# **AGENDA ADDENDUM**

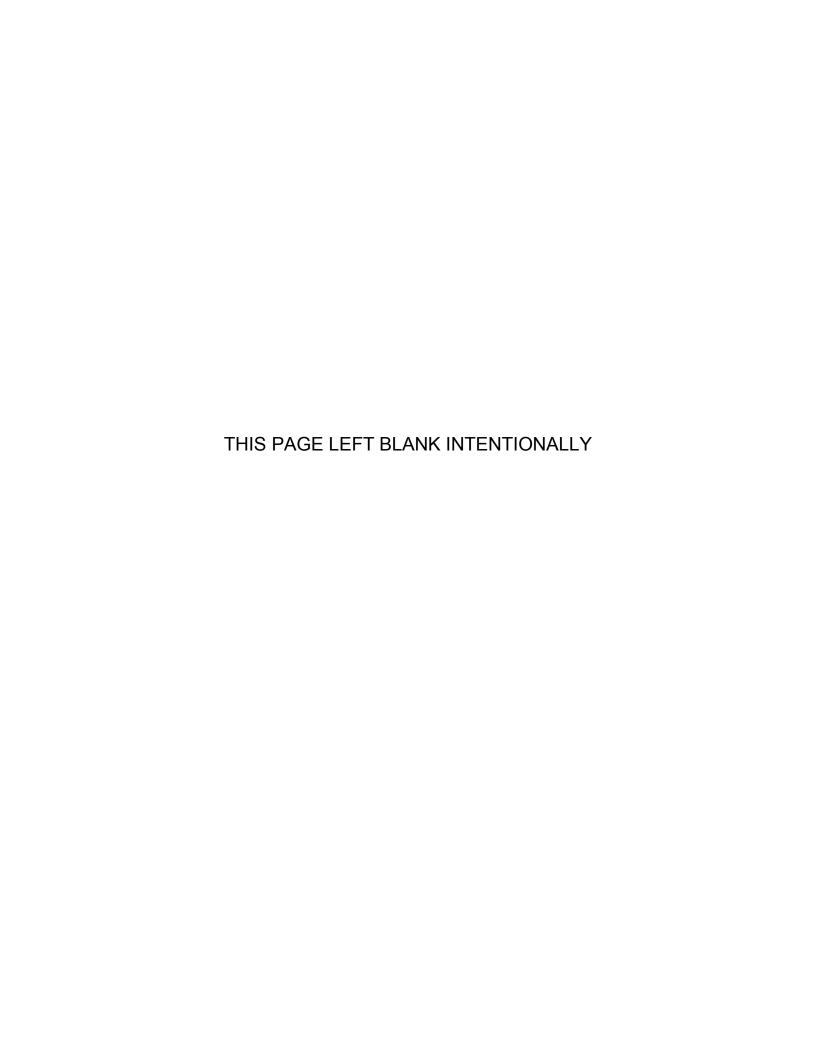
# COUNCIL WORKSHOP

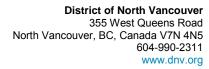
Tuesday, October 18, 2016 5:00 p.m. Committee Room, Municipal Hall 355 West Queens Road, North Vancouver, BC

# **Council Members:**

Mayor Richard Walton
Councillor Roger Bassam
Councillor Mathew Bond
Councillor Jim Hanson
Councillor Robin Hicks
Councillor Doug MacKay-Dunn
Councillor Lisa Muri









### **COUNCIL WORKSHOP**

5:00 p.m.
Tuesday, October 18, 2016
Committee Room, Municipal Hall,
355 West Queens Road, North Vancouver

# **AGENDA ADDENDUM**

# THE FOLLOWING LATE ITEMS ARE ADDED TO THE PUBLISHED AGENDA

# 3. REPORTS FROM COUNCIL OR STAFF

# 3.1. Annual Transportation Update

File No. 16.8620.01/000.000

### Recommendation:

THAT the October 12, 2016 joint report of the Transportation Section Manager, Transportation Planner and Transportation Planning Technologist entitled Annual Transportation Update be received for information.

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AG	SENDA INFORMATION	
☐ Regular Meeting	Date:	
Other:	Date:	





# The District of North Vancouver INFORMATION REPORT

October 12, 2016

File: 16.8620.01/000.000

AUTHOR:

Erica Geddes, Transportation Section Manager

Ingrid Weisenbach, Transportation Planner

Shazeen Tejani, Transportation Planning Technologist

SUBJECT: Annual Transportation Update

# Summary

This report provides context for the annual Council Transportation Workshop on October 18, 2016. The workshop will provide an update on significant progress in the Transportation Master Plan (TMP) to date as well as an opportunity for discussion about the next update to the plan, work that would be conducted throughout 2017.

An update on the ongoing 2016 transportation projects is also provided in Appendix A of this report. The proposed 2017 transportation projects are described in Appendix B.

# Transportation Master Plan Update

The District's current Transportation Plan was adopted by Council in 2012. It provides a comprehensive overview of the transportation goals, targets, and vision for the future of transportation in the District and identifies the priority projects for investment.

Five years later, an update to the Transportation Master Plan is needed. Many of the top priority projects in the previous plan are either completed (such as the Keith Road Bridge replacement) or underway (such as the Lynn Valley Bike Lanes). Other projects are funded but not yet built, including a major upgrade to Phibbs Exchange and the improvements to the Lower Lynn Highway 1 interchanges.

The updated Transportation Master Plan would identify and prioritize the next round of investments. A public engagement process would be included to that will ensure District community interests are integrated into the updated Plan.

It is expected that several new topics would be pivotal in developing the new Transportation Plan Update.

1. Protected Bike Network Research indicates that a connected and protected bike network that make cyclists feel safe is needed to attract significant numbers of people to cycling. A review of the proposed bicycle network in the plan will identify and select new or revised cycling routes that would be prioritized as protected routes. This is a pragmatic approach to advance the investment for the priority protected routes.

Page 2

- 2. Main-Marine Frequent Transit B-Line or better transit service has been promised by TransLink between Ambleside and Maplewood, a key component to encouraging the new residents of the Lions Gate, Lynn Creek, and Maplewood Centres to be less reliant on cars. Although largely a TransLink-led initiative, the District would likely need to make land available through re-development, provide transit priority measures on the corridor, and/or make other adjustments to achieve the optimum transit service. High efficiency, reliable frequent transit service needs sufficient, dedicated road space to be effective.
- 3. Parking Policy Guidance is needed to assist the District to develop private and public parking strategies near recreational areas and in and around town and village centres. This process can clarify which parking strategies (such as resident parking only zones, short term parking, paid parking, et cetera) are acceptable in the District, where they should be used and which parking strategies are not acceptable. Coordination and harmonization of on- and off-street parking regulations, policy and numbers is needed for success.
- 4. Transportation System Management A specific strategy could be developed to improve the District's capabilities to measure, forecast, and manage its transportation system for optimum efficiency especially through the use it is traffic signal system and other transportation information systems. Making the best use of the roadways we have could avoid the need to build more roads.
- 5. Vision Zero The District may wish to consider an approach to road safety that several other road jurisdictions are now adopting. This would be a project that aims to achieve a system with no fatalities or serious road injuries in road traffic. A specific 'Safe Routes to School' strategy may be included in this item.

# **Transportation Project Updates**

Details of the status of the 2016 transportation projects are included in Appendix A of the report package. Projects proposed for 2017 are described in Appendix B including:

- Montroyal Bridge Upgrade (ongoing)
- 2. Phibbs Exchange (ongoing)
- 3. Lower Lynn Interchanges (ongoing)
- 4. Spirit Trail (ongoing)
- 5. Pedestrian Projects
- 6. Cycling Projects
- 7. Transportation Studies

October 12, 2016

- 8. Official Community Plan Support
- 9. Transit-Related Infrastructure
- 10. Railway Safety

Transportation project funding requests for 2017 will be submitted through the regular District capital planning process to determine whether they are funded when compared to other priorities.

Respectful	ly su	bmitted,
CL	al	dy

Erica Geddes,

Transportation Section Manager

Ingrid Weisenbach Transportation Planner

Shazeen Tejani

Transportation Planning Technologist

	REVIEWED WITH:	
☐ Sustainable Community Dev.	☐ Clerk's Office	External Agencies:
☐ Development Services	☐ Communications	Library Board
☐ Utilities	☐ Finance	NS Health
☐ Engineering Operations	☐ Fire Services	RCMP
☐ Parks	□ ITS	□ NVRC
☐ Environment	☐ Solicitor	☐ Museum & Arch.
☐ Facilities	☐ GIS	Other:
☐ Human Resources	Real Estate	



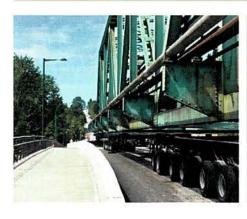
# 2016 Update TRANSPORTATION PROJECTS

October 18, 2016

This document provides the status of the transportation work that is complete or on-going this year. A one-page summary of each project group is enclosed in this package.

# 2016 Transportation Project Update:

- 1. Major Projects
  - a. Keith Road Bridge Update
  - b. Montroyal Bridge Update
  - c. Lower Lynn Interchanges
  - d. Phibbs Exchange
  - e. Capilano No. 9 Water Main
- 2. Spirit Trail
- 3. School Safety Projects
- 4. Transportation Master Plan (TMP) Update
- 5. Pedestrian Projects
- 6. Cycling Projects
- 7. Transportation Studies
  - a. Maplewood Transportation Study
  - b. E. 29th Multimodal Corridor Study/E. Keith Multimodal Corridor Study
  - c. Marine-Main Frequent Transit Corridor Study
  - d. Delbrook Lands Transportation Study
  - e. Inter-River Sub-area Transportation Study
- 8. Transit Related Infrastructure
- 9. LED Street Lighting Program
- 10. Sustainment Programs







# 1 Major Projects

# Roads and Bridges

# a. Keith Road Bridge Replacement:

 Includes a new five-lane facility with bike lanes and sidewalks on both sides. Construction began in 2015 and is nearing completion now. This new bridge will provide safer passage for taller and/or heavier vehicles, will have new marked and separated bike lanes, will provide sidewalks for pedestrians on both sides, and will include additional capacity to reduce delay for vehicles crossing or accessing Highway 1.



Old Keith Bridge being dismantled on roadway.

# b. Montroyal Bridge:

Was identified for replacement in the Bridge Asset Management Plans in 2013 and 2014. Although a
bridge project, roadway, bicycle and pedestrian safety improvements are included. The conceptual
design for the bridge is complete and the tender for construction is in progress. Construction on the
bridge is scheduled to start in early 2017.

# c. Lower Lynn Interchange:

Is a project being led by the Province's Ministry of Transportation and Infrastructure (MOTI), in
partnership with the District, to be carried out in three phases. Pre-construction on Mountain
Highway Interchange is currently underway (Phase 1). Construction would continue to the end of
2018. Functional design is underway for the Lillooet Road/Mount Seymour Parkway interchange.

# d. Phibbs Exchange:

The North Shore Area Transit Plan (2011), the Lower Lynn Transportation Strategy (2011) and the
Transportation Plan (2012) all identify the need to provide an upgrade to Phibbs Exchange. In June
of 2016, the federal government announced it would fund 50 percent of the \$23 million upgrade,
closing the funding gap and allowing the project to go forward. Project management roles and the
timing of the project should be finalized this fall.

## e. Capilano No. 9 Water Main Replacement:

 Is a Metro Vancouver project extending from Ridgewood Drive to Montroyal Boulevard along Capilano Road. This project also included implementation of improved pedestrian and cycling infrastructure along Capilano Road after repaving. New lane painting and bike lane signage have been added now. Residents were notified and consulted about the new bike lanes and the required parking changes.



Paving of Capilano Road after water main work

# 2 Spirit Trail

# Trails and Active Transportation

# Description:

The District's portion of the North Shore Spirit Trail will be realized in three phases: the Western Section (complete), Central Section (in planning), and Eastern Section. For several years now, consideration has been given to revising the Central Section of the route through the Lynn Creek and Maplewood areas.

A technical review was conducted to consider additional options through the Lynn Creek Town Centre. Subsequently, recommendations for the route were considered through the Bridgman and Seylynn Parks Master planning process.

The new northern route has been finalized through this process. It would connect from the City of North Vancouver's border, connect through Bridgman Park, cross over Lynn Creek near Hunter Street, travel northward, pass under Highway 1, run eastward along Keith Road and Mount Seymour Parkway to Riverside Drive.

#### Status:

- The western section of the Spirit Trail was completed in early 2012.
- The alignment for the Central Section between the City border and Maplewood was generally agreed upon by Council at its February 2, 2016 workshop.
- Funding still needs to be finalized before the detailed design is prepared for the section from the City border to Keith Road, a section that includes a new bridge over Lynn Creek.

### Benefits:

- The Spirit Trail will create another major corridor within the existing regional trail network which currently includes the Baden Powell Trail, Trans-Canada Trail, the Central Valley Greenway, and the BC Parkway;
- The trail will function as both a recreation and transportation amenity for walkers, cyclists, in-line skaters and people with wheeled mobility aides; and
- It will provide an important means of movement for people of all ages, abilities and fitness levels
  and improve connections between neighbourhoods, parks, trails, businesses, recreation services, and
  transportation hubs.

- Spirit Trail Route Planning Report (2009);
- Transportation Plan (2012); and
- Parks and Open Space Strategic Plan (2012).



Municipal staff collaborating on a Spirit Trail Route Options.

Appendix A - 3

# **School Safety Projects**

# Safety and Active Transportation

# Description and Status:

The District partnered with North Vancouver School District to hire a consultant for a school transportation study of three elementary schools in 2015:

- Canyon Heights Elementary;
- · Capilano Elementary; and
- Highlands Elementary.

The studies for these schools were completed in April 2016.



Bicycle parking at Highlands Elementary

District staff have been working to implement school safety recommendations from the prioritized list of actions from the 2016 studies.

# Examples of projects included:

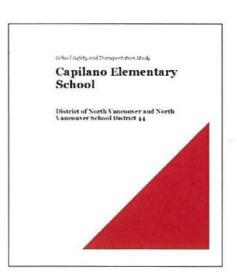
- Curb extensions,
- · Signage, and
- Crossing upgrades.

### Origin:

Continuing school studies series (Seymour Heights, Lynn Valley, and Upper Lynn Elementary Schools in 2010, Braemar, Cleveland, and Ross Road Elementary Schools in 2011, and Capilano, Canyon Heights, and Highlands Elementary Schools in 2016), Safe Route Advocates' January 2014 parent delegation to District Council.



Canyon Heights Elementary School



# Transportation Master Plan Update

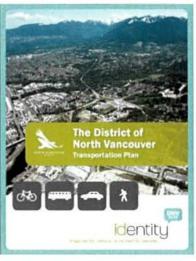
# Land Use and Transportation

# Description:

In preparation of the Transportation Master Plan update, currently proposed for 2017, work includes updates to the North Shore subarea transportation model and base maps. This work also includes data collection where data does not exist or is insufficient.

## Status:

- Coordination with the North Shore municipalities is underway to update the North Shore subarea transportation model.
- Staff are collecting data and working with GIS staff to ensure base maps are accurate.
- A consultant has been chosen to conduct modelling work for all three North Shore municipalities.



2012 Transportation Plan

### Benefits:

- · Provides a relevant and current database for the 2017 Transportation Master Plan;
- · Provides data that allows the District to respond to current issues and needs; and
- Once the Transportation Master Plan is updated, will allow staff to update the project investment priority list accordingly.

- Official Community Plan (2011); and
- Transportation Plan (2012): the intention was to revisit the plan in five years to check in if we are on track in terms of progress and priorities.

# **Pedestrian Projects**

# Walking

# Description:

In 2016, pedestrian infrastructure is being improved at the following locations:

- The equipment for two special crosswalks has been ordered for installation later this fall across Mount Seymour Road at the Parkgate Mall access and at Banff Court;
- An existing marked and signed crosswalk was upgraded to a special crosswalk at Capilano Road and Paisley Road; and
- A **sidewalk** on the north side of East 29th Street between St. Christophers Road and William Avenue ranks as high priority in the Pedestrian Master Plan and is being constructed during October 2016.

**Sidewalks** will also be added on both sides of Capilano Road between Edgemont Boulevard and Prospect Avenue as part of the Capilano No 9 Water Main Project.

### Status:

- Marked crosswalk prioritization list available on the District's website.
- Three crosswalks were upgraded in 2016.
- Sidewalk construction on East 29th Street and Capilano Road sidewalks are scheduled for completion fall of 2016.

#### Benefits:

- A complete sidewalk network is especially important for the elderly, disabled and children; and
- Research shows that selection of the appropriate crossing treatment at each location can increase driver awareness and compliance with yielding right-of-way to pedestrians in crosswalks.

- Implementation Priority of Study Locations Crossing Facilities (2013); and
- Pedestrian Master Plan (2009).



Concrete pouring for new sidewalks

# 6 Cycling Projects

# Cycling

# Description and Status:

Four bicycle facilities are being implemented this year:

- 1. Lynn Valley Road will add physically separated on-street bike lanes from the highway to Mollie Nye Way. This project will provide an essential connection between Lynn Valley and Lonsdale Town Centres. Construction expected to begin in October 2016.
  - The Lynn Valley underpass project (to add another southbound vehicle lane and bicycle facility) is a separate project led by a developer, BOSA in coordination with MOTI, City of North Vancouver and the District. Construction expected to begin spring 2017.
- 2. Mount Seymour Parkway is a multi-use path to provide an accessible, comfortable, and safe route for pedestrians and cyclists. This route connects the new bike lanes across the Seymour River bridge to the existing path by the Holiday Inn. Construction anticipated for completion in November 2016.
- 3. Capilano Road will add painted bike lanes from Edgemont Boulevard to Prospect Avenue as part of the Capilano No.9 Water Main Project. Bike lanes from Mount Crown Road to Prospect Avenue were painted in early fall of this year. The final segment of bike lanes from Edgemont Boulevard to Mount Crown Road is scheduled for completion in early 2017.
- 4. Barrow Street connects the bike lanes on Main Street to the Ironworkers Memorial Bridge on-ramp and Phibbs Exchange. Partner funds were leveraged from TransLink and the Province. The project is nearing completion now.

## Benefits:

- Designated bike routes help drivers know where to expect cyclists on the road;
- Offers safer, designated travel routes for cyclists to encourage fewer trips by car; and
- Funding opportunity to leverage partner funds (TransLink and the Province).

### Origin:

Bicycle Master Plan (2012).



District staff painting green bike lanes



Barrow Street connection

# Transportation Studies

# Studies

# a. Maplewood Transportation Study

 As part of the Maplewood planning process, a study is underway that builds off of the 2013 Maplewood Village Transportation Study. The existing study boundaries have been revised to include a more extensive area to the east and to the south. The study will address improved northsouth and east-west road connectivity, and emergency egress routes. Anticipated completion in early 2017.

# b. East 29th Street Multimodal Corridor Study:

Working with the City of North Vancouver and ICBC, District staff are conducting a multi-modal
corridor study for East 29th Street between Lonsdale Avenue and Lynn Valley Road. It will include
an operational and safety review for all users and will result in short-, medium- and long-term
recommendations. As part of the study, a survey is being conducted in the fall of 2016 targeting
corridor users and residents in the adjacent area. Anticipated completion in winter of 2016/2017.

## c. Marine-Main Frequent Transit Corridor Study

 As a joint initiative between the City of North Vancouver, District of West Vancouver, Metro Vancouver and Translink, the Frequent Transit Corridor Study seeks to identify opportunities to provide faster, more frequent transit between Dundarave in West Vancouver and Maplewood in the District of North Vancouver. This would allow transit to be a more viable transportation option for North Shore residents. Work for this study is ongoing.

# d. Delbrook Lands Transportation Study

As part of the discussion surrounding the future uses for the Delbrook Lands, the current site of
the old Delbrook Recreation Centre, a transportation study was commissioned to determine the
range of impacts that proposed land uses would have on the surrounding transportation network.
The findings were used to inform the discussion at the Delbrook Lands Deliberative Dialogue
session on June 18, 2016. The study and accompanying executive summary are available on the
District's website.

### e. Inter-River Subarea Transportation Study

 Staff worked with a range of stakeholders to consider the transportation network in the Inter-River neighbourhood given the current known constraints. The study provides an overview of options considered and provides recommendations that address the study's goals.



Transportation board at the Maplewood Open House



Tri-municipal collaboration on the Marine-Main Study



Delbrook Deliberative Dialogue Session

# Transit Infrastructure Improvements

# Transit

# Description:

Each year, the District implements transit infrastructure improvements in partnership with Coast Mountain Bus Company and Pattison Outdoor Advertising.

Transit-related improvements in 2016 include:

- Installation of eighteen (18) new streetscape benches (as part of the 2015 Bus Bench Installation contract);
- Installation of four advertising and one non-advertising transit shelters by Pattison Outdoor Advertising; and
- Installation of new concrete landing pads, sidewalk connections, and retaining walls required for wheelchair accessibility at transit stops.

### Status:

- Transit Related Road Infrastructure Program will be substantially completed by November 2016.
- Installation of new streetscape benches is scheduled to be completed by November 2016.
- Installation of the five transit shelters is also scheduled for the fall of 2016.



New bench on Edgemont Boulevard

### Benefits:

- Improved streetscapes in the transit stop areas.
- Improved comfort and safety for transit passengers and pedestrians.
- Improved accessibility of the transit system for people of all ages and abilities.

- District's Transportation Plan (2012) Transit Policy
  - "Support transit riders with infrastructure such as weather protection, wheelchair pads, sidewalks, and curb ramps around bus stops."

# **LED Street Lighting Program**

# Streetlights

# Description:

The District is one of many Lower Mainland municipalities implementing LED street lights in their jurisdiction.

Street lighting is included in the District's Strategic Energy Management Plan (SEMP) as an area of opportunity to reduce electricity consumption and operating costs for the District.

The District's street lighting inventory was evaluated and clusters of fixtures with the oldest lamps were selected.

Accordingly, LED is being evaluated as a retrofit to existing street light poles, starting with a pilot project now underway on Dollarton Highway at Roche Point Road, labelled as location (1) in the accompanying image.



**LED Pilot Program Locations** 

#### Status:

- The initial pilot on Dollarton has gone well, so the pilot is being expanded as labelled in the image above; new fixtures will be installed on a section of Mount Seymour Parkway at Mount Seymour Road (2), and Northlands Drive (3).
- The pilot installation on Dollarton Highway is using less than 50 percent of the energy used by the old fixtures.
- Expansion of the trial will be the subject of a capital request for 2017.

#### Benefits:

- The District's robust Energy Management program is demonstrating leadership in environmental sustainability and climate action.
- LED street light technology is known to offer potential energy and operating cost savings, reducing light trespass and light pollution (Dark Sky Compliant) while improving lighting quality.
- With annual operating savings over \$5,000, the pilot will pay back its investment in less than eight years. The LED fixtures are expected to have a life of 20 years.

- The "Streetlights Across BC" Provincial Program; and
- District's Strategic Energy Management Plan (SEMP) (2015)

# Sustainment Program

# Street Lights and Traffic Signals

## Description:

This program replaces a portion of the transportation infrastructure annually through an ongoing program that reduces maintenance costs and maintains a high quality aesthetic appearance on District streets.

The annual maintenance programs include:

- 1. Street light pole and luminaire renewal;
- 2. Traffic signal infrastructure additions and replacement;
- 3. Traffic signal pole painting; and
- 4. Signs and markings cleaning and renewal.

#### Status:

The program continues to be active this year and is on-going.



Old Traffic Signal Pole

### Benefits:

- Ongoing replacement and maintenance programs may prevent failures that could increase the District's liability.
- In addition to the aesthetic benefits, ensuring that District signs and pavement markings do not fade and are highly visible provides safety benefits by helping road users to understand and follow the traffic control.

- Public requests;
- Updated Asset management Plan (2014);
- Asset Management Program (2009); and
- Capital Infrastructure Program (2007).



Crosswalk marking renwal

# Appendix B: 2017 Proposed Transportation Projects



# 2017 Proposed TRANSPORTATION PROJECTS

The proposed projects below are prioritized for 2017 funding because of (a) available partner funding, (b) building the town and village centres, and (c) making progress on the transportation plans.

Several projects are multi-year projects. Approval and further project details, such as total costs to the District will be part of the budget deliberation process. The projects listed below are not ranked in any particular order. Cost estimates are approximate.

**1. Montroyal Bridge:** Work on the conceptual design for Montroyal Bridge is complete and the tender for construction on the bridge is currently underway. Construction is scheduled to start in early 2017. Bicycle and pedestrian safety will also be addressed in this project.

\$ 7 - 8 Million (preliminary)

2. Phibbs Exchange: In June of 2016, the federal government announced funding for the Phibbs Exchange upgrade, effectively closing the funding gap and allowing the project to go forward. Upgrades are scheduled to go ahead in early 2017. The District may wish to contribute financially to ensure success.

\$ 1,000,000 (DNV only)

- 3. Lower Lynn Interchanges: Pre-construction on the first of three phases of the Interchange Improvement Project is currently underway for Mountain Highway Interchange. Construction is scheduled until the end of 2018. Functional design is currently underway for the Lillooet Road/Mount Seymour Parkway interchange and will continue into 2017.
- \$ 150,000,000 (all parties)
- **4. Spirit Trail:** The alignment for the Central Section was generally agreed upon by Council at its February 2nd 2016 workshop. Funding still needs to be confirmed before a detailed design can be created for the next section between the City border and Keith Road, which includes a new bridge over Lynn Creek.
- \$ 6,140,000
- 5. Pedestrian Projects: Improvements to pedestrian projects are determined each year by their rank in the Pedestrian Master Plan (2009) and on the crosswalk priority list. Planned work for 2017 includes a new sidewalk on Ross Road between Allan Road and Hoskins Road and a new marked crosswalk across Mountain Highway at 15th Street.

\$ 330,000

# 6. Transportation Studies:

# a. East 29th Street Corridor Study (Implementation Phase):

A multi-modal corridor study is currently underway for East 29th Street in collaboration with the City of North Vancouver and ICBC. The study will be followed by conceptual design work in spring of 2017 for the short term improvements before paving anticipated later in 2017.

\$ 15,000

# b. Highland Boulevard Study (Consultation and Implementation Phase):

A multi-modal corridor plan is also being developed for Highland Boulevard. Public consultation is planned to commence in early 2017, with construction work expected to follow when the road is re-paved (date to be determined).

\$ 15,000

## c. Traffic Signal Review:

This project will consist of traffic signal coordination studies for four different corridors in the District. This review will also consider opportunities for signal pre-emption for emergency services.

\$ 50,000

# 7. Official Community Plan Support:

## a. Transportation Plan Update

It is staff's intention to update to the Transportation Plan every five years. The 2017 Transportation Master Plan update will ensure that transportation planning remains current and relevant to District needs as they evolve over time. Work would include an extensive public engagement process.

\$ 400,000

# b. Parking White-Paper

Staff are currently in the midst of developing a white-paper on parking within the District. This white-paper is intended to explore a range of ongoing opportunities for improving parking policy and practice. After discussion, findings can be incorporated into the Transportation Master Plan update.

Staff Resources

8. Transit Infrastructure Improvements: In order to make transit a viable transportation alternative for District residents, staff have been making improvements to existing bus infrastructure annually. Concrete pads, sidewalk improvements, bench installations and curb let-downs are just some of the various improvements that the District cost shares with Coast Mountain Bus Company.

\$ 80,000

g. Railway Safety: New federal rail crossing regulations require rail crossings to comply by 2021. The District has completed the crossing assessments relative to the new regulations for the Seymour Industrial spur line (that follows Barrow Street and Spicer Road). Minor projects identified as a result will be undertaken in 2017, generally related to signage upgrades and vegetation control. \$ 15,000