

Traffic Signals Design Guidance



Development Framework and Hot Topics

Morning all,

We have around a 15-minute slot to discuss the traffic signal design guidance which myself and other committee members have been undertaking in the background on the lead up to this year's conference.

I'm planning to present for around 10-minutes on the framework and initial hot topics from the committee workshop on the first signal guidance draft.

However, I am keen to open the floor to possible suggestions and feedback from conference delegates.

Introduction

The following presentation provides information on the development of the national signal design guidance.

The purpose is to deliver an update on development of the guidance, whilst discussing the hot topics from initial committee workshop which took place Thursday 22 August.

The key updates are as follows:

- ▶ Guidance ownership
- ▶ Committee preparation
- ▶ Delivery timelines (incl. reviews, feedback and updates)
- ▶ Hot topics from initial workshop



The purpose of this presentation is to provide information on the development of the new signal design guidance.

The development of a guidance document has been discussed for some time, but there hasn't been a huge amount of development in this space, hence why are underway with a guidance to support Consultants and others undertaking design work for traffic signals.

The committee have also seen a potential to upskill the industry, and we are hoping that this will provide some consistency across the regions for traffic signal design.

There is also an opportunity for feedback from conference delegates and it would be great to hear everyone's thoughts.

I will also discuss some of the initial challenges, expected delivery timelines, hot topics from the workshop which was undertaken last month.

Guidance Ownership

There are several potential signal design guidance ownership streams.

Org	Pros	Cons
SNUG	<ul style="list-style-type: none"> Easier to manage/ revise the document. Dedicated team responsible for the guidance. Developed in-house by SME's (Councils, TOCs, Maintenance Contractors and Consultants) 	<ul style="list-style-type: none"> Time available outside of day-to-day jobs. Will the industry adopt the document if not recognised by e.g. NZTA.
NZTA Waka Kotahi	<ul style="list-style-type: none"> Platform for circulating the latest and greatest guidance. Linking with P43 and other ITS standards and Specs. Developed in-house by SME's. 	<ul style="list-style-type: none"> Likely a longer process to deliver. No direct access to make amendments. Required to coordinate with internal NZTA teams.
Transportation Group - Engineering NZ	<ul style="list-style-type: none"> Circulate between transport professionals. Platform for receiving feedback. Developed in-house by SME's. Adopting best practice 	<ul style="list-style-type: none"> Funding mechanism Access and management Development Writing support
TCD	<ul style="list-style-type: none"> Existing links with TCD (through Jeff) and NZTA Waka Kotahi. 	<ul style="list-style-type: none"> Likely a longer process to deliver. No direct access to make amendments. Required to coordinate with internal NZTA teams.

Initial challenges with the guidance was identifying who would take guidance ownership. Here are some of the initial pros and cons of possible ownership of the guidance.

NZTA are keeping a close eye on how things develop in this space, with a possible future alignment with NZTA P43 Specification, however from a committee perspective we were keen to keep it in-house through SNUG to ensure we can at least have our say, before we consider possible other ownership streams in the future.

Development Team

A dedicated SME (SNUG) team comprising of:

Eddie Fitton (AT)

Stephen Wright (CCC),

Chris Bealing (NZTA)

Alex Lumsdon (BECA)

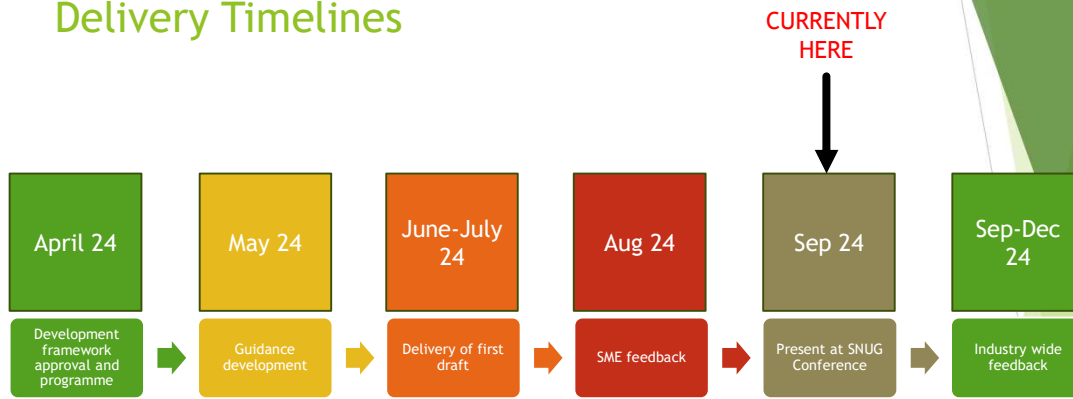
Note - any feedback can be discussed with the above sub-group members.

There was a sub-group team in charge of preparing the initial guidance draft.

A team consisting of Eddie Fitton, Stephen Wright, Chris Bealing and myself were setup to help progress the guidance and move it in the right direction.

The committee looked at several ways to develop the guidance, however the SNUG committee prepared a brief for Consultant writing support to ensure we could meet the 2024 deadline for industry wide feedback.

Delivery Timelines



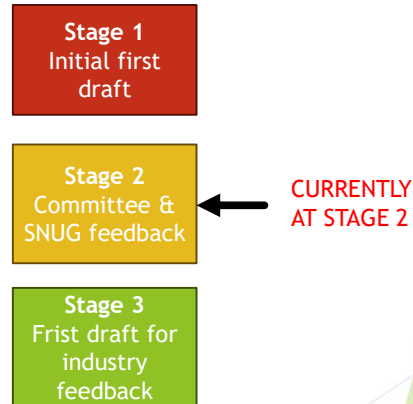
Shown above are the key delivery timelines for the signal design guidance. Our intention is to deliver a first draft for industry wide feedback by the end of September 2024, with the vision of having a guidance ready by the end of the year.

Reviews & Feedback

- ▶ SME Workshops prior to SNUG conference
- ▶ Facilitate SNUG presentation

- ▶ Receive feedback from SNUG committee
- ▶ Receive feedback at the SNUG conference from delegates.

- ▶ Prepare first draft for industry wide feedback (post SNUG conference - September 2024)



We prepared an initial first draft for committee comment in August, followed by a workshop.

We are currently at Stage 2 which and working through committee comments and feedback, with the intention to get some feedback from the floor on some of the initial hot topics.

Intention is to prepare an industry wide document for circulation by September 2024.

Hot Topics

- 1 Inconsistent approach to signal drawing layouts across the regions.
- 2 More context or guidance around filter turning at signalised intersections.
- 3 Vehicle signal group numbering vs vehicle approach numbering.
- 4 More context or guidance on cycle signal movements, numbering and inputs.

5 Above ground detection, more guidance on when to use it.

6 Designer awareness for lantern arrangement and avoiding overloading poles.

7 Left turn vehicle movements vs conflicting cycle or pedestrian movements.

8 When to use certain pole types such as mast arms and JUSP poles.

9 Limited design examples for Consultants to work towards for various regions.

Floor discussion

Keen to hear any additional thoughts and considerations

- ▶ Are there any problems, concerns, issues or things to be aware of?
- ▶ Are there particular subject matters which need further explanation or guidance?
- ▶ What do designers find difficult with traffic signal design?

Now is the opportunity to have **your** say!