



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Transportation and
Public Facilities

OFFICE OF THE COMMISSIONER
John MacKinnon, Commissioner

PO Box 112500
Juneau, Alaska 99811-2500
Main: 907.465.3900
dot.alaska.gov

March 3, 2020

The Honorable Jennifer Johnston
Co-Chair, House Finance Committee
Alaska State Capitol, Room 511
Juneau, AK 99801

The Honorable Neal Foster
Co-Chair, House Finance Committee
Alaska State Capitol, Room 505
Juneau, AK 99801

Dear Representative Johnston and Representative Foster:

Please see the information below in response to questions posed by the members of the House Finance Committee on Monday, March 2, 2020, regarding House Bill 186 and House Bill 223.

1) In response to questions and comments regarding the cost estimate for proposed signage required for HB186, "Irene Webber Bridge":

The bridge is currently unnamed. The regional maintenance and operations chief has confirmed there is no existing signage or hardware that could be reused to reduce the cost estimate.

2) In response to questions regarding the difference in cost estimates for signage required by HB186, "Irene Webber Bridge", at \$9,680.00, and HB223, "Vietnam Helicopter Pilots' Memorial Bridge" at \$6,000.00:

In providing signage cost estimates, the Department of Transportation & Public Facilities (DOT&PF) accounts for several variables, including site considerations, sign size, and sign layout. The effects of site, size and layout on the proposed signs are:

- **Both bills:** Letter height, letter spacing, line spacing, and other internal dimensions are consistent with federal and state guidance, and the overall sign sizes are as expected given the proposed sign verbiage and the traffic speed through each of the facilities.
- **HB 186:** The proposed bridge sign layout is typical of what the department installs. A guardrail is not present on this low volume highway so breakaway hardware is required on the posts to make the installations crashworthy in accordance with the Roadside Design Guide (RDG, issued by the American Association of State Highway

"Keep Alaska Moving through service and infrastructure."

and Transportation Officials), an additional cost of \$3,000.00. Site conditions also allow or this more typical standard sign layout because side slopes are not unusually steep.

- **HB 223:** The proposed bridge sign requires a multiple line layout. The location further constrains the width of the sign because of the site conditions. Steep side slopes result in a narrower sign layout. Otherwise, post lengths required to maintain minimum sign height become unreasonable. Because of the steep slopes, the presence of a guardrail, breakaway hardware is not required. The proposed layout for HB 223 is unusual and not ideal from a traffic engineering perspective but is necessary given the sign verbiage and the site conditions. The narrower layout results in fewer posts required for the installation.

The following points offer more information on the above variables:

- 1) **Site considerations:** Side slopes, presence of guardrail, facility speed, traffic volume, and more.
- 2) **Layout considerations:** The Manual on Uniform Traffic Control Devices (or MUTCD, issued by FHWA) asks practitioners to convey clear, simple meanings (Sec. 1A.02) while keeping word messages as brief as possible (Sec. 2A.13). To that end, we try to minimize the number of lines within a sign to make it easier on drivers to process information. Even signs without a direct traffic control message (like a memorial sign) should follow this guidance. DOT&PF standard S series plans are used to determine post size and spacing.
- 3) **Size considerations:** Certain dimensions (letter height, letter spacing, line spacing, buffer spacing, border spacing) within a sign are standardized within the MUTCD and our Alaska Traffic Manual Supplement based on speed of the highway.

If you have any further questions pertaining to the department's estimates for signage fabrication costs, please feel free to contact Mike Lesmann at 465-4772.

Sincerely,



John MacKinnon
Commissioner

cc: House Finance Committee Members
Suzanne Cunningham, Legislative Director, Office of the Governor
Mike Lesmann, Legislative Liaison, DOT&PF