per minute	100%	95%	56%	13%	2%		
Tues 30/5/17	TOTAL GAP-TIME: Seconds per hour	929	878	510	100	8	2425	
Friday 9/6/17		1118	915	555	88	25	2701	
	SUM	2047	1793	1065	188	33	5126	
STAT-C	AVGE GAP-TIME SECONDS per hour	1024	897	533	94	17	2563	71%
STAT-D	Avg TRAFFIC FLOW TIME: Secs Per hour						1037	29%
STAT-E	TOTAL FLOW TIME PER HOUR						3600	100%
STAT-G	AVERAGE GAPS PER HOUR						159	Number
STAT-C	AVERAGE GAP TIME PER HOUR						2563	Seconds
STAT-H	AVERAGE GAP-TIME SECS PER HOUR				RATIO = 2.5/1		16.1	Seconds
STAT-I	AVERAGE FLOW-TIME SECS PER HOUR				RATIO = 0.4/1		6.5	Seconds
Tues 30/5/17	GAPS greater than 7 secs less than 16 secs						108	
Friday 9/6/17	"						96	
	SUM						204	
STAT-J	GAP-TIME: More than 7 secs, less than 16 secs					64%	102	Number
30-May-17	GAPS greater than 15 secs						51	
9-Jun-17	"						63	
	SUM						114	
STAT-K	GAP-TIME greater than 7 secs less than 16 secs					36%	57	Number
STAT-G	AVERAGE GAPS PER HOUR					100%	159	Number

The statistics in table 1.B evidence a QUANTIFICATION of the Highway's Northern traffic flow through the Awabakal Intersection. This intermittent-flow phenomenon, is consequent to the traffic-lights at Kanangra Drive, Crangan Bay 6.8 kilometres to the south. A Perfect local-example, is the absence of need for Traffic-lights at Chain-Valley Bay Road, servicing the highway access-needs of community numbers far greater than at Nords Wharf (possibly even if the proposed development area population is added). The reason again, is grouping effect of the traffic lights to the north and south of Chain Valley Bay Rd: I.e., at Elizabeth Bay Drive Lake Munmorah and again at Kanangra Drive.

FOR A DRIVER ATTEMPTING A RIGHT-YURN EXIT AWABAKAL:

STATS- A & B: Indicate that for EVERY-MINUTE of traffic-flow: the Drive has A: 100% probability of at least one (1) sufficient Traffic FLOW-GAP in which to merge, a 95% chance for 2-Gaps, 56% for 3-Gaps, 13% for 4-Gaps.

STATS- C & D: Provide comfort in that 71% of the traffic-flow time represents merge-significant Gaps allowing merge

STATS- H: Indicates an average merge time, per minute, of 16.1 Seconds

STAT- J & K: A 64% probability of the Gap-Time length between 8 and 15 seconds, and a 36% probability of a Merge Gap between 16 and 50 seconds.

This statistical-outcome, via alternative solutions recommended below, **ELIMINATES** the presumed NEED, and reasoning, for the (Left In left out only) at Awabakal Drive.

ALTERNATE / Consequent RECOMMENDATIONS

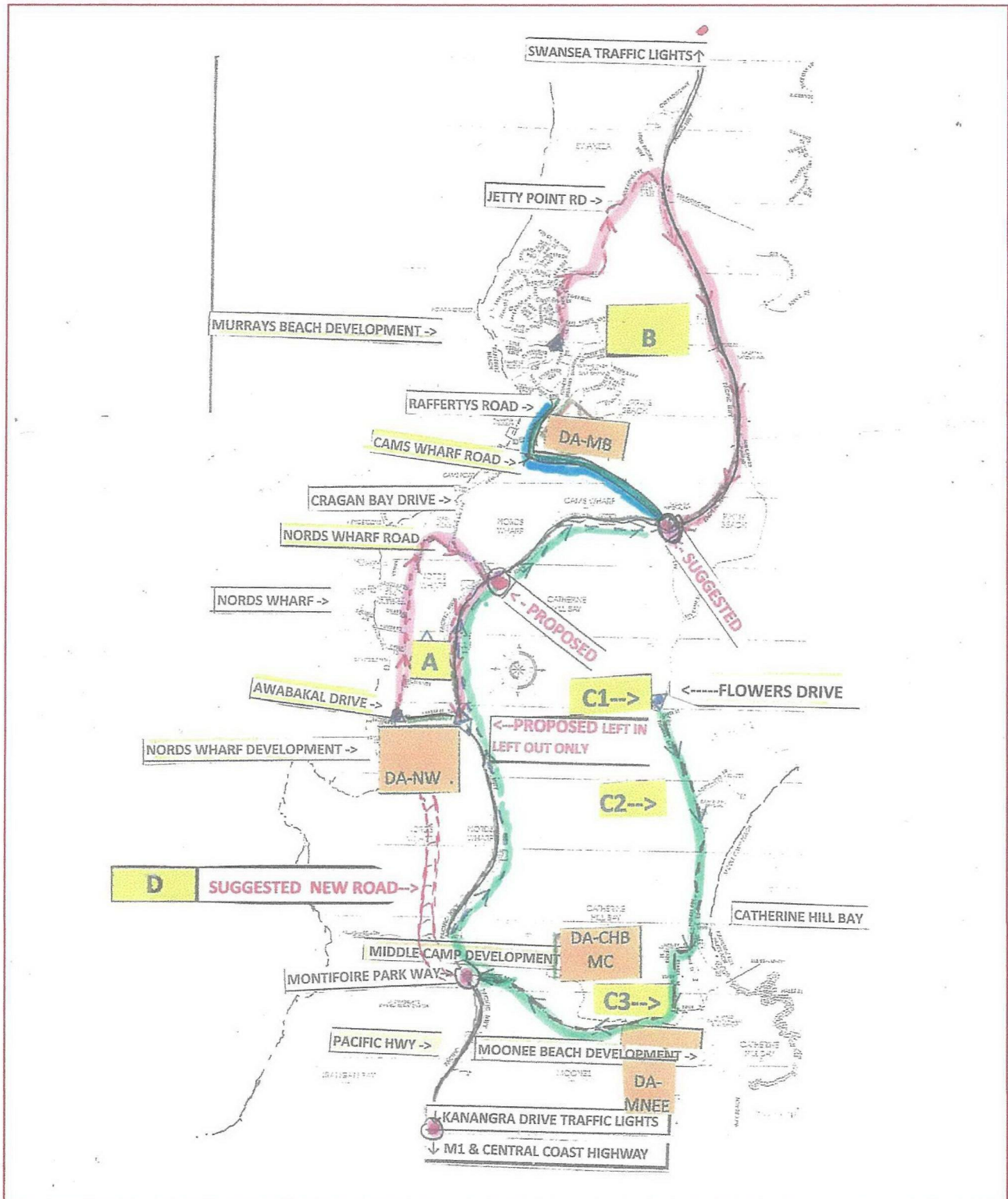
1. That, the Pacific-Highway, and its intersection with Awabakal Drive Nords Wharf, be restructures to include the two existing south bound lanes , plus a middle-Highway WAIT AND MERGE LANE: Supporting "Right-Turn In and Out" from Awabakal Drive;
2. The proposal for Traffic-Lights at Nords Wharf Rd be dropped: As unnecessary - based on the intermittent / quantum Traffic-Flow of the highway, and to remove unnecessary interference with the Arterial-Road Traffic-Flow; and
3. That Alternative-Consideration is given to the PRIMARY SUBMISSION RECOMMENDATION: Upgrade of Cams Wharf Road, for installation of Traffic Lights at the Cams Wharf Road / Flowers Rd, Pacific Highway Intersection. Traffic Lights and Road-Upgrade that:
 - Will combine with Lights at Kanangra Drive Crangan Bay – to ensure ongoing-quantification of the traffic flow past Nords Wharf;
 - Serve the access and exit needs for the current and expanding housing development at Murrays Beach; and
 - Eliminate adverse-impacts of the overall Area-Development and Road-Development proposals on both the North Wharf and Catherine Hill Bay Historic –Communities.

This author acknowledges that unfortunately, due to absence of prior consultation, this submission is written in absence of any interaction with or understanding of the RTA and Approval-Authority's current-views regarding the proposed development modifications or existing alternate proposals and reasoning. Acceptance is however acknowledge, as to the higher level of skill and expertise represented in members of the RTA and Development Authorities. In fact, this experience and expertise is relied upon, not only in regard to consideration of the alternate recommendations made, but also in regard the developed-skills in modelling, combining and implementing the suggestions if accepted.

SUBMISSION AUTHOR

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DEVELOPMENT MAP - SITUATION OVERVIEW



OBLIGATION / VALUES

GUIDING DEVELOPMENT PLANNING AND OUTCOME

- A. **PROBLEM-SOLVING:** Accepting the need for structured Collaborative-Process involving all stakeholders;
- B. **HOUSING-DEVELOPMENT - Existing Community Protection:** Committed priority to maintain and / or enhance the existing comforts, safeties, investment and equities of communities affected by proposed development;
- C. **ROAD DEVELOPMENT or MODIFICATION:** Committed priority to minimise impact on flow-efficiencies, safety, access and effectiveness community roads, and inter-city and inter-urban arterial-roads and highways. In this development-context. The local Streets servicing Nords Wharf and surrounding-communities, and the Pacific Highway linking (north / south) with the M1 and the Central-Coast Highways.
- D. **DEVELOPER RESPONSIBILITY – Road and Environmental:** A primary-obligation to confine development problems, road-access, and environmental consequences, within the Development-Area and the Developer's Cost-Obligations. Also, to remedy or remove any adverse-affect, safety or other threatening existing comforts and equities of the adjacent communities.
- E. **CONCILIATORY AND OPEN PROBLEM SOLVING PROCESSES:** Commitment to agreed Guiding-Values via collaboration within structured problem solving: Particularly, avoiding the objections, delays, legal-challenges, costs and on-going residual community bitterness, that evidences the history of the Catherine Hill Bay / Mooney Development. Conflict and discord that persisted for decades and remains today: Threatening to divide rather than integrate new and existing
- F. **PERSPECTIVE:** The benefit in taking a higher, broader and longer-term view perspective within planning and problem solving

NORDS WHARF IMPACT CONSIDERATIONS

EXTRACT: Nords Wharf Progress Association Impact Assessment Re: Nords Wharf -Scout Camp Area Development

The development company are proposing changes to the previously approved plans that will **IMPACT greatly** on the lives of everyone in Nords Wharf.

The main changes are:

- **101 lots for houses instead of the original agreed 84.**
- **Changes to Awabakal Dr intersection** – only left hand turn in from the highway and only left hand turn out – ie: NO RIGHT TURN TO TURN towards Doyalson/Sydney. **The agreed** intersection was to have 'seagull' lights the same as at Rutleys Rd, allowing traffic to go in both directions, north and south, safely.
- **No additional parking** for Branter Road launching ramp.
- **No guarantee** the public waterfront land will remain public.
- **'Signalised'** intersection at Nords Wharf Rd and the Highway – this is not fully explained in their submission. Will there actually be traffic lights? Will the changes be compatible with the RMS proposals for Cams Wharf Rd/Flowers Drive/Pac Hwy intersection? Will there be specific 'bus' lights as the routes will have to change if they can't turn right from Awabakal Dr?? All this will make the time at the lights LONG !
- **Developer withdrawing previous commitments** to the Nords Wharf community – no upgrade to Branter Rd boat ramp, no extra parking for the boat ramp, no upgrade to Gathercole park, no contribution to the pre-school or playgroup - these agreements were in the original agreement.

Potential impact:

- 101 new houses means much more traffic especially in the peak times.
 - Construction traffic including heavy vehicles will be directed through our village.
 - Increased traffic down Government Road/Marine Pde/Nords Wharf Rd in order to access the Highway if going South, or if travelling from Swansea to Awabakal Dr, no entry!
 - Safety of all pedestrians and children on bikes will be compromised due to lack of footpaths.
 - The pre-school access will become dangerous as visibility is poor due to the steep hill when travelling north, and there is no parking other than on the street.
 - Increased traffic outside the school will compromise the safety of our children during drop off /pick up times and when using the park opposite. The school population is already predicted to double in size to 250 students within 5 years from the new developments at Murrays Beach and Catherine Hill Bay.
 - More traffic incl. trucks using Government Rd will impact on the BLIND corner of Government Rd and Nords Wharf Rd – the Stop sign doesn't improve this corner and with 100 + **more** vehicles going this way is inviting accidents.
 - It will be even more dangerous for residents with steep driveways and low visibility in Government Rd and Nords Wharf Rd when exiting their properties.
 - Not enough parking for the increase in residents and visitors accessing the public waterfront land in front of the development.
- More pressure on our community – parking, road quality, school, pre-school etc – with no additional monetary contribution