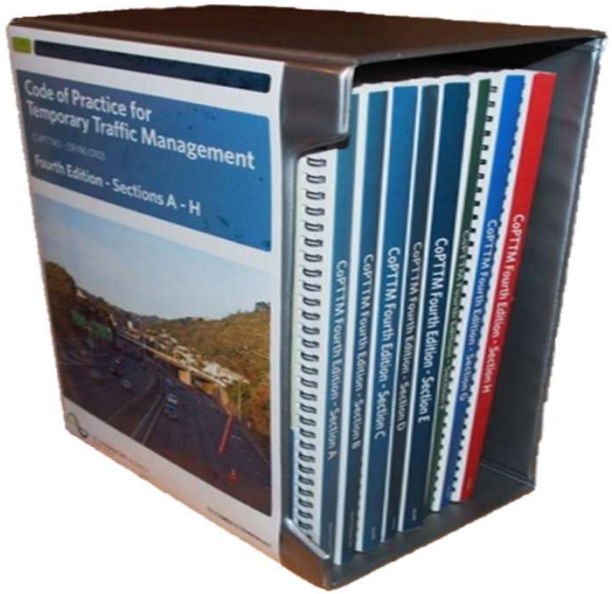
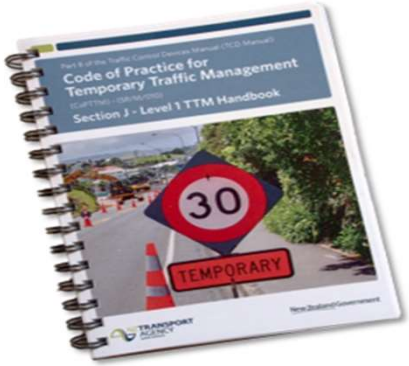
General Introduction into the world of the Temporary Traffic Management industry

Why do we have a **Code of Practice for Temporary Traffic Management?** (CoPTTM)

This presentation is aimed for anyone wanting to gain general knowledge and insight into how the system works. This would be useful for company roles that need to arrange temporary traffic management (TTM) services, or staff that are working on road work sites.





These slides are about the NZTA Code of Practice for Temporary Traffic Management (CoPTTM), bringing some light to the rules and roles of our industry.

This is just a basic glimpse at the Code covering the core aspects.

Who is this for?

- managers or business owners

- anyone who would like some guidance on roles before attending training courses

- companies that need some basic understanding of when you may need to engage temporary traffic management, including some of the planning steps involved

The information provided has been constructed by TMC Ltd, using Waka Kotahi NZ Transport Agency (NZTA) resources that can be found on their website. These slides are not NZTA material, and have been made in a way to give you some understanding in a quick and unique way. You should always refer to NZTA supplied documents when planning safety at road work sites as this is only a brief overview.

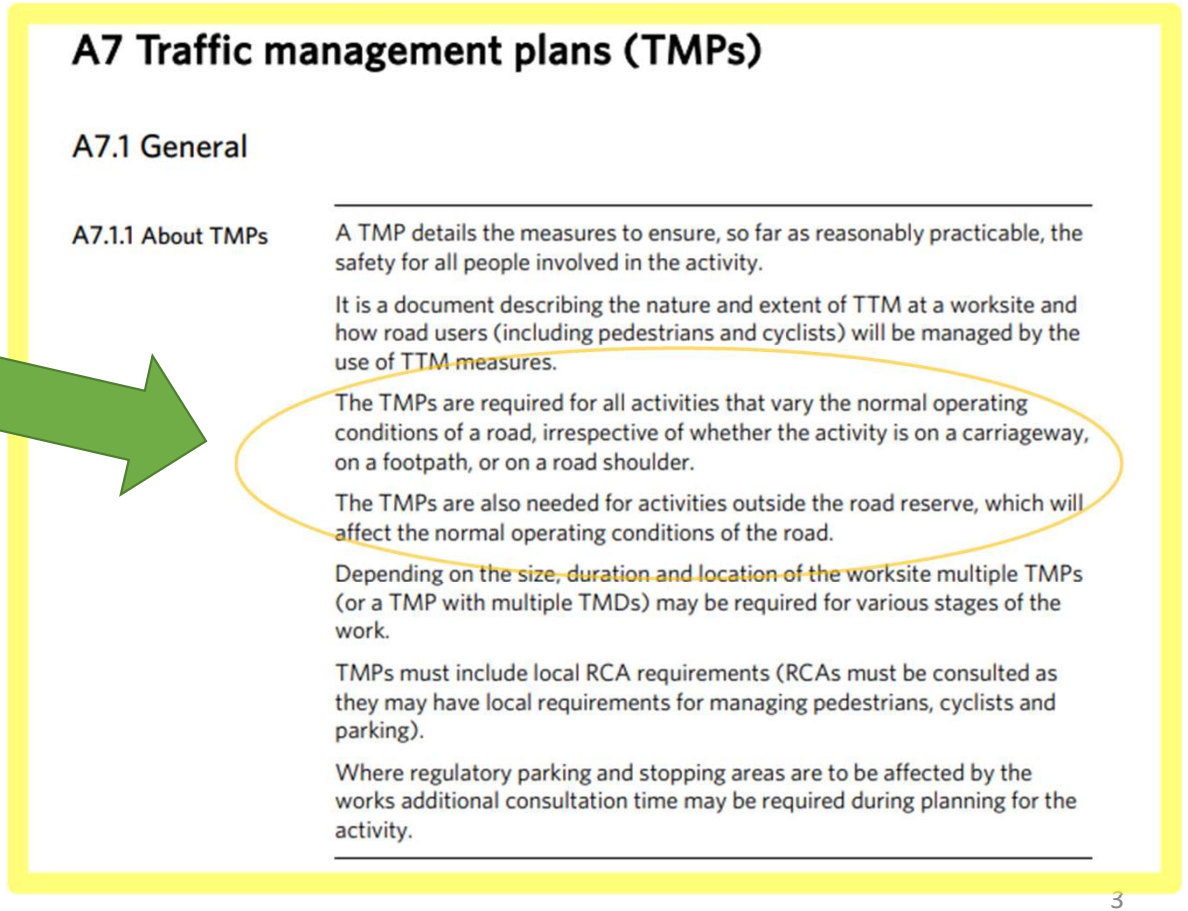
Always have an approved TMP from NZTA/or Local Council and a qualified practicing STMS for the road category you're working on, before implementing any traffic management.

For full details and resources about the NZTA CoPTTM refer to the NZTA website link below.

https://www.nzta.govt.nz/resources/code-temp-traffic-management

A **KEY QUESTION** to ask yourself before doing any TTM job, before we put the shovel in the ground or while we are planning/quoting work on any road work site is **do we have a TMP**?

TMPs (Traffic Management Plans) are required for all activities that vary the normal operating conditions of a road!



A7 Traffic management plans (TMPs)

A7.1 General

A7.1.1 About TMPs

A TMP details the measures to ensure, so far as reasonably practicable, the safety for all people involved in the activity.

It is a document describing the nature and extent of TTM at a worksite and how road users (including pedestrians and cyclists) will be managed by the use of TTM measures.

The TMPs are required for all activities that vary the normal operating conditions of a road, irrespective of whether the activity is on a carriageway, on a footpath, or on a road shoulder.

The TMPs are also needed for activities outside the road reserve, which will affect the normal operating conditions of the road.

Depending on the size, duration and location of the worksite multiple TMPs (or a TMP with multiple TMDs) may be required for various stages of the work.

TMPs must include local RCA requirements (RCAs must be consulted as they may have local requirements for managing pedestrians, cyclists and parking).

Where regulatory parking and stopping areas are to be affected by the works additional consultation time may be required during planning for the activity.

When we look at the following slides, ask yourself do these situations need a TMP (plan)?

Are they affecting the normal operating conditions of the road?

What are your thoughts on these scenarios? Was there a Plan, was there a qualified worker on site, is that the correct signage?

Would you see this if you were driving on a 100km/h road?

Facing the wrong way & puts the truck over-taking the site in danger. No control in place.

Do footpaths not count? If a pedestrian now walks into the traffic lane, and gets hit, who is liable?

Why did this innocent person walk into the lane? Does it matter if it's just a 5min job?

Now we have looked at those pictures, consider some of the Principles of why we have CoPPTM.

A3 Principles

To ensure, so far as reasonably practicable, safe and efficient TTM, CoPTTM is based on the following fundamental principles:

- TTM must be consistent throughout New Zealand.
- TTM must be fit for purpose, suitable for the nature and duration of the work, installed, set up, and used correctly.
- TTM must ensure, so far as reasonably practicable, the provision and maintenance of safe systems of work for on road activities for road workers and road users.
- All on-road activities must be carried out in accordance with a TMP that has been approved by the RCA or delegated person (refer to section A7 Traffic management plans (TMPs)).
- The provision of an environment that is without risks to health and safety of road users and road workers must be an integral part of all activities carried out on the road from planning the activity through to completion.
- Clear and positive guidance must be provided for road users approaching, travelling through and exiting the worksite.

Activities on any road must be planned so as to cause as little disruption, delay or inconvenience to road users as possible without compromising safety. The length, width and duration of any TTM must be restricted to the minimum required for the safe operation of the activity.

Let's revisit those pictures. What are some of the issues and why is that important?

Is this a commonly understood sign a motorist will see and understand? No. Its not consistent with what we expect around NZ!

Did they have a TMP or implement any traffic management? Is the traffic being properly controlled? Will the hiab lift this onto or over a pedestrian? The risks are high as no TTM has been implemented!

Any pedestrian will now be forced to walk into the road. We know cars and humans don't mix well, so the danger here is from not thinking how they changed the environment by taking away the footpath with no planning or controls.

A short job does not mean it's a safe job. Regardless of the activity, if it affected normal operating conditions (including foot traffic), we must have a TMP so we know what to controls to put in place!

It's not just vehicle traffic we need to think about. It's how the site affects all parties (road users) and what risk this exposes them to. It then becomes your responsibility if you are the person conducting or undertaking business (PCBU, Health & Safety at Work Act 2015)!

- **Cyclists** (Traffic Lanes & Cycle lanes)
- **Pedestrians** (Footpaths & your work)
- **Traffic** (vehicles & motorbikes)
- **Road workers** (doing the job)

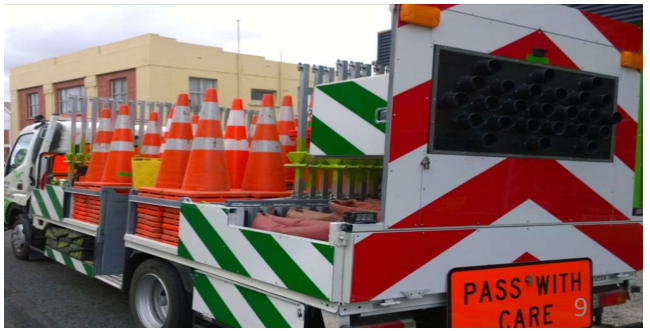
The secret is thinking about your environment. All locations will vary in lane widths and the types of traffic they have. And there are many other things to consider like visibility, speed of the road & traffic volumes.

So now we hope you can see why we have a Code of Practice!

Even the vehicle we use to set up TTM sites has specifications to ensure workers and the public have sufficient warning when working on the road. Workers have courses and practical assessments to achieve, to ensure they operate resources correctly and know how to implement a safe traffic management site using the correct equipment.

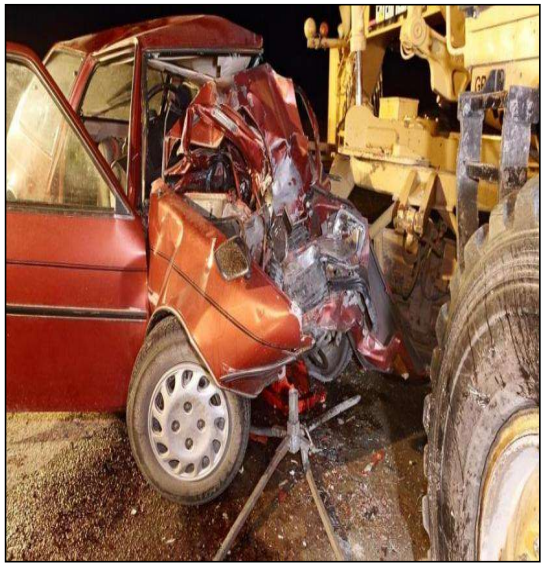
Most importantly, we need a signed off TMP that reinforces all these aspects, including key roles. The TMP is the plan, without a plan in any industry you are disadvantaged and safety has not been considered.

The goal is to have consistent TTM throughout NZ. Standardisation helps protect workers and provides familiarity for roads users anywhere in NZ. The Code ensures CLEAR & POSITIVE GUIDANCE, REDUCES CRASHES & FATALITIES, MINIMUM STANDARD FOR THE INDUSTRY.



Stats indicate 85% of all fatalities happen on sites that are unattended (meaning there were no workers onsite but TTM was still established). Investigation typically showed workers or TTM crew onsite were not following the code, or in other words the site was not setup as per the signed off TMP that a Temporary Traffic Management Planner (TTMP) created.

Also alarmingly, 90% of all road worksite crashes occur because there was no TMP (plan in place). No plan, no diagram made up, nothing for the workers to follow. These two things combined makes us re-evaluate how we look at a site, what we use and how we reduce risks to make it safer for road users & workers. Covering your tail! Can we build a house without a plan? No. Can we put together a kit set or flatpack together easily without a plan? No!




For the haters ☺ let's think about things...

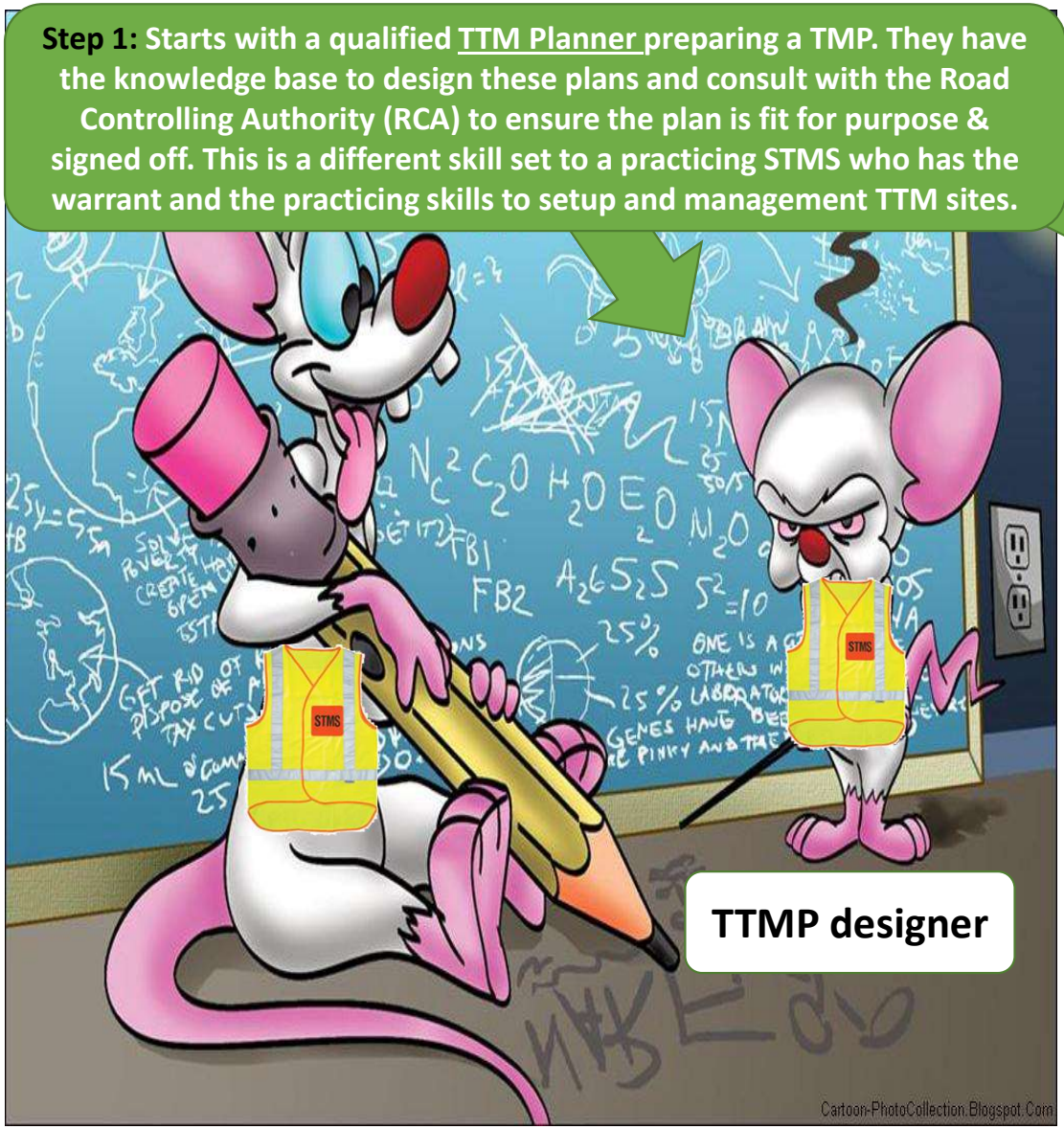
Remember we live in New Zealand, not in a third world country. We have the systems in place, regardless of whether we like it or not, we have to get on board. It's not just your workers that are at risk, it's the ROAD USERS as well!

We don't live in a third world country. We live in NZ.

Okay, so hopefully you're on board now, ears are up and you're keen to quickly see how you can use the CoPTTM system & put controls in place.

Lets Go!

Step 1: Starts with a qualified TTM Planner preparing a TMP. They have the knowledge base to design these plans and consult with the Road Controlling Authority (RCA) to ensure the plan is fit for purpose & signed off. This is a different skill set to a practicing STMS who has the warrant and the practicing skills to setup and management TTM sites.



TRAFFIC MANAGEMENT PLAN (TMP) – FULL FORM

Use this form for complex activities. Refer to the NZ Transport Agency's Traffic control devices manual, part 8 Code of practice for temporary traffic management (CoPTTM), section E, appendix A for a guide on how to complete each field.

Organisations TTM experience	TMP reference:	Contractor (Working Space): Geosolve Ltd	Principal *(Client)*: NZTA		
		Contractor (TTM): GeoSolve Ltd & Traffic Management & Control Ltd	RCA: NZTA		
Location details and road characteristics	Road names and suburb		House no./RPs *(from and to)*	Road level	Permanent speed
	Refer to Attached Road List & Site Locations		Refer attached	Level 1 (includes LV)	Varies
Traffic details (main route)	AADT Varies		Peak flows. 8am & 5pm		

Description of work activity

FWD Testing (Falling Weight Deflectometer).

Mobile Operation. Towing vehicle plus FWD trailer. Operation of the FWD testing will all take place inside the FWD truck. Testing positioned as far left in live lane as possible, this allows vehicles to pass safely while testing and this is possible on most carriageways that have suitable shoulder/lane widths. The FWD machine will stop every **200m Network testing and 10-50m for the AWT sites** for an average time of 20 seconds per test. When performing a test the FWD uses hydraulics that is completely operated from inside the vehicle cab while the FWD lowers the loading plate onto ground & then drops a weight to simulate vehicle loading while measuring deflections. Progressing at average 5 -50km/hr.

Planned work programme

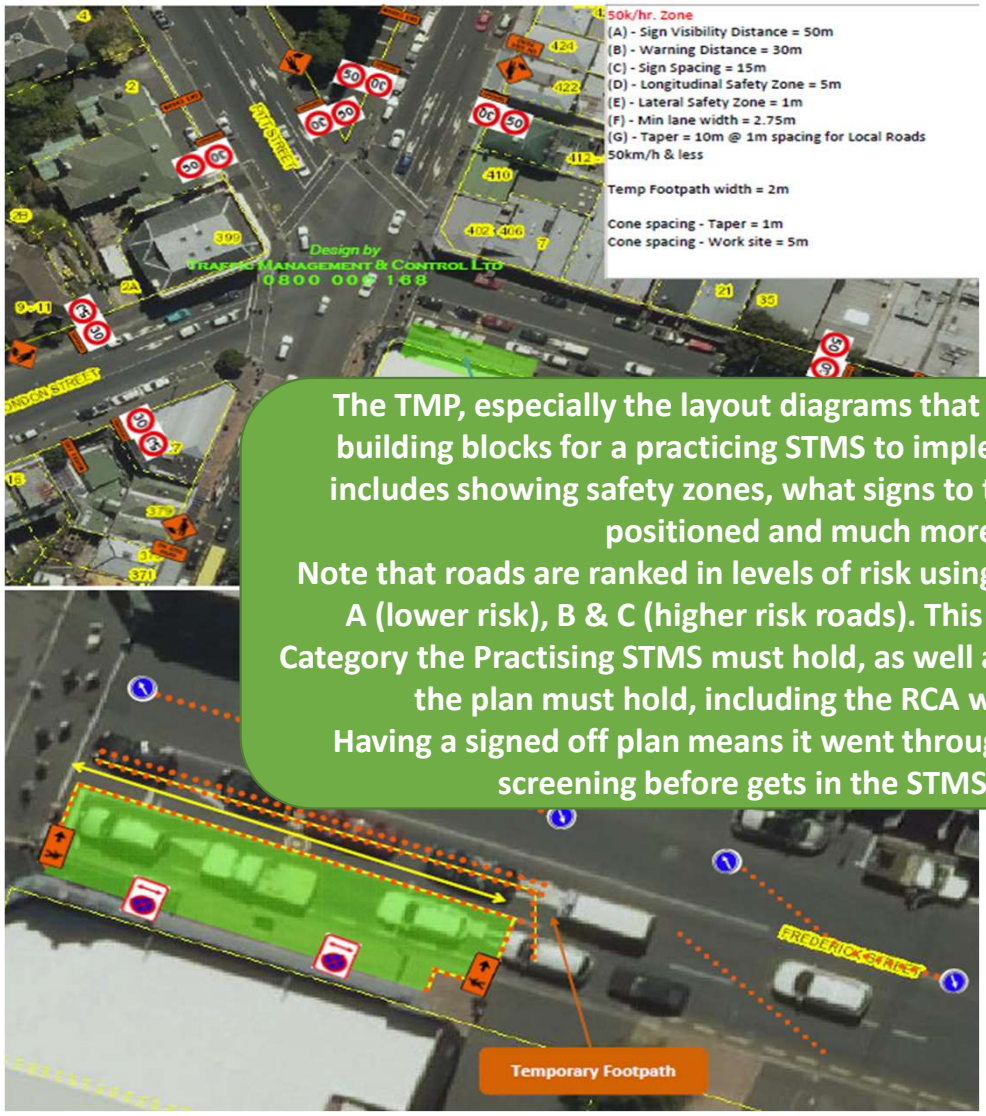
Start date	18th July 2016	Time	24/7 (avoid peak traffic flows 8am & 5pm)	End date	30 September 2016	Time	24/7 (avoid peak traffic flows 8am & 5pm)
Consider significant stages, for example:	A majority of the work is to be completed end July & all August 2016						
Alternative dates if activity delayed	N/A						

Road aspects affected *(delete either Yes or No to show which aspects are affected)*

Pedestrians affected?	No	Property access affected?	No	Traffic lanes affected?	No
Cyclists affected?	No	Restricted parking affected?	No	Delays or queuing likely?	No

Proposed traffic management methods

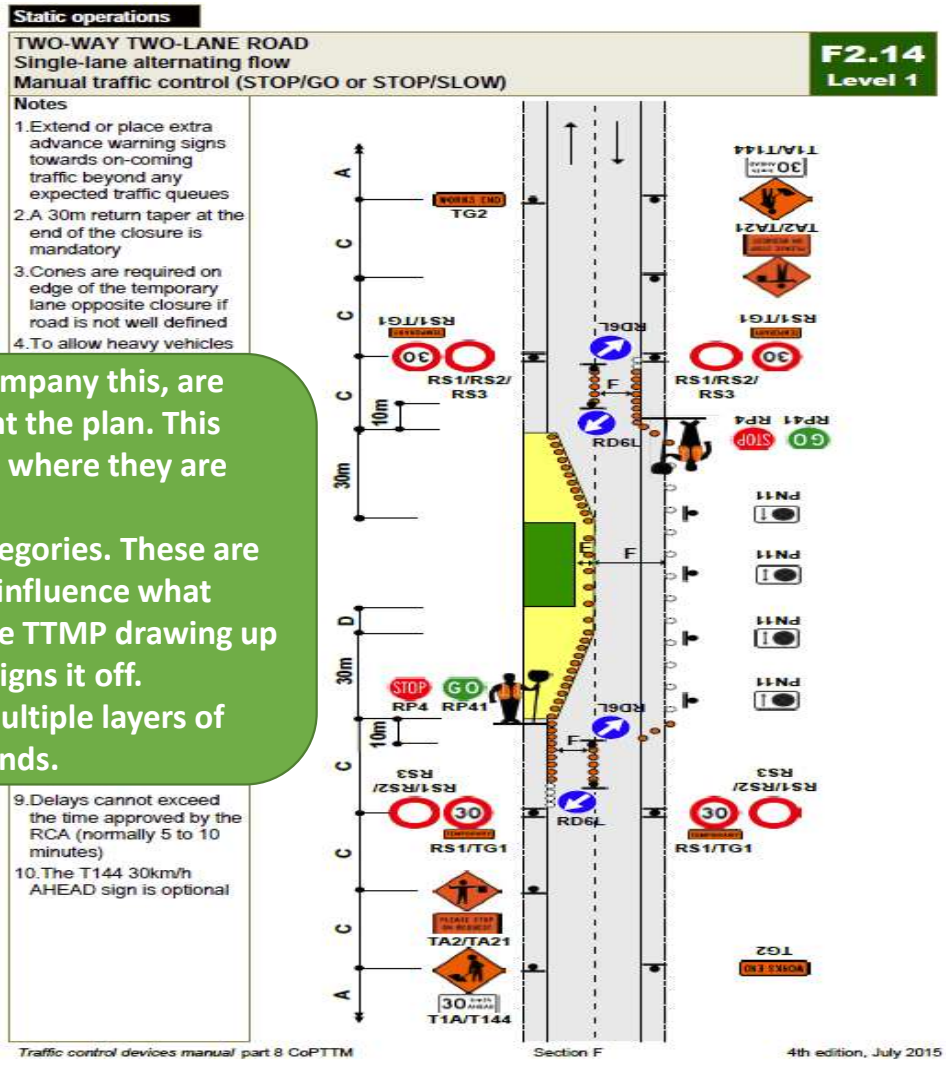
Installation *(includes parking of*	Vehicle setup signage clear off the live lane in a safe position that does not interfere with traffic flows TTMC-W Hi Vis Vests, Hazard Lights & Flashing Beacons all on

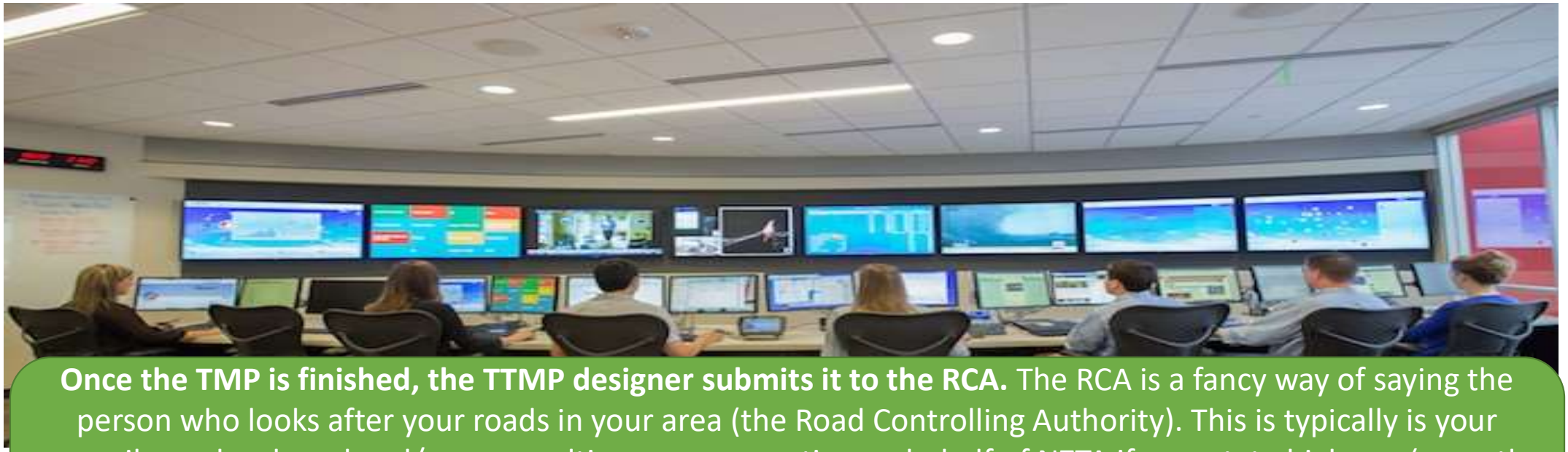


The TMP, especially the layout diagrams that accompany this, are building blocks for a practicing STMS to implement the plan. This includes showing safety zones, what signs to take, where they are positioned and much more.

Note that roads are ranked in levels of risk using Categories. These are A (lower risk), B & C (higher risk roads). This will influence what Category the Practising STMS must hold, as well as the TTMP drawing up the plan must hold, including the RCA who signs it off.

Having a signed off plan means it went through multiple layers of screening before gets in the STMS's hands.

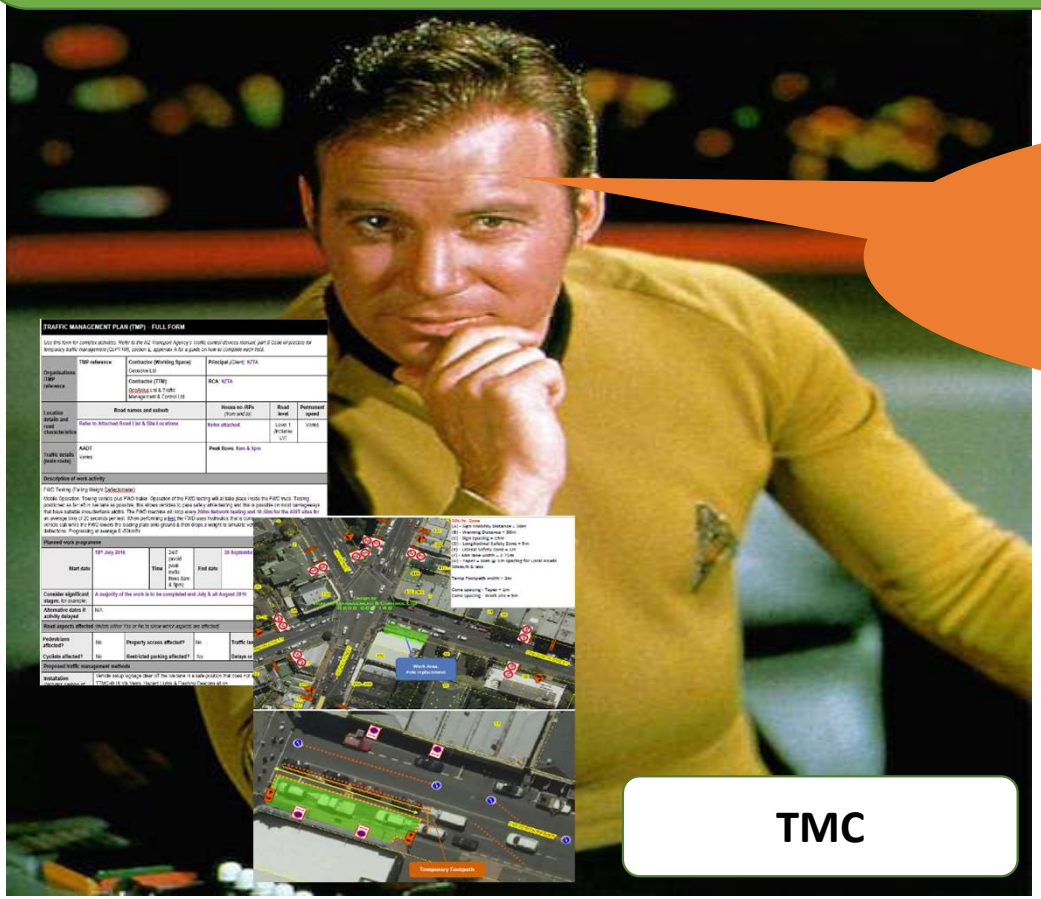




Once the TMP is finished, the TTMP designer submits it to the RCA. The RCA is a fancy way of saying the person who looks after your roads in your area (the Road Controlling Authority). This is typically is your council on a local road and/or a consulting company acting on behalf of NZTA if on a state highway (recently this has tended to be the NOC Contractor).

Today we shall think of the RCA as the Starship Enterprise as our example to understand the structure! The control center knows their network inside out and has the most knowledge about it.

The TMC (Traffic Management Coordinator) is a fancy way of saying the person within the RCA and today for us lets think of this as Mr James T. Kirk. This is who will sign off the TMPs that our TTMP prepared.
Don't worry - you will get to know these people well and build important relationships. Think of them as the safety net as they will review your TMP and suggest changes and or give guidance when necessary. Under the new NZTA training model they also would have to attend and achieve the TTMP qualification. We'll all be talking common language!



TMC

I'll give you a tip: I'm a busy man so give me at least 5 working days notice! This is the minimum requirement when sending me a TMP for lower categories roads and simpler jobs. This gives me enough time to check your plan before you take off. And I have a lot of plans firing my way all the time, so be patient.

RCA

The RCA & TMC are like your mechanic shop who are qualified to sign off and give your Car (TMP) a Warrant of Fitness. It's a safety net, to check that it complies with the rules (CoPTTM).

Know your TMP is safe to use onsite!

Just because Pinky the mouse (our TTMP designer) designed his amazing TMP, it doesn't mean he has the practical knowledge to establish the site or be the STMS onsite. This is listed on the TMP separately.

Engineer/TMC to complete following section when approval or acceptance required

Approved by TMC/engineer (delete one)	SCZAMAE	22/5/16		463	STMS	3/9/18
	Name	Date	Signature	ID no.	Qualification	Expiry date

Once Captain Kirk (who generally works for the RCA) sends the TMP back approved from the Starship Enterprise (RCA) then the delegated Practising STMS may setup the site.

Step 2: The TTM site is then setup in accordance with the approved TMP and the Practising STMS looks after & maintains the work site - that's their area of expertise.

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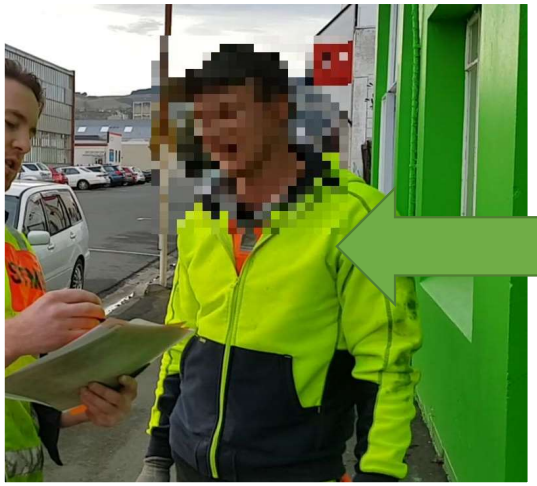


STMS toolbox briefing.

TMP must stay onsite!

STMS remains on site at all times or Captain Kirk (AKA your TMC) may shut the site down!

They often spot check and audit the site using a Site Condition Rating form to compare what was approved with what was then implemented.

The Practising STMS also looks after contractors who may need access, safety zones, pedestrians, road users and much more, as per their training (all of these things are recorded on the 2 hourly On-Site Record form, a fancy way of saying we check the whole site at least every 2 hours and document that as evidence in case we need it)

Worksite monitoring

TTM to be monitored and 2 hourly inspections documented below.

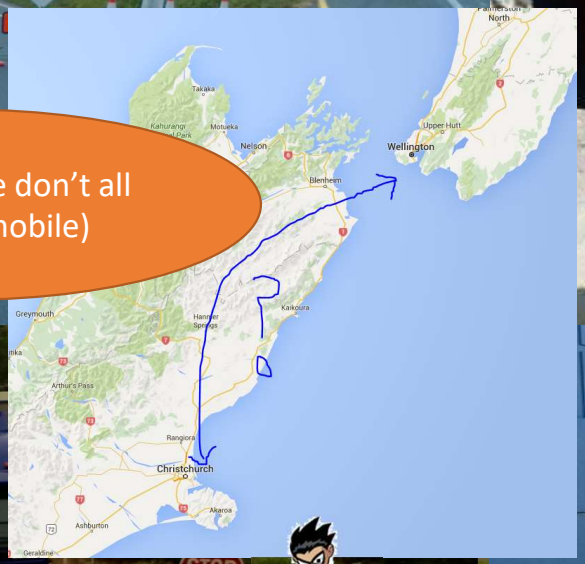
Items to be inspected	TTM set-up	2 hourly check	2 hourly check	2 hourly check	2 hourly check	2 hourly check	TTM removal
High-visibility garment worn by all?							
Signs positioned as per TMP?							
Conflicting signs covered?							
Correct delineation as per TMP?							
Lane widths appropriate?							
Appropriate positive TTM used?							
Footpath standards met?							
Cycle lane standards met?							
Traffic flows OK?							
Adequate property access?							
Add others as required							

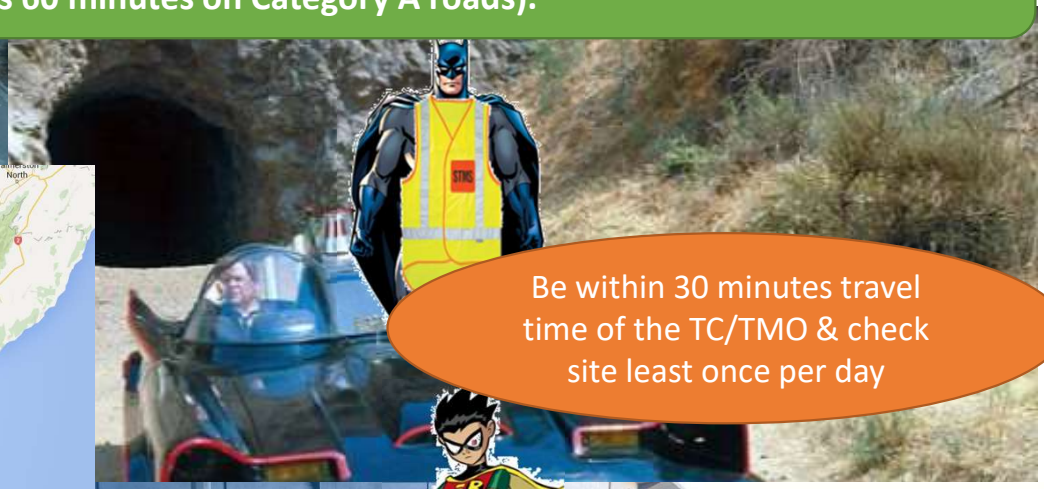
Other roles like Stop/Go workers will have some of the entry level qualifications like TTM Workers & Traffic Controllers that assist the STMS in charge.

If the STMS wants to leave the site to fight other battles then he must find & delegate to a qualified Practising Traffic Controller (TC/TMO) in this situation its Robin who has good entry level practical experience to manage TTM aspects when the STMS is not present, who then must stay onsite at all times & completes the 2 hourly checks for the STMS. When you're not a home you normally delegate the next suitably experienced person to look after the kids, think of it that way we need someone to still manage the TTM site.

In order for Batman (STMS who remains in charge) to be able provide support to his TC/TMO (Robin) in the event he needs help or support then Batman must remain within 30 minutes travel time of the site and check on Robin at least once a day.
If the site is left unattended (TTM left up and no workers onsite) the STMS also must check the site once a day and be within specified travel times (typically this is 60 minutes on Category A roads).

Be realistic (we don't all own a bat mobile)

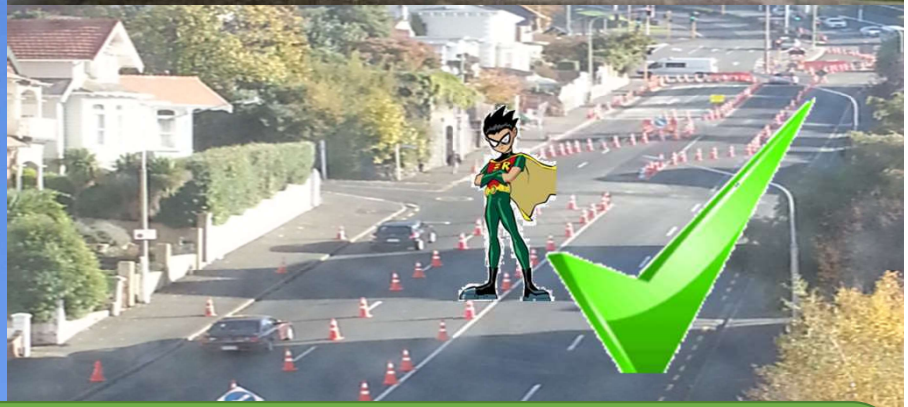


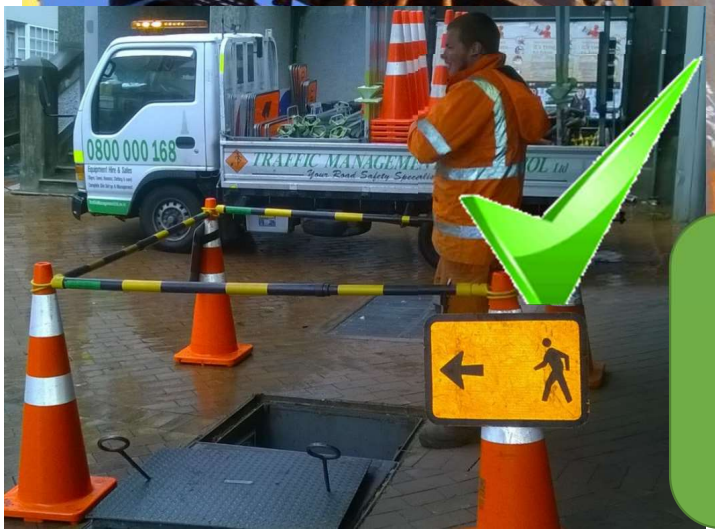


Be within 30 minutes travel time of the TC/TMO & check site least once per day

Even Batman can't fight too many battles at once, so to play fair & take your role as STMS seriously its capped to maximum of 6 Active sites if delegating to TC's/TMO's in charge of the worksite.

The TC/TMO left in charge or the STMS onsite must be onsite! Not on top of a building, they should be on the ground where they can manage the TTM activities. Otherwise how can they react in the event the public needs help or the site needs changed?

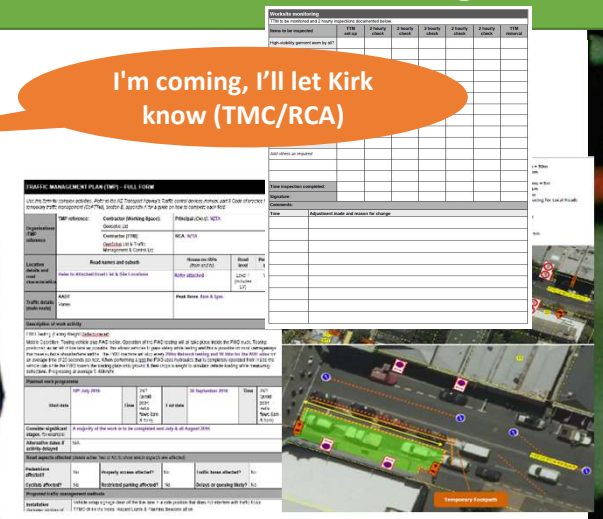


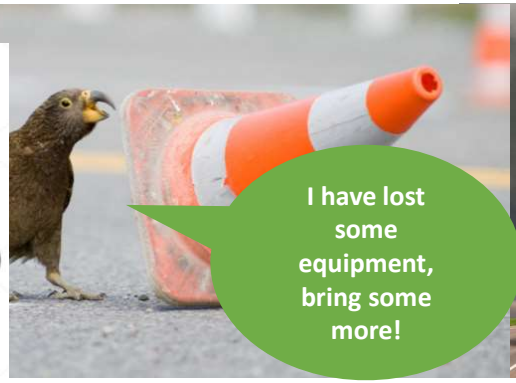


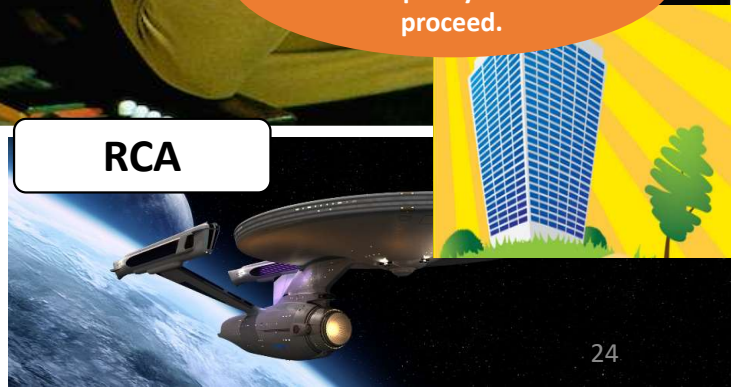
The TC/TMO or STMS can have dual roles, providing the traffic management (site) duties are the priority! I.e. they are in a position where they can help/look after the site.
Its not rocket science that some roles you wont be able to do both!

If things change, the approved TMP details contingency options or chat to Kirk your TMC from Starship Enterprise.

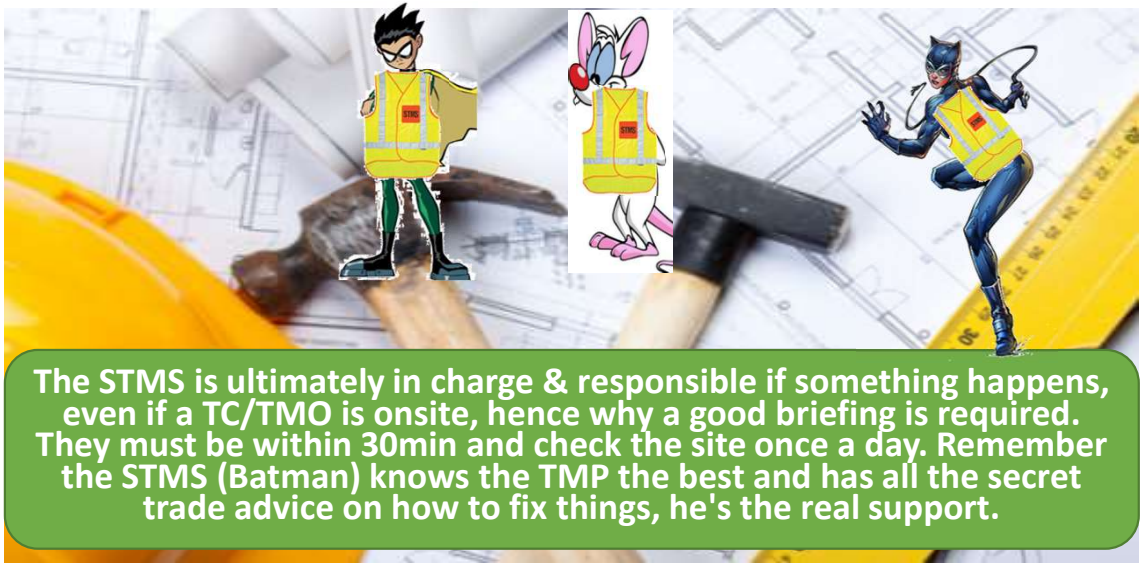
The TC/TMO can not make sufficient changes, they are there to maintain the site. If you do need support then call the STMS to return. When we do make changes or have issues around how a TTM site is operating, also inform TMC/RCA. Document these changes on the TMP & On Site Record form.







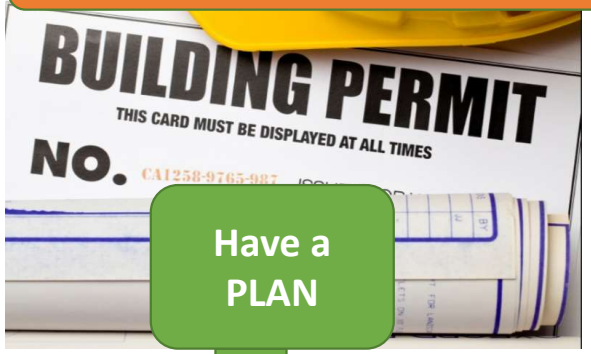
Remember, the TC/TMO (Traffic Controller) is just like having your learner licence: you're not in charge, the STMS is so seek their advice, contact them when needed, don't change the site without their knowledge as they are ultimately responsible and liable for the TTM site.



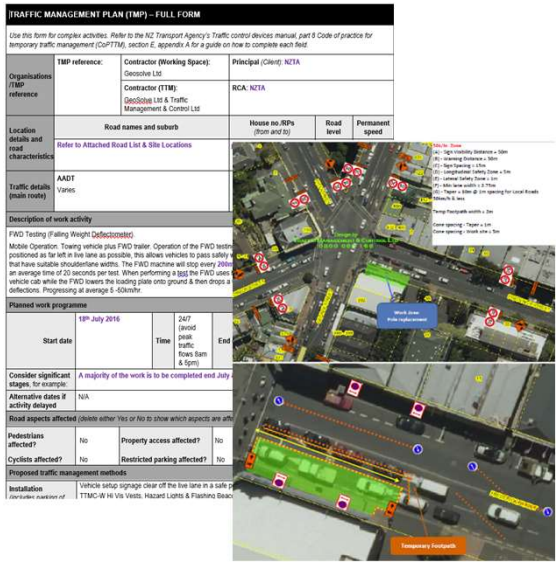
The STMS is ultimately in charge & responsible if something happens, even if a TC/TMO is onsite, hence why a good briefing is required. They must be within 30min and check the site once a day. Remember the STMS (Batman) knows the TMP the best and has all the secret trade advice on how to fix things, he's the real support.

Like any industry, someone is always ultimately in charge of the other workers onsite - on the road this is the STMS.

To sum things up - Comparing other industries to the NZTA CoPTTM:



Have a PLAN



Member

Qualified & trained staff onsite

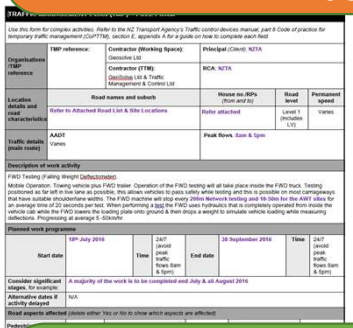
MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

NZ BUILDING ACT

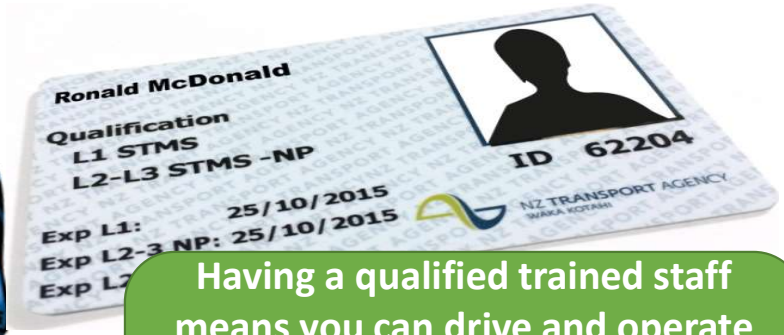
Follow the code for your industry

Authorities in charge to check & audit these processes to ensure compliance .

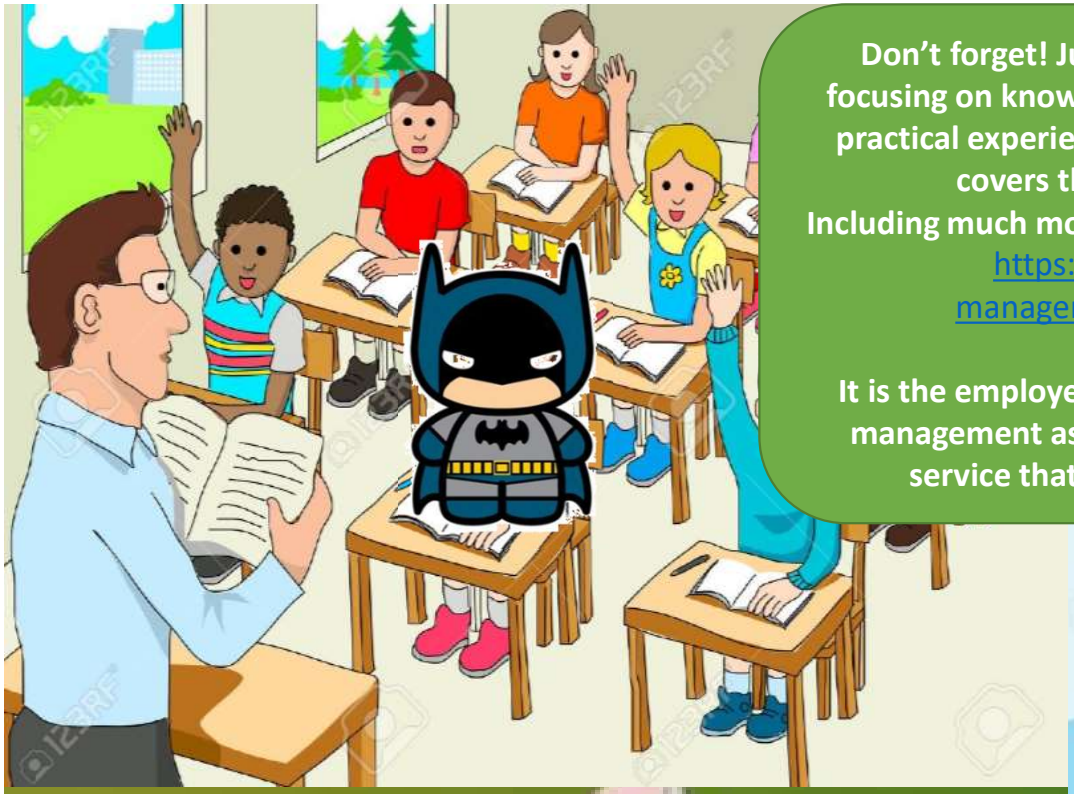
If you take the driver out of the car while moving its very hard to control the car. This is the same as having no qualified STMS/TC/TMO onsite to look after the TMP. And we all know what could happen if you don't have the correct licence to operate a car so the same logic for an active TTM worksite as a car?
Last of all a car with no WOF is as unsafe as a TMP that has not been signed off.



Having a signed off TMP (plan) is like having a WOF on a car, its safe to operate once approved

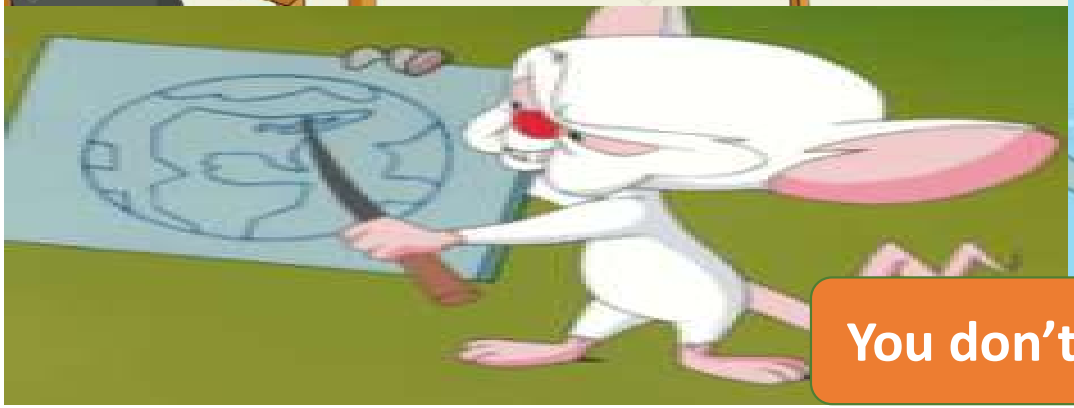


Having a qualified trained staff means you can drive and operate that TMP safely, now you can safely setup your site & prepare TMP (Plans) if you have correct qualification for your role.



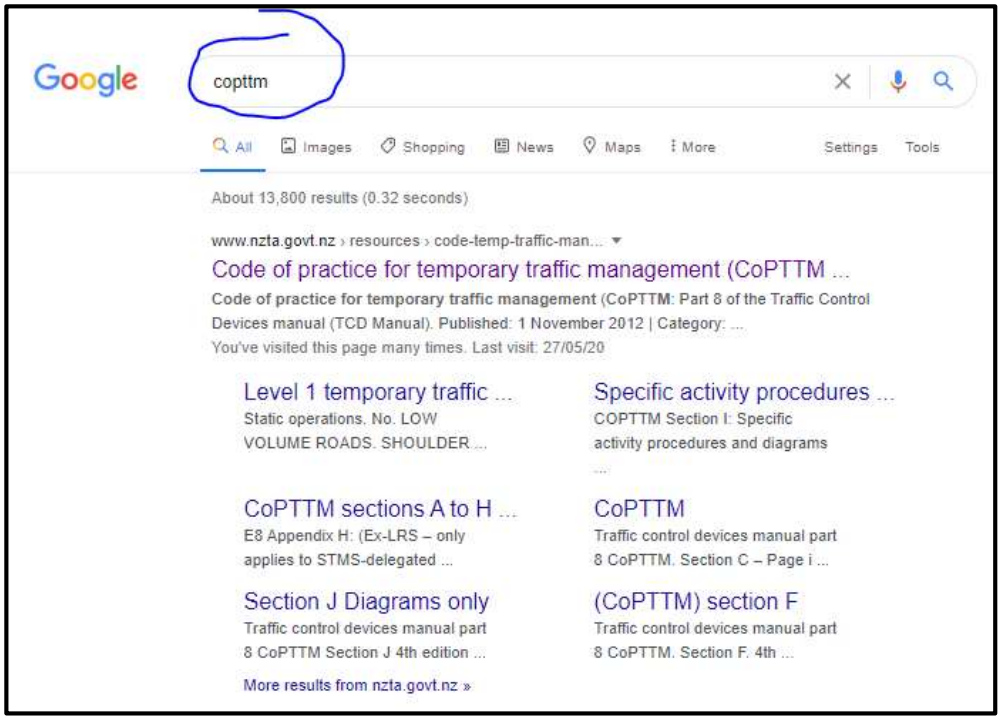
Don’t forget! Just because you attended a course which was held in a classroom focusing on knowledge-based learnings and passed this theory course, you still need practical experience in order to be competent onsite. The new NZTA training model covers this, and all steps you need to take to achieve various roles.
Including much more in-depth information about the roles we talked about here today.
https://www.nzta.govt.nz/assets/resources/code-temp-traffic-management/docs/2019/Training-and-Competency-Model-v5.3.pdf

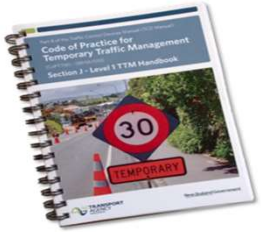
It is the employer’s responsibility to understand this process if involved with traffic management as part of your business or if you will be exposed to it as part of the service that you provide. You can’t throw your worker into the deep end.



You don’t turn into a fully grown Batman overnight

How to find training info and where to find the code (free to download) & remember we are not expected to remember everything, just know where to look. https://www.nzta.govt.nz/resources/code-temp-traffic-management





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