



CITY OF VANCOUVER

ENGINEERING SERVICES

D.H. Rudberg, P.Eng., General Manager

T.R. Timm, P.Eng., Deputy City Engineer

**Supports Item No. 5
T&T Committee Agenda
July 30, 2002**

MEMORANDUM

July 25, 2002

TO: Standing Committee on Transportation and Traffic

FROM: Dave Rudberg, General Manager of Engineering Services

Copy to: Judy Rogers, City Manager
Syd Baxter, City Clerk
Ann McAfee, Director- City Plans

SUBJECT: GREENWAY/BIKEWAY: GRANDVIEW HIGHWAY NORTH BETWEEN VICTORIA AND COMMERCIAL DRIVES

City staff have been working with the Rapid Transit Project Office (RTPO) and the public on the development of the Central Valley Greenway/Bikeway along Grandview Highway North between Renfrew Street and Commercial Drive. Staff apologize for the late memo but there is an urgency in the approval of this project for the September SkyTrain opening.

The design of the segment between Victoria Drive and Commercial Drive is still outstanding. This is a difficult section because the street right of way must accommodate pedestrians, bikes, buses, motor vehicles, and be landscaped to a Greenway standard. Of particular concern is the interface with the new SkyTrain Station and the Broadway and B-line bus turn around.

Staff have met with the local residents several times and with Council twice, most recently on April 11, 2002. At this meeting, Council postponed a decision on this matter to a future meeting of Council in order to give staff time to reach a consensus with the residents.

In order to provide Council with sufficient information to make a decision, staff have continued to refine the design of the greenway/bikeway, working with the neighbours. Three meetings were held with the residents after the last Council meeting and a design has been developed that is now supported by the residents, achieves a good greenway/bikeway design, and provides the necessary bus storage space.

The new proposed streetscape design is attached to this memo (Figure 1). Staff will describe the various elements of this design ("the plan") at the Standing Committee of Traffic and Transportation on July 30, 2002 and a number of residents will be available to comment and answer questions.

It is important “the plan” be approved now so that TransLink and the City can begin reconstruction of the curbs, pavement and overhead trolley wires in time for the start of the Millennium Line on September 3 and landscaping work can be undertaken this Fall. The residents support this design(See the attached letter from the residents). Further refinement of the landscaping elements is necessary and these will be reviewed by the residents when they are complete. Attached to the letter from the residents is an “Action Plan” of items to be pursued.

“The plan” shown in Figure 1 includes the potential for a cul-de-sac on 8th Avenue at Grandview Highway North. Some local residents support this cul-de-sac and they are recommending it be included as part of the construction of the greenway/bikeway. Staff is not comfortable approving a closure without a public consultation process involving the residents on 8th Avenue and other nearby streets.

City staff are also in consultation with the RTPO on landscaping and buffering elements between the Commercial Station and the Grandview Highway North. These particular elements are an integral element of the overall landscaping scheme and will be part of the work to be done. Staff hope to have an RTPO position when Council considers this matter on Tuesday.

Comments of the residents:

Attached is a letter and an Action Plan from the residents.

You will read there is still some disagreement on the best placement of the greenway/bikeway. But the residents appreciate that the proposed configuration maximizes the amount of greenspace that can be landscaped, provides an acceptable buffer of the adjoining houses and provides a greenway location consistent with that to the east and west.

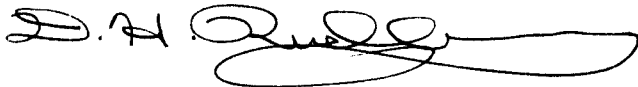
The letter also includes an Action Plan. City staff are committed to following up with the RTPO and/or TransLink on items of **their** responsibility, particularly with the construction of a solid fence and cedar hedge. As well, the Action Plan contains specific landscaping elements which the City’s landscape architect and Park Board staff believe can be included and which were discussed at the meeting with the residents. However, incorporating all these elements will depend on the final detailed design.

The resolution of the development of this segment of the Central Valley greenway/bikeway has been difficult, time consuming and at times frustrating for both staff and the residents. But everyone persevered and the dedication and time spent, particularly by the residents should be acknowledged. In the end, the design is better than first proposed but significantly more expensive and greater than the amount budgeted for by the RTPO. However, funds are available to cover the remaining cost from the Amenity Package Agreement the RTPO provided the City.

In conclusion I recommend that:

- A. Council approve the attached Figure 1 and which is also provided at the Standing Committee on Traffic and Transportation of July 30, 2002 to be used to finalize the hard surface elements (curb and gutter, pavement, medians, bike paths, etc) and be the basis for the detailed landscaping plan.
- B. Staff continue to negotiate with the RTPO on necessary buffering and landscaping features between the existing greenwall at Commercial Station and Grandview Highway North.
- C. The local neighbourhood committee be acknowledged for all the time spent working with staff on developing an acceptable plan.
- D. Council **defer a decision** on a cul-de-sac on 8^h Avenue at Grandview Highway North until staff have reviewed the proposal with the neighbourhood and reported back.

A short presentation will be made by staff at the July 30^h meeting of the Standing Committee on Traffic and Transportation on this matter. A number of residents will also be in attendance.



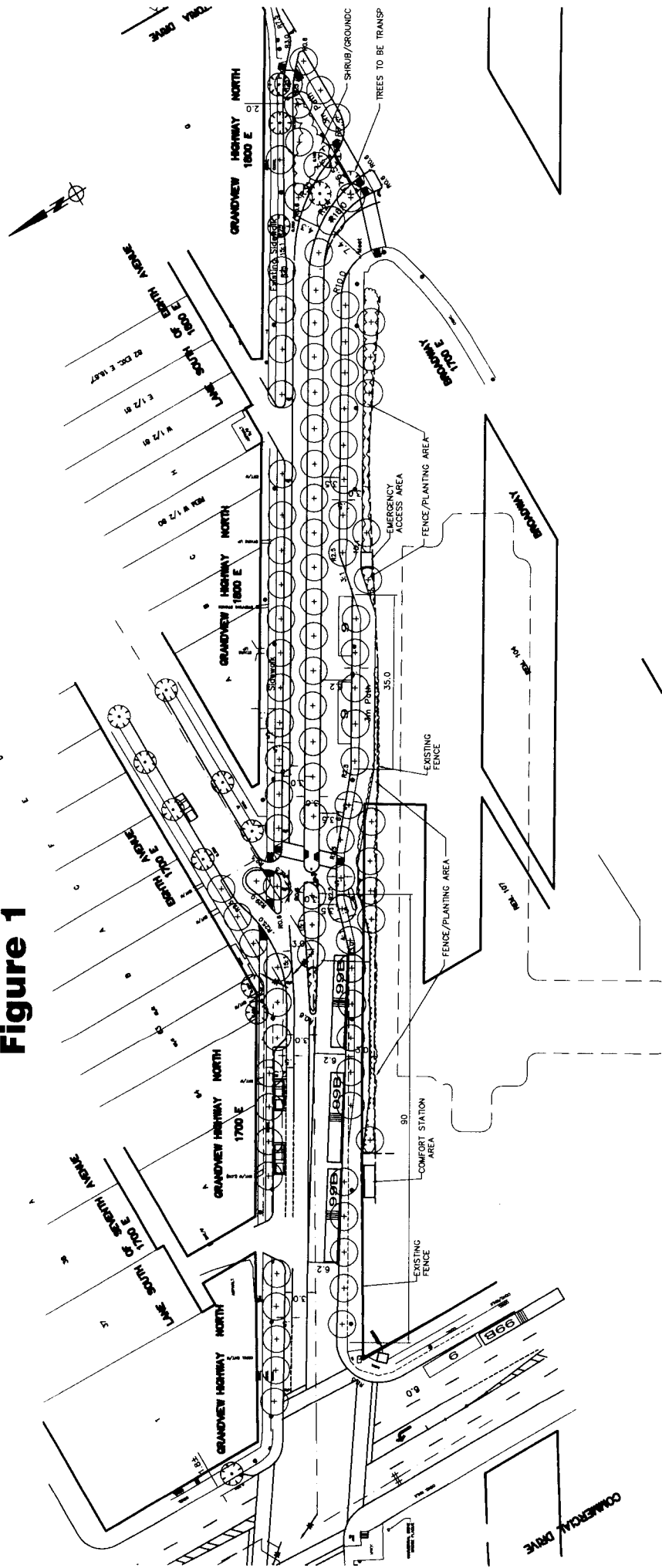
D.H. Rudberg, P.Eng.,
General Manager,
Engineering Services

WNP/

attach.

File:\work\rapid transit\GBcommcentral_july2002.wpd

Figure 1





1787 East 8th Avenue
Vancouver, BC V5N 1T7
July 23, 2002

Mr. David Rudberg, General Manager, Engineering Services
City of Vancouver
City Hall
453 West 12th Avenue
Vancouver, BC V5Y 1V4

By fax: 604-871-6119, 5 pages in total

Dear Sir:

Re: Action Plan, Grandview Highway North, Commercial to Broadway

The attached Action Plan is the result of extensive consultation among residents and discussions with you and your staff representing the City.

In summary, we disagree with City staff on the best placement of the multi-use path of the Central Valley Greenway, staff favouring a location south of Grandview Highway North immediately adjacent the Grandview Cut, residents favouring placement north of Grandview Highway. However, residents will accept the staff recommendation in order to bring timely closure to the matter and allow construction to proceed, on the understanding that all other elements as detailed in the attached document can be implemented expeditiously.

We appreciate your offer to intervene on our behalf with the Rapid Transit Project of the Province. Implementation of sight and sound barriers south of the chain link fence is a vital component of the over all plan.

Thank you for your willingness to become directly involved in this project. We look forward to continuing to work closely with you and your staff in order to see it through to a successful conclusion.

Sincerely,



Rod Russell

Copies: Residents of East 8th Avenue
Grandview Woodlands Area Council
Mayor and Council, City of Vancouver
Minister of Transportation, Province of British Columbia

Action Plan

Grandview Highway North

Commercial to Broadway

Great Transit / Great Neighbourhoods

Overview

Noise pollution

Residents of 8th Avenue East and Grandview Highway North between Commercial Drive and Victoria Drive have been subjected to unacceptable noise levels since the total removal of dense trees and vegetation from the embankment on the north side of Grandview Cut, and the removal of the embankment itself. These changes were part of building the sky train Millennium Line and the Commercial Drive Station. As a result residents have experienced a much louder impact from diesel trains in the cut, traffic noises and sirens in Broadway Avenue, and to a lesser extent sound from the existing sky train Expo line and the existing Broadway Station.

As the Millennium Line goes into service this fall the 99B bus route will terminate at this location, giving rise to much more frequent looping of heavy double-length diesel busses than previously. These busses are loud. In addition the extent of noise pollution from the new Commercial Drive station, located immediately across the street from residences, is not yet known.

Station lighting

Station lighting has been excessively bright. While some shading has recently been installed it is not fully adequate, and similar treatment may be required for light fixtures at the ticket concourse.

Landscaping

Residents are given to understand that one or another agencies of the Province assumes responsibility for landscaping south of the chain link fence that has been constructed immediately north of the cut, and for the fence itself. North of the fence responsibility has been given over to the City of Vancouver. Residents have engaged the City in extended discussions as to the form landscaping might take. Residents have been unsuccessful in engaging the Province in similar discussions, but the City has undertaken to engage the Province on the residents' behalf. This document sets out the desires of residents following the most recent meeting with representatives of the City, on July 18, 2002.

Objectives

Re-establish the barriers that previously marked the edge of our residential neighbourhood, and allowed us to live peacefully in close proximity to intensively used transportation and commercial areas, as follows:

1. Create and re-establish sound barriers that will eliminate or significantly reduce the sound level we experience from conventional freight and passenger trains, vehicular traffic on Broadway, sky train Expo line, sky train Millennium line, Broadway Station, Commercial Drive Station, and looping of diesel busses. Electric trolley busses have looped at this location for many years and apart from the litter discarded by a few careless drivers have not been and are not now a problem.
2. Re-establish sight line barriers that will restore the visual appeal of our neighbourhood.
3. Re-establish barriers to disburse and loft above street level the thick diesel fumes produced by conventional freight and passenger trains in the cut.
4. Establish an ongoing standing committee made up of residents, city officials, and officials of the sky train and bus operating authorities to monitor success in achieving the objectives 1 to 3 and serve as an occasional forum to address concerns.

Success criteria

Residents are uncomfortable being asked to specify landscaping and fencing features to accomplish the above objectives. In particular, we do not have any expertise in acoustic engineering. We know all too well what the problem is, but it is unfair to ask us to come up with a solution. We do not have a budget to hire the requisite expertise and are very critical that those who control the budget for the sky train project have chosen not to do so. Accordingly, the measures herein proposed may not fully meet the objectives set out above but we believe them to be a minimum requirement and reserve the right to revisit them if they do not succeed.

Requirements

1. Construct a solid fence of cedar lumber or similar material as a sound barrier between the 'green wall' and the chain link fence, leaving ample space for a hedge as described below between the solid fence and the chain link fence. The solid fence is to rise to a minimum of four feet above the top of the curb for its full length. This fence is to extend the full distance from the proposed bus driver comfort facility near Commercial to the bridge at Broadway, broken only by the emergency exit from Commercial Drive station.
2. Establish a dense evergreen hedge between the solid fence and the chain link fence, growing to at least three feet in thickness and rising at least to the height of the chain link fence. This hedge to extend the full distance from the proposed bus driver comfort facility near Commercial to the bridge at Broadway, broken only by the emergency exit from Commercial Drive station. It is to be planted in soil of adequate depth and width to support growth to maturity and to be irrigated and fertilized as required to support its rapid growth. Plants to be not less than four feet

- in height at planting and spaced close enough together to quickly form a dense hedge without gaps. Plants that do not flourish are to be quickly replaced.
3. Paint or treat the chain link fence—mesh, posts, stringers, fixtures and barbed wire—so as to appear consistent in colour with the hedge. This requirement does not have a high priority for residents but was proposed by City representatives at our last meeting and is acceptable to us.
 4. Fully implement the plans discussed by representatives of the City with residents, including the following:
 5. Three closely planted rows of trees extending as much of the distance between Commercial and Broadway as is possible, including a row close to the chain link fence, a row on a wide median, and a row adjacent to residences. Trees to be three meters or more in height at the time of planting. Trees to receive adequate care to ensure their quick establishment. Trees that do not flourish to be quickly replaced.
 6. Trees on the median to be evergreen.
 7. Median to be planted with a dense evergreen hedge between the trees, to be maintained at a height of not less than three feet, or at a greater height if found necessary to adequately diffuse the diesel bus noise.
 8. Median to be 3 meters wide for most of its length.
 9. Planted median to extend as far west as possible, at a minimum to the point on Grandview Highway North perpendicular to the corner point of the west half of lot 63, broken only by a gap to permit cyclists eastbound on Grandview Highway North to turn left onto 8th Avenue.
 10. A level cul-de-sac to be established at the foot of 8th Avenue where it now joins Grandview Highway North. Exact detailing and placement of the cul-de-sac to be negotiated with adjoining residents.
 11. It is believed that two mature trees must be removed to establish the cul-de-sac. These trees to be relocated so as to screen the cul-de-sac from Grandview Highway North.
 12. Traffic calming measures are to be taken on 7th and 6th Avenues as negotiated with residents of each of these streets.
 13. Soil of adequate depth to support large trees to be placed in the recessed area between the proposed comfort station for bus drivers and Commercial Drive. Trees to be established here that over time will grow to a significant size.
 14. Conifers that will grow to a large size to be planted where space permits, such as the area at the east end of Broadway bridge.

Desired features

City staff have advised that if the 3-meter wide multi-use path is located on the north side of Grandview Highway North, safety concerns will require that an additional 1.5-meter wide path be located on the south side of Grandview Highway North, for the benefit of eastbound recreational cyclists. This path would be along side and in addition to a concrete sidewalk. This over-all addition of 1.5 meters of path width restricts the amount of landscaping that can be accomplished. City staff advocates instead that the entire 3-meter wide multi-use path be located on the south side.

Residents are not convinced that placing the multi-use path on the south side of Grandview Highway North is a safer alternative to placing it entirely on the north side. We believe that crossing the partially normalized, uncontrolled exit from Broadway onto Grandview Highway North will constitute a serious hazard for pedestrians and recreational cyclists. There does not appear to be any standard traffic control mechanism that could reasonably be implemented for this location that would require automobiles to come to a full stop. Motorists leaving Broadway will not expect to encounter cyclists at this location and the landscaping that is greatly desired may accentuate the hazard by partially screening them. This crossing can be avoided by placing the path entirely on the north side. While this requires the path to cross the exits from two lanes, the most westerly lane ends in a dogleg that naturally limits speed, and suitable control measures can be taken at the most easterly lane. The lanes experience very light volumes of traffic when compared with the westbound lane of Grandview Highway North.

Positioned entirely on the north side without an additional sidewalk it is most advantageous to residents and regional users alike and confers an acoustic advantage by pushing the bus loop further from homes. The north-side option also distances recreational users from the busses and provides for better mutual security oversight between householders and path users. It places the path on the natural route from the Commercial Drive business area to the north to points farther east on Broadway.

This configuration does require some creative thinking about how to have the path cross Grandview Highway North. One alternative is to use the present controlled intersection at Commercial Drive—a diagonal crossing here might be a natural given that it is a short diagonal and only busses will enter Grandview Highway. Perhaps the crossing should occur farther west where space is less constrained. Either of these options is safer than crossing at Broadway.

Having said this, if City Council on the recommendation of City staff determines that the path should be located on the south side, residents are prepared to accept this as a reasonable trade off so that work can begin expeditiously on the requirements outlined above. We specifically reject any options that would split the path and result in a reduction in the amount of space available for landscaping and sound barriers.

This document

This document was drafted by Rod Russell in consultation with neighbours, following the meeting with City representatives on the evening of Thursday, July 18. It represents a reasonable consensus of the neighbourhood as a basis for the city to move forward. Rod can be reached at 604-726-9333.

**EXTRACT FROM REPORT TO COUNCIL
STANDING COMMITTEE ON PLANNING &
ENVIRONMENT - APRIL 11, 2002**

Approved by Council
April 11, 2002

6. Central Valley Greenway/Bikeway - Commercial to Victoria: Traffic Calming Plan (File 5767/5553)

The Committee had before it an Administrative Report dated March 14, 2002, in which the General Manager of Engineering Services recommended approval of a traffic calming plan that enhances landscaping for the Grandview Cut for the section of the Central Valley Greenway between Commercial and Victoria Drives. Also offered for Council's consideration was the option to approve a traffic calming plan that would enhance landscaping on the north side of Grandview Highway North.

Lon LaClaire, Transportation Engineering, with the aid of a PowerPoint presentation and traffic simulator software program, reviewed the proposed traffic calming measures.

The following speakers expressed concerns with the proposed traffic calming plan:

Ian Egloff (materials filed)
Rod Russell
Keith Ross, Better Environmentally Sound Transportation
Elizabeth Grieve
Gerry Stafford
Bonnie Fenton, Vancouver Area Cycling Coalition (video presentation)
Shelagh Smith
Barb Wright

The following is a summary of points made by the foregoing speakers:

- community's concerns and requests are being ignored;
- in exchange for losing a forest, we have gained another SkyTrain line and a bus loop near our front doors;
- if an adequate green buffer cannot be provided, Grandview Highway North should be closed off to traffic;
- concern was expressed with regard to the location of the proposed bus-drivers washroom facility;
- for people in the neighbourhood this is not just a traffic calming issue;

ADMINISTRATIVE REPORT

Date: March 14, 2002
Author/Local: W. Pledger/7346
L. LaClaire/6690
RTS No. 2566
CC File No. 5767/5553
P&E: April 11, 2002

TO: Standing Committee on Planning and Environment
FROM: General Manager of Engineering Services
SUBJECT: Central Valley Greenway/Bikeway - Commercial to Victoria: Traffic Calming Plan

RECOMMENDATION

- A. THAT a traffic calming plan that enhances the landscaping along the Grandview Cut for the maximum benefit to the Greenway and allows for future one-way operation be constructed as outlined in this report and shown in Figure 1.*

CONSIDERATION

- B. THAT a traffic calming plan that enhances the landscaping on the north side of Grandview Highway North for the maximum benefit to the adjacent residents and allows for future conversion to one-way operation be constructed as outlined in this report and shown in Figure 2.*

COUNCIL POLICY

On July 18, 1995, City Council adopted the Vancouver Greenways Plan, which identified the Grandview Cut corridor for future Greenway development.

The City of Vancouver Transportation Plan approved by Council in May 1997 identified Grandview Highway North from Clark Drive to Victoria as having potential for increased priority for pedestrians, cycling and transit but retained it as a secondary arterial.

The City actively discourages non-local traffic on local neighbourhood streets through the implementation of various traffic calming measures.

PURPOSE

The Central Valley Greenway between Commercial Drive and Renfrew is being designed and constructed by the Rapid Transit Project Office (RTPO). The City is responsible for providing the RTPO with a “traffic calming plan” around which the Greenway landscaping elements will be designed. A traffic calming plan has been provided to the RTPO for the eastern section between Victoria and Renfrew Streets and detailed design is underway and construction will begin soon.

A traffic calming plan for the section between Commercial Drive and Victoria Drive, immediately north of the Commercial Station has not been approved yet and so the Greenway design and hence construction, is “on hold” here.

This report recommends Council approve a traffic calming plan for this remaining section between Commercial and Victoria Drives.

BACKGROUND

City Council and TransLink have removed Grandview Highway North from the Truck Route Network on October 5, 1999 and December 15, 1999, respectively.

On March 14, 2000, Council approved a traffic calming plan for Grandview Highway North between Victoria Drive and Slocan Street. This plan included a realigned intersection at Slocan Street, a centre median refuge at Nanaimo Street, and three full closures of Grandview Highway North.

Last year, staff submitted a traffic calming plan for Grandview Highway North between Commercial and Victoria Drives to Council for approval following meetings with directly affected residents. The plan provided bike lanes and space for landscaping alongside the Grandview Cut. The plan included a realigned intersection at Broadway and pedestrian bulges at 8th Avenue, and at Commercial Drive (Figure 2).

Residents on the north side of Grandview Highway North are concerned about their close proximity to the TransLink buses using Grandview Highway North. The plan aimed to address their concerns by emphasizing the Greenway components on the north side of the street between the houses and the buses rather than alongside the Grandview Cut. See Figure 2 and specific cross section in Figure 4.

The plan did not include the partial closure of Grandview Highway North as some residents had requested. These residents preferred to see Grandview Highway North closed to westbound traffic to provide even more buffering for the neighbourhood. Some Greenway/Bikeway supporters also wanted to see the street closed to westbound traffic to further enhance the Greenway/Bikeway.

Staff advised the residents that closing Grandview Highway North would inappropriately relocate the non local traffic onto other local residential streets and significantly impact the ability of the Broadway and Commercial intersection to accommodate the increased number of buses serving the two SkyTrain stations.

On July 31, 2001, Council heard delegations speak to the Administrative Report on Grandview Highway North - Greenway/Bikeway Planning (RTS No. 2153). Residents in the area expressed their concerns about the need to buffer the impacts of the SkyTrain extension and the increase in buses on Grandview Highway North. As well, the cycling community identified this location as a valuable link in the Central Valley Greenway between False Creek and New Westminster. After hearing the delegations, Council approved the following recommendations:

THAT Council indicate as its priorities the development of Grandview Highway North as a segment of the Central Valley Greenway and to allow for a significant increase in the amount of landscaping along the Grandview Cut;

FURTHER THAT a traffic calming plan be developed in order to achieve those goals from Victoria to Commercial, with a survey of the neighbourhood, for a report back.

Other major pedestrian and transit improvements for Commercial Drive have recently been implemented or are currently underway. Pedestrian and bus bulges have recently been completed at 6th and 14th Avenues. Work is proceeding on sidewalk upgrades and new pedestrian bulges at 10th and 11th Avenues. Work will start soon on Commercial Drive between Broadway and Grandview Highway North including:

- Widening the sidewalks on both sides of the Commercial Drive Bridge
- Installing a new pedestrian signal at Commercial and 8th Ave.

- Improving the 8th and Commercial intersection on the west side of the street.
- Upgrading the railings on the Commercial Drive bridge if sufficient funds are available.

DISCUSSION

The traffic calming plan that Council reviewed last year provided for on-street bike lanes, significant greening on the north side of Grandview Highway North to buffer the residents from the SkyTrain line and buses and a minimal Greenway alongside the Cut. Truck traffic is removed, smaller trucks are discouraged from using the street and general traffic speeds are slowed because of geometric changes at Broadway. See Figure 2. Council did not support this proposal and directed staff to look at ways to improve the Central Valley Greenway/Bikeway, particularly alongside the Grandview Cut.

Through the Fall 2001, staff investigated a number of conceptual traffic calming options for Grandview Highway North, including options that closed Grandview Highway North to westbound traffic.

Closure of Grandview Highway North

The closure of Grandview Highway North to westbound traffic at Broadway was raised by the residents last July at Council. Staff were only able to provide Council with preliminary observations of the consequences the closure would have on the surrounding neighbourhood and transit service. Since then, staff have explored this option in more detail.

The Broadway and Commercial intersection will be the major transfer point between buses on Broadway and Commercial and the two SkyTrain stations. The bus stops on Commercial and particularly on Broadway adjacent to the new ticket hall, and the intersection itself, must work well for transit otherwise thousands of transit users a day will be impacted. For example, once the Millennium Line is in service, up to twenty #9 Broadway buses and twenty #99 B-line buses will be loading on Broadway at Commercial every hour. Given that it could take up to four minutes to load a bus, we can expect there to always be one or more buses at this stop loading and then pulling away into Broadway traffic.

To help forecast the traffic and transit impacts of closing Grandview Highway North between Commercial and Victoria to westbound traffic, staff acquired a computer traffic simulation model to replicate the traffic on the streets in the area of the Commercial and Broadway Stations.

The key observations from the staff analysis are:

- Congestion related delays for westbound transit passengers would triple at the intersection. It is estimated that nearly two thousand passengers per hour would be subjected to this delay. It is further estimated that closing Grandview Highway North would delay westbound Broadway buses an additional three minutes as buses and right turning vehicles queue in the curb lane approaching Commercial Drive. This would cost TransLink \$360,000 annually to maintain the schedules for the #9 and #99 bus routes.
- The accident potential between buses leaving the stopped position in the curb lane and other vehicles weaving into the curb lane to turn right and between vehicles and pedestrians is increased.
- Arterial traffic is inadvertently diverted onto local streets such as Woodland Drive and 6th and 7th Avenues as a result of the increased congestion at the Broadway and Commercial Drive intersection. Presently, in the morning rush hour, about 340 westbound vehicles (about ½ a traffic lane worth) use Grandview Highway North. About 100 of these vehicles turn right at Commercial Drive from Grandview Highway North. This compares with 40 to 50 vehicles per hour on the nearby local streets, such as 6th and 7th Avenues, that become alternatives to Grandview Highway North should it be closed. See Figure 5 for traffic volumes. Streets such as 6th and 7th Avenues have limited options for traffic calming due to their unique location between two arterial streets (Victoria and Commercial Drives).
- Delays to general westbound traffic on Broadway at Commercial Drive double when Grandview Highway North traffic is closed at Broadway.

In conclusion, because of the above concerns, staff could not support taking any traffic calming options that close Grandview Highway North forward to the public at this time. However, when the Millennium Line is extended to Central Broadway, the #99 B-Line will terminate in Central Broadway rather than Commercial Drive. In addition, fewer of the #9 Broadway buses will terminate at Commercial Drive. This means that the increased congestion would impact fewer bus passengers. It would not, however, reduce the potential for traffic shortcutting through the adjacent neighbourhoods. When the Millennium Line is extended, Council may wish to revisit the potential closure of Grandview Highway North to further improve the Central Valley Greenway/bikeway.

Recommended Traffic Calming Plan

The Traffic Calming Plan that staff recommend achieves Council's objective of increasing the amount of landscaping along the Grandview Cut. See Figure 4 for a comparison of the cross-sections for the options. See Figure 1 for the recommended plan. The plan does the following:

- It maximizes the landscaping area alongside the Grandview Cut and provides space for a pedestrian path. This is achieved by moving the south curb 2.5m north, closer to the residents across the street.
- A boulevard that can be landscaped is provided on the north side of the street to help buffer the residents from the buses across the street.
- Bikes are provided for on-street in painted bike lanes.
- Transit (layby for the #9 and #99) is provided for.
- Large trucks are eliminated.
- Traffic speeds along Grandview Highway North are slowed because of the conventional 90-degree right turn at Broadway (presently it's a very easy right turn).
- Pedestrian safety is improved at the Broadway and Grandview Highway North intersection.
- A concrete median prevents shortcutting traffic from using the lane south of 8th Avenue between Grandview Highway North and Victoria Drive.

PUBLIC CONSULTATION AND CONSIDERATION

To assess the support for the proposed traffic calming plan, approximately 950 surveys were delivered to residents, property owners, businesses, and institutions in the neighbourhood. The neighbourhood was encouraged to call the City or attend a meeting held on February 11, 2002 if they had any questions or concerns. Eighty-five percent of survey respondents support the recommended traffic calming plan. See Appendix A for the survey results and Appendix B for survey comments.

However, this Plan does not meet with the approval of some of the immediate residents on the north side of Grandview Highway North. They continue to recommend closing Grandview Highway North to westbound traffic to provide even more space for the Central Valley Greenway/Bikeway and to further buffer the residents directly affected by the increased number of buses and through traffic (See Figures 3 and 4).

Staff do not support the closure as discussed above. However, as an alternative to the recommended option, in response to the local neighbourhood request for further buffering, staff also resubmit for Council's consideration the option that was originally recommended last year with the landscape buffering provided on the north side of the street rather than adjacent the Grandview Cut (See the one-way traffic option in Figures 2 and 4).

CONCLUSIONS

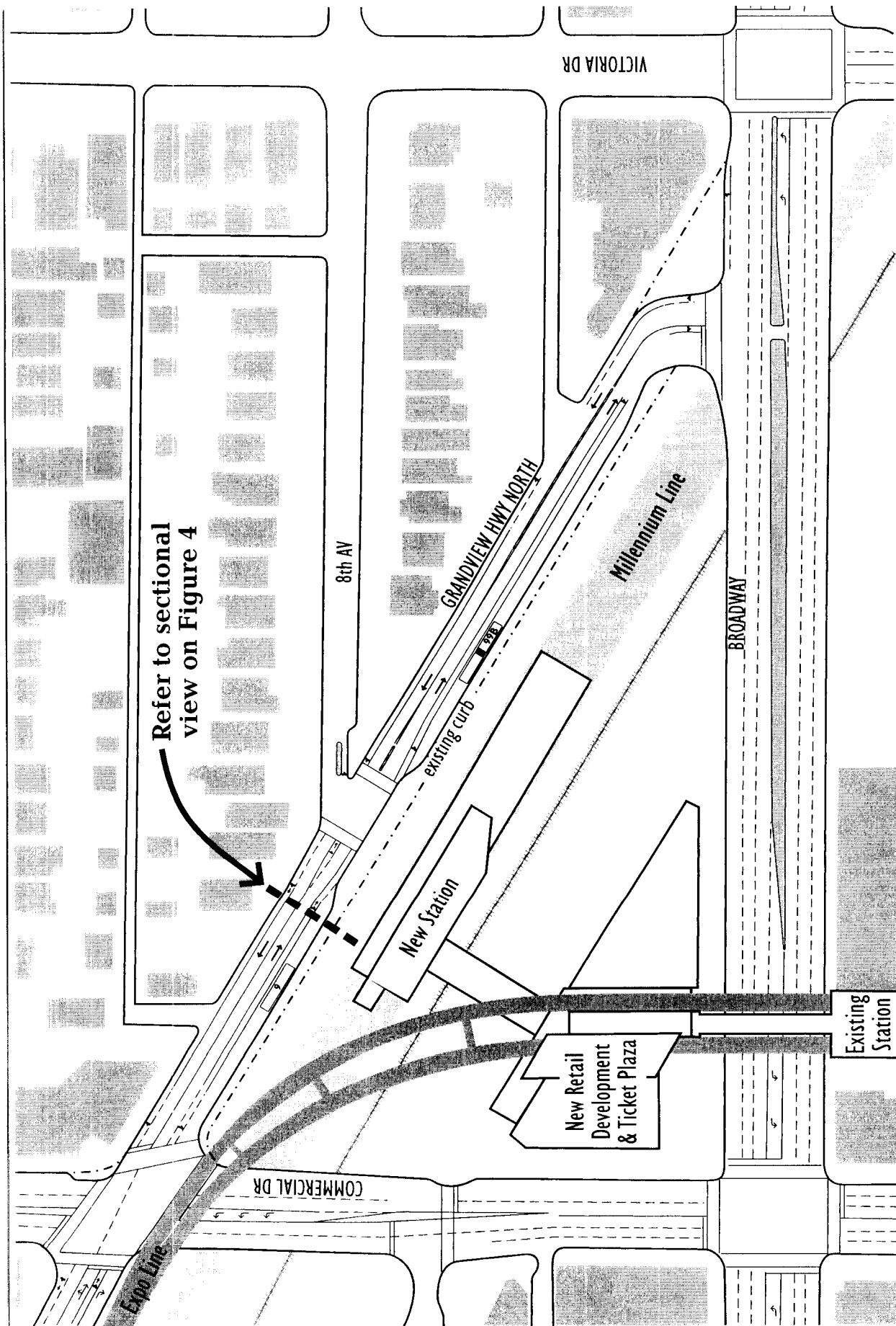
In conclusion, staff recommends Council support the Traffic Calming Plan with enhanced landscaping along the Grandview Cut as shown in Figure 1. As an alternative, in response to the local neighbourhood request for further buffering, staff also resubmit for Council's consideration the option that was originally recommended last year with the landscape buffering provided on the north side of the street next to the residents (Figure 2).

The design details would then be finalized and the Plan forwarded to the RTPO to be used to design the landscaping elements of the Greenway.

In the future, when the Millennium Line is extended to Central Broadway, Council may wish to revisit the closure of Grandview Highway North between Commercial and Victoria. Staff could then re-analyse the potential impacts of the closure and report back to Council.

* * * * *

Figure 1



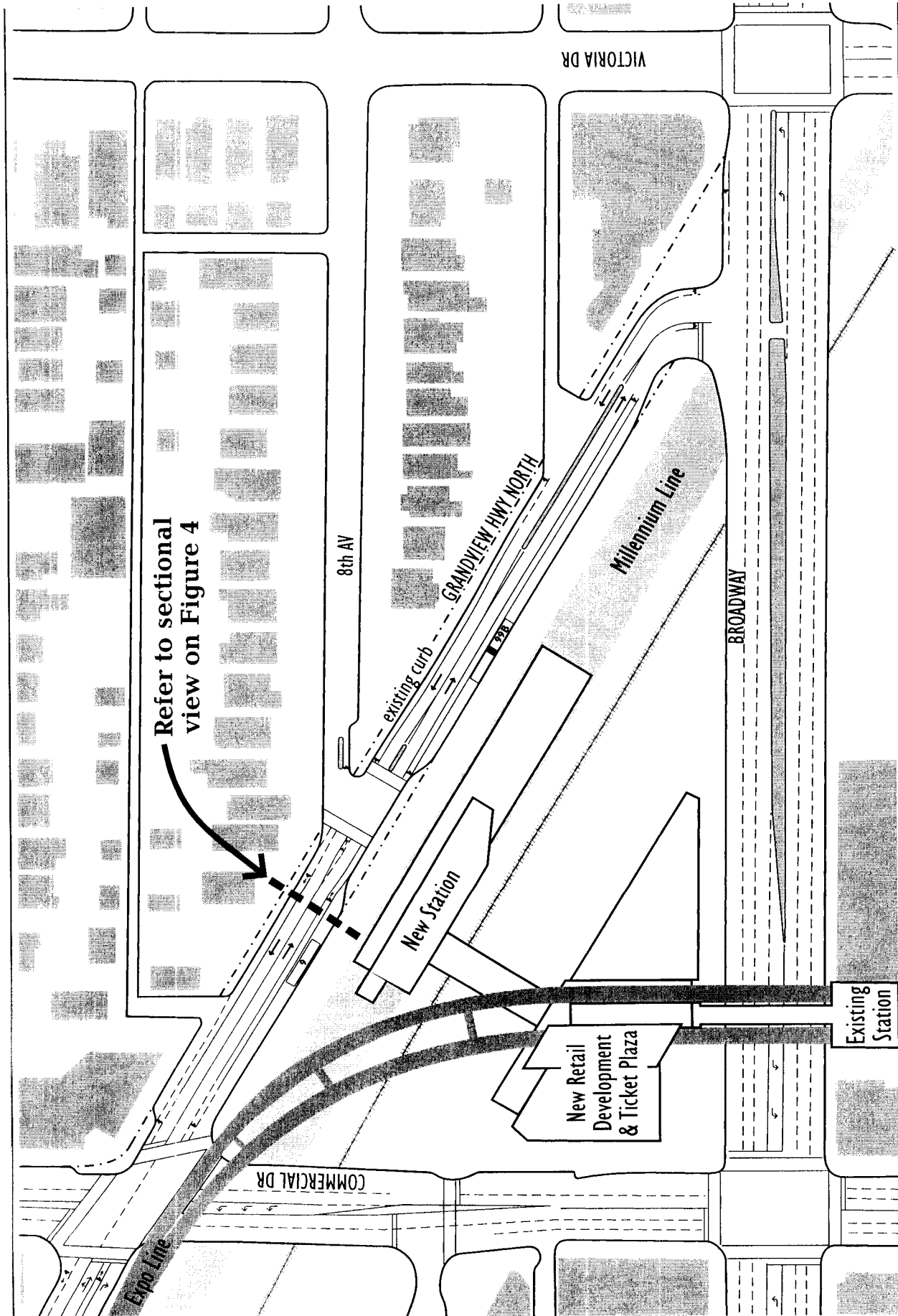
Grandview Hwy. North - Recommended Traffic Calming Plan



Engineering Services

City of Vancouver

Figure 2



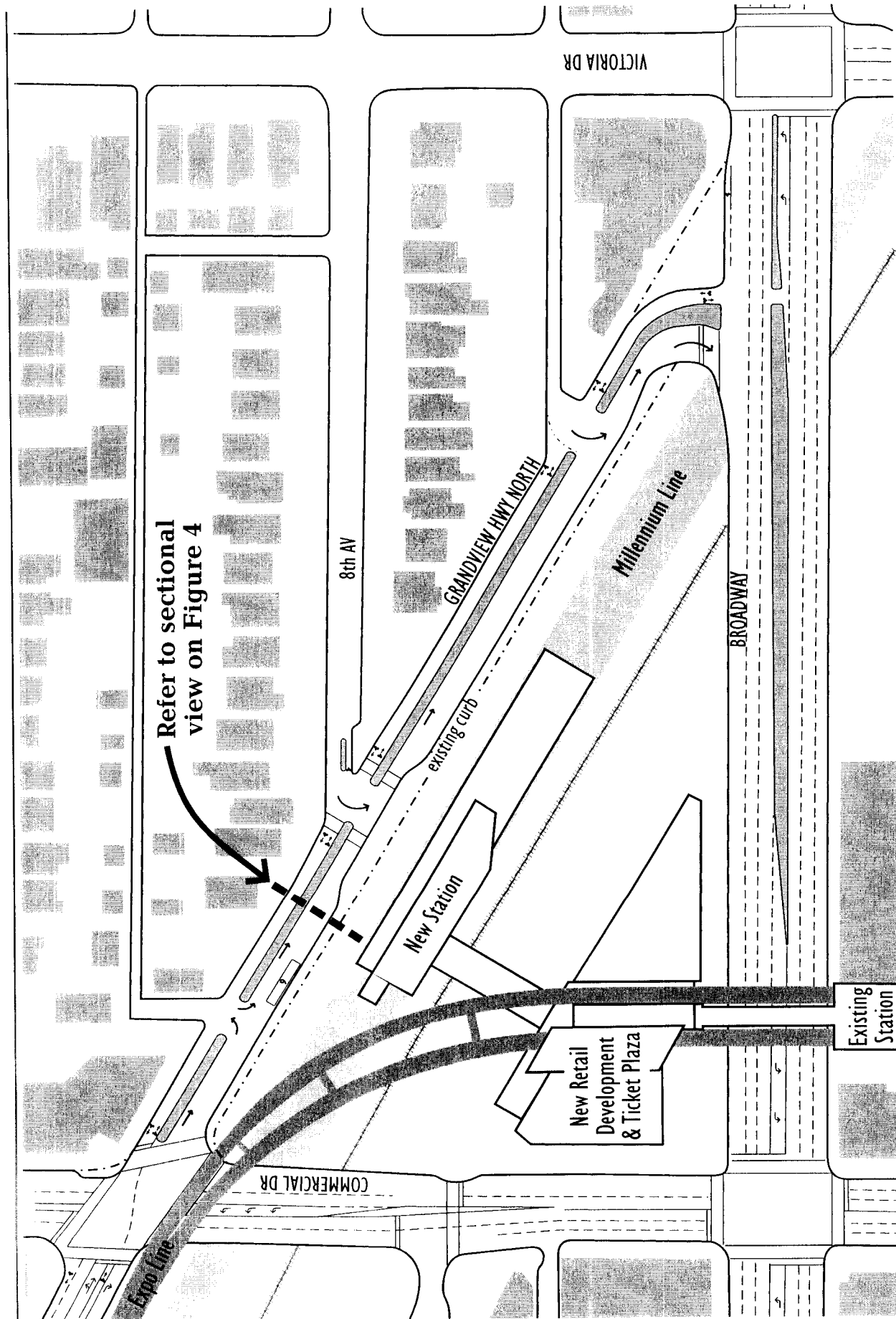
Original Proposed Traffic Calming Plan - 2001 for consideration

Engineering Services

City of Vancouver

cgjen O:\Rail\Transit\kispays\BC traffic calming appendix.cdr 03/13/02

Figure 3



Refer to sectional view on Figure 4

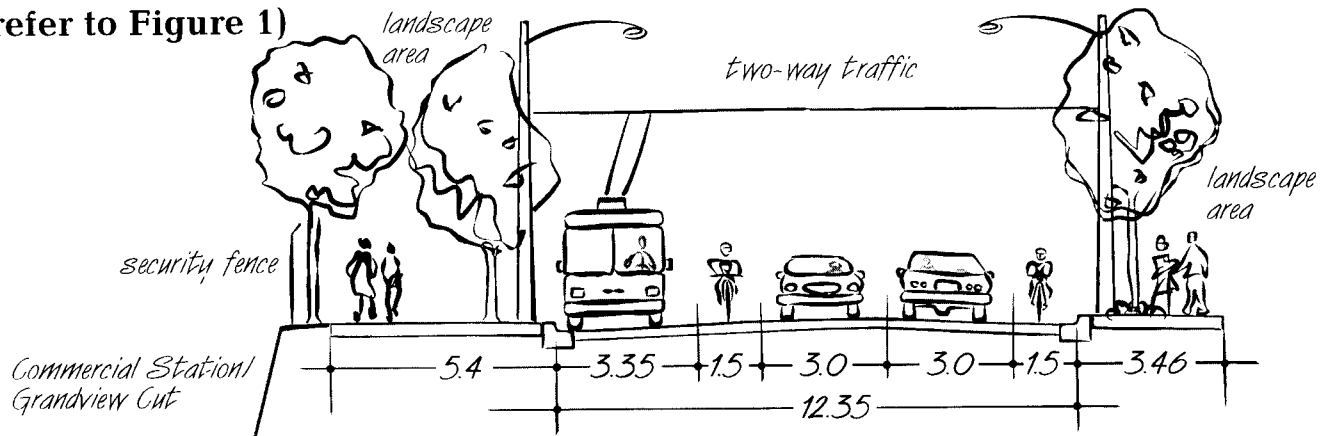
Grandview Hwy. North - Full One-way for future consideration



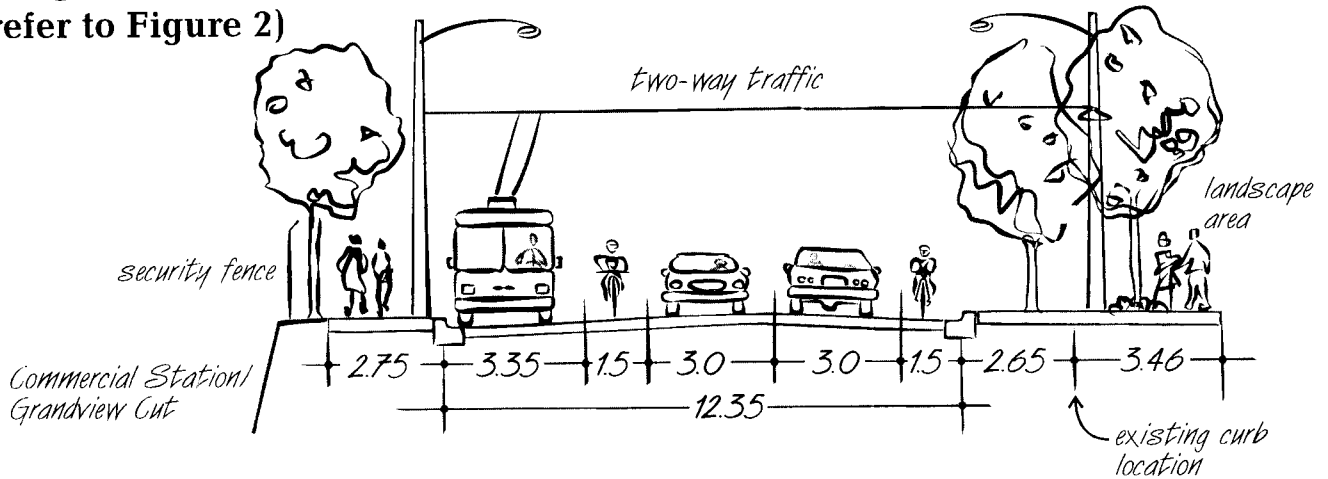
Engineering Services

City of Vancouver

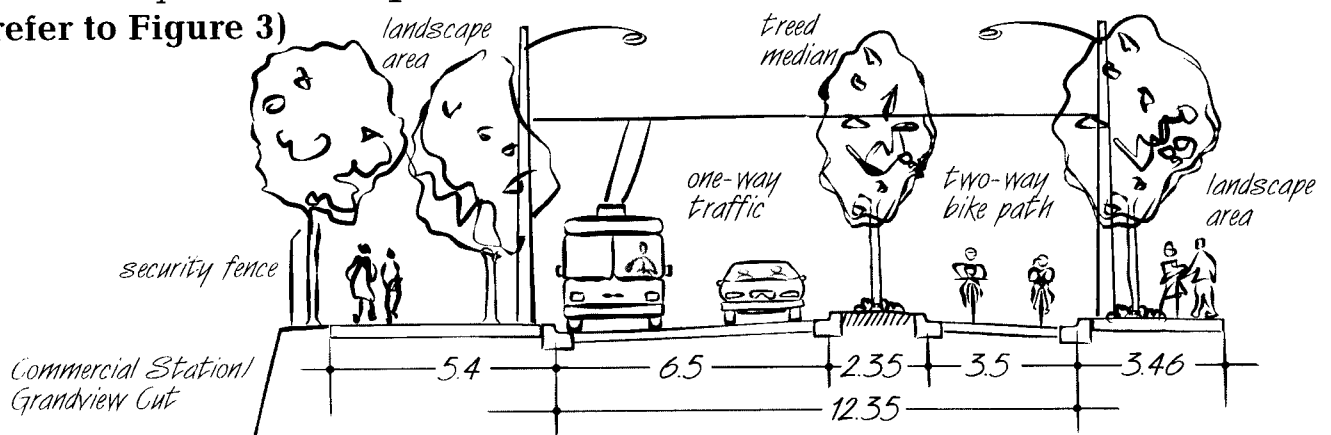
section - looking West on Grandview Hwy North
Recommended Traffic Calming Plan
 (refer to Figure 1)



Original Proposed Traffic Calming Plan for consideration
 (refer to Figure 2)



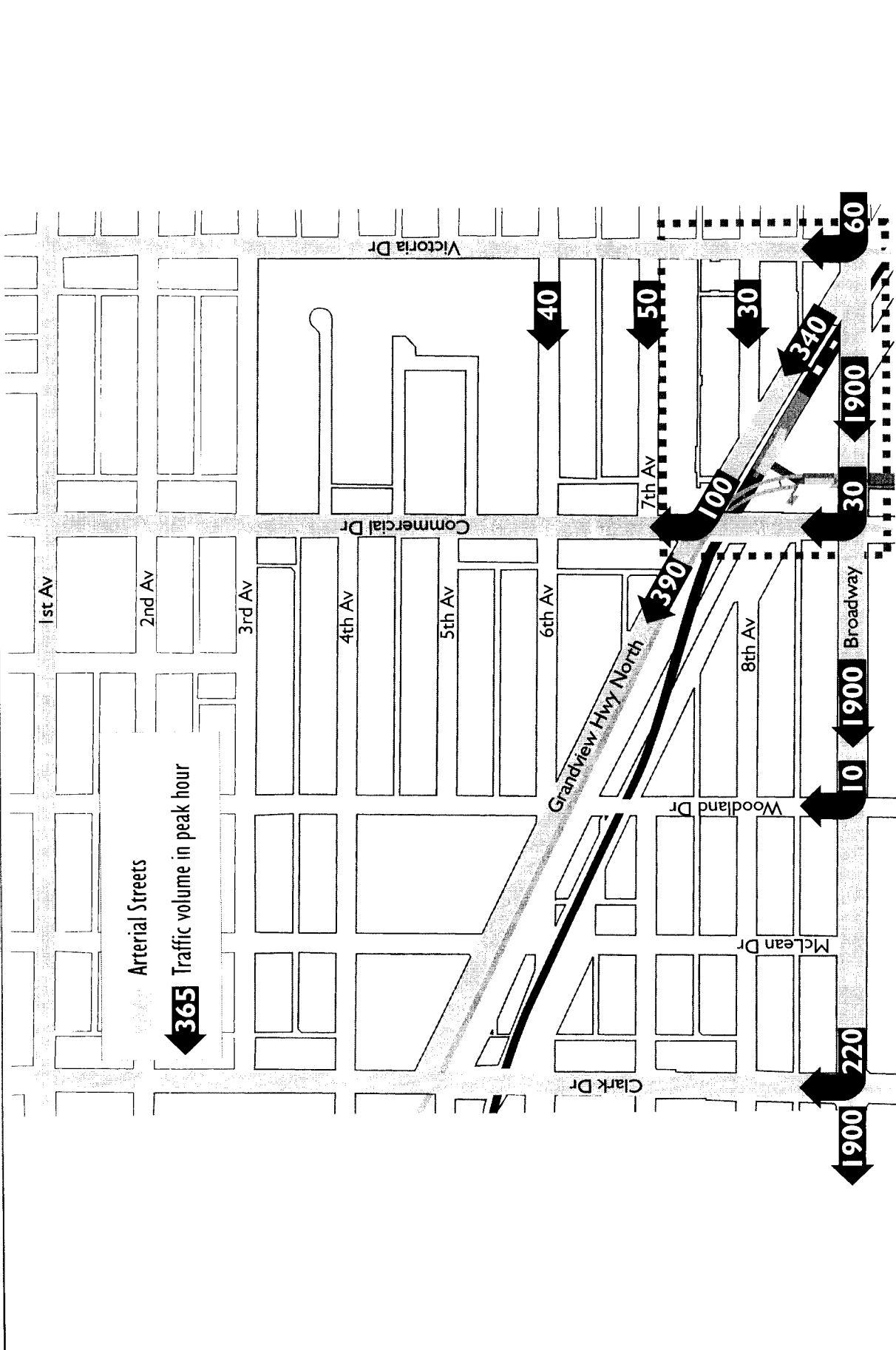
One-way Traffic Option future consideration
 (refer to Figure 3)



Cross Sections for all Plans (Figures 1-3)



Figure 5



Existing Peak Hour Traffic Volumes (AM 1997-2000)

Engineering Services

City of Vancouver

APPENDIX A

**Central Valley Greenway/Bikeway
Victoria Drive to Commercial Drive
Proposed Traffic Calming Open House February 11, 2002
Quantitative Responses**

1. I support the construction of pedestrian corner bulges at the intersections of Grandview Highway North and Commercial drive and at Grandview Highway North and 8 th Avenue:	2. I support the re-alignment of Grandview Highway North at Broadway:
Agree: 97 (87%)	Agree: 93 (84%)
Disagree: 9 (8%)	Disagree: 13 (12%)

Note: Approximately 950 Open House invitations, letters and surveys were delivered in the neighborhood to residents, property owners, businesses and institutions. 111 surveys were returned.

**Central Valley Greenway/Bikeway
Victoria Drive to Commercial Drive
Proposed Traffic Calming Open House February 11, 2002
Additional Comments**

- Given the small volume of traffic of any type that uses this “highway”, the City would be advised to dissuade drivers from using it. Every effort should be made to have SkyTrain as the preferred means of entering the city and therefore, making it more difficult to drive beyond Commercial Drive, should be the City’s goal.

With this in mind, traffic should be forced to use Broadway west to Clark Drive, then North to Great Northern Way. We should not be making it easier for traffic to bypass Commercial and Broadway and to more easily access Clark Drive. Trucks may be a necessity but cars are not.

- **Re #2:** If you re-align Grandview Highway, North at Broadway, it would increase the already huge amount of truck traffic along Broadway and also the other vehicle traffic along Broadway, and the lane between East 8th Avenue and Broadway in the 1500-1600 block. When are they going to put speed bumps in? Why don’t they stop heavy truck traffic along Broadway between the hours of 9:00 PM and 7:00 AM so people can sleep?
- It appears to me that a piece of your traffic-calming plan is missing, that is, what plans are there for the 1700-1800 blocks of 7th East? Ever since left turns were prohibited from Grandview Highway North, east-bound onto Broadway & 8th was blocked to east-bound traffic, there has been an increase of east-bound traffic on 7th, particularly at rush hour. These vehicles appear to consider this a through-way and travel at speeds considerably above the 50 kph limit. I called city hall several years ago regarding this and was told that there were plans to monitor the traffic in order to determine what calming measures might be appropriate. Can you tell me if this was ever done and what the conclusions were? It seems that a pedestrian bulge at the south east corner of 7th & Commercial would slow traffic turning left onto 7th. But perhaps a better plan would be for 7th to be blocked the turns from Commercial Drive. The barrier could be placed so that vehicles seeking access to underground parking in the Far East building could do so but traffic could not proceed eastward from there. I fear the latest plans for 8th & Grandview Hwy. North will only increase traffic on 7th. I would appreciate a response.
- This is identical to the Plan that residents forced Council to reject July 31/02. Catherine Sinasac, assured me on Sept 13/01 that 2 options would be provided for review by the residents in fall 2001.

APPENDIX B

→Why was I not including on the mailing list? This is not acceptable and does not reflect the residents wishes or the assurances provided to us by Vancouver City Council and Staff.

→The Survey is not in keeping with the Aug 2, 2001, City Council instructions. Please provide us with viable alternatives that reflect the communities needs. Try again.

→Grandview Hwy North Traffic Calming Plan, Feb 2002, City of Vancouver. *

Location - A

→ Provide assurance that bus driver amenities block will be located there.

Location - B

→ Provide a visual barrier to the lights at Commercial Drive to discourage motorists from accelerating down the hill to make a green light.

→ Make the right hand turn from 8th Avenue more difficult to discourage vehicles from using 8th as a short cut.

Location - C

→ Provide pedestrian bulge on the Grandview Hwy side of the N/E corner and move the stop line back to make the intersection safer for pedestrians.

→ Acknowledge the pedestrian nature of our street and make it safe to walk to the corner store.

- I use this (Grandview High. N. @ Broadway) right turn off Broadway a lot. It looks to be a way more dangerous angle to turn onto than the most direct route that's in place. Also large trucks use this all the time to avoid difficult right hand turns at Commercial and Knight Street. Grid lock will happen at ll these corners if trucks are forced to take the narrow versions. As a truck driver myself and an inhabitant of this area I believe what's in place could be fixed up a wee bit but should be left as is. This route through is efficient and functional for all.
- We should keep large trucks off Victoria Drive. We should install traffic obstacles at the intersection between Broadway and First Ave. Drivers speed up and try to beat pedestrians to the intersections.

Banning heavy-truck traffic on local streets sounds fine, but creating any more bottlenecks and traffic jams doesn't strike me as money well spent. At the site of the proposed re-alignment at Broadway, traffic is plenty slow as it is, and the pedestrian crossing signal works just fine to keep us out from under various wheels. How about paving my lane instead? It's like something from the third world?

APPENDIX B

- You have not included the option that residents want. This is to close traffic westbound from Broadway & Victoria onto Grandview Highway North. There should only be bus traffic looping from Commercial on the other side of the street, and local residents access traffic. This route will continue to be used as a speedway to get to Clark Drive.
- Perhaps outside scope of this survey, but why don't we make the Commercial Drive bridge over the Grandview Cut into a true pedestrian bridge e.g. by eliminating the northbound left turn bay, allowing for the widening of the sidewalks. I think the pedestrian traffic warrants it.
- If trucks are restricted from using Grandview Highway North, they will return to the residential streets, 7th, 6th, etc just as they have done in the past to make these streets unsafe for children, pets and the elderly. A curb extension at 8th Avenue on GH will impede the flow of traffic and make drivers more impatient, since they will likely have had to stop for the light and must change lanes if in the south/bus lane. Surely you are already aware of the impatience caused by the new curb extensions among many drivers and since they can't change it once these "bulges" are in place, they will be showing their displeasure to pedestrians and waiting bus passengers.
- The sooner, the better! Diesel fumes and noise unhealthy for daycare toddlers in school playground, gardeners in community garden and pedestrians, not to mention beleaguered renters in the Woodland Drive area.
- Anything that improves the appearance and livability of the area is a move forward and appreciated.
- When I have walked around the Grandview-Woodland area, I have noticed a lot of garbage lying around. This is an ongoing problem, I have lived in this area for ten years, property owners need encouragement to take pride in their neighbourhood. I see the same bits of garbage sitting for ages; however, any place I work at, I always clean garbage outside the property line isn't too hard. Unfortunately, because of high real estate prices, I'm not fortunate enough to own property but still take pride where I live.

Traffic calming is a good idea because it sets a good mood for the community. This is a good way to upgrade and build up a community. But again, I would like to stress the problem of how garbage could affect the quality of the greenway. A neighbourhood with a lot of garbage, that looks neglected and desolate attracts more vermin problems. The Grandview cut, is so full of garbage would happen to the greenway. The bike route will help upgrade and build up the neighbourhood. I'm for that. I like the millennium line going through Grandview a lot of the garbage got cleaned out of it. This is quite a beautiful inner city neighbourhood, with very beautiful heritage buildings, should get the respect it deserves.

APPENDIX B

→The Grandview-Woodland area is a beautiful inner city neighbourhood with lots of old heritage buildings has far too much litter on the ground is very neglected.

- My son drives truck for Yen Bros. Food Service. He uses the North Grandview Hwy cut-off at Broadway and Victoria occasionally. It cuts down time to reach Clark Drive rather than using Broadway to Clark (that area is too congested!). I do not support the re-alignment at Grandview Highway - north at Broadway!!!
- No comments, but I think the idea is great.
- I think a traffic light is needed on Grandview Hwy N at Woodland for cyclists & pedestrians.
- Please consider paving a couple of speed bumps on 6th Avenue between Victoria and Commercial. Many drivers use this street as a detour and speed excessively while doing so. However, I understand that for the fire trucks at the station at Victoria and 2nd Ave., 6th Avenue is important as the first street they can use to head west or south-west on their emergency calls.
- 7th Avenue now truck route. School buses, postal trucks, produce trucks, milk trucks, garbage trucks. Need pedestrian bulges at 7th Avenue and Commercial or at 7th Avenue and Victoria Drive. Also speed bump to slow traffic.
- Mitigating vehicular traffic by installing speed bumps between intersection of Grandview Hwy North/Broadway & Grandview Hwy/Clark. Installing a concrete raised division between bike lane and vehicle lane on same stretch of road. Once bikes reach Clark/Grandview there should be a thru-way for bikes to proceed downtown via Great Canadian or First Street. Unacceptable.

→Bikes have to detour south to West 7th Avenue. The plan as it stands now does not properly address the concerns for biker safety in a sensible manner. You still have traffic barrelling down Grandview Hwy North to turn right on Commercial. Traffic should continue down Broadway or mitigate contact between bikers and vehicles by installing separate raised lanes for bikes. The proposals I've reviewed are half-hearted and need further refining and little more imagination.

→“Greenway” principles are quite compromised by “preferred option” shown. Keeping the Broadway “off ramp” along westbound Grandview North is good for car traffic only, but really complicates life for cyclists and pedestrians wanting to use a continuous greenway. We would benefit from more options to discuss:

APPENDIX B

- Design for BUS ONLY eastbound on Grandview North.
 - Arrangement for bus stops and turning traffic to serve Broadway (east of Commercial) (i.e. slow possible layout!)
 - Combine/study landscaping, recreational hall and cyclist facilities on one side of Grandview N.
- I have attended almost all of the “so-called public consultation” on Grandview N. Commercial/Victoria - after all this effort I am disappointed that more creative solutions weren’t offered to the people residing close by. At the very LEAST the full one-way option should be implemented now, not as some “pie-in-the-sky” future plan should Millennium line go further west. The 8th Avenue residents deserve major landscaping consideration for their future discomfort!
 - I feel the full neighbour is intentionally not being consulted in this process. I found out by accident - when I asked why I living less than 4 blocks away I was told I was “not within the affected area”.
 - We were shown 2 mock-ups. The second one entitled “future considerations” dependent on the completion of the sky-train to central Broadway - please implement the second mock-up “future considerations” now.
 - You have rammed 2 sky-trains into our neighbourhood and now inform us we can expect 40 buses an hour idling and belching diesel as 2 sky trains discharge into slow buses. This is poor planning and engineering from the get to.
 - In 6 months you have managed to move the green space across the street. If this is what engineering thought council intended - it’s not what the neighbourhood wanted - as usual the east side is being stripped of its greenery and ignored.
 - Figure out a way of eliminating the drivers proposed washrooms from street level- they will be an ugly addition to our neighbourhood.
 - Why was this held in a facility that is not handicapped accessible?
I would like a letter on each of the above items explaining how these comments have been considered and incorporated before the recommendations go back to council.
 - Since the beginning (4-5 yrs) I have been to meetings with transit, sky train and highway people. They all have had transportation as their priority, and no one has had our neighbourhood as a priority. Our green space, pedestrian areas and leisure areas have disappeared to traffic & transit. Who in Vancouver City Hall or Province is responsible for representing community well being? BTLS - during all these meetings I (and others in my community) have been

APPENDIX B

promised our concerns would be taken into consideration - and they have not because of “Technical Considerations”. So I am frustrated with these meetings which ask for our opinions and then do not adequately deal with them. I find bulges have no value since I stand in front of parked cars & peek out. I want GVH North to be devoid of cars!! Just be bikes, walking, trees, shrubs & buses. *

- I support one-way traffic on Grandview Highway with a separate lane for cyclists. Why is this option not on the survey? His seems to be a concerted effort to sway the results of the survey.
- There used to be a large berm of soil and railway ties on the cut side of N. Grandview which cut Broadway traffic sounds substantially. We sincerely hope that a dense green belt is proposed to aid in cutting some of the traffic and added bus noise we are now experiencing.
- Please consider curb extensions or a cement circle to be placed on the corner of Grandview Highway & Woodland Drive. There is an elementary school there. We have had several complaints about the traffic. We are concerned for the safety of our children.
- In addition to the proposed traffic calming changes outlined within the survey, have any changes been considered to noise reduction in and around the Grandview Hwy North/Commercial Drive area? Obviously, the introduction of the second sky-train line will bring with it an increased level of noise. This is one of my chief concerns. Thank you.
- →Your diagram is unclear as to what changes are proposed for 8th and Grandview. Is there a bus lane passing under a pedestrian bulge? The traffic calming measures sound good and I generally support them, but the detail is unclear.

→Traffic calming is needed on Grandview between Commercial & Clarke. Drivers transit that stretch of road at frightening speed. With the playground of Grandview Elementary School immediately adjacent to the road, a tragedy is a strong potential.
- I agree with all proposed changes - sooner the better.
- I support the “greenway” project, it is foresighted and likely to become a real asset to Vancouver east. I often walk along Broadway and I have frequently been concerned about traffic turning on to Grandview Highway North. As a pedestrian, the speed of the approaching traffic has some times been frightening.
- Is there going to be any consideration given to the rest of Grandview Highway North, between Commercial and Clarke Road? The landscaping along this section should be reviewed/altered, or at least maintained!

APPENDIX B

- All the work that is being done is starting to look great. How about curbs on 6th Avenue between Commercial Drive and woodland. The mud is very messy in the winter and spring. Thanks. Why not make Grandview Highway North (between Commercial Drive and Victoria Drive) a one-way street (east bound). This would limit the traffic to transit buses and 8th Avenue residents. At the same time, a left-turn arrow would be very useful for cars driving south on Commercial Drive and wanting to turn left on Broadway (east bound traffic).
- Why not make Grandview Highway North (between Commercial Drive and Victoria Drive) a one-way street (east bound). This would limit the traffic to transit buses and 8th Avenue residents. At the same time, a left-turn arrow would be very useful for cars driving south on Commercial Drive and wanting to turn left on Broadway (east bound traffic).
- Please look at the corner of 6th Avenue and woodland and observe the traffic flow. In the last two years a “NO ENTRY” sign has been erected preventing traffic from entering 6th Avenue from woodland and proceeding east to Commercial. This sign is ignored many times on a daily basis. At present I have no alternate suggestion to offer.
- Thank you for all your efforts to calm traffic and make this area safer for my students and their families.
- Please help form a neighbourhood committee to clean and remove the graffiti blights in our area. Those caught doing this damage should be charged with a criminal offense and pay back the cost of cleaning up after them.
- These changes will be excellent. I’ve been nearly hit many times while crossing the crosswalk at Grandview North and Broadway. Drivers don’t slow down and don’t look half the time. I’m very happy that trucks won’t be allowed down Grandview any longer. The greenery will be nice. Will there be a designated bike path?
- Any extra room for cyclists would be greatly appreciated.
- I support these changes and also the landscaping of the North side of Grandview cut. We daily use these areas to walk to work and often with our two small children we walk down 8th Avenue to Grandview Hwy. (Children ages 2 and 6 months). Any measures to increase the safety of pedestrians are greatly welcomed.
- Grandview Hwy should be a bike path.
- → The pedestrian bulge proposed for Grandview Highway North and 8th serves no purpose. Pedestrians do not cross here.

APPENDIX B

- The bulge proposed for Commercial and GHN facilitates crossing Commercial while the majority of pedestrians cross Grandview Highway North in effect the bulge should extend into GHN instead of, or as well as, Commercial:.
- The re-alignment at Broadway corrects one unsafe condition - risk to pedestrians crossing GHN - but creates another; rear-enders on Broadway, coming as it does so close to the Broadway/Victoria intersection. This exit from Broadway should be closed.
- The sketch appears to move the bus loop even closer to residences, not further away as residents have repeatedly requested.
- Cycle path, foot path and landscaping should be moved North of any traffic/bus loop lane, and combined with the exiting sidewalk on the south side to a minimum, so as to move the buses as close as possible to the securing fence.
- Limit landscaping at the security fence to a thick tall hedge, perhaps cedar, that will block sight lines from GHW.
- Consider making 8th, a cul-de-sac, that you can enter from Victoria only (except for bicycles and perhaps emergency vehicles).
- Dead-end the alley behind the Buddhist temple, so you can enter only from Victoria.
- Speed bumps on 6th and 7th.
- Do proper neighbourhood consultation, don't ask traffic engineers to lead the design effort.
- → Pedestrians do not cross at 6th and 8th Ave., particularly if they must walk by idling diesel buses. They will use the North side of GHN, crossing at Commercial.
 - This will create a dangerous intersection for cars, bikes, people. Consider a temporary closure of GHN and study traffic flow in all areas to determine other innovative traffic calming solutions.
 - The greenway needs to be both sides of GHN. Move the buses further south towards the cut.
 - Engage in a proper consultation process as you were directed by Council to do last July 31st. The survey is weak and does not constitute an adequate consultation or problem-solving process. Traffic Engineers should not lead the design process for the greenway.

APPENDIX B

- One response per household leads me to conclusion that traffic does not want input from everyone, or anyone, for that matter. Two surveys were sent to our home and two surveys were completed.
- The 8th Avenue crossing must be well lit and have a pedestrian activated light signal in operation. It is cheaper to do it now and makes the crossing safer for elders and children.
- The trucks should have a different route.
- → Any inconvenience, slowing or hindrance being proposed to the intersection will cause some traffic to turn down Victoria Drive before the intersection as an avoidance measure after drivers become familiar.
 - Some of this truck/car traffic will then use 7th or 6th heading west to get back on to Commercial Drive.
 - Both 6th and 7th are already primarily used as connector routes for traffic between Commercial and Victoria. I live on 6th and can attest to this street being used 90% of the time by vehicles using the street as a short cut.
 - I cannot support this proposal as it will only exacerbate the situation on adjoining streets. It is not fully developed.
 - There should be some method by which non-local traffic is kept off 6th and 7th dead-ends (similar to 4th and 5th), one way entries, etc., would be welcomed.
 - I question whether there is any great need to have traffic going on this route, as they are using it to get to either Commercial Drive or Clarke St. (which are only 1 or 2 more blocks on Broadway anyway).
 - However, since I don't understand the complexities of traffic flow, I assume it would probably have some negative effects on other streets.
- I am assuming that there will be a biking/blading pathway (where it says existing curb) to connect up with the existing Molson's/7-11 Pathway to the West!). This is vitally needed and would enhance the use of these alternative forms of transportation dramatically in the City of Vancouver.