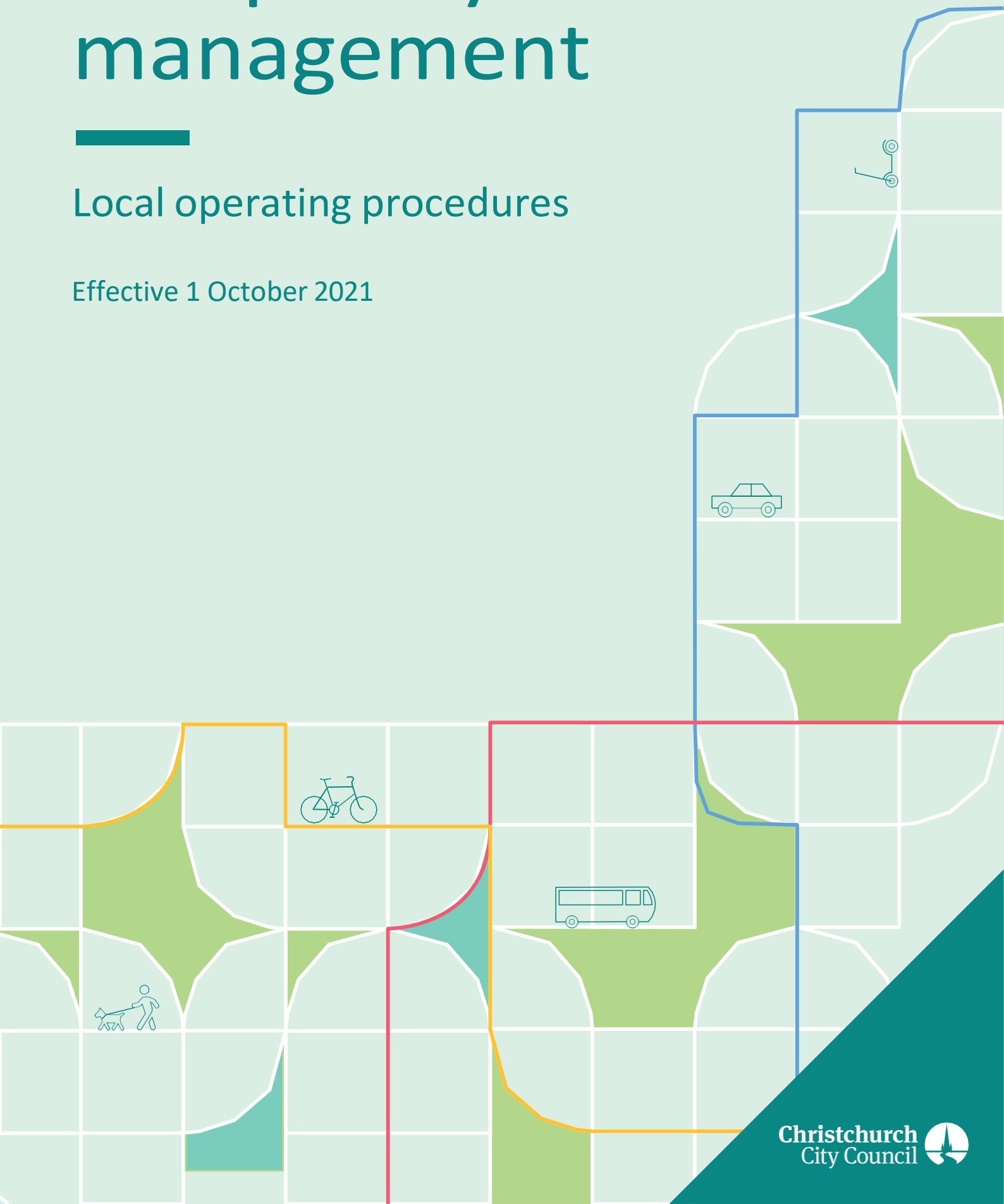
Temporary traffic management

Local operating procedures

Effective 1 October 2021



Christchurch City Council

Temporary Traffic Management – Local Operating Procedures

Effective 1 October 2021

Christchurch City Council (the Council) is responsible for administering and processing Temporary Traffic Management (TTM) applications for the temporary use of road space within its boundary (excluding State Highways).

This document outlines Local Operating Procedures (LOP) that are acceptable within the Christchurch area, as well as any variations and expectations that may apply.

Waka Kotahi NZ Transport Agency's Code of Practice for Temporary Traffic Management (CoPTTM) is the primary reference standard used for accessing TTM applications and deployments. In assessing a TMP application, if no departure from Waka Kotahi NZ Transport Agency's CoPTTM has been identified, adherence to the standard principles and practices set out in the CoPTTM are expected.

Please note: this document rescinds the use of Christchurch Transport Operations Centre (CTOC) LOPs on Council Roads..

LOP application

These LOPs are intended to be applied to all roads within the Council's transport network.

Area of usage

TTM applications are required for all Council-controlled roads within its boundary (excluding State Highways). Please note: TTM activities on roads that are not controlled by the Council must meet that Road Controlling Authority's (RCA) requirements. .

Council boundaries

For details on the extent of the Council's boundaries, please refer to the Council's speed limits map:
https://ccc.govt.nz/transport/travel-safety/road-safety/speed-limits

Contents

1 Submitting Traffic Management Plans

All Traffic Management Plans (TMP) must be submitted through the Council's TMP processing website **myworksites.co.nz**

Minimum time frames for processing a submitted TMP to the Council.

	Low volume (LV), Level 1 (L1) and Level 2 (L2) Short term operations that are < 2 Days	L2 roads (long-term operation more than 2 days)
Standard TMP	5 working days	10 working days
Generic Traffic Management Plan	10 working days	10 working days
Roadworks TMP requiring public notification	10 working days prior to public notifications needing to be undertaken	
Event TMP with a road closure proposed	Varies, see **road closure for events**	

Short form TMP usage

Rescinded - Standard CoPTTM forms to be used.

Extension forms usage

Situations where an **extension form** may be used:

- A date extension or date change
- Addition of STMS's or traffic management personnel
- Alteration of work hours
- Addition of diagrams that do not substantially* increase a TMP's impact beyond the originally approved TMP methodology. 'Impact' includes the nature of the TTM activity and the local road environment.

Please note: impacts are assessed and addressed on an area of effect basis, which means if a work area shifts substantially* into an area that has not been previously assessed, or its impact increases, an extension form should not be used. In these situations, a revision or new TMP should be submitted to accurately assess, record and mitigate the different impacts.

Generic Traffic Management Plans

For Council TMP types and definitions, please visit **our website**.

Road space booking form

The Council's road space booking form is used to book road space in association with a currently accepted Generic TMP. Additional conditions, such as when a road space booking form can be used are addressed in the **Use of Generic Traffic Management Plans** flow diagram.

Council forms and templates

All Council forms and templates are available on **our website**.

* At AE / TMC discretion.

2 Reduction of network capacity

Mandatory Forward Works Viewer Data Entry

The Council requires project and traffic impact data for planned works/events affecting traffic capacity on Level 2 Roads to be entered into the **Forward Works Viewer (FWV)**. This enables the Transport Impact Minimisation (TIM) Group to review combined affects and consider issuing 'Preapprovals' ahead of TMP submission.
https://www.forwardworks.co.nz/

Responsibility for data input

Entering and maintaining data is the sole responsibility of the programme/project management or delivery team.
If it's not intended to engage a TTM provider (in the months leading up to the start of works), then we highly recommend responsibility for this task should be assigned early to a team member.

Traffic Impact Minimisation (TIM) Group

The TIM Group make recommendations to the TTM Team on a scheduled work programme and impacts.

To enable the TIM Group to fully consider any impacts, a project-level discussion about the proposed TTM methodology may be required, before providing its recommendation to the TTM Team.

For major project work that requires TIM Group sign-off, contractors need to submit works into the FWV with several months lead in time, at minimum 3 weeks, prior to intended work start date.

Please note: the TIM Group meet once every two weeks and data entry is required to be entered prior to Tuesdays on the week TIM group meets.TIM group only reviews day time impacts, however all capacity reductions on Level 2 roads must be entered into FWV.

Areas of intense work activity

In instances where it's anticipated there would be an area of intense work activity, all associated work that create an impact may need to be entered into the FWV. The impact will then be considered by the TIM Group or Councils delegated lead Traffic Management Coordinator.

Escalation process

If the minimum lead in time for entering work into the FWV is not met, due to unforeseen situations such as urgent works, there is an escalation process. This is intended for exceptional circumstances only and it enables impacts to be considered outside of the standard process. The process can be initiated by contacting the Council's Duty TMC, after initially emailing **TMC@ccc.govt.nz** with an outline of the project and a full explanation of why the escalation process is needed. Any supporting information must be provided including confirmation of urgency from client/project owner. While we will do our best to accommodate urgent TMP requests, processing of these is not guaranteed.

3 Contacting the Council's Temporary Traffic Management (TTM) Team

Urgent TMP reviews

Requests for an urgent review of a submitted TMP, must be emailed to the TMC mailbox **TMC@ccc.govt.nz** They must include information about why the TMP review or update is urgent and why standard processing time frames are not able met.

E.g. late submission of TMP that does not meet standard processing time frames due to urgent works

Please note: supporting information/ justification will be need to be provided about why the standard processing time frames were unable to be met by the applicant. Processing of urgent TMPs due to insufficient lead times is not guaranteed.

Contacting the Council's TTM Team

To get in contact with the TTM Team:

TM Duty Phone	Monday–Friday 7am–5pm (03) 941 8842			Contact the Council on (03) 941 8999 outside of TM duty phone hours		
Simon Hodges	Team Leader		33727		(03) 941 6232	027 497 0125
Fiona McCallum	Traffic Management Coordinator		95664		(03) 941 5332	027 250 7709
Keith Smith	Snr Traffic Management Coordinator		68165		(03) 941 5632	027 298 3834
Sarah Fitzpatrick	Traffic Management Coordinator		71305		(03) 941 5823	027 231 9923
Wayne Anisy	Traffic Management Coordinator		11881		(03) 941 8346	027 310 5411
Sharron Dobby	Traffic Management Coordinator		139864		(03) 941 6979	027 271 9332
Teri Lloyd	Onsite Compliance Officer		22807			027 200 7569
Jo Harvey	Onsite Compliance Officer		69331			027 213 4131

4 Worksites impacting signalised intersections

Contractors planning for works to occur in or near a signalised intersection (generally within 50 metres or greater) must contact the Council's Real Time Operations (RTO) Team during the planning phase of works to discuss proposed works. This is to enable the RTO Team to identify any changes that may be required due to intersection functionality and layout. This discussion must occur with a minimum of two weeks before the scheduled start date on site, to enable pre-planning and any signal controller personality changes to be programmed. Please note: there may be a charge for accessing services provided by the Council's RTO Team.

RTO Team contact

The RTO Team's operating hours are Monday to Friday 6am to 6pm.
The duty number for contact during operational hours is 03 941 8620, or email **signals@ccc.govt.nz**

Pre-Notification of scheduled deployment of works at a signalised intersection

Once the contractor has received the accepted TMP, the RTO Team must be emailed to confirm the planned work dates and times. Please ensure emails are sent a minimum of two business days prior to planned work starting onsite.

Notification email must include:

- The TMP reference number.
- Specific intersection details and impacts that are covered in the TMP, including a detailed plan or drawing to help explain changes, as previously agreed with the RTO Team during consultation.

Notification to confirm scheduled installation or removal of works at a signalised intersection

The RTO Team must be notified to enable signal phasing alterations or to schedule returning of signals to the normal operating condition. *See table below for required notification time frames.*

Time of deployed TTM removal	RTO Team must be contacted
Weekday "day" 6am–6pm	Before 2pm on the day before removal
Weekday "night time" 6pm–6am, following day	Before 2pm on the day before removal
Weekend from 6pm Fri to 6am Mon	Before 12noon on the Friday preceding removal

Notifications to confirm physical deployment of works at a signalised intersection

The RTO Team must be notified by phone before physical deployment of TTM at an intersection deployment.
See table below for required notification time frames.

Time of TTM deployment	RTO Team must be contacted
During RTO Team operational hours (Mon–Fri 6am–6pm excluding public holidays)	Immediately before TTM deployment
Weekday – nighttime	Before 2pm on the day of deployment
Weekend – day or night	Prior to 12noon on the Friday preceding deployment

4 continued

Covering of traffic signal lanterns

Where signal shrouds are required, due to TTM deployments altering signal operations, conflicting lanterns must be covered or completely obscured so they don't create the potential for road user confusion.

The material used to cover the lanterns must meet NZTA P43 Specifications for Traffic Signals. Council prefers that the material used to cover lanterns is a light/mid blue colour.

Working at signalised intersection when signals phasing has been altered – including Flashing Yellow (FY)

When a pre-arranged Flashing Yellow, or other alteration of signal phasing, has been agreed to by the RTO Team for works that are outside the Council's standard operational hours, the STMS responsible must be on site. The TMP must also have been installed as agreed, at the agreed time as the signals will change to the altered function.

The STMS must also remain onsite until the scheduled time for the signals to return to normal phasing.

The RTO team do not operate outside of normal operational hours shown above, unless prearranged and the contractor has organised to pay for the additional out of hours service.

5 Side road signage

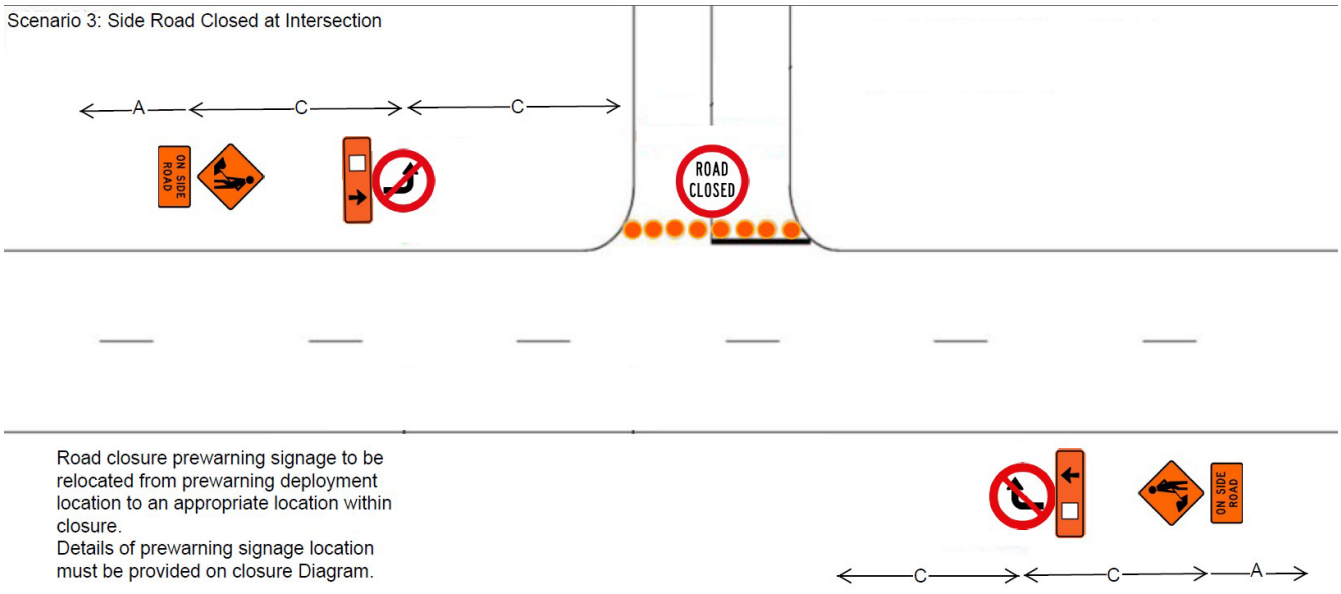
Scenario 1 and Scenario 2 from previous CTOC LOPs are no longer required as they have been included in CoPTTM as standard practice.

Scenario 3: Side Road Closed – PSL under 65km/h.

- T1 ROADWORKS signs deployed on the main road.
- TD1 Variant SIDE ROAD CLOSED AHEAD signs should be omitted from the main road.
- TD3A DETOUR AHEAD FOLLOW "SYMBOL" signs should be omitted from the main road.
- RD1R/L NO RIGHT/LEFT TURN, with supplementary TDA6 FOLLOW "SYMBOL" (if appropriate) must be installed.
- RD3 ROAD CLOSED at intersection must be installed.

In speed environments greater than 65km/h, or where major risks exist (e.g. tight geometrics, restricted visibility, narrow road carriageway etc.), STMSs must enhance or extend warning signage on the main road approaches to provide sufficient warning.

Deploying the normal CoPTTM layouts - L2 to L2: J2.25 / 2.25a (L1) F2.24. maybe required. Combining last two sets on one stand (RD1 (No Left/Right Turn) with TDA2 (Detour Arrow).

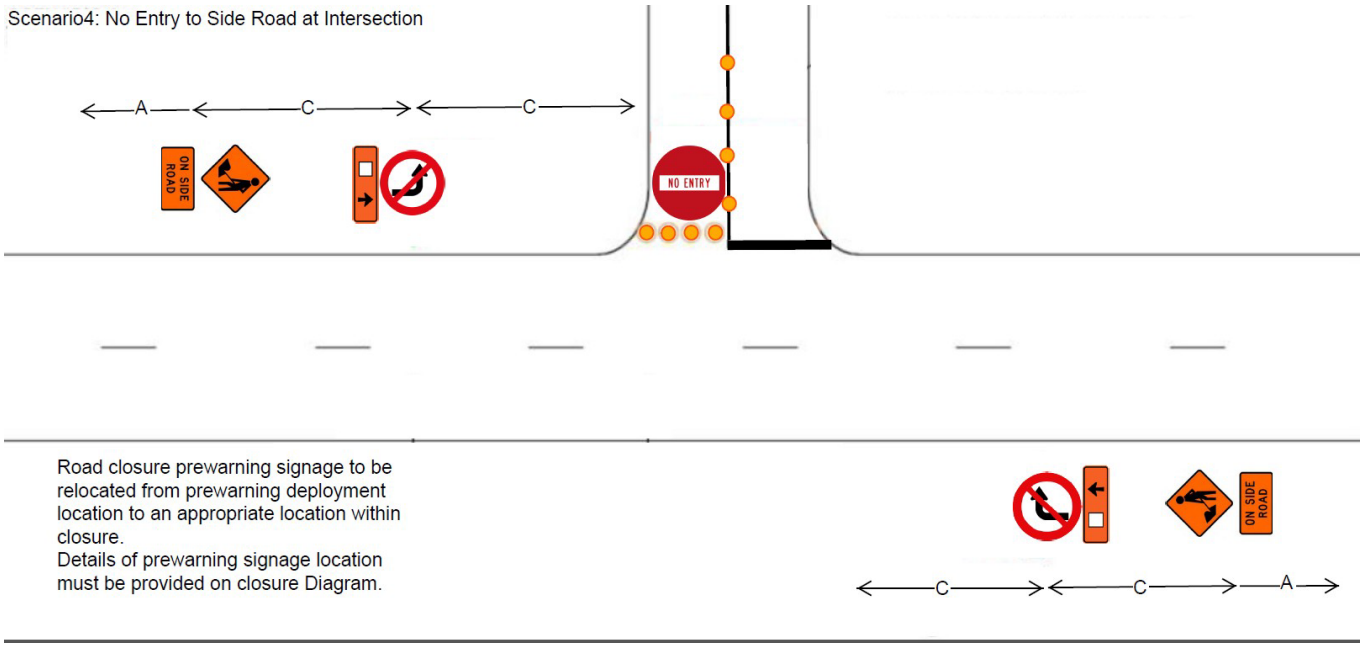


Scenario 4: Side Road is Exit Only (Entry closed) – PSL under 65km/h.

- T1 ROADWORKS signs deployed on the main road.
- TD1 Variant SIDE ROAD CLOSED AHEAD signs must be omitted from the main road.
- TD3A DETOUR AHEAD FOLLOW o signs should be omitted from the main road.
- RD1R/L NO RIGHT/LEFT TURN, with supplementary TDA6 FOLLOW ↑ (if appropriate) must be installed.
- RD2 NO ENTRY at intersection must be installed.

In speed environments greater than 65km/h, or where major risks exist (e.g. tight geometrics, restricted visibility, narrow road carriageway, rough / unsealed surface etc.), then STMSs must enhance or extend warning signage on the main road approaches to provide sufficient warning.

Deploying the normal CoPTTM layouts - L2 to L2 J2.25 / 2.25a (L1) F2.24 maybe required. Combining last two sets on one stand (RD1 (No Left/Right Turn) with TDA2 (Detour Arrow).



6 Speed management

Temporary Speed Limits

Temporary Speed Limits (TSLs) must be appropriate to provide an acceptable level of safety at a worksite, while not unduly delaying traffic. TSLs must not be deployed on every worksite, but only where TSLs are justifiable as part of an overall Speed Management treatment for a site.

Including a completed CoPTTM Speed Decision Matrix form is encouraged when submitting TMPs with proposed TSLs.

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7 Cone mounted directional signs

Rescinded - Standard CoPTTM sign size requirements apply

8 Temporary barrier systems

Where barrier systems are proposed as a safety device for closure protection, the proposed product must be one that is currently included in Waka Kotahi **NZTA's authorised product list M23**.

Details must be clearly explained in the TMP about what product is proposed, the test level of the product in accordance with appropriate standards.

9 Traffic Impact Assessments

The TTM Planner must consider traffic impacts during the development of each TMP. A suitable balance of safety, construction efficiency, economic/community and impact network impact must be considered when developing the TTM methodology.

The TTM Planner must identify if traffic volumes are at risk of exceeding the available capacity at the site, and along detour routes. The **'Transport Efficiency and Impact Guide'** and **'Transport Impact Assessment (TIA) Guide'** provide tools for TTM Planners to use. More detailed network modelling and impact assessment/coordination may be necessary to assure the expected capacity.

TMPs must provide a succinct traffic impact assessment to identify when network efficiency impacts are likely to occur, identify what that impact is expected to be and outline mitigation measures proposed to minimise/mitigate the impact.

10 Mitigation measures for significant works

When Network Impacts are unavoidable, **mitigation measures** must be considered, planned and delivered alongside the TMP. Specific details of Communication and Notification Strategies do not need to be included in the TMP. However, the TMP must at least outline the measures being planned.

For major worksites that may create a significant impact for a large area of impact or prevent movement across the city, a travel demand management plan may be required to be developed and accepted by CCC before TMP acceptance.

11 Peak traffic hours

For works within the Council's boundaries, "peak hours" are defined as:

07:00–09:00 Monday to Friday
16:00–18:00 Monday to Thursday
15:30–18:00 Friday
NB: Any weekday before a public holiday assumes Friday timing.

Work during peak hours

Road Level	TTM Operations (incl. mobile operations)	Construction Work within established TTM worksite	Site Accessing
Level 2 Roads	Not permitted	Permitted, provided capacity is not reduced below what is accepted in the TMP, or operations that significantly distract passing traffic.	Disruptive vehicle maneuvering for site accessing or that generate an increased risk to other road users (including pedestrians and cyclists) is not permitted.
Level 1 & LV Roads	Permitted*	Permitted*	

*Provided that traffic delays do not exceed five minutes, or as accepted in the TMP.

12 Site accessing

TMPs must include site accessing methodologies. Specific access points must also be detailed in TMPs, wherever possible, to confirm that both the work and the necessary site accessing methodologies are viable without compromising sign spacing, safety zones, traffic flow, safe road operating conditions etc.

Where site accessing cannot be accomplished in the normal direction of traffic (e.g. reversing into the site, using oncoming lanes), then a safe methodology must be designed, explained clearly in the submitted TMP and resources allowed for this within onsite operations.

13 Mobile VMS boards

Where VMS boards are utilised, the **Best practice for VMS** messaging must be used to plan and manage the use of VMS on the Council's network.

14 Cyclist impacts

Where marked cycle lanes, Council endorsed cycle routes, or any road with high cyclist demand (e.g. near schools, universities, suburban shopping centres, key activity areas etc.) are affected by TTM operations, the **'Best Practice for Cyclists'** guidelines should be followed. The principles must be utilised during TMP design, the site deployment phase and also (continuously) during onsite operations.

15 Level 2 Low Speed (2LS) Roads

Rescinded - Principles of 2LS may be considered, where appropriate, when a risk assessment is undertaken and provided as part of the TMP.

16 Bus service impacts

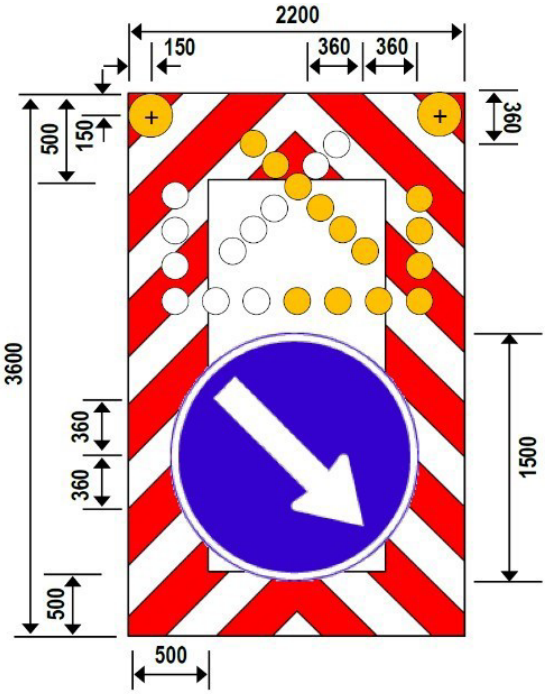
Where temporary traffic management operations impact on a bus route or public transport infrastructure, the **Best Practice for TTM Impacting Bus Services** must be used to manage the impacts on bus services.

17 Use of TMAs within the Council's travel network

Departure from CoPTTM for TMA use rescinded.

Contractors are required to use a TMA when operating in a traffic lane outside of a defined shoulder on Level 2 roads. TTM planners may consider replacing a TMA with a CoPTTM Compliant arrow board where the posted speed limit is 50km/hr or less and where the work is solely contained within a defined shoulder of a L2 road. The use of arrow boards in shoulders is only allowable until 31 March 2022 to allow contractors to adequately adjust equipment resourcing for this activity. In all other situations, the requirements of CoPTTM apply.

Council accepts the use of TMAs fitted with horizontal arrow boards on our network.



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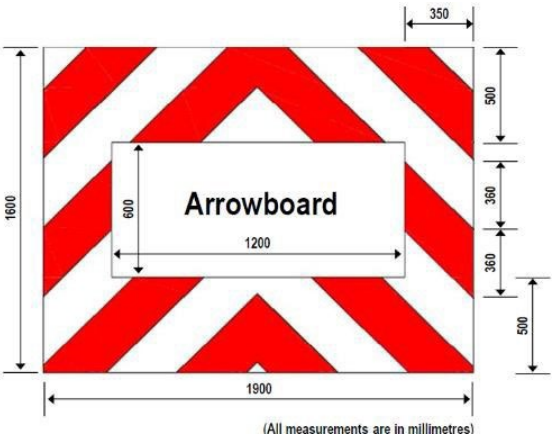

(All measurements are in millimetres)

18 Allowance for A L2/3NP STMS to install shoulder closures

Rescinded - Standard CoPTTM requirements apply

19 Inspection Activities On L2 Roads

Allowance for a L1 STMS to undertake inspections on a Level 2 Road Under 65km/h

Rescinded - Standard CoPTTM requirements apply

Inspection activities on the live lane of a Level 2 road

Rescinded - Standard CoPTTM requirements apply

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20 Low-Volume Low-Risk Roads

To enable the use of low-volume low-risk roads <250VPD methodologies. Contractors must undertake a vehicle count to verify that the traffic volumes will be below the 250 VPD threshold before deploying methodologies for Low-Volume Low-Risk Roads that have been accepted in a TMP.

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21 Temporary road closures

When a road closure is proposed for road works or an event, see **Road closure process** information on the Council's website. A **road closure application form** must be filled out and submitted with any TMP requesting a closure. Detour routes must be shown in the TMP on a separate diagram(s), with clear detail showing which roads are being used and what direction traffic is traveling.

When a road closure extension is requested, a new road closure application form will be required to be filled out with the TMP revision or extension form.

22 Public notification requirements

Public notifications must be undertaken where works will impact on facilities or situations listed below. This is to ensure affected businesses and residents are informed.

For large projects that have multiple phases of works or are over an extended period, public notification updates – relevant to the upcoming phases – will be required to keep people informed and up to date.

> For example, one public notification letter delivered in advance of a three month project that has different phases of impacts will not be sufficient. Public notifications are required to inform people of impacts in a timely manner.
>
> Responsibility for undertaking public notifications must be agreed between the contractor and TTM provider.

However, the STMS must check any required notifications have been undertaken before deploying an accepted TMP.

Notification time frames

Type of restriction	Notification timeframe (before deployment)	Type of notification (if required)
Removal of time-limited parking outside a business premises blue "P" signage	Notification required at least 72 hours in advance for planned works	Letter drop or door knock
Removal of mobility parking	No notification required	Alternative parking facility with similar level of service MUST be provided close by
Parking restriction – residential	No notification required	If restrictions to be less than 48 hours
Parking restriction – residential	24 hours notification	Letter drop or door knock If restrictions to be more than 48 hours but less than 5 days
Parking restriction – business premises	72 hours notification	Letter drop or door knock If restrictions are less than 5 days
Road closure cul-de-sac less than 100m in length	72 hours notification	Letter drop/door knock
Road closure other than cul-de-sac <100m in length	7 days notification	Letter drop and pre-warning signage
Parking restriction for major works or restriction longer than 5 days	7 days notification	Letter drop
One-way systems on roads under 1000vpd	7 days notification	Letter drop
One-way systems on roads over 1000vpd	7 days notification	Letter drop and pre-warning signage
Customer notification "letter" and "pre-warning signage" specifications are available on the Council's website. Pre-warning signage and notification letters must be included in TMPs for approval.		

23 Pedestrian management

Footpath closure

Where a footpath closure is required and road users are asked to “Please use other side” of carriageway, the traffic volume must be 5,000 vehicles per day or less unless a pedestrian refuge is provided.
All other standard CoPTTM requirements must also be met.

Dedicated crossing points

A site specific TMP is required for any footpath closure that affects a zebra crossing or dedicated school crossing point. The TMP must show how the dedicated crossing point will be closed, and what provisions are being made to maintain safety for road users.

Pedestrian islands in the centre of the road

Where there’s no practicable option to enable pedestrian movement past a work area, and other options such as directing pedestrians to the opposite side of the carriageway are not feasible, installation of pedestrian refuges are required. This is to prevent pedestrians needing to cross more than a single lane at a time. Pedestrian refuge design and layout must be clearly outlined in the TMP application including what devices will be used to define the refuge. i.e Pedestrian bars for attended sites or site fencing for unattended sites.

24 Tail pilot usage

Rescinded - Standard CoPTTM requirements apply

25 Omission of Works End signs

Rescinded - Standard CoPTTM requirements apply

26 Distance warning supplementary plates

Rescinded - Standard CoPTTM requirements apply

27 T144 Temporary Speed Limit Ahead signs

Rescinded - Standard CoPTTM requirements apply

28 Work that creates noise which impacts on people

The Council's acceptance of a TMP does not grant permission to exceed noise levels as set within the Christchurch City District Plan, nor does it grant permission to create excessive noise that impacts on residents, business and customers. Should noise be generated that exceeds levels as set in the Christchurch District Plan, or works create excessive noise, pursuant to section 326 of the Resource Management Act, the work may need to be abated immediately.

29 Engineering Design of Temporary Transport Facilities

Where temporary road situations are proposed that are substantially different from a normal road layout due to things like construction of new pavement, intersection controls, or substantial alterations to geometric alignment, additional engineering design to the standard TTM considerations is necessary. This is to adequately manage the risks created by the new alignment and to fulfil obligations under the HSWA 2015.

Road engineering standards must be referred to and considered during the design of temporary transport facilities, to ensure safety and service standards are met. The risks around any lower standard designs must be identified, assessed, and balanced against other factors. Appropriate strategies to mitigate risk must also be considered and implemented as part of the design process.

The TTM Planner may not be sufficiently qualified or experienced at designing all elements of a temporary transport facility. Therefore, they may need to seek assistance from other specialist designers (refer below for areas of design). The TTM Planner is responsible for providing the proposed details of temporary transport facilities in the submitted TMP, this gives assurance that a coordinated, safe, and well-considered design is being proposed.

Standards for the following (plus any other significant design elements) must be considered and documented within every TMP that proposes to substantially change the normal road environment: Examples include:

- Geometric standards: horizontal and vertical alignments
- Cross section and roadside features
- Lighting
- Drainage
- Intersection controls
- Signage and delineation

Common references for these include:

Area of Design	Reference
General principles and geometric design	Austroads Part 2-3 including NZ Supplement, and NZTA State Highway Geometric Design Manual Parts 1-5
Cross section and roadside features	Austroads Part 3, and NZTA State Highway Geometric Design Manual Parts 6 & 7
Lighting	AS/NZS 1158 Road lighting (includes footpath lighting)
Drainage	Austroads Guide to Road Design Parts 5, 5A
Intersection controls	Austroads Guide to Road Design Part 4A The references contained in NZTA State Highway Geometric Design Manual Part 8: Intersections and Interchanges
Traffic signals	Traffic Control Devices (TCD) Manual and NZTA P43: Specification for Traffic Signals and Christchurch City Council Local Specification
Signage and delineation	NZTA Traffic Control Devices (TCD) Manual, including Part 8: COPTTM
Christchurch City Council standards (includes vehicle crossings, footpaths, cycleways)	Austroads Part 2–3 including NZ Supplement, and Christchurch City Council Construction Standard Specifications (CSS)
Other	As listed in Contract Documents

29 continued

Designs for a temporary transport facility must outline the standards adopted for the elements listed above in comparison to the facility that is being replaced.

A similar level of service is expected to be offered for a temporary transport facility. For example, a 50km/h design speed, sealed all-weather surface facility would ideally be replaced with a 50km/h design speed, sealed all-weather surface temporary facility. However, compromises to the normal levels of service in light of the context around the temporary situation can be considered using our standard 'best for NZ' decision-making philosophy.

While the shorter than normal expected life of the temporary transport facility should be taken into account, safety of all users of the facility remains a key priority. Assurance must be given that acceptable levels of safety, service, and asset resilience, have been considered within the design.

We recommend that the following information is provided during concept discussions, or (at latest) supplied in conjunction with or embedded within the TMP submission:

- Design Plan(s): drawn to scale, showing critical dimensions and features of the proposed temporary concepts. The holistic scenario presented by all of the design elements in conjunction with the TTM elements must be clear.
- Design Statement(s): from suitably qualified designer(s) confirming that relevant design references have been taken into account, and that appropriate* standards have been adopted.
- Operating Detail: where systems such as partially complete traffic signals are proposed, operational details (e.g. phasing diagrams, detector loop functionality, available movements, and delineation details), must be clearly explained.
- Risk Assurance: significant and/or high risk temporary transport facilities may require a higher level of assurance, such as a design safety audit of the proposed details.

*'appropriate' means: within the context of the temporary situation and that support 'best for NZ' outcomes. If compromises to normal design standards are proposed, the risks must be clearly identified, justification provided for the departure(s), and mitigation measures detailed.

30 Glossary

AADT	Average Annual Daily Traffic volume
The Council	Christchurch City Council
CITTM	Christchurch Improvements Temporary Traffic Management
CoPTTM	Code Of Practice Temporary Traffic Management
CTOC	Christchurch Transport Operations Centre
FWV	Forward Works Viewer
FY	Flashing Yellow traffic signals
L1	Level 1 Road Level classification
L2	Level 2 Road Level classification
L2/3 STMS	Level 2/3 Practicing STMS
L2/3NP STMS	Level 2/3 Non Practicing STMS
LAS	Light Arrow System
LINZ	Land Information New Zealand
LOP	Local Operating Procedures
LV	Low-Volume Road Level classification
LV/LR	Low-Volume / Low-Risk Road Level classification
Max.	Maximum
mVMS	Mobile Variable Message Sign
NZTA	New Zealand Transport Agency
PSL	Permanent Speed Limit
RCA	Road Controlling Authority
RTO	Real-Time Operations Team
STMS	Site Traffic Management Supervisor
TIA	Traffic Impact Assessment
TIM	Traffic Impact Minimisation Group
TMA	Truck Mounted Attenuator
TMC	Traffic Management Coordinator
TSL	Temporary Speed Limit
TTM	Temporary Traffic Management
VMS	Variable Message Sign
VPD	Vehicles per day equivalent to AADT
VPH	Vehicles per hour