

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC SAFETY DIVISION)

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: CROSSING REVIEW, HOLDOM AVENUE AT FRANCES STREET

RECOMMENDATIONS:

1. **THAT** Council approve installation of a marked crosswalk on the south leg of the Holdom/Frances intersection including overhead signing with downlighting.
2. **THAT** a copy of this report be forwarded to Dr. David Mirhady of 5055 Venables Street, Burnaby, BC V5B 1X8.

REPORT

The Bicycle Advisory Committee, at its meeting held on 2002 October 11, received and adopted the attached report responding to concerns raised by Dr. David Mirhady regarding motorist visibility of the heavily used Frances Street crossing at Holdom Avenue. The Bicycle Advisory Committee recommended that the Traffic and Transportation Committee (Traffic Safety Division) give consideration to installation of a marked crosswalk on the south leg of the Holdom/Frances intersection including overhead signing with downlighting.

The Traffic and Transportation Committee (Traffic Safety Division), at its meeting held on 2002 January 15, endorsed installation of the above noted marked crosswalk.

Respectfully submitted,

Councillor D. Evans
Chair

Councillor B. Der
Vice Chair

Councillor G. Begin
Member

: COPY - CITY MANAGER
- DIRECTOR ENGINEERING
- DIRECTOR FINANCE

City of Burnaby

INTER-OFFICE COMMUNICATION

TO: BICYCLE ADVISORY COMMITTEE **DATE:** 2002 01 15

FROM: ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS **FILE:** 55 04 01

SUBJECT: CROSSING REVIEW, HOLDOM AVE @ FRANCES ST

PURPOSE: To respond to concerns raised by Dr. David Mirhady of motorist's visibility of the heavily used Frances Street crossing at Holdom Avenue.

RECOMMENDATION:

1. **THAT** a copy of this report be sent to the Traffic Safety Committee for consideration of the recommended marked crosswalk as discussed in this report (section 3.3).
2. **THAT** copy of this report be forwarded to Dr. David Mirhady of 5055 Venables Street, Burnaby BC, V5B 1X8.

REPORT

1.0 INTRODUCTION

Councillor Nancy Harris, Chair, BAC, forwarded an e-mail from Dr. David Mirhady concerning a lack of crossing facilities on Holdom Avenue at Frances Street to the Traffic/Engineering staff for review. Staff subsequently contacted Dr. Mirhady by phone to discuss his concerns and re-evaluated pedestrian control at this intersection.

2.0 BACKGROUND

Holdom Avenue is a two lane Major Collector road with traffic volumes of approximately 5,500 vehicles per day. Frances Street is a Local road and bike route. Immediately to the east of Holdom the Frances bike route provides access to Burnaby North Secondary School and the Kensington Pitch & Putt. The golf course blocks all east-west travel from Frances south to Curtis Street which in effect funnels pedestrians to this intersection.

There are advance warning signs advising of the presence of bikes on both approaches of Holdom Avenue. There is a signal at Hastings only one block (120 m) to the north. Holdom ascends to Hastings at a grade of 11% which makes a detour to the signal for crossing the road unattractive in some instances. The grade also increases the required stopping distance for southbound traffic. Frances Street east of Holdom has no sidewalks, although the south side has a well worn path in the boulevard area. Initial inquiries indicate the City's Parks Commission would need to approve funding for any improvements made to the path. The north side requires a ditch enclosure and sidewalks, which would normally be provided either by redevelopment or application for a Local Improvement Project by the adjacent properties. Neither option is likely to happen in the near term.

This is a well used crossing location. Observation confirmed that the number of pedestrians exceeds the threshold required to meet the warrant for a marked crosswalk but not a special crosswalk or pedestrian signal as discussed below. Diagram #1 provides a general overview of the area and the current signs and markings.

3.0 REVIEW

There are a number of pedestrian crossing options considered below in ascending hierarchy of control:

- 3.1 **Do nothing** and allow the intersection to function as it has in the past. According to the provincial Motor Vehicle Act intersections are deemed to incorporate crosswalks even if not so marked and pedestrians must be accorded reasonable priority by motorists. This location has operated with relative safety to date, however the increasing number of crossings at this location and the limited east-west corridor alternatives suggest upgrading this location would be in keeping with transportation plan objectives.
- 3.2 Install a **marked crosswalk** in accordance with warrants and application standards on the south leg with zebra style pavement markings and side mounted signs. The cost and ease of installation make this an attractive option. It would probably be an improvement over the current condition, and does not preclude possible future upgrading (3.3 below). We note that a marked crosswalk is used to indicate to motorists that pedestrians may be present. It also invites pedestrians to cross at the installed location. This latter aspect is a concern as it may lead to a sense of overconfidence rather than the cautious prudence required by pedestrians and cyclists as vulnerable road users.
- 3.3 Install **marked crosswalk** on the south leg **with overhead downlight** sign in addition to the standard zebra style pavement markings and signing. This option would be in keeping with installations at other similar locations such as on Duthie and Greystone, which are on the same class of roadway, with similar volumes and associated with urban trail routes. The downlighting helps increase the nighttime visibility, something the previous option does not address. This option provides added protection over 3.2 above, and is **recommended**. The cost of implementing it is approximately \$25,000.

3.4 Install a **special crosswalk or pedestrian signal** as proposed by the correspondent notwithstanding a lack of warrants.

3.4.1 A “**special crosswalk**” has overhead signing and an amber flashing light that is actuated by pedestrians. While the amber light is intended to increase the motorists perception it does not change the rights and duties of motorists and pedestrians as specified in the Motor Vehicle Act for an unmarked crosswalk at an intersection. The special crosswalk is a newer device for B.C. and is now beginning to be understood by pedestrians or motorists.

3.4.2 Due to the proximity of Hastings Street, the relative traffic volume and 11% downhill grade on Holdom, a **pedestrian signal** is also not recommended. In fact installing a signal at this location would actually *increase* the crossing delay for pedestrians. Further, the Pedestrian Crossing Control Manual directs that a pedestrian signal should only be used when all of the following criteria have been met:

- a) *Pedestrian volumes are high and sufficient gaps in vehicular traffic are not available to accommodate the pedestrian demand.*
- b) *The crosswalk location is a minimum of 200m (400m preferred) from an adjacent traffic control signal or special crosswalk.*
- c) *Traffic volumes do not warrant full vehicular signals.*

3.5 Install **traffic calming** measures such as **curb bulges** with a marked crosswalk on the south leg of Holdom Avenue with zebra style pavement markings and side mounted signs. The extended curbs reduce the crossing distance for pedestrians, increase their visibility to drivers, and dampen vehicle speeds, given the reduction in travel lane widths and increased side friction. Typically bulges into Major Collector roads would not be considered as the bulge would normally be placed on the side street entrance. This reversal may overemphasize Frances Street in appearance, which likely would be undesirable to local residents. Also the installation of fixed objects such as curbs in proximity to travel lanes is not desirable on Major Collector roadways. We note that a bike permeable central median, used elsewhere on this bike route, is not a feasible option given left turn access requirements.

4.0 CONCLUSION

Based on our review staff recommend installation of a marked crosswalk on the south leg of the Holdom & Frances intersection including overhead signing with downlighting. The marking of a crosswalk should not adversely affect through traffic on Holdom or create problems at the nearby signal while. At the same time, the crosswalk signing and marking would more clearly indicate the relatively frequent crossing of pedestrians to drivers. Marking the crosswalk on the south leg would align it with the natural desire line and the worn path on the east side, as well as provide additional spacing from Hastings Street. Traffic control devices, such as the crosswalk installation proposed

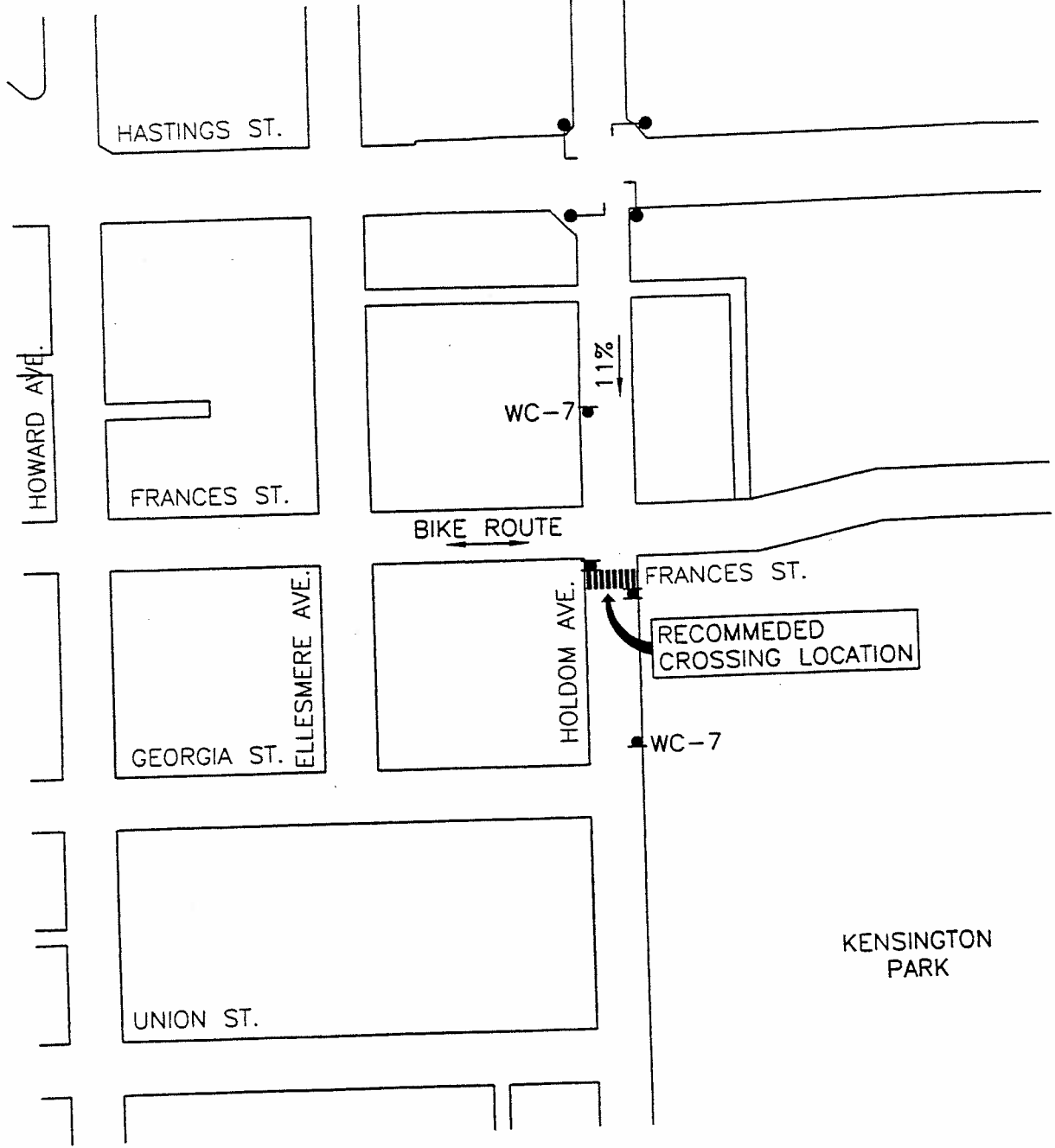
are funded from the Traffic Management portion of the capital budget and are generally recommended to Council by the Traffic Safety Committee. Accordingly, the estimated cost of \$25,000 would be budgeted as a Traffic Management capital item for installation in 2003 subsequent to Traffic Safety Committee review, endorsement and approval by Council.



ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENG. SYSTEMS

MDS:
Attach.

cc: City Manager
Director Finance



34

NO.	DATE	REVISION

PROPOSED CROSSWALK LOCATION
 HOLDOM AVE @ FRANCES ST



DRAWN BY: HLOUIE SCALE: N.T.S.
 APPRV'D BY: CDL DATE: 2001-09-18

A 570