

Technical Review of 32 Avenue Truck Route in Surrey B.C. Final Report

January 21, 2013.



1. PURPOSE

The purpose of this report is to provide the results of a technical review conducted by TransLink on the 32 Avenue truck route in Surrey. This review was conducted in response to a City of Surrey Council resolution (January 23, 2012) requesting that TransLink assess the merits of the request from residents of 32 Avenue to remove 32 Avenue between 152 and 176 Streets from the Surrey truck route network, in the context of other truck routes in Surrey, the future development in the area, and impacts to business and residents. TransLink also received a letter from the City of Surrey Mayor on behalf of the 32 Avenue Community Alliance on this issue.

In addition to consultation with stakeholders during the study, TransLink received input on the draft technical report until January 15 2013, prior to issuing this final report.

2. BACKGROUND

The SCBCTA Act Part 2 Section 21 (2) requires Municipalities to seek TransLink approval for any action that would prohibit the movement of trucks on any road in the transportation service region.

(2) Despite the *Community Charter*, the *Vancouver Charter* or any other enactment but subject to subsection (3) of this section, a municipality must not, without the approval of the authority, take, authorize or permit any action that would prohibit the movement of trucks on all or any part of a highway in the transportation service region.

The 32 Avenue truck route is not on the Major Road Network. It is currently a two-lane arterial street with a centre turn lane in sections. Figure 1 below illustrates Surrey truck routes in orange and Provincial highways in blue.

Figure 1 - 32 Avenue Location

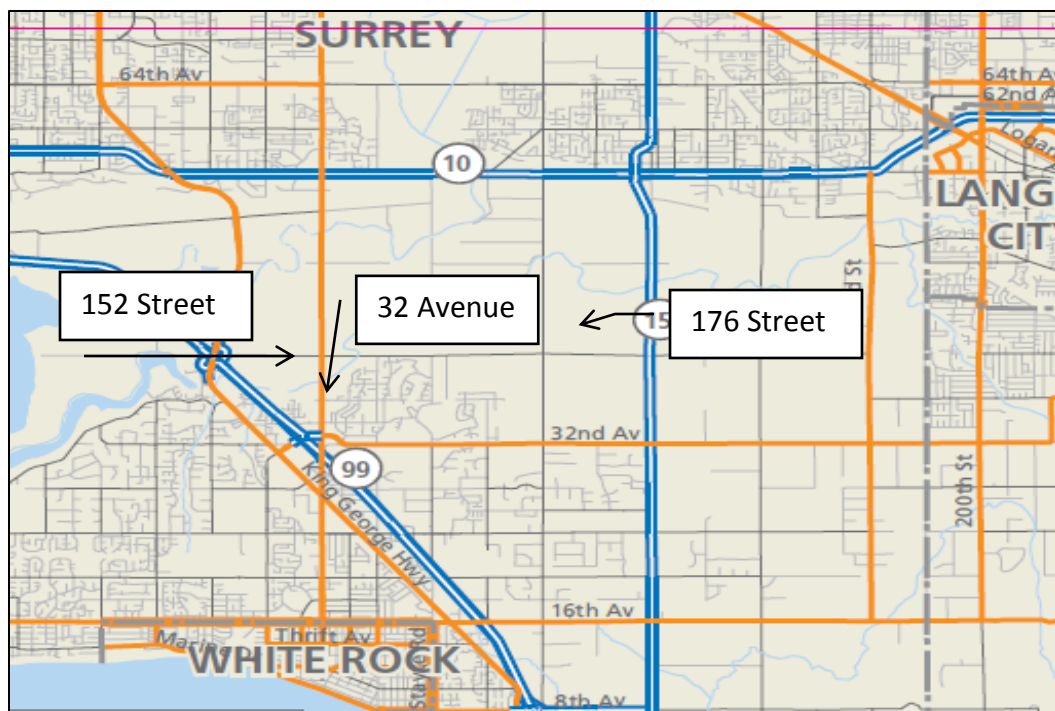


Table 1 below summarizes the history of 32 Avenue as a truck route in the City of Surrey.

Time	Event
Prior to 1999	All arterial roadways in Surrey considered truck routes.
December 14, 1998	Council adopted the City's truck route network as part of the Surrey Transportation Plan: 32 Avenue designated a truck route.
1998 – 2006	Construction of Rosemary Heights Neighbourhood north of 32 Avenue, and Grandview Heights south of 32 Avenue.
1999	Residents request to remove 32 Avenue from the truck route network.
June 21, 1999	Council passed a resolution to temporarily remove 32 Avenue from the truck route system.
December 15, 1999	Approval for temporary truck ban granted by TransLink, expiring January 2002.
December 2001	TransLink extends temporary ban until September 2002 to allow completion of a new school.
December 2002	TransLink Board approval for temporary truck ban extended until January 2004 to allow for completion of a technical review and stakeholder consultation.
December 2003	TransLink Board considers City of Surrey request for a permanent truck ban. TransLink Board approves temporary truck ban extension until July 1, 2004 to allow City of Surrey staff time to investigate mitigation measures that may be warranted.
June 30, 2004	Temporary 32 Avenue truck ban expires after Surrey staff identify noise mitigation measures.
2004	Surrey City Council approved the development of the Campbell heights business park, one of the largest industrial areas south of the Fraser River.
2010	City of Surrey staff identifies 32 Avenue as a candidate for inclusion in the MRN.
Early 2011	The City initiated a construction project for widening 32 Avenue between 154 Street and 160 Street, from 2 lanes to 4 lanes.
October 17, 2011	32 Avenue delegation requests Surrey Council to remove 32 Avenue from the truck route network due to concerns of noise, safety and air pollution.
January 23, 2012	City of Surrey Council resolution requesting TransLink assess 32 Avenue truck route merits and consult MoTI. Letter from the Mayor received February 2 2012.

3. DISCUSSION

TransLink conducted an assessment of 32 Avenue between 152 and 176 Streets from a local and regional perspective, and in terms of consistency with TransLink's mandate, and corporate priorities. The technical and community issues listed in Table 2 below were considered. In addition, TransLink received input from community residents, the BC Trucking Association, and consulted with the Ministry of Transportation and Infrastructure as well as the Township of Langley. The following discussion provides a summary of findings and input received for each topic.

Table 2 – Issues Considered

Community	Technical
Public Health and Air Quality	Truck Route Connectivity
Noise & Vibration	Land Use
Traffic Safety	Truck & Traffic Volumes
	Road Engineering

3.1 Community Issues

TransLink has received numerous communications from the 32 Avenue Community Alliance regarding their concerns about the truck volumes on this street. The TransLink Board received a delegation at the December 2011 meeting, and TransLink staff subsequently met with some residents on site in spring 2012. A stakeholder meeting was held at TransLink offices on June 8, 2012 to receive additional community and stakeholder input. Since then, TransLink has received numerous email letters from residents voicing concerns and advocating for the removal of 32 Avenue between 152 and 176 Streets from the truck route network. The community issues raised are summarized and discussed in the following sections: public health, air quality, noise, vibration and traffic safety.

3.1.1 Public Health and Air Quality

Residents requested that TransLink consider public health issues surrounding exposure to the various emissions of diesel truck engines, which include nitrogen dioxide and particulate matter. The World Health Organization (WHO) announced on June 12, 2012 that the International Agency for Research on Cancer (IARC) now classifies diesel engine exhaust as carcinogenic to humans and that prolonged exposure is associated with an increased risk for lung cancer. This proclamation is based upon medical evidence presented from sources worldwide, including countries that use low grade high emission fuels and have no engine emission controls legislation, or poor enforcement of emission controls.

Metro Vancouver's Integrated Air Quality and Greenhouse Gas Management Plan (2011) recognizes health impacts from diesel exhaust and states that:

"In addition to increasing the risk of adverse heart and lung health outcomes, emissions of diesel particulate matter are responsible for 67% of the lifetime cancer risk from air pollution in Metro Vancouver."

A study conducted by Brauer, Henderson et.al. at the University of British Columbia School of Environmental Health (2007) found that the exposure zone of transportation emission sources can range up to several hundred metres and that health impacts can be found within 150 metres.

There are many technologies available and in use to reduce engine emissions. According to the Manufacturers of Emissions Controls Association of North America (2007), technologies designed to control particulate matter emissions from diesel engines include:

- Diesel oxidation catalysts
- Diesel particulate filters
- Closed crankcase ventilation

Technologies designed to control oxides of nitrogen include:

- Exhaust gas recirculation
- Selective catalytic reduction
- Lean nitrogen catalysts
- Lean nitrogen traps

3.1.2 Agency Responsibilities and Regional Context

Agency responsibilities around this issue are as follows:

- Metro Vancouver is the agency responsible for monitoring air quality in the region.
- Environment Canada regulates motor vehicle engine fuels.
- Environment Canada regulates motor vehicle emission standards.

A BC Ministry of Environment Best Management Practice (2006) document suggests that developments should be set back 150 metres on major roads and special consideration be given for truck routes. This practice is not policy or adopted by the City of Surrey or any Metro Vancouver municipality in development bylaws. The same Best Management Practice acknowledges that *“other planning considerations, such as availability of land, accessibility of facilities, and desire for compact, walkable neighbourhoods may mean that setbacks are not feasible.”*

With diesel-powered trucks, cars and buses prevalent on major roads throughout Metro Vancouver, the health impacts related to engine emissions are a region-wide issue. Within Metro Vancouver, 21 per cent of the population lives within 100 metres of a major road, and 11 per cent (approximately 250,000 people) live within 50 metres of a major road.

3.1.3 Empirical Evidence

The 2011 Metro Vancouver Air Quality Monitoring Report shows that all measures of particulate matters (PM) and nitrogen oxide (NO) in all locations measured throughout Metro Vancouver are well below hourly and annual target objectives. Metro Vancouver reports that the measurements rarely identify any areas of Metro to be at-risk from elevated levels of PM and NO.

3.1.4 Academic Evidence

A UBC study modelled levels of nitrogen oxide (NO) and fine particulate matter (PM) in Metro Vancouver, and concluded that 32 Avenue is comparable to typical suburban arterial roads. Many corridors in more densely populated areas of the region experience higher modelled emissions than 32 Avenue, but are still lower than the emission targets.

3.1.5 Recent Initiatives

TransLink participated in a Metro Vancouver study to investigate strategies that will reduce human exposure to traffic-related air pollutants. This study, titled "Reducing Exposure to Traffic Emissions" (RETE), documents air quality data and potential health impacts and suggests strategies to reduce transportation related air pollutants. At the time of this report, the RETE study recommendations were under review by the study partners. The intent of the RETE study is to provide a range of strategies to help guide the management of traffic emission exposure in the region.

Also in 2012, Environment Canada approved more stringent standards for emissions from diesel heavy duty vehicles. As the vehicle fleet is renewed and newer vehicles meet the new standards, emissions are expected to decrease further.

Metro Vancouver is currently considering issues related heavy-duty vehicle emissions. To this end, Metro Vancouver is using specialized technology to measure the diesel pollution from semi-trailer trucks, dump trucks, buses and other heavy-duty vehicles. Metro Vancouver has requested that the Province include enhanced focus on emissions from heavy duty vehicles as part of a continued AirCare Program.

3.1.6 Summary

A significant proportion of Metro Vancouver residents live in proximity to major arterials where diesel trucks, buses and cars are a common type of vehicle. The available empirical evidence suggests air quality in the region is meeting the target objectives and elevated levels of emissions, as measured by Metro Vancouver, are rare. Engine emission control technologies are available to reduce diesel emissions. There are also several federal and regional initiatives that aim to further improve the management of air quality.

3.1.7 Noise and Vibration

The community raised the issue of noise from passing trucks. A consultant study conducted for the Deer Run development residents' association measured noise volume. The report concludes that noise levels have increased since 2003 to 52.4 dB and 65.9 dB at the two monitoring stations.

While many jurisdictions have noise by-laws, Surrey does not. The Ministry of Transportation and Infrastructure will consider noise impact mitigation when noise levels reach 55 to 65 dB, depending on the pre-project ambient level and the surrounding land uses.

The City of Surrey reports that it has no policies or mechanisms in place for the provision of noise mitigation measures. A consultant study conducted in 2003 on behalf of the City recommended noise attenuation fences along the north side of 32 Ave (between 152 Street and 164 Street) consisting of 3.5 metre high noise attenuation fences for the Carrington development (15540/15550-32 Avenue), the senior care home (156A Street) and nine lots in Deer Run (3225 Morgan Creek Way). Based on these recommendations, in 2005, the City constructed noise walls fronting the Carrington and the care home. The nine lots in Deer Run did not want a noise wall obstructing their view and the care home opted for a shorter noise wall.

Several residents voiced complaints about the vibration caused by passing trucks. Neither the residents' association nor the City of Surrey have conducted measurements of vibration. However, the National Research Council of Canada (NRC) published a brief description of the effects of vibrations on people. It reports that building vibrations caused by road traffic are not a health and safety concern; they are more a problem of annoyance. Furthermore, vibration levels are rarely high enough to be the direct cause of damage, such as cracks in walls and ceilings, separation of masonry blocks and cracks in building foundations, though they could contribute to the process of deterioration from other causes. This latter statement is subject to the specific conditions found in a particular location with respect to ground and subsoil characteristics and construction techniques.

In 2011, the City of Surrey initiated plans to widen and improve 32 Avenue. The City of Surrey's proposal to widen this section of 32 Avenue from two to four lanes included rehabilitation of the road bed structure as well as introducing curbs and sidewalks. This new road structure is intended to mitigate some of the traffic noise and vibration.

In summary, noise and vibration are expected characteristics alongside arterial roads. Mitigation measures include the installation of sound barriers and improving pavement qualities such as smoothness and structure to reduce noise.

3.1.8 Traffic Safety

Due to community concerns about traffic safety, TransLink investigated ICBC crash data along 32 Avenue, in the section proposed for widening from two to four lanes, between 154 Street and 160 Street for the 5 year period 2007 – 2011. There was only one pedestrian involved in a collision (a construction site), and no fatalities were recorded. Table 3 indicates that based on the total number of collisions over a five-year period, 32 Avenue is experiencing fewer vehicle collisions per kilometre (91) than the other three corridors. It should be noted that truck-related collisions are not over-represented, as 7 per cent of all collisions were coded to involve trucks, despite 8 to 12 per cent of traffic being composed of trucks.

In order to gauge whether or not 32 Avenue traffic safety and general conditions are different from other locations, it is compared with three truck route corridors in Surrey characterized by two-lane roadways with similar traffic volumes and mostly residential uses.

Table 3 – Surrey Truck Corridor Comparison

Road Segment	Inter-sections	Truck % of Total Traffic	Property Setback (m)	Land use	Avg. Daily Traffic (vehicles) ¹	Vehicle Collisions/km/year	Collisions/km/yr/Intersection	Pedestrian Collisions
32 Avenue 1.5 km	4	8%	10 – 30	Single & multi-family Residential	18,500	91	23	1 injury
160 Street 3.2 km	18	4%	9 – 19	Single-family Residential	19,000	407	23	8 injury
88 Avenue 1.3 km	9	10%	7 – 15	Single-family Residential	25,000	275	31	7 injury
96 Avenue 2.6 km	15	3%	8 – 15	Single-family Residential	19,500	364	24	2 1 fatal 1 injury

The same analysis was undertaken for truck-related collisions only on each of the corridors. There are fewer truck collisions on 32 Avenue per kilometre than the other three corridors, but if the density of intersections is taken into account, 32 Avenue is about average in terms of collisions per kilometre per year per intersection.

Ideally, there would be no vehicle collision for any street. The available data suggest that 32 Avenue is performing at a level of safety better than other similar corridors. One truck collision was recorded on this section of 32 Avenue in the last three years of the ICBC database. There is no over-representation of crashes, and trucks are not over-represented in the collisions that are occurring.

3.2 Technical Evaluation

TransLink reviewed truck route connectivity, land use, truck and traffic volumes and road engineering as well as truck route alternatives in order to assess the current role of 32 Avenue, as well as the potential impact of removing 32 Avenue from the Surrey truck route network.

3.2.1 Truck Route Connectivity

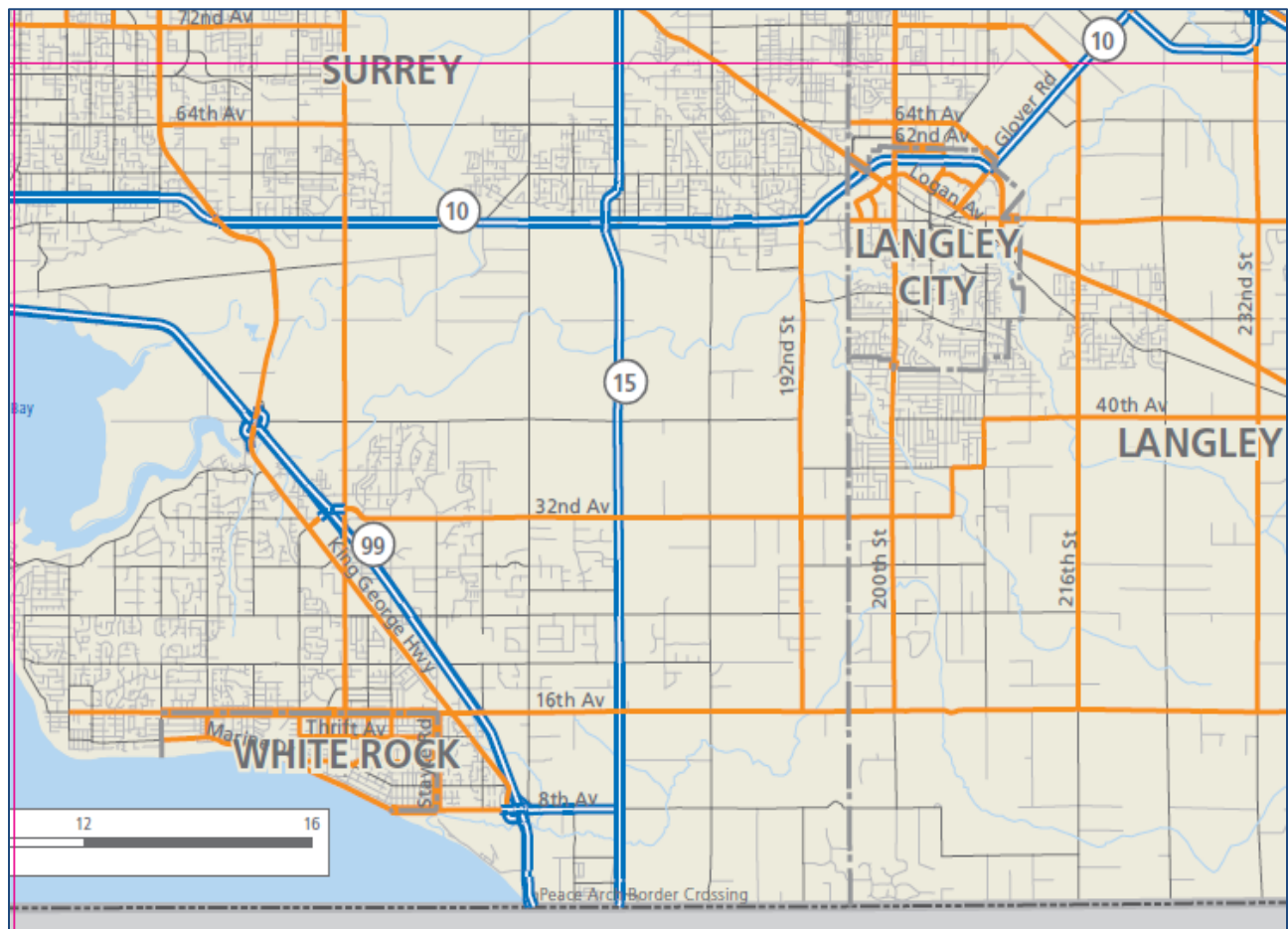
A well-designed truck route network allows for truck movements in an efficient manner between significant land uses that generate truck trips. 32 Avenue is one of two east-west

¹ Calculated average based on data from 2007-2011.

municipal roads in south Surrey that connect from Highway 99 to Highway 15 as well as to the Langleys.

The nearest east–west truck route connection to Highway 99 to the north is Highway 10, which is approximately 4.9 km away from 32 Avenue. The truck route exit from Highway 99 to the south is 8th Avenue, shown in blue below (Figure 2) as a Ministry of Transportation and Infrastructure facility due to its strategic importance to the border operations, however it is not designated a truck route east of Highway 15.

Figure 2- Truck Routes



Eliminating the truck route designation from 32 Avenue would result in 9.7 km spacing between existing east-west truck routes with Highway 99 connectivity at Highway 10 and 8 Avenue. A review of truck route networks through Vancouver, Burnaby and Langley reveals that truck routes have generally been spaced at no more than about 3.2 km apart. Therefore, 32 Avenue serves an important goods movement function between Highway 99 and Highway 15, and is appropriately spaced between the other east-west truck routes to the north and the south.

3.2.2 Land Use

Land use in the vicinity of 32 Avenue and beyond is an important consideration for understanding both the current functionality of the road and the future role of 32 Avenue. The transportation network is designed to serve the land uses today and into the future. The City of Surrey has three Neighbourhood Concept Plans governing development for the area surrounding 32 Avenue:

- Highway 99 Corridor Plan
- Rosemary Heights Plan (north of 32 Avenue)
- North Grandview Heights (south of 32 Avenue)

Current land use along 32 Avenue includes urban residential and commercial/industrial uses between 152 Street and 156 Street and low to medium density residential east of 156 Street to 164 Street. Land use east of 160 Street consists mostly of agricultural and recreational (golf) on the north side and suburban residential on the south side, and an industrial node in the vicinity of 192 Street in the Campbell Heights area. The corridor parallel to Highway 99 is designated for commercial uses.

The residential area most impacted by truck activity along 32 Avenue is located between 154 Street and 176 Street (Highway 15). This area lies within the Rosemary Heights Neighbourhood and North Grandview Heights. The road network supporting this land use is characterized by east west arterial roads spaced at 800 metre distance: 32, 28, 24, 20 and 16 Avenues, and north south arterials, east of Highway 99, also spaced at a 800 metre distance: 156, 160, 164 and 168 Streets. Between the grid, there is a disconnected local street pattern resulting in low traffic volume within the subdivisions with traffic exiting a specific development to use one of the noted arterial grid streets.

Planned development in the North Grandview Heights (south of 32 Avenue) and in the Campbell Heights area to the east will continue to contribute to traffic volume increases along 32 Avenue, as well as along other arterials, and it will also contribute to traffic delay at intersections. Surrey reported eighteen active development sites for this area in the spring of 2012, and south Surrey plans call for population to grow from the current 76,000 to 133,000 (70 per cent increase), which is comparable to the population of Coquitlam today.

In summary, 32 Avenue is part of a coherent arterial road network intended to serve current population and future growth. Significant development is expected in south Surrey consistent with the approved Official Community Plan.

3.2.3 Truck and Traffic Volumes

Analysis of the traffic volumes helps to determine the current role and usage of 32 Avenue for goods movement and regional traffic.

The City of Surrey collected traffic counts and the residents also counted trucks in 2012. The daily weekday traffic volumes along 32 Avenue are in the 20,000 to 23,000 vehicle per day range, with lower weekend volumes of 18,000 to 19,000 vehicles per day. It is noted that 20,000 vehicles per day is the City of Surrey’s typical threshold for upgrading arterial roads from two to four lanes.

Table 4 – Traffic Volume by Type, 32 Avenue, west of 160 Street
 “Snapshot Surveys”

Vehicle Type	% of Average Daily Traffic			
	December 2011		September 2012	
Motorcycle	0.3%	88%	0.5%	92%
Passenger car	72 %		75%	
Light goods vehicle	15%		16%	
Bus	0.6%		1%	
Rigid truck (i.e. garbage & dump trucks)	7%	12%	6%	8%
Articulated truck (i.e. semi-trailer)	5%		2%	
Total	100%	100%	100%	100%

Table 4 indicates that measures of truck traffic as a component of all traffic range from approximately 8 per cent to 12 per cent, and the data collected by residents illustrates that there is also variability between weekends and weekdays, as well as hourly. The difference in truck composition between the two “snapshot” surveys shown in Table 4 could be a random variation, or it may be a reflection of City of Surrey and SFPR/Ministry discussions about routing SFPR construction related trucks via the provincial highway network rather than the municipal road network as much as possible.

The data collected on truck movements indicates that, for the periods sampled, the trucks are travelling more on the highways than the municipal roads to reach industrial land uses to the east and north. Overall, there are more trucks travelling between 176 Street (Highway 15) and 192 Street in the east, and there are fewer trucks travelling along the residential portion of 32 Avenue west of 176 Street. At 176 Street, a higher proportion of trucks are turning to/from the north, with a low proportion turning to/from the south, indicating that there is not much, if any, use of 32 Avenue resulting from border access.

The data also shows that about 55 per cent of the truck volume is travelling in the daytime hours between 7 am to 6 pm, and that there is a higher proportion of trucks to other vehicles in daytime hours.

In summary, the traffic data demonstrates that 32 Avenue is a busy arterial that now qualifies for widening according to the City’s typical thresholds for upgrading arterials. It is also an important goods movement route with truck volumes of between 8 to 12 per cent of the total

traffic. Furthermore, the goods being moved on 32 Avenue are mostly serving local origins and destinations, whereas the longer regional trips are mostly using the provincial highway network.

3.2.4 Road Engineering

Road engineering considers the suitability of the physical infrastructure for its intended use and current performance. Surrey plans show 32 Avenue is designated as an arterial road between Highway 99 and 196 Street at the Surrey/Langley boundary. Due to urban development and commensurate growth in traffic volume, Surrey initiated a capital project to widen 32 Avenue between 154 Street and 160 Street from two lanes to four lanes in early 2011. This project was intended to improve traffic capacity and road quality along this segment of the corridor because the volume of traffic had reached the City's threshold for widening. In addition, there had been complaints from area residents about noise and vibration from trucks due to the poor road condition which would be ameliorated by road reconstruction. This road improvement project was put on hold after residents voiced concerns about truck traffic.

3.3 Stakeholder Input to Date

TransLink conducted individual and joint stakeholder meetings with:

- 32 Avenue Community Alliance and residents
- BC Trucking Association (BCTA)
- Ministry of Transportation & Infrastructure (MoTI)
- Township of Langley (ToL)
- Gateway Council

Correspondence from all stakeholders has been kept on file.

The community concerns were presented earlier in this report under the headings of public health and air quality, noise and vibration and traffic safety.

3.3.1 BCTA

The BCTA provided TransLink with a letter describing reasons why it does not support truck removal from 32 Avenue:

- It is an important east-west corridor
- It is a key link between Highway 15 and Highway 99
- It has historically been designated as a truck route
- Continued growth in Surrey will put pressure on maintaining this corridor as a truck route
- There is no reasonable alternative, as the nearest truck route to the north is at 56 Avenue (Highway 10) and to the south at 16 Avenue

A future interchange at 16 Avenue would help, but there would be no other east-west truck routes to the north until 56 Avenue (Highway 10). This issue is discussed under the Technical Issues.

3.3.2 Ministry of Transportation and Infrastructure

Ministry representatives attended the field meeting with residents and the stakeholder meeting at TransLink offices. The Ministry has no jurisdiction on 32 Avenue but noted that the direct connection to Highway 15 was part of the original rationale to construct an interchange connecting 32 Avenue to Highway 99.

The Ministry staff indicated that the current provincial truck route network through South Surrey is operating acceptably, outside border related issues. On major long weekends, the border lineup can extend north on Highway 99 almost to 16 Avenue. On these occasions, signage is placed on Highway 99 southbound advising trucks to re-route via 32 Avenue as an alternate route.

3.3.3 Township of Langley

Township of Langley staff noted that 32 Avenue continues to be a truck route east of 196 Street within the Township's jurisdiction. Any changes to the truck route on 32 Avenue will have an impact to the Township, as their land use pattern has developed around the 32 Avenue as a truck route.

3.3.4 Gateway Council

The Gateway Council sent TransLink a letter opposing the removal of 32 Avenue from the truck route network.

3.4 Potential Alternatives

TransLink management considered whether the alternative truck routes in south Surrey would be suitable for truck movements if 32 Avenue were removed from the truck route network, and what the impact would be in terms of GHG emissions, route efficiency and general support of goods movement. The nearest east-west parallel truck routes to 32 Avenue that connect with Highway 99 are Highway 10 (56 Avenue), 4.9 km to the north and at 8 Avenue, 4.8 km south of 32 Avenue.

40 Avenue to the north was also reviewed as a potential alternative. It is a two-lane rural roadway through mostly rural land, extending from King George Boulevard near Highway 99, east to 192 Street. 40 Avenue does not directly connect to Highway 99 and is not a continuous route past 192 Street into Langley. The City of Surrey considers 40 Avenue as unsuitable because the soils and underlying roadbed conditions are subject to sinking, cracking and

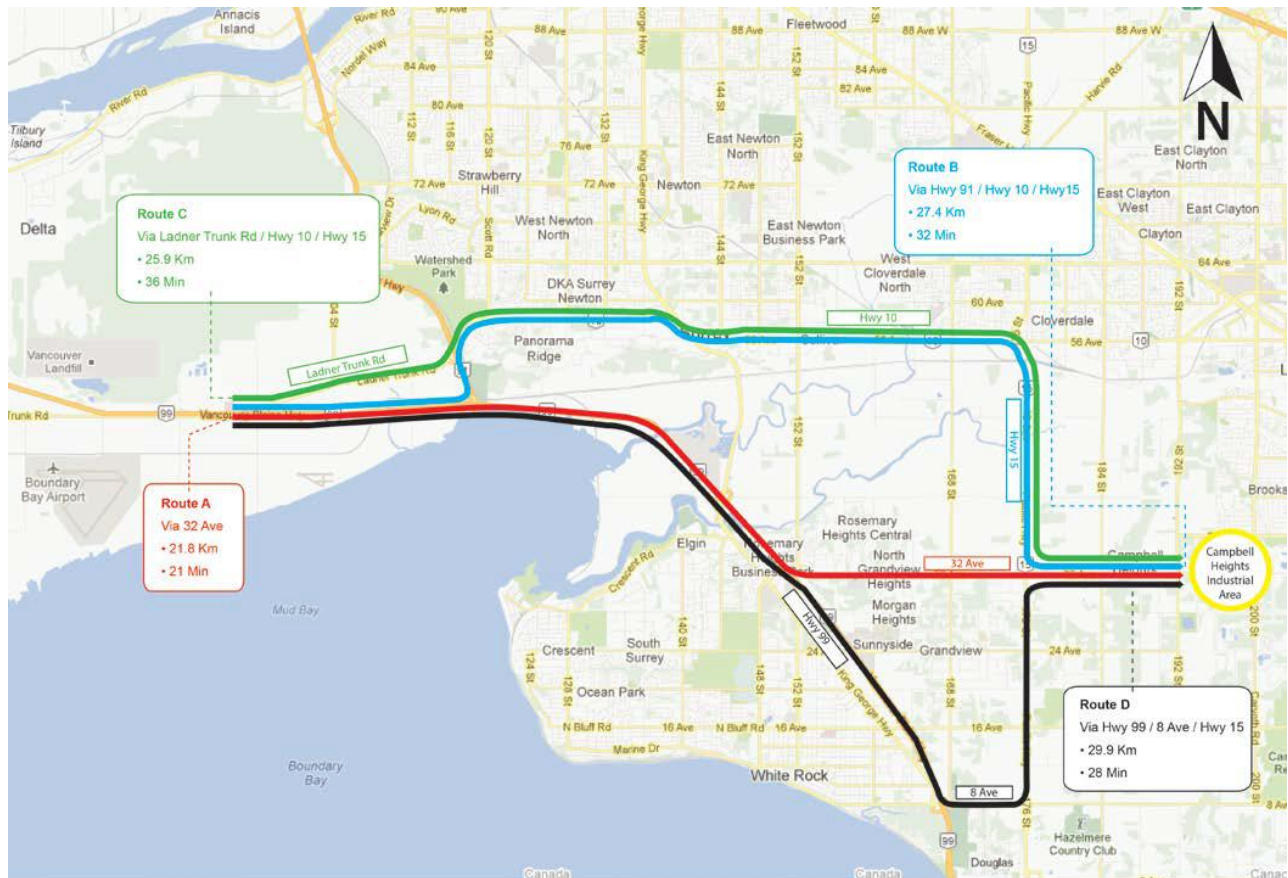
general deterioration. A direct connection to Highway 99 would also be required but is unlikely due to the proximity of 32 Avenue interchange ramps.

16 Avenue, 3.2 km to the south, is on the MRN and a designated truck route, however it crosses over Highway 99, with no ramp connections to or from Highway 99. The Ministry of Transportation and Infrastructure announced construction of a new interchange at 16 Avenue which is scheduled to be operational by 2014. Traffic operations model forecasts suggest that once the 16 Avenue interchange is functional the volume of traffic on 32 Avenue will decline slightly in the shorter term. Given the land use pattern and truck movements today, 32 Avenue would remain an attractive truck route but with lower truck volumes. As population and employment in south Surrey grows, traffic along 32 Avenue is anticipated to continue to grow.

Eliminating the truck route designation would result in about a 9.7 km spacing between existing parallel east-west truck routes connecting to Highway 99 at Highway 10 and 8 Avenue. While emissions would decrease locally on 32 Avenue, forecasted emissions would increase along other corridors and in the region as whole due to overall longer travel distances and increased congestion due to the concentration of traffic on fewer corridors.

Due to the spacing of direct east-west connections between Highway 99 and Highway 15, and beyond to Langley, alternative routes would impose additional monetary costs on industry and generate additional overall diesel emissions into the regional air shed. For example, a southbound truck on Highway 99 from Ladner interchange destined for the Campbell Heights industrial area currently takes about 21 minutes to travel the 21.8 km. If 32 Avenue were de-classified for trucks, the other route options would increase the travel distance by 3 to 8 km, and the travel time by 7 to 15 minutes. (see figure 3 below)

Figure 3 – Alternative Truck Route Distances



In summary, the new interchange at Highway 99 and 16 Avenue is expected to provide a short-term reduction in both total vehicle volumes and trucks on 32 Avenue. In the longer term, with projected future land development and population growth in South Surrey, 32 Avenue, 16 Avenue and all arterial roads in the area will have higher volumes of traffic than they do today.

3.5 Alignment with TransLink Strategic Priorities

In general, truck route network designations support Transport 2040 Goal 5: *Economic growth and efficient goods movement are facilitated through effective management of the transportation network*. Truck route designations also influence TransLink’s goal to reduce GHG emissions.

The analysis of air quality data as well as the traffic data and road network design indicate that removal of 32 Avenue from the Surrey truck route network would reduce local emissions but overall increase GHG emissions in the region due to longer travel times. Goods movement efficiency will also be compromised, as trucks will be forced to divert to less efficient travel routes.

4.0 CONCLUSION

The analysis of 32 Avenue finds that it is an arterial road with increasing traffic volumes and a significant proportion of truck traffic. It serves an important purpose in connecting Highway 99 with Highway 15, and also serves the Campbell Heights industrial area and Langley further to the east.

South Surrey is expected to continue to grow, and with this growth, the major roads in South Surrey are expected to experience increased traffic volumes. Traffic and truck volumes have impacts on the community, and the City has plans to improve operational conditions and the pavement structure on 32 Avenue through a road improvement project.

The results of the assessment of land use, traffic safety, traffic volume, public health and air quality issues indicate that while the prohibition of trucks from 32 Avenue may improve local traffic conditions, this is to the detriment of adjacent corridors and the region as a whole. Maintaining 32 Avenue on the Surrey truck route network is consistent with TransLink's regional goals for reducing overall GHGs, supporting efficient goods movement, and overall transportation network management.

Comments from stakeholders and the public were received by TransLink and are summarized in Appendix 1.

In addition to the extensive consultation undertaken prior to the preparation of the draft report, TransLink made the draft report public and provided a final opportunity for any additional comments to be received prior to preparing the Final Report.

From Dec. 14, 2012 to Jan. 15, 2013, the draft report was posted online, and an online feedback form was made available for stakeholders and residents to comment on the report. The online feedback asked three questions: (1) “What best describes you” (2) “How often do you use this truck route” (3) “Do you have any comments about the technical report”.

Eight submissions were received through the TransLink website, 3 of which provided comments on the report. TransLink also received one comment via regular email and one letter mail from stakeholders. All submissions received are retained on file.

A summary of the comments received on the technical report follows in Table 1.

Table 1 – Summary of Comments

Comment Source	Comment Summary
Ministry of Transportation and Infrastructure	<ul style="list-style-type: none"> Once 16th avenue interchange is built, it will take truck traffic off 32nd avenue Other alternates presented in the report will create additional travel times and disconnectivity in route: nearest east-west parallel truck routes to 32 avenue that connect with Highway 99 are Highway 10 and 8th avenue Report mentions that BCTA does not support removal of 32nd avenue from truck route at the moment Page 11 of 16 “The difference in truck composition between the two “snapshot” surveys shown in Table 4 could be a random variation, or it may be a reflection of City of Surrey and SFPR/Ministry discussions about routing SFPR construction related trucks via the provincial highway network rather than the municipal road network as much as possible.” The report table identifies volumes for 2011 and 2012 but the SFPR project began rerouting the trucks in 2010 so this reduction would have already been reflected in the 2011 count.
BC Trucking Association	<ul style="list-style-type: none"> Eliminating this section of the 32nd Avenue truck route without providing an acceptable alternate route would force many trucks to travel additional distances thereby increasing operating costs (increased fuel consumption/emissions, time, and vehicle wear-and-tear) and safety risks (increased exposure); Without an efficient alternate route, trucks would be forced to disperse to adjacent truck routes, increasing congestion and

32 Avenue Truck Route Report

Appendix 1

Final Public and Stakeholder Comments

			<p>degrading the efficiency and reliability of those routes.</p> <ul style="list-style-type: none"> when projects such as the South Fraser Perimeter Road, the 16th Avenue/Highway 99 interchange and 32nd Avenue road improvements are completed, the volume of trucks using 32nd Avenue will be somewhat diminished, and the environmental impact of trucks using 32nd Avenue will be mitigated
32 Avenue Community Alliance	Community		<ul style="list-style-type: none"> Disappointed in report outcome Health of residents along the corridor not validated or a concern to TransLink The report focused only on merits of the flow of goods east and west TransLink ignored the consequences of the immediate proximity to diesel exhaust The 32 Avenue Community Alliance boycotts the report as presented
TransLink form	Web	input	<ul style="list-style-type: none"> Excellent report and leads to an obvious conclusion that the trucks need to stay.
TransLink form	Web	input	<ul style="list-style-type: none"> problem is that these trucks engine baffles have been removed on a large portion of the trucks. If there was better compliance or enforcement this problem would go away not just on 32 Avenue but everywhere in the province.
TransLink form	Web	input	<ul style="list-style-type: none"> Relentless horns honking, screaming brakes (including truck air brakes, lovely) right outside my window. This road is aggressive, the drivers are going way to fast and competing with large trucks for space and to try and get ahead of them. Right across the street at least there is a high noise barrier wall that shields them from the excess noise and exhaust. I would like to see something done, if anything, a turn lane into Nuvo so residents can safely exit into the complex (without being bullied) and a higher barrier between the road and residential area!

As a result of this input, no changes were made to the draft report contents. With particular reference to the letter from the 32 Ave Community Alliance, the facts are that the report considered all facets of the issue as requested by the City of Surrey, and sections 3.1.1 to 3.1.5 of the report address the issues related to health and emissions in significant depth.