

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRANSPORTATION AND TRANSIT DIVISION)

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

Re: Collingwood Village Development:
Boundary/Vanness Intersection Improvements

RECOMMENDATIONS:

1. THAT Council approve the design noted in Figure 2 as the basis for improvements to the intersection of Vanness Avenue and Boundary Road acceptable to the City of Burnaby.
2. THAT Council representatives from Burnaby City Council meet with representatives from Vancouver City Council to discuss outstanding issues regarding the Boundary/Vanness intersection design.
3. THAT a copy of this report be forwarded to the Mayor and Council of the City of Vancouver.

R E P O R T

The Traffic and Transportation Committee (Transportation and Transit Division), at its meeting held on 1993 May 12, received the attached report and adopted the recommendations contained therein, AS AMENDED which suggest an approach to respond to proposals by the City of Vancouver for improvements to the Boundary Road/Vanness intersection in conjunction with the Collingwood Village Development.

Arising from the discussion, the Committee requested that representatives from Burnaby City Council meet with representatives from Vancouver City Council to discuss outstanding issues regarding the Boundary/Vanness intersection design, rather than dealing with the matter at the Committee level.

Members:

Mr. Ernest Neumann
Mr. Peter Miller
Mr. Len Werden

Respectfully submitted,

Councillor D. Evans
Chairman

Councillor D. Lawson
Member

Councillor C. Redman
Member

Councillor J. Young
Member

: COPY - CITY MANAGER
- DIRECTOR ENGINEERING
- DIRECTOR PLNG. & BLDG.

TO: CHAIRMAN AND MEMBERS 1993 MAY 06
TRAFFIC AND TRANSPORTATION COMMITTEE
(TRANSPORTATION AND TRANSIT DIVISION) OUR FILE:

FROM: ACTING DIRECTOR PLANNING AND BUILDING

SUBJECT: **COLLINGWOOD VILLAGE DEVELOPMENT:
BOUNDARY/VANNESS INTERSECTION IMPROVEMENTS**

PURPOSE: To recommend an approach to respond to proposals by the City of Vancouver for improvements to the Boundary Road/Vanness intersection in conjunction with the Collingwood Village Development.

RECOMMENDATIONS:

1. **THAT** the Traffic and Transportation Committee approve the design noted in Figure 2 as the basis for improvements to the intersection of Vanness Avenue and Boundary Road acceptable to the City of Burnaby.
2. **THAT** the Traffic and Transportation Committee request a meeting with its counterpart Committee for the City of Vancouver to discuss outstanding issues regarding the Boundary/Vanness intersection design.
3. **THAT** a copy of this report be forwarded to the Mayor and Council of the City of Vancouver.

REPORT

1.0 BACKGROUND

At its regular meeting of 1992 April 08 the Traffic and Transportation Committee (Transportation and Transit Division) received a report on the intersection improvements at Boundary Road and Vanness proposed by the City of Vancouver to serve the Collingwood Village Development. This intersection design as shown in Figure 1 would have involved the widening of Boundary Road to a six lane standard through removal of the rail bridge and provision for full signalization of the intersection incorporating all turning movements.

Subsequently the Committee responded to this design by proposing the following modifications:

- i) construction of a new pedestrian/cycling overpass to replace the rail bridge and maintain the continuity of the BC Parkway.
- ii) no signalization of the intersection
- iii) inclusion of a raised median preventing left turning movements out of either the Vanness Avenue or the B.C. Telephone Headquarters access driveway.

A primary concern of the Committee in its response to the City of Vancouver was to ensure that the arterial function of Boundary Road was not compromised by substandard spacing of signals and to avoid potential traffic infiltration from the Collingwood Village development via local residential streets in Burnaby. The solution as proposed by the Committee would have provided for optimum vehicular safety at the intersection, increased through capacity on Boundary Road and maintained the continuity of the B.C. Parkway.

The Committee subsequently passed a motion that they did not agree with the improvements to the Boundary Road intersection as proposed by the City of Vancouver and recommended that the City be advised that Burnaby favoured the intersection configuration as illustrated in Figure 2.

On this basis municipal staff initiated discussions with a view to resolving the outstanding issues with respect to the intersection upgrading, including undertaking a study to determine the traffic implications of each of the proposed intersection configurations. Upon review of the traffic study and further discussions with City staff this report outlines the status of discussions on each of the design issues as a basis for a further response to the City of Vancouver.

2.0 STATUS OF DESIGN ISSUES

2.1 Pedestrian/Cycling Overpass

The City of Burnaby has supported the removal of the existing rail overpass to accommodate the development of Boundary Road to a six lane standard from Kingsway to Thurston Avenue. The design supported by the Traffic and Transportation Committee has incorporated provision for replacement of the overpass to maintain the cycling/pedestrian continuity of the B.C. Parkway.

The original proposal by the City of Vancouver however did not include provision for the replacement of the rail bridge. In recent discussions however the City has agreed to include a new overpass as part of the intersection design. This overpass makes provision for pedestrians and cyclists to cross Boundary Road without the necessity for signalization to accommodate pedestrians at grade.

2.2 Signalization

The original City of Vancouver proposal indicated that signalization of the intersection was required to provide for safe left turning movements via Vanness Avenue and the B.C. Telephone Headquarters driveway. The traffic study assessed the impacts of signalization out of Vanness Avenue and the B.C. Telephone building driveway. Figures 3 and 4 show the A.M. and P.M. peak hour traffic volumes making left turns at the intersection based on the Vancouver design (incorporating signalization) and the Burnaby design respectively.

In reviewing the traffic study Burnaby staff concluded that left turns into both Vanness Avenue and the B.C. Telephone Headquarters driveway could be accommodated without signalization. Left turn storage bays of sufficient length could be provided north to eastbound and south to westbound to store sufficient vehicles without obstructing the through traffic flows on Boundary Road. Sufficient gaps in oncoming traffic would be available due to the presence of downstream signals to allow these left turn lanes to clear.

With regard to the left turn out movement the traffic study indicated that if the intersection was signalized 160 vehicles during the AM peak hour would originate from Vanness Avenue and 80 vehicles from the B.C. Telephone Headquarters driveway. (See Figure 3)

If the intersection was not signalized and left turn out movements were prohibited in accordance with the Burnaby design approved by the Committee then left turn out movements from Vanness Avenue and the B.C. Telephone building driveway would be reduced to zero and redirected elsewhere to access Boundary Road. The study indicates that the Vanness left turn out movements would travel northbound via Joyce Street to left turn at an existing signal at 29th Avenue and Boundary Road. Left turns northbound from Joyce to Boundary would increase from the current approximately 1,000 vehicles to 1,150 vehicles during the AM peak hour. Left turn out movements from the B.C. Telephone building driveway would be redirected to left turn at Kingsway and Boundary via the B.C. Telephone building access on Kingsway.

In summary the traffic impacts of restricting left turn out movements from Vanness Avenue and the B.C. Telephone building driveway were viewed as meeting the Committee's objectives to maintain the arterial function of Boundary Road, while accommodating left turn in movements safely at the Vanness/Boundary intersection and left turn out movements at the existing signalized intersections at 29th Avenue and at Kingsway.

Although not assessed by the traffic study the Committee has also been concerned that permitting left turn out movements from Vanness Avenue would result in increased traffic infiltration into residential neighbourhoods in Burnaby by encouraging the use of Burke Street as a bypass for Collingwood Village destined to Willingdon Avenue and beyond. The design shown in Figure 2 would address this issue by redirecting left turn out volumes from Collingwood Village to the intersection of 29th Avenue and Boundary Road.

At this point City of Vancouver staff maintains that an intersection with full signalization and no restrictions on left turning movements is required to address the traffic demands of the Collingwood Village development. In response, Burnaby staff have posed the option of producing the intersection for partial signalization in the future if necessary to accommodate the left turn in movement only from Boundary to Vanness Avenue. This would occur if left turn in movements to Vanness began to exceed the capacity of the left turn lane on Boundary Road northbound to westbound.

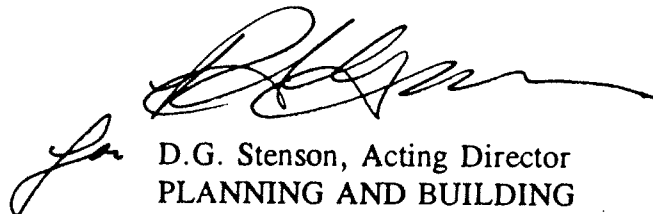
2.3 Relocation of the B.C. Telephone Driveway

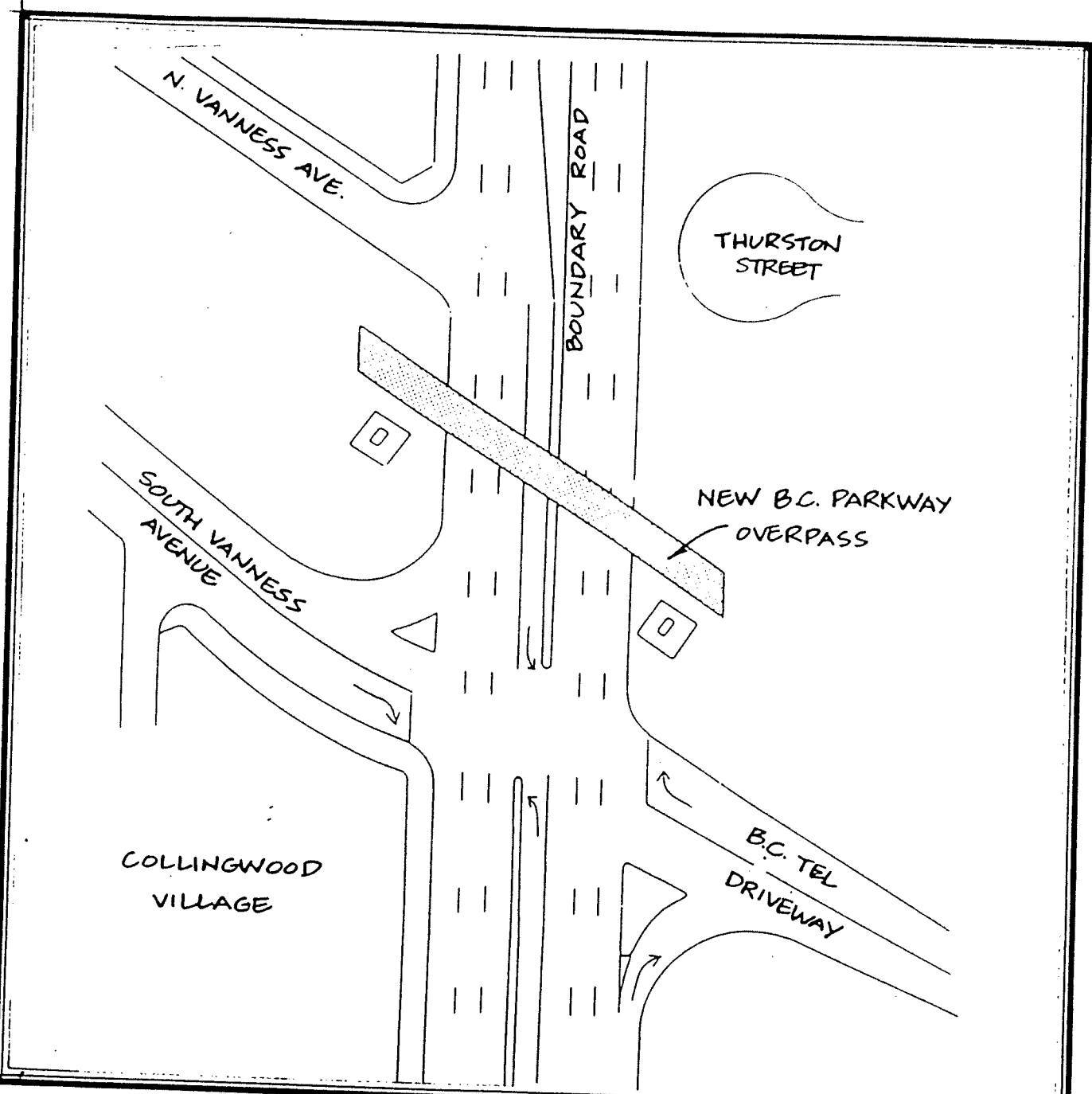
Both the City of Vancouver and the City of Burnaby proposals provide for the relocation of the B.C. Telephone driveway accessing the underground parking lot from Boundary Road to be realigned with Vanness Avenue on the Vancouver side.

3.0 CONCLUSION

Since the Traffic and Transportation Committee approved an acceptable design for the Boundary/Vanness intersection as a basis for discussion, staff of both Burnaby and Vancouver have attempted to resolve the outstanding issues with regard to intersection design and signalization. In reviewing the traffic impact study, Burnaby staff have concluded that signalization of the Boundary/Vanness intersection is not required to accommodate traffic movements to and from the Collingwood Village Development. Although the traffic study indicated that signal coordination was possible for the two intersections of Boundary with Kingsway and Vanness to maintain through traffic movements on Boundary Road, the concerns of the Committee regarding the proliferation of signals which compromise the arterial function of Boundary Road have not been resolved. Moreover, issues including potential traffic infiltration on Burke Street and the safety of northbound traffic on Boundary Road approaching Vanness also remain.

On this basis staff have not been able to reach agreement on changes to the Vancouver design which would be acceptable to the City of Burnaby. It is, therefore, recommended that the Committee affirm the intersection design in Figure 2 as the design acceptable to the City of Burnaby and offer to meet with its counterpart Committee in the City of Vancouver to discuss the outstanding issues..


D.G. Stenson, Acting Director
PLANNING AND BUILDING



Date:
1993 MAY

Scale:
NT3

Drawn By:
RW.

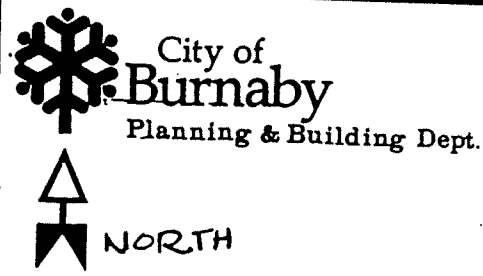
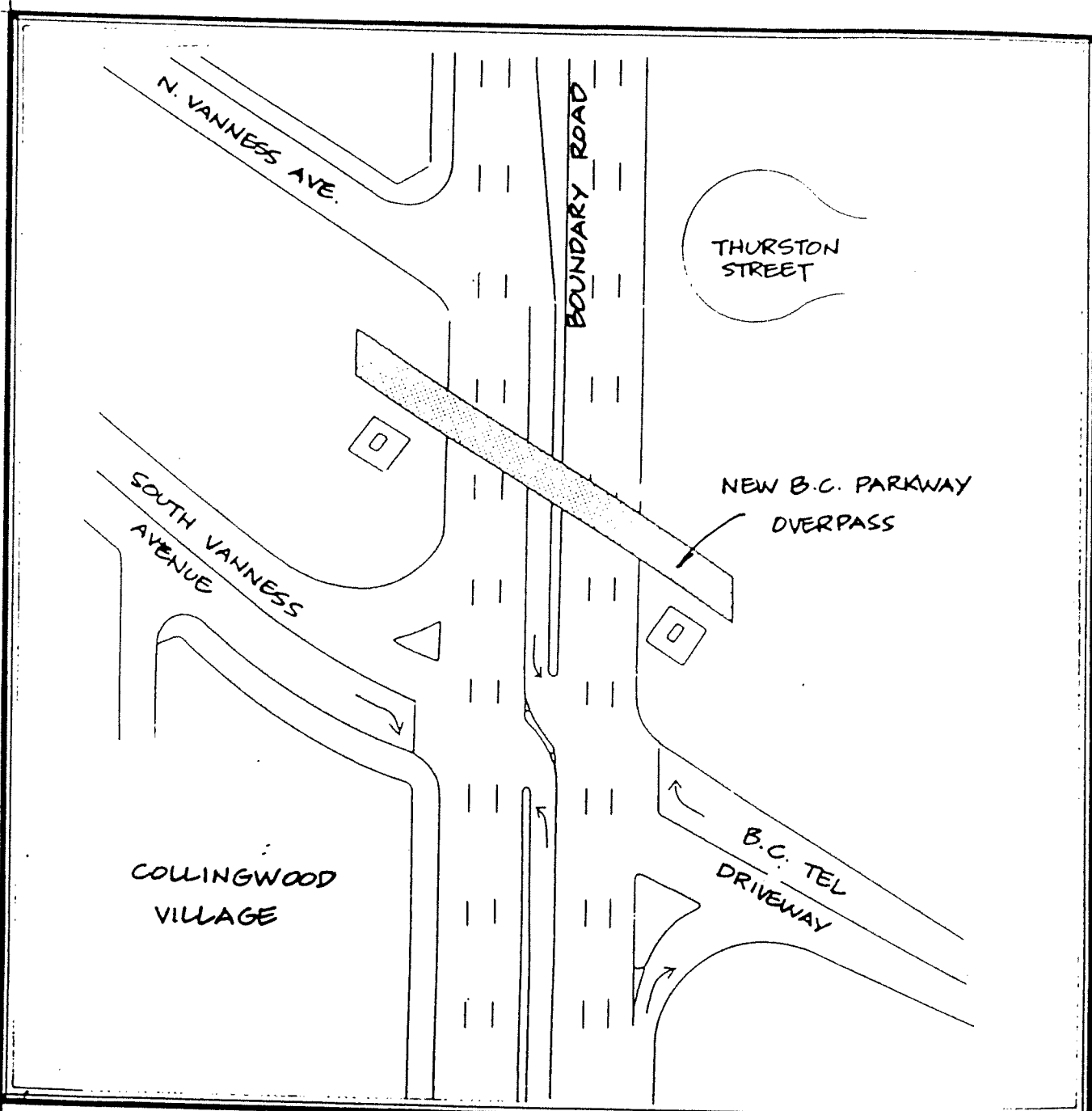


FIGURE 1
BOUNDARY/VANNESS
VANCOUVER DESIGN



Date:
1993 MAY

Scale:
NTS

Drawn By:
RW

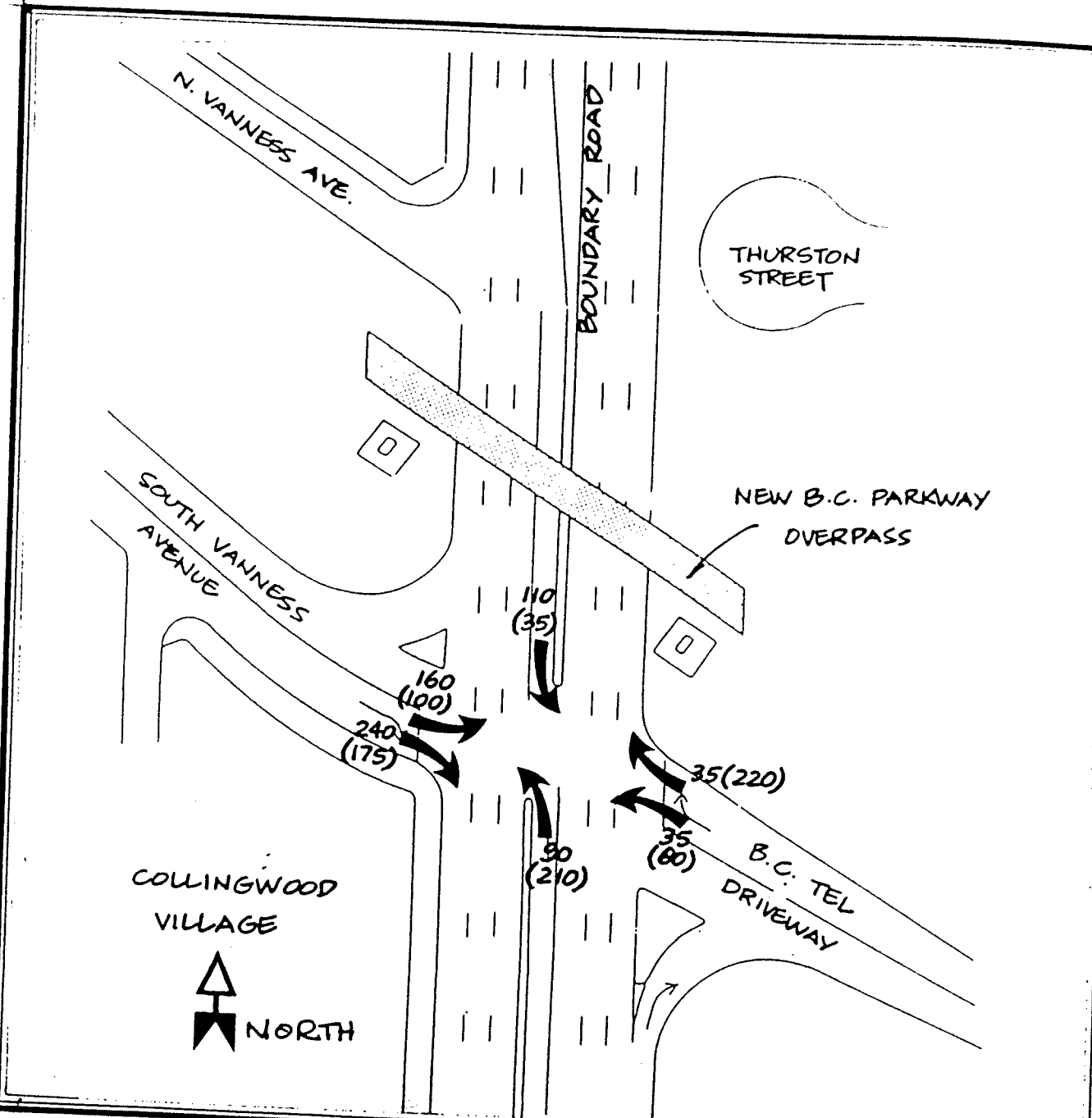


City of
Burnaby
Planning & Building Dept.



NORTH


FIGURE 2
BOUNDARY/VANNESS
BURNABY DESIGN



Date:
1993 MAY

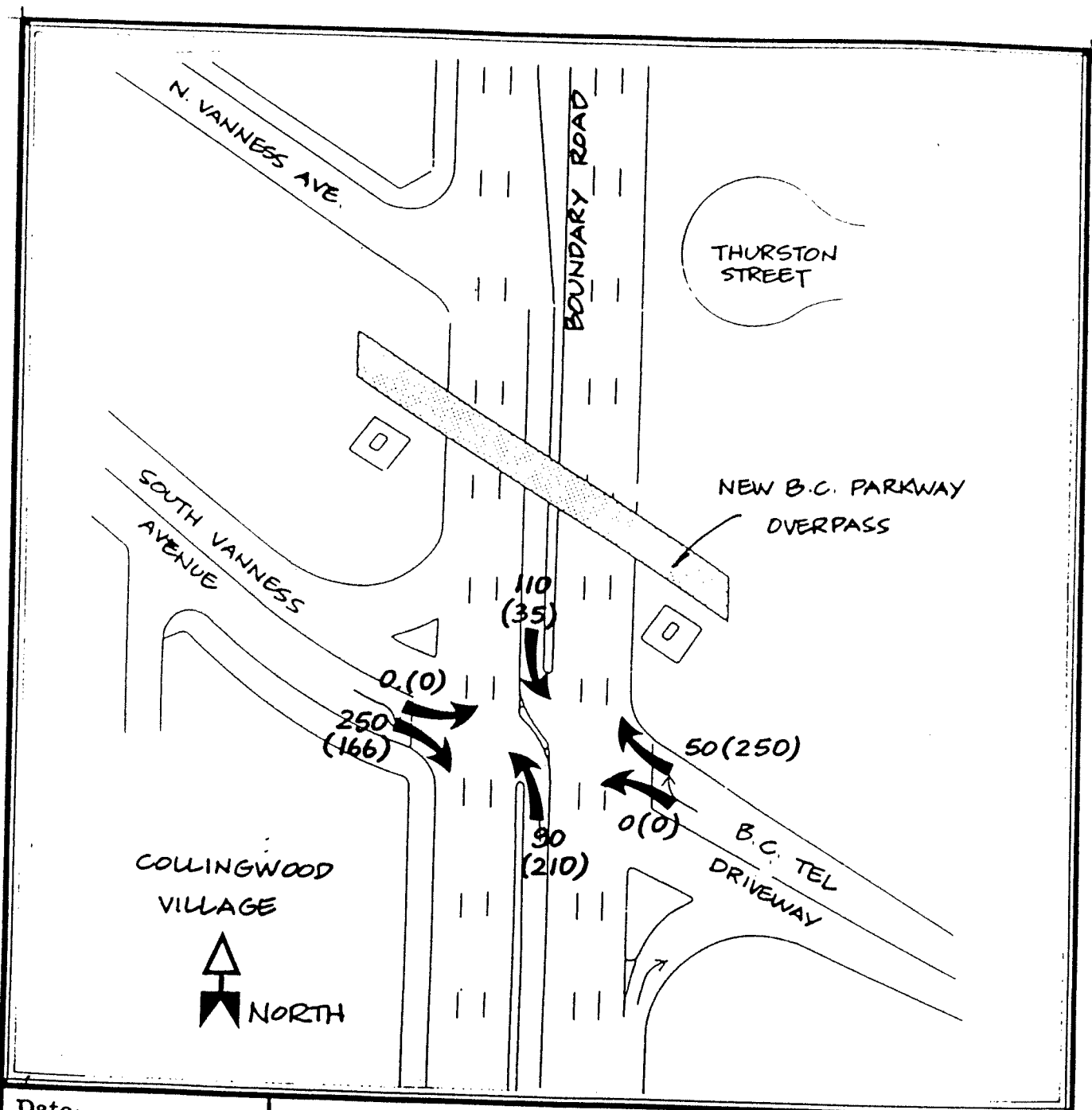
Scale:
NTS

Drawn By:
RW

 City of Burnaby
Planning & Building Dept

AM PEAK HOUR
(PM PEAK HOUR)

FIGURE 3
BOUNDARY VANNESS
PEAK HOUR
TRAFFIC VOLUMES
VANCOUVER DESIGN



Date:
1993 MAY

Scale:
NTS

Drawn By:
RLN


 City of Burnaby
Planning & Building Dept
AM PEAK HOUR
(PM PEAK HOUR)

FIGURE 4
BOUNDARY VANNESS
PEAK HOUR
TRAFFIC VOLUMES
BURNABY DESIGN