MEMORANDUM State of Alaska

Department of Transportation & Public Facilities

Design and Engineering Services – Central Region

Highway Design

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| **TO**: | File | **DATE**: |  |
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|  |  | **TELEPHONE NO**: |  |
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| **FROM**: |  | **SUBJECT**: | Temporary Traffic Control Plan |
|  |  |  | Project Name |
|  |  |  | Project Number |

This Temporary Traffic Control Plan (TTCP) has been prepared to summarize and provide details for the temporary traffic control methods necessary for construction of the **PROJECT NAME** project.

The Alaska Department of Transportation & Public Facilities (DOT&PF) requires a TTCP that identifies what traffic control devices to use and show their location and operation in a work zone to ensure traffic flow. This plan informs the contractor with Design’s assumed phasing and plans to construct the project.

It’s recognized that different contractors will have various methods for controlling traffic and safety and additional TTC drawings may be needed. All TTC drawings must adhere to the Alaska Traffic Manual and Chapter 9 of the AASHTO Roadside Design Guide.

This TTCP includes plans and detail drawings, special provisions, and typical applications from the ATM. Alaska Standard Plans C-03, C-04, C-05, and C-06 are included in the plans for temporary pedestrian accessible routing, location of double traffic fine signs, interim pavement markings, roadside safety treatment for work zones.

Designer: Include Regional Traffic Control Details showing additional portable message boards.

See the project special provisions for specific traffic restrictions. A summarization of allowable work includes:

Designer: Summarize the allowable work (i.e. only night work, no work on weekends). Do not repeat the 643 specifications.

Refer to the project specifications for further guidance on public information efforts and agency coordination requirements.

Staging Narrative:

If your including staging, provide a narrative of what work is included in each stage. This can either be provided in the memo or within a plan sheet. Provide typical sections as needed to support your narrative and TTCP.

1400.3.4 Traffic Control Plans

Traffic control plans are required on all highway projects where work occurs in a State maintained right-of-way.

Do not seal TCPs, except as noted below, as TCPs are commonly field modified during construction. When TCPs are not sealed, do not include them in the plans.

Seal temporary traffic signal systems and geometric designs for 45 mph posted speed (prior to construction), or higher, detour or bypass routes.

On projects where the work is outside the clear zone but the activities may impact traffic flow, consider whether a TCP is desirable or necessary. Signing and flagging for truck crossings are examples of traffic control that may be desirable or necessary when work is accomplished outside the clear zone only.

Phasing

TMPs assume a certain phasing of events. For example, the designer expects new embankment to be built first, and traffic routed onto it.

The contract documents should inform the contractor the assumed phasing. If the contractor does not know the assumed phasing and plans to construct the project differently, the TOP, Public Information Plan, and TCPs may no longer work.

Scope, Preparation and Detail

Prepare all TCPs to be consistent with the ATM and Chapter 9 of the AASHTO Roadside Design Guide.

The ATM sets forth basic principles and prescribes standards for the application, installation, and maintenance of various traffic control devices for highway and street construction. However, it does not address all potential traffic situations in work zones. Tailor TCPs to specific project conditions and requirements.

The scope and detail of a TCP will depend on project complexity and the extent to which construction interferes with traffic flow. TCPs may include:

• Plans and detail drawings

• Special provisions

• Typical applications from the ATM.

In developing a TCP:

• Consider if there is enough room within the right-of-way for both the construction activity and a travel route. If not, consider obtaining temporary construction permits.

• Verify that any temporary, constructed diversions meet acceptable geometric and structural standards for the posted speed limit and design vehicle. Detours routed onto existing streets do not require adjustment to geometric standards, but should be evaluated for the ability of the design vehicle to travel on the detour.

• Confirm that any detours or diversions comply with the environmental document and project permits.

• Verify that traffic volumes can be adequately handled with available lanes at all hours.

• Provide access to businesses, residences and work zones if feasible. If access cannot be provided to businesses or residences, coordinate with the ROW section to see if specific agreements are needed.

• Provide for non-motorized traffic accommodations, including ADA accessible routes when they currently exist.

For all projects:

1. Establish times and dates, if any, when lane and/or road closures are prohibited. This may include requirements for night and/or weekend work.

2. Provide guidance for mitigation of specific safety concerns, when any exist.

3. Consider establishing allowable delay/queue standards.

4. Consider whether road volumes under anticipated construction conditions need evaluation.

5. To minimize worker exposure to traffic and exposure of road users to construction activities, consider including the following exposure control measures:

a. Road or ramp closures

b. Detours c. Median crossovers

d. Accelerated construction techniques

e. Night or off-peak work hours\* (noise permits or variances may be necessary for night work.)

\* A detailed procedure for assessing the feasibility of performing highway work at night is provided in NCHRP Report 475, “A Procedure for Assessing and Planning Nighttime Highway Construction and Maintenance.”

6. Identify whether and under what conditions to install positive protection devices. In making this determination, consider the following factors:

a. Project scope and duration

b. Anticipated traffic speeds through the work zone

c. Anticipated traffic volumes

d. Vehicle mix

e. Type of work (as related to worker exposure and crash risks)

f. Distance between traffic and workers, and degree of worker exposure

g. Escape paths available for workers to avoid vehicle intrusion into the work space

h. Time of day the work occurs (e.g., night work)

i. Work area restrictions (including impact on worker exposure)

j. Consequences from/to road users resulting from roadway departure

k. Potential hazard to workers and road users presented by device itself and during device placement and removal

l. Geometrics that may increase crash risks (e.g., poor sight distance and sharp curves)

m. Access to/from work space

n. Roadway traffic volume and speed

o. Impacts on project cost and duration In particular, consider installation of positive protection devices under the following conditions:

a. Work zones that provide workers no means of escape from motorized traffic (e.g., tunnels, bridges, trenches, etc.)

b. Long term stationary work zones

c. Projects with anticipated operating speeds of 45 mph or greater, especially when combined with high traffic volumes

d. Work operations that place workers close to travel lanes open to traffic

e. Roadside hazards, such as drop-offs or unfinished bridge decks, that will remain in place overnight or longer

7. Consider truck mounted attenuators for short duration or mobile work on roads with a posted speed of 45 mph or greater and in other areas as appropriate.

8. Consider a visit to the project site during preparation of TCPs to verify access, location of signs and other devices, presence of utilities or other obstructions to the work, and adequacy of detour routes.

Work Zone Roadside Safety

Provide direction in the specifications or drawings on

• How to treat roadside slope or obstacle hazards

• Required construction clear zone

• How to treat pavement drop-offs

• Acceptable channelization devices, barriers, and barrier end treatments

Pre-existing roadside safety hardware should be preserved or improved for use until the progress of construction necessitates its removal. From that time until permanent roadside safety hardware is installed, describe how to maintain roadside safety hardware in the plans and specifications.