



# Christchurch

## Transport Operations Centre

## Best Practice for TTM Impacting Bus Services

Developed in conjunction with Environment Canterbury



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## Background:

There are currently no national standards and the CoPTTM does not provide specific guidance about impact to public transport arising from temporary traffic management activities. While traffic management providers endeavour to provide good solutions, there has been inconsistency and examples of poor customer experience.

Public transport service providers (e.g. ECan<sup>1</sup>) and customers (e.g. bus passengers) at times have not been informed or have been poorly informed of impacts. This has led to buses missing detours and/or temporary bus stops, as well as passengers missing buses and having an inefficient service delivered to areas of the city.

The success of a public transport network is often defined by the frequency and the reliability of the service. One-way or full closures of a road that result in a bus having to detour can impact the reliability of the service regardless of the frequency of the vehicles provided.

The Metro Network is made up of three categories that vary in terms of service level and frequency, these categories are:

**(i) The Metro Lines:**



These services operate at a high frequency and are used by customers to connect to other routes in the network. They travel via the Bus Interchange (except Orbiter).

**(ii) City Connectors:**

Services from outer suburbs that travel via the Bus Interchange. Identified by a two-digit route number.

**(iii) Suburban Links:**

Services that operate in the suburbs and connect customers to the Metro Lines at key hub locations. Identified by a three-digit route number.

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<sup>1</sup> This guideline primarily focuses on the Metro network that is looked after by ECan, there are various other operators in Christchurch who have their own bus stops. The TMP designer will need to identify when a stop is not under ECans control and attempt to find the correct person/organisation to make contact with. Examples of these situations would be coach services that stop outside schools and hotels etc.

## Purpose:

The purpose of this document is to consolidate the best of what the industry is currently doing and align it with the needs of public transport service providers and the RCA. CTOC aims for this best practice guideline to provide a consistent set of approaches to the temporary traffic management industry, public transport service providers and customers. This should result in an acceptable level of service for public transport operations and customers during temporary traffic management operations.

## Principles:

Key principles underpinning this document are:

- (i) Maintaining public transport service reliability whenever possible.
- (ii) Bus stops are prioritised as per pages 4.
- (iii) Notification and consultation with the public transport service provider occurs with good lead-time to enable acceptable solutions to be found for all parties.
- (iv) Customers are informed.
- (v) An acceptable level of service for public transport is maintained.

## Bus Stop Hierarchy:

The following bus stop locations are vital to the Metro network. Any works that require a closure and/or relocation in these areas require consultation with ECan during the TMP planning process.

- Bus Interchange (*Tuam St between Colombo & Manchester Streets + Lichfield St gates to Manchester/Lichfield intersection*).
- Manchester St (*SuperStop*).
- Public Hospital (*SuperStop – Tuam St*).
- Riccarton Mall (*Riccarton Rd*).
- Northlands Mall (*Main North Rd, Langdons Rd*).
- The Hub Hornby (*Chalmers St*).
- Eastgate (*Buckleys Rd, Cranley St, Russell St Chelsea St*).
- Barrington Mall (*Athelstan St*).
- The Palms (*Shirley Rd, New Brighton Rd, Marshland Rd*).
- New Brighton (*Beresford St, Oram Ave*).
- University (*Ilam Rd*).
- Princess Margaret Hospital (*Cashmere Rd*).
- Sheffield Crescent.
- Any suburban terminus (end of route) locations.

## Approval Process – Pre Planning:

When designing a TMP you will need to find out if you are working on a bus route. This will allow you to consider how your works may impact the route or bus stop(s)<sup>2</sup> - refer to [metroinfo.co.nz/map/](http://metroinfo.co.nz/map/)

If you confirm that you are working on a bus route, it is expected that you will have explored all options to limit the impact to the bus service. I.e. can the site be repositioned in a way that does not impact a bus stop, bus lane or the bus route? Once this is confirmed you will then need to undertake either the **notification** process or **consultation** process.

### **Notification Process:**

If you can meet the bullet point requirements below you will only need to notify ECan of an impact during the TMP design and approval process<sup>3</sup>.

- Bus stop closure with a temporary or permanent stop within 100m.<sup>4</sup>
- Ability to meet CTOC requirements for bus stop closure and temporary bus stop installation - see page 8 and 9.
- Impact is short term (up to two weeks).
- No bus detour is required.

### **Consultation Process:**

When you cannot meet the notification process requirements, you will need to discuss options to deal with any impact to the bus network and/or bus stops with ECan.

General situations would include:

- A full road closure or one-way system on a bus route.
- Impacting a bus lane during its operational hours.
- Turning movement or road width restrictions requiring buses to detour.
- Customers are required to travel more than 100m to temporary or permanent stop.

Some proposals for bus detouring and/or bus stop provisions will require a TMC (and approving engineer if applicable) to be involved. An ECan representative will engage a suitable TMC in these situations.

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<sup>2</sup> You will need to cross check this with existing impact on [www.tmpforchch.co.nz](http://www.tmpforchch.co.nz) to ensure that there are no other road works in the area that could be detouring a bus onto the road where you are proposing to work.

<sup>3</sup> While this should suit most situations, there may be times when ECan will request that you to go through the consultation process. If in doubt, it is best to speak with ECan during the TMP design stage.

<sup>4</sup> Any impacts on bus stops/locations listed under 'bus stop hierarchy' must go through consultation with ECan.

Common variables that will need to be considered during the consultation process:

- Road width of detour route.
- Pinch point or speed humps on detour route (any traffic calming).
- Other work site in the area or other impacts/delays on a specific bus route.
- Turning circles for buses.
- Schools, shopping centres, retirement home locations etc.
- Number of stops missed.
- Distance between temporary stops and closed stops.
- Risk of traffic movements e.g. right turns across traffic.
- Road condition on detour route (potholes etc.).
- Length of detour (maintain schedule and additional costs).
- Camber of road in relation to lighting, power poles and intersections.
- Any obstructions on detour (tree branches etc.).
- Do the temporary stop(s) require provision for more than one bus.

CTOC expects designers (and their clients) to consider the various elements of the planned event philosophy ('TTM Diamond'), and identify options that strike a reasonable balance. The variables above are expected to be covered in these considerations, and this should then allow the designer to present options for discussion with ECan.

The outcome expected is an acceptable level of service for all customers and stakeholders, and due to competing needs, this is likely to require collaboration, compromise and change at times.

The consultation process could take up to two weeks depending on the significance of impact and complexity of the situation. Where possible, it is advised that TMP designers engage ECan earlier and potentially look at including the consultation discussions into any project level discussion that occur.

Bus stop, bus lane and bus detour impacts must be included within the submitted TMP. Failure to consult ECan in a timely manner may result in TMPs not being accepted and works being delayed.

**Potential option to minimise impact to bus service:**

- Separate detour for buses.
- Live lane stops.
- Temporary bus lanes.
- Facilitation through worksites.

## Approval Process – Active Traffic Management:

### **Onsite Changes:**

There will be times onsite when the STMS finds the accepted TMP and/or the approval given by ECan is not suitable. If this happens then the STMS must contact ECan or go through their TMP designer/coordinator to contact ECan.

It might be a simple fix that ECan are happy with and is still within the approval of the TMP. In these situations the STMS will only need to note change on their TMP. When there is no simple fix, work must be stopped and the site minimised until a suitable solution is found and/or the TMP is updated.

### **Delays and Schedule Changes:**

When notification has been established but works are delayed, the STMS will need to contact ECan or go through the TMP designer/coordinators to contact ECan. At this point, ECan will make a decision on whether the detouring and/or temporary stops will remain (short-term schedule delay) or if detouring and/or temporary stops need to be removed and new notification put out (long term schedule delay).

When there is an approved TMP (usually catchment TMPs or long duration plans) and a set up needs to be used that will impact bus routes there must be contact made with ECan a minimum of 48 working hours prior to the proposed installation date.

### **Emergencies:**

In emergency<sup>5</sup> situations the STMS or the TMP designer will need to contact ECan to advise what changes have been made. At this point ECan may suggest some changes to assist with the bus service. Anything above a minor change to the temporary traffic management will require a TMC to be involved. As the emergency changes into a repair phase, communication must continue between the STMS or TMP designer/coordinator and ECan, so that all parties are informed of resolution timeframes.

Failure to make this contact and go through the correct process in any of the above situations may result in the site being shut down and/or TMP being revoked and/or a notice of non-conformance being issued.

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<sup>5</sup> This is generally only applicable to maintenance contractors; an example of emergency work would be repairing a blown water main. A project manager asking to do a segment repair tomorrow or later in the week is not considered an emergency.

## CTOC Requirements - Bus Stop Closure:

### Pre Closure:

- ECan must be notified/consulted and accept the proposal.
- Notification must be attached on affected stop advising the customer of the upcoming impact. This must be installed a minimum of two working days prior to closure - *refer to example on page 11.*

### Deployment (onsite STMS):

- If a temporary bus stop is required, this must be established before the permanent stop is closed - *see requirements on page 9.*
- Cover<sup>6</sup> existing bus stop sign.
- Install sign (level 1 750 x 750) that directs customers to the nearest temporary or permanent bus stop - *refer to example on page 12.*
- Contact ECan to confirm that the bus stop had been closed and advise where customers have been redirected.

### Example of bus stop sign cover:



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<sup>6</sup> This must be done in a way that ensures the cover/notice cannot be easily removed and does not damage what it is attached to. e.g some types of tape can damage plastic, paint and the retro reflective properties of signs when removed.

## CTOC Requirements – Temporary Bus Stop:

### Pre Deployment:

- Ensure notification requirements have been met and that approval has been given from ECan.
- An approved TMP is required.
- Ensure suitable location is selected, it must<sup>7</sup>:
  - Not block visibility of side roads.
  - Allow suitable space for a bus.
    - 8m lead in, 14m temporary stop, 4m lead out lengths.
    - 3m width that does not impact a trafficable lane.
  - Not block driveways or other access.
  - Allow suitable room for customers to wait.
  - Must be at a kerb to allow easier access for all customers.
  - Suitable lighting must be available.
  - Suitable surface condition of the road and passenger waiting area.
- Install 'no parking' cones in the location of the temporary stop.

### Deployment (onsite STMS):

- Establish temporary bus stop - *refer to example on page 13.*

### Disestablishment (onsite STMS):

- STMS must ensure temporary bus stop is not removed until ECan Duty Manager has been notified.

## Contacts:

### **ECan Bus Operations**

Phone Duty Manager: **(03) 353 9700**

Email: **duty.manager@ecan.govt.nz**

### **CTOC TMC**

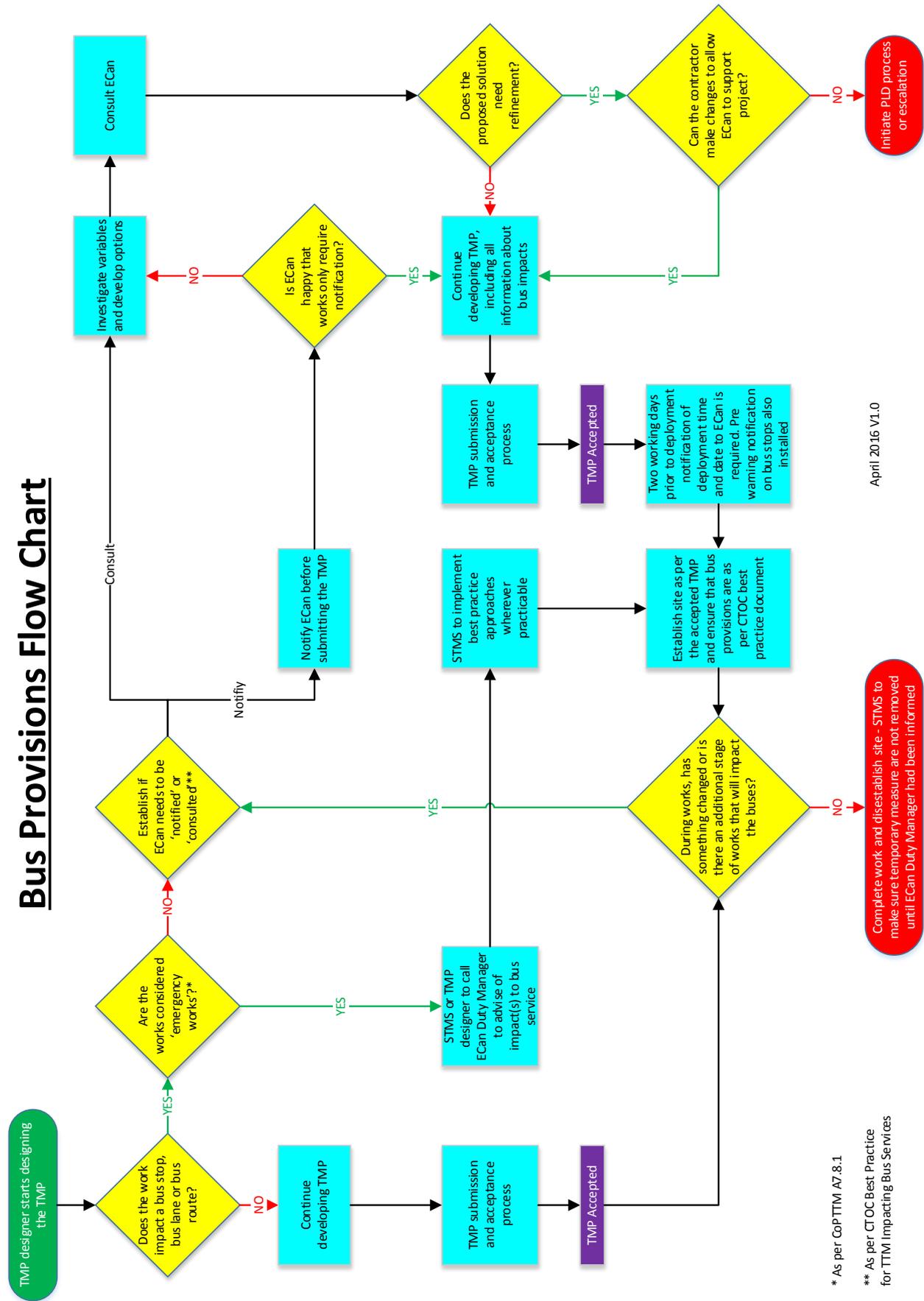
Phone Duty TMC (6am to 6pm): **(03) 941 8842**

Email: **tmc@tfc.govt.nz**

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<sup>7</sup> These requirements are for basic short-term impacts. For impact that require ECan consultation, additional requirements might be requested.

# Bus Provisions Flow Chart



\* As per CoPTTM A7.8.1

\*\* As per CTOC Best Practice for TTM Impacting Bus Services

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## Example of - Closure/Detour notification:

(Currently produced by ECan, it may become a TMP designer's responsibility at a later date)

### Route detour for SHIRLEY ROAD

FROM : 7pm on the 21st February  
DURATION : Approximately 1 week  
HOURS OF OPERATION : **7pm to 6am NIGHTWORKS**

#### ROUTE : Orange Line

##### Eastbound (towards Parklands)

Normal route to Hills Road

- R Warden Street
- L Slater Street
- R Shirley Road

Resume normal route

##### Westbound (towards City Centre)

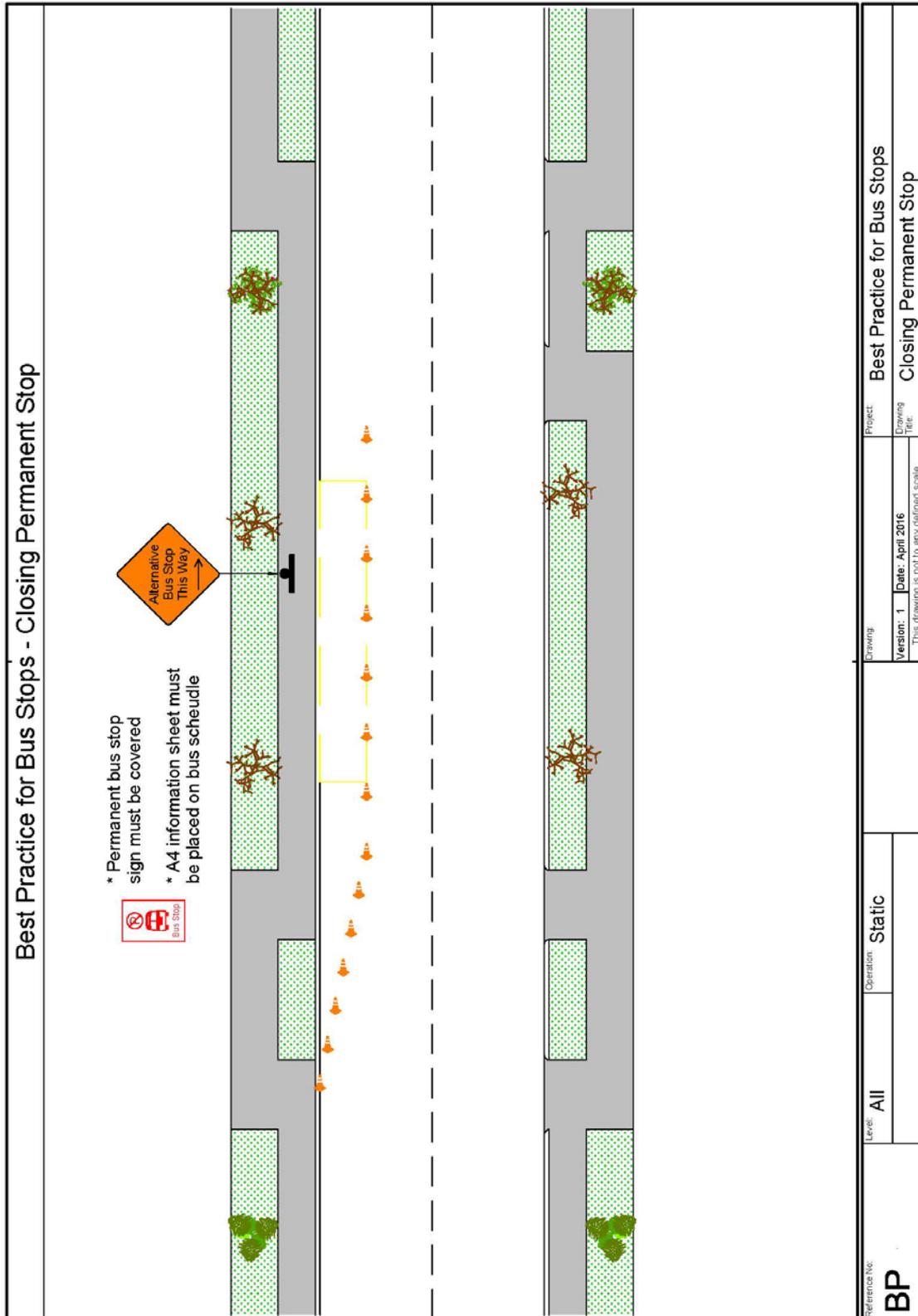
Normal route to Shirley Road

- L Slater Street
- R Warden Street
- L Hills Street

Resume normal route



# Example of - Permanent Bus Stop Closure:



# Examples of Best Practice - Temporary Bus Stop Setup:

