Far North District Council

AGENDA

Infrastructure Committee Meeting

Wednesday, 12 February 2020

Time: **9.30 am**

Location: **Council Chamber**
Memorial Avenue
Kaikohe

Membership:

Cr Felicity Foy - Chairperson
Cr Ann Court – Deputy Chairperson
Mayor John Carter
Cr Dave Collard
Cr Mate Radich
Cr Kelly Stratford
Cr John Vujcich

INFRASTRUCTURE COMMITTEE - MEMBERS REGISTER OF INTERESTS

Name	Responsibility (i.e. Chairperson etc)	Declaration of Interests	Nature of Potential Interest	Member's Proposed Management Plan
Hon John Carter QSO	Board Member of the Local Government Protection Programme	Board Member of the Local Government Protection Program		
	Carter Family Trust			
Felicity Foy (Chair)	Director - Northland Planning & Development	I am the director of a planning and development consultancy that is based in the Far North and have two employees. Property owner of Commerce Street, Kaitaia		I will abstain from any debate and voting on proposed plan change items for the Far North District Plan.
				I will declare a conflict of interest with any planning matters that relate to resource consent processing, and the management of the resource consents planning team.
				I will not enter into any contracts with Council for over $25,000 per year. I have previously contracted to Council to process resource consents as consultant planner.
	Flick Trustee Ltd	I am the director of this company that is the company trustee of Flick Family Trust that owns properties on Weber Place, Seaview Road, and Allen Bell Drive.		
	Elbury Holdings Limited	This company is directed by my parents Fiona and Kevin King.	This company owns several dairy and beef farms, and also dwellings on these farms. The Farms and dwellings are located in the Far North at Kaimaumau, Bird Road/Sandhills Rd,	

Name	Responsibility (i.e. Chairperson etc)	Declaration of Interests	Nature of Potential Interest	Member's Proposed Management Plan
			Wireless Road/ Puckey Road/Bell Road, the Awanui Straight and Allen Bell Drive.	
	Foy Farms partnership	Owner and partner in Foy Farms - a farm in three titles on Church Road, Kaingaroa		
	Foy Farms Rentals	Owner and rental manager of Foy Farms Rentals for 6 dwellings on Church Road, Kaingaroa and 2 dwelling on Allen Bell Drive, Kaitaia, and 1 property on North Road, Kaitaia		
	King Family Trust	This trust owns several titles/properties at Cable Bay, Seaview Rd/State Highway 10 and Ahipara - Panorama Lane.	These trusts own properties in the Far North.	
	Previous employment at FNDC 2007-16	I consider the staff members at FNDC to be my friends		
Felicity Foy - Partner	Employed by Justaplumber Taipa			
	Friends with some FNDC employees			
Deputy Mayor Ann Court (Deputy)	Waipapa Business Association	Member		Case by case
	Warren Pattinson Limited	Shareholder	Building company. FNDC is a regulator and enforcer	Case by case
	Kerikeri Irrigation	Supplies my water		No
	Top Energy	Supplies my power		No other interest greater than the publics
	District Licensing	N/A	N/A	N/A
	Top Energy Consumer Trust	Trustee	Crossover in regulatory functions, consenting economic development and contracts such as street lighting.	Declare interest and abstain from voting.
	Ann Court Trust	Private	Private	N/A
	Waipapa Rotary	Honorary member	Potential community funding submitter	Declare interest and abstain from voting.

Name	Responsibility (i.e. Chairperson etc)	Declaration of Interests	Nature of Potential Interest	Member's Proposed Management Plan
	Properties on Onekura Road, Waipapa	Owner Shareholder	Any proposed FNDC Capital works or policy change which may have a direct impact (positive/adverse)	Declare interest and abstain from voting.
	Property on Daroux Dr, Waipapa	Financial interest	Any proposed FNDC Capital works or policy change which may have a direct impact (positive/adverse)	Declare interest and abstain from voting.
	Flowers and gifts	Ratepayer 'Thankyou'	Bias/ Pre-determination?	Declare to Governance
	Coffee and food	Ratepayers sometimes 'shout' food and beverage	Bias or pre-determination	Case by case
	Staff	N/A	Suggestion of not being impartial or pre-determined!	Be professional, due diligence, weigh the evidence. Be thorough, thoughtful, considered impartial and balanced. Be fair.
	Warren Patteinson	My husband is a builder and may do work for Council staff		Case by case
Ann Court - Partner	Warren Pattinson Limited	Director	Building Company. FNDC is a regulator	Remain at arm's length
	Air NZ	Shareholder	None	None
	Warren Pattinson Limited	Builder	FNDC is the consent authority, regulator and enforcer.	Apply arm's length rules
	Kurbside Rod and Custom Club (unlikely)	President NZ Hot Rod Association	Potential to be linked to a funding applicant and my wife is on the decision-making committee.	unlikely to materialise but would absent myself from any process as would Ann.
	Property on Onekura Road, Waipapa	Owner	Any proposed FNDC capital work in the vicinity or rural plan change. Maybe a link to policy development.	Would not submit. Rest on a case by case basis.
David Collard	Snapper Bonanza 2011 Limited	45% Shareholder and Director		
	Trustee of Te Ahu Charitable Trust	Council delegate to this board		
Mate	No form received			

Name	Responsibility (i.e. Chairperson etc)	Declaration of Interests	Nature of Potential Interest	Member's Proposed Management Plan
Radich				
Kelly Stratford	KS Bookkeeping and Administration	Business Owner, provides book keeping, administration and development of environmental management plans	None perceived	Step aside from decisions that arise, that may have conflicts
	Waikare Marae Trustees	Trustee	Maybe perceived conflicts	Case by case basis
	Bay of Islands College	Parent Elected Trustee	None perceived	If there was a conflict, I will step aside from decision making
	Karetu School	Parent Elected Trustee	None perceived	If there was a conflict, I will step aside from decision making
	Maori title land – Moerewa and Waikare	Beneficiary and husband is a shareholder	None perceived	If there was a conflict, I will step aside from decision making
	Sister is employed by Far North District Council			Wil not discuss work/governance mattes that are confidential
	Gifts - food and beverages	Residents and ratepayers may 'shout' food and beverage	Perceived bias or predetermination	Case by case basis
Kelly Stratford - Partner	Chef and Barista	Opua Store	None perceived	
	Maori title land – Moerewa	Shareholder	None perceived	If there was a conflict of interest, I would step aside from decision making
John Vujcich	Board Member	Pioneer Village	Matters relating to funding and assets	Declare interest and abstain
	Director	Waitukupata Forest Ltd	Potential for council activity to directly affect its assets	Declare interest and abstain
	Director	Rural Service Solutions Ltd	Matters where council regulatory function impact of company services	Declare interest and abstain
	Director	Kaikohe (Rau Marama) Community Trust	Potential funder	Declare interest and abstain
	Partner	MJ & EMJ Vujcich	Matters where council regulatory function impacts on partnership owned assets	Declare interest and abstain

Name	Responsibility (i.e. Chairperson etc)	Declaration of Interests	Nature of Potential Interest	Member's Proposed Management Plan
	Member	Kaikohe Rotary Club	Potential funder, or impact on Rotary projects	Declare interest and abstain
	Member	New Zealand Institute of Directors	Potential provider of training to Council	Declare a Conflict of Interest
	Member	Institute of IT Professionals	Unlikely, but possible provider of services to Council	Declare a Conflict of Interest
	Member	Kaikohe Business Association	Possible funding provider	Declare a Conflict of Interest

Far North District Council
Infrastructure Committee Meeting
will be held in the Council Chamber, Memorial Avenue, Kaikohe on:
Wednesday 12 February 2020 at 9.30 am

Order Of Business

1 APOLOGIES AND DECLARATIONS OF INTEREST

Members need to stand aside from decision-making when a conflict arises between their role as a Member of the Committee and any private or other external interest they might have. This note is provided as a reminder to Members to review the matters on the agenda and assess and identify where they may have a pecuniary or other conflict of interest, or where there may be a perception of a conflict of interest.

If a Member feels they do have a conflict of interest, they should publicly declare that at the start of the meeting or of the relevant item of business and refrain from participating in the discussion or voting on that item. If a Member thinks they may have a conflict of interest, they can seek advice from the Chief Executive Officer or the Team Leader Democracy Support (preferably before the meeting).

It is noted that while members can seek advice the final decision as to whether a conflict exists rests with the member.

2 DEPUTATION

No requests for deputations were received at the time of the Agenda going to print.

3 REPORTS

3.1 RIVERVIEW SCHOOL - PARKING AND ACCESS OPTIONS UPDATE

File Number: **A2823938**

Author: **Sandi Morris, Road Safety and Traffic Planning Engineer**

Authoriser: **Andy Finch, General Manager - Infrastructure and Asset Management**

PURPOSE OF THE REPORT

To revoke an earlier decision made at a previous Infrastructure Network Committee meeting and to provide the updated programme delivery.

EXECUTIVE SUMMARY

- Council's previous recommendation to construct *a central raised median along the centreline of the road near the drop off bay of Riverview School* has been reviewed by the Northland Transport Alliance (NTA) Road Safety and Traffic Planning Engineer and the Principal of Riverview School. This report proposes to revoke the previous decision made.
- The NTA Road Safety and Traffic Planning Engineer has met with the Principal of Riverview School and discussed driver behaviour at the school gate, noting that the current practise is exemplary.
- Any infrastructure changes at the Riverview School main gate could undermine the good transport operational management being undertaken by the school and should be carefully considered before implementation.
- Minor infrastructure enhancement (such as markings and signs) can be undertaken by existing maintenance programmes.

RECOMMENDATION

That the Infrastructure Committee:a) Revokes that resolution 7.2 Riverview School Road – Parking and Access Options that was passed at the meeting of the Infrastructure Network Committee:

"That the Infrastructure Network Committee approves a central raised median align the centreline of the road near the drop off bay of Riverview School".

b) approves Riverview School and Northland Transport Alliance discussions to amend operational management requirements at the school gate with minor changes to signs and markings within existing budgets.

c) Note that Riverview School are undertaking responsible operating practise with managing children's behaviour at the school gate and will remind parents of the schools' obligations under the Health & Safety at Work Act 2015.

1) BACKGROUND

Council records show a repetitive nature of reporting from the Riverview School community with regards to parent wait times, traffic congestion and parking on yellow no stopping lines. This reporting extends back to 2010 and does appear to be a cyclic issue as new families join the school community.

In June 2018, the school responded to these unsubstantiated issues and an external consultant was engaged by the school to:

"observe and report on the safety and operation of the existing access and parking arrangements at Riverview School and advise on possible solutions to how these can be best managed for ongoing roll growth". *Mike Sullivan, Northern Civil Consulting Engineers Limited (NCC)*

In July 2019, Council Officer's reported to the Infrastructure Network Committee Meeting "Parking and Access Options" for Riverview School front gate. A copy of the NCC findings accompanied the Officer's report.

The reported issued to Council by the school community was that there was significant congestion at the school gate and that parents were parking on yellow no stopping lines to wait for their children.

From the optioneering undertaken in July 2019, the Committee Resolution 2019/21 a) 7.2 was redacted to read:

> ***7.2 RIVERVIEW SCHOOL ROAD - PARKING AND ACCESS OPTIONS***
>
> **That the Infrastructure Network Committee approves a central raised median along the centreline of the road near the drop off bay of Riverview School.**

From October to December 2019, roadside data has been collected and analysed by the Northland Transportation Alliance (NTA) Road Safety and Traffic Planning Engineer. Refer *Appendix A*.

2) DISCUSSION AND OPTIONS

It is now recognised that the proposed infrastructure changes to the existing road environment risk current operating practise, increase risk to the children and reduce the safety benefits. Any infrastructure changes should also consider growth in the community as a result of land developments occurring within the school zone.

Council Officer's will continue to work with the Ministry of Education to ensure they assess and carefully plan for traffic impacts when responding to roll growth.

The Issue:

The issues are reportedly unchanged and are cyclic in nature, often being reported by new parents to the school. They note that they have observed others parked on yellow lines, have had to wait too long to collect their child and are concerned about children's safety at the school gate because of the traffic congestion during drop-off & pickup times.

Data Summary:

Site observations were undertaken on two separate days, 5 November and 19 November 2019. The five-day average (AADT) was recorded as 962 vehicles/day. The following is a brief summary of our findings:

Item	Morning	Afternoon
Peak Time	8.10 to 9.00	2.30 to 3.30
Average Pickup/Dropoff Time	1.10 minutes	1.41 minutes
Number of Vehicles Observed	121	53
Parents who Park across road	4	14
Bus movements observed	10-12	14
Total Vehicle Count (Peak)	378	158
85th Percentile Speed at peak	48	49

General Comments from parents

During the site surveys, some parents were approached for feedback due to various standout behaviours. Those behaviours included (but not limited to) parking on the opposite site of the road and calling their child to the car, walking over the road and walking the child back to the car (under supervision), or simply following the intended circulating pickup/drop off process.

A few comments were recorded, as follows:

- … they always park over the road and will continue to do so because it easier for them.

- … they always do drop off and/or pickup because they see it as a very safe and convenient operation for them.
- … they will always park in a designated park and walk into the school if they have a meeting with the teacher.

General observation

During the afternoon survey on 5 November 2019, Constable Robert Drummond (NZ Police) attended site (covertly) to observe driver behaviour. Const. Drummond spoke with several parents during the site inspection.

It was noted that some queue lengths over the yellow no stopping lines were long, and that it was because of the odd parent blocking access by parking inconsiderately of others. It was also noted that some drivers blocked access to neighbouring driveways when queuing.

Const. Drummond is satisfied that the queuing movement is safe at the school gate. NZ Police will not be issuing stationary vehicle offence notices for any vehicle that is safely queuing to collect their child from the school.

Some parents are impatient with wait/collection times and they can be observed parking opposite the school access and encouraging their child to run across. These actions are contrary to the school's instruction and these parents are unknowingly increasing risk for their own child.

In addition:

- The Principal will be issuing *front access operating* reminders in the school newsletter early 2020.

- Parent blocked circulating traffic by parking where circulating vehicles were queuing, this will be resolved through the Principal's messaging in 2020 term one. This is also the cause of significant wait times in the queue space over yellow no-stopping lines.

- The Principal noted that the Board of Trustees would require a summary report to be presented to them in the new year. Both NZ Police and the NTA will work collaboratively with Riverview School to support and deliver this request.

Option One – Support existing operation – Signs/Markings Only

To re-paint the roadmaking's and update/renew some signs to be consistent with school gate best practise and suitable for Riverview School.

Estimated cost is in the order of $11,000.00 and can be accommodated within existing operating programmes. This option considers and resolves the following site issues:

- On street parking is provided for parents opting to "park" and enter the school grounds before and after school.
- The existing road markings have faded and have been overlapped, which creates variable parking behaviour which ultimately reduces the number of parking spaces available.
- Parents are currently stationary over existing yellow no stopping lines which queueing to collect their child at the end of the school day. This is an accepted and supported practise by Riverview School Principal, NTA and NZ Police.
- Some additional signage may encourage better compliance over vehicle crossing accesses.
- Stationary vehicles in the drop-off and pickup zone will have improved signs and markings to encourage better compliance.

Option Two – Change existing operation – raised Central Median (Current resolution)

This is the current resolution by Council.

A previous council resolution has been provided to undertake physical infrastructure works to the value of $30,000.00 within existing budgets.

This resolution does not consider costs to implement roadside drainage requirements to permit traffic flows in the traffic lane with a raised central median. It should be noted that if the island is installed as proposed, vehicles would not be able to use the residual traffic lane. Any road widening requires drainage infill which would incur significant unbudgeted expense.

This option has been revised to now include roadside drainage requirements for pricing purposes. The estimate is now considered to be in the order of $283,000.00 and is an unbudgeted item.

Summary

The intrinsic value of reducing parent wait times and/or removing congestion, does not outweigh the children's safety or the school's obligations under the Health and Safety Act to provide a good and safe operation at its school gate.

Congestion at the school gate can be a safety issue when children are encouraged to weave in and out of parked and moving vehicles. As a result of the low traffic speeds; any resulting injury from a vehicle vs child incident, is likely to result in a minor injury. This is not the case at Riverview School.

The current minor congestion at the school access is contributing to a safer environment for the children. The drop-off and pickup activity at this school should be the envy of other schools, due to the existing turning facilities allowing separate car and bus turning movements. The school can also hold the children behind the school gate, securely in all-weather until collected by a guardian.

Reason for the recommendation

Option one is the safer option for any treatment at this school gate. It is also the least cost option.

Further infrastructure proposals may be necessary as a result of community growth. If this occurs, a relevant programme and project estimate will be prepared for consideration during Council's Annual Plan process.

3) FINANCIAL IMPLICATIONS AND BUDGETARY PROVISION

Current maintenance and operating budgets allow for road marking and sign maintenance. The costs to implement improvements at the school gate for Option One, are anticipated to be less than $11,000.00 and are based on the proposal as shown in Appendix B.

ATTACHMENTS

1. **Northland Transport Alliance Technical Memo - Riverview School - A2825142** ⇩
2. **Updated Proposal for Riverview School - A2825151** ⇩
3. **Approved Proposal from Committee Resolution 2019 - A2825169** ⇩
4. **Revised Estimate to Current Proposal Including Drainage estimate - A2825170** ⇩

Compliance schedule:

Full consideration has been given to the provisions of the Local Government Act 2002 S77 in relation to decision making, in particular:

1. A Local authority must, in the course of the decision-making process,
    a) Seek to identify all reasonably practicable options for the achievement of the objective of a decision; and
    b) Assess the options in terms of their advantages and disadvantages; and
    c) If any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water sites, waahi tapu, valued flora and fauna and other taonga.
2. This section is subject to Section 79 - Compliance with procedures in relation to decisions.

Compliance requirement	**Staff assessment**
State the level of significance (high or low) of the issue or proposal as determined by the Council's Significance and Engagement Policy	N/A
State the relevant Council policies (external or internal), legislation, and/or community outcomes (as stated in the LTP) that relate to this decision.	By engaging with the school and wider community they will have a better understanding of safe practise in the road network. The recommendation supports a healthy, safe, connected and sustainable community.
State whether this issue or proposal has a District wide relevance and, if not, the ways in which the appropriate Community Board's views have been sought.	N/A
State the possible implications for Māori and how Māori have been provided with an opportunity to contribute to decision making if this decision is significant and relates to land and/or any body of water.	N/A
Identify persons likely to be affected by or have an interest in the matter, and how you have given consideration to their views or preferences (for example – youth, the aged and those with disabilities.	Stakeholders as mentioned in this report are The Principal at Riverview School and its wider school community. In addition, any operational management at the school form part of the National Policing Programme and directly impact on the Kerikeri Police Education Officer, Robert Drummond.
State the financial implications and where budgetary provisions have been made to support this decision.	As mentioned in this report.
Chief Financial Officer review.	The Chief Financial Officer has reviewed this report

NORTHLAND TRANSPORTATION ALLIANCE

"Moving Northland Forward"

NTA Memorandum	
Council	Far North District Council
Road Name	23 Riverview Road, Kerikeri 0230
Investigation Dates	5/11/2019 and 19/11/2019
Report Date	10/01/2020
Further Action (Y/N)	Y - FNDC Road Maintenance to action
Road Length (m)	Approx. 150m
Report Prepared By	Victor Devyatov **Intermediate Road Safety and Traffic Engineer**
Check by	Sandi Morris **Road Safety and Traffic Planning Engineer**
Subject	Riverview School – Technical Assessment Memo

1. Introduction

This memo has been prepared as a technical summary and will include the following items:

Contents

2. Background

On behalf of Riverview School, Council was informed by Northland Consulting Contractors that during the morning/afternoon school peaks, vehicles were queue on Riverview Road causing significant congestion and time delays. NCC noted that demand exceeded capacity for the morning and afternoon hours.

NCC also noted that vehicles were observed parking on the grass berms, on the "No-stopping" yellow lines and across private driveways. This results in conflicts between through and queueing vehicles. With a risk of low speed/low injury crashes occurring between vehicles, along with driver frustration and congestion. More significantly, children were observed to be crossing the road and potentially conflicting with through traffic and maneuvering vehicles. The school has indicated that parking demand is greater during inclement weather, and the operation is less satisfactory during those occasions.

From the NCC investigations, a report was submitted to Council by Council officers in July 2019. Three options were proposed by NCC:

1. Widening the road and adding a central median;
2. Shoulder widening for roadside queueing;
3. Dedicated off road queueing lane with roundabout.

An additional option had been developed by the FNDC Roading team to:

4. Place a central raised median along the centerline of the road near the drop off bay preventing a right turn with accompanying signage prohibiting a right turn into the drop off bay.

This memo provides a further assessment of the site, which has been undertaken by the Northland Transportation Alliance.

3. Location Plan

Riverview School is located at 23 Riverview Rd, in the rapidly expanding area of Kerikeri and has many new subdivisions proposed in its vicinity. Access to the school is off Riverview Rd. There is a footpath on one side (southern) of Riverview Rd.

Figure 1 Riverview School Location

School Demographics:

https://www.educationcounts.govt.nz/find-school/school/profile?school=1594

- Principal is Kenneth McLeay
- Riverview School is a State Co-Educational Contributing School (Year 1-6)
- School Role is currently 441 pupils
- School Role capacity/maximum is 460 pupils
- Teachers park off-street in school supplied parking space – there is no impact on parent parking
- School gate is supervised by a teacher and/or The Principal in the morning and afternoon peaks.
- There is currently no role cap at Riverview School.
- Two new classrooms are proposed for the coming financial year.
- Riverview School does have an enrolment zoning rule, which is mapped below.

Figure 2 Riverview School Zone Map

School Demographic Summary:

Ministry of Education (MoE) has plans to support growth of this school, however, current regional/local practice does not include relevant transport assessments of the impact on the surrounding road environment. The MoE last undertook a school capacity review in 2008 and there is no certainty as to the current response from central government in response to current school role growth rates. It is the FNDC role to support the school with specialist transportation advice and ensure that the schools are undertaking the relevant ***Traffic Impact Assessment*** (TiA) necessary to ascertain implications on the road network in response to proposed growth.

4. Summary of Findings. Data Analysis.

The data collated for the parking survey and circulating space (Drop off Zone) is presented in Appendix A.

Parking Occupancy Survey

A Parking Survey was completed on 19 November 2019. It was observed that people usually stop to pick up their children during the peak time. It has been noted that Parking Area 2 has enough space to accommodate more vehicles.

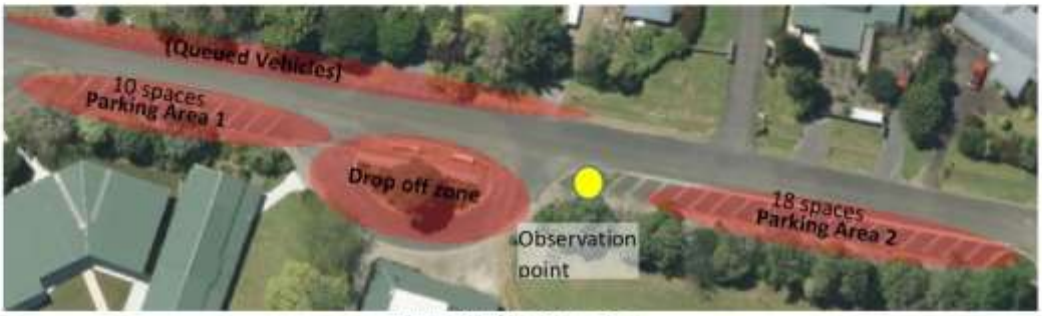

Figure 3 Parking Survey - Sites

Parking Area 1

It was observed at peak parking times, that Parking Area 1 typically had 1-2 spaces available at any given time. This indicated an average of 85% occupancy.

It should be noted that international best practice states that 80% occupancy of parking supply, is a well utilized asset. Anything less than 80% occupancy, suggests an oversupply of parking space.

Outside the two-school peak times, (8.00am-9.00am and 14.30-15.30) these spaces remain empty.

Parking Area 2

It was identified during morning/afternoon peaks that the usage count was **50%** for the Parking Area 2. Nevertheless, drivers were waiting on the northern side of Riverview Rd to get an opportunity to enter drop off zone and were forming the queue as presented in the diagram above.

It was recognized through site discussions with people parking, that some parents were less concerned with the "rush" of delivering their child to school so they can make it to work on time, likewise with the afternoon collection.

Parking Area 2 is well under utilized in the morning and afternoon, as parents do prefer to collect their child from the drop-off & pickup area.

Drop Off/Pickup Area - Efficiency Survey

It was noticed that the drop off zone can only accommodate up to 6 vehicles at a time. Occasionally a parent would park stationary in the "through" lane, instead of parking in the spaces.

Drivers were typically compliant with the informal operating process, however, formalizing the vehicle spaces in the circulating zone, and identifying the driver's obligations through improved signage, would further enhance the operations at the school access.

During the observation 2 (two) peak periods were compared:

1. Morning peak period: 8.30 – 9.30;
2. Afternoon peak period: 14.30 – 15.30.

There were 121 vehicles using the drop off area during the morning peak (8.11 – 9.19) and 53 vehicles during the afternoon peak (14.30 – 15.30).

Average waiting time (**within drop off zone**) for one vehicle during the morning peak was 1 minute 10 seconds and during the afternoon peak it was 1:41.

IN the afternoon on the "Queue Area", it was also noticed that 6 vehicles were parked for more than 16 minutes during the afternoon peak, as presented on a screenshot below. The waiting time for these vehicles were not used for calculations, because these cars were considered as illegally parked vehicles:

1	N		14:31:41	14:57:22	0:25:41
1	N		14:34:25	14:58:02	0:23:37
1	N		14:39:13	14:58:15	0:19:02
1	N		14:39:41	14:57:01	0:17:20
1	N		14:40:02	14:58:42	0:18:40
1	N		14:41:05	14:57:30	0:16:25

These vehicles would be better accommodated in the underutilized Parking Area 2.

It was also noticed that the number of parents who parked across the road was higher during afternoon peak (14 vehicles) than in morning peak (4 vehicles).

There were approximately 10 bus movements in the morning peak and 12 bus movements in the afternoon.

It was also noted that compared to the morning traffic data capture, the afternoon peak was less than half. This may be due to the number of school children using the bus service in the afternoon.

Traffic Count

A special traffic count was undertaken from 1 November to 7 November 2019 at Riverview School Access area. The below information is a summary of the information.

Summary Count – Riverside Road				
Total Volume For Week	6735	Weekday AM Average (6-10am)	125	V/Hr
Average Daily Volume (7 Days)	962	Weekday Midday Average (10am-3pm)	58	V/Hr
Average Daily Volume (Mon - Fri)	1193	Weekday PM Average (3-9pm)	88	V/Hr

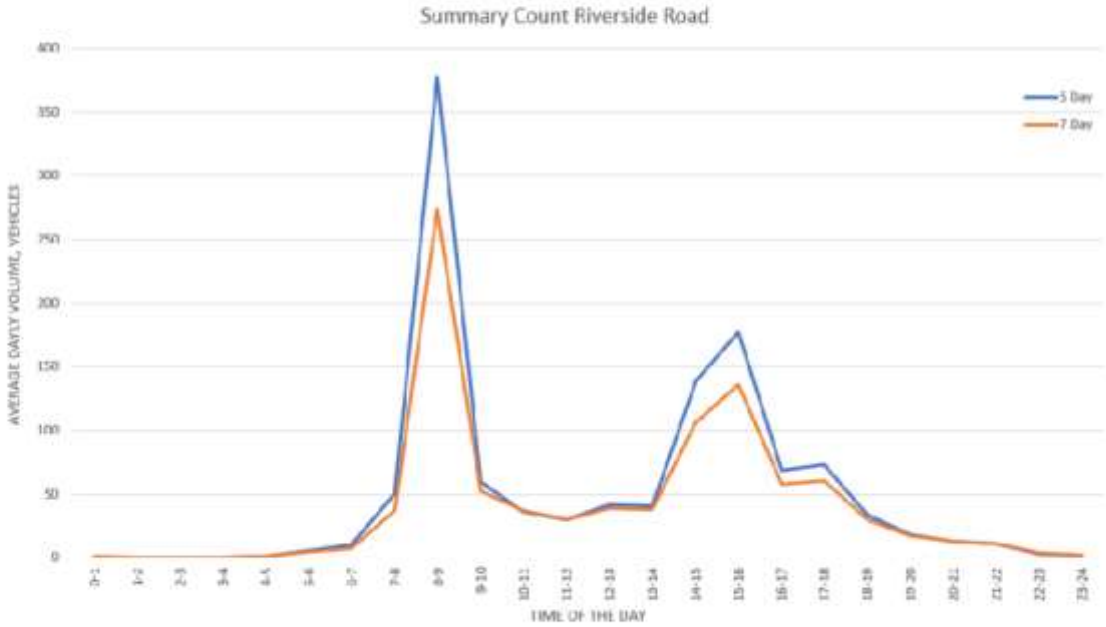

Figure 4 Summary Count Graph of Traffic Volume - 5- & 7-Day Average

Crash Data

There are no registered crashes on Riverview Rd during the last 10 years. In addition, the Northland Transportation Alliance Risk Mapping (Abley Map) Riverview Rd has ***LOW Collective Risk Level***.

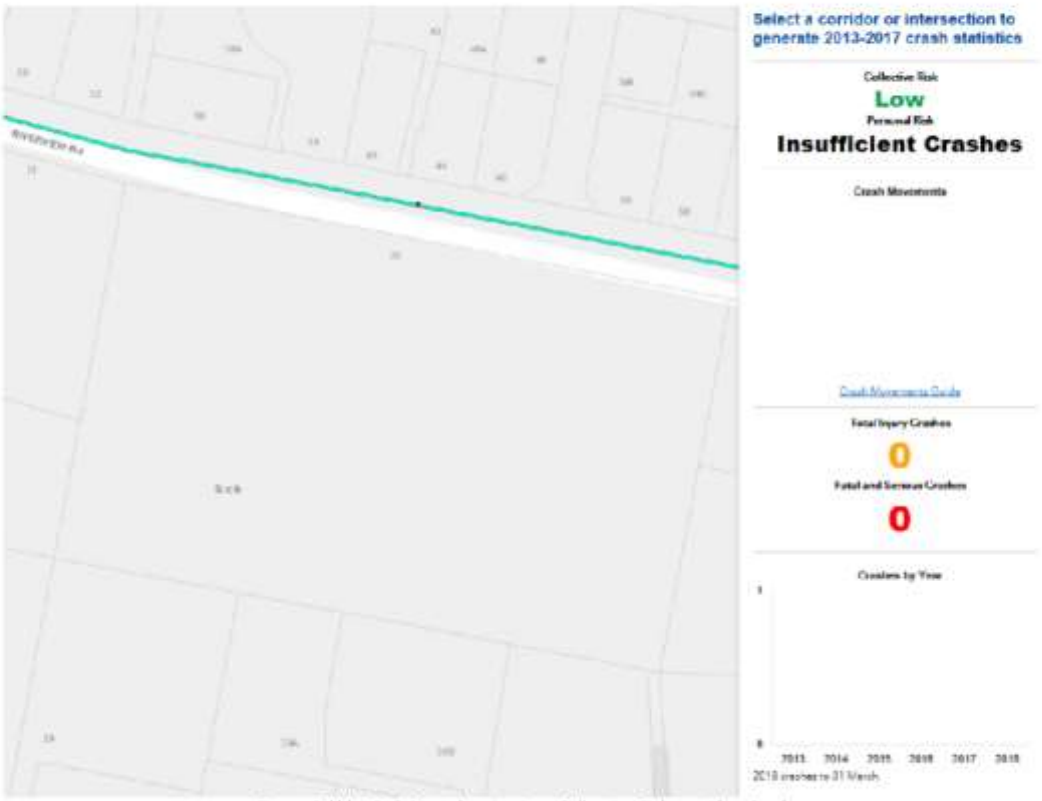

Figure 5 Abley Risk Map showing Low Collective Risk outside school

5. Recommendation

As presented on the diagram below, it is proposed to renew the existing road marking and provide additional signs and road marking as follows:

- Renew:
  - the existing "parking bays";
  - "No-stopping" broken yellow lines;
  - the existing yellow limit line;
- Install:
  - 2 (two) new Bus Stop Signs;
  - a new "No Entry" sign;
  - 2 (two) new drop off and pick up only signs with arrows pointing right/left;
  - 4 (four) new "No Queuing over driveways" signs;
- Apply:
  - new "Bus Stop" road marking;
  - additional "No-stopping" broken yellow lines;
  - "keep clear" yellow road marking.

Fig.1. NTA Signs and Marking Proposal (January 2020).

Proposed actions will improve the performance of the drop-off area. Renewing "No-stopping" broken yellow lines and adding "No queueing over driveway" signs on the north side of the road will reinforce parking restrictions and prevent vehicles of blocking driveways during drop-off periods.

"Drop off/Pick up" signs encourage more drivers to use drop off collection area and minimize number of conflicts between children and maneuvering vehicles.

Bus stop signs and road marking will help bus drivers to define the size of the bus stop area and prevent other drivers of using it as an additional drop off area or parking.

6. Conclusion

The drop-off and pickup area for children is performing well. The average waiting times are less than 2 minutes, which confirms this exceptional operation at the front access.

There are some minor issues that there were described within this report and performance of this area can be improved.

Minor issues described in this report can relate to poor performance by contracts working for Council, having not maintained Signs and road markings. This school be followed up with contract Managers.

It is recommended to renew the existing road signs/marking and add additional signs/road marking to reinforce the existing rules in this area as per my plan in Appendix A – Site Circulating Data.

It is also recommended to organize educational sessions with parents that can help to minimize the number of cars parked on the northern side of the road and the number of children crossing the road during pick-up periods.

7. Appendix A – Site Circulating Data

REF: NSAAT – No Stopping At All Times

Circulating Data 5 November 2019								
Vehicle ID (Plate #)	Count	Color	Type	Queuing (NSAAT)	If yes (Time)	Time In	Time Out	Time Difference
U	1	Grey	SUV	N		8:11:40	8:12:23	0:00:43
U	1	Grey	SUV	N		8:12:01	8:12:53	0:00:52
U	1	Silver	SUV	N		8:12:20	8:14:20	0:02:00
U	1	Red	SUV	N		8:12:34	8:13:46	0:01:12
	1	Red	P-Truck	N		8:13:15	8:15:42	0:02:27
	1	White	SUV	N		8:13:23	8:14:04	0:00:41
	1	Grey	Wagon	N		8:14:29	8:15:46	0:01:17
U	1	White	Wagon	N		8:14:39	8:15:25	0:00:46
U	1	Black	SUV	N		8:15:32	8:16:27	0:00:55
	1	Black	SUV	N		8:16:09	8:16:44	0:00:35
U	1	White	P-Truck	N		8:16:12	8:17:46	0:01:34
	1	White	P-Truck	N		8:16:24	8:17:43	0:01:19
U	1	Black	P-Truck	N		8:16:46	8:17:28	0:00:42
U	1	White	Sedan	N		8:17:44	8:18:25	0:00:41
U	1	Black	Wagon	N		8:18:30	8:19:16	0:00:46
U	1	Black	P-Truck	N		8:18:34	8:19:24	0:00:50
	1	Black	SUV	N		8:18:51	8:19:39	0:00:48
U	1	Blue	Wagon	N		8:19:26	8:20:29	0:01:03
U	1	Black	SUV	N		8:19:39	8:20:42	0:01:03
U	1	Blue	Wagon	N		8:19:54	8:20:25	0:00:31
U	1	White	SUV	N		8:20:16	8:20:46	0:00:30
U	1	Silver	Hatch-B	N		8:20:53	8:22:06	0:01:13
	1	Black	SUV	N		8:21:42	8:22:14	0:00:32
	1	Blue	SUV	N		8:21:46	8:22:22	0:00:36
	1	Silver	SUV	N		8:21:51	8:22:43	0:00:52
	1	White	Hatch-B	N		8:21:58	8:22:29	0:00:31
	1	Orange	P-Truck	N		8:22:02	8:22:38	0:00:36
	1	Blue	Wagon	N		8:22:07	8:23:41	0:01:34
U	1	Silver	Sedan	N		8:22:16	8:23:34	0:01:18
	1	Grey	P-Truck	Y	8:22:24	8:22:29	8:23:21	0:00:52

	1	White	SUV	Y	8:22:24	8:22:34	8:23:29	0:00:55
	1	White	Hatch-B	N		8:22:44	8:24:52	0:02:08
	1	Blue	Wagon	N		8:24:16	8:25:07	0:00:51
	1	Blue	Hatch-B	n		8:25:01	8:25:32	0:00:31
	1	Silver	Hatch-B	N		8:25:04	8:25:53	0:00:49
	1	Silver	SUV	N		8:25:45	8:26:55	0:01:10
	1	White	SUV	N		8:26:08	8:27:03	0:00:55
	1	Brown	Sedan	N		8:26:43	8:27:45	0:01:02
	1	Silver	Sedan	N		8:26:55	8:28:00	0:01:05
	1	White	Sedan	N		8:27:35	8:31:06	0:03:31
	1	White	Wagon	N		8:28:05	8:30:46	0:02:41
	1	White	SUV	N		8:28:29	8:28:39	0:00:10
	1	Grey	SUV	N		8:29:47	8:30:36	0:00:49
	1	Grey	P-Truck	N		8:29:52	8:30:51	0:00:59
	1	Black	Wagon	N		8:29:56	8:31:02	0:01:06
	1	Silver	SUV	N		8:30:41	8:31:32	0:00:51
	1	Black	Wagon	N		8:30:46	8:32:34	0:01:48
	1	Black	Wagon	N		8:31:07	8:31:49	0:00:42
	1	Black	Hatch-B	N		8:31:13	8:31:52	0:00:39
	1	Black	Sedan	N		8:31:41	8:33:07	0:01:26
	1	Silver	Hatch-B	N		8:32:31	8:36:01	0:03:30
	1	Black	SUV	N		8:32:35	8:34:11	0:01:36
	1	White	SUV	N		8:33:17	8:34:41	0:01:24
	1	Red	Hatch-B	N		8:33:35	8:34:54	0:01:19
	1	Black	Sedan	N		8:33:46	8:34:21	0:00:35
	1	Black	Wagon	N		8:34:14	8:34:58	0:00:44
	1	White	Wagon	N		8:34:31	8:35:34	0:01:03
	1	Blue	Sedan	N		8:35:11	8:35:41	0:00:30
	1	Grey	SUV	N		8:35:16	8:37:04	0:01:48
	1	Grey	SUV	N		8:35:22	8:36:49	0:01:27
	1	Grey	Sedan	N		8:35:56	8:36:35	0:00:39
	1	Black	SUV	N		8:37:22	8:38:08	0:00:46
	1	White	SUV	N		8:37:39	8:38:22	0:00:43
	1	Black	P-Truck	N		8:37:48	8:38:34	0:00:46
	1	Grey	Hatch-B	N		8:37:54	8:38:42	0:00:48

	1	Silver	Wagon	N		8:38:05	8:40:11	0:02:06
	1	Blue	Sedan	N		8:38:43	8:39:17	0:00:34
	1	Grey	Wagon	N		8:39:09	8:40:16	0:01:07
	1	Grey	P-Truck	N		8:39:57	8:41:13	0:01:16
	1	White	SUV	N		8:40:12	8:41:08	0:00:56
	1	Black	P-Truck	N		8:40:35	8:41:33	0:00:58
	1	Silver	Hatch-B	N		8:40:51	8:41:40	0:00:49
	1	White	SUV	N		8:41:08	8:41:45	0:00:37
	1	Grey	Wagon	N		8:41:13	8:42:05	0:00:52
	1	Blue	Sedan	N		8:41:18	8:42:26	0:01:08
	1	Green	Hatch-B	N		8:42:17	8:42:43	0:00:26
	1	Grey	Wagon	N		8:42:27	8:44:20	0:01:53
	1	Black	Sedan	N		8:42:32	8:43:12	0:00:40
	1	Silver	SUV	N		8:42:59	8:44:14	0:01:15
	1	White	VAN	N		8:43:25	8:43:54	0:00:29
	1	White	Sedan	N		8:43:37	8:44:29	0:00:52
	1	White	SUV	N		8:43:46	8:45:02	0:01:16
	1	Black	Hatch-B	N		8:44:04	8:44:59	0:00:55
	1	Grey	SUV	N		8:44:11	8:45:59	0:01:48
U	1	Silver	Wagon	N		8:44:46	8:46:27	0:01:41
	1	Blue	Wagon	N		8:45:14	8:45:56	0:00:42
	1	Silver	Wagon	N		8:45:37	8:46:57	0:01:20
	1	WHite	wagon	N		8:45:42	8:47:17	0:01:35
	1	Grey	SUV	N		8:46:10	8:47:20	0:01:10
	1	White	Sedan	N		8:46:17	8:47:12	0:00:55
	1	Red	Sedan	N		8:46:30	8:48:25	0:01:55
	1	Grey	P-Truck	Y	8:40:38	8:47:05	8:47:53	0:00:48
	1	Grey	Wagon	Y	8:40:38	8:47:09	8:48:09	0:01:00
	1	Grey	SUV	Y	8:40:40	8:47:19	8:49:34	0:02:15
	1	White	Wagon	Y	8:45:15	8:47:24	8:48:34	0:01:10
	1	Silver	Wagon	N		8:47:39	8:48:12	0:00:33
	1	Black	SUV	Y	8:47:45	8:47:54	8:48:52	0:00:58
	1	Blue	Wagon	N		8:48:16	8:48:44	0:00:28
	1	White	SUV	N		8:48:53	8:50:12	0:01:19
	1	Grey	Hatch-B	N		8:48:58	8:49:45	0:00:47

	1	Silver	Wagon	N		8:49:36	8:50:39	0:01:03
	1	Grey	SUV	N		8:50:03	8:51:22	0:01:19
	1	Grey	P-Truck	N		8:50:18	8:52:21	0:02:03
	1	Silver	SUV	N		8:50:49	8:52:12	0:01:23
	1	Silver	Wagon	N		8:51:04	8:52:53	0:01:49
	1	Red	SUV	N		8:51:42	8:52:59	0:01:17
	1	Black	SUV	N		8:51:49	8:53:18	0:01:29
U	1	White	Wagon	N		8:52:48	8:53:32	0:00:44
U	1	Black	SUV	N		8:53:00	8:53:41	0:00:41
	1	Black	Wagon	N		8:53:17	8:55:06	0:01:49
	1	Silver	Wagon	N		8:53:30	8:57:36	0:04:06
	1	Green	Sedan	N		8:53:32	8:55:17	0:01:45
	1	White	Wagon	N		8:53:37	8:55:13	0:01:36
	1	White	Wagon	N		8:53:49	8:55:00	0:01:11
	1	Brown	SUV	N		8:54:13	8:55:25	0:01:12
	1	Grey	Wagon	N		8:54:20	8:56:21	0:02:01
	1	White	SUV	N		8:55:14	8:57:11	0:01:57
	1	Grey	Wagon	N		8:55:39	8:57:59	0:02:20
	1	Grey	SUV	N		8:58:15	8:59:03	0:00:48
	1	Blue	SUV	N		8:59:11	9:00:06	0:00:55
Total # Vehicles	**121**							
AM Peak Period						**0:48:26**		
Average Pick Up time								**0:01:10**

Circulating Data 19 November 2019						
Vehicle ID (Plate #)	Count	Queuing (NSAAT)	If yes (Time)	Time In	Time Out	Time Difference
	1	N		14:30:01	14:30:45	0:00:44
	1	N		14:35:20	14:35:33	0:00:13
	1	N		14:38:08	14:38:19	0:00:11
	1	y	14:42:45	14:57:10	15:00:28	0:03:18
	1	Y	14:47:48	14:57:08	14:59:24	0:02:16
	1	y	14:48:40	14:49:17	14:50:58	0:01:41
	1	N		14:48:57	14:49:16	0:00:19
	1	Y	14:47:48	14:58:19	15:02:05	0:03:46
	1	N		14:53:02	14:53:15	0:00:13
	1	N		14:57:17	14:59:28	0:02:11
	1	Y		14:57:44	14:59:35	0:01:51
	1	Y	14:58:04	14:58:32	15:01:08	0:02:36
	1	Y	14:58:17	14:59:00	15:01:35	0:02:35
	1	Y	14:58:17	14:59:47	15:01:46	0:01:59
	1	Y	14:58:17	14:59:52	15:02:04	0:02:12
	1	Y	14:58:17	15:00:01	15:01:52	0:01:51
	1	Y	14:58:19	15:00:07	15:05:59	0:05:52
	1	Y	14:58:19	15:01:01	15:04:00	0:02:59
	1	Y	14:58:19	15:01:44	15:04:06	0:02:22
	1	Y	14:58:25	15:02:18	15:05:14	0:02:56
	1	Y	14:58:25	15:02:26	15:05:18	0:02:52
	1	N		15:03:10	15:05:23	0:02:13
	1	N		15:05:48	15:06:52	0:01:04
	1	N		15:05:52	15:06:59	0:01:07
	1	N		15:05:59	15:07:27	0:01:28
	1	N		15:06:07	15:06:56	0:00:49
	1	N		15:06:56	15:08:12	0:01:16
	1	N		15:07:32	15:08:59	0:01:27
	1	N		15:07:44	15:09:29	0:01:45
	1	N		15:08:31	15:09:37	0:01:06
	1	N		15:08:48	15:10:07	0:01:19
	1	N		15:08:52	15:10:18	0:01:26

	1	N		15:09:06	15:10:40	0:01:34
	1	N		15:09:50	15:10:51	0:01:01
	1	N		15:09:52	15:11:20	0:01:28
	1	N		15:10:07	15:11:26	0:01:19
	1	N		15:10:11	15:11:38	0:01:27
	1	N		15:10:20	15:11:46	0:01:26
	1	N		15:10:36	15:12:18	0:01:42
	1	N		15:11:00	15:12:29	0:01:29
	1	N		15:11:13	15:12:32	0:01:19
	1	N		15:13:19	15:13:47	0:00:28
	1	N		15:15:15	15:16:51	0:01:36
	1	N		15:16:25	15:17:10	0:00:45
	1	N		15:17:25	15:17:44	0:00:19
	1	N		15:27:27	15:30:10	0:02:43
	1	N		15:28:08	15:29:02	0:00:54
Total # Vehicles	**47**					
PM Peak Period				**0:59:01**		
Average Pick Up time						**0:01:41**

Parked vehicles 19 November 2019 – In Queuing Space						
Vehicle ID (Plate #)	Count	Queuing (NSAAT)	If yes (Time)	Time In	Time Out	Time Difference
	1	N		14:31:41	14:57:22	0:25:41
	1	N		14:34:25	14:58:02	0:23:37
	1	N		14:39:13	14:58:15	0:19:02
	1	N		14:39:41	14:57:01	0:17:20
	1	N		14:40:02	14:58:42	0:18:40
	1	N		14:41:05	14:57:30	0:16:25

NTA Signs and Markings Proposal (January 2020)

Based on discussions with the school principal and further data analyses, a revised concept plan has been prepared to enhance existing traffic operational management currently being undertaken by this school.

The cost of this work has been estimated to cost ≈$11,000.00 and contains existing council operational maintenance tasks. As follows:

Option 1 Riverview School - Signs/Markings

NTA Revised - Central Median Island - Including drainage requirements

Description	Quantity	Unit	Rate	Sub Total
1.00 Traffic Services				
1.01 P&G site establishment and disestablishment, permits and site admin/records	1	LS	$200.00	$200.00
1.02 Temporary Traffic Management (TTM)	2	days	$500.00	$1,000.00
1.03 Locate and protect services	1	LS	$1,000.00	$1,000.00
1.04 As builts	1	LS	$200.00	$200.00
1.05 Update RAMM data	1	LS	$200.00	$200.00
1.06 Post Construction Safety Audit/Exemption	1	LS	$500.00	$500.00
			Item 1.0 Sub-Total	**$3,100.00**
2.00 Road Markings (incls establishment/disestablishment)				
2.01 Removal	1	LS	$500.00	$500.00
2.02 Yellow No Stopping	200	m	$2.00	$400.00
2.03 White Angle Parking	30	each	$10.00	$300.00
2.04 White Parallel Parking (Hockey Sticks)	8	each	$10.00	$80.00
2.05 Yellow Hatched Marking	10	m	$5.00	$50.00
2.06 Bus Only' Marking	7	each	$20.00	$140.00
2.07 Miscellanous Items	1	LS	$500.00	$500.00
			Item 2.0 Sub-Total	**$1,970.00**
3.00 Road Signs (incls pole & footings)				
3.01 Bus Stop - no parking/left & right arrows	2	each	$400.00	$800.00
3.02 No Entry	1	each	$250.00	$250.00
3.03 Drop Off & Pick Up only	2	each	$500.00	$1,000.00
3.04 No Queuing over driveways	4	each	$300.00	$1,200.00
			Item 3.0 Sub Total	**$3,250.00**
			Contingency (10 %)	**$832.00**
			TOTAL (excl GST)	**$9,152.00**
PROJECT RANGE +/- 20%	**lower**	**$7,321.60**	**Upper**	**$10,982.40**

Estimate Notes

Rates are based on industry knowledge and estimations.
A schedule of items should be sent to the contractor for final pricing purposes.
The site has not been surveyed and a 10% Contingency is necessary for incidentals.

Current Proposal from Committee Resolution 2019/21 a) 7.2 (July 2019)

The current proposal has been estimated to cost ≈$31,000.00. It makes no allowance to infill the roadside drain and current seal widths have not considered post construction traffic lane widths.

Current budgets do not currently allow for complete construction of this proposal.

Original estimate and proposal are as follows:

option 4 riverview school road safety report

central island to prevent right turns into drop off zone

excavate road surface for island	50	m2	$10.00	$500.00
lay new mountable blocks	100	m	$143.00	$14,300.00
concrete inside	50	m2	$100.00	$5,000.00
paint island	1	sum	$300.00	$300.00
New signs	1	sum	$2,000.00	$2,000.00
TTM	2	days stop go	$2,000.00	$4,000.00
as builts	1	sum		$100.00
update RAMM data	1	sum		$100.00
safety audit	1	sum		$200.00
subtotal				$26,500.00
	budget estimate allowance 15 %			$3,975.00
				$30,475.00

Revised Estimate to Current Proposal Including Drainage estimate (Jan2020)

In order to ascertain costs to completion, an estimate of a revised concept has been completed and includes drainage, shoulder widening and footpath costs. The revised estimate has been estimated to cost ≈$283,000.00.

The revised estimate based on the original design intent of raised central median, is as follows:

Revised Option 4 Riverview School

Revised - Central Median Island - Including drainage requirements

NTA Engineers Estimate

	Description	Qantity	Unit	Rate	Sub-Total
1.00	**Traffic Services**				
1.01	Temporary Traffic Management, Establishment, setup, survey, reporting, admin	1	LS	$2,000.00	$2,000.00
1.02	Detailed drawing and design	1	LS	$5,000.00	$5,000.00
1.03	Locate and protect services	1	LS	$500.00	$500.00
1.04	As builts	1	LS	$500.00	$500.00
1.05	Update RAMM data	1	LS	$500.00	$500.00
1.06	Post Construction Safety Audit/Exemption	1	LS	$2,000.00	$2,000.00
				Item 1.0 Sub-Total	**$10,500.00**
2.00	**Central Median Island Construction**				
2.01	Excavate road surface for island	50	m2	$10.00	$500.00
2.02	Lay new mountable blocks	100	m	$143.00	$14,300.00
2.03	Concrete infill	50	m2	$100.00	$5,000.00
2.04	Paint island - White Reflectorised Paint (red infill)	1	LS	$700.00	$700.00
2.05	New signs - Misc	1	LS	$1,000.00	$1,000.00
				Item 2.0 Sub-Total	**$21,500.00**
3.00	**Drainage**				
3.01	Survey/set out	1	LS	$2,000.00	$2,000.00
3.02	Supply & Install Manhole and lid	2	Each	$2,000.00	$4,000.00
3.03	Connect to cesspit	2	Each	$500.00	$1,000.00
3.04	Supply & Install cesspits, including lid and back block	2	Each	$2,500.00	$5,000.00
3.05	375 dia culvert connect cesspit to manhole	60	m	$304.31	$18,258.60
3.06	Supply & Install Rodding Eye for maintenance	2	Each	$1,000.00	$2,000.00
				Item 3.0 Sub-Total	**$32,258.60**

Cont'd over page

4.00	**Sealed Shoulder/Footpath/Parking Bay Construction**				
4.01	Demolition/Site Establishment	1	Each	$500.00	$500.00
4.02	Excavate to Waste	630	m2	$8.00	$5,040.00
4.03	Supply and place aggregates	262.5	m3	$57.00	$14,962.50
4.04	Supply and place stabilisation	630	m2	$10.00	$6,300.00
4.05	Chipseal grade 4/6	630	m2	$6.00	$3,780.00
4.06	Misc road markings	1	LS	$500.00	$500.00
4.07	Vehicle entrance upgrade new wide crossing	8	Each	$4,000.00	$32,000.00
4.08	Exit upgrade to join existing drop off zone	1	LS	$1,000.00	$1,000.00
4.09	K&C kerb and channel	220	m	$145.00	$31,900.00
4.10	Place basecourse and subbase for pavement - includes testing compliance administration	300	m3	$60.00	$18,000.00
4.11	Topsoil and grassing - includes berm space between K&C and footpath.	100	m3	$60.00	$6,000.00
4.12	Misc signs	1	LS	$1,000.00	$1,000.00
4.13	Supply & Install Concrete Footpath 1.6m wide	180	m2	$110.00	$19,800.00
				Item 4.0 Sub-Total	**$140,782.50**
				Contingency (15 %)	$30,756.17
				TOTAL (excl GST)	**$235,797.27**
	PROJECT RANGE +/- 20%	**lower**	**$188,637.81**	**Upper**	**$282,956.72**

Estimate Notes

Rates are based on industry knowledge and estimations.
A schedules of items should be sent to the contractor for final pricing purposes.
The site has not been surveryed and a 15% Contingency is necessary for incidentals.
This is a concept budget estimate only
There are not been any detailed design or site investigation undertaken for detailed design.
There is no allowance for resource consent

4 MEETING CLOSE