

To: All HQ Directors: Prof. Services, Planning & Major Projects
All Regional Managers: Prof. Services, Planning & Operations
All District Highways Managers

Subject: Policy for Type 1 and 3 Sign Poles

References:

Highway Engineering Electrical Standards Manual, BC MoTH

PURPOSE:

To clarify the Ministry's Policy with regard to the design loading on directional and advance warning signs.

BACKGROUND:

Type 1 and 3 poles are currently used for overhead 2.4 m wide by 1.2 m high directional and advance warning signs. Type 1 and 3 poles can be mounted on breakaway bases (not frangible) within the clear zone, thus eliminating the need for CRB protection. These poles are currently overloaded in many areas of the Province. The Ministry has not had any documented structural failures of Type 1 and 3 davit sign poles since implementation approximately 30 years ago. To reduce costs, the Ministry Executive has made a risk management decision to continue the use of the above noted sign poles within the limitations defined below.

PROCEDURE:

The following Design and Monitoring procedures shall be followed by design and maintenance personnel when planning for the installation of new signs and the replacement of existing signs:

Design:

- Use Type 1 and 3 sign poles in areas with 1 in 10 year return period wind pressures of 430 and 485 Pascals respectively. This allows the use of Type 3 poles in all areas EXCEPT for: Masset, Agassiz, Sandspit, and Tofino. Type 1 poles may be used in Regions 2, 3, 4 and 5 ONLY. These poles are overloaded by 31% using a 1 in 10 year return. A 1 in 50 year wind return period is normally selected for overhead signs

but since these signs are in most cases mounted over the shoulder, a 1 in 10 year wind pressure is deemed to be more applicable.

- Type 1 and 3 poles shall have a breakaway base when installed within the clear zone. The use of aluminum frangible base for Type 1 and 3 poles shall be discontinued.
- Pole loading shall be verified by the Ministry's Pole Capacity program.
- Service panel entrances require a welded bushing as shown on Standard Specification drawing SP235-2.4.1
- Where the overloading of Type 1 and 3 poles exceeds 31%, use heavier poles such as the Type L poles with barrier protection, if the clear zone is violated.

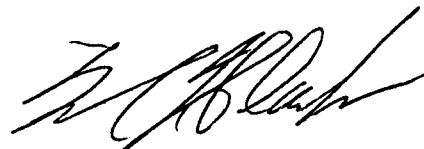
Monitoring:

- The Senior Electrical Engineer shall be notified, in writing, of any pole failures. Identify the type of pole, how the pole failed (i.e., natural causes such as wind or unnatural causes such as being struck by a vehicle) and the nature of the pole damage. If the failed pole had a frangible base, indicate where the pole landed.
- The Senior Electrical Engineer shall produce a yearly summary report of pole failures to the Chief Highway Engineer by June 15th.

CONTACTS:

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cc: ADM Highways Operations
ADM Planning & Major projects
All Regional Directors

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195-20/TCIR



Province of
British Columbia

Ministry of
Transportation
and Highways

MEMORANDUM

To: See Distribution

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RECEIVED	
AUG 13 1996	
LOG	<i>[Signature]</i>
NOTED	<i>[Signature]</i>
TRANSPORTATION & HIGHWAYS	

Construction and Maintenance
Branch
Phone: 387-7605
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August 12, 1996

Re: T-Circulars

Attached are T-Circulars:

T-1/96 Policy for Type 1 and 3 Sign Poles; and,
T-2/96 Policy for Pole Loading on Rehabilitation Projects

If you have any questions related to the circular, please refer them to the contact person noted in the circular. If you have any questions related to distribution and status of the circular contact the Manager of Operations Policy.

John Shaw
Manager, Operations Policy

/jrs

attachment