

**Marija Bakulich**

---

**From:** Caron Greenough <Caron.Greenough@nzta.govt.nz>  
**Sent:** Monday, 30 June 2014 12:03 p.m.  
**To:** Phil Chatterley  
**Subject:** RE: M2PP - Otaihanga Roundabout Operational Issues

Hi Phil

I was pretty sure Mike P had already sent comments back to you with regard to the turbo marking designs?? However if not our preference is not to have the diagonal markings on the approach. The reasons being that because they are on the outside of what is two lanes of traffic there may be a tendency for drivers to move towards the middle and drive down the centre of both lanes rather than over run the lines. Secondly we have little evidence of their effectiveness in NZ, trials have largely been inconclusive and thirdly motorcyclists will not respond well to these.

We agree with the turbo markings on the northern side of the roundabout to help with accessing the side road. We generally don't see a purpose in the southern one but don't necessarily think it will do any harm – I am assuming there won't be any capacity issues created?

I also believe that the map sign is going to be updated with the side road on it? Not sure why this wasn't done in the first place given the approach by the design team has been that this should look and feel like a road not a driveway?

As per Tony's email if the above can be installed before the safety audit that would be appreciated.

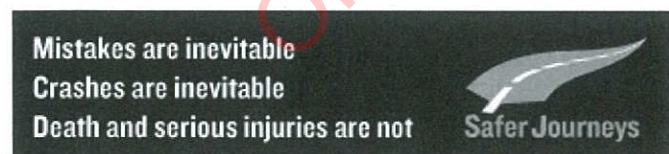
As for the design suggestions from the email on Friday. I have spoken to Tony and we have agreed to hold off any improvements other than the turbo markings until we have had a drive through in truck, spoken further to the RTA and undertaken some speed surveys.

Regards

Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
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 E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
 PO Box 5084, Lambton Quay, Wellington 6145, New Zealand




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**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

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Mobile Ph: 021 205 1193 DDI: +64 4 460 1775 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

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**From:** Jos Vroegop [<mailto:jos@trafficplanning.co.nz>]  
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**To:** Phil Chatterley  
**Cc:** 'S.Reddish'; Jon England  
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Steve Reddish, Jon England and Jos Vroegop.

**Jos Vroegop** Senior Consultant

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Cc: Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, David Callan <[David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>

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ROAD MARKING LAYOUT PLAN - OPTION 1 - REVERSE HATCHING  
 NOTES

- NOTES**
1. INSTALL TEMPORARY "NEW ROAD LAYOUT AHEAD" SIGNS UNTIL ADVISED
  2. STUBS TO BE PROVIDED ON ONE AHEAD SIGN TO INFORM ROAD USERS OF RESIDENTS DRIVE

ORIGINAL DRAWING IN COLOR FOR INFORMATION NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	CHECKED	APPROVED
1	ISSUED FOR CONSTRUCTION	19 Jul 2014	[Signature]	[Signature]	[Signature]

Project Name	SH1 / Otaihanga Road Safety Improvements
Client	Motat
Contract	100000000
Drawn by	[Signature]
Checked by	[Signature]
Approved by	[Signature]
Date	19 Jul 2014



SH1 / OTAIHANGA ROAD SAFETY IMPROVEMENTS

OTAIHANGA ROUNDABOUT ROAD MARKING LAYOUT PLAN  
 UNDER REVISION  
 M2PP-45P-D-SKT-0127 A

DETAIL DESIGN (DET)

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Steve Reddish, Jon England and Jos Vroegop.

Jos Vroegop Senior Consultant

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-----Original Message-----

From: Phil Chatterley <[Phil.Chatterley@m2pp.co.nz](mailto:Phil.Chatterley@m2pp.co.nz)>

To: "'S.Reddish' ([steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz))" <[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)>

Cc: Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, David Callan <[David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>

Date: Mon, 19 May 2014 06:40:11 +0000

Subject: RE: M2PP - Otaihanga Roundabout Post Construction RSA & Operational Issues

M2PP - Otaihanga Roundabout Post Construction RSA & Operational Issues

Hi Steve,

Further to earlier correspondence, we are planning to carry out the Post Construction RSA as soon as remaining barriers, signs & lining and planting has been completed. I don't have a date at this time but would envisage this to be at the start of June. Can you please advise your availability around this time?

In the meantime, we have had a number of bedding in issues with the operation. We would be grateful for the SAT teams recommendations before we carry out any remedial measures that have other safety implications.

The two issues to date have been;

1. Vehicles on the roundabout wishing to exit to the property access road are finding vehicles travelling south on SH1 are not giving way to them. The problem is the southbound vehicles travelling in the left lane do not expect anyone wanting to pull in front of them where there is no apparent exit.

Please see attached copy of the construction design (45P-D-DWG-0001) and alternative (45P-D-SKT-0021) for your consideration to address this issue. I am not convinced the option proposed is most appropriate as all traffic on circulatory carriageway will be pushed to outside possibly resulting in more conflicts. My preference is a number of measures;

- I) move give way line forward (either by extending the island or moving to end of hatched lane)
- II) use larger give way signs
- III) Add advance sign or exit on direct map to show access on right
- IV) Re-instate the "NEW ROAD LAYOUT AHEAD" signs for 3 months then re-assess
- V) Review operation arrangement at Post Construction Safety Audit

2. Vehicles traveling south on SH1 not slowing down sufficiently to manoeuvre safely round the roundabout and running in to the central lane/central island. Treatment for the above item should address this.

There will be inevitably be some initial be gaval issues with the new layout

We would be grateful for your thoughts on these topics. Once we your comments we will approach NZTA to consider best approach.

I trust this is satisfactory, please let me know if you need anything.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

43 Ihakara St, Paraparaumu 5032 | PO Box 723, Paraparaumu 5254  
Mobile Ph: 021 205 1193 DDI: +64 4 460 1775 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

---

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ROAD MARKING LAYOUT PLAN - OPTION 1 - REVERSE HATCHING

- NOTES**
- 1. INSTALL TEMPORARY "NEW ROAD LAYOUT AHEAD" SIGNS UNTIL ADVISED
  - 2. STUBS TO BE PROVIDED ON ONE SIDE TO INFORM ROAD USERS OF RESIDENTS DRIVE

ORIGINAL DRAWING IN COLOUR FOR INFORMATION NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	CHECKED	APPROVED
1	ISSUED FOR TENDERS	18/04/2018	...	...	...
2	...	...	...	...	...

**NZ TRANSPORT AGENCY**  
WIRIKA BOSTAIN

SH1 / OTAIHANGA ROAD SAFETY IMPROVEMENTS

OTAIHANGA ROUNDABOUT ROAD MARKING LAYOUT PLAN - OPTION 1  
M2PR-45P-D-SKT-0127  
A

DETAIL DESIGN (DET)

Scale: 1:100

## Marija Bakulich

---

**From:** Tony Coulman <Tony.Coulman@m2pp.co.nz>  
**Sent:** Monday, 30 June 2014 10:27 a.m.  
**To:** Phil Chatterley; Roger Burra; Caron Greenough  
**Cc:** David Callan; Mike Pilgrim; Peter Bradshaw; David Aldridge  
**Subject:** RE: Otaihanga Roundabout : Road Design Review  
**Attachments:** Otaihanga Roundabout Measures\_Sketches.pdf

**Importance:** High

Good Morning Phil, Caron, Roger,

**RE: Otaihanga Roundabout : Road Design Review & Improvement Measures**

**Immediate measures** - I can confirm that the VMS signs were in place early Friday evening and will continue to highlight the new layout until this review and further measures are implemented.

Phil, thank you for your E-Mail outlining a further review of the design completed on the 27<sup>th</sup> June. The following summarises the planned approach based on discussion I have just had with Caron Greenough:

1. To assist in confirming behaviours and additional measures Caron will be arranging the following to be completed:
  - a. Speed surveys on the two main SH1 approaches.
  - b. Truck drive through organised with the RTF and involving Caron and James Hughes from National Office. (likely to be early next week at the latest).
2. Following completion of the above Caron will (in liaison with James) confirm the Transport Agency preference for the **short and long terms modifications** outlined in the Design Review plans provided by the design team, and any further that may be apparent following the truck drive throughs. These can then be implemented.
3. **Spiral markings** (to improve local accessway aspect) – Caron will discuss with James and confirm acceptance of these proposals. These can then be implemented, preferably before the RSA Stage 4.
4. **Stage 4 RSA** – Phil, it would be good to bring this forward, however in discussion with Caron she believes it would be beneficial to have the spiral markings in place. However, if this is likely to take further time I would not want to see the stage 4 audit delayed – perhaps discuss the criticality of having these markings in place for the RSA process and if Steve R and Co. are comfortable to bring the audit forward I would suggest we do this.

Phil, if you could re-send the spiral markings plan to James and Caron that would be appreciated

Regards  
Tony

---

**From:** James Hughes [mailto:James.Hughes@nzta.govt.nz]  
**Sent:** Monday, 30 June 2014 8:54 a.m.  
**To:** Phil Chatterley  
**Cc:** Peter Bradshaw; Mike Pilgrim [NZTA]; Alexandra Walker; Tony Coulman  
**Subject:** RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hello Phil



Thanks for keeping me in the loop with your thoughts. What you are proposing looks sensible in terms of reinforcing the change in environment, although I am not keen on the idea of moving the limit lines from a consistency perspective. Would it be possible for you to forward the relevant drawings or let me know when you sent them to me if you already have! (would save me hunting for the drawing number).

I am very keen to keep things low key and talk to the RTF at a national level, otherwise our regional guys are constantly picked off with individual examples – we need to get the strong message through to them that they have to select an appropriate speed to move through the intersection. While we could possibly do better on certain, individual layouts, the design fundamentals are unlikely to change.

James

Safer Speeds and Roadsides – because we all make mistakes

---

James R Hughes / National Design Engineer

---

**From:** Phil Chatterley

**Sent:** Friday, 27 June 2014 5:56 p.m.

**To:** Roger Burra

**Cc:** David Callan; Mike Pilgrim [NZTA]; Tony Coulman; 'Caron Greenough (Caron.Greenough@nzta.govt.nz)' (Caron.Greenough@nzta.govt.nz); Peter Bradshaw; Alexandra Walker; David Aldridge

**Subject:** Otaihanga Roundabout : Road Design Review

Hi Roger,

RE: Otaihanga Roundabout : Road Design Review & Improvement Measures

In light of recent events at Otaihanga Roundabout we have conducted a review of the existing arrangement and what measures could be adopted to reinforce the speed environment and approach to the roundabout.

A site visit was held on 27 June 2014 with David Aldridge, Quintin Dettling and myself. No obvious deficiencies with the current arrangement were identified where there are reasonable identifiers for drivers approaching the roundabout and good approach visibility.

However, it is noted that there is potential for vehicles to approach at high speed where cues for the change in the environment could be more pronounced. Vehicles entering at high speed could result in a vehicle over running the central island and over turning. With this in mind we have reviewed the arrangement and prepared a list of possible improvements that can be made to the SH1 southbound approach to Otaihanga roundabout that can in turn be duplicated on the northbound approach where deemed applicable.

Immediate Response:

1. Re-instate new “road layout ahead signs / slow down” to reinforce the change to the road layout for non-local traffic. This is a short term measure to educate motorists and could be removed after an appropriate period. As discussed this could be in form of VMS signs.

Short Term Measures:

2. Separate the large PW-69 chevron boards further apart on the central island to give greater visibility. It may be more appropriate to install a 3<sup>rd</sup> board to the left of the existing two.
3. Install diagonal shoulder markings in the 2.5m shoulder on the southbound approach in accordance with MOTSAM Pt2 Figure 2.4 – these could be 300mm wide at 25m spacing getting closer together within 100m of the roundabout (15m spacing). This would help to create a bit of side friction for approaching vehicles.
4. Install supplementary plates “Slow Down” on the gated PW-8 signs on the approach to roundabouts.

5. Consider installing safe hit posts adjacent to the edge line – allowing sufficient width for cyclists – again this will help emphasise the change in road environment.
6. Consider installing kerb top markers on the central median to help delineate the approach. Painted kerbs were considered but the new concrete is clearly visible in day light in contrast to asphalt surfacing.

Long Term Measures to be considered:

7. Consider relocating the ADS signs closer to the roundabout where they have clear approach visibility. For the current design speed the signs should be between 120-180 from the intersection. A more detailed review is required to determine what site conditions will permit us to move the signs.
8. Build up the gravel strip / central island verge around the outside of the central island to make it more conspicuous.
9. Provide a bit more differentiation, colour and contrast in the central island landscaping to make the roundabout more evident when approaching and separate from the surrounding environment.
10. Consider installing transverse lines across the road pavement in 3 sections, the first two sections in advance of the expected breaking zone and the 3rd section when the driver should be preparing to break. Intensify the number of transverse lines in each group – maybe 2 initially, then 3 then at the breaking zone have 5 transverse lines. This was similar to what was done on CSM1 which appears to be working OK. The transverse lines could be either painted or sealing chip/calcite bauxite.
11. Consider painting “Slow Down” in the approach lanes

We would recommend that some or all items under the short term measures should be adopted first and measures put in place to monitor their effectiveness before considering other measures.

We note the NZTA preference to bring the Post Construction Safety Audit forward to address these items as a matter of urgency. I will contact the safety audit team with the aim to arrange this where possible.

A copy of earlier correspondence on the roundabout are attached for your information. This includes options to address circulatory traffic conflicts at the giveaway line. The option presented is for your consideration where we note the turbo markings push vehicles traveling on the roundabout into the kerb on the outside of the roundabout on both legs of SH1.

This is for your information and discussion. We welcome the opportunity to discuss this with yourselves.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

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**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

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*The M2PP Alliance comprises: The New Zealand Transport Agency, The Fletcher Construction Company Ltd, Beca Ltd and Higgins Contractors Ltd.*

**From:** Phil Chatterley

**Sent:** Friday, 27 June 2014 9:46 a.m.

**To:** Tony Coulman

**Cc:** 'David Callan' ([David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)); Mike Pilgrim [NZTA]

**Subject:** FW: Revised Otaihanga Roundabout Road Marking Drawing

Hi Tony,

In light of a further incident at Otaihanga R/A, can you please comment on the attached drawing and advise what changes you would like us to present to the Alliance.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

---

**From:** Alexandra Walker  
**Sent:** Friday, 13 June 2014 4:10 p.m.  
**To:** Mike Pilgrim [NZTA]  
**Cc:** David Callan; Phil Chatterley  
**Subject:** Revised Otaihanga Roundabout Road Marking Drawing

Hi Mike,

Please find attached for your comment the Revised Otaihanga Roundabout Road Marking Drawing.

Please note that the herring bone markings need to be approved by the safety auditor.

Also of note the turbo markings will push vehicles traveling on the roundabout into the kerb on the Paraparaumu leg and into the driveway on the Waikanae leg.

I look forward to receiving your comments.

Thanks,

**Alex Walker**

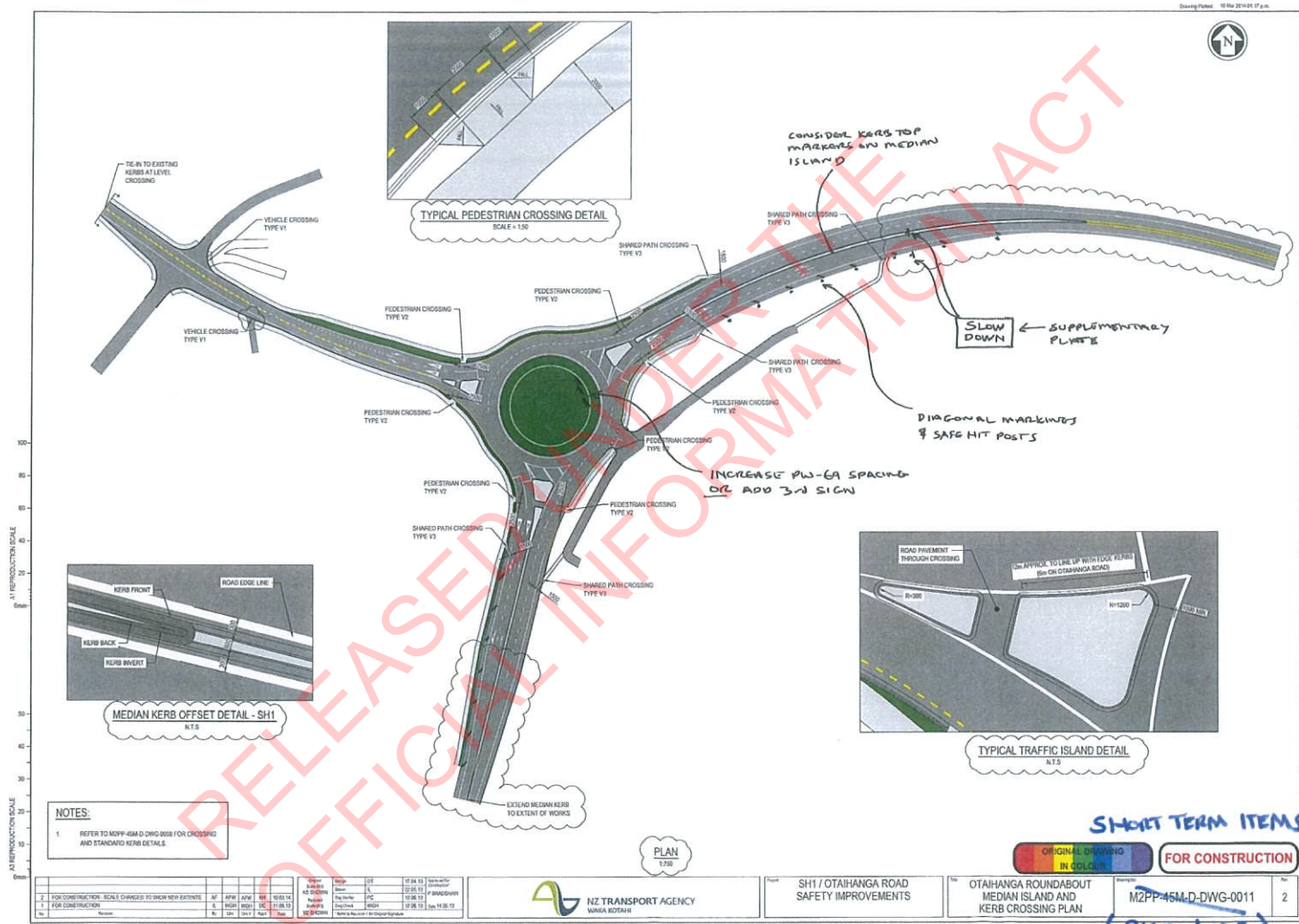
Designers Construction Rep

43 Ihakara St, Paraparaumu | PO Box 8044, Wellington 6143  
Ph: +64 4 550 6695 Mob: +64 27 707 9618 Email: [Alexandra.walker@m2pp.co.nz](mailto:Alexandra.walker@m2pp.co.nz)

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

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AT REPRODUCTION SCALE

DETAIL DESIGN / DET.

**NOTES:**  
 1 REFER TO M2PP-45M D-DWG-0058 FOR CROSSING AND STANDARD KERB DETAILS.

PLAN  
1:20

**SHORT TERM ITEMS**  
 ORIGINAL DRAWING IN COLOR FOR CONSTRUCTION

Rev	Description	Date	By	App'd
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2	Issue for Construction	12/05/16	...	...

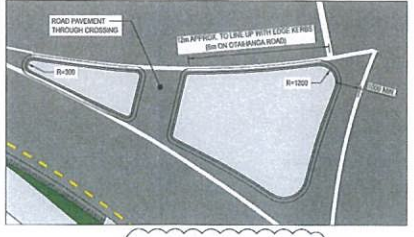
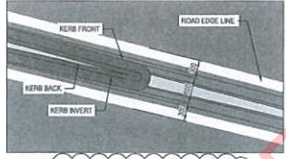
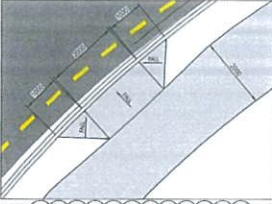
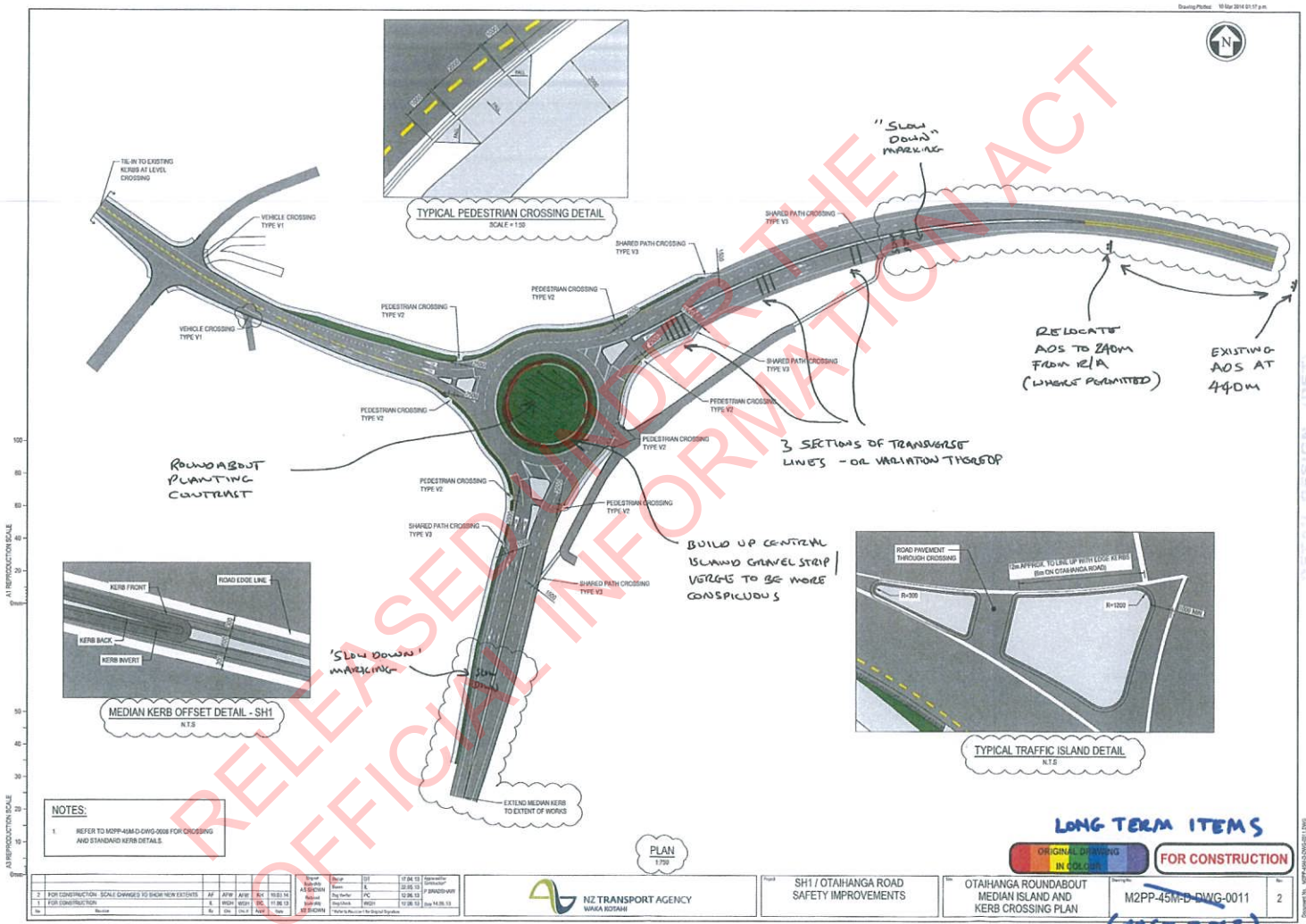
**NZ TRANSPORT AGENCY**  
 WAIKATO REGIONAL COUNCIL

SH1 / OTAHANGA ROAD SAFETY IMPROVEMENTS

OTAHANGA ROUNDABOUT MEDIAN ISLAND AND KERB CROSSING PLAN

M2PP-45M.D-DWG-0011  
 2

(PAGE 1 OF 2)



**NOTES:**  
1. REFER TO M2PP-45M-D-DWG-0008 FOR CROSSING AND STANDARD KERB DETAILS.

A1 REPRODUCTION SCALE

Rev	Description	Date	By	Check	App'd	Scale	Sheet No.	Total Sheets
1	FOR CONSTRUCTION	10/09/14	AF	AFW	AFW	1:1	11	12
2	FOR CONSTRUCTION	10/09/14	AF	AFW	AFW	1:1	11	12
3	FOR CONSTRUCTION	10/09/14	AF	AFW	AFW	1:1	11	12

**NZ TRANSPORT AGENCY**  
WAIKATO REGIONAL COUNCIL

SH1 / OTAHANGA ROAD SAFETY IMPROVEMENTS

OTAHANGA ROUNDABOUT MEDIAN ISLAND AND KERB CROSSING PLAN

M2PP-45M-D-DWG-0011

2

## **Marija Bakulich**

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**From:** Adam Nicholls  
**Sent:** Monday, 30 June 2014 10:25 a.m.  
**To:** Roger Burra  
**Cc:** Mark Owen  
**Subject:** Otaihanga Roundabout

Roger

I have had a chat with Tony about this and I think that there is something around comms that we should be looking at.

Many of our customers would not be captured by our normal communication channels for projects which usually focus on the local area and the affected landowners. For Otaihanga how did we communicate with customers that live in places beyond Levin or Palmerstone North who use our network in Wellington every week, every month or several times a year. I think the answer is we probably didn't, but if we wanted to then better roadside comms is a possible mechanism. As example:

New Road Layout Ahead  
New Roundabout 1km  
New Intersection layout ahead

When do put these signs out, for how long and how far in advance?

Where is the next Otaihanga roundabout? For M2PP this may be Poplar Av or the intersection at the northern end at Peka Peka.

Next time we have chance to talk could we discuss the programme, I know we have touched on this before. I also think that this is a possible learning for other projects but I want to talk through with you first to see if I need to cast the net a little wider.

Cheers

Adam

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OFFICIAL INFORMATION ACT

## Marija Bakulich

---

**From:** Tony Coulman  
**Sent:** Monday, 30 June 2014 9:43 a.m.  
**To:** Caron Greenough; Phil Chatterley  
**Cc:** James Hughes; Mike Pilgrim; Adam Nicholls; Roger Burra; Wayne Troughton  
**Subject:** Re: Otaihanga Roundabout - further information

Hi Caron,

I've left a message on your mobile to give me a call re: way forward on Otaihanga. I will get Rowan and Phil Chatterley to co-ordinate a drive through in a truck for James and yourself. This could be organised via an Alliance truck, or if preferred via the RTF (do you have a ready contact here to streamline this). I'll also talk to the team about capturing some speed data.

I'm about to send another email picking up on the design team's suggested short term and long term modifications, along with timing for the stage 4 RSA.

Regards  
Tony

Sent from my iPad

On 30/06/2014, at 8:17 am, "Caron Greenough" <[Caron.Greenough@nzta.govt.nz](mailto:Caron.Greenough@nzta.govt.nz)> wrote:

Hi All

Not sure who is best to arrange this – assume Tony or Wayne?? So as per James email below could we arrange for James and either myself or Mike (if after Thursday) to drive through the site in a truck? For the sake of relationships we should invite the RTA to the party too (assuming you all saw the article in the paper yesterday?).

And if someone can arrange for some loops to go down on the straights before the approaches that would be great too?

I'll assume Tony (and team) that you will also arrange for the safety audit team to come and do the stage 4 audit but let me know if you need me to organise?

Cheers

Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854

E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand

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<image002.jpg>

<image004.jpg> <image006.jpg> <image010.jpg>

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**From:** James Hughes  
**Sent:** Friday, 27 June 2014 4:10 p.m.  
**To:** Caron Greenough; Mike Pilgrim; Adam Nicholls; Tony Coulman; Roger Burra  
**Cc:** Wayne Troughton; Rod James  
**Subject:** RE: Otaihanga Roundabout - further information

Hello all

My thoughts:

Ultimately the issue is getting the drivers to slow down. Truck drivers ought to have the best 'read' of the layout so I wonder what is happening here.

I can understand the perception for the northbound truck drivers. For car drivers, the vertical profile reduces the sight distance to an acceptable level. Being so much higher than car drivers, truck drivers can see further up the north leg. They therefore see, from further back, if there is a risk of having to give way. This discourages them from slowing to give way.

They then look across at their northbound exit and, again, see a clear, well aligned route. It then seems odd to them that they are required to head left and there is potential for them to underestimate the sharpness of the circulating path, even though they know it is a roundabout. (the comment about 90 degrees is more perception than reality. They may go into 'exit' mode too early and start to accelerate as they pass the Otihanga Road exit.

Truck drivers tend to try and stay in higher gears and minimise their steering – both of which are understandable, but inevitable at a roundabout.

Addressing the two crashes:

I wonder whether the first one would have rolled had the load not shifted? I am interested in the actual speed that truck was travelling.

Looking at the video, I believe the southbound one this morning to be driver inattention. This could just as easily have been a car and is nothing to do with the roundabout, it just got in the way! I am only relieved that we provided somewhere for him to fall over, rather than if this had been a red light!

As far as what to do...

I not sure that the 'new layout' VMS's are required. We have our standard fixed signs out.

I would welcome the opportunity to ride through there in a truck cab to get a feel for the layout and the visibility at key decision points. I would also like to do some speed surveys for entering and circulating speeds.

Is there anything in the Stage 4 Audit that would indicate a wider issue?

Happy to discuss

**james**

Safer Speeds and Roadsides – because we all make mistakes

---

James R Hughes / National Design Engineer  
Acting Traffic and Safety manager



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E [james.hughes@nzta.govt.nz](mailto:james.hughes@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)

<image017.jpg><image018.png>

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Please consider the environment before printing this email

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**From:** Caron Greenough  
**Sent:** Friday, 27 June 2014 2:57 p.m.  
**To:** Mike Pilgrim; Adam Nicholls; James Hughes; Tony Coulman; Roger Burra  
**Subject:** Otaihangā Roundabout - further information

Hi all

Rob Barton from our A&U team just happened to be having a chat with the truck owner from the rolled over truck last week, this morning, and he just wanted to pass on a few comments about the roundabout:

In the opinion of the truck drivers, and in particular those driving trucks and trailers it appears that for northbound traffic the trucks have to swing quite sharply left before heading right to go 'straight ahead'. This means the cab is almost at 90 degrees to the trailer to do so, which is very awkward. Also the camber does not feel correct for this movement.

For southbound traffic the movement is less extreme but positioning of the truck to go through the roundabout is still key.

I am not intending to relitigate the design myself but do think the design team should (which I believe they are) have that conversation and provide comments back to us. I think speed and readability should also be checked for this particular user as two roll overs in two weeks is a bit strange but I am not intending to have a knee jerk reaction to this. A&U are happy to assist us in running some trucks through the sign and providing more feedback if we would like them too.

As per my email earlier today I do think that some 'new layout' signs via VMS would assist in the short term until we have some options and the post construction safety audit does need covering off.

Any further comments welcome and perhaps we can convene the week after next to discuss a way forward?

Cheers

Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854  
E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand

<image001.png>

## Marija Bakulich

---

**From:** James Hughes  
**Sent:** Monday, 30 June 2014 9:36 a.m.  
**To:** Caron Greenough; Mike Pilgrim; Adam Nicholls; Tony Coulman; Roger Burra  
**Cc:** Wayne Troughton  
**Subject:** RE: Otaihanga Roundabout - further information

Hello all

I would really like to be involved with this from a national level if that's ok?

I appreciate the urgency so will work through our RTF relationship manager to get something moving asap. I would like to stop the RTF members hassling our regional teams about individual examples and have them all referred to us in National Office. We need to get the strong message through to them that they have to select an appropriate speed to move through the intersection. While we could possibly do better on certain, individual layouts, the design fundamentals are unlikely to change.

I am confident that things will settle down at Otaihanga. I believe that one of the key contributory factors is the fact that this is advanced works for the expressway. It is a good example of the issues associated with imbalanced flows (and possibly excessive sight distance for truck drivers – we shall see). At the moment, the SH1 traffic has little need to give way and therefore slow-down. Although the Otaihanga Road traffic volumes may not increase significantly once the expressway opens, the whole environment will and therefore driver expectations will change into more 'local road' mode with the lowered ambient speed environment.

In the interim, I think it would be a good idea to further investigate and obtain data to help understand the issues (if there are any?) so that we are more informed for our discussions.

I would also like to attend the RSA, purely as an observer, when that eventually happens.

thanks

James

---

James R Hughes / National Design Engineer  
Acting Traffic and Safety Manager  
Traffic & Safety Team  
Highways and Network Operations Group  
DDI 64 4 894 6312 / M 64 21 562 769  
E [james.hughes@nzta.govt.nz](mailto:james.hughes@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)



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---

**From:** Caron Greenough  
**Sent:** Monday, 30 June 2014 8:17 a.m.  
**To:** James Hughes; Mike Pilgrim; Adam Nicholls; Tony Coulman; Roger Burra

**Cc:** Wayne Troughton  
**Subject:** RE: Otaihanga Roundabout - further information

Hi All

Not sure who is best to arrange this – assume Tony or Wayne?? So as per James email below could we arrange for James and either myself or Mike (if after Thursday) to drive through the site in a truck? For the sake of relationships we should invite the RTA to the party too (assuming you all saw the article in the paper yesterday?).

And if someone can arrange for some loops to go down on the straights before the approaches that would be great too?

I'll assume Tony (and team) that you will also arrange for the safety audit team to come and do the stage 4 audit but let me know if you need me to organise?

Cheers

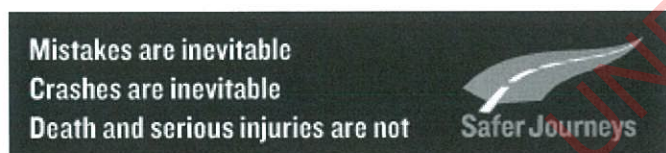
Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854

E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand



---

**From:** James Hughes  
**Sent:** Friday, 27 June 2014 4:10 p.m.  
**To:** Caron Greenough; Mike Pilgrim; Adam Nicholls; Tony Coulman; Roger Burra  
**Cc:** Wayne Troughton; Rod James  
**Subject:** RE: Otaihanga Roundabout - further information

Hello all

My thoughts:

Ultimately the issue is getting the drivers to slow down. Truck drivers ought to have the best 'read' of the layout so I wonder what is happening here.

I can understand the perception for the northbound truck drivers. For car drivers, the vertical profile reduces the sight distance to an acceptable level. Being so much higher than car drivers, truck drivers can see further up the north leg. They therefore see, from further back, if there is a risk of having to give way. This discourages them from slowing to give way.

They then look across at their northbound exit and, again, see a clear, well aligned route. It then seems odd to them that they are required to head left and there is potential for them to underestimate the sharpness of the circulating

path, even though they know it is a roundabout. (the comment about 90 degrees is more perception than reality. They may go into 'exit' mode too early and start to accelerate as they pass the Otihanga Road exit.

Truck drivers tend to try and stay in higher gears and minimise their steering – both of which are understandable, but inevitable at a roundabout.

Addressing the two crashes:

I wonder whether the first one would have rolled had the load not shifted? I am interested in the actual speed that truck was travelling.

Looking at the video, I believe the southbound one this morning to be driver inattention. This could just as easily have been a car and is nothing to do with the roundabout, it just got in the way! I am only relieved that we provided somewhere for him to fall over, rather than if this had been a red light!

As far as what to do...

I not sure that the 'new layout' VMS's are required. We have our standard fixed signs out.

I would welcome the opportunity to ride through there in a truck cab to get a feel for the layout and the visibility at key decision points. I would also like to do some speed surveys for entering and circulating speeds.

Is there anything in the Stage 4 Audit that would indicate a wider issue?

Happy to discuss

james

Safer Speeds and Roadside – because we all make mistakes

---

James R Hughes / National Design Engineer  
Acting Traffic and Safety manager

DDI 64 4 894 6312 / M 64 21 562 769

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---

**From:** Caron Greenough

**Sent:** Friday, 27 June 2014 2:57 p.m.

**To:** Mike Pilgrim; Adam Nicholls; James Hughes; Tony Coulman; Roger Burra

**Subject:** Otaihanga Roundabout - further information

Hi all

Rob Barton from our A&U team just happened to be having a chat with the truck owner from the rolled over truck last week, this morning, and he just wanted to pass on a few comments about the roundabout:

In the opinion of the truck drivers, and in particular those driving trucks and trailers it appears that for northbound traffic the trucks have to swing quite sharply left before heading right to go 'straight ahead'. This means the cab is

almost at 90 degrees to the trailer to do so, which is very awkward. Also the camber does not feel correct for this movement.

For southbound traffic the movement is less extreme but positioning of the truck to go through the roundabout is still key.

I am not intending to relitigate the design myself but do think the design team should (which I believe they are) have that conversation and provide comments back to us. I think speed and readability should also be checked for this particular user as two roll overs in two weeks is a bit strange but I am not intending to have a knee jerk reaction to this. A&U are happy to assist us in running some trucks through the sign and providing more feedback if we would like them too.

As per my email earlier today I do think that some 'new layout' signs via VMS would assist in the short term until we have some options and the post construction safety audit does need covering off.

Any further comments welcome and perhaps we can convene the week after next to discuss a way forward?

Cheers

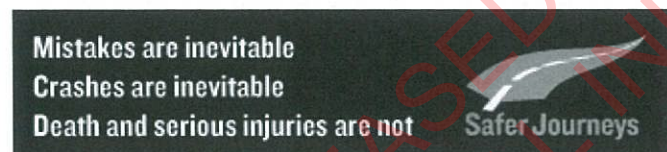
Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854

E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand



## Marija Bakulich

---

**From:** James Hughes  
**Sent:** Monday, 30 June 2014 9:34 a.m.  
**To:** Steve Reddish  
**Subject:** FW: Emailing: 200 Otaihanga-20140627-030354  
**Attachments:** 200 Otaihanga-20140627-030354.avi

Hello Steve

Second incident was southbound.

As you will see, there is a late attempt by the driver to turn into the roundabout. It is 4am.

I believe that this is unrelated to the roundabout and we are lucky that this wasn't at a busier intersection – the diver found somewhere to gently lay his truck down!

James

---

**James R Hughes** / National Design Engineer  
Acting Traffic and Safety Manager  
Traffic & Safety Team  
Highways and Network Operations Group  
DDI 64 4 894 6312 / M 64 21 562 769  
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---

**From:** Caron Greenough  
**Sent:** Friday, 27 June 2014 9:22 a.m.  
**To:** Mike Pilgrim; James Hughes; Tony Coulman  
**Subject:** FW: Emailing: 200 Otaihanga-20140627-030354

Video of the truck roll this morning. He didn't see the roundabout at all did he?

Firstly I just wanted to check if the lighting was all in and working? But that's probably not an issue as the first truck roll last week was during the day wasn't it?

Rod thought it might be a good idea to put a VMS sign up (all directions) for few months just to highlight further that things have changed? Normally we have 'new road layout' boards but I haven't seen them here and not sure if we ever had them?

Can we consider it?

Cheers

## Marija Bakulich

---

**From:** S.Reddish <steve@trafficplanning.co.nz>  
**Sent:** Monday, 30 June 2014 9:18 a.m.  
**To:** Phil Chatterley  
**Cc:** Peter Bradshaw; Mike Pilgrim; Alexandra Walker; Tony Coulman; James Hughes; jos@trafficplanning.co.nz; Jon England  
**Subject:** RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hi Phil

I see no problem in your undertaking some mitigation in discussion with NZTA and the RSA team doing the post construction audit as planned following the changes. I had assumed this was the course of action you were taking anyway following our earlier communications and our response to your proposed mitigation measures dated 27 May which Jos forwarded to you.

I had suggested James Hughes (NZTA National Design Engineer) be involved following the truck incidents as James is a roundabout expert and could advise if there is anything geometrically that has contributed to the trucks tipping over (other than speed and load distribution.) Mike may have got him involved anyway. I recall that the first overturned truck was northbound - was the second incident also northbound?

Let me know how you propose to proceed and whether you will need us to undertake the safety audit earlier than programmed (ie 11 or 14 July).

cheers Steve

Steve Reddish SENIOR ASSOCIATE

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-----Original Message-----

From: Phil Chatterley <Phil.Chatterley@m2pp.co.nz>

To: S.Reddish <steve@trafficplanning.co.nz>

Cc: Peter Bradshaw <Peter.Bradshaw@m2pp.co.nz>, "Mike Pilgrim [NZTA]" <mike.pilgrim@nzta.govt.nz>, Alexandra Walker <Alexandra.Walker@m2pp.co.nz>, Tony Coulman <Tony.Coulman@m2pp.co.nz>, James Hughes <James.Hughes@nzta.govt.nz>

Date: Sun, 29 Jun 2014 20:02:08 +0000

Subject: RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hi Steve,

Thanks for the message, timing seems bad.

We have prepared a list of mitigation measures following our earlier discussions and review with David Aldridge (Alignment verifier). A list of the proposed mitigation measures are attached to the bottom of this email.

I am going to suggest the following course of action with the team;

1. Obtain response from NZTA team including safety engineer (James Hughes) to determine what measure could be implemented readily simply,
2. Implement improvement measures as deemed appropriate from above,
3. Monitor driver responses to changes,
4. Carry out post construction safety audit as planned on 21/7 with above measures installed.

Please let me know if you think this approach is reasonable and bearing in mind that the NZTA and the Alliance need to show they are responding to the two incidents.

As you note below, the alternative would be to schedule a safety audit on Fri 11 or Mon 14 July with Jon, James and yourself.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

43 Ihakara St, Paraparaumu 5032 | PO Box 723, Paraparaumu 5254  
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**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

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---

**From:** S.Reddish [mailto:[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)]

**Sent:** Friday, 27 June 2014 10:38 p.m.

**To:** Phil Chatterley

**Cc:** [jos@trafficplanning.co.nz](mailto:jos@trafficplanning.co.nz); Jon England; Peter Bradshaw; Mike Pilgrim [NZTA]; Alexandra Walker; Tony Coulman; James Hughes

**Subject:** RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hi Phil

Thanks for your phone message - I've been in Auckland all day.

Re bringing Otaihanga post construction forward, Jos is overseas from next Tuesday, back on 16/7 and then he and I are in Chch 17 & 18/7 before coming down to you for the 3 days of M2PP audits, 21 to 23/7.

Meanwhile I am fully booked out next week and most of the following week. The first potential day I have free is Fri 11 July and then Mon 14 July, but that is all. Jon and I could perhaps do an audit then and perhaps get James Hughes involved if he isn't already? Let me know how you want to handle this.

cheers Steve

Steve Reddish SENIOR ASSOCIATE

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-----Original Message-----

From: Phil Chatterley <[Phil.Chatterley@m2pp.co.nz](mailto:Phil.Chatterley@m2pp.co.nz)>

To: S.Reddish <[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)>

Cc: "[jos@trafficplanning.co.nz](mailto:jos@trafficplanning.co.nz)" <[jos@trafficplanning.co.nz](mailto:jos@trafficplanning.co.nz)>, Jon England <[Jon.C.England@mwhglobal.com](mailto:Jon.C.England@mwhglobal.com)>, Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, "Mike Pilgrim [NZTA]" <[mike.pilgrim@nzta.govt.nz](mailto:mike.pilgrim@nzta.govt.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>, Tony Coulman <[Tony.Coulman@m2pp.co.nz](mailto:Tony.Coulman@m2pp.co.nz)>

Date: Fri, 27 Jun 2014 05:49:41 +0000

Subject: RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hi Guys,

Following recent incidents at Otaihanga Roundabout, the NZTA are keen to conduct the post construction safety audit as a matter of urgency.

Can you please advise what the chances are is to bring this audit forward, if necessary this could be a reduced team?

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

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*The M2PP Alliance comprises: The New Zealand Transport Agency, The Fletcher Construction Company Ltd, Beca Ltd and Higgins Contractors Ltd.*

-----Original Message-----

From: Phil Chatterley <[Phil.Chatterley@m2pp.co.nz](mailto:Phil.Chatterley@m2pp.co.nz)>

To: "'S.Reddish' ([steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz))" <[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)>

Cc: Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, David Callan <[David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>

Date: Mon, 19 May 2014 06:40:11 +0000

Subject: RE: M2PP - Otaihanga Roundabout Post Construction RSA & Operational Issues

M2PP - Otaihanga Roundabout Post Construction RSA & Operational Issues

Hi Steve,

Further to earlier correspondence, we are planning to carry out the Post Construction RSA as soon as remaining barriers, signs & lining and planting has been completed. I don't have a date at this time but would envisage this to be at the start of June. Can you please advise your availability around this time?

In the meantime, we have had a number of bedding in issues with the operation. We would be grateful for the SAT teams recommendations before we carry out any remedial measures that have other safety implications.

The two issues to date have been;

1. Vehicles on the roundabout wishing to exit to the property access road are finding vehicles travelling south on SH1 are not giving way to them. The problem is the southbound vehicles travelling in the left lane do not expect anyone wanting to pull in front of them where there is no apparent exit.

Please see attached copy of the construction design (45P-D-DWG-0001) and alternative (45P-D-SKT-0021) for your consideration to address this issue. I am not convinced the option proposed is most appropriate as all traffic on circulatory carriageway will be pushed to outside possibly resulting in more conflicts. My preference is a number of measures;

- I) move give way line forward (either by extending the island or moving to end of hatched lane)
- II) use larger give way signs
- III) Add advance sign or exit on direct map to show access on right
- IV) Re-instate the "NEW ROAD LAYOUT AHEAD" signs for 3 months then re-assess
- V) Review operation arrangement at Post Construction Safety Audit

2. Vehicles traveling south on SH1 not slowing down sufficiently to manoeuvre safely round the roundabout and running in to the central lane/central island. Treatment for the above item should address this.

There will be inevitably be some initial be givial issues with the new layout

We would be grateful for your thoughts on these topics. Once we your comments we will approach NZTA to consider best approach.

I trust this is satisfactory, please let me know if you need anything.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

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**From:** Phil Chatterley  
**Sent:** Friday, 27 June 2014 5:56 p.m.  
**To:** Roger Burra (Roger.Burra@nzta.govt.nz)  
**Cc:** 'David Callan' (David.Callan@m2pp.co.nz); Mike Pilgrim [NZTA]; Tony Coulman; 'Caron Greenough (Caron.Greenough@nzta.govt.nz)' (Caron.Greenough@nzta.govt.nz); Peter Bradshaw; Alexandra Walker; David Aldridge  
**Subject:** Otaihanga Roundabout : Road Design Review

Hi Roger,

RE: Otaihanga Roundabout : Road Design Review & Improvement Measures

In light of recent events at Otaihanga Roundabout we have conducted a review of the existing arrangement and what measures could be adopted to reinforce the speed environment and approach to the roundabout.

A site visit was held on 27 June 2014 with David Aldridge, Quintin Dettling and myself. No obvious deficiencies with the current arrangement were identified where there are reasonable identifiers for drivers approaching the roundabout and good approach visibility.

However, it is noted that there is potential for vehicles to approach at high speed where cues for the change in the environment could be more pronounced. Vehicles entering at high speed could result in a vehicle over running the central island and over turning. With this in mind we have reviewed the arrangement and prepared a list of possible improvements that can be made to the SH1 southbound approach to Otaihanga roundabout that can in turn be duplicated on the northbound approach where deemed applicable.

Immediate Response:

1. Re-instate “new road layout ahead signs / slow down” to reinforce the change to the road layout for non-local traffic. This is a short term measure to educate motorists and could be removed after an appropriate period. As discussed this could be in form of VMS signs.

Short Term Measures:

2. Separate the large PW-69 chevron boards further apart on the central island to give greater visibility. It may be more appropriate to install a 3<sup>rd</sup> board to the left of the existing two (we recommended adding 3<sup>rd</sup> sign for greater visibility).
3. Install diagonal shoulder markings in the 2.5m shoulder on the southbound approach in accordance with MOTSAM Pt2 Figure 2.4 – these could be 300mm wide at 25m spacing getting closer together within 100m of the roundabout (15m spacing). This would help to create a bit of side friction for approaching vehicles.
4. Install supplementary plates “Slow Down” on the gated PW-8 signs on the approach to roundabouts.
5. Consider installing safe hit posts adjacent to the edge line – allowing sufficient width for cyclists – again this will help emphasise the change in road environment.
6. Consider installing kerb top markers on the central median to help delineate the approach. Painted kerbs were considered but the new concrete is clearly visible in day light in contrast to asphalt surfacing.

Long Term Measures to be considered:

7. Consider relocating the ADS signs closer to the roundabout where they have clear approach visibility. For the current design speed the signs should be between 120-180 from the intersection. A more detailed review is required to determine what site conditions will permit us to move the signs.
8. Build up the gravel strip / central island verge around the outside of the central island to make it more conspicuous.
9. Provide a bit more differentiation, colour and contrast in the central island landscaping to make the roundabout more evident when approaching and separate from the surrounding environment.
10. Consider installing transverse lines across the road pavement in 3 sections, the first two sections in advance of the expected breaking zone and the 3<sup>rd</sup> section when the driver should be preparing to break. Intensify the number of transverse lines in each group – maybe 2 initially, then 3 then at the

breaking zone have 5 transverse lines. This was similar to what was done on CSM1 which appears to be working OK. The transverse lines could be either painted or sealing chip/calcite bauxite.

1. Consider painting “Slow Down” in the approach lanes

We would recommend that some or all items under the short term measures should be adopted first and measures put in place to monitor their effectiveness before considering other measures.

We note the NZTA preference to bring the Post Construction Safety Audit forward to address these items as a matter of urgency. I will contact the safety audit team with the aim to arrange this where possible.

A copy of earlier correspondence on the roundabout are attached for your information. This includes options to address circulatory traffic conflicts at the giveaway line. The option presented is for your consideration where we note the turbo markings push vehicles traveling on the roundabout into the kerb on the outside of the roundabout on both legs of SH1.

This is for your information and discussion. We welcome the opportunity to discuss this with yourselves.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

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---

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- Re0instate NEW RAOD LAYOUT AHEAD signs and SLOW DOWN warning – using VMS where possible
- Prepare list of measures with priority – PC to prepare
- RSA to be brought forward where possible – PC to chase
- Roger to forward feedback from freight org and offer of drive through

Regards

**Phil Chatterley**

Geometry Design Lead



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OFFICIAL INFORMATION ACT

## Marija Bakulich

---

**From:** James Hughes  
**Sent:** Monday, 30 June 2014 8:54 a.m.  
**To:** Phil Chatterley  
**Cc:** Peter Bradshaw; Mike Pilgrim; Alexandra Walker; Tony Coulman  
**Subject:** RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hello Phil

Thanks for keeping me in the loop with your thoughts. What you are proposing looks sensible in terms of reinforcing the change in environment, although I am not keen on the idea of moving the limit lines from a consistency perspective. Would it be possible for you to forward the relevant drawings or let me know when you sent them to me if you already have! (would save me hunting for the drawing number).

I am very keen to keep things low key and talk to the RTF at a national level, otherwise our regional guys are constantly picked off with individual examples – we need to get the strong message through to them that they have to select an appropriate speed to move through the intersection. While we could possibly do better on certain, individual layouts, the design fundamentals are unlikely to change.

James

Safer Speeds and Roadsides – because we all make mistakes

---

James R Hughes / National Design Engineer  
Acting Traffic and Safety manager  
DDI 64 4 894 6312 / M 64 21 562 769  
E [james.hughes@nzta.govt.nz](mailto:james.hughes@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)



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**From:** Phil Chatterley [mailto:[Phil.Chatterley@m2pp.co.nz](mailto:Phil.Chatterley@m2pp.co.nz)]  
**Sent:** Monday, 30 June 2014 8:02 a.m.  
**To:** S.Reddish  
**Cc:** Peter Bradshaw; Mike Pilgrim; Alexandra Walker; Tony Coulman; James Hughes  
**Subject:** RE: M2PP - Otaihanga Roundabout Post Construction & Detailed Design RSA

Hi Steve,

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## Phil Chatterley

Alignment Design Lead | M2PP Alliance

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**From:** S.Reddish [<mailto:steve@trafficplanning.co.nz>]

**Sent:** Friday, 27 June 2014 10:38 p.m.

**To:** Phil Chatterley

**Cc:** [jos@trafficplanning.co.nz](mailto:jos@trafficplanning.co.nz); Jon England; Peter Bradshaw; Mike Pilgrim [NZTA]; Alexandra Walker; Tony Coulman; James Hughes

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cheers Steve

Steve Reddish SENIOR ASSOCIATE

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To: S.Reddish <[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)>

Cc: "[jos@trafficplanning.co.nz](mailto:jos@trafficplanning.co.nz)" <[jos@trafficplanning.co.nz](mailto:jos@trafficplanning.co.nz)>, Jon England <[Jon.C.England@mwhglobal.com](mailto:Jon.C.England@mwhglobal.com)>, Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, "Mike Pilgrim [NZTA]" <[mike.pilgrim@nzta.govt.nz](mailto:mike.pilgrim@nzta.govt.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>, Tony Coulman <[Tony.Coulman@m2pp.co.nz](mailto:Tony.Coulman@m2pp.co.nz)>

Date: Fri, 27 Jun 2014 05:49:41 +0000

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**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

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From: Phil Chatterley <[Phil.Chatterley@m2pp.co.nz](mailto:Phil.Chatterley@m2pp.co.nz)>

To: "'S.Reddish' ([steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz))" <[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)>

Cc: Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, David Callan <[David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>

Date: Mon, 19 May 2014 06:40:11 +0000

Subject: RE: M2PP - Otaihanga Roundabout Post Construction RSA & Operational Issues

M2PP - Otaihanga Roundabout Post Construction RSA & Operational Issues

Hi Steve,

Further to earlier correspondence, we are planning to carry out the Post Construction RSA as soon as remaining barriers, signs & lining and planting has been completed. I don't have a date at this time but would envisage this to be at the start of June. Can you please advise your availability around this time?

In the meantime, we have had a number of bedding in issues with the operation. We would be grateful for the SAT teams recommendations before we carry out any remedial measures that have other safety implications.

The two issues to date have been;

1. Vehicles on the roundabout wishing to exit to the property access road are finding vehicles travelling south on SH1 are not giving way to them. The problem is the southbound vehicles travelling in the left lane do not expect anyone wanting to pull in front of them where there is no apparent exit.



Please see attached copy of the construction design (45P-D-DWG-0001) and alternative (45P-D-SKT-0021) for your consideration to address this issue. I am not convinced the option proposed is most appropriate as all traffic on circulatory carriageway will be pushed to outside possibly resulting in more conflicts. My preference is a number of measures;

- I) move give way line forward (either by extending the island or moving to end of hatched lane)
- II) use larger give way signs
- III) Add advance sign or exit on direct map to show access on right
- IV) Re-instate the "NEW ROAD LAYOUT AHEAD" signs for 3 months then re-assess
- V) Review operation arrangement at Post Construction Safety Audit

2. Vehicles traveling south on SH1 not slowing down sufficiently to manoeuvre safely round the roundabout and running in to the central lane/central island. Treatment for the above item should address this.

There will be inevitably be some initial be givial issues with the new layout

We would be grateful for your thoughts on these topics. Once we your comments we will approach NZTA to consider best approach.

I trust this is satisfactory, please let me know if you need anything.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

43 Ihakara St, Paraparaumu 5032 | PO Box 723, Paraparaumu 5254  
Mobile Ph: 021 205 1193 DDI: +64 4 460 1775 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway

---

**From:** Phil Chatterley  
**Sent:** Friday, 27 June 2014 5:56 p.m.  
**To:** Roger Burra ([Roger.Burra@nzta.govt.nz](mailto:Roger.Burra@nzta.govt.nz))  
**Cc:** 'David Callan' ([David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)); Mike Pilgrim [NZTA]; Tony Coulman; 'Caron Greenough' ([Caron.Greenough@nzta.govt.nz](mailto:Caron.Greenough@nzta.govt.nz)) ([Caron.Greenough@nzta.govt.nz](mailto:Caron.Greenough@nzta.govt.nz)); Peter Bradshaw; Alexandra Walker; David Aldridge  
**Subject:** Otaihanga Roundabout : Road Design Review

Hi Roger,

RE: Otaihanga Roundabout : Road Design Review & Improvement Measures

In light of recent events at Otaihanga Roundabout we have conducted a review of the existing arrangement and what measures could be adopted to reinforce the speed environment and approach to the roundabout.

A site visit was held on 27 June 2014 with David Aldridge, Quintin Dettling and myself. No obvious deficiencies with the current arrangement were identified where there are reasonable identifiers for drivers approaching the roundabout and good approach visibility.

However, it is noted that there is potential for vehicles to approach at high speed where cues for the change in the environment could be more pronounced. Vehicles entering at high speed could result in a vehicle over running the central island and over turning. With this in mind we have reviewed the arrangement and prepared a list of possible improvements that can be made to the SH1 southbound approach to Otaihangā roundabout that can in turn be duplicated on the northbound approach where deemed applicable.

#### Immediate Response:

1. Re-instate “new road layout ahead signs / slow down” to reinforce the change to the road layout for non-local traffic. This is a short term measure to educate motorists and could be removed after an appropriate period. As discussed this could be in form of VMS signs.

#### Short Term Measures:

2. Separate the large PW-69 chevron boards further apart on the central island to give greater visibility. It may be more appropriate to install a 3<sup>rd</sup> board to the left of the existing two (we recommended adding 3<sup>rd</sup> sign for greater visibility).
3. Install diagonal shoulder markings in the 2.5m shoulder on the southbound approach in accordance with MOTSAM Pt2 Figure 2.4 – these could be 300mm wide at 25m spacing getting closer together within 100m of the roundabout (15m spacing). This would help to create a bit of side friction for approaching vehicles.
4. Install supplementary plates “Slow Down” on the gated PW-8 signs on the approach to roundabouts.
5. Consider installing safe hit posts adjacent to the edge line – allowing sufficient width for cyclists – again this will help emphasise the change in road environment.
6. Consider installing kerb top markers on the central median to help delineate the approach. Painted kerbs were considered but the new concrete is clearly visible in day light in contrast to asphalt surfacing.

#### Long Term Measures to be considered:

7. Consider relocating the ADS signs closer to the roundabout where they have clear approach visibility. For the current design speed the signs should be between 120-180 from the intersection. A more detailed review is required to determine what site conditions will permit us to move the signs.
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9. Provide a bit more differentiation, colour and contrast in the central island landscaping to make the roundabout more evident when approaching and separate from the surrounding environment.
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11. Consider painting “Slow Down” in the approach lanes

We would recommend that some or all items under the short term measures should be adopted first and measures put in place to monitor their effectiveness before considering other measures.

We note the NZTA preference to bring the Post Construction Safety Audit forward to address these items as a matter of urgency. I will contact the safety audit team with the aim to arrange this where possible.

A copy of earlier correspondence on the roundabout are attached for your information. This includes options to address circulatory traffic conflicts at the giveaway line. The option presented is for your consideration where we note the turbo markings push vehicles traveling on the roundabout into the kerb on the outside of the roundabout on both legs of SH1.

This is for your information and discussion. We welcome the opportunity to discuss this with yourselves.

Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

43 Ihakara St, Paraparaumu 5032 | PO Box 723, Paraparaumu 5254  
Mobile Ph: 021 205 1193 DDI: +64 4 460 1775 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

---

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## Marija Bakulich

---

**From:** Phil Chatterley  
**Sent:** Friday, 27 June 2014 5:59 p.m.  
**To:** Kiran Hira; Alexandra Walker  
**Cc:** Phil Chatterley  
**Subject:** FW: Otaihanga Roundabout : Road Design Review  
**Attachments:** RE: M2PP - Otaihanga Roundabout Operational Issues; Otaihanga Roundabout Measures\_Sketches.pdf

Hi Guy's,

In relation to item 3 below – the SB shoulder on site appears much smaller than 2.5m and lane width in excess of 3.5m. Can we check this?

Thanks

### Phil Chatterley

Geometry Design Lead



43 Ihakara St, Paraparaumu 5254 | PO Box 723, Paraparaumu 5254  
Ph: 04-460 1775 Mob: 027 205 1193 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

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---

**From:** Phil Chatterley  
**Sent:** Friday, 27 June 2014 5:56 p.m.  
**To:** Roger Burra (Roger.Burra@nzta.govt.nz)  
**Cc:** 'David Callan' (David.Callan@m2pp.co.nz); Mike Pilgrim [NZTA]; Tony Coulman; 'Caron Greenough (Caron.Greenough@nzta.govt.nz)' (Caron.Greenough@nzta.govt.nz); Peter Bradshaw; Alexandra Walker; David Aldridge  
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Regards

**Phil Chatterley**

Alignment Design Lead | M2PP Alliance

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

---

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*The M2PP Alliance comprises: The New Zealand Transport Agency, The Fletcher Construction Company Ltd, Beca Ltd and Higgins Contractors Ltd.*

---

**From:** Phil Chatterley  
**Sent:** Friday, 27 June 2014 9:46 a.m.  
**To:** Tony Coulman  
**Cc:** 'David Callan' ([David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)); Mike Pilgrim [NZTA]  
**Subject:** FW: Revised Otaihanga Roundabout Road Marking Drawing

Hi Tony,

In light of a further incident at Otaihanga R/A, can you please comment on the attached drawing and advise what changes you would like us to present to the Alliance.

Regards

**Phil Chatterley**  
Alignment Design Lead | M2PP Alliance

---

**From:** Alexandra Walker  
**Sent:** Friday, 13 June 2014 4:10 p.m.  
**To:** Mike Pilgrim [NZTA]  
**Cc:** David Callan; Phil Chatterley  
**Subject:** Revised Otaihanga Roundabout Road Marking Drawing

Hi Mike,

Please find attached for your comment the Revised Otaihanga Roundabout Road Marking Drawing.

Please note that the herring bone markings need to be approved by the safety auditor.

Also of note the turbo markings will push vehicles traveling on the roundabout into the kerb on the Paraparaumu leg and into the driveway on the Waikanae leg.

I look forward to receiving your comments.

Thanks,

**Alex Walker**  
Designers Construction Rep

43 Ihakara St, Paraparaumu | PO Box 8044, Wellington 6143  
Ph: +64 4 550 6695 Mob: +64 27 707 9618 Email: [Alexandra.walker@m2pp.co.nz](mailto:Alexandra.walker@m2pp.co.nz)

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---

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## Marija Bakulich

---

**From:** Anthony Frith  
**Sent:** Saturday, 28 June 2014 11:30 a.m.  
**To:** Andrew Knackstedt; Mark Owen; Adam Nicholls; Jenny Alexander; Sarah Ropata; Tony Coulman; Alan.Orange@m2pp.co.nz; darren.utting@m2pp.co.nz; Chris Elder; Catherine Morrison; Caron Greenough; Ulvi Salayev; Rowan Oliver; Rod James  
**Subject:** Dompost: NZTA denies roundabout unsafe claims  
**Attachments:** 277981495.pdf

Not a bad article in the end. anyone with half a brain will be able to realise that the driver was at fault and the RTF are trying to get people to look the other way.

Still remains a bit rich for Ken Shirley to go complaining to Kay Blundell about something he admitted to her that they have never raised with us.

---

**From:** Mediaportal [Mediaportal.nz@isentia.com]  
**Sent:** Saturday, 28 June 2014 10:05 a.m.  
**To:** Anthony Frith  
**Subject:** Mediaportal print summary :NZTA denies roundabout unsafe claims

Mediaportal print summary

### NZTA denies roundabout unsafe claims



Email from Anthony Frith (anthony.frith@nzta.govt.nz)

#### NZTA denies roundabout unsafe claims

Dominion Post Weekend, Wellington, General News, Kay

28 Jun 2014



Blundell

Page 8 • 400 words

Photo: Yes • Type: News Item • ID: 277981495



THE Road Transport Forum is calling for the design of a new roundabout on State Highway 1 in Kapiti to be reviewed after a second large truck rolled on it this month. But the NZ Transport Agency says the Otaihanga roundabout complies with trans-Tasman safety standards.

[Read full text](#) • [Download print article](#)

Keywords

06 325 CIRCULATION

Agency (3), NZ (2), NZTA (3), Transport (4)



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# NZTA denies roundabout unsafe claims

KAY BLUNDELL

THE Road Transport Forum is calling for the design of a new roundabout on State Highway 1 in Kapiti to be reviewed after a second large truck rolled on it this month.

But the NZ Transport Agency says the Otaihanga roundabout complies with trans-Tasman safety standards.

A southbound eight-wheel Mana Transport truck rolled on the roundabout at about 3am yesterday, about a fortnight after a 43-tonne truck and trailer unit rolled in the northbound lane.

Kapiti police said there had been three accidents involving trucks at the roundabout during the past three months.

Senior Sergeant Anita Dixon said in yesterday's accident the truck's brakes were slammed on about 25 metres from the roundabout, the wheels locked up and it hit guttering on the roundabout before rolling on its side.

The cause of the accident was unknown, Dixon said, but "driver fatigue or bad conditions as it had been raining quite heavily prior to the event" were possibilities. The truck was towed away at about 8.30am.

When the truck and trailer unit rolled on June 10, police believed speed was a factor.

Road Transport Forum chief executive Ken Shirley said they were getting regular reports from the trucking fraternity, unhappy with the Otaihanga roundabout's

camber and configuration.

"We are not happy about the design criteria used for highway roundabouts. Speed is critical but some roundabouts almost seem to be designed to roll trucks over.

"Otaihanga roundabout is another example of many around the country where it is too tight, creating unnecessary problems and potential hazards," he said.

The forum was urging NZTA to look again at the design criteria used for highway roundabouts.

But NZTA regional performance manager Mark Owen said the roundabout's design met the agency's and Austroad guidelines and standards.

"[Video] footage shows the truck appears to have gone straight ahead rather than round the roundabout," Owen said.

The agency had commissioned three independent safety audits, none of which raised any concerns about the camber of the roundabout, he said.

"Motorists must slow down and give way, irrespective of the speed limit, this is reflected in the road code . . . we urge motorists to exercise caution and commonsense.

"Despite these crashes, the roundabout has greatly reduced the risk of severe crashes arising from being hit at speed when pulling out of Otaihanga Rd."

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**Poor design:** Truckers say the Otaihanga roundabout is too tight, after three incidents involving large vehicles in as many months.

Photo: FAIRFAX NZ

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## Marija Bakulich

---

**From:** James Hughes  
**Sent:** Friday, 27 June 2014 6:35 p.m.  
**To:** Adam Nicholls  
**Subject:** Re: Trucks - Otaihanga Roundabout

Thanks Adam  
Appreciate being in the loop  
Have a great w/e

James  
Somewhere not the office  
Sent from my ibrow  
+6421562769

On 27/06/2014, at 6:03 pm, "Adam Nicholls" <[Adam.Nicholls@nzta.govt.nz](mailto:Adam.Nicholls@nzta.govt.nz)> wrote:

Sent from my iPhone

Begin forwarded message:

**From:** Mark Owen <[Mark.Owen@nzta.govt.nz](mailto:Mark.Owen@nzta.govt.nz)>  
**Date:** 27 June 2014 5:51:33 pm NZST  
**To:** Sandy Walker <[SWalker@rtanz.co.nz](mailto:SWalker@rtanz.co.nz)>  
**Cc:** Rod James <[Rod.James@nzta.govt.nz](mailto:Rod.James@nzta.govt.nz)>, Caron Greenough <[Caron.Greenough@nzta.govt.nz](mailto:Caron.Greenough@nzta.govt.nz)>, Adam Ashford <[Adam.Ashford@nzta.govt.nz](mailto:Adam.Ashford@nzta.govt.nz)>, Ulvi Salayev <[Ulvi.Salayev@nzta.govt.nz](mailto:Ulvi.Salayev@nzta.govt.nz)>, Adam Nicholls <[Adam.Nicholls@nzta.govt.nz](mailto:Adam.Nicholls@nzta.govt.nz)>, Roger Burra <[Roger.Burra@nzta.govt.nz](mailto:Roger.Burra@nzta.govt.nz)>, Tony Coulman <[Tony.Coulman@nzta.govt.nz](mailto:Tony.Coulman@nzta.govt.nz)>, Rob Barton <[Robert.Barton@nzta.govt.nz](mailto:Robert.Barton@nzta.govt.nz)>  
**Subject:** Trucks - Otaihanga Roundabout

Hi Sandy

Good to talk to you today. As discussed, there is some intense focus on the 2 recent crashes (both single truck crashes) at the newly constructed roundabout at the junction of Otaihanga Rd and SH1.

We have had 3 independent safety audits of this new roundabout, so keen to understand more, once you've talked to trucking companies, as to what the contributing factors were? Our CCTV images of the second crash appear to show the vehicle going straight through and ending up on the central island.

As discussed, it would be good to work together on educating truckies on the new layout and putting an article in your local RTA magazine with a plan and some tips about this new road layout and the need to slow down and Give Way on all the approach legs.

We will be placing some portable VMS signs either side to remind all drivers of the new road layout.

If you come across any other improvement ideas, please let us know.

cheers

---

**Mark Owen**  
Regional Performance Manager, Wellington  
DDI +64 4 894 5235  
M +64 21 669 584  
E [mark.owen@nzta.govt.nz](mailto:mark.owen@nzta.govt.nz)

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## Marija Bakulich

---

**From:** Phil Chatterley <Phil.Chatterley@m2pp.co.nz>  
**Sent:** Friday, 27 June 2014 5:56 p.m.  
**To:** Roger Burra  
**Cc:** David Callan; Mike Pilgrim; Tony Coulman; Caron Greenough; Peter Bradshaw; Alexandra Walker; David Aldridge  
**Subject:** Otaihanga Roundabout : Road Design Review  
**Attachments:** RE: M2PP - Otaihanga Roundabout Operational Issues; Otaihanga Roundabout Measures\_Sketches.pdf

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43 Ihakara St, Paraparaumu 5032 | PO Box 723, Paraparaumu 5254  
Mobile Ph: 021 205 1193 DDI: +64 4 460 1775 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

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Alignment Design Lead | M2PP Alliance

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**Sent:** Friday, 13 June 2014 4:10 p.m.  
**To:** Mike Pilgrim [NZTA]  
**Cc:** David Callan; Phil Chatterley  
**Subject:** Revised Otaihanga Roundabout Road Marking Drawing

Hi Mike,

Please find attached for your comment the Revised Otaihanga Roundabout Road Marking Drawing.

Please note that the herring bone markings need to be approved by the safety auditor.

Also of note the turbo markings will push vehicles traveling on the roundabout into the kerb on the Paraparaumu leg and into the driveway on the Waikanae leg.

I look forward to receiving your comments.

Thanks,

**Alex Walker**  
Designers Construction Rep

43 Ihakara St, Paraparaumu | PO Box 8044, Wellington 6143  
Ph: +64 4 550 6695 Mob: +64 27 707 9618 Email: [Alexandra.walker@m2pp.co.nz](mailto:Alexandra.walker@m2pp.co.nz)

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

-----  
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RELEASED UNDER THE  
OFFICIAL INFORMATION ACT

## Marija Bakulich

---

**From:** James Hughes  
**Sent:** Friday, 27 June 2014 4:10 p.m.  
**To:** Caron Greenough; Mike Pilgrim; Adam Nicholls; Tony Coulman; Roger Burra  
**Cc:** Wayne Troughton; Rod James  
**Subject:** RE: Otaihanga Roundabout - further information

Hello all

My thoughts:

Ultimately the issue is getting the drivers to slow down. Truck drivers ought to have the best 'read' of the layout so I wonder what is happening here.

I can understand the perception for the northbound truck drivers. For car drivers, the vertical profile reduces the sight distance to an acceptable level. Being so much higher than car drivers, truck drivers can see further up the north leg. They therefore see, from further back, if there is a risk of having to give way. This discourages them from slowing to give way.

They then look across at their northbound exit and, again, see a clear, well aligned route. It then seems odd to them that they are required to head left and there is potential for them to underestimate the sharpness of the circulating path, even though they know it is a roundabout. (the comment about 90 degrees is more perception than reality. They may go into 'exit' mode too early and start to accelerate as they pass the Otihanga Road exit.

Truck drivers tend to try and stay in higher gears and minimise their steering – both of which are understandable, but inevitable at a roundabout.

Addressing the two crashes:

I wonder whether the first one would have rolled had the load not shifted? I am interested in the actual speed that truck was travelling.

Looking at the video, I believe the southbound one this morning to be driver inattention. This could just as easily have been a car and is nothing to do with the roundabout, it just got in the way! I am only relieved that we provided somewhere for him to fall over, rather than if this had been a red light!

As far as what to do...

I not sure that the 'new layout' VMS's are required. We have our standard fixed signs out.

I would welcome the opportunity to ride through there in a truck cab to get a feel for the layout and the visibility at key decision points. I would also like to do some speed surveys for entering and circulating speeds.

Is there anything in the Stage 4 Audit that would indicate a wider issue?

Happy to discuss

james

Safer Speeds and Roadsides – because we all make mistakes

---

James R Hughes / National Design Engineer  
Acting Traffic and Safety manager  
DDI 64 4 894 6312 / M 64 21 562 769  
E [james.hughes@nzta.govt.nz](mailto:james.hughes@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)





Please consider the environment before printing this email

**From:** Caron Greenough  
**Sent:** Friday, 27 June 2014 2:57 p.m.  
**To:** Mike Pilgrim; Adam Nicholls; James Hughes; Tony Coulman; Roger Burra  
**Subject:** Otaihangā Roundabout - further information

Hi all

Rob Barton from our A&U team just happened to be having a chat with the truck owner from the rolled over truck last week, this morning, and he just wanted to pass on a few comments about the roundabout:

In the opinion of the truck drivers, and in particular those driving trucks and trailers it appears that for northbound traffic the trucks have to swing quite sharply left before heading right to go 'straight ahead'. This means the cab is almost at 90 degrees to the trailer to do so, which is very awkward. Also the camber does not feel correct for this movement.

For southbound traffic the movement is less extreme but positioning of the truck to go through the roundabout is still key.

I am not intending to relitigate the design myself but do think the design team should (which I believe they are) have that conversation and provide comments back to us. I think speed and readability should also be checked for this particular user as two roll overs in two weeks is a bit strange but I am not intending to have a knee jerk reaction to this. A&U are happy to assist us in running some trucks through the sign and providing more feedback if we would like them too.

As per my email earlier today I do think that some 'new layout' signs via VMS would assist in the short term until we have some options and the post construction safety audit does need covering off.

Any further comments welcome and perhaps we can convene the week after next to discuss a way forward?

Cheers

Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854

E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand

## Marija Bakulich

---

**From:** David Aldridge  
**Sent:** Friday, 27 June 2014 3:28 p.m.  
**To:** Philip Chatterley  
**Cc:** Quintin Dettling; Alexandra Walker (Alexandra.Walker@m2pp.co.nz)  
**Subject:** Otaihanga R/about

Hi Phil,

As per our discussions and site visit, here are a list of possible improvements that can be made to the SH1 southbound approach to Otaihanga R/about.

1. Include diagonal shoulder markings on the southbound approach – quite close together and thick to create a bit of side friction
2. Consider installing safe hit posts adjacent to the edgeline – allowing sufficient width for cyclists – again this will help emphasise the change in road environment
3. Consider installing transverse lines across the road pavement in 3 sections, the first two sections in advance of the expected breaking zone and the 3rd section when the driver should be preparing to break. Intensify the number of transverse lines in each group – maybe 2 initially, then 3 then at the breaking zone have 5 transverse lines. This was similar to what we did on CSM1 and appears to be OK. The transverse lines could be either painted or sealing chip/calcline bauxite.
4. Build up the gravel? Strip around the outside of the central island to make it more conspicuous
5. Separate the large chevron boards further apart on the central island – also consider installing a 3 board to the left of the existing two.
6. Ideally provide a bit more colour and contrast in the central island landscaping to make the roundabout more evident when approaching
7. Move the ADS sign close to the r/about if possible
8. Consider installing kerb top markers on the central median to help delineate the approach
9. Consider painting “Slow Down” in the approach lanes

Gotta go'

Cheers  
Dave

### David Aldridge

Technical Director, Civil Engineering  
Beca  
Phone: +64 3 366 3521 Fax: +64 3 366 3188  
DDI: +64 3 374 3155  
Mobile: +64 27 232 5998  
[dave.aldridge@beca.com](mailto:dave.aldridge@beca.com)  
[www.beca.com](http://www.beca.com)  
[www.Linkedin.com/company/beca](http://www.Linkedin.com/company/beca)

Champion Professional Service Award // 2013 Champion Canterbury Awards

## Marija Bakulich

---

**From:** Anthony Frith  
**Sent:** Friday, 27 June 2014 11:27 a.m.  
**To:** 'Sarah Ropata'; Tony Coulman; 'Alan Orange'; Rod James; Mark Owen; Jenny Alexander  
**Subject:** Labour Party release on roundabout

See below from Nathan Guy's contender. Our response will be limited simply to the facts – it complies with our standards - and Australian standards - and it's passed three independent safety audits.

---

**From:** Nick Walker [<mailto:NickWalker@radionetwork.co.nz>]  
**Sent:** Friday, 27 June 2014 11:23 a.m.  
**To:** Anthony Frith  
**Subject:** FW: Second truck rolls at Otaihanga roundabout

---

**From:** Rob McCann [<mailto:robandjo.mccann@gmail.com>]  
**Sent:** Friday, 27 June 2014 9:48 a.m.  
**To:** [robandjo.mccann@gmail.com](mailto:robandjo.mccann@gmail.com)  
**Subject:** Second truck rolls at Otaihanga roundabout

**News Release**  
**Rob McCann**  
27/06/14

## Otaihanga Roundabout scene of second truck accident

"Serious questions must now be asked about the design of the Otaihanga roundabout with a second truck rolling in a short space of time," says Labour's Otaki Candidate Rob McCann.

"Whether NZTA admit it or not, the roundabout was only built to facilitate trucks turning onto Otaihanga Road for the construction of the Expressway. This quick fix now seems to be endangering commuters who use State Highway One and points to the possibility that the Expressway build is being poorly planned and managed.

"It has been reported to me that the Mana buses when traveling at 30km find a warning light flashing when on the roundabout. I'm told this is set off because the camber of the road (slope) is on the wrong angle. If this is true, then trucks with a higher centre of gravity must be at risk when traveling at greater speeds.

"Kapiti Residents deserve to know whether our safety is being compromised. Was the camber of the roundabout either intentionally designed to slope away or is this is a design fault brought about in an effort to save money?

"It's time for some answers and some action before someone is killed or seriously injured," says Mr McCann.

**Rob McCann**  
**Labour Candidate for Otaki**  
04 297 2757 | 021 212 2953  
[rob@robmccann.co.nz](mailto:rob@robmccann.co.nz)

## Marija Bakulich

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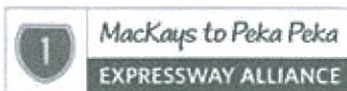
**From:** Phil Chatterley  
**Sent:** Friday, 27 June 2014 9:46 a.m.  
**To:** Tony Coulman  
**Cc:** 'David Callan' (David.Callan@m2pp.co.nz); Mike Pilgrim [NZTA]  
**Subject:** FW: Revised Otaihanga Roundabout Road Marking Drawing  
**Attachments:** M2PP-45P-D-SKT-0021.pdf

Hi Tony,

In light of a further incident at Otaihanga R/A, can you please comment on the attached drawing and advise what changes you would like us to present to the Alliance.

Regards

**Phil Chatterley**  
Geometry Design Lead



43 Ihakara St, Paraparaumu 5254 | PO Box 723, Paraparaumu 5254  
Ph: 04-460 1775 Mob: 027 205 1193 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

Think GREEN before choosing to print this email

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**From:** Alexandra Walker  
**Sent:** Friday, 13 June 2014 4:10 p.m.  
**To:** Mike Pilgrim [NZTA]  
**Cc:** David Callan; Phil Chatterley  
**Subject:** Revised Otaihanga Roundabout Road Marking Drawing

Hi Mike,

Please find attached for your comment the Revised Otaihanga Roundabout Road Marking Drawing.

Please note that the herring bone markings need to be approved by the safety auditor.

Also of note the turbo markings will push vehicles traveling on the roundabout into the kerb on the Paraparaumu leg and into the driveway on the Waikanae leg.

I look forward to receiving your comments.

Thanks,

**Alex Walker**  
Designers Construction Rep

43 Ihakara St, Paraparaumu | PO Box 8044, Wellington 6143  
Ph: +64 4 550 6695 Mob: +64 27 707 9618 Email: [Alexandra.walker@m2pp.co.nz](mailto:Alexandra.walker@m2pp.co.nz)

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

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ROAD MARKING LAYOUT PLAN - OPTION 1 - REVERSE HATCHING  
 TITLE

- NOTES**
1. INSTALL TEMPORARY "NEW ROAD LAYOUT AHEAD" SIGNS UNTIL ADVISED
  2. STUBS TO BE PROVIDED ON ONE AHEAD SIGN TO INFORM ROAD USERS OF RESIDENTS DRIVE.

ORIGINAL DRAWING IN COLOR FOR INFORMATION NOT FOR CONSTRUCTION

Author	Designer	Checker	Approver

Project Name	SH1 / Otaihanga Road Safety Improvements
Project No.	
Client	
Scale	
Date	11 Jun 2014



SH1 / OTAIHANGA ROAD SAFETY IMPROVEMENTS

OTAIHANGA ROUNDABOUT ROAD MARKING LAYOUT PLAN  
 OF PLAN 1  
 M2P7-45P-D-SKT-012  
 A

DETAIL DESIGN (DET)

Drawing Title: SH1 / Otaihanga Road Safety Improvements

## Marija Bakulich

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**From:** Caron Greenough  
**Sent:** Friday, 27 June 2014 9:22 a.m.  
**To:** Mike Pilgrim; James Hughes; Tony Coulman  
**Subject:** FW: Emailing: 200 Otaihanga-20140627-030354  
**Attachments:** 200 Otaihanga-20140627-030354.avi

Video of the truck roll this morning. He didn't see the roundabout at all did he?

Firstly I just wanted to check if the lighting was all in and working? But that's probably not an issue as the first truck roll last week was during the day wasn't it?

Rod thought it might be a good idea to put a VMS sign up (all directions) for few months just to highlight further that things have changed? Normally we have 'new road layout' boards but I haven't seen them here and not sure if we ever had them?

Can we consider it?

Cheers

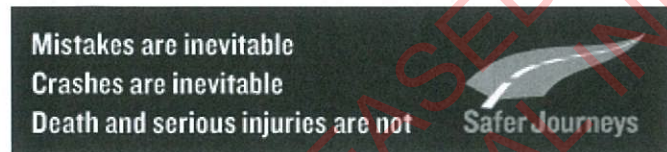
Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854

E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand



**From:** Lisa Henderson  
**Sent:** Friday, 27 June 2014 8:09 a.m.  
**To:** Jeff Greenough  
**Cc:** Caron Greenough  
**Subject:** Emailing: 200 Otaihanga-20140627-030354

## Marija Bakulich

---

**From:** James Hughes  
**Sent:** Friday, 20 June 2014 4:11 p.m.  
**To:** Mike Pilgrim  
**Cc:** Caron Greenough  
**Subject:** RE: Revised Otaihanga Roundabout Road Marking Drawing

Hello Michael

As discussed:

- I am not sure of the reason for the second, southerly set of 'turbo markings' in the circulating carriageway, however I don't think they will cause a problem, simply not required.
- I think that the diagonal marking proposal for the southbound approach are not a good idea :
  - Approaching drivers may interpret that they have to drive between them, particularly as they start where it is still diverging.
  - If they choose their appropriate lane, they are forced to drive over the markings with the associated discomfort and noise
  - Cyclists will certainly hate to ride over them – I guess it would get them to 'own the lane'!
  - I am not convinced that there is a speed issue on this approach.

I would like to see more analysis done before this knee-jerk reaction, followed by some more considered options for slowing traffic.

Have a great w/e

James

---

**James R Hughes** / National Design Engineer  
Acting Traffic and Safety Manager  
Traffic & Safety Team  
Highways and Network Operations Group  
DDI 64 4 894 6312 / M 64 21 562 769  
E [james.hughes@nzta.govt.nz](mailto:james.hughes@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)



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**From:** Mike Pilgrim  
**Sent:** Friday, 20 June 2014 3:08 p.m.  
**To:** James Hughes  
**Subject:** FW: Revised Otaihanga Roundabout Road Marking Drawing

Hi James

The design team has made some comments following feed back from the SAT. I'm generally happy except for the markings on the south bound approach to the roundabout. If after the other changes we still have a problem they

may be worth considering but I don't think they are need at this time. I think using the markings on both and north and south sides is good from a consistency point of view.

Any comments?

Mike

---

**From:** Alexandra Walker [Alexandra.Walker@m2pp.co.nz]  
**Sent:** Friday, 13 June 2014 4:09 p.m.  
**To:** Mike Pilgrim  
**Cc:** David Callan; Phil Chatterley  
**Subject:** Revised Otaihanga Roundabout Road Marking Drawing

Hi Mike,

Please find attached for your comment the Revised Otaihanga Roundabout Road Marking Drawing.

Please note that the herring bone markings need to be approved by the safety auditor.

Also of note the turbo markings will push vehicles traveling on the roundabout into the kerb on the Paraparaumu leg and into the driveway on the Waikanae leg.

I look forward to receiving your comments.

Thanks,

**Alex Walker**  
Designers Construction Rep

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Ph: +64 4 550 6695 Mob: +64 27 707 9618 Email: [Alexandra.walker@m2pp.co.nz](mailto:Alexandra.walker@m2pp.co.nz)

**Delivering MacKays to Peka Peka - Phase One of the Kapiti Expressway**

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## Marija Bakulich

---

**From:** Tony Coulman  
**Sent:** Monday, 16 June 2014 8:23 p.m.  
**To:** Mike Pilgrim  
**Cc:** Caron Greenough  
**Subject:** Re: Otaihanga roundabout sit visit

Hi Mike,

Many thanks for the feedback on this issue. Will be good to see the proposed marking changes once developed for the southern and Northern approaches.

Regards  
Tony

Sent from my iPad

> On 13/06/2014, at 12:50 pm, "Mike Pilgrim" <[Mike.Pilgrim@nzta.govt.nz](mailto:Mike.Pilgrim@nzta.govt.nz)> wrote:  
>  
> Afternoon  
>  
> I had a look at the signage etc on Otaihanaga roundabout yesterday following the driver going around it the wrong way.  
>  
> On approach to the roundabout there is a map sign, followed by permanent warning roundabout signs, followed by triangles marked on the ground, followed by give way signs with the roundabout symbol on them and finally two large chevron boards in the central island pointing to the left that are in the drivers eye line.  
>  
> At the time of the site visit one of the roundabout signs had been rotated and wasn't facing the oncoming traffic, I have spoken with the M2PP team and this is being fixed.  
>  
> When the Safety Audit team reviewed the proposed markings to improve the access to the driveway off the roundabout they suggested that the same markings be used on the southern side for vehicles entering Otaihanga Road. The M2PP design team is working on this at the moment and should send us a drawing for review soon. While there is clearly only one lane around the roundabout and it is marked in the same way as nearly all other roundabouts in the country, that is with the circulating portion adjacent to the central island, the lane is on the left side of the paved area when looked at from a joining road. If the suggested layout of the turbo markings is followed this would at least put the lane on the right side when looked at from the joining road.  
>  
> Overall though given the amount of information that is available to a driver to indicate that the intersection is a roundabout I think that it is likely that driver was simply confused and that's very hard to deal with except to say that's why we have roundabouts - low speeds and hopefully low impact angles.  
>  
> Mike  
>

## Marija Bakulich

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**From:** Caron Greenough  
**Sent:** Monday, 16 June 2014 4:37 p.m.  
**To:** Mike Pilgrim; Julian Chisnall; James Hughes; Tony Coulman  
**Subject:** Fwd: Otaihanga Roundabout  
**Attachments:** 2014116.pdf; ATT00001.htm

FYI - police report for the truck roll at the roundabout. Doesn't state exact speed going into roundabout but puts it down as a contributory factor.

Cheers  
C

Sent from me :)

Email: [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz)  
021 232 6854

Begin forwarded message:

**From:** Rob Barton <[Robert.Barton@nzta.govt.nz](mailto:Robert.Barton@nzta.govt.nz)>  
**Date:** 16 June 2014 4:10:03 pm NZST  
**To:** Caron Greenough <[Caron.Greenough@nzta.govt.nz](mailto:Caron.Greenough@nzta.govt.nz)>  
**Subject:** RE: Otaihanga Roundabout

Hi Caron,

Forgot about this, sorry. Should have diarised.

As attached. We get all the truck crash reports sent to us from across the country.

Rob

-----Original Message-----

From: Caron Greenough  
Sent: Monday, 16 June 2014 3:34 p.m.  
To: Rob Barton  
Subject: Otaihanga Roundabout

Hi Rob

Could you send me the police report that we talked about the other day?

Thanks

Caron

Sent from me :)

Email: [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz)  
021 232 6854

**LARGE BUS & TRUCK CRASH REPORT**

(Complete within 24 Hours and send to Research & Statistics, MOT, Fax (04) 439 9003 or email [S.Evans@transport.govt.nz](mailto:S.Evans@transport.govt.nz))

Date: 09/06/2014 Time: 1204 hrs

Accident Severity: Non Injury

Local Body: KAPITI COAST Police District: Wellington CVIU Area: Wellington

Locality: OTAIHANGA Crash Road: SH1

Road Speed Limit: 80 km/h Other: \_\_\_\_\_

Distance: 0 kilometres Direction: North From Side Road: \_\_\_\_\_

Side Road / Landmark / Intersection: OTAIHANGA ROAD

Type of Transport Service: Goods Vehicle Type: Truck

Load: Other Goods Load Height: N/A Secure: Yes

Over Dimension: No Dangerous Goods: No

O/D Permit: N/A Complies with Permit: N/A HPMV: \_\_\_\_\_ Complies with Permit: N/A

HMV Driver at Fault: Yes (identify up to four possible causes):

Speed ENTERED ROUNDABOUT AT TOO GREAT A SPEED  
CAUSING THE TRAILER TO ROLL AND OVERTURN

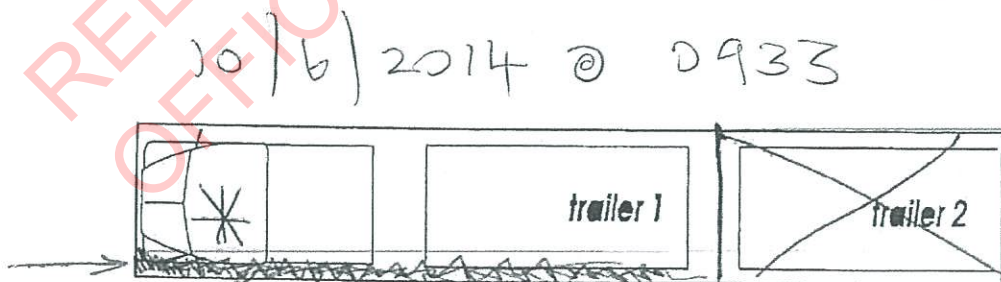
Conspicuity: Would additional tape/lights on HMV have reduced risk of crash: No

Under run: Did HMV have under run protection: No If no, did this contribute to crash severity: No

**Work Time Hours**

Total Work Time Hours since last 24 hour rest period	<u>5.5 HOURS</u>
Total Work Time Hours since last 10 hour rest period	<u>5.5 HOURS</u>
How much sleep did you have in total, in the last 24 hrs before the crash?	<u>8 HOURS</u>
At the time of the crash how long was it since you had a rest period of at least 10 hrs?	<u>5.5 HOURS</u>
Where and when did driver have last rest time before the crash? (as per logbook)	<u>6:30 AM 09.06.2014</u>

CVIU Officer: GILMARTIN QID: AGAP10 Station: CVIU 3



**Brief Description of the Crash:** A TRUCK AND SEMI TRAILER UNIT CARRYING ONE CONTAINER HAS ENTERED THE ROUNDABOUT AT OTAIHANGA TRAVELLING NORTH ON SH1. THE TRUCK'S SPEED WAS HIGH ENOUGH TO CAUSE IT TO OVERTURN OUTWARDS HALFWAY THROUGH THE ROUNDABOUT AND SKID ON ITS SIDE FOR ABOUT 2 METRES.



### Commercial Vehicle Inspection Report

Monday Date: 09/06/2014 Time: 12:34 Police QID / NZTA ID: AGAP10 /  
 Location: SH1 / OTAIHANGA ROAD  
 Area: 3 GPS: / Direction: N

Surname: [Redacted]  
 Address: [Redacted]  
 DoB: [Redacted]  
 TSL #: [Redacted]  
 Operator: [Redacted]  
 Contracted to: \_\_\_\_\_ Inspection level: 3

Vehicle Type:  Light Vehicle  Truck  Heavy Trailer  Bus or Coach

Vehicle	(A) Truck / Bus	(B)	(C)	(D)
Reg #	[Redacted]			
Make/Model	[Redacted]			
CoF Expiry	[Redacted]			
L/label Expiry	[Redacted]			
GVM	[Redacted]			

Odometer Reading: U/K  
 Tick if loaded   
 Load Type: \_\_\_\_\_  
 Container: \_\_\_\_\_  
 Other: \_\_\_\_\_

No defects found  (A)  (B)  (C)  (D)

Vehicle	Fault Code	Fault Comments	Recommended Action

Action (QP QG P G G2 N) (A) (B) (C) (D)  
 Due to the limited nature of this inspection there may be faults other than those listed. If further faults are identified then they must be rectified before any vehicle is returned to service.

RuL	RuL #	Type	Wgt	Max Distance	Hub Reading	Hub Serial	Type Size	Hubo Size
A	444517260	6	21	138005	135589			
B	442950151	33	18	465200				
C								
D								
R								
L								
A								

Truck (B) (C) (D) Gross Weight

Group \_\_\_\_\_ Group \_\_\_\_\_ Group \_\_\_\_\_ Group \_\_\_\_\_

Off Load Demand: Pursuant to section 125 of the Land Transport Act 1998 the person named as the driver on the accompanying weigh record and all other persons are directed to keep the motor vehicle or vehicle described on that record stopped at: \_\_\_\_\_ until such part of the load is removed or rearranged as is necessary to reduce the gross weight on all wheels to within the legal limits. Your attention is drawn to sections 52(1) and 52(2) of the Land Transport Act 1998. Section 52(1)(c) says: A person commits an offence if the person fails or refuses to comply with any lawful requirement, direction, notice or prohibition given to or imposed on him or her under this Act by an enforcement officer. Section 52(2) says: The maximum penalty on conviction for an offence against subsection 1 is a fine not exceeding \$10,000.



### Commercial Vehicle Inspection Report

Police QID / NZTA ID: \_\_\_\_\_ / \_\_\_\_\_

Vehicle	(A) Truck / Bus	(B)	(C)	(D)
Sticker Serial #				
Certificate of Loading Details Correct?	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

**Scale certification** (enter Scale number on the top link and Test date on bottom line)


**Method of weigh**

<input type="checkbox"/> Pits	<input type="checkbox"/> Weighbridge	<input type="checkbox"/> Roadside	<input type="checkbox"/> Other
-------------------------------	--------------------------------------	-----------------------------------	--------------------------------

**SRT Values**

	X1 4.25	Y1 18		X1	Y1
T1 4822F	Y2 18	X2 4.25	T2	Y2	X2

Who is your employer? \_\_\_\_\_

Who owns the vehicle? \_\_\_\_\_

Who gave you this day's working instruction? \_\_\_\_\_

OR

Who gave you your working instructions? \_\_\_\_\_

**Additional Notes**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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## Marija Bakulich

---

**From:** David Callan <David.Callan@m2pp.co.nz>  
**Sent:** Monday, 16 June 2014 9:48 a.m.  
**To:** Rowan Oliver; Mike Pilgrim  
**Subject:** RE: Possible Permanent Traffic Calming Opportunity for Otaihanga Roundabout ???

Hi Rowan

We used this a lot on the approaches to our A-Road roundabouts when I worked in Hertfordshire.

David

---

**From:** Rowan Oliver [mailto:Rowan.Oliver@nzta.govt.nz]  
**Sent:** Monday, 16 June 2014 9:31 a.m.  
**To:** Mike Pilgrim [NZTA]  
**Cc:** David Callan  
**Subject:** FW: Possible Permanent Traffic Calming Opportunity for Otaihanga Roundabout ???

FYI. Dave, I think you mentioned something like this last week.

Cheers

Rowan

---

**From:** Des O'Sullivan  
**Sent:** Monday, 16 June 2014 7:21 a.m.  
**To:** Caron Greenough; Steve James  
**Cc:** Rowan Oliver  
**Subject:** FW: Possible Permanent Traffic Calming Opportunity for Otaihanga Roundabout ???

Hi All

Interesting traffic calming thoughts?

Des

**Des O'Sullivan, QSM**  
Network Liaison Manager  
Journey management Team  
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**From:** John Wilkinson [mailto:John.Wilkinson@downer.co.nz]  
**Sent:** Friday, 13 June 2014 3:47 p.m.  
**To:** Des O'Sullivan  
**Cc:** Andy Bunyan  
**Subject:** FW: Possible Permanent Traffic Calming Opportunity for Otaihanga Roundabout ???

Hi Des

Andy sent this to be as a possible enhancement to the Otaihanga roundabout to prevent speed related incidents

Cheers



**John Wilkinson** | Technical Manager  
Downer ITS  
| M 021 921 094  
14-16 Makaro St, Porirua, PO Box 50-465  
W [www.its.org.nz](http://www.its.org.nz)

Think before you print



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**From:** Andy Bunyan  
**Sent:** Friday, 13 June 2014 15:43  
**To:** John Wilkinson  
**Subject:** FW: Possible Permanent Traffic Calming Opportunity for Otaihanga Roundabout ???



**Andy Bunyan** | Project Manager  
Downer ITS  
| M 021 221 6186  
14-16 Makaro St, Porirua, PO Box 50-465, Porirua 5022, Wellington  
W [www.its.org.nz](http://www.its.org.nz)

Think before you print



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**From:** Andy Bunyan  
**Sent:** Tuesday, 10 June 2014 2:38  
**To:** Steve Myers; 'Lee Caplin'; Sarah McDonald  
**Cc:** 'Andy Bunyan'  
**Subject:** Possible Permanent Traffic Calming Opportunity for Otaihanga Roundabout ???

Hi Steve, Lee, Sarah

Yesterday's incident with the truck at ORAB got me thinking once again about a possible solution to those who hit the roundabout a bit too quickly. Whilst I am not suggesting that yesterday's rollover was down to excess speed there is an opportunity for a simple, effective and clever means to reduce the risk of people coming in to a roundabout at speed – in particular when used to running at higher speeds for a prolonged time, or those who do not know the area.

Below is an aerial pic of Staples Corner which lies at the foot of the M1 in London. The intersection sees it join a very large roundabout connecting it to a major arterial road which circumnavigates London. No, not the M25 but the A406 instead. The problem the road authorities had was that this road has a 2km downslope and a road speed of 110k (more realistic user speed 125k) and many was the occasion when people had to slam on the brakes to stop.

The countermeasure was to paint yellow lines across the carriageway at set spacing. Once your eyes acknowledged the regularity in the spacing the buggers then went and started painting the lines ever so slightly closer together – you can see this very evident in the picture. What this would achieve is to fool the road user in to thinking that their speed was not reducing as much as they first thought – the effect was to just be slightly more focussed on braking. The spacing changes were subtle and the effects on users really good and it is clear that they are still happy with what started as a trial what must be over fifteen years ago.

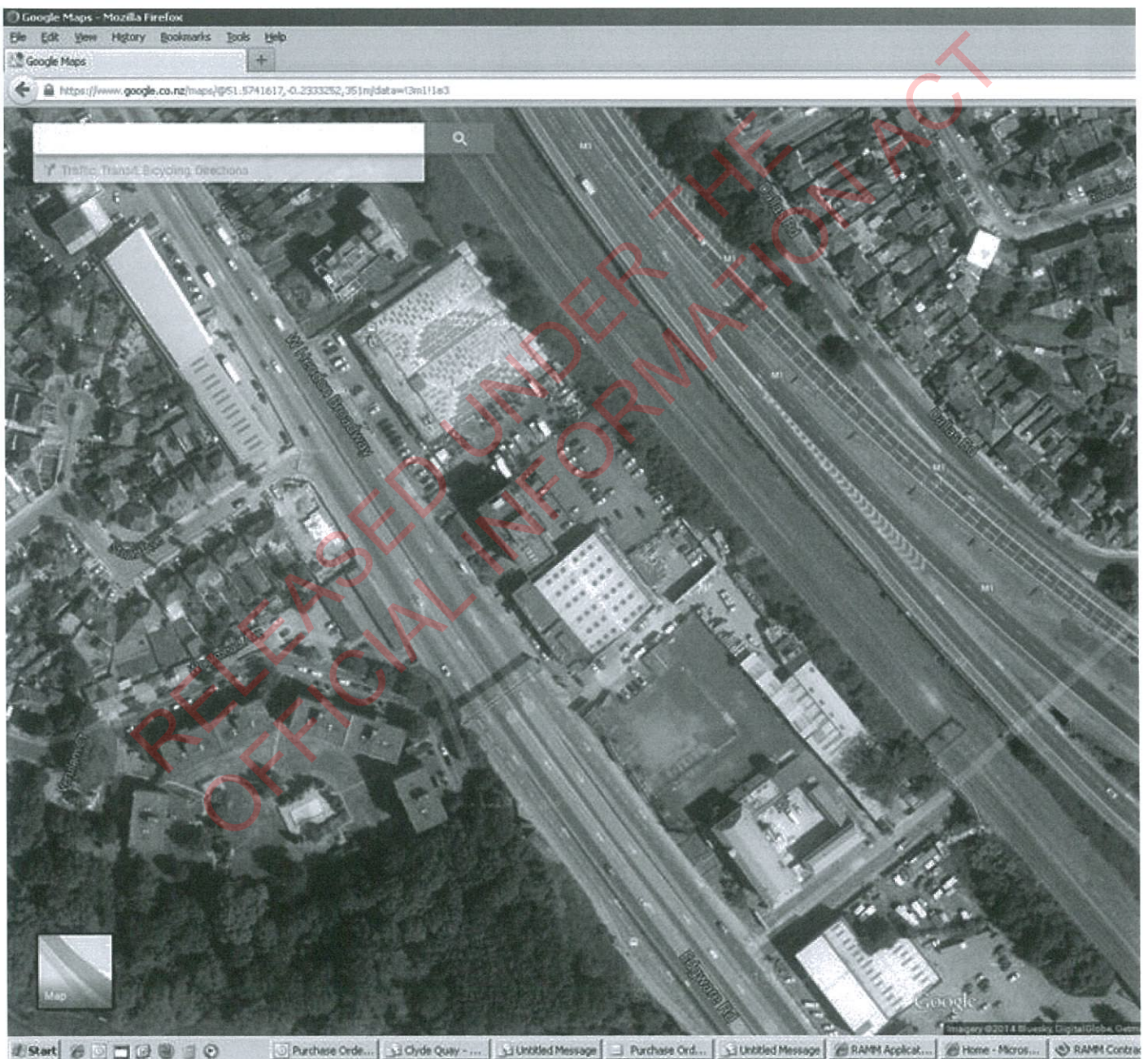
In fairness the locals – like I was at the time – get used to it but this is not the issue – a regular driver of Kapiti roads once they have got the feel of the roundabout will in probability be able to navigate the roundabout more safely than an out-of-towner who is simply on a once or twice a year drive through. Do bear in mind too that those boy racers heading South may view the two-lane approach an opportunity to overtake just prior to the roundabout (in particular following the SB passing lane being closed for 2 years now).

Whilst it is slightly more complex than getting a some tins of paint and a line marking team, it could be worth floating as an idea to promote road user safety. With NZTA as part of the Alliance it might be that bit simpler to initiate such a discussion.

Hope it helps – in the mean time cheers once again

Andy

<https://www.google.co.nz/maps/@51.5737883,-0.232424,351m/data=!3m1!1e3>





## Marija Bakulich

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**From:** Tony Coulman  
**Sent:** Tuesday, 10 June 2014 6:28 p.m.  
**To:** Caron Greenough  
**Cc:** Rod James; Alan.Orange@m2pp.co.nz; Mike Pilgrim  
**Subject:** Re: Otaihanga

Thanks Caron,

Mike, apologies I won't be at M2PP tomorrow, however could you please also discuss with Dave Callan when you're up there as he and I were bouncing the issue around today along with timing of the post construction audit and whether this can also be brought forward.

Many thanks  
Tony

Sent from my iPad

On 10/06/2014, at 3:09 pm, "Caron Greenough" <[Caron.Greenough@nzta.govt.nz](mailto:Caron.Greenough@nzta.govt.nz)> wrote:

Hi Rod

Mike P is going up to Otaihanga on Thursday and will check, along with Tony/Alan, to see if there is anything else that might be needed. All reviews, independent or otherwise, so far, haven't picked up on any issues but we will look again.

We have also had a chat with A&U and while they wouldn't normally review a crash like this, as it only resulted in minor crash, they are going to have a word with the owner and get hold of the specific truck data to see what speed he was actually doing and whether there were any issues with the truck or load.

Regards

Caron

**Caron Greenough** BE (Civil/Env) MSc (TP/TE) / Principal Safety Engineer – Central  
HNO Central

DDI 64 4 931 8928 / M 64 21 232 6854

E [caron.greenough@nzta.govt.nz](mailto:caron.greenough@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Level 9, 20 Balance Street,  
PO Box 5084, Lambton Quay, Wellington 6145, New Zealand

<image005.png>

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<image007.jpg>

<image009.jpg> <image011.jpg> <image013.jpg>

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**From:** Rod James  
**Sent:** Tuesday, 10 June 2014 12:23 p.m.  
**To:** Tony Coulman; [Alan.Orange@m2pp.co.nz](mailto:Alan.Orange@m2pp.co.nz)  
**Cc:** Caron Greenough  
**Subject:** Otaihanga

Hi Both;

Was just thinking, while the truck incident yesterday was most likely due to speed, with a "safe system" lens it might be worth reviewing to see if there is anything more we could do to ensure that approaching drivers are reading the corner correctly.

Is the delineation and signage clear etc.

**Rod James**

Highway Manager Wellington

DDI 64 4 890 4757

E [rod.james@nzta.govt.nz](mailto:rod.james@nzta.govt.nz) / W [nzta.govt.nz](http://nzta.govt.nz)

Wellington Regional Office / Level 9, PSIS House  
20 Ballance Street, Wellington, New Zealand

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<image014.jpg>

<image015.png><image016.png> <image017.png>

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OFFICIAL INFORMATION ACT

## Marija Bakulich

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**From:** Phil Chatterley  
**Sent:** Monday, 9 June 2014 4:23 p.m.  
**To:** David Callan  
**Cc:** Alexandra Walker; Peter Bradshaw  
**Subject:** RE: M2PP - Otaihanga Roundabout Operational Issues  
**Attachments:** 201406091546.pdf

Hi Dave,

Following earlier safety review of the roundabout, please see attached drawing including comments (Alex, changes to lines should also be clouded).

The attached drawing reflects the road markings option that is thought to offer safety benefits for conflicts between vehicles on the roundabout and approaches. As discussed, I think this is a good option to put to NZTA for their acceptance for installation.

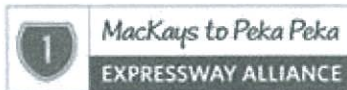
The attached also includes changes to ADS sign and give way signs to improve safety of

The safety review also agreed that installing temporary "New Road Layout" would also be beneficial, so long as they do not provide a hazard.

Regards

### Phil Chatterley

Geometry Design Lead



43 Ihakara St, Paraparaumu 5254 | PO Box 723, Paraparaumu 5254  
Ph: 04-460 1775 Mob: 027 205 1193 Email: [phil.chatterley@m2pp.co.nz](mailto:phil.chatterley@m2pp.co.nz)

Think GREEN before choosing to print this email

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**From:** Jos Vroegop [<mailto:jos@trafficplanning.co.nz>]  
**Sent:** Tuesday, 27 May 2014 11:44 a.m.  
**To:** Phil Chatterley  
**Cc:** 'S.Reddish'; Jon England  
**Subject:** RE: M2PP - Otaihanga Roundabout Operational Issues

Hi Phil

In response to your request for comments regarding the issues that have arisen at the Otaihanga roundabout, the RSA team has reviewed your e-mail and the two drawings and our comments follow. However, it must be noted that these comments are made without the benefit of on-site observations and as such constitute just our initial thoughts prior to undertaking the post construction safety audit in July.

1. Our view is that turbo markings per SKT-0021 would be more beneficial than bringing the southbound limit lines forward. Under the latter scenario, circulating vehicles wanting to access the residential service lane would still need to cut across two lanes to exit whereas with the turbo markings, the circulating vehicle would already be in the correct lane to exit.
2. It is also our view that turbo markings should be applied for the right turn into Otaihanga Road which would also enable a bit more two-lane marking to be applied to the circulating carriageway for N'bd vehicles reducing the risk

of crashes on the weaving section between SH1 N'bd and Otaihang Road. That would also give consistency of markings on both the north and south sides of the roundabout.

3. The residential access should be shown on the approach ADS signs as a short stub on the roundabout diagram, but not labelled.

4. To reinforce the need for all southbound vehicles to give way, we agree that larger Give Way signs could be beneficial in conjunction with installing the temporary "New Road Layout Ahead" sign, provided the latter is not in location where it might be a hazard in its own right!!

5. With regard to S'bd vehicles entering the roundabout too quickly and hitting the central island, we assume that PW-69 chevron signs are correctly positioned? In higher speed areas, it can be beneficial to have 3 x PW-69 and also install larger (ie deeper - up to 900mm) chevron boards.

6. Also we assume that the entering radius through the limit line, as constructed, takes vehicles tangential to the central island (ie the radius generated by the approach splitter island is continuous to the tangential point on the central island)?

We assume that you will forward these comments to all the appropriate people in the M2PP team.

Regards.

Steve Reddish, Jon England and Jos Vroegop.

**Jos Vroegop** Senior Consultant

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-----Original Message-----

From: Phil Chatterley <[Phil.Chatterley@m2pp.co.nz](mailto:Phil.Chatterley@m2pp.co.nz)>

To: "'S.Reddish' ([steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz))" <[steve@trafficplanning.co.nz](mailto:steve@trafficplanning.co.nz)>

Cc: Peter Bradshaw <[Peter.Bradshaw@m2pp.co.nz](mailto:Peter.Bradshaw@m2pp.co.nz)>, David Callan <[David.Callan@m2pp.co.nz](mailto:David.Callan@m2pp.co.nz)>, Alexandra Walker <[Alexandra.Walker@m2pp.co.nz](mailto:Alexandra.Walker@m2pp.co.nz)>

Date: Mon, 19 May 2014 06:40:11 +0000

Subject: RE: M2PP - Otaihang Roundabout Post Construction RSA & Operational Issues

M2PP - Otaihang Roundabout Post Construction RSA & Operational Issues

Hi Steve,

Further to earlier correspondence, we are planning to carry out the Post Construction RSA as soon as remaining barriers, signs & lining and planting has been completed. I don't have a date at this time but would envisage this to be at the start of June. Can you please advise your availability around this time?

In the meantime, we have had a number of bedding in issues with the operation. We would be grateful for the SAT teams recommendations before we carry out any remedial measures that have other safety implications.

The two issues to date have been;

1. Vehicles on the roundabout wishing to exit to the property access road are finding vehicles travelling south on SH1 are not giving way to them. The problem is the southbound vehicles travelling in the left lane do not expect anyone wanting to pull in front of them where there is no apparent exit.

Please see attached copy of the construction design (45P-D-DWG-0001) and alternative (45P-D-SKT-0021) for your consideration to address this issue. I am not convinced the option proposed is most appropriate as all traffic on circulatory carriageway will be pushed to outside possibly resulting in more conflicts. My preference is a number of measures;

- I) move give way line forward (either by extending the island or moving to end of hatched lane)
- II) use larger give way signs
- III) Add advance sign or exit on direct map to show access on right
- IV) Re-instate the "NEW ROAD LAYOUT AHEAD" signs for 3 months then re-assess
- V) Review operation arrangement at Post Construction Safety Audit

2. Vehicles traveling south on SH1 not slowing down sufficiently to manoeuvre safely round the roundabout and running in to the central lane/central island. Treatment for the above item should address this.

There will be inevitably be some initial be givial issues with the new layout

We would be grateful for your thoughts on these topics. Once we your comments we will approach NZTA to consider best approach.

I trust this is satisfactory, please let me know if you need anything.

Regards

**Phil Chatterley**

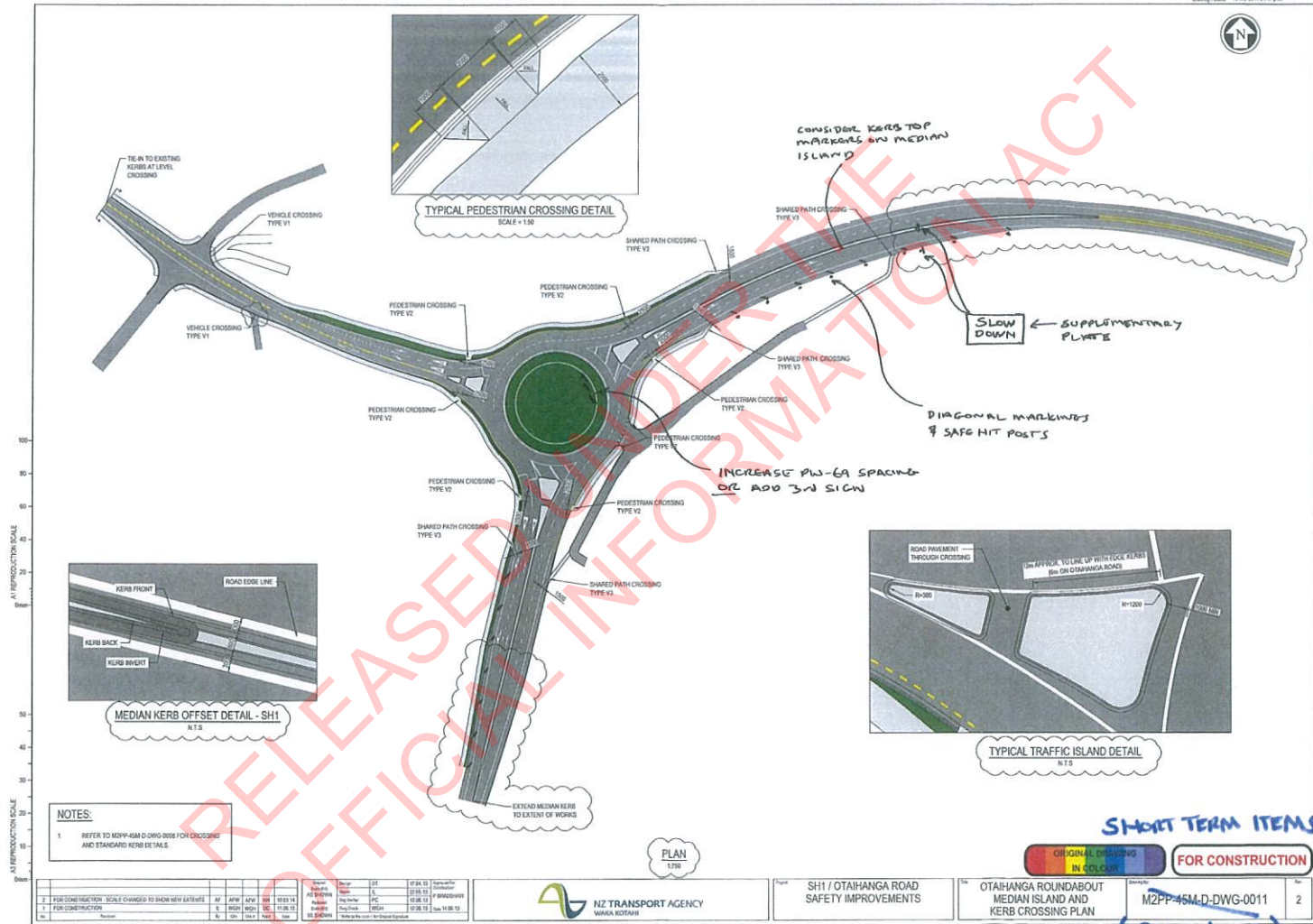
Alignment Design Lead | M2PP Alliance

43 Ihakara St, Paraparaumu 5032 | PO Box 723, Paraparaumu 5254  
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AT REPRODUCTION SCALE

DETAIL DESIGN (DET)

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**NOTES:**  
 1. REFER TO M2PP-45M-D-DWG-0008 FOR CROSSINGS AND STANDARD KERB DETAILS

PLAN  
 1:750

SHORT TERM ITEMS

ORIGINAL DRAWING IN COLOUR

FOR CONSTRUCTION

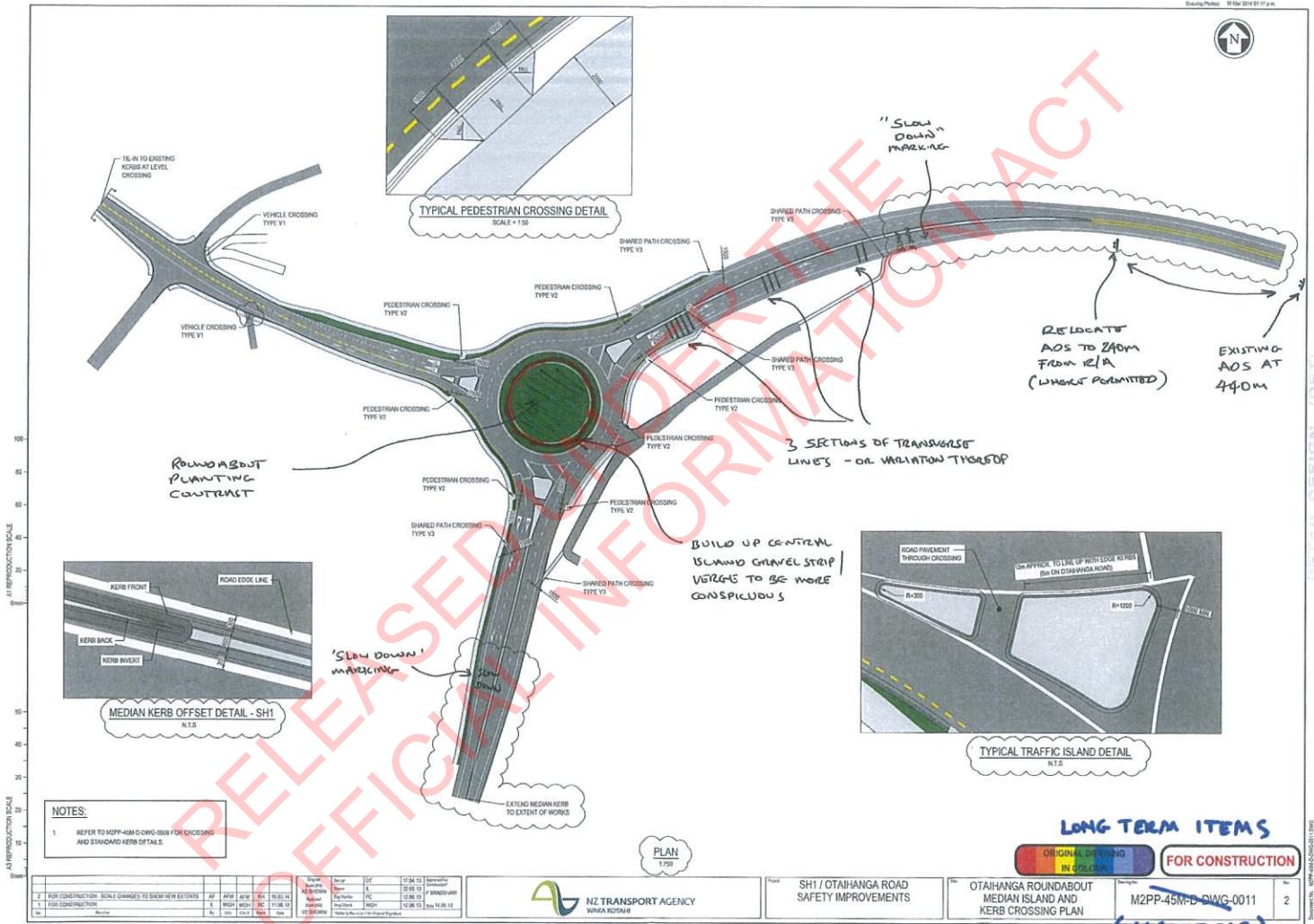
Rev	Description	By	Appr	Date
1	FOR CONSTRUCTION	...	...	...
2	FOR CONSTRUCTION	...	...	...

**NZ TRANSPORT AGENCY**  
 WAKA KORAHI

Project: SH1 / OTAIHANGA ROAD SAFETY IMPROVEMENTS

Site: OTAIHANGA ROUNDABOUT MEDIAN ISLAND AND KERB CROSSING PLAN  
 Drawing: M2PP-45M-D-DWG-0011  
 Sheet: 2

(PAGE 1 OF 2)



AT REPRESENTATION SCALE  
100  
80  
60  
40  
20  
0  
20  
40  
60  
80  
100

**NOTES:**

- REFER TO M2PP-45M-D-DWG-008 FOR CROSSINGS AND STANDARD KERB DETAILS.

PLAN  
TOP

**LONG TERM ITEMS**

ORIGINAL DRAWING IN GREEN

**FOR CONSTRUCTION**

Rev	Description	By	App'd	Date
1	FOR CONSTRUCTION - SCALE CHANGED TO MATCH NEW EXTENT	JAP	APW	04/04/14
2	FOR CONSTRUCTION	S	PROH	05/04/14

**NZ TRANSPORT AGENCY**  
WAKA KOTAHU

SH1 / OTAIHANGA ROAD SAFETY IMPROVEMENTS

OTAIHANGA ROUNDABOUT MEDIAN ISLAND AND KERB CROSSING PLAN

M2PP-45M-D-DWG-0011

2

(PAGE 2 OF 2)

DETAIL DESIGN (DET)



## Marija Bakulich

---

**From:** Tony Coulman <Tony.Coulman@m2pp.co.nz>  
**Sent:** Monday, 9 June 2014 1:00 p.m.  
**To:** Mike Pilgrim; Roger Burra; Rowan Oliver  
**Cc:** Ulvi Salayev  
**Subject:** Fwd: Serious Incident  
**Attachments:** image001.jpg; image002.jpg; image003.jpg; image004.jpg; OtaihangaTruck.JPG

Mike,

FYI incident at the Otaihanga roundabout with a truck rollover. I have spoken with Adam Nichols and understand that crane etc is on its way. There has been some comment that the load may have shifted. However, if there are any identified causal factors that need to be considered in conjunction with the final RSA and remarking for the local access it will be important to capture and reflect on these.

Regards  
Tony

Sent from my iPad

Begin forwarded message:

**From:** Ulvi Salayev <Ulvi.Salayev@nzta.govt.nz>  
**Date:** 9 June 2014 12:46:49 pm NZST  
**To:** Tony Coulman <Tony.Coulman@m2pp.co.nz>, Rowan Oliver <Rowan.Oliver@nzta.govt.nz>  
**Subject:** FW: Serious Incident

We are Central to a Thriving New Zealand

---

**From:** Lucy Corrigan  
**Sent:** Monday, 9 June 2014 12:26 p.m.  
**Subject:** Serious Incident  
**Importance:** High

A truck has rolled on SH1 at the Otaihanga roundabout.

Northbound traffic is reduced to one lane. Expect delays.

Thanks,

Lucy Corrigan / Transport Advisor  
Wellington Transport Operations Centre  
DDI 64 912 3703  
E [lucy.corrigan@nzta.govt.nz](mailto:lucy.corrigan@nzta.govt.nz) / w [nzta.govt.nz](http://nzta.govt.nz)

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