

NO: R239

COUNCIL DATE: **DECEMBER 16, 2013**

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **December 10, 2013**

FROM: **General Manager, Engineering**

FILE: **5260-07**

XC: **3150-01**

SUBJECT: **10-Year (2014-2023) Servicing Plan and 2014 Development Cost Charge By-law**

RECOMMENDATIONS

The Engineering Department recommends that Council:

1. Approve the proposed 10-Year (2014-2023) Servicing Plan (“the Servicing Plan”) that is attached as Appendix I to this report;
2. Authorize the City Clerk to bring forward for the required readings the Development Cost Charge By-law (“the By-law”) attached as Appendix II to this report, which if adopted will provide necessary DCC rate adjustments to fund the Servicing Plan; and
3. Subject to the By-law being given the required readings, authorize staff to forward the By-law to the Provincial Ministry of Community, Sport and Cultural Development for approval prior to its final adoption by Council.

INTENT

The purpose of this report is to obtain approval of an updated 10-Year (2014-2023) Servicing Plan and to have the related Development Cost Charge By-law be given the required readings so as to allow the By-law to be submitted to the Ministry of Community, Sport and Cultural Development for approval prior to its final adoption by Council.

BACKGROUND

The 10-Year Servicing Plan establishes the City’s capital expenditure plan for the construction of engineering infrastructure to service existing neighbourhoods and to support new growth across the City. It also forms the basis for establishing the City’s Development Cost Charge rates (DCCs).

In 2012, Council adopted the current 10-Year (2012-2021) Servicing Plan and related DCC rates. Each year since 2006, staff has undertaken a review of the Servicing Plan and recommended appropriate adjustments to the Plan and the related DCC rates.

To provide the development industry with certainty about when DCC rate changes will occur, the City has established March 15th of each year as the date on which DCC by-law amendments and associated DCC rate changes take effect. The last adjustments to the DCC rates for engineering infrastructure came into effect on March 15, 2012. A small adjustment to the DCC rates for parkland acquisition came into effect on March 15, 2013. The adjustments to the DCC rates recommended in this report are proposed to take effect on March 15, 2014.

DISCUSSION

Since the last 10-year servicing plan update in 2012, a number of planning and engineering studies have been completed that identify future infrastructure needs across the City. These include:

- The Stage 2 component of the Neighbourhood Concept Plan (NCP) for Grandview Heights Area #5A (Orchard Grove);
- The Stage 2 component of the NCP for Anniedale-Tynehead;
- Fleetwood Enclave Infill Area Concept Plan;
- South Westminster Heights Infill Area Plan;
- Integrated Stormwater Management Plans (ISMPs) for several watersheds across the City;
- A new City-wide sewer model; and
- A Cycling Plan, which is a subordinate part of the City's Transportation Strategic Plan.

Many of the infrastructure elements identified in these studies and plans have been incorporated into the proposed 10-Year (2014-2023) Servicing Plan.

The 10-Year (2014-2023) Servicing Plan builds on the previous 10-year plan. Projects that have been completed have been deleted and new projects that are needed to support new development over the next 10 years have been added. In addition, project cost estimates have been updated to reflect current construction prices. The proposed 10-Year Servicing Plan is not a commitment to constructing all of the identified projects but rather projects will be constructed on a year-to-year basis as funding becomes available either through DCCs that are collected on new development, City annual budgets, revenues from utilities and/or from other agencies.

New 10-Year Servicing Plan

The estimated total cost of all of the projects that have been included in each of the various categories of infrastructure in the 10-Year (2014-2023) Servicing Plan is listed in the following table:

Program	Growth Component (DCC Eligible)	Non-Growth Component	External Funding	Total
Arterial Roads	\$336,025,000	\$154,140,000	\$192,860,000	\$683,025,000
Non-Arterial Roads	\$75,110,000	\$136,400,000	-	\$211,510,000
Drainage	\$101,261,859	\$128,733,386	-	\$229,995,245
Sewer	\$84,730,570	\$62,964,570	\$2,534,000	\$150,229,140
Water	\$64,992,000	\$128,091,000	-	\$193,083,000
TOTAL	\$662,119,429	\$610,328,956	\$195,394,000	\$1,467,842,385

Notes: City-wide costs exclude Campbell Heights, Highway 99 Corridor and Anniedale-Tynehead Build-Out Plans

The “Non-Growth component” of the Roads infrastructure is funded by a combination of general revenue, the Road and Traffic Safety Levy and a portion of the revenues generated through the Secondary Suite fee for transportation infrastructure while the “Non-growth Component” of the other listed infrastructure is funded from the utility fees for sewer, water, and drainage with some limited external funding. The Growth Component is funded, apart from a small amount (5 to 10%) of City funding assistance, from revenues generated through DCCs. The DCC rates required to support the proposed 10-Year (2014-2023) Servicing Plan are listed in the following table. The Plan also recognizes external funding from TransLink in relation to the construction of (including safety improvements on) the Major Road Network.

Growth Projections

The Plan assumes that 37,100 residential dwelling units will be constructed between 2014 and 2023 inclusive, which represent a population increase of 90,700. During this same period, commercial floor space is expected to expand by 500,000 square feet per year and industrial development by 35 acres per year. These growth assumptions were used in the calculation of the revised DCC rates.

Development Cost Charge Rates

The following table provides some examples of the current and proposed DCC rates for zones where rate changes are being proposed. These were developed in accordance with guidelines contained in the DCC Best Practices Guide as published by the Ministry of Community, Sport and Cultural Development.

City-Wide DCCs

Zone	Existing DCC Rate	Proposed DCC Rate	Rate Change \$	Rate Change %
SF (RF, RF-12, RFC) (per lot)	\$27,053	\$28,691	\$1,638	+6%
SF Small Lot (RF-9, RF-SD) (per lot)	\$23,511	\$24,950	\$1,439	+6%
RM-10, RM-15 & RM-30 (per sq. ft.)	\$15.73	\$16.42	\$0.69	+4%
RM-45 and RM-70 (per sq. ft.)	\$17.31	\$18.06	\$0.75	+4%
RM-135 and RMC-150 (per sq. ft.)	\$14.39	\$15.18	\$0.79	+5%
RM-135 and RMC-150 (in City Centre) (per sq. ft.)	\$9.52	\$10.04	\$0.52	+5%
Commercial (ground floor) (per sq. ft.)	\$9.37	\$10.11	\$0.74	+8%
Industrial (per acre)	\$72,879	\$77,507	\$4,628	+6%

Campbell Heights DCCs

Zone	Existing DCC Rate	Proposed DCC Rate	Rate Change %
All Zones (per acre)	\$134,452	\$139,774	+4%

Highway 99 Corridor DCCs

Zone	Existing DCC Rate	Proposed DCC Rate	Rate Change %
All Commercial Zones (per acre)	\$208,713	\$210,341	+1%
All Industrial Zones (per acre)	\$101,226	\$102,380	+1%

No changes are proposed in relation to the recently established DCC rates for the Anniedale-Tynehead NCP Area.

Development Cost Charge By-law

In addition to the DCC rate changes, staff is proposing one text amendment. The reference to basements is proposed to be removed from the definition of “Square footage of the DU” included within the By-law. This change is considered necessary as some townhouse units have not been charged DCCs for the living space provided in some basements. This change may result in a slight increase in DCCs charged on some townhouse units that have basements; however, the DCC By-law will continue to have a cap on the total floor area in a townhouse unit that is used for the purpose of calculating the DCCs payable on that unit. This cap is set at 1,750 square feet. This change will impact some townhouse projects but will have no impact on the DCCs paid in relation to single family lots.

The definition of “Square footage of the DU” is proposed to be changed from:

“Square footage of the DU or sq. ft. of DU means the cumulative floor area measured from the outside edge of the exterior walls or sheathing of the dwelling unit and, where applicable, the centre line of the common walls dividing the dwelling units and shall include all the internal walls within each dwelling unit excluding parking areas (to a maximum of 250 square feet per parking space), basements, crawl spaces less than or equal to 1.5 metres [5 ft.] clear height, balconies, canopies, terraces and sun decks.”

to:

“Square footage of the DU or sq. ft. of DU means the cumulative floor area measured from the outside edge of the exterior walls or sheathing of the dwelling unit and, where applicable, the centre line of the common walls dividing the dwelling units and shall include all the internal walls within each dwelling unit excluding parking areas (to a maximum of 250 square feet per parking space), crawl spaces less than or equal to 1.5 metres [5 ft.] clear height, balconies, canopies, terraces and sun decks.”

It is noted that basement is defined in the City’s Zoning By-law as “that portion of a building between two floor levels which is partially or wholly underground with at least one-half of the volume of the said portion below the finished grade (on a single family or duplex lot) or existing grade (not on a single family or duplex lot) adjoining its exterior walls and includes cellars”.

Benchmarking Proposed DCC rates

A comparison of the proposed DCC rates was made against the City’s 2008 DCC rates with adjustments to reflect increases in the Consumer Price Index (CPI) for Vancouver between 2008 and 2013. A second comparison of the proposed DCC rates was also made against the 2008 DCC rates adjusted by the increase in the average home value between 2008 and 2013 as reported by the Fraser Valley Real Estate Board. These comparisons are documented in the following table.

Single Family (RF, RF-12, RFC)			Multifamily (RM-10, RM-15 & RM-30)		
Proposed DCC Rate per lot (2014)	2008 DCC Rate adjusted by CPI through 2013	2008 DCC Rate adjusted by Housing Price changes through 2013	Proposed DCC Rate per sq ft (2014)	2008 DCC Rate adjusted by CPI through 2013	2008 DCC Rate adjusted by Housing Price changes through 2013
\$22,524	\$22,320	\$22,684	\$10.01	\$9.97	\$10.13

As evidenced above, the proposed DCC rate adjustments are in keeping with CPI and housing cost increases over the years.

The proposed DCC rates remain significantly lower than the DCC rates that have been established for the Anniedale-Tynehead NCP Area as well as the estimated DCC rates for the Grandview Heights Area #4 NCP as discussed in Corporate Report No. R201; 2013. This difference in rates reflects that fact that the cost to develop infill areas and NCP areas in close proximity to existing infrastructure is much lower than greenfield areas that are more removed from existing infrastructure.

Public Consultation

Information on the 10-Year (2014-2023) Servicing Plan and the proposed DCC rates along with a consultation section were provided on the City’s website at www.surrey.ca/DCCs and advertisements were placed in the local newspapers that notified the community of the availability of this information. Staff also utilized the City’s Twitter account to directly advise its 6,500 followers and the City’s Facebook page to directly advise its 4,800 followers of the information on the City’s website and to invite feedback. The City’s tweet was subsequently retweeted a number of times by followers of the City’s Twitter account, including by the Pacific Region of Urban Development Institute, which expanded the outreach by another 5,500 followers. No comments have been received from the public through these consultation processes.

The City’s Development Advisory Committee (DAC) was also consulted. The DAC expressed no concerns with the proposed DCC rates; however, some representatives of the DAC expressed concern that not all phases of a multi-family development are eligible for grandfathering to current DCC rates. Currently only building permit applications that are in-stream in advance of the date that the new DCC rates take effect are grandfathered to the old DCC rates provided that the building permit is issued within one year from the date that the new DCC rates take effect.

Staff advised the DAC that they along with representatives of the Urban Development Institute and other stakeholders including past members of the City’s Development Advisory Committee, have discussed at meetings of the Provincial Development Finance Review Committee the opportunity to introduce grandfathering for development permit applications that are in-stream in advance of the date that the new DCC rates take effect provided that all building permits are issued within one year from the date that the new DCC rates take effect. This item remains under discussion.

Implementation

The proposed 10-Year Servicing Plan and the related DCC rates as proposed to be implemented in accordance with the following schedule:

- December, 2013: Corporate Report to Council for approval of the 10-Year (2014-2023) Servicing Plan and initial readings of the related 2014 DCC By-law
- February, 2014: Ministry of Community and Rural Development approval of the 2014 DCC By-law
- March 10, 2014: Final Adoption of 2014 DCC By-law
- March 15, 2014: 2014 DCC Rates Take Effect

Impact on the Five Year (2014-2018) Financial Plan

The Five Year (2014-2018) Capital and General Operating Financial Plans, which were approved by the Finance Committee on November 25, 2013 reflect the proposed 10-Year (2014-2023) Servicing Plan as documented in this report.

Legal Services and Finance Review

This report and the related By-law have been reviewed by each of the Finance and Technology Department and the Legal Services Division.

Next Steps

Staff will continue to regularly review construction costs and servicing requirements to determine when future adjustment to the Servicing Plan and DCC rate are required to ensure that there is sufficient DCC revenue to fund the infrastructure works required to support planned and orderly development in the City.

Staff will be preparing the annual DCC Report in 2014 that documents the DCC revenues that were collected by the City from development in 2013 and how these DCC revenues were invested in new infrastructure. A copy of the 2012 DCC Report is attached to this report as Appendix III.

SUSTAINABILITY CONSIDERATIONS

A properly developed and adequately funded 10-Year Servicing Plan helps to ensure continued planned and orderly development in Surrey, which supports the Economic Pillar of the Sustainability Charter; particularly, the following action items in the Charter:

- *EC3: Sustainable Infrastructure Maintenance and Replacement;*
- *EC4: Sustainable Financial Management Practices; and*
- *EC11: Providing infrastructure to support and expand Surrey's Employment Land Base.*

CONCLUSION

Based on the above discussion, it is recommended that Council:

- Approve the proposed 10-Year (2014-2023) Servicing Plan (“the Servicing Plan”) that is attached as Appendix I to this report;
- Authorize the City Clerk to bring forward for the required readings the Development Cost Charge By-law (“the By-law”) attached as Appendix II to this report, which if adopted will provide necessary DCC rate adjustments to fund the Servicing Plan; and
- Subject to the By-law being given the required readings, authorize staff to forward the By-law to the Provincial Ministry of Community, Sport and Cultural Development for approval prior to its final adoption by Council.

Vincent Lalonde, P.Eng.
General Manager, Engineering

JA/brb

- c.c. - General Manager, Parks, Recreation & Culture
- General Manager, Finance & Technology
- General Manager, Planning & Development

Attachments:

- Appendix I: 10-Year (2014-2023) Servicing Plan
Appendix II: Proposed Development Cost Charge By-law
Appendix III: 2012 Development Cost Charge Report

2014 - 2023 TEN YEAR SERVICING PLAN

ENGINEERING DEPARTMENT



**City of Surrey
Engineering Department**

10-YEAR SERVICING PLAN (2014-2023)

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Robson Creek Restoration

1. OVERVIEW OF THE PLAN

The objective of the 10-Year Servicing Plan (the “Servicing Plan”) is to establish a program of municipal engineering infrastructure works and services that are required to meet the needs identified under the Official Community Plan and Neighbourhood Concept Plans approved by Council.

The Servicing Plan identifies the costs to provide transportation, drainage, water, and sanitary sewer services for both the existing population and the projected growth in population over the next 10-years (2014-2023).

The Servicing Plan is developed based on the following plans and documents:

- Official Community Plan (OCP);
- Neighbourhood Concept Plans (NCPs);
- Sustainability Charter;
- Previous 10-Year Servicing Plan (2012-2021);
- Transportation Strategic Plan;
- Walking and Cycling Plans;
- Integrated Stormwater Management Plans;
- Serpentine/Nicomelk Strategic Plan for Lowlands Flood Control;
- Metro Vancouver’s Integrated Liquid Waste Resource Management Plan; and
- Metro Vancouver’s Drinking Water Management Plan.

The needs identified in the Servicing Plan are used by the Finance & Technology Department to prepare future 5-Year Capital and Operating budget plans. The identified growth related components in the Servicing Plan are used to determine the Development Cost Charges (DCCs) for engineering infrastructure.

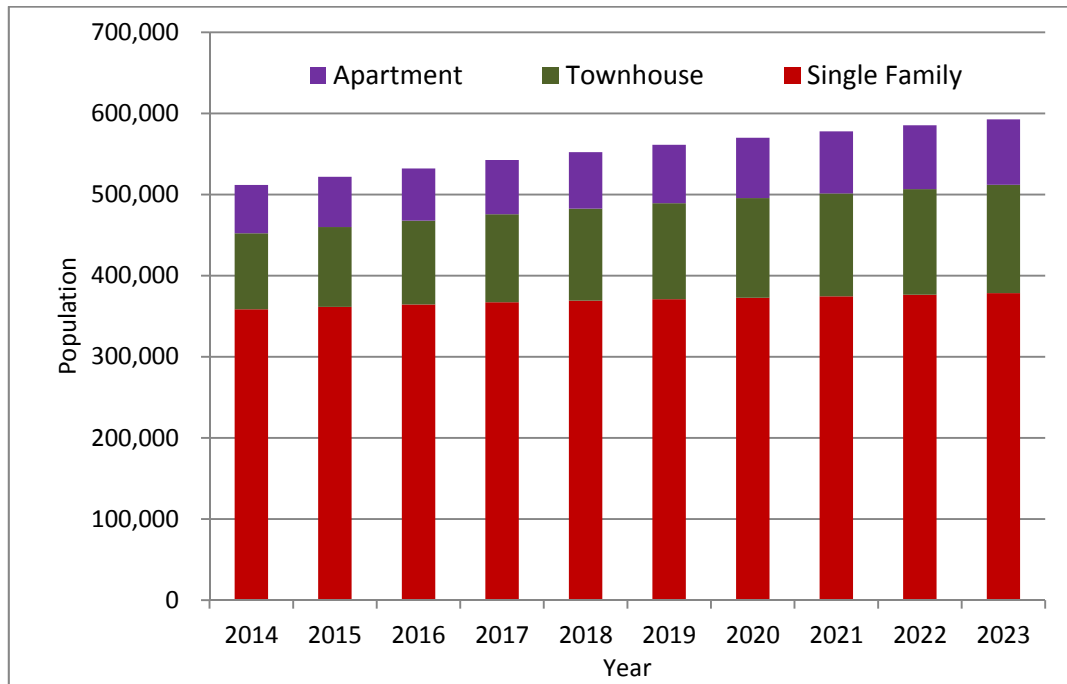
1.1 Servicing Plan Programs

The needs included in the Servicing Plan are divided by the type of asset: Transportation, Drainage, Sanitary Sewer, and Water. They are then further divided into programs under each asset type. Programs seek to associate projects of similar works and services.

The Engineering Department revised its capital and operating program structure in 2009 to differentiate operation/maintenance programs and capital programs as part of its Public Sector Accounting Board PS3150 reporting requirements; therefore, some projects included in the Servicing Plan under specific programs may be contained in different programs as compared to previous Servicing Plan editions. Although projects may have changed programs, the activity and funding requirements of the projects generally will remain the same.

1.2 Population Projections

Growth related needs are primarily driven by the increase in population. The Servicing Plan is developed based on the population projections estimated by the City’s Planning & Development Department. The City’s population, for the purposes of engineering services, is estimated to increase by approximately 91,000 residents over the next 10-years.

Figure 1.1 - Population Projections

The principles behind the methodologies used in the development of this plan are classified under three categories, and they are:

- Infrastructure required to support the existing population (Non-Growth);
- Infrastructure required to support future development (Growth); and
- Infrastructure required to support both the existing population and future development.

1.3 Infrastructure Required to Support the Existing Population (Non-Growth)

A portion of the servicing requirements included in the Servicing Plan are to support the City's existing population (non-growth). In addition to maintaining the serviceability of the existing infrastructure, this category of requirements includes works to overcome deficiencies within already developed areas. These servicing requirements are funded by the existing residents and businesses through their utility rates.

Examples of non-growth related works included in the Servicing Plan are:

- repaving of roads;
- new sidewalks and street lights for developed areas;
- local improvements in developed areas;
- resolutions to existing drainage problems;
- drainage main, water main, and sanitary sewer main replacements; and
- climate change adaptation.

1.4 Infrastructure Required to Support Future Development (Growth)

A portion of the servicing requirements included in the Servicing Plan are to support future development (growth). There are no operation and maintenance projects within the Servicing Plan.

To ensure that growth related projects are cost-effective, the following were considered in the sizing of infrastructure and the timing of works:

- life cycle of mains, pipes, and other materials used in the construction of municipal services (typically spans 50 to 100-years);
- incremental costs for upsizing trunk sewers or feeder mains that are relatively small compared to the total construction cost, or to the cost of further relief work at a future date;
- extent and effect of disruptions caused by phased and/or sectional improvement works; and
- strategy of interim upgrading of roads to reach full urban standards over, or even beyond, the life of the Servicing Plan.

1.5 Infrastructure Required to Support the Existing Population (Non-Growth) and Future Development (Growth)

Some projects support the existing population, as well as future development. An example of this type of project is replacement of a water main that is also upsized to provide additional capacity. In this case, the replacement cost would be assigned to non-growth needs and the upsizing cost to growth needs.

1.6 Cost Estimates

All costs quoted in the Servicing Plan are in 2014 dollars. The majority of these costs are indicative (Class D) level estimates. More detailed cost estimates have been used where available.

For annual projects, the total cost of the project over 10-years is provided.

1.7 Financing Infrastructure to Support Future Development (Growth)

There are a number of financial strategies available for front-ending developers or property owners to recover an appropriate share of costs to service growth. Examples of these are:

- DCC Front-Enders Agreements;
- Developments Works Agreements; and
- Latecomer Charges Agreements.

Financing strategies for major servicing elements included in the Servicing Plan allow for a cooperative approach between the City and developers to use DCCs generated in respective developing areas.

1.8 Financing Strategies for Servicing Industrial Areas

The Servicing Plan includes major servicing requirements for industrial lands in South Westminster, East Bridgeview, South Cloverdale, Highway 99, East Newton, and Campbell Heights. The City's ability to directly provide, or facilitate developers to provide, for servicing these requirements supports the City's goal to increase economic development activity.

The Highway-99 Corridor, Campbell Heights, and Anniedale-Tynehead areas have been treated as specific areas from the overall City-wide DCC-funded Servicing Plan due to the higher costs of providing services to these areas. This has allowed greater flexibility in the financing of services through the use of specified area charges and public-private partnerships. Servicing requirements and associated growth projections for these areas are included in separate Sections.

1.9 Projects Constructed Under DCC Front-Enders Agreement

Some projects identified in the previous 10-Year Servicing Plan (2012-2021) have been constructed and financed by developers through DCC Front-Enders Agreements. These agreements allow DCCs collected in the benefiting catchments to be refunded to the respective front-ending developer, to the limit of the cost of the project as development occurs.

1.10 Timing of Projects

The tables of works are based on the anticipated pace and expected locations of future growth. Should development and growth occur differently, then the timing of individual projects may have to change as well; therefore the projects, and in particular their timelines and extents of work shown, should be regarded as conceptual and subject to change.

The estimated project timeline ranges within the Servicing Plan are classified as follows:

A	- Annual	Every year
S	- Short Term	1 - 3 years
M	- Medium Term	4 - 6 years
L	- Long Term	7 - 10 years
N	- NCP dependent	Timing depends on development within NCP area
U	- Upsizing Contribution	No fixed time; project carried out as required

1.11 Public Consultation

The majority of studies and plans that identify the various infrastructure requirements included in the Servicing Plan have received considerable public input. This input ranges from public opinion surveys, public open houses, citizen advisory committees, and the various Committees of Council such as the Environmental Sustainability Advisory Committee, the Development Advisory Committee, the Transportation & Infrastructure Committee, and the Agricultural & Food Security Advisory Committee.



Highway 99 Pedestrian Overpass



196 Street Rail Overpass

2. TRANSPORTATION SERVICING REQUIREMENTS

The Service Plan supports the City's Transportation Strategy that has set a vision and established principles aimed at developing a balanced transportation system. This enables sustainable mobility choices that integrate with other City plans for the environment, health and safety, economic development, and land development.

Development of the City's road network remains a significant component of the Transportation Strategy, including completion of key missing road links; however, providing greater travel choices for improved access to jobs, education, health, and recreation for all is playing an increasingly important role. The ongoing development of a multi-modal transportation system requires that more status be given to transit, walking, and cycling within the Servicing Plan, both in terms of identifying specific projects within the different programs, as well as increasing funding. This Plan has, for the first time, identified project lists for Transit and walking programs.

The serviceability of Surrey's transportation networks is fundamental to the continued growth of the City. The projects outlined in the Servicing Plan will maintain, improve, and expand these networks such that they meet the mobility needs of our communities and businesses safely and efficiently.

2.1 Road Classifications & Transportation Inventory

Four classes of roads enable traffic to travel within and through Surrey: Provincial highways, arterial roads, collector roads, and local roads. Travel by car, bus, bicycle, and walking is generally accommodated on all of these road classes, whereas truck travel is generally restricted to highways and designated arterial roads (truck routes).

The Provincial highways primarily serve provincial and inter-municipal traffic needs. These highways form an important role in the overall transportation network for the Region. Funding of capital works projects on Provincial highways is provided by the Province, with the City providing additional funding for "urban features" such as ditch enclosures, curbs, sidewalks, and street lights. The City also takes part in cost-sharing for specific infrastructure improvements associated with highway interchanges.

Arterial roads are the main transportation arteries of the movement of all classes of vehicles both through and within the City. Buses that provide public transit throughout the City primarily operate on arterial roads. Arterial roads are typically located on the 800-metre (half mile) grid lines and decrease to 400-metre (quarter mile) spacing in Town Centres.

Collector roads are primarily intended to channel traffic onto the arterial and highway networks from the local road system. Collector roads are usually located on the 400-metre (quarter mile) or 200-metre (eighth mile) grid lines with their spacing decreasing as the density of development increases.

The width and classification of the City's arterial and collector road networks are identified in the Major Road Allowance Map and the Road Classification Map (R-91), which are both contained within Surrey's Subdivision and Development By-law.

In April of 1999, the Province declassified (devolved) three Provincial highways within the City: King George Highway, Fraser Highway, and Scott Road. A new road network called the “Major Road Network” (MRN) was established in conjunction with the Provincial highway declassification. This MRN, which is considered a subset of the City’s arterial network, was developed by TransLink to address regional transportation needs handled by the devolved highways and strategic City arterial roads.

In conjunction with the highway downloading, several City arterial roads were “uploaded” to become part of the new MRN. The City assumes maintenance and capital construction responsibilities for these devolved roads while TransLink provides the maintenance funding. For the purposes of the Servicing Plan, funding for capital works projects on the MRN are assumed to be a split of 50/50 between TransLink and the City.

Provincial highways, arterial roads (both MRN and non-MRN), and collector roads within the City are shown in **Figure 2.1**. Local roads and lanes serve local traffic functions, property access, and parking needs only.

The City's current inventory of roads and a sample of supporting infrastructure are summarized below in **Table 2.1**.

Table 2.1 – Transportation Infrastructure Summary

Roads - Centreline Length	
Arterial Roads (including MRN roads)	407 km
Collector Roads	273 km
Local Roads	1409 km
<u>Lanes</u>	<u>211 km</u>
Total Surrey Roads	2300 km
Provincial Highways	99 km
Total Surrey & Provincial Roads	2399 km
Lane Kilometre Length	
Major Road Network	4871 km
City Arterials	5681 km
Collectors	5441 km
Supporting Infrastructure	
Multi-use Pathways	87 km
Bridges and Structures	50
Street Lights	29,000
Traffic Signals	320
Traffic Signs	80,000

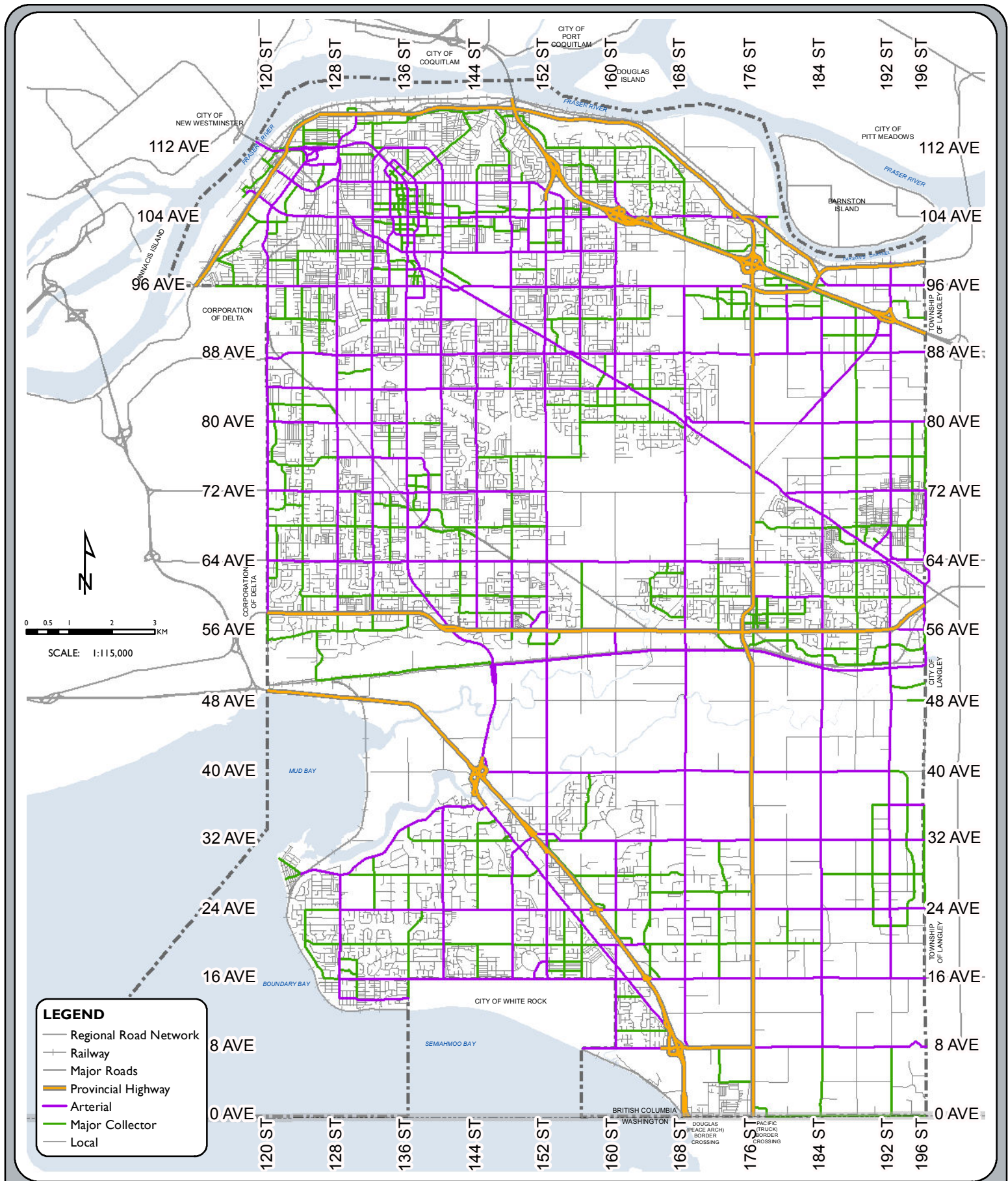


FIGURE 2.1 - MAJOR ROAD NETWORK



GIS SECTION

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

2.2 Road Network Plan Needs – Growth and Non-Growth

As urban development and growth occurs within the City, traffic volumes increase. The growth related aspect of the Servicing Plan covers works to construct new sections of roads, and to widen and upgrade the arterial and collector road networks in Surrey. It also covers works related to regional projects, strategic local roads, safety, transit, cycling, and walking facilities.

The non-growth related aspects of the Servicing Plan include arterial, collector and local road repaving, infrastructure replacement, some local road and sidewalk works, and program management.

2.3 Arterial Road Servicing Program

Program 1000 – New Arterials

The New Arterials program is based on completing strategic links in the City's road network. These important connections facilitate improved distribution of traffic to help relieve congested intersections and corridors, and improve the ability for cycling, walking, and transit movement through the City. This program includes funding for property acquisition in advance of detailed design and/or construction to ensure that adequate property is preserved or acquired.

Program 1002 – Ultimate Arterial Improvements

Growth related needs have been determined from the most recent Surrey Sub-Area Traffic Model projections, current traffic volumes, development patterns, and new Neighbourhood Concept Plans (NCPs). Widening needs of existing City arterial roads have been identified where projected volumes exceed current capacity. This program includes funding for property acquisition in advance of detailed design and/or construction to ensure that adequate property is acquired. Arterial development coordinated works (DCW) is also contained within this program. Development coordinated works accommodate the construction of arterial works in conjunction with the development of adjacent properties. The intent is to construct works that complete linkages to the development project that are unlikely to occur through subsequent development. In these circumstances, it is generally cost-effective to have the sidewalk, or other needed City road upgrading works, constructed through the active development project.

Program 1004 – Interim Arterial Improvements

This program includes projects that are planned for further widening in the future. There are typically two distinct types of projects:

- Widening to the 4-lane arterial standard, where the ultimate will be 6 lanes; or
- Adding a center, two-way left turn lane to improve capacity, ditch elimination, or widening shoulders to mitigate the impacts of increased traffic on safety.

Program 1012 - Arterial Intersection Improvements

The Arterial Intersection Improvements program consists of a number of intersections that have been designated for improvement with left turn bays, traffic signals, or other works to increase capacity or mitigate the impacts of increased traffic on safety.

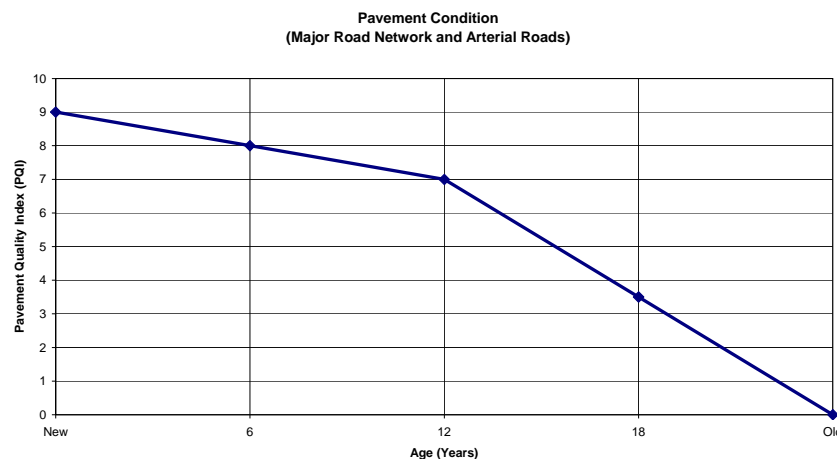
Program 1016 - Pavement Resurfacing and Repair

Road pavement studies indicate that resurfacing is most cost-effective when undertaken just before there are visible signs of deterioration; if resurfacing is deferred beyond the time that deterioration first becomes apparent, then rehabilitation costs increase by four to five times the optimum cost. Also, direct vehicle operating costs may double when the vehicle is driven over a very poor, deteriorated road as opposed to a good one.

As the age of pavements increases, the pavement roughness, cracking distress, and structural adequacy (pavement's ability to carry traffic loads) decreases. A PQI rating of 9 represents a smooth pavement in excellent condition, while a PQI rating of 1 represents a very rough pavement in very poor condition. A PQI rating of 7 is approximately at the point of inflection for the pavement deterioration curve, as shown in **Figure 3.2**. This program also covers minor pavement repair works, including crack sealing and patching.

After a pavement falls below a PQI rating of 7, there is a more rapid deterioration with age. Over a 10-year period, a PQI rating of 7 is projected to deteriorate to a condition 1 or 2 if no pavement rehabilitation work is undertaken.

Figure 3.2 – Pavement Deterioration Curve – MRN & Arterial



Arterial pavement resurfacing needs are determined by the Surrey Pavement Management System (PMS). This is a sophisticated database and computerized model of all Surrey roads. It optimizes the scheduling of repaving and repairs to achieve least cost for maintenance and capital repaving over the life cycle of this key infrastructure component.

The Surrey PMS system is divided into two separate analyses: one analysis for the MRN, and another for the remaining City arterial roads.

On the MRN, since maximum benefits coincide with high volume arterial roads, these roads are maintained at a higher condition level than other City roads. Priorities for the MRN paving program are determined through the Surrey PMS, and funding for paving rehabilitation on the MRN is provided by TransLink.

On the remaining City arterial roads, in order to maintain a level approaching the PQI of 7 over the term of the Servicing Plan, we anticipate funding of about \$7 million per year is required.

City arterial road repaving costs, which are attributed to the existing population (i.e. non-growth), are estimated as shown below.

Program 1018 - Arterial Bridges

There are two types of bridge projects: replacement and new. The City undertakes a bridge condition assessment annually, which has identified bridges for replacement due to their condition. The bridges selected for replacement under this program are identified based on bridge condition, the need for widening for increased capacity, or a combination of the two. Costs have been assigned between growth and non-growth based on the reasons for replacement.

Program 1020 - Provincial Highway Cost Sharing

Costs for Provincial highway projects are based on the City's share of works which include the cost of urban features such as ditch enclosures, sidewalks, curbs, street lights, and specific grade separation cost-sharing. The Gateway Program, which includes the South Fraser Perimeter Road and Highway 1 widening (with associated interchange reconstruction), and the Roberts Bank Rail Corridor grade separation projects are planned to occur within the next 10-years. Funding from this program will also be used for other adjacent City works, which are practically and economically carried out at the same time as Ministry projects.

Program 1102 - Intersection Control

The Intersection Control program is a program of intersection control projects which include traffic signal and ITS improvements, traffic signal rebuilds, pedestrian signals, and roundabouts. The installation of these control measures is based on the appropriate warrants being met with an emphasis on reducing collisions.

Program 1120 - Bicycle Network Improvements

The Bicycle Network Improvement program includes both on-street and off-street projects. On-street projects include the funding of pavement markings, signage, traffic signal modifications, cycling promotions, and grants. On-street bicycle lanes are incorporated within the overall road cross-section, and thus, funding for this is included within road widening projects.

Off-street projects include the funding of property acquisition and pathway construction. With the Parks, Recreation & Culture Department and TransLink also contributing to this program annually, the City regularly applies for Provincial and Federal government funding programs.

The cost of the Bicycle Networks Improvements Program is divided into 33% growth and 67% non-growth. 33% is allocated to growth, as the City intends on achieving an improved modal split for bicycles that will result in a lower demand for road capacity for vehicles, and reduce the road widening required within the Servicing Plan.

Program 1142 - Transit Infrastructure Improvements

To create a more sustainable community it is necessary to facilitate a shift from single occupant vehicles to transit. Improvements, such as enhanced transit facilities, transit pre-emption, and "queue jump" lanes are included within this program to improve the comfort of transit facilities and to enhance their reliability, as well as reduce travel times for transit users.

Program 1500 - Design & 1505 Planning - Program Management (Arterial)

This program comprises three project categories:

- Resources required managing all aspects of the transportation program including design and construction of the Servicing Plan, public and agency liaison, review and management of planning studies, and internal coordination with other Sections, Divisions and Departments. The staff salaries and wages fall into this program as well.
- Traffic modeling studies to project future traffic volumes and future roadway requirements, modeling to look at specific design or operational issues, and modeling to assess development impacts/needs.
- Transportation studies to plan the City's transportation infrastructure, including NCPs, preliminary and functional designs, and all components of the Transportation Plan.

Program 1515 - Minor Projects (Arterial)

The Arterial Minor Projects program is a fund that is not allocated to specific projects and is available for use on an "as-needed" basis each year. These projects include arterial road widening, street lights, curb returns, sidewalks, driveway letdowns, and other similar items. This program is allocated 67% to growth and 33% to non-Growth as the minor projects primarily relate to increases in traffic flows necessitating widening or safety improvements.

Program 1520 - Transportation Management (Arterial)

This program covers Transportation operations as well as the management and expanding of traffic signals. Also included is the Intelligent Transportation System (ITS) program works, as well as the overall management of the Transportation network including signs, street furniture, etc.

2.4 Collector and Local Road Servicing Program**Program 1022 - City Centre Upgrading**

Based on the density and character planned for the City Centre, road standards in the City Centre are set to a higher beautification level and pedestrian treatment standard than roads in other areas of the City. It is estimated that about \$4 million represents a base within the Servicing Plan to beautify certain roads that will not be upgraded through redevelopment over the next 10-years. Beautification includes wider paver stone sidewalks, ornamental street lights, and underground wiring. One quarter of street beautification costs is attributed to growth.

Program 1030 – Collector Road Completion

Collectors serve a wider community need both in terms of vehicular as well as pedestrian/cyclist traffic; however, unlike arterial roads, the need for collector widening is not strictly driven by capacity. Collector widening works provide improved pedestrian, cyclist and traffic mobility, on-street parking, as well as a finished streetscape that enhances livability for residents and businesses.

Most collector roads are constructed in conjunction with development with DCC upsizing funds. Developers are responsible for construction of the applicable local road standard of an 8.5 metre or 11 metre wide pavement (based on zoning) plus curb and gutter, drainage works, sidewalk, street lights, and landscaping. The City will complete it to the ultimate standard by funding the additional pavement to the ultimate 14 metre width plus the incremental cost to upgrade to collector standard pavement structure and street lighting.

In addition to completing existing collector roads, some new collectors are required at locations that are not expected to redevelop over the next 10-years. Therefore, this program incorporates new collectors, widening of existing collectors, as well as funding for upsizing collector roads in conjunction with development. In addition, funding is also identified for Development Co-Ordinated Works (DCW) and property acquisition.

It is often cost-effective to construct certain works adjacent to development sites that are not expected to be completed through future development projects. This includes road widening/completion, sidewalks, and other works. As these works are in response to development activity, it is not possible to predict a detailed program of works. The program estimate is based on historical levels of expenditure.

Within the City's NCPs and other development plans, there are network links which have a strategic value in supporting the growth objectives of the particular NCP or Town Centre Plan area. Similarly, there are local road links that have a strategic value in reducing traffic impacts, and need for additional capacity on the arterial and collector roadway networks; however, a number of these "strategic" roads have little or no opportunity for construction by adjacent development. In order to realize the planned growth objectives and respond to growth induced traffic impacts, it is necessary to include these works in the DCC funded roads program.

The majority of collector and strategic local road construction projects can be completed within existing road allowances; however, there are a number of instances where new sections of collector and strategic local roads can only be achieved through property acquisition. The funding is based on historic levels of expenditure plus future anticipated needs.

Program 1074 - Local Road Improvements

Areas of Surrey that developed before the current servicing standards were introduced usually lack roads completed to final standard. To complete such roads, one or more of the following are required:

- ditch enclosure;
- curbs;
- pavement widening;
- sidewalks;
- street lights; or
- lane development/paving.

For roads other than arterials or collectors, road upgrades are carried out under Local Area Services. The Local Area Service process provides a vehicle by which the municipality and the fronting properties share the cost of the upgrading works. Current Local Area Service rates produce approximately an equal split of cost-sharing between fronting properties and the municipality when all the items in the preceding list are provided as part of the road upgrading.

Local area service road upgrades achieve the following results:

- Reduced maintenance costs for ditch cleaning and shoulder grading;
- Improved appearance;
- Improved livability;
- Safer street environment - street lights & sidewalks;
- Avoided future pavement maintenance costs through overlay over the existing pavement, extending pavement life;
- Possibility of a cleaner street; and
- Improvements initiated and partly paid for by the local area can become a source of pride and increase community spirit.

Potential local area service projects arise under the following conditions:

- By petition; and
- As identified to meet continuity needs or to complete a particular local area.

Recently there has been little demand or interest from property owners for local area service road works, and no works have been budgeted over the last few years. Currently, there exists a Local Area Service revolving fund that is used to up-front all costs and fund the City's component of the works. This fund is anticipated to be adequate to fund local area service needs over this plan period.

Program 1104 – Street Light Replacement

The program is to address the replacement of aging street light poles and fixtures.

Program 1108 - Traffic Calming Measures

The City has an annual program of constructing traffic calming works. These works consist primarily of measures such as speed humps and speed tables, but can also include measures such as traffic circles and pavement narrowing. As these measures are primarily needed as a result of increases in traffic flow, three quarters of the cost of works has been assigned to the growth component.

Program 1154 - Sidewalks and Local Road Completion

The local road sidewalk program has been developed based on school travel patterns, the need to complete sidewalk network gaps created through development, and the following sidewalk guidelines:

- There should be a safe route to school from all residential subdivisions along a route with a sidewalk accessible to school children;
- All commercial areas should have a sidewalk on both sides of the road; and
- Sidewalks are prioritized towards local roads that form a critical element in connecting a route for school purposes.

This program includes improvements such as curb bulges and crossing improvements.

The arterial road sidewalk needs are primarily determined by proximity to commercial and multi-family developments in conjunction with the following sidewalk guidelines:

- Sidewalks are needed on both sides of the road along regular transit routes;
- There should be a safe route to school from all residential subdivisions along a route with a sidewalk accessible to school children;
- All arterial roads with single family or higher density should have a sidewalk on both sides of the road; and
- All commercial areas should have a sidewalk on both sides of the road.

There are numerous park and school locations that are serviced by roads that no longer meet our current standards, but traffic increases have resulted in the need for capacity and safety improvements. These improvements, which are directly related to growth, make up this program.

This program has been developed based on school travel patterns, the need to complete sidewalk network gaps created through development, and the following sidewalk guidelines:

- Sidewalks are needed on both sides of the road along regular transit routes;
- There should be a safe route to school from all residential subdivisions along a route with a sidewalk accessible to school children;
- All collector roads with single family or higher density should have a sidewalk on both sides of the road; and
- All commercial areas should have a sidewalk on both sides of the road.

Program 1500 Design & 1505 Planning - Program Management (Non-Arterial)

This program comprises three project categories:

- Resources required managing all aspects of the transportation program including design and construction of the Servicing Plan, public and agency liaison, review and management of planning studies, and internal co-ordination with other Sections, Divisions and Departments.
- Traffic modeling studies to project future traffic volumes and future roadway requirements, modeling to look at specific design or operational issues, and modeling to assess development impacts/needs.
- Transportation studies to plan the City's transportation infrastructure, including NCPs, preliminary and functional designs, and all components of the Transportation Strategy.

Program 1515 - Minor Projects (Non-Arterial)

The Non-Arterial Minor Projects program is a fund that is not allocated to specific projects, but is available for use on an "as-needed" basis each year for safety and operational improvements. Minor projects include the construction of widening of non-arterial roads, curb returns, sidewalks, street lights, driveway letdowns and other similar works.

Program 1520 - Transportation Management (Non-Arterial)

This program covers Transportation operations, as well as management and expanding of traffic signals. Also included is the Intelligent Transportation System (ITS) program works, as well as the overall management of the Transportation network including signs, street furniture, etc.

2.5 Transportation Servicing Requirements Cost Summary

Arterial

No.	Program	Program Type	Growth	Non-Growth	External	Total
1000	New Arterial Improvements	Capital	\$31,325,000	\$0	\$9,000,000	\$40,325,000
1002	Ultimate Arterial Improvements	Capital	137,025,000	0	31,875,000	168,900,000
1004	Interim Arterial Improvements	Capital	43,250,000	1,650,000	7,300,000	52,200,000
1012	Arterial Intersection Improvements	Capital	35,100,000	0	750,000	35,850,000
1016	Arterial Paving	Capital	0	98,750,000	80,000,000	178,750,000
1018	Bridges & Overpasses	Capital	12,500,000	3,500,000	10,000,000	26,000,000
1020	Highways & External Agency Projects	Capital	21,375,000	1,440,000	37,185,000	60,000,000
1102	Traffic Signals & Roundabouts	Capital	19,800,000	7,000,000	9,000,000	35,800,000
1112	Pavement Repair	Operating	-	15,000,000	0	15,000,000
1120	Bicycle Infrastructure	Capital	9,000,000	7,300,000	3,750,000	20,050,000
1142	Transit Infrastructure Improvements	Capital	4,000,000	750,000	4,000,000	8,750,000
1154	Walking Infrastructure	Capital	6,950,000	-	0	6,950,000
1500	Design & Planning	Non-Capital	7,000,000	5,000,000	0	12,000,000
1515	Minor Projects	Operating	2,000,000	3,000,000	0	5,000,000
1520	Transportation Management	Operating	6,700,000	10,750,000	0	17,450,000
TOTAL			\$336,025,000	\$154,140,000	\$192,860,000	\$683,025,000

Non-Arterial

No.	Program	Program Type	Growth	Non-Growth	External	Total
1022	City Centre Improvements	Capital	\$1,000,000	\$3,000,000	\$0	4,000,000
1030	Non-Arterial Road Improvements	Capital	43,900,000	5,000,000	0	48,900,000
1046	Non-Arterial Paving	Capital	0	80,000,000	0	80,000,000
1078	Lane Construction	Capital	0	5,000,000	0	5,000,000
1102	Traffic Signals & Roundabouts	Capital	4,250,000	0	0	4,250,000
1104	Streetlight Replacement	Capital	-	7,500,000	0	7,500,000
1108	Traffic Calming	Capital	1,500,000	500,000	0	2,000,000
1120	Bicycle Infrastructure	Capital	2,500,000	2,450,000	0	4,950,000
1142	Transit Infrastructure Improvements	Capital	1,000,000	250,000	0	1,250,000
1154	Walking Infrastructure	Capital	12,960,000	23,450,000	0	36,410,000
1500	Design and Planning	Non-Capital	3,000,000	2,000,000	0	5,000,000
1515	Minor Projects	Operating	1,500,000	2,000,000	0	3,500,000
1520	Transportation Management	Operating	3,500,000	5,250,000	0	8,750,000
TOTAL			\$75,110,000	\$136,400,000	\$0	\$211,510,000



Water Valve Replacement

3. WATER SERVICING REQUIREMENTS

The water utility provides sufficient, safe, and clean drinking water to the residents of the City. This is provided through the operation and maintenance of the existing system, and planning the design and construction of new facilities to support growth.

3.1 Water Supply

The City receives its water supply from the system of transmission mains and reservoir structures operated by the Greater Vancouver Water District (GVWD). Currently the GVWD system supplies water at the following six major reservoir supply points:

- Whalley
- Clayton
- Kennedy
- Newton
- Sunnyside
- Grandview Heights

In addition, there are a number of on-line feeds on GVWD's feeder-mains. The overall regional system in Surrey is shown in **Figure 3.1**.

3.2 Water Distribution System

The City's water system takes supply from the major reservoir supply points and the on-line supply points, and distributes to approximately 110,000 customers. Under the agreement between the City and the GVWD, the GVWD has no obligation to provide any residual pressure at their supply points. As a result, the City operates a system of pump stations to provide adequate pressure under peak demand conditions and for firefighting purposes. The major pipe network (water mains of 250mm diameter and larger) is currently used to supply and distribute flow through Surrey as illustrated in **Figure 3.1**, and the characteristics of the City's distribution system is summarized in **Table 3.1**.

Table 3.1 – Major Water System Infrastructure Summary

Water mains (PVC and ductile iron)	1615 km (typically constructed after 1970)
Water mains (AC and cast iron)	239 km (typically constructed before 1970)
Pressure reducing valves	250
Pump Stations	9

3.3 Region's Current Obligations to Provide Supply

The GVWD is obligated under the GVWD Water Act to provide the needed water flows at the supply points and to upgrade its facilities to meet increased demand due to growth within the City, except where such regional works are to be constructed under existing agreements between the City and the GVWD which specify agreed supply flows, cost-sharing, and timing of works.

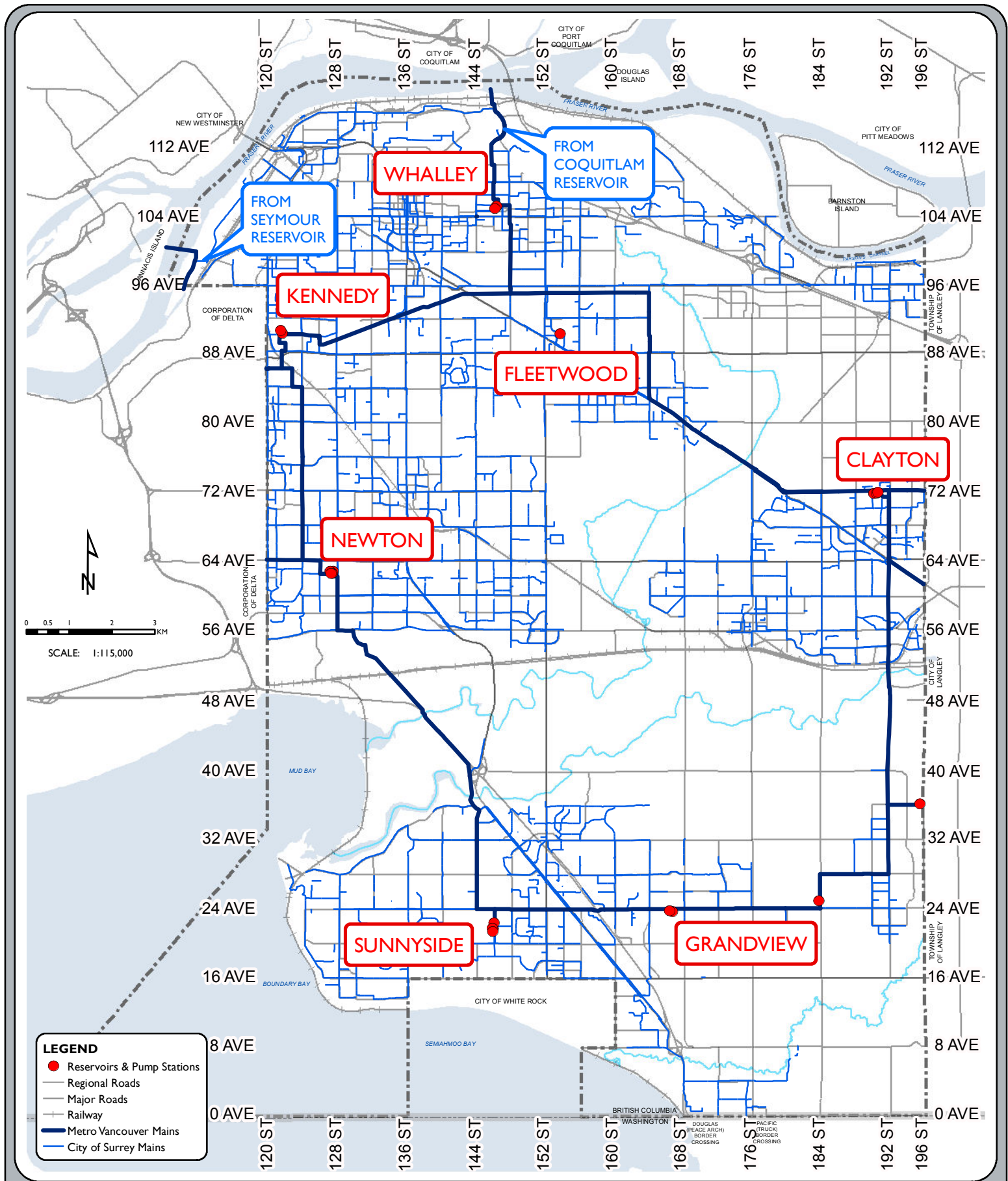


FIGURE 3.1 - MAJOR WATER NETWORK



GIS SECTION

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

3.4 Surrey's Water System in the Context of Growth

The demands on the water system increase with residential, commercial, and industrial developments. To meet these increased demands, water system improvement studies were completed using the latest calibrated water models. The works identified from these studies and Neighbourhood Concept Plans (NCPs) are included in the Servicing Plan and have been divided into three programs:

1. *Supply Works and Feeder Mains* include essential additional works to store, pump, and transfer water from the supply points to the local distribution;
2. *Distribution Mains* are nominal mains up to and including 300mm diameter on Surrey's grid roads; and
3. *DCW Upsizing* includes new and/or the upsizing of replacement distribution mains required for maintaining pressures and meeting demands within local distribution areas.

3.5 Water Main Replacement Strategy

The first water mains in Surrey, constructed in 1940, were made of wood and galvanized iron that had a relatively short service life and have been since replaced.

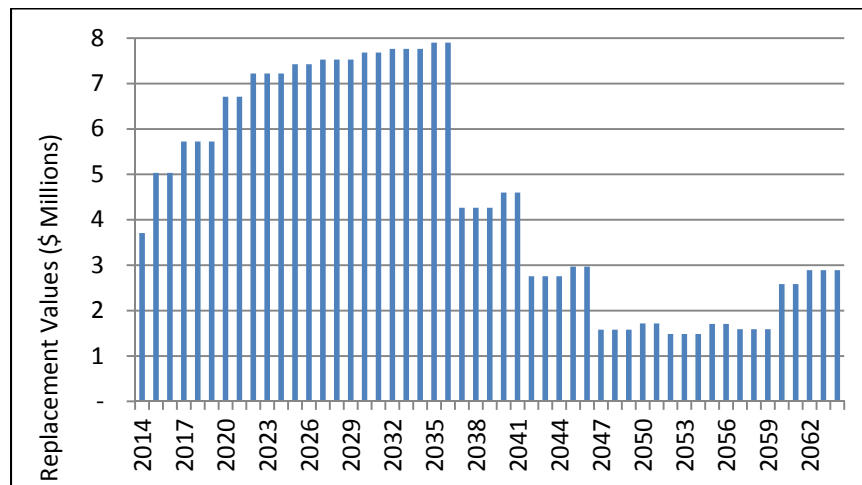
Water mains constructed in the 1950's and 1960's were mainly of cast iron and asbestos cement. These materials are no longer used. The service life of these materials is generally between 50 to 65-years and, as a result, most of these pipes are at the end of their service life and are due for replacement.

The characteristics of the pipes requiring replacement over the next 50-years is summarized in **Table 3.2**.

Table 3.2 Water System Replacement Requirements Over the Next 50-years

Material	Total Main Length	Replacement Demand up to 2061 (50 years)	Replacement Cost
Misc: Cast Iron, Asbestos Cement, Concrete, Copper, Galvanized Iron, Galvanized Steel, and Steel	239 km (13% of entire pipe system by length)	239 km	\$185 million
Plastic: Poly Vinyl Chloride, and Poly Ethylene	626 km (34% of entire pipe system by length)	50 km	\$35 million
Ductile Iron	989 km (53% of entire pipe system by length)	3 km	\$2 million

The estimated cost to replace aging water mains over the next 10-years is \$60 million, and \$185 million over the next 50-years. The annual replacement cost over the next 50-years is illustrated in **Figure 3.2**.

Figure 3.2 – Water Main Replacement Costs Over the Next 50-years

The service life of water mains, constructed of currently approved materials and installed after the 1970's, is estimated to be 80 to 100-years. Assuming an average 80-year life for these materials, replacement of the majority of the City's water mains does not need to start for another 50-years.

It is too early to establish a strategy for the replacement of pipes beyond 50-years as changing technologies, developments in asset management, and demand management practices may influence the replacement strategy in that period.

3.6 Water Servicing Program

Program 1600 - General

This program covers the overhead costs associated with the general operating of the water section. Included are the costs of staff time, hardware and software equipment, and internal support services.

Program 1602 - Distribution Mains (<= 300mm)

This program comprises three project categories:

- *The replacement of existing water distribution mains that are deficient, in terms of providing sufficient fire flow and adequate pressure at peak demand.* Replacement and upsizing of existing system to meet existing demand is a non-growth cost component. There are also sections that require upsizing in order to meet the increasing demand from future OCP designated land use. The cost of upsizing is a growth cost component.
- *The replacement of water mains in conjunction with the City's Water Main Replacement Strategy.* Replacement of these water mains is prioritized based on their age, condition of the pipe, replacement costs versus maintenance cost, risk/frequency of breakage, hydraulic capacity, fire flow availability, criticality, and impact to environment and property. The replacement of these mains is a non-growth cost component, unless upsizing is required which is a growth cost component.

- *Within each supply zone a grid network, approximately on a half-mile grid. This grid comprises 250 mm diameter and greater water mains that help to provide adequate pressure and flow throughout each distribution zone. Based on both peak hour flows and maximum day demand plus fire flow demands, new locations for grid mains have been identified. New grid mains can have a non-growth cost component, a growth cost component, or a combination of the two.*

Efforts will be made to always complete pipe replacement works in conjunction with road reconstruction or widening works in an effort to minimize the cutting and patching of roads. This will reduce breakage of aging water mains at newly completed roads, and avoid construction in the same area within a short period of time.

Program 1604 - Cross Connection Control

The Cross Connection Control program seeks to preserve public health by maintaining the high quality of water supplied by the City, and protect against contamination caused by backflow from end user equipment and systems, and unapproved water sources. Over the next 10-years, the utility is seeking to undertake cross connection surveys of existing privately owned facilities.

Program 1606 - Minor Projects

The Servicing Plan includes two initiative activities. The first initiative is to abandon approximately 50 km of cast iron and asbestos cement pipes by transferring existing service connections to an existing parallel main of currently approved pipe material.

The second initiative is to install small bypass and pressure reducing valves at the closed valves, at pressure zone boundaries, in order to eliminate stagnant water on both sides of the pressure zone boundary and therefore improve water quality.

Specific projects are not included in the Servicing Plan because of their relatively small size. The implementation schedule will be coordinated with development coordinated works and the City's Water Main Replacement Strategy schedule.

The Minor Works Program also funds minor projects as required. An example of minor works might be the installation of a check valve to prevent bleeding from a higher pressure zone to a lower pressure zone.

Program 1608 - Planning

This program covers the overhead costs associated with and program management of the utility related to supporting growth. Included are the costs of staff time, internal support services, and external services, such as planning studies, preliminary engineering studies, and feasibility studies for capital works.

Program 1609 - Demand Management

The City has a Voluntary Water Metering program for existing properties. The utility funds the metering of existing single-family homes and cost-shares the metering of multi-family homes. Over the next couple of years, the City will explore the merits of installing water meters on part of the remaining 30,000 unmetered properties. The estimated cost for these works is \$16 million.

The City has a mandatory metering program for all new construction. The utility funds the installation of meters for new single family homes and recovers the cost from developers. The estimated cost of these works is \$3 million.

The City conducts testing and maintenance of meters to enhance their reliability. The frequency of meter testing has yet to be confirmed by field results, but an estimated cost of \$6 million is allowed in the next ten years.

Meters that were installed before 2002 will be approaching the end of their service life towards the end of the Servicing Plan. Also, meters that require high maintenance will be replaced. A replacement program is set up to replace the aging meter population. \$6 million is provided for the replacement of meters. Other demand management initiatives comprise of the remainder of the program.

Program 1610 - Supply Works and Feeder Mains

This program includes works on facilities such as water pump stations, pressure reducing valves, and large-diameter feeder mains. These facilities serve overall City-wide supply needs and are, for the most part, beyond the servicing requirements of individual developers. The service area of the facilities is large and the cost is high, and therefore, the full cost of the facility is included in this program.

The new supply works have either been assigned as a growth related cost, a non-growth related cost, or a combination of the two, depending on whether growth or an existing system deficiency is driving the need for the works.

Program 1612 - Planning

The City has an active water loss reduction program under which works and studies such as water audits, leak detections, and zone meter installations are carried out.

This program also includes water main settlement and monitoring works, post disaster water supply study, and other planning works that are required for the operation of the utility.

This program includes specific and related software and computer applications.

Program 1620 - DCW Upsizing

NCPs have identified the need for grid and distribution mains where no water main currently exists, or when the existing main does not have adequate capacity to service the new development. In these cases, the cost to upsize from the minimum size necessary for the fronting properties is funded by the overall DCC program, and the cost to install minimum (or base) size is funded by the fronting or benefiting properties.

In addition to the project specific upsizing needs identified, an allowance based on previous levels of expenditures is included in the plan to upsize water mains not currently identified. This upsizing provision will allow the cost-effective sizing of the distribution system as development opportunities arise.

3.7 Water Servicing Requirements Cost Summary

No.	Program	Program Type	Growth	Non-Growth	External	Total
1600	General	Operating	\$0	\$7,000,000	\$0	\$7,000,000
1602	Distribution Mains	Capital	18,286,000	62,077,000	0	80,363,000
1604	Cross Connection Control	Operating	0	3,000,000	0	3,000,000
1606	Minor Projects	Capital	0	11,250,000	0	11,250,000
1608	Planning	Non-Capital	2,000,000	2,000,000	0	4,000,000
1609	Demand Management	Operating	0	31,000,000	0	31,000,000
1610	Supply Works and Feeder Mains	Capital	28,901,000	7,764,000	0	36,665,000
1612	Planning	Operating	0	4,000,000	0	4,000,000
1620	DCW Upsizing	Capital	15,805,000	0	0	15,805,000
TOTAL			\$64,992,000	\$128,091,000	\$0	\$193,083,000



Campbell Heights Sanitary Sewer Forcemain

4. SANITARY SEWER SERVICING REQUIREMENTS

The sewer utility provides, operates, and maintains a cost-effective, scalable, lasting, and environmentally sanitary sewer system for the residents of the City by:

- replacing systems that have a high operation and maintenance cost;
- building a scalable system that accommodates future growth and additional sewer catchments, by upsizing sewers whenever opportunities arise; and
- building an environmentally responsible system to minimize or eliminate sanitary sewer overflows.

4.1 Sanitary Sewer Treatment

The treatment of sanitary sewage is provided at the Annacis Island Wastewater Treatment Plant which is operated by the Greater Vancouver Sewerage and Drainage District (GVS&DD).

In addition to the treatment plant, GVS&DD operates and maintains a large collection system.

4.2 Sanitary Sewer Collection System

Surrey has an inventory of sanitary sewers of approximately 1,522 km. The majority of this system is relatively young and in good condition; however, there are older sections of the system that are constructed of asbestos cement, vitrified clay, and other materials that are showing signs of deterioration, due to cracks and joint dislocations, and are subject to excessive infiltration.

Table 4.1 – Major Sewer System Infrastructure Summary

Sanitary Sewer	1,485 km
Vacuum Sanitary System	37 km
Sanitary Pump Stations	40

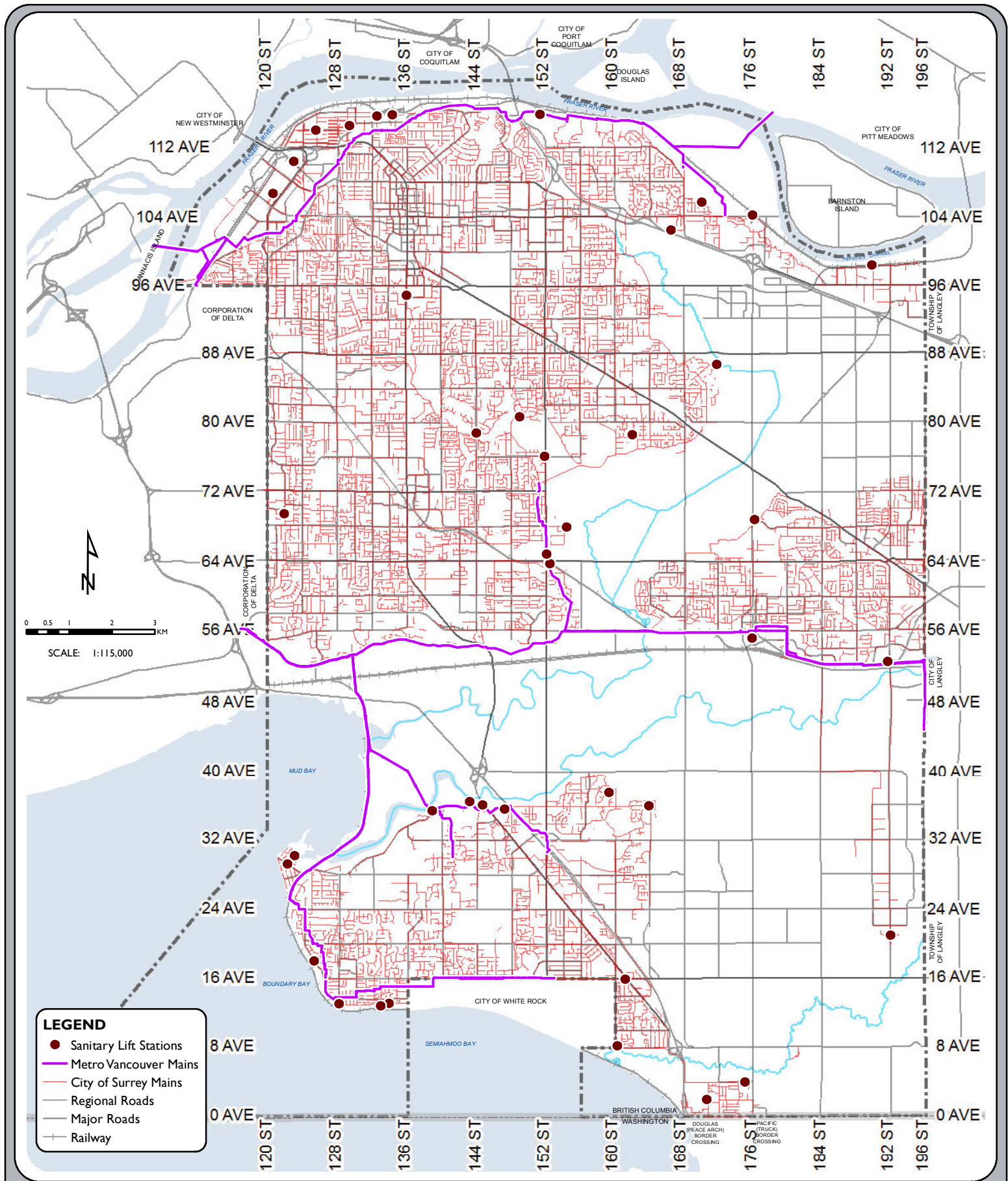
The major collection network to service the City is illustrated in **Figure 4.1**

4.3 Sanitary Sewer Replacement Strategy

Under the Integrated Liquid Waste and Resource Management Plan (ILWRMP) as part of commitment Strategy 3.18 – *Manage Assets and Optimize Existing Sanitary Sewerage Operations*, the City is developing an asset management plan targeting a 100-year replacement or rehabilitation cycle for the sanitary system.

Sewer mains constructed in the 1950's and 1960's were primarily made of asbestos cement. This material is no longer used. The service life of this material is generally between 50 to 65-years and, as a result, most of these pipes are at the end of their service life and due for replacement.

The characteristics of the pipes requiring replacement over the next 50-years is summarized in **Table 4.2**.



LEGEND

- Sanitary Lift Stations
- Metro Vancouver Mains
- City of Surrey Mains
- Regional Roads
- Major Roads
- Railway

0 0.5 1 2 3
KM

SCALE: 1:115,000

FIGURE 4.1 - SANITARY SEWER SYSTEM



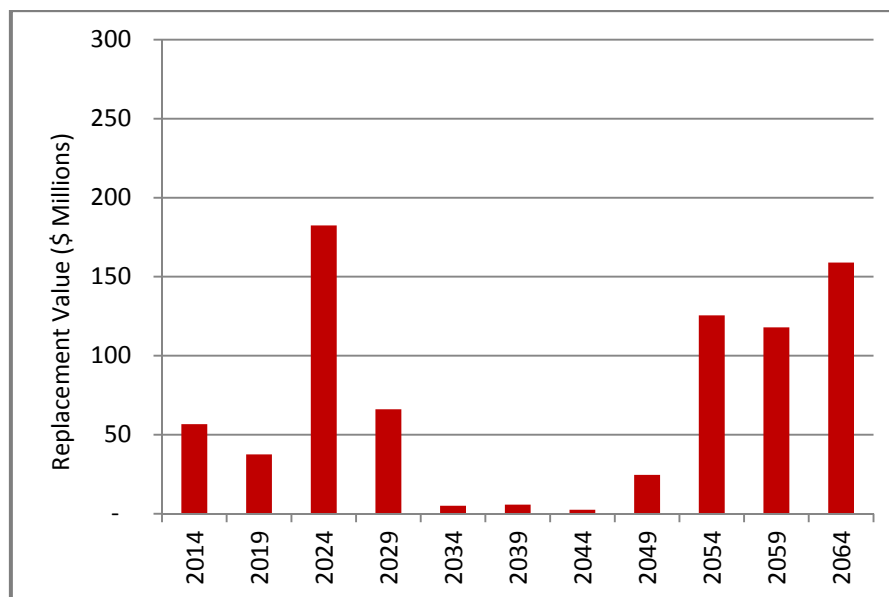
GIS SECTION

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Table 4.2 - Sewer System Replacement Requirements Over the Next 50-years

Material	Total Main Length	Replacement Demand up to 2061 (50 years)	Cost of Replacement
Asbestos Cement, Vitrified Clay Pipe, and Cast Iron	450 km (30% of entire pipe length)	450 km	\$413 million
Concrete Pipe, Poly Ethylene, Poly vinyl Chloride, Steel, and Ductile Iron	1072 km (70% of entire pipe length)	413 km	\$370 million

The estimated cost to replace aging sewer mains over the next 10-years is \$80 million, and \$750 million over the next 50-years. The annual replacement cost over the next 50-years is illustrated in **Figure 4.2**.

Figure 4.2 – Sewer Main Replacement Costs Over the Next 50-years

The service life of sewer mains, constructed of currently approved materials and installed after the 1970's, is estimated to be 75-years. Assuming there is an average 75-year lifespan for these materials, approximately half of all sewer mains may have to be replaced over the next 50-years.

It is too early to establish a strategy for the replacement of pipes beyond 50-years, as changing technologies and developments in asset management may influence the replacement strategy in that period.

Furthermore, rehabilitation works as part of the City's Inflow and Infiltration (I&I) Reduction program will assist in dealing with part of this replacement demand, as some materials may be able to be used longer than currently expected with some form of rehabilitation.

Through an established maintenance management program, the gravity sewer system is systematically video inspected to determine its condition. The rehabilitation needs for structural deficiencies are confirmed based on this inspection data. Based on the current projections and levels of expenditures, the estimated rehabilitation need over the next 10-years is in the range of \$15 million. The rehabilitation and continued serviceability of the sanitary sewer system, including the control of infiltration, is a municipal commitment in the ILWRMP.

4.4 Replacement of the Vacuum Sewer System

A vacuum sewer system services the Bridgeview and South Westminster areas of Surrey as they are low-lying, flat, and subject to a considerable amount of settlement. The City's vacuum sewer system is more expensive to operate than a conventional gravity system.

The servicing strategy for this area, as outlined in the South Westminster NCP, is to replace the vacuum sewer system in all new developments and redevelopments with low-pressure systems, because:

- a) of the high operation and maintenance costs; and
- b) the existing system does not have sufficient capacity to accommodate development and redevelopment, including new major industries.

The replacement program is to be funded by each development in accordance with their needs. Eventually, all sections of the vacuum sewers in South Westminster will be replaced as development reaches build-out.

A similar approach has been planned for the Bridgeview area. The replacement strategy for the Bridgeview Vacuum Sewer System comprises:

- a) a steep grade system for the residential area, and
- b) a low-pressure system for the industrial/commercial areas in general.

Phase 1 of the replacement program in West Bridgeview, through a local area service initiative combined with a senior government grant, was completed in 2011. Phase 2 of the replacement program in the Industrial Road and 116 Avenue from 112 Avenue to 132 Street area and the 112A Avenue and King George Boulevard area in Bridgeview is nearing completion. For the remaining phases, the City will continue to seek additional funding from senior levels of government. Until these systems are replaced, no new service connections are generally permitted to the existing vacuum sewer systems. After Phase 2 completion, more than half of the vacuum sewer system in Bridgeview will be replaced.

The replacement of sections of the vacuum sewer system is included as projects within Program 1644 – Major Facilities.

4.5 Sewer Servicing Programs

Program 1630 - General

This program covers the overhead costs associated with the general operating of the sewer section. Included are the costs of staff time, hardware and software equipment, and internal support services.

Program 1632 - Minor Mains (< 450mm diameter)

There are a number of sections of the existing sewer system that will not have sufficient capacity over the next 10-years to meet one or more of the following:

- current flows that may have increased due to inflow and infiltration; or
- servicing demand from future OCP designated land uses.

Replacement of the existing system that is needed to provide capacity to meet current demand, or to meet the reduction in capacity due to structural failure of the existing sewer, are considered to be non-growth costs. Upsizing these replacements, to allow for new growth to OCP designations, is considered to be a growth cost. Where a relief sewer is necessary for new growth, costs have been primarily assigned to growth, with a small contribution from the utility representing the depreciated value of the replaced asset.

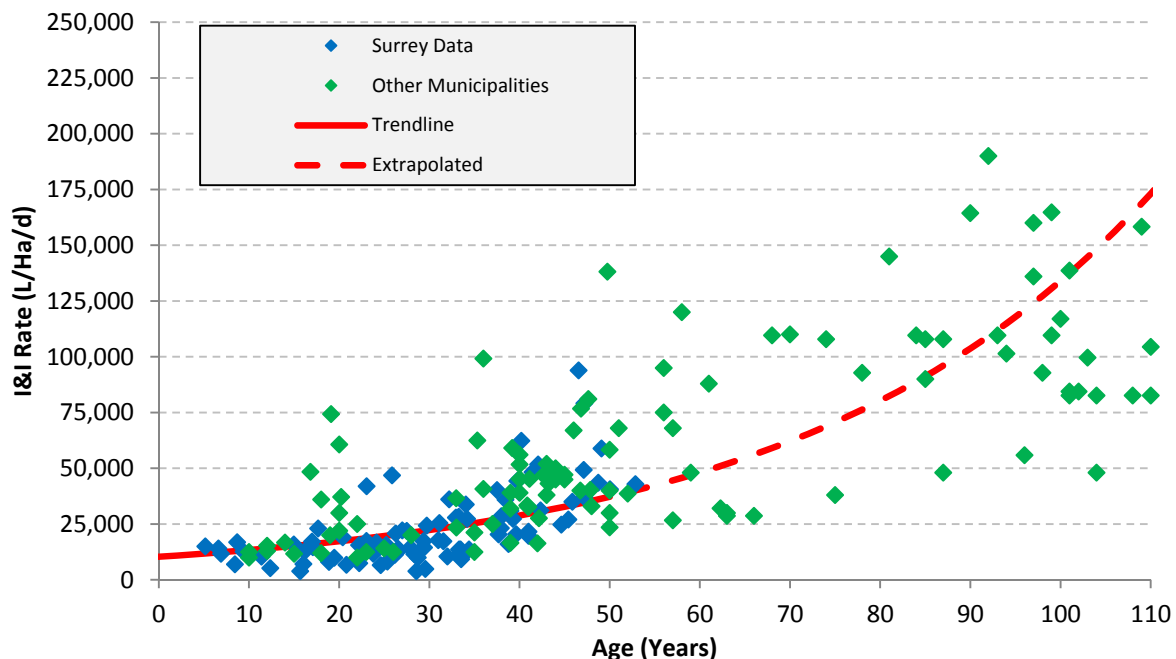
The Robson Creek Trunk Upgrade Phase 1 along the east slope of Robson Creek in the northwest corner of the City is scheduled to be completed in early 2014. This will eliminate the only known source of sanitary sewer overflow from City infrastructure.

Program 1634 - Inflow & Infiltration (Operation)

Under the ILWRMP, as part of the municipal actions, the City has developed an Inflow and Infiltration Management Plan (IIMP). In general, the plan establishes a long term, systematic, quantifiable, and cost-effective approach to managing Inflow and Infiltration (I&I). Generally higher I&I rates are found in the older systems in the northern and southern parts of the City. This is expected, as research has demonstrated that I&I rates increase as sewer pipes age and deteriorate, as illustrated in **Figure 6.3**.

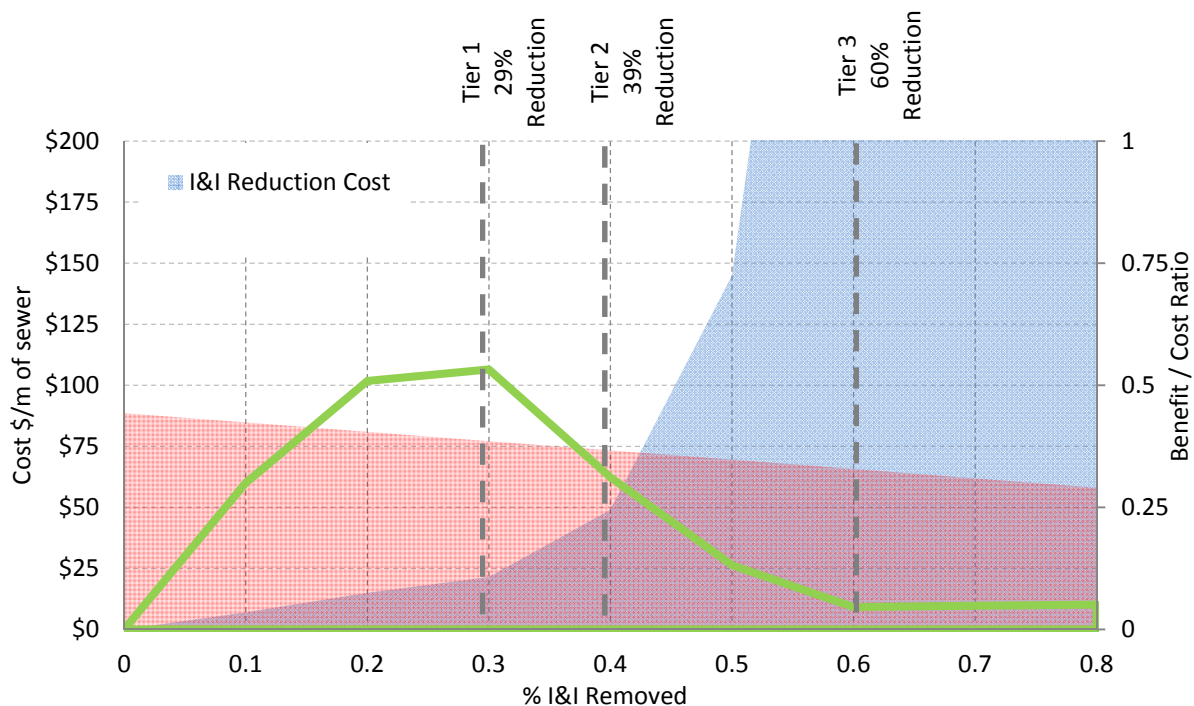
Eventually the sewer pipes will be replaced when they reached the end of their service life. The range of I&I rates in Surrey are similar to those in other Metro Vancouver municipalities.

Figure 6.3 – I&I Rates vs. Pipe Age



To ensure that the City's investments in I&I mitigation are effective, a cost analysis was undertaken. The result of this analysis is illustrated in **Figure 6.4**. Although the cost benefit ratio is never greater than 1, the optimal ratio is achieved at Tier 1 and this value diminishes as one approaches Tier 2 and 3 and I&I reduction costs increase significantly. If additional social and environmental risk mitigation measures are taken into consideration, the benefit cost ratio may shift closer to Tier 2, which includes only completing sewer rehabilitation for mainline and laterals within public rights-of-way.

Figure 6.4 – I&I Cost Benefit Analysis



Under the IIMP, the City will undertake the following activities:

- Continue the flow monitor program;
- Systematic QA/QC for temporary and permanent flow monitoring sites and lift station data;
- Use the calibrated hydraulic model and EPA's Sanitary Sewer Overflow Analysis and Planning (SSOAP) to determine the rain dependent inflow and infiltration factor;
- Continue with close circuit video inspection (CCTV) and manhole inspection during wet weather and smoke testing during dry weather programs to identify rehabilitation works;
- Use the threshold limit table developed by the consultant in IIMP for evaluation of study areas;
- Focus on old areas within the sewer system with predominantly asbestos cement and vitrified clay pipe;
- Plan works in conjunction with overall asset planning works where CCTV show rehabilitation is warranted; and
- Continue to develop and implement community outreach programs.

To satisfy these commitments, the City has established an ongoing evaluation and rehabilitation program.

Program 1638 - Planning

As urban, commercial, and industrial development takes place, additional sewage flows are generated causing some sections or components of the sewer system to reach capacity and, consequently, increase the need for relief works. These relief works range from sewer twinning or replacing with a larger sewer, to upgrading pump stations to provide more capacity.

The impact of growth on the sewer system is tracked using computer models. These models are used to predict sections of the sewer system that need additional capacity within the next 10-years and for ultimate development. The works necessary to provide additional capacity are included in the following programs:

- Program 1644 - Major Facilities
- Program 1632 - Minor Mains (≤ 450 mm diameter)
- Program 1650 - DCW Upsizing

These programs do not include relief works associated to the GVS&DD system, which are the responsibility of the GVS&DD and are funded on a regional basis.

In addition to flow monitoring and computer modeling, planning studies are required to develop master sewer plans, servicing plans, and specific project details. The costs of these engineering services are included in this program; furthermore, this program covers a portion of staff wages and salaries.

The provision of infrastructure for new growth is handled in two ways:

- i) Where infrastructure services a large area and is of high cost which makes it unreasonable to expect one fronting or benefiting property to finance the works, the works are included in the Major Facilities program; or
- ii) Where servicing can be reasonably provided through upsizing or extending the services necessary for a fronting or benefiting property, then the works are included in the DCW Program.

Program 1644 - Major Facilities

Major facilities include sewage lift stations, pressure sewers, replacement of vacuum sewer system, and large-diameter trunk mains (≥ 450 mm diameter). In some cases, major facilities do benefit existing customers and therefore a portion of the projects costs is attributed as non-growth. These costs are attributed to:

- replacement and/or upgrade of electrical components;
- on-going replacement of the Bridgeview vacuum system;
- seismic retrofitting of existing pump stations;
- addition of emergency storage and surge tanks at existing pump stations;
- addition of odour control facilities;
- addition of new pump stations; and
- addition of new interceptors.

Typically due to the size and scope of major facility projects, located in existing serviced areas or where the facilities service both new and existing areas, the City will initiate construction.

Program 1650 - DCW Upsizing

Trunk mains to service new areas can be provided by City funding the upsizing of base size services is necessary for the fronting or benefiting properties. For these trunks, only the upsizing cost (the cost from the base size required for a fronting property to the size required for the overall catchment) is included. As the timing of these works is strictly dependent on the fronting property owners or development, no estimate of timing is provided.

In addition to the upsizing of identified trunks, an allowance for upsizing the yet-to-be-identified works is included in the overall provision for upsizing.

Program 1658 - Land Acquisition

Land acquisition and requirements, such as rights-of-way and working easements, are required in capital projects. The program deals with various such requirements for the projects listed under various Programs.

4.6 Sewer Servicing Requirements Cost Summary

No.	Program	Program Type	Growth	Non-Growth	External	Total
1630	General	Operating	\$0	\$4,200,000	\$0	\$4,200,000
1632	Minor Mains	Capital	19,775,500	17,810,700	0	37,586,200
1634	Inflow and Infiltration	Operating	0	15,000,000	0	15,000,000
1636	Minor Projects	Capital	0	165,000	0	165,000
1638	Planning	Non-Capital	5,400,000	1,600,000	0	7,000,000
1644	Major Facilities	Capital	49,788,070	23,188,870	2,534,000	75,510,940
1650	DCW Upsizing	Capital	9,267,000	0	0	9,267,000
1658	Land Acquisition	Capital	500,000	1,000,000	0	1,500,000
TOTAL			\$84,730,570	\$62,964,570	\$2,534,000	\$150,229,140





Maple Drainage Pump Station

5. DRAINAGE SERVICING REQUIREMENTS

The City's drainage basins comprise of upland and lowland areas. Generally, the upland areas are being urbanized while the lowlands are within the designated Agricultural Land Reserve (ALR), with the exception of the Fraser River and Crescent Beach floodplain areas. The City drains to four rivers - the Serpentine, Nicomekl, Campbell and Fraser rivers - through a network of watercourses (rivers, creeks and ditches) and storm sewers.

These watercourses are habitat areas supporting aquatic life, including various species of Pacific salmon. In general, the upland drainage system operates as a free flowing gravity system through open watercourses and storm sewers. The lowland drainage system's operation is impacted by the diurnal tides and the extended wet weather of Pacific Northwest winters and relies on a system of dyking, floodplain storage, and pump stations.

The diverse meteorological, hydrological, topographical, and eco-system characteristics of the City's watersheds and watercourses have created a complex drainage environment with distinct rainfall-runoff impact-control needs. This poses many challenges in developing and managing a viable servicing scheme for the City, as mandated by the Local Government Act, that addresses our current and long term needs based on our current characteristics and those that may be impacted through climate change, including sea level rise.

The Servicing Plan aims at ensuring the City's drainage utility provides a high level of service within the natural constraints highlighted above. This includes operation and maintenance of the existing system, planning, design and construction of new infrastructure to support growth and development, and monitoring system performance. Also, investigation on climate adaptation to determine vulnerable areas and projected servicing requirements is a part of this plan.

5.1 Drainage Inventory

The drainage system in the City comprises a combination of man-made storm sewer systems in the urban areas, constructed drainage ditches and canals in the more rural and older urban areas, and natural watercourses, streams and rivers. The current estimated inventory is shown in **Table 5.1**.

Table 5.1 – Major Drainage System Infrastructure Summary

Storm Sewers	1,758 km
Ditches	1168 km
Upland Water Courses >5m	296 km
Lowland Watercourses <5m	58 km
Serpentine River	31 km
Nicomekl River	20 km
Campbell River	15 km
TOTAL	3,346 km

5.2 Drainage Program Needs

The capital needs for Drainage comprise various programs-of-work to meet the needs of the existing residents, new growth, and/or a combination of both.

Programs dealing with servicing existing residents are focused on infrastructure to address the following:

- public safety;
- preserving aquatic habitat;
- avoiding property damage from flooding and land erosion;
- reducing inconvenience to the public from problems like localized ponding; and
- climate change adaptation.

The growth related programs of works identified are intended to:

- meet the drainage servicing needs for new growth; and
- manage any downstream impacts associated with growth.

Figure 5.1 provides an overview of the City's drainage system.

The works included in the Servicing Plan reflect the current design criteria requirements, policies to promote orderly development, and protection of natural watercourses including the more holistic approaches proposed in Master Drainage Plans (MDPs), Functional Plans, NCPs, and Integrated Stormwater Management Plans (ISMPs) that are either completed or substantially completed.

ISMPs are a municipal action item included in Metro Vancouver's Integrated Liquid Waste and Resource Management Plan (ILWRMP). These plans are aimed at bridging the gap between traditional drainage planning through MDPs and land use planning, while protecting the recreational, environmental, and physical functionalities of the City's natural drainage system. According to the ILWRMP, an ISMP must be completed for every urban (or potentially urban) watershed within the Region.

There are drainage related impacts due to urbanization that are not fully addressed in the programs mentioned above. These include impacts to water quality, base flows, and groundwater. In these situations, the City relies on the development community to address these issues through the provisions of Best Management Practices (BMPs) and source controls. A framework for implementation of these BMPs is provided through ISMPs, MDPs, and NCPs.

The Servicing Plan only identifies the offsite drainage work necessary to manage the impacts of development. Onsite works, as identified by ISMPs and NCPs, may be required in certain areas of the City. Onsite works are the responsibility of the developer, and they are not a DCC eligible item.

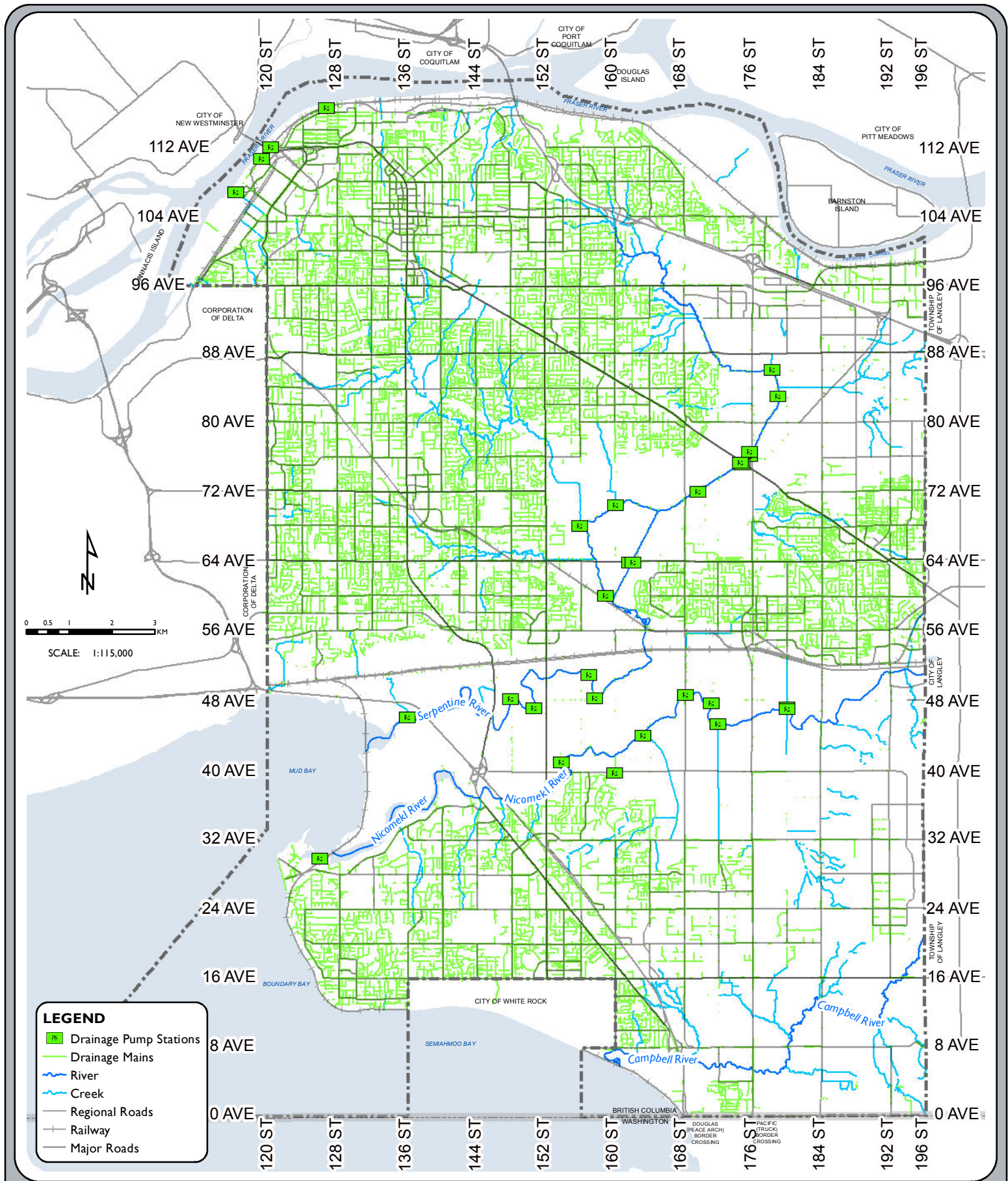


FIGURE 5.1 - DRAINAGE SYSTEM

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5.3 Drainage Main Replacement Strategy

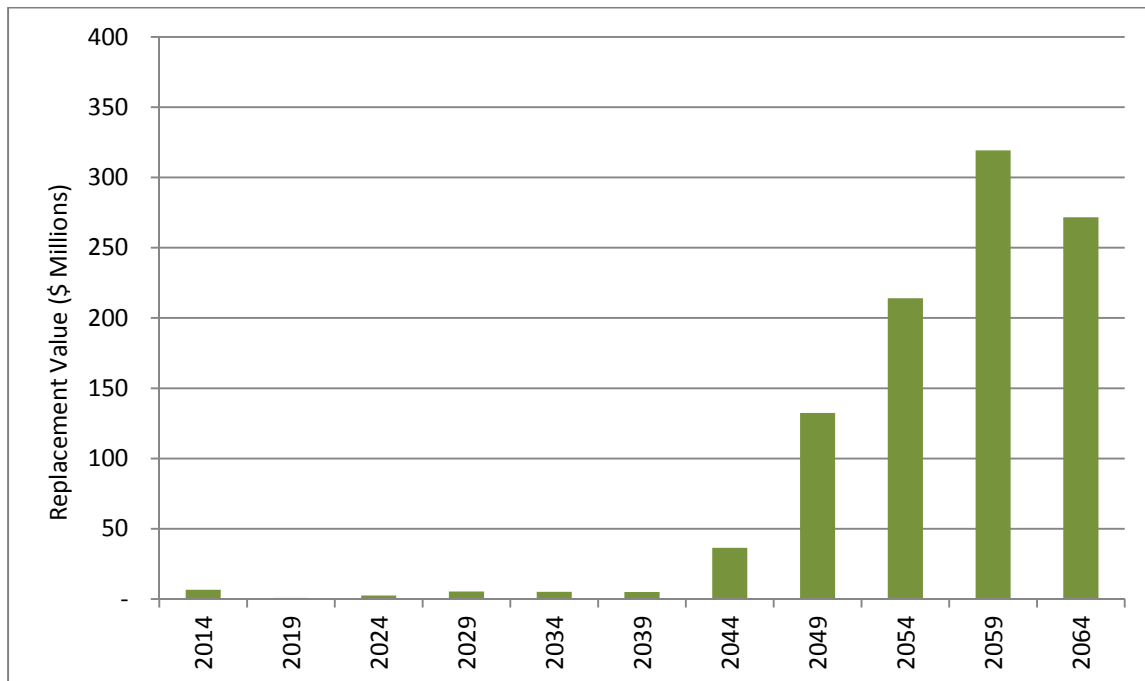
Replacement of the drainage infrastructure at the end of their service lives will be of concern when competing servicing demands, such as growth needs and new standards and/or practices in drainage servicing, necessitates prioritization of replacement works.

The characteristics of the pipes requiring replacement over the next 50-years is summarized in **Table 5.2**.

Table 5.2 Drainage System Replacement Requirements Over the Next 50-years

Material	Total Main Length	Replacement Demand up to 2061 (50 years)	Replacement Cost
Miscellaneous: Asbestos Cement, Clay Tile, Corrugated Metal Pipe, Cast Iron, Ductile Iron, Steel Pipe, and Wood	31 km (2% of entire pipe length)	28 km	\$40 million
Concrete: Concrete Pipe	1080 km (61% of entire pipe length)	586 km	\$673 million
Plastic: Poly Ethylene, Poly Vinyl Chloride	647 km (37% of entire pipe length)	162 km	\$152 million

The estimated cost to replace aging sewer mains over the next 10-years is \$10 million and \$700 million over the next 50-years. The annual replacement cost over the next 50-years is illustrated in **Figure 5.2**.

Figure 5.2 – Drainage Main Replacement Costs Over the Next 50-Years

The service life of drainage mains, constructed of currently approved materials and installed after the 1970's, is estimated to be 75-years. Assuming there is an average 75-year lifespan for these materials, only a small amount of drainage mains may have to be replaced over the next 50-years.

It is too early to establish a strategy for the replacement of pipes beyond 50-years, as changing technologies and developments in asset management may influence the replacement strategy in that period.

5.4 Drainage Servicing Strategy

Program 1660 - General Items

This program comprises three project categories:

- The first project category is to fund the resources required to manage all aspects of the drainage program including design and construction of the Servicing Plan, staffing, public liaison, the review and project management of ISMPs and NCPs, as well as internal coordination with other divisions in Engineering and other departments.
- In some cases, system improvements and maintenance works can be constructed in conjunction with development, although these improvements may not be required for the developments in question. This project category provides funds to complete these works in conjunction with ongoing development as opportunities arise.

- The third project category comprises initiatives that seek to reduce the impacts of small storms and overall reductions in runoff volume. These measures utilize both on-lot and on-road measures to increase infiltration and enhance the ability of the topsoil to store and retain rainfall. This project category assists in the implementation of more sustainable standards, such as the funding of safety factors or infrastructure redundancy to allow for possible changes in performance and cost assistance to pilot projects using more sustainable standards. A Surrey-wide flow-monitoring program will be employed to provide more accurate predictions of rain flow.

Programs 1662 & 1663 - Existing System Upgrades

Drainage improvements within these programs seek to resolve documented or potential flooding and environmental concerns. Improving the drainage systems in older neighbourhoods has been an ongoing issue and will likely continue beyond the current extent of the Servicing Plan.

Included within these programs are existing system upgrades along the Fraser River and in Crescent Beach (Projects ID 11674 through 11678). The projects within these areas are very expensive, and as a result, the City is dependent on external funding from senior levels of government to help finance these projects. The cost estimates included in this plan for projects in these areas represent a City contribution of 1/3 of the total project costs. It is assumed that both the Provincial and Federal Governments will provide the remaining funding.

Program 1664, 1665, and 1666 - Lowlands Flood Control

The Strategic Plan for Lowlands Flood Control program involves extending and raising dykes along the Serpentine and Nicomekl Rivers, as well as constructing pump stations and conveyance improvements throughout the lowland area in an effort to meet the Agri-Food Regional Development Subsidiary Agreement (ARDSA) drainage service criteria.

The continued focus of this program in the short term is to complete the dykes along the Serpentine and Nicomekl Rivers. With dyke construction works nearing completion, the focus of this program is shifting from dyking to conveyance.

Program 1668 - Planning

New growth requires the development of strategies and servicing plans in advance of the functional and detailed design of drainage works. Areas of existing urban development also need updating of drainage plans to meet new objectives such as infrastructure management, floodplain studies, and asset replacement strategies. In the past, this program included MDPs necessary to scope projects for watershed management.

ISMPs now form the basis of planning for the capital program. The existing plans are being integrated with land use, transportation, and parks planning initiatives as part of the City's commitment under the ILWRMP to update all watersheds on a 12-year cycle. Ongoing monitoring and update of MDPs is needed to keep plans current. Over the next two years about 15 ISMPs will be completed, and in the remaining eight years, a further one to two ISMPs will be initiated annually.

Program 1670 - Relief and Trunk System

Relief and trunk storm systems consist of storm sewers, overland flow paths, ditches, and other conveyance systems that have a catchment area greater than 20 hectares and serve areas of urban development. These systems are sometimes applied as diversion systems to reduce flows to the natural creeks, and as alternatives to storm detention ponds. In this case, the storm diversion provides a similar function as a detention pond to reduce peak storm discharges to streams.

Program 1672 - Community Detention

This program includes provisions for land acquisition and construction of stormwater detention ponds. These ponds are planned and designed to reduce peak flows to natural streams, and in many cases, to improve water quality. They are also planned to serve a sub watershed area, which may include more than one development site. This sub watershed approach better serves the overall goal of stormwater management in a community. The detention facilities listed have been recommended through existing ISMPs, MDPs, and NCPs. Also included are detention/infiltration corridors proposed through recently completed ISMPs. In some cases, these distributed systems provide better protection for our natural watercourses.

Program 1673 - Habitat Compensation

This program includes provisions for the replanting of vegetation associated with various fisheries compensation requirements for Surrey capital construction sites. Any construction impacting fisheries watercourses and riparian areas often require the installation of vegetation as compensation. These compensation sites are monitored and reported to the fisheries organizations. As part of the agreements, plants need to be established at the end of the monitoring period. If they are not, the City is required to replant. Since this is beyond the normal capital construction window and is not considered an asset, the City needs to fund the program separately for the replanting that may be required.

Program 1678 & 1679 - Erosion and Ravine Stabilization

Creeks form an integral part of the City's drainage system. Although the City practices stormwater management to reduce impacts of peak flows on natural creeks, some allowance for erosion control is necessary due to local conditions. Detailed assessments of problem areas are ongoing and the projects identified within this program are to address medium to high-risk areas.

Program 1680 - DCW Upsizing

The design of community infrastructure (e.g., trunks and ponds) in developing areas has been optimized to provide the best possible long-term system for the City. In some cases, this leads to increased local drainage servicing requirements beyond the minimum fronting servicing needs for properties/developments. These local systems do not fall within the strict definition of community trunks, and are therefore not eligible for growth funding under the trunk program.

Since these larger local systems are integral to proper functioning of the community system, allocation has been made under this specific upsizing program through funding for growth. An allowance has been made based on a detailed review of the City's current drainage system make-up and anticipated future drainage system construction in developing neighbourhoods. The anticipated costs for upsizing are entirely linked to growth.

Program 1682 - Environment

This program includes provisions for water quality and riparian health assessments required as a component of the ISMP process. Also, this program is to address compliance for the City's Stormwater and Erosion & Sediment Control By-law.

The program comprises:

- overall programs for long term monitoring of various riparian areas to meet Fisheries & Oceans' requirements;
- Benthic collection and assessments for ISMP stream health;
- Boundary Bay water quality sampling for non-point source pollution tracing; and
- general environmental services to address spill events and other pollution events when they occur in the City's waterways.

Since open channels are a significant component of the City's drainage system, maintaining environmental health in these systems is an item that the City needs to address on a consistent basis.

Program 1683 – Climate Change Adaptation

New information and design considerations have come from the province regarding potential impacts from Climate change, in particular sea level rise. Rising seas and potential increases in precipitation will impact existing drainage systems. The projects in this program are meant to identify potential impacts, timing of potential vulnerabilities, work towards new strategies to address climate change in the drainage program, and times of asset renewal. In this plan, all the projects are study based and are in support of the City's Climate Adaptation Strategy.

Program 1690 - Operations & Maintenance

This program includes provisions for video inspection of older systems with conveyance issues, payments of water licenses, and obtaining approvals for conducting drainage maintenance and emergency works on open channels throughout the City.

5.6 Drainage Servicing Requirements Cost Summary

No.	Program	Program Type	Growth	Non-Growth	External	Total
1600	General	Operating	\$0	\$20,800,000	\$0	\$20,800,000
1662	Existing System Upgrades	Capital	2,640,034	44,307,851	0	46,947,885
1663	Existing System Upgrades	Operating	0	500,000	0	500,000
1664	Lowlands Flood Control	Capital	5,169,742	19,634,469	0	24,804,211
1665	Lowlands Flood Control	Non-Capital	610,000	2,940,000	0	3,550,000
1666	Lowlands Flood Control	Operating	0	3,500,000	0	3,500,000
1668	Planning	Non-Capital	11,387,538	100,000	0	11,487,538
1670	Relief and Truck Systems	Capital	29,483,660	11,839,300	0	41,322,960
1672	Community Detention	Capital	30,955,240	1,805,000	0	32,760,240
1673	Habitat Compensation	Non-Capital	200,000	800,000	0	1,000,000
1678	Erosion and Ravine Stabilization	Operating	0	5,495,486	0	5,495,486
1679	Erosion and Ravine Stabilization	Capital	1,765,645	4,711,280	0	6,476,925
1680	DCW Upsizing	Capital	18,250,000	0	0	18,250,000
1682	Environment	Operating	0	5,100,000	0	5,100,000
1683	Climate Change Adaptation	Non-Capital	800,000	4,000,000	0	4,800,000
1690	Operations and Maintenance	Operating	0	3,200,000	0	3,200,000
TOTAL			\$101,261,859	\$128,733,386	\$0	\$229,995,245



Erosions Repairs to the Nicomekl River Dyke

6. CAMPBELL HEIGHTS SERVICING REQUIREMENTS

The Campbell Heights area encompasses approximately 800 hectares in southeast Surrey. The area generally lies between 18 and 44 Avenue to the south and north, and 186 and 196 Street to the west and east. The western boundary follows the top of a ridge that descends to the Nicomekl River lowland floodplain.

The City of Surrey Official Community Plan (OCP) designates all of Campbell Heights as an industrial area.

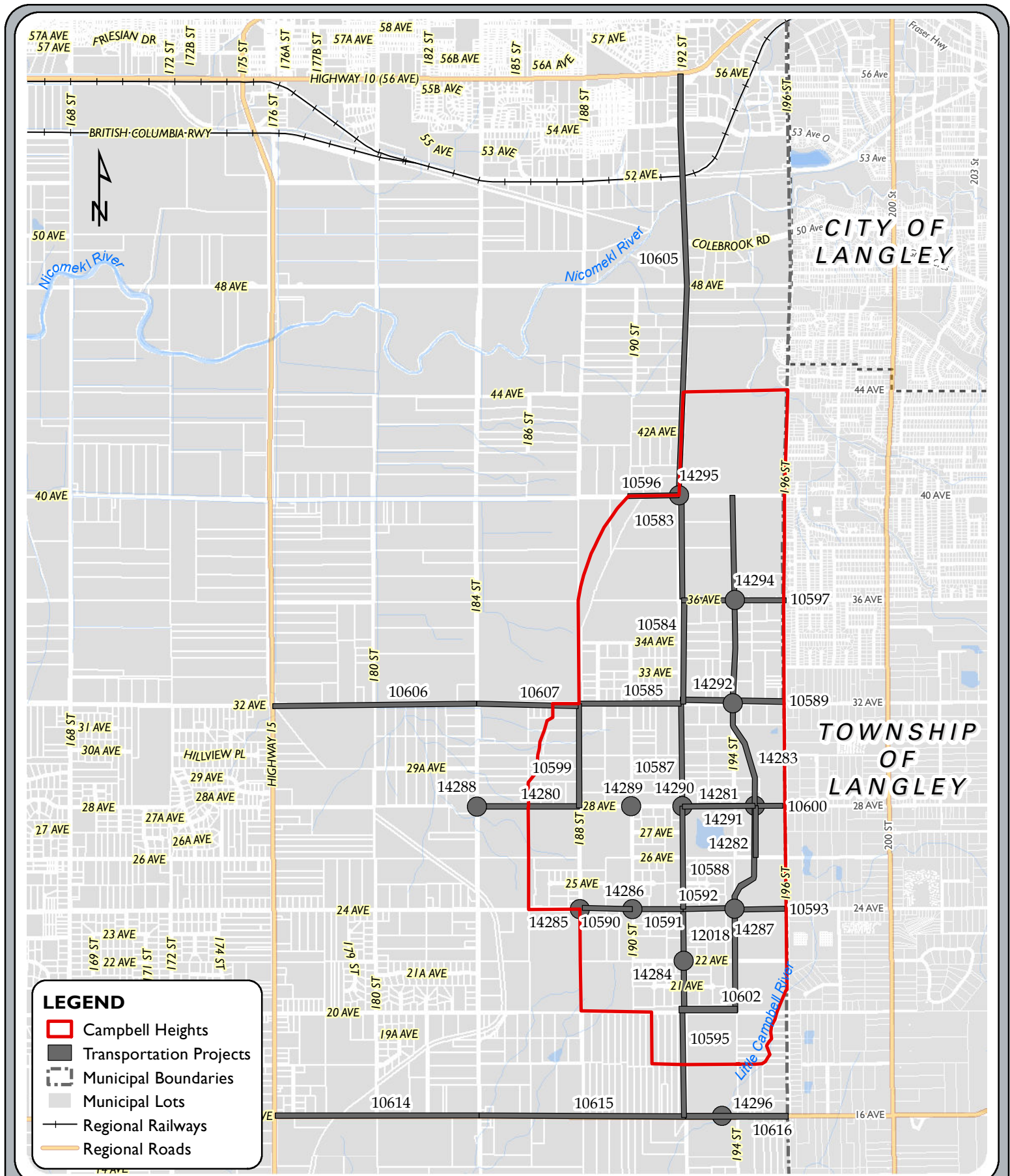
A specific area-servicing plan was developed for this area to address local site constraints and issues related to servicing an entire industrial development. Major servicing requirements include:

- Local feeder mains to provide water distribution and fire protection;
- New collector and arterial routes, and the widening of arterials to 4-5 lanes throughout the area;
- Pump station upgrades, siphons to the Metro Vancouver Cloverdale trunk, and local gravity trunk sewers to provide sanitary sewer service; and
- Exfiltration systems, open channel wetlands, and detention ponds for drainage, also including environmental measures like habitat restoration.

The complete servicing requirements are illustrated in **Figures 6.1** through **6.4**.

Table 6.1 – Campbell Heights Servicing Requirements Cost Summary

Program	Growth	Non-Growth	External	Total
Transportation	\$101,100,000	\$0	\$33,500,000	\$134,600,000
Drainage	13,494,050	150,000	0	13,644,050
Water	10,800,000	0	0	10,800,000
Sewer	15,543,000	0	0	15,543,000
TOTAL	\$140,937,050	\$150,000	\$33,500,000	\$174,587,050



**FIGURE 6.1 - Transportation
Campbell Heights (Programs 1017 & 1037)**



SCALE: 1:38,500

GIS SECTION



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TRANSPORTATION

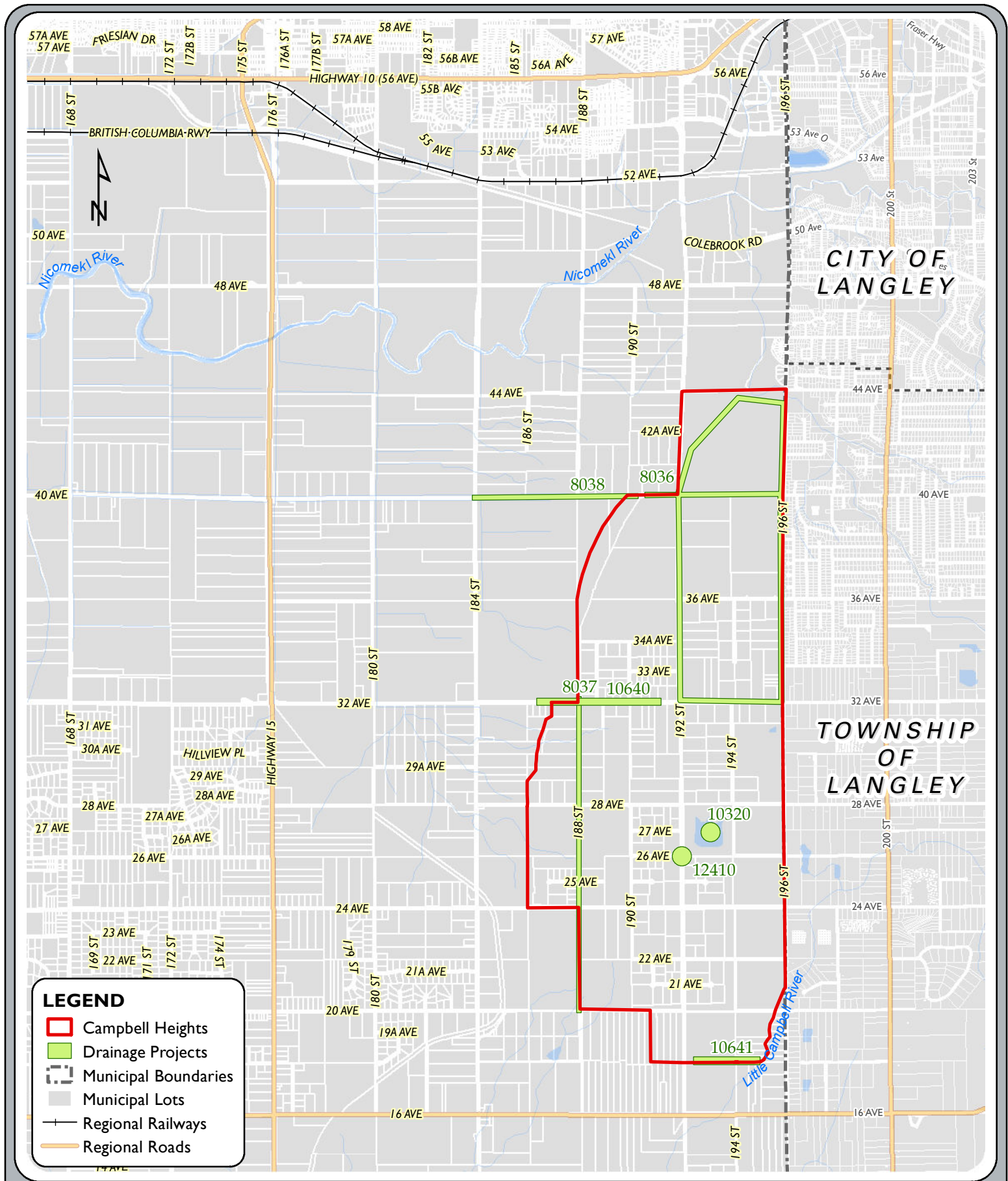
Program 1017 & 1037 - Campbell Heights

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10583	Arterial Ultimate Widening	192 St: 036 Ave - 040 Ave	NCP Driven	6,000,000	6,000,000	-	-
10584	Arterial Ultimate Widening	192 St: 032 Ave - 036 Ave	NCP Driven	6,000,000	6,000,000	-	-
10585	Arterial Ultimate Widening	032 Ave: 188 St - 192 St	NCP Driven	6,000,000	6,000,000	-	-
10587	Arterial Ultimate Widening	192 St: 028 Ave - 032 Ave	NCP Driven	6,000,000	6,000,000	-	-
10588	Arterial Ultimate Widening (East)	192 St: 024 Ave - 028 Ave	NCP Driven	2,800,000	2,800,000	-	-
10589	Arterial Ultimate Widening	032 Ave: 192 St - 196 St	NCP Driven	6,000,000	6,000,000	-	-
10590	Arterial Ultimate Widening	024 Ave: 188 St - 190 St	NCP Driven	3,000,000	3,000,000	-	-
10591	Arterial Ultimate Widening (South)	024 Ave: 190 St - 192 St	NCP Driven	1,400,000	1,400,000	-	-
10592	Arterial Ultimate Widening (South)	024 Ave: 192 St - 194 St	NCP Driven	1,400,000	1,400,000	-	-
10593	New Arterial Construction	024 Ave - 194 - 196 St	NCP Driven	3,400,000	3,400,000	-	-
10595	Arterial Ultimate Widening (50% share w/Citywide)	192 St: 016 Ave - 020 Ave	NCP Driven	3,000,000	3,000,000	-	-
10596	Arterial Ultimate Widening (50% share w/Citywide)	040 Ave: 192 St - 19000 blk	NCP Driven	1,500,000	1,500,000	-	-
10597	Arterial Ultimate Widening	036 Ave: 196 St - 196 St	NCP Driven	6,000,000	6,000,000	-	-
10599	Collector Upsizing	190 St: 028 Ave - 036 Ave	NCP Driven	1,200,000	1,200,000	-	-
10600	Collector Upsizing	028 Ave: 192 St - 196 St	NCP Driven	600,000	600,000	-	-
10602	Collector Upsizing	036 Ave: 190 St - 192 St	NCP Driven	300,000	300,000	-	-
10605	Arterial Ultimate Widening (50% share w/Citywide)	192 St: 040 Ave - 5000 blk	NCP Driven	10,000,000	10,000,000	-	-
10606	Arterial Ultimate Widening (25% share w/Citywide)	032 Ave: 176 St - 184 St	NCP Driven	12,000,000	4,000,000	-	8,000,000
10607	Arterial Ultimate Widening (25% share w/Citywide)	032 Ave: 184 St - 188 St	NCP Driven	4,500,000	1,500,000	-	3,000,000
10611	Arterial Ultimate Widening (share w/ GH4, Citywide)	024 Ave: 184 - 188 St	NCP Driven	4,000,000	4,000,000	-	-
10614	Arterial Ultimate Widening (25% share w/Citywide)	016 Ave: 176 - 184 St	NCP Driven	12,000,000	4,000,000	-	8,000,000
10615	Arterial Ultimate Widening (25% share w/Citywide)	016 Ave: 184 St - 192 St	NCP Driven	12,000,000	4,000,000	-	8,000,000
10616	Arterial Ultimate Widening (25% share w/Citywide)	016 Ave: 192 - 196 St	NCP Driven	6,000,000	2,000,000	-	4,000,000
12018	Arterial Ultimate Widening	192 St: 020 Ave - 024 Ave	NCP Driven	3,600,000	3,600,000	-	-
14280	Collector Ultimate Widening	028 Ave: 184 St - 188 St	NCP Driven	3,600,000	3,600,000	-	-
14281	Collector Ultimate Widening	028 Ave: 192 St - 194A St	NCP Driven	1,000,000	1,000,000	-	-
14282	Collector Ultimate Widening	194A St: 026 Ave - 028 Ave	NCP Driven	1,000,000	1,000,000	-	-
14283	Collector Upsizing	194/194A St: 022 Ave - 040 Ave	NCP Driven	4,200,000	4,200,000	-	-
14284	Traffic Signal	022 Ave / 192 St	NCP Driven	200,000	200,000	-	-
14285	Traffic Signal	024 Ave / 188 St	NCP Driven	200,000	200,000	-	-
14286	Traffic Signal	024 Ave / 190 St	NCP Driven	200,000	200,000	-	-
14287	Traffic Signal	024 Ave / 194A St	NCP Driven	200,000	200,000	-	-
14288	Traffic Signal	028 Ave / 184 St	NCP Driven	200,000	200,000	-	-
14289	Traffic Signal	028 Ave / 190 St	NCP Driven	200,000	200,000	-	-
14290	Traffic Signal	028 Ave / 192 St	NCP Driven	200,000	200,000	-	-
14291	Traffic Signal	028 Ave / 194A St	NCP Driven	200,000	200,000	-	-
14292	Traffic Signal	032 Ave / 194A St	NCP Driven	200,000	200,000	-	-
14293	Traffic Signal	036 Ave / 192 St	NCP Driven	200,000	200,000	-	-

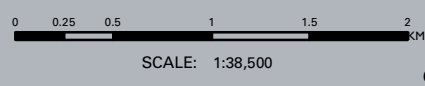
TRANSPORTATION

Program 1017 & 1037 - Campbell Heights

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
14294	Traffic Signal	036 Ave / 194A St	NCP Driven	200,000	200,000	-	-
14295	Traffic Signal (25% share w/ Citywide)	040 Ave / 192 St	NCP Driven	150,000	150,000	-	-
14296	Replace Crossing (25% share w/ Citywide)	016 Ave / Campbell River	NCP Driven	3,750,000	1,250,000	-	2,500,000
				134,600,000	101,100,000	-	33,500,000



**FIGURE 6.2 - Drainage
Campbell Heights (Program 1667)**

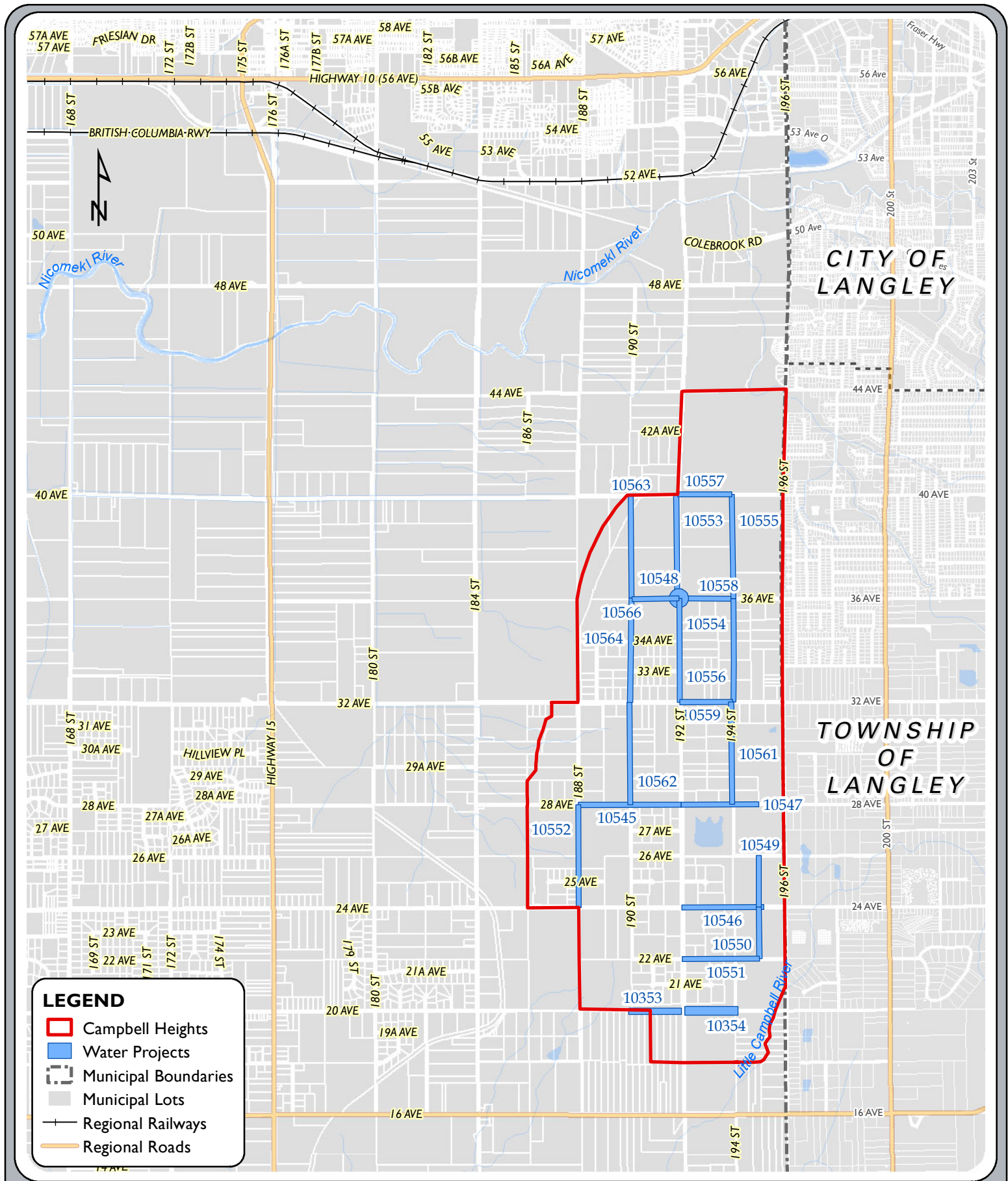


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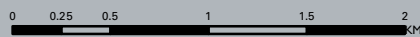
DRAINAGE

Program 1667 - Campbell Heights

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
8036	Exfiltration Storm	192 St: 041A - 032 Ave	NCP Driven	2,920,300	2,920,300	-	-
8037	Storm Exfiltration System	188 St: 020 - 028 Ave	NCP Driven	2,871,000	2,871,000	-	-
8038	Road Drainage Works	040 Ave: 190- 184 St	NCP Driven	487,200	487,200	-	-
10319	Local Area Servicing	Various Locations	NCP Driven	2,377,500	2,377,500	-	-
10320	Latimer Pond	192 St / 028 Ave	NCP Driven	440,200	440,200	-	-
10640	Exfiltration System	032 Ave: 187 - 191 St	NCP Driven	3,962,850	3,962,850	-	-
10641	Exfiltration System	018 Ave: 192 - 195 St	NCP Driven	435,000	435,000	-	-
12410	Stream Completion	26 Ave at 192 St	Short Term (1 - 3 Yrs)	150,000	-	150,000	-
				13,644,050	13,494,050	150,000	-



**FIGURE 6.3 - Water
Campbell Heights (Program 1617)**



SCALE: 1:38,500

GIS SECTION



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WATER

Program 1617 - Campbell Heights

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10353	400m of 300mm diameter	020 Ave: 190 - 192 St	NCP Driven	330,000	330,000	-	-
10354	400m of 300mm diameter	020 Ave: 192 - 194 St	NCP Driven	330,000	330,000	-	-
10545	400m of 300mm diameter	028 Ave: 190 - 188 St	NCP Driven	330,000	330,000	-	-
10546	400m of 300mm diameter	024 Ave: 194 - 195 St	NCP Driven	330,000	330,000	-	-
10547	600m of 350mm diameter	028 Ave: 195 - 192 St	NCP Driven	520,000	520,000	-	-
10548	GVWD Connection	192 St / 036 Ave	NCP Driven	225,000	225,000	-	-
10549	800m of 350mm diameter	195 St: 028 - 024 Ave	NCP Driven	690,000	690,000	-	-
10550	400m of 350mm diameter	195 St: 024 - 022 Ave	NCP Driven	345,000	345,000	-	-
10551	200m of 300mm diameter	022 Ave: 194 - 195 St	NCP Driven	165,000	165,000	-	-
10552	800m of 350mm diameter	188 St: 028 - 024 Ave	NCP Driven	690,000	690,000	-	-
10553	800m of 350mm diameter	192 St: 040 - 036 Ave	NCP Driven	690,000	690,000	-	-
10554	800m of 400mm diameter	192 St: 34 - 36 Ave	NCP Driven	725,000	725,000	-	-
10555	800m of 350mm diameter	194 St: 040 - 036 Ave	NCP Driven	690,000	690,000	-	-
10556	800m of 350mm diameter	194 St: 036 - 032 Ave	NCP Driven	690,000	690,000	-	-
10557	400m of 350mm diameter	040 Ave: 194 - 192 St	NCP Driven	345,000	345,000	-	-
10558	400m of 350mm diameter	036 Ave: 194- 192 St	NCP Driven	345,000	345,000	-	-
10559	400m of 300/350mm diameter	032 Ave: 194 - 192 St	NCP Driven	345,000	345,000	-	-
10561	800m of 350mm diameter	194 St: 032 - 028 Ave	NCP Driven	690,000	690,000	-	-
10562	800m of 300mm diameter	190 St: 032 - 028 Ave	NCP Driven	660,000	660,000	-	-
10563	800m of 300mm diameter	190 St: 040 - 036 Ave	NCP Driven	660,000	660,000	-	-
10564	800m of 300mm diameter	190 St: 34 - 36 Ave	NCP Driven	660,000	660,000	-	-
10566	400m of 350mm diameter	036 Ave: 192 - 190 St	NCP Driven	345,000	345,000	-	-
				10,800,000	10,800,000	-	-

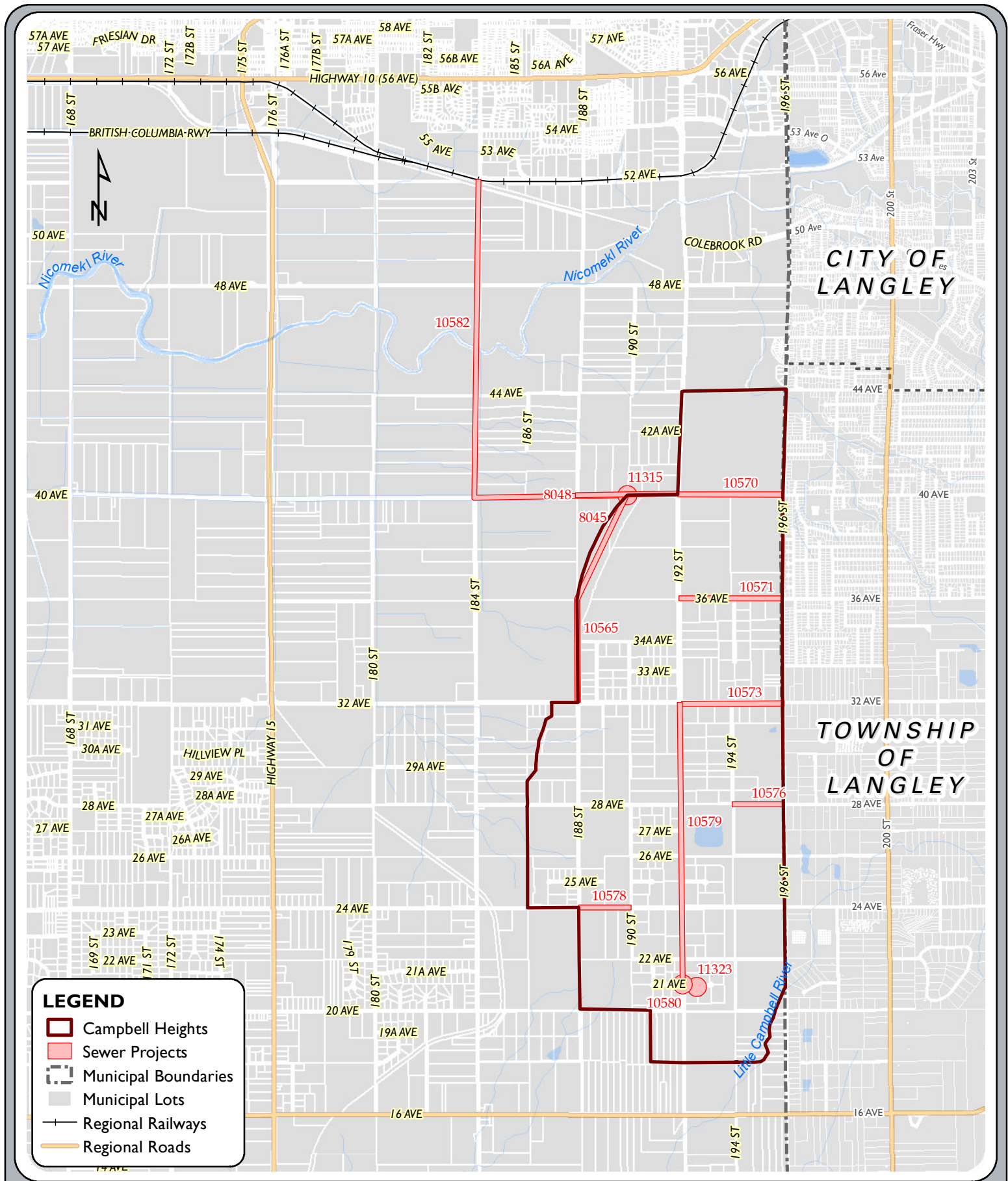


FIGURE 6.4 - Sewer Campbell Heights (Program 1637)

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SEWER

Program 1637 - Campbell Heights

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
8045	809m of 675mm - 750mm diameter	191St: 38-40 Ave; 38 Ave: 190-191St	NCP Driven	1,697,000	1,697,000	-	-
8048	400m of 450mm diameter	040 Ave: 192 - 190 St	NCP Driven	465,000	465,000	-	-
10565	810m of 675mm diameter	188 Street: 032 - 036 Ave	NCP Driven	1,203,000	1,203,000	-	-
10570	800m of 375mm diameter upsizing	040 Ave: 192 - 196 St	NCP Driven	176,000	176,000	-	-
10571	800m of 375mm diameter upsizing	036 Ave: 192 - 196 St	NCP Driven	176,000	176,000	-	-
10573	800m of 375mm diameter upsizing	032 Ave: 192 - 196 St	NCP Driven	176,000	176,000	-	-
10576	400m of 300mm diameter upsizing	028 Avenue: 194 - 196 Street	NCP Driven	32,000	32,000	-	-
10578	400m of 300mm diameter	024 Avenue: 188 - 190 Street	NCP Driven	320,000	320,000	-	-
10579	2200m of 400mm diameter forcemain	192 St: 021 - 032 Ave	NCP Driven	2,802,800	2,802,800	-	-
10581	450mm diameter siphon	040 Ave: 184 St - 19000 blk and 184St: 40 - 52 Ave	NCP Driven	2,862,000	2,862,000	-	-
10582	550mm diameter siphon	040 Ave: 184 St - 19000 blk and 184St: 40 - 52 Ave	NCP Driven	3,254,000	3,254,000	-	-
11315	Odour Control at Siphon	040 Ave / 19000 blk	NCP Driven	795,000	795,000	-	-
11316	Odour Control at Pump station	021 Ave / 192 St	NCP Driven	400,000	400,000	-	-
11318	Sewer Upsizing	Various Locations	NCP Driven	168,000	168,000	-	-
11319	Overflow Storage Tank at Pump Station	021 Ave / 192 St	NCP Driven	676,000	676,000	-	-
11323	Pump Station Upgrade to 210 L/s	021 Ave / 192 St	NCP Driven	340,200	340,200	-	-
				15,543,000	15,543,000	-	-



Line Marking

7. HIGHWAY 99 CORRIDOR SERVICING REQUIREMENTS

The Highway 99 Corridor area encompasses approximately 195 hectares and generally lies along Highway 99 from 8th Avenue to 32nd Avenue.

The City's OCP designates the Highway 99 Corridor for commercial and industrial development.

A specific area-servicing plan was developed for this area to address issues related to servicing a mixed-use commercial/industrial development. Major servicing requirements include:

- Feeder mains, pressure reducing valves, and local feeder mains to provide water distribution and fire protection;
- Intersection improvements, and the widening of collectors and arterials throughout the area;
- A new pump station and forcemain, and local gravity trunk sewers to provide sanitary sewer service; and
- Community detention facilities, and culvert and watercourse upgrades.

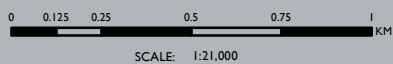
The complete servicing requirements are illustrated in **Figures 7.1** through **7.4**.

Table 7.1 – Highway 99 Corridor Servicing Requirements Cost Summary

Program	Growth	Non-Growth	External	Total
Transportation	\$35,025,000	\$0	\$14,500,000	\$49,525,000
Drainage	600,000	0	0	600,000
Water	4,500,000	0	0	4,500,000
Sewer	7,200,000	0	0	7,200,000
TOTAL	\$47,325,000	\$0	\$14,500,000	\$61,825,000



FIGURE 7.1 - Transportation Highway 99 Corridor (Programs 1019 & 1039)

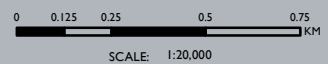
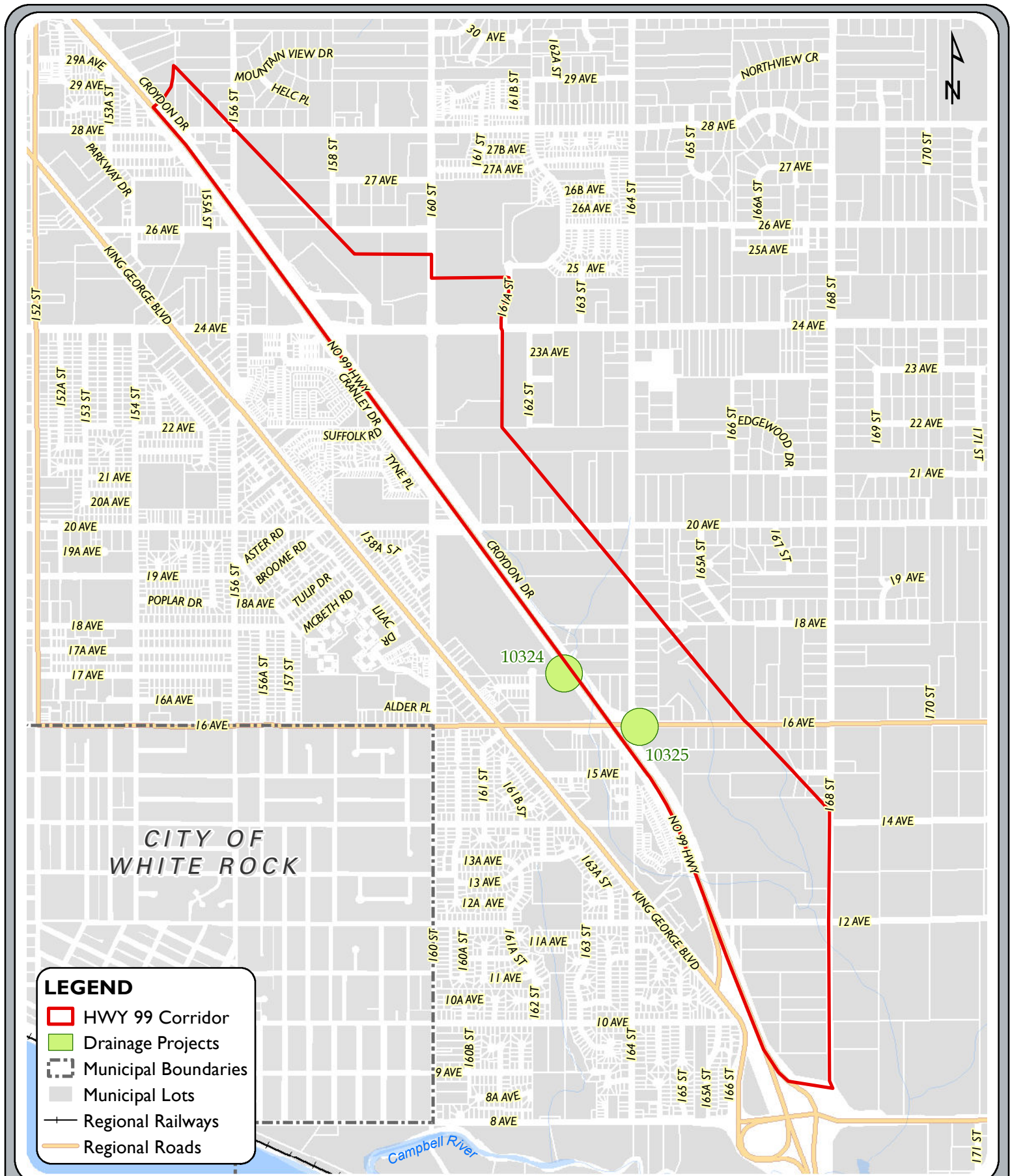


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TRANSPORTATION

Program 1019 & 1039 - Highway 99 Corridor

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10619	Major Collector Ultimate Widening	020 Ave: Hwy 99 - 164 St	NCP Driven	4,500,000	4,500,000	-	-
10622	Major Collector Ultimate Widening	Croydon Dr: 024 Ave - 020 Ave	NCP Driven	1,750,000	1,750,000	-	-
10623	Major Collector Ultimate Widening	Croydon Dr: 020 Ave - 016 Ave	NCP Driven	3,500,000	3,500,000	-	-
10628	Arterial Ultimate Widening	168 St: 012 Ave - 016 Ave	NCP Driven	3,200,000	3,200,000	-	-
10629	Arterial Ultimate Widening	168 St: 008 Ave - 012 Ave	NCP Driven	3,200,000	3,200,000	-	-
10634	Arterial Intersection Improvements	016 Ave and King George Blvd	NCP Driven	500,000	500,000	-	-
10635	Arterial Intersection Improvements	016 Ave and 164 St	NCP Driven	500,000	500,000	-	-
10636	Arterial Interim Widening (50% share w/ ID 10627)	016 Ave and 168 St	Long Term (7 - 10 Yrs)	6,000,000	1,500,000	-	4,500,000
10638	Arterial Intersection Improvements	008 Ave and 168 St	NCP Driven	1,000,000	1,000,000	-	-
13016	Arterial Interim Widening (50% share w/ ID 10626)	016 Ave: King George Blvd - Hwy99	Long Term (7 - 10 Yrs)	3,000,000	750,000	-	2,250,000
13037	Arterial Intersection Improvements	016 Ave / 168 St	NCP Driven	500,000	250,000	-	250,000
13042	Collector Ultimate Widening (50% share)	Croydon Dr: 2500 blk to 2800 blk	NCP Driven	1,250,000	1,250,000	-	-
13043	Collector Upsizing (2 to 3 lanes)	Croydon Dr: 2500 blk to 2800 blk	NCP Driven	375,000	375,000	-	-
14297	Collector Upsizing	028 Ave: Croydon Dr - 156 St (South)	NCP Driven	300,000	300,000	-	-
14298	Roundabout	020 Ave / Croydon Dr	NCP Driven	750,000	750,000	-	-
14299	Roundabout	020 Ave / 164 St	NCP Driven	750,000	750,000	-	-
14300	Traffic Signal	028 Ave / Croydon Dr	NCP Driven	200,000	200,000	-	-
14339	Interchange Ramps	024 Ave / Hwy 99	NCP Driven	5,000,000	2,500,000	-	2,500,000
14341	New Crossing	020 Ave / Hwy 99	NCP Driven	10,000,000	5,000,000	-	5,000,000
14342	Collector Ultimate Widening (West)	Croydon Dr: 028 Ave to 031 Ave	NCP Driven	1,750,000	1,750,000	-	-
14343	Arterial Intersection Improvements	024 Ave / Croydon Dr	NCP Driven	1,500,000	1,500,000	-	-
				49,525,000	35,025,000	-	14,500,000

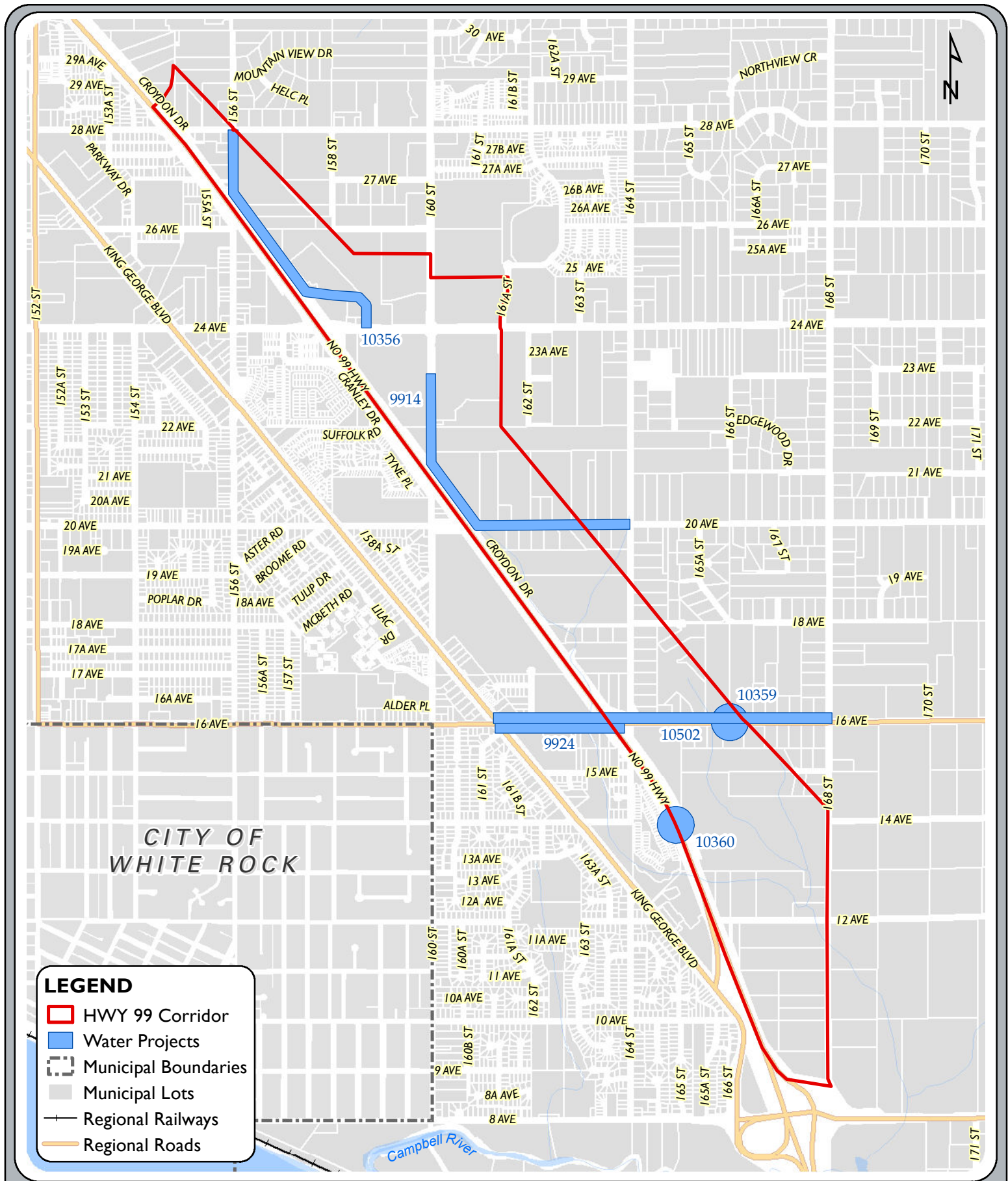


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DRAINAGE

Program 1669 - Highway 99 Corridor

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10324	Flow Splitter and Ditch	017 Ave / 162 St	NCP Driven	400,000	400,000	-	-
10325	Diversion Channel	016 Ave / 164 St	NCP Driven	200,000	200,000	-	-
				600,000	600,000	-	-



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WATER

Program 1619 - Highway 99 Corridor

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
9914	1,000m of 400mm diameter	020 Ave: Croydon Dr - 164 St	NCP Driven	1,400,000	1,400,000	-	-
9924	100m of 400mm diameter	016 Ave: King George Blvd - Hwy 99 (East)	NCP Driven	700,000	700,000	-	-
10356	400m of 350mm diameter	Croydon Dr: 026 - 028 Ave	NCP Driven	500,000	500,000	-	-
10359	Pressure Reducing Valve	016 Ave / 16600 blk	NCP Driven	180,000	180,000	-	-
10360	Hwy 99 Crossing	011 Ave / Hwy 99	NCP Driven	120,000	120,000	-	-
10502	1,300 m of 300mm diameter	016 Ave: King George Blvd - 168 St	NCP Driven	1,600,000	1,600,000	-	-
				4,500,000	4,500,000	-	-

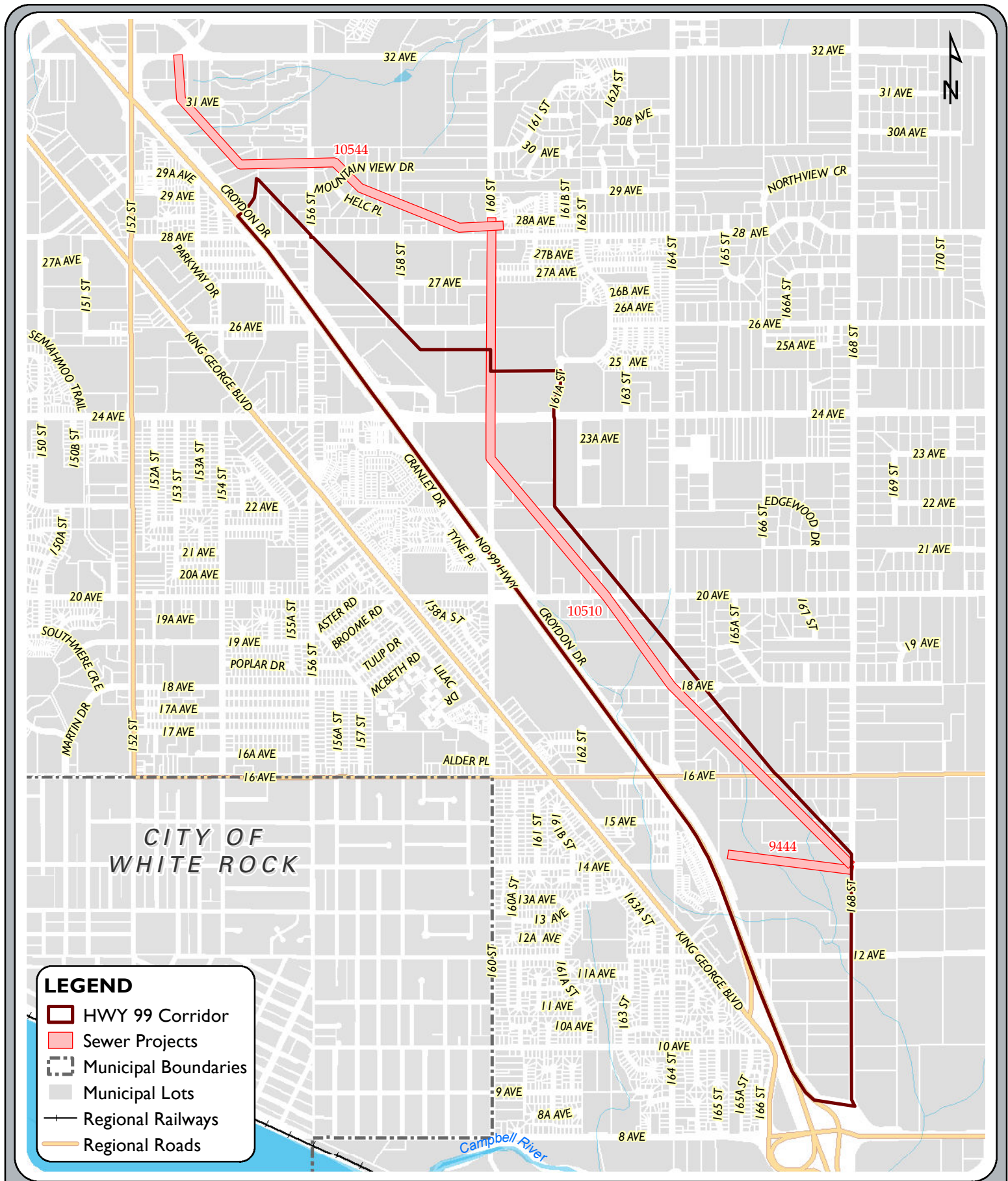


FIGURE 7.4 - Sanitary Highway 99 Corridor (Programs 1639)

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SEWER

Program 1639 - Highway 99 Corridor

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
9444	1300m of 375mm diameter	15 Ave /Hwy 99 - 168 St / 1200 blk	NCP Driven	1,600,000	1,600,000	-	-
10510	Hwy 99 Pump Station and Forcemain (Partial Cost)	164 St / 1200 blk	NCP Driven	5,000,000	5,000,000	-	-
10544	North Grandview Interceptor Phase 1 (Front Ender)	152 St / 32 Ave - 156 St / 2900 blk - 160 St / 2800 blk	NCP Driven	600,000	600,000	-	-
				7,200,000	7,200,000	-	-



Riparian Area Planting Community Event

8. ANNIEDALE-TYNEHEAD SERVICING REQUIREMENTS

The Anniedale-Tynehead Neighbourhood Concept Plan (NCP) area encompasses approximately 415 hectares and generally lies south of Highway 1 and north of the Agricultural Land Reserve located from 168 Street to Harvie Road.

The NCP designates the area for a variety of land uses including commercial, light industrial, business park, institutional, and a range of multi-family and single family housing densities (2 to 45 units per acre).

An area specific development cost charge was developed for this area to provide an equitable way to distribute the high costs of providing sanitary sewer, water, drainage, and transportation servicing infrastructure required to support build out of the NCP area. Major servicing requirements include:

- Four (4) new sanitary sewer pump stations, three low pressure systems, and a network of gravity trunk sewers and forcemains;
- Two (2) new water supply sources, and a network of distribution and feeder mains;
- Eight (8) community detention and water quality ponds, and construction of a major drainage system; and
- Highway overpasses, intersection roundabouts, traffic signals, road widening, and upgrades throughout the area.

The complete servicing requirements are illustrated in **Figures 8.1** through **8.5**.

Table 8.1 – Anniedale-Tynehead Servicing Requirements Cost Summary

Program	Growth	Non-Growth	External	Total
Transportation - Arterial	\$98,500,000	\$0	\$107,180,000	\$205,680,000
Transportation - Non-Arterial	25,500,000	0	34,655,000	60,155,000
Drainage	26,637,000	0	0	26,637,000
Water	20,500,000	0	0	20,500,000
Sewer	29,293,000	0	0	29,293,000
TOTAL	\$200,430,000	\$0	\$141,835,000	\$342,265,000

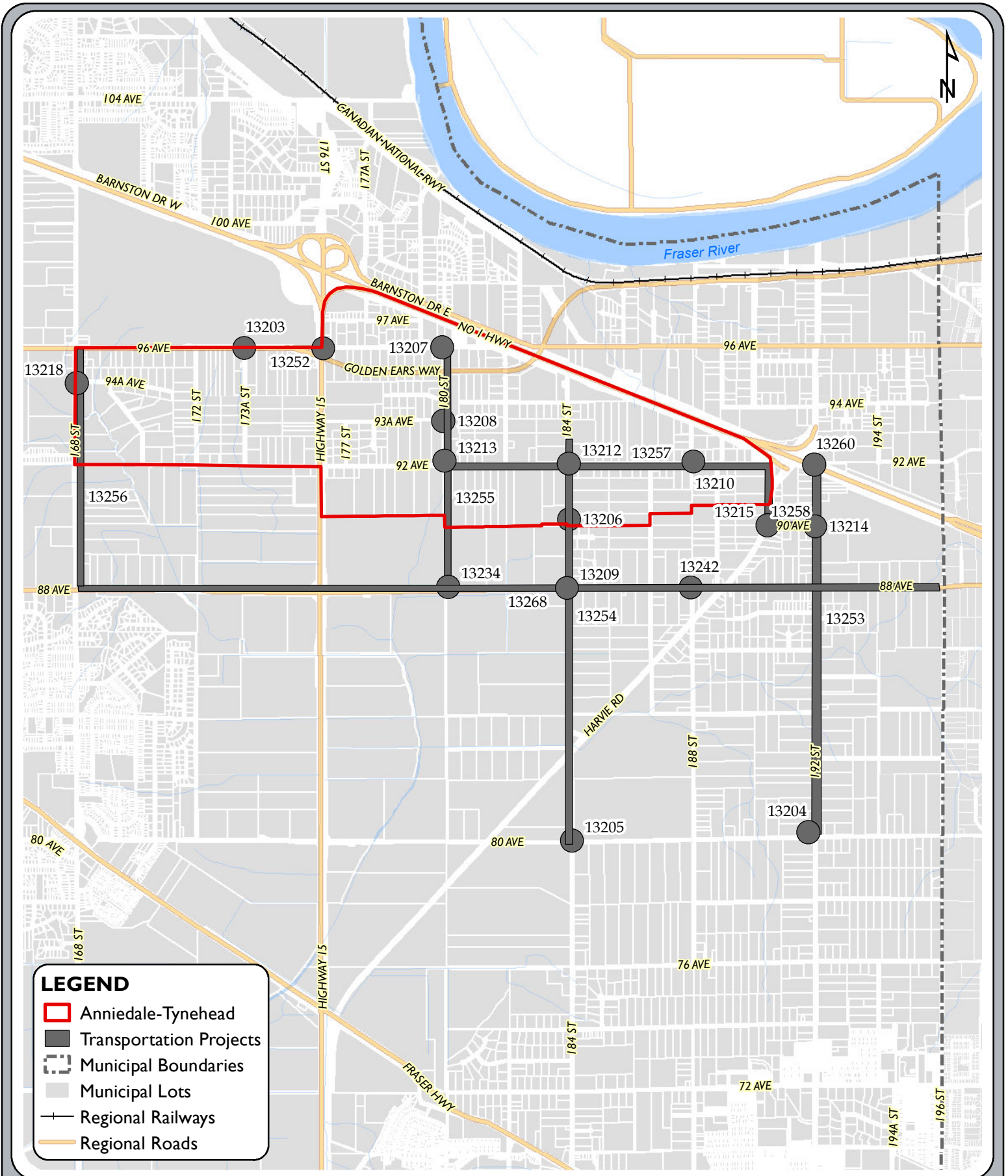
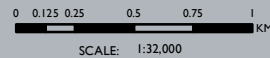


FIGURE 8.1 - Transportation - Arterial Annedale-Tynehead (Programs 1021)



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TRANSPORTATION

Program 1021 - Anniedale-Tynehead (Arterial)

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13203	Traffic Signal	096 Ave / 173A St	NCP Driven	180,000	180,000	-	-
13204	Traffic Signal	192 St / 080 Ave	NCP Driven	180,000	90,000	-	90,000
13205	Traffic Signal	184 St / 080 Ave	NCP Driven	180,000	90,000	-	90,000
13206	Traffic Signal	184 St / 090 Ave	NCP Driven	180,000	90,000	-	90,000
13207	Traffic Signal	180 St / 096 Ave	NCP Driven	180,000	180,000	-	-
13208	Traffic Signal	180 St / 93A Ave	NCP Driven	180,000	180,000	-	-
13209	Traffic Signal	088 Ave / 184 St	NCP Driven	180,000	72,000	-	108,000
13210	Traffic Signal	092 Ave / 188 St	NCP Driven	180,000	180,000	-	-
13212	Traffic Signal	092 Ave / 184 St	NCP Driven	180,000	180,000	-	-
13213	Traffic Signal	092 Ave / 180 St	NCP Driven	180,000	180,000	-	-
13214	Traffic Signal	090 Ave / 192 St	NCP Driven	180,000	126,000	-	54,000
13215	Traffic Signal	090 Ave / Harvie Rd	NCP Driven	180,000	126,000	-	54,000
13216	Traffic Signal	088 Ave / 192 St	NCP Driven	180,000	72,000	-	108,000
13218	Traffic Signal	168 St / 94A Ave	NCP Driven	180,000	90,000	-	90,000
13234	Traffic Signal	088 Ave / 180 St	NCP Driven	180,000	72,000	-	108,000
13242	Traffic Signal	088 Ave / 188 St	NCP Driven	180,000	72,000	-	108,000
13252	Interchange	Hwy 15 / Golden Ears Way / 96 Ave	NCP Driven	47,500,000	11,870,000	-	35,630,000
13253	Arterial Ultimate Widening	192 St: 080 - 088 Ave	NCP Driven	19,200,000	9,600,000	-	9,600,000
13254	Arterial Ultimate Widening and New Arterial	184 St: 080 - 093 Ave	NCP Driven	21,600,000	10,800,000	-	10,800,000
13255	Arterial Ultimate Widening (Special Section HH)	180 St: 088 - 096 Ave	NCP Driven	12,800,000	12,800,000	-	-
13256	Arterial Ultimate Widening	168 St: 088 - 096 Ave	NCP Driven	14,400,000	7,200,000	-	7,200,000
13257	Arterial Interim Upsizing (Special Section II)	092 Ave: 180 St - Harvie Rd; Harvie Rd: 92 - 90 Ave	NCP Driven	18,200,000	18,200,000	-	-
13258	Arterial Ultimate Widening	090 Ave: Harvie Rd - 192 St	NCP Driven	2,700,000	1,890,000	-	810,000
13260	Interchange	Hwy 1 / 192 St	NCP Driven	16,000,000	4,000,000	-	12,000,000
13268	Arterial Ultimate Widening	088 Ave: 168 -192 St	NCP Driven	50,400,000	20,160,000	-	30,240,000
				205,680,000	98,500,000	-	107,180,000

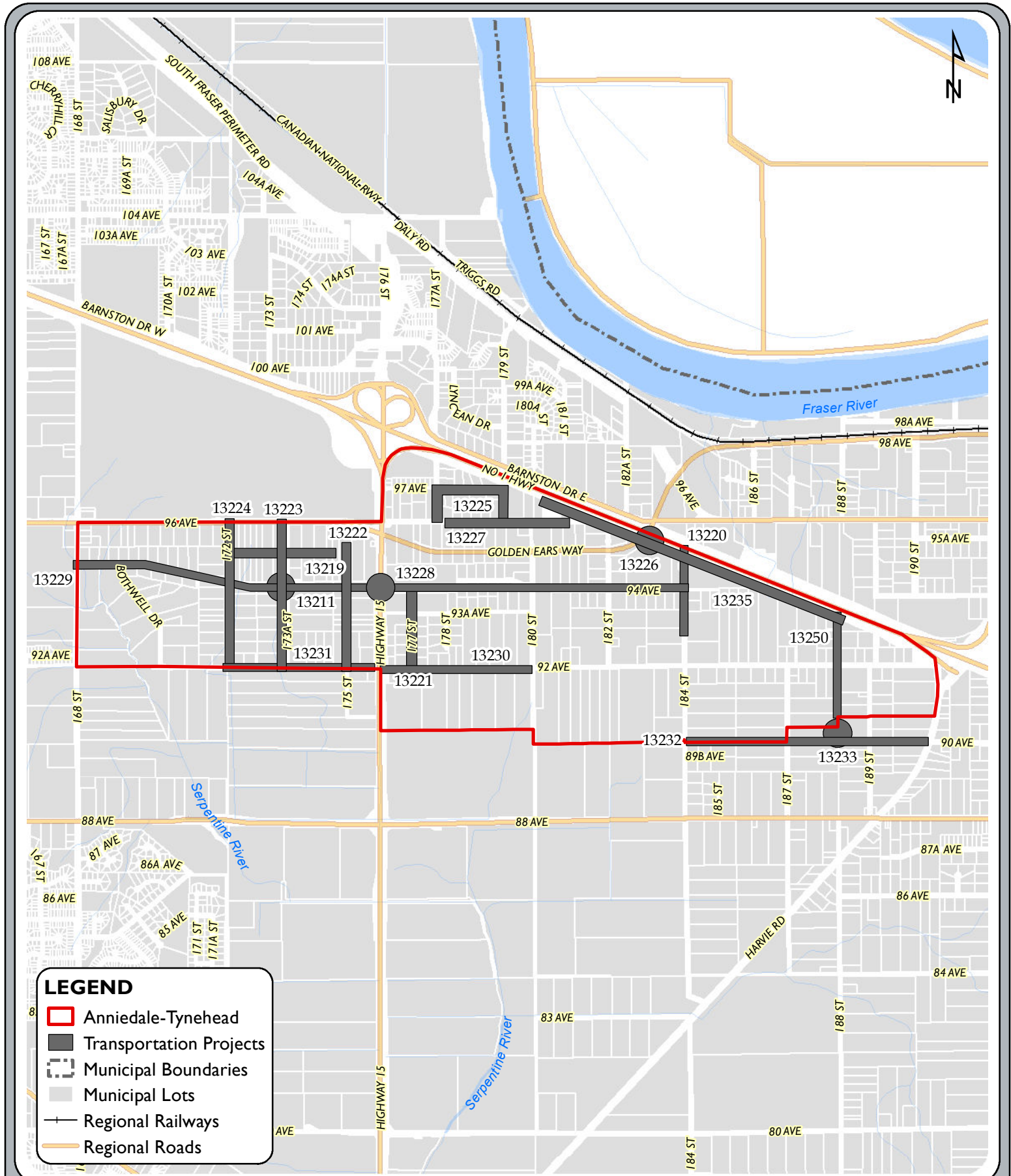


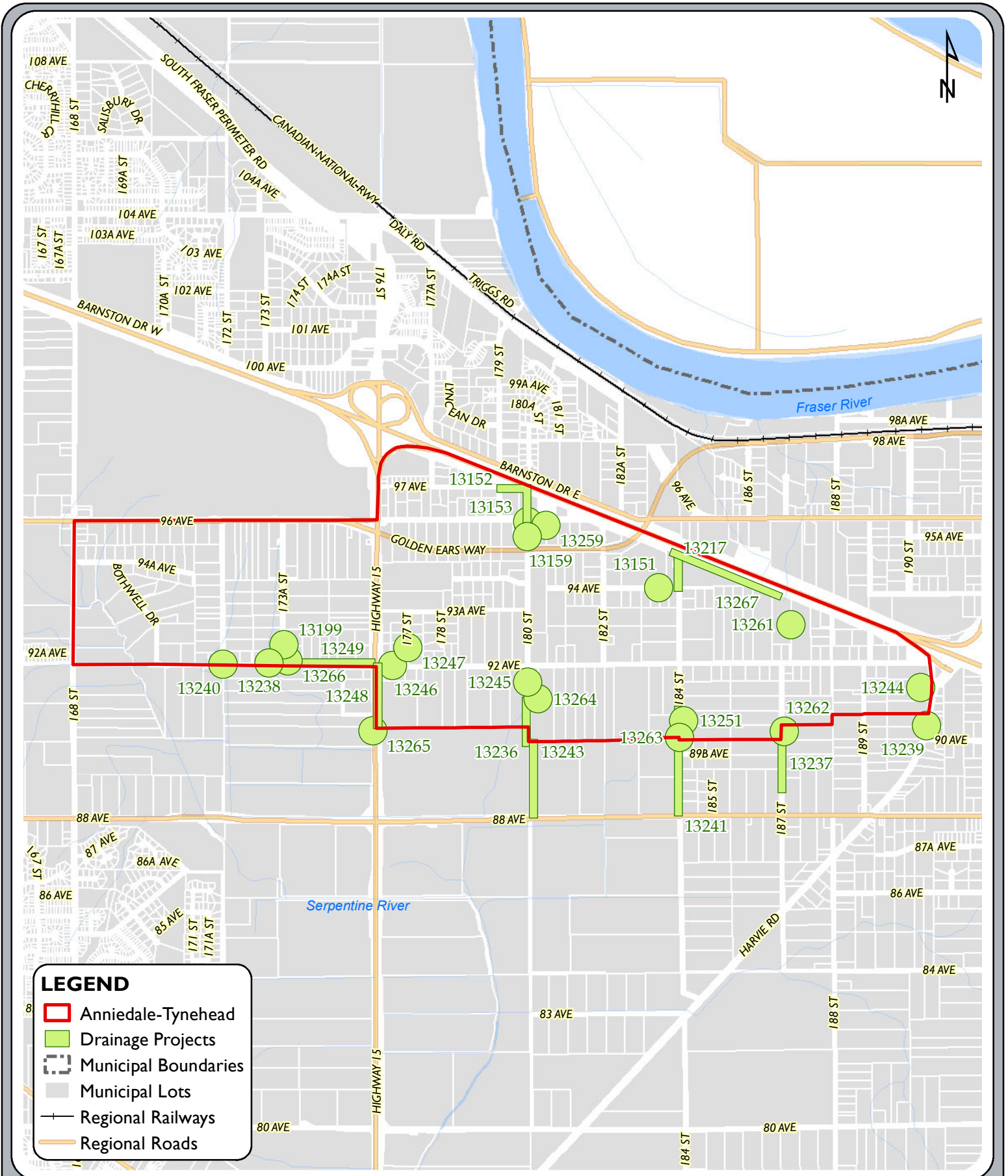
FIGURE 8.2 - Transportation - Non-Arterial Anniedale-Tynehead (Programs 1041)

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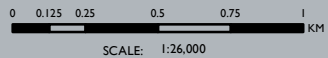
TRANSPORTATION

Program 1041 - Anniedale-Tynehead (Non-Arterial)

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13211	Roundabout / Intersection Improvements	094A Ave / 173A St	NCP Driven	750,000	750,000	-	-
13219	Upsizing (Special Section DD)	095 Ave: 172 - 175 St	NCP Driven	1,120,000	168,000	-	952,000
13220	Upsizing	184 St: 92A Ave - Hwy 1	NCP Driven	1,475,000	310,000	-	1,165,000
13221	Upsizing	177 St: 092 - 094A Ave	NCP Driven	1,005,000	211,000	-	794,000
13222	Upsizing (Special Section EE)	175 St: 092 - 095 Ave	NCP Driven	1,545,000	351,000	-	1,194,000
13223	Upsizing	173A St: 092 - 096 Ave	NCP Driven	2,870,000	603,000	-	2,267,000
13224	Upsizing	172 St: 092 - 096 Ave	NCP Driven	2,870,000	603,000	-	2,267,000
13225	Anniedale Triangle Upsizing	097 Ave: 177A - 179 St; 177A St: 96 - 97 Ave	NCP Driven	3,000,000	675,000	-	2,325,000
13226	Frontage Road Overpass Structure	Hwy 1 / Golden Ears Way	NCP Driven	5,500,000	5,500,000	-	-
13227	Upsizing	096 Ave: 177A - 181A St	NCP Driven	2,515,000	527,000	-	1,988,000
13228	Overpass Structure	094 Ave / Hwy 15	NCP Driven	6,500,000	6,500,000	-	-
13229	Upsizing (Special Section AA)	094A Ave: 168 - 176 St and 93A Ave: 176 - 184 St	NCP Driven	13,200,000	2,973,000	-	10,227,000
13230	Upsizing	092 Ave: 176 - 180 St	NCP Driven	3,112,000	654,000	-	2,458,000
13231	Upsizing (Special Section CC)	092 Ave: 172 - 176 St	NCP Driven	2,230,000	670,000	-	1,560,000
13232	Upsizing (Special Section KK)	090 Ave: 184 St - Harvie Rd	NCP Driven	1,810,000	325,000	-	1,485,000
13233	Roundabout / Intersection Improvements	090 Ave / 188 St	NCP Driven	750,000	750,000	-	-
13235	Upsizing (Special Section GG)	Hwy 1 (South): 181 - 188 St	NCP Driven	6,370,000	3,188,000	-	3,182,000
13250	Upsizing	188 St: 090A Ave - Hwy 1	Long Term (7 - 10 Yrs)	3,533,000	742,000	-	2,791,000
				60,155,000	25,500,000	-	34,655,000



**FIGURE 8.3 - Drainage
Anniedale-Tynehead (Program 1676)**

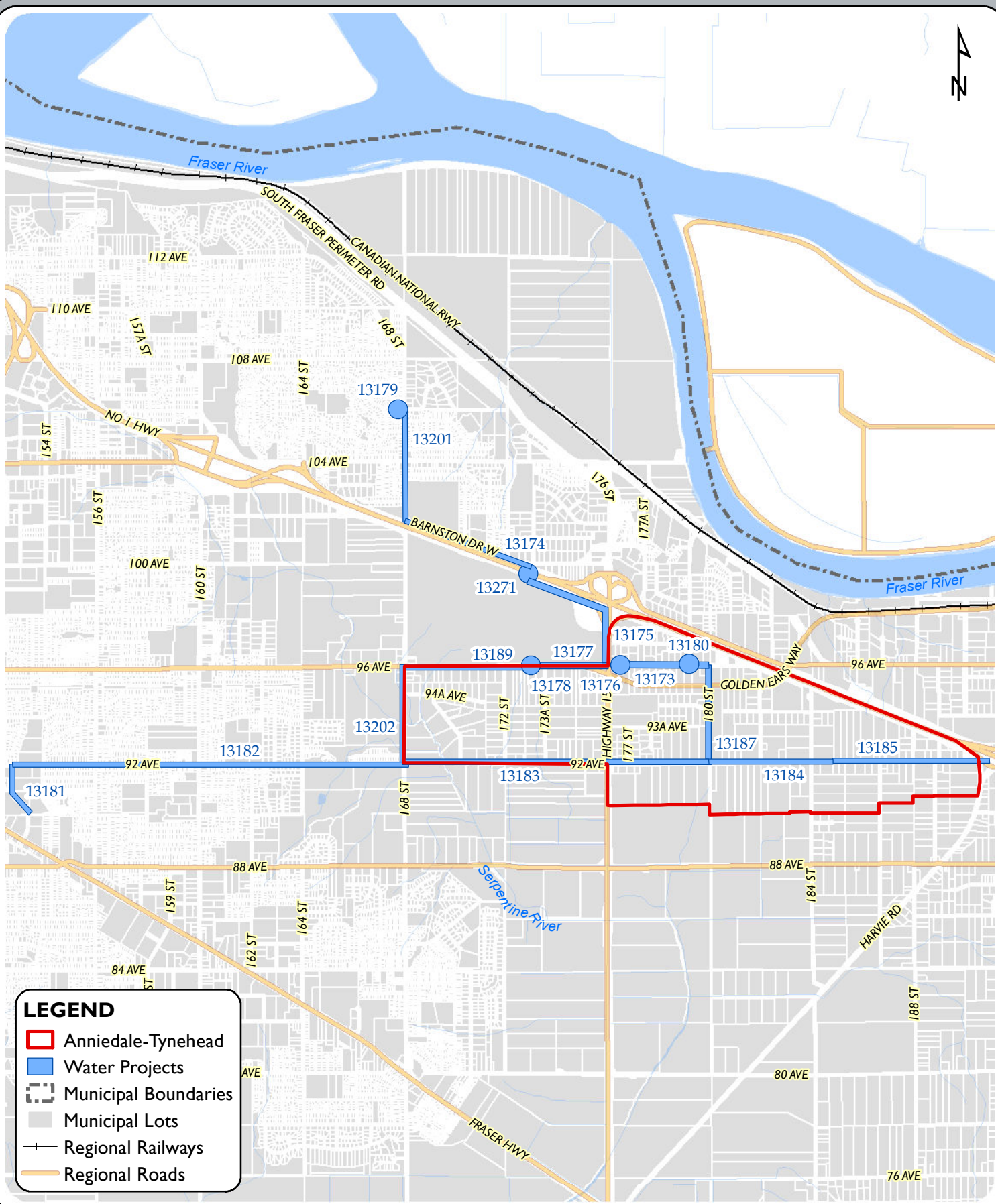


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DRAINAGE

Program 1676 - Anniedale-Tynehead

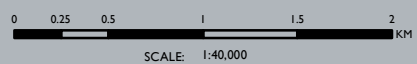
Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13151	200m of 1050mm diameter	094 Ave: 183 - 184 St Anniedale NCP	NCP Driven	371,000	371,000	-	-
13152	250m of 900mm diameter	097 Ave: 179 - 180 St; 180 St: 97 - 96 Ave Anniedale NC	NCP Driven	347,000	347,000	-	-
13153	65m of 1050mm diameter	096 Ave / 180 St Anniedale NCP	NCP Driven	108,000	108,000	-	-
13159	160m of 1050mm diameter	180 St: 96 Ave - Golden Ears Way. Anniedale NCP	NCP Driven	297,000	297,000	-	-
13199	150m of 900mm diameter	173A St: 92 - 93 Ave Anniedale NCP	NCP Driven	249,000	249,000	-	-
13217	150m of 1050mm diameter	184 St: 94 - 95 Ave Anniedale NCP	NCP Driven	279,000	279,000	-	-
13236	270m of 525mm diameter	180 St: 91 - 90 Ave Anniedale NCP	NCP Driven	266,000	266,000	-	-
13237	250m of ditch improvement	187 St: 89 - 90 Ave. Anniedale NCP	NCP Driven	34,000	34,000	-	-
13238	200m of ditch improvement	092 Ave: 173 - 173A St Anniedale NCP	NCP Driven	27,000	27,000	-	-
13239	100m of ditch improvement	Harvie Rd: 91 -90 Ave Anniedale NCP	NCP Driven	14,000	14,000	-	-
13240	150m of 750mm diameter	172 St: 93 - 92 Ave Anniedale NCP	NCP Driven	220,000	220,000	-	-
13241	400m of ditch improvement	184 St: 90 - 88 Ave Anniedale NCP	NCP Driven	54,000	54,000	-	-
13243	400m of ditch improvement and ROW	180 St: 90 - 88 Ave Anniedale NCP	NCP Driven	509,000	509,000	-	-
13244	Anniedale 6 detention pond	191 St / 91 Ave	NCP Driven	3,279,000	3,279,000	-	-
13245	150m of 450mm diameter	180 St: 91 - 92 Ave Anniedale NCP	NCP Driven	134,000	134,000	-	-
13246	150m of 750mm diameter	092 Ave: 176 - 177 St Anniedale NCP	NCP Driven	220,000	220,000	-	-
13247	170m of 600mm diameter	177 St: 93 - 92 Ave Anniedale NCP	NCP Driven	217,000	217,000	-	-
13248	350m of 900mm diameter	176 St: 90A - 92 Ave Anniedale NCP	NCP Driven	809,000	809,000	-	-
13249	350m of ditch improvement	092 Ave: 173A - 176 St Anniedale NCP	NCP Driven	47,000	47,000	-	-
13251	290m of 900mm diameter	184 St: 91A - 90 Ave Anniedale NCP	NCP Driven	482,000	482,000	-	-
13259	Anniedale 7 detention pond	096 Ave / 180 St Anniedale NCP	NCP Driven	4,888,000	4,888,000	-	-
13261	Anniedale 8 water quality pond	187 St / 93 Ave	NCP Driven	2,217,000	2,217,000	-	-
13262	Anniedale 5 water quality pond	090 Ave / 187 St	NCP Driven	1,439,000	1,439,000	-	-
13263	Anniedale 4 water quality pond	184 St / 90 Ave	NCP Driven	1,679,000	1,679,000	-	-
13264	Anniedale 3 water quality pond	180 St / 91 Ave	NCP Driven	1,738,000	1,738,000	-	-
13265	Anniedale 2 water quality pond	90A Ave / Hwy 15	NCP Driven	2,967,000	2,967,000	-	-
13266	Tynehead 1 water quality pond	173A St / 92 Ave Anniedale NCP	NCP Driven	2,122,000	2,122,000	-	-
13267	1050m of 1050mm diameter	South of Hwy 1: 184 - 187 St Anniedale NCP	NCP Driven	1,624,000	1,624,000	-	-
				26,637,000	26,637,000	-	-



LEGEND

- ▭ Anniedale-Tynehead
- ▭ Water Projects
- Municipal Boundaries
- Municipal Lots
- Regional Railways
- Regional Roads

**FIGURE 8.4 - Water
Anniedale-Tynehead (Program 1621)**

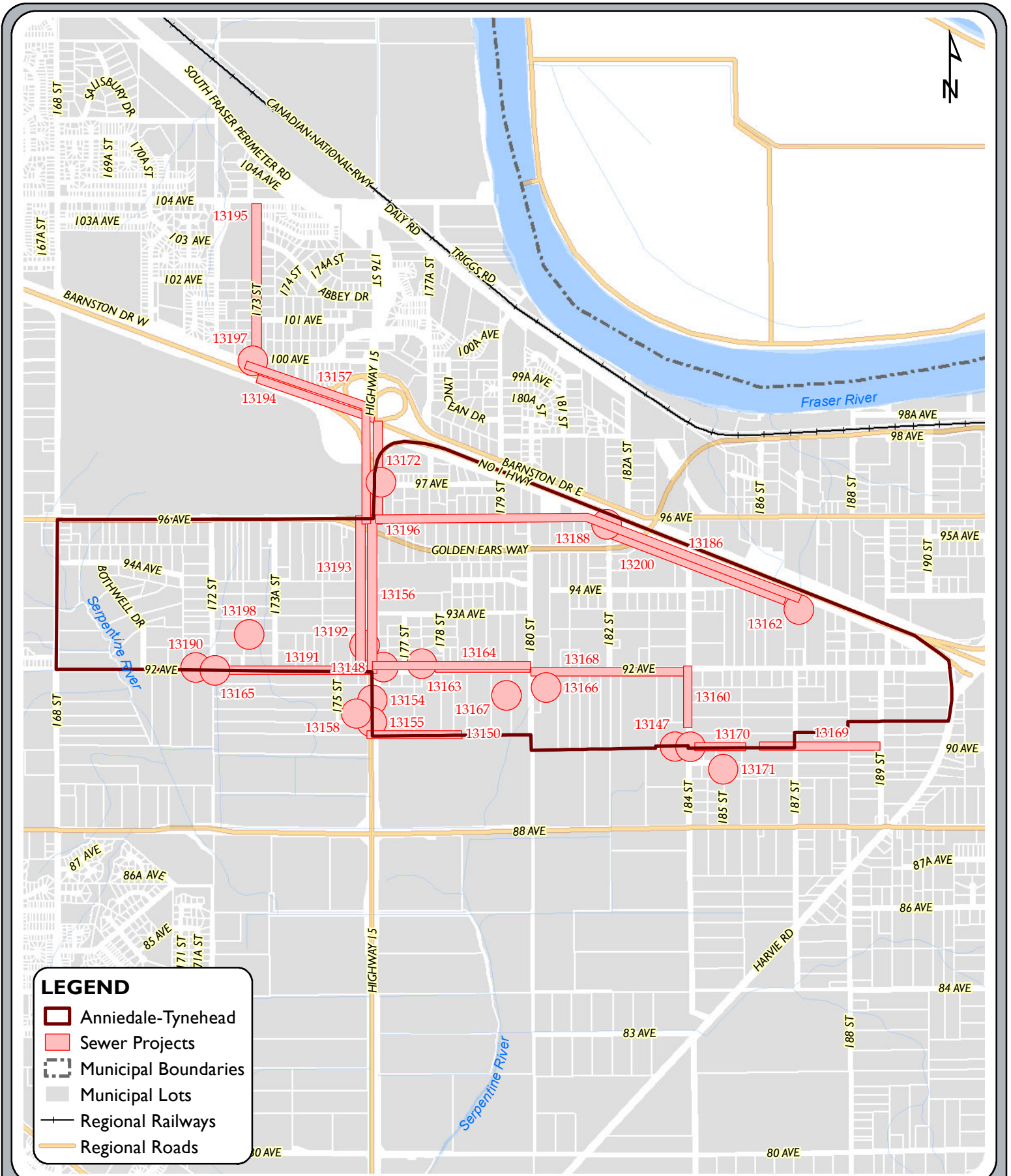


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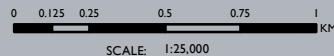
WATER

Program 1621 - Anniedale-Tynehead

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13138	9,345m of 300mm diameter	Various Locations	NCP Driven	1,870,000	1,869,000	-	-
13145	1,595m of 300mm diameter	Various Locations	NCP Driven	160,000	159,500	-	-
13173	440m of 300mm diameter	096 Ave: 177 - 180 St	NCP Driven	325,600	325,600	-	-
13174	1,060 of 450mm diameter	Hwy 1: 168 - 173 St	NCP Driven	901,000	901,000	-	-
13175	1,060 of 450mm diameter	Hwy 1 (South): 173 -176 St; 176 St: Hwy 1 - 96 Ave	NCP Driven	901,000	901,000	-	-
13176	350m of 450mm diameter	096 Ave: Hwy 15 - 178 St	NCP Driven	297,500	297,500	-	-
13177	505m of 300mm diameter	096 Ave: Hwy 15 - 173A St	NCP Driven	373,700	373,700	-	-
13178	Pressure Reducing Valve	096 Ave / 173A St	NCP Driven	115,000	115,000	-	-
13179	Metro Vancouver Connection	Cherry Hill Cr / 168 St	NCP Driven	102,500	102,500	-	-
13180	Pressure Reducing Valve	096 Ave/179 St	NCP Driven	115,000	115,000	-	-
13181	550m of 750mm diameter	153 St: 90 - 92 Ave	NCP Driven	935,000	935,000	-	-
13182	3,000m of 750mm diameter	092 Ave: 153 - 168 St	NCP Driven	5,100,000	5,100,000	-	-
13183	2,405 of 750mm diameter	092 Ave: 168 - 180 St	NCP Driven	4,088,500	4,088,500	-	-
13184	955m of 600mm diameter	092 Ave: 180 - 185 St	NCP Driven	1,260,600	1,260,600	-	-
13185	780m of 450mm diameter	092 Ave: 185 - 191 St	NCP Driven	663,000	663,000	-	-
13187	770m of 350mm diameter	180 St: 96 - 92 Ave	NCP Driven	592,900	592,900	-	-
13189	1,095m of 300mm diameter	096 Ave: 173A - 168 St	NCP Driven	814,000	814,000	-	-
13201	1,060m of 450mm diameter	168 St: 106 Ave - Hwy 1	NCP Driven	901,000	901,000	-	-
13202	760m of 350mm diameter	168 St: 96 - 92 Ave	NCP Driven	585,200	585,200	-	-
13271	Hwy 1 Crossing	Hwy 1 / 173 St	NCP Driven	400,000	400,000	-	-
				20,501,500	20,500,000	-	-



**FIGURE 8.5 - Sewer
Anniedale-Tynehead (Program 1641)**



GIS SECTION

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SEWER

Program 1641 - Anniedale-Tynehead

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13139	435m of 375mm diameter	Tynehead 375mm diameter upsizing	NCP Driven	104,500	104,500	-	-
13140	160m of 300mm diameter	Tynehead 300mm diameter upsizing	NCP Driven	22,000	22,000	-	-
13141	270m of 250mm diameter	Tynehead 250mm diameter upsizing	NCP Driven	17,500	17,500	-	-
13142	1,135m of 250mm diameter	Anniedale A1/B1/B4 250mm diameter upsizing	NCP Driven	72,500	72,500	-	-
13143	350m of 300mm diameter	Anniedale A1/B1/B4 300mm diameter upsizing	NCP Driven	47,500	47,500	-	-
13144	75m of 375mm diameter	Anniedale A1/B1/B4 375mm diameter upsizing	NCP Driven	18,000	18,000	-	-
13146	100m of 300mm diameter	Anniedale B3 300mm diameter upsizing	NCP Driven	13,500	13,500	-	-
13147	Anniedale B2 Pump Station	184 St / 089 Ave	NCP Driven	4,400,000	4,400,000	-	-
13148	390m of 375mm diameter	092 Ave: 177 - 176 St	NCP Driven	93,500	93,500	-	-
13149	690m of 300mm diameter	091 Ave: 180 - 178 St	NCP Driven	94,000	94,000	-	-
13150	135m of 375mm diameter	090A Ave: 178 - 176 St	NCP Driven	32,500	32,500	-	-
13154	200m of 400mm diameter	Hwy 15: 091 -092 Ave	NCP Driven	194,000	194,000	-	-
13155	Anniedale B4 Odour Control	Hwy 15 / 091 Ave	NCP Driven	60,000	60,000	-	-
13156	980m of 500mm diameter	Hwy 15: 092 - 096 Ave	NCP Driven	1,065,500	1,065,500	-	-
13157	1150m of 650mm diameter	Hwy 15: 096 Ave - Hwy 1; Hwy 1: Hwy 15 - 173 St	NCP Driven	1,396,000	1,396,000	-	-
13158	Anniedale B4 Pump Station	176 St / 091 Ave	NCP Driven	3,500,000	3,500,000	-	-
13160	400m of 250mm diameter	184 St: 090 -092 Ave	NCP Driven	304,000	304,000	-	-
13161	Anniedale B2 Odour Control	090 Ave / 184 St	NCP Driven	60,000	60,000	-	-
13162	Anniedale Pump Station	Hwy 1 (South) / 187 St	NCP Driven	3,600,000	3,600,000	-	-
13163	265m of 375mm diameter	092 Ave: 178 - 177 St	NCP Driven	63,500	63,500	-	-
13164	850m of 250mm diameter	092 Ave: 180 - 176 St	NCP Driven	646,000	646,000	-	-
13165	Tynehead Pump Station	092 Ave / 172 St	NCP Driven	3,300,000	3,300,000	-	-
13166	220m of 300mm diameter	091 Ave: 180 - 181 St	NCP Driven	30,000	30,000	-	-
13167	Anniedale B3 Trunk ROW	091 Ave / 179 St	NCP Driven	225,000	225,000	-	-
13168	920m of 250mm diameter	092 Ave: 184 - 180 St	NCP Driven	699,000	699,000	-	-
13169	890m of 525mm diameter	090A Ave: 189 - 186 St	NCP Driven	822,000	822,000	-	-
13170	190m of 600 diameter	090 Ave: 186 - 184 St	NCP Driven	191,000	191,000	-	-
13171	Anniedale B2 Trunk ROW	089 Ave / 185 St; 90A Ave / 188 St; 91 Ave / 188A St	NCP Driven	235,000	235,000	-	-
13172	Hwy 15 Crossing	Hwy 15 / 097 Ave	NCP Driven	200,000	200,000	-	-
13186	2140m of 400mm diameter	Hwy 1 (South): 182 - 187 St; 96 Ave: 182 St - Hwy 15	NCP Driven	2,078,000	2,078,000	-	-
13188	Anniedale A odour control	096 Ave / 182 St	NCP Driven	60,000	60,000	-	-
13190	355m of 375mm diameter	092 Ave: 171 - 172 St	NCP Driven	85,500	85,500	-	-
13191	835m of 400mm diameter	092 Ave: 176 - 172 St	NCP Driven	811,000	811,000	-	-
13192	Tynehead Forcemain Odour Contol	Hwy 15 / 092A Ave	NCP Driven	60,000	60,000	-	-
13193	980m of 400mm diameter	Hwy 15: 096 - 092 Ave	NCP Driven	952,000	952,000	-	-
13194	1150m of 400mm diameter	Hwy 1 (South): 176 - 173 St; Hwy 15: 96 Ave - Hwy 1	NCP Driven	1,117,000	1,117,000	-	-
13195	800m of 600mm diameter	173 St: Hwy 1 - 104 Ave	NCP Driven	1,133,000	1,133,000	-	-

SEWER

Program 1641 - Anniedale-Tynehead

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13196	Tynehead Trunk ROW	097 Ave / 175A St	NCP Driven	90,000	90,000	-	-
13197	Hwy 1 Crossing	Hwy 1 / 173 St	NCP Driven	500,000	500,000	-	-
13198	South Port Kells Odour Control	173 St / 092A Ave	NCP Driven	660,000	660,000	-	-
13200	1000m of 375mm diameter	Hwy 1 (South): 182 - 187 St	NCP Driven	240,000	240,000	-	-
				29,293,000	29,293,000	-	-



Eugene Creek Restoration

9. SUMMARY OF 2014 – 2023 10-YEAR SERVICING PLAN FUNDING REQUIREMENTS

Based on the activities detailed under each City-wide program and area specific programs on Highway 99, Campbell Heights, and Anniedale-Tynehead servicing, the Servicing Plan funding requirements are as follows:

Table 9.1 - 2014-2023 10-Year Servicing Plan Cost Summary

Program	Growth	Non-Growth	External	Total
Transportation - Arterial	\$336,025,000	\$154,140,000	\$192,860,000	\$683,025,000
Transportation - Non-Arterial	75,110,000	136,400,000	-	211,510,000
Drainage	101,261,859	128,733,386	-	229,995,245
Water	64,992,000	128,091,000	-	193,083,000
Sewer	84,730,570	62,964,570	2,534,000	150,229,140
Campbell Heights	140,937,050	-	33,500,000	174,587,050
Highway 99 Corridor	47,325,000	-	14,500,000	61,825,000
Anniedale-Tynehead	200,430,000	-	141,835,000	342,265,000
TOTAL	\$1,050,811,479	\$610,328,956	\$385,229,000	\$2,046,519,435



Local Road Paving

10. 2014 – 2023 SERVICING PLAN PROJECTS BY PROGRAM

This section contains tables that carry projects identified under the respective programs from Transportation, Drainage, Water, and Sanitary Sewer.

The tables provide the following information:

- a) Project ID, the unique identifier of the project;
- b) Project Name, generally identifying the specific name or generic name to depict the type of work;
- c) Project location, defining the geographic extent of the works; this may vary based on various factors as the project construction commences;
- d) Priority, suggesting the intended time frame the project is planned to proceed; however, changes may be made to this time frame later, as needed; and
- e) The costs, given as high level estimates in 2012 dollars and which may differ at the actual time of construction.

The costs given comprise Growth, Non-Growth, and External funding components. External funding may include sources such as TransLink, the Provincial Government, the Federal Government, and Developers' contributions through their projects.

The projects listed under the respective Programs are mapped in the attached Map-Figures. Some projects may be general in nature or may be in various locations spanning throughout Surrey, and such projects may not have been mapped in the Map-Figures.

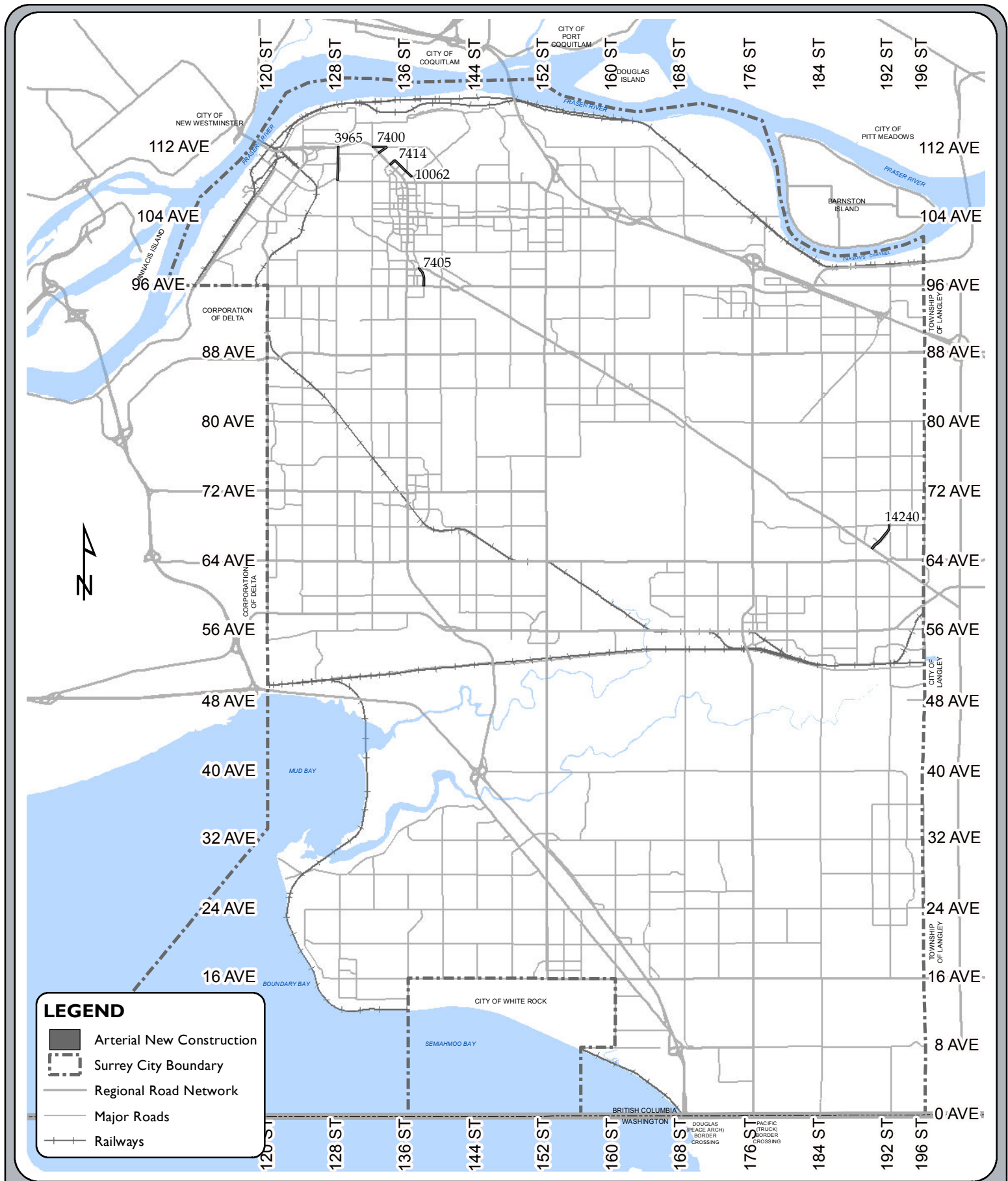
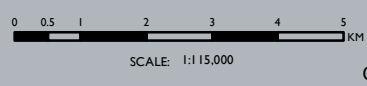


FIGURE 10.1 - Transportation Arterial New Construction (Program 1000)



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TRANSPORTATION

Program 1000 - Arterial New Construction

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
3965	New Arterial Construction	128 St: 108 Ave - King George Blvd	Long Term (7 - 10 Yrs)	18,000,000	9,000,000	-	9,000,000
7400	New Arterial Construction	132 St / 112 Ave: King George Blvd - Bolivar Rd	Long Term (7 - 10 Yrs)	2,125,000	2,125,000	-	-
7405	New Arterial Construction	Whalley Blvd : 096 Ave - Fraser Hwy	Short Term (1 - 3 Yrs)	3,400,000	3,400,000	-	-
7414	New Arterial Construction	Whalley Blvd: King George Blvd - Hilton Rd	Medium Term (4 - 6 Yrs)	1,700,000	1,700,000	-	-
10062	New Arterial Construction	Whalley Blvd: Grosvenor Rd - Bentley Rd	Medium Term (4 - 6 Yrs)	1,700,000	1,700,000	-	-
14239	Arterial Property Acquisition	Various Locations	Annual	10,000,000	10,000,000	-	-
14240	New Arterial Construction	192 St: Fraser Hwy - 068 Ave	Short Term (1 - 3 Yrs)	3,400,000	3,400,000	-	-
				40,325,000	31,325,000	-	9,000,000

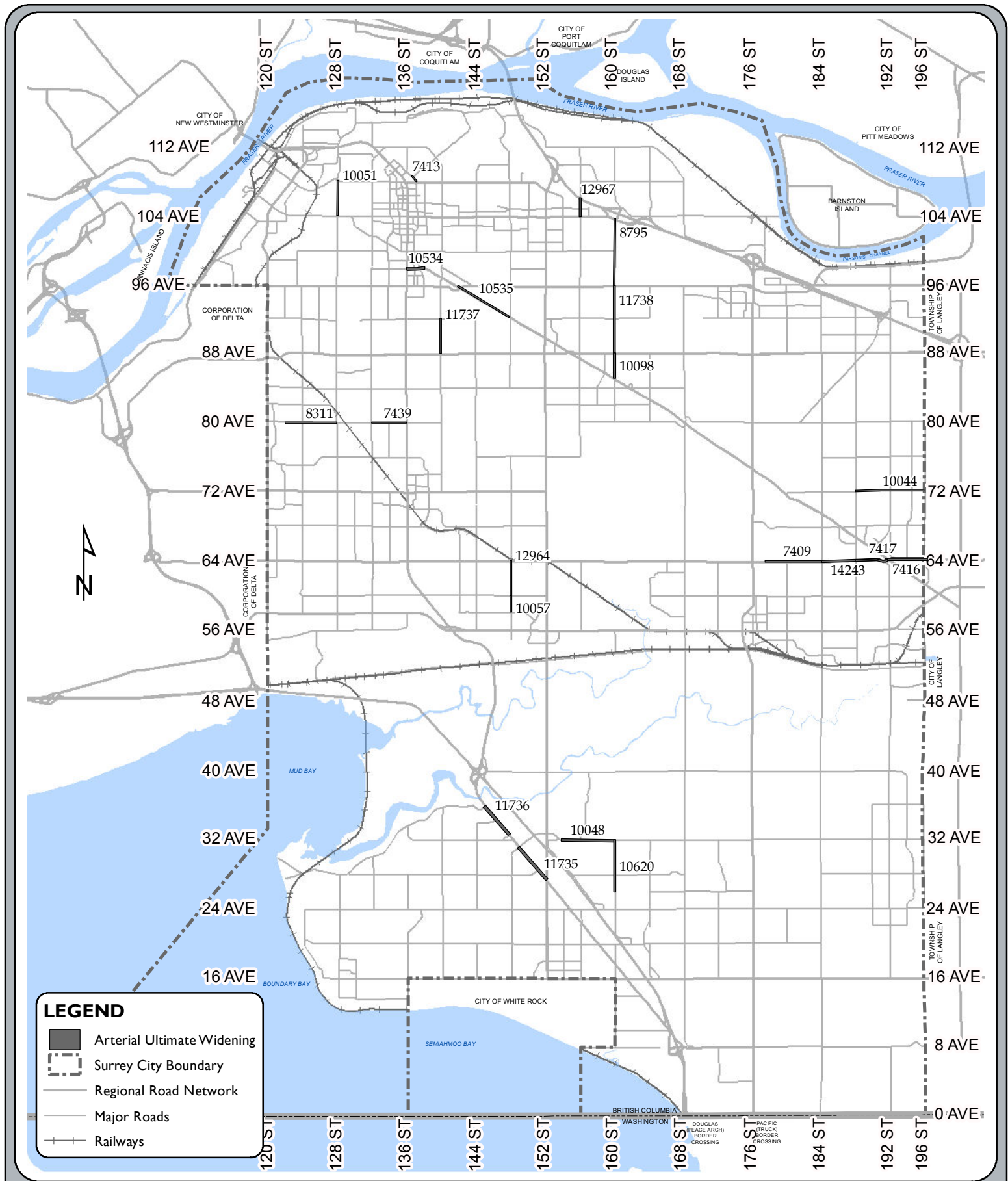
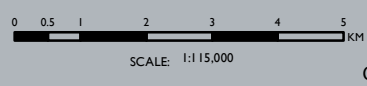


FIGURE 10.2 - Transportation Arterial Ultimate Widening (Program 1002)



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TRANSPORTATION

Program 1002 - Arterial Ultimate Widening

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
7409	Arterial Ultimate Widening	064 Ave: 177 St - 184 St	Medium Term (4 - 6 Yrs)	10,500,000	5,250,000	-	5,250,000
7413	Arterial Ultimate Widening	Whalley Blvd: 108 Ave - Grosvenor Rd	Long Term (7 - 10 Yrs)	1,125,000	1,125,000	-	-
7416	Arterial Ultimate Widening	064 Ave: Fraser Hwy - 196 St	Short Term (1 - 3 Yrs)	4,500,000	2,250,000	-	2,250,000
7417	Arterial Ultimate Widening	064 Ave: 184 St - 188 St	Long Term (7 - 10 Yrs)	6,000,000	3,000,000	-	3,000,000
7439	Arterial Ultimate Widening	080 Ave: 132 St - KG Blvd	Long Term (7 - 10 Yrs)	6,000,000	6,000,000	-	-
8311	Arterial Ultimate Widening	080 Ave: 122 St - 128 St	Long Term (7 - 10 Yrs)	9,000,000	9,000,000	-	-
8795	Arterial Ultimate Widening	160 St: 096 Ave - 104 Ave	Short Term (1 - 3 Yrs)	11,250,000	11,250,000	-	-
10044	Arterial Ultimate Widening	072 Ave: 188 St - 196 St	Short Term (1 - 3 Yrs)	9,000,000	9,000,000	-	-
10048	Arterial Ultimate Widening	032 Ave: 154 St - 160 St	Long Term (7 - 10 Yrs)	9,000,000	9,000,000	-	-
10051	Arterial Ultimate Widening	128 St: 104 Ave - 108 Ave	Long Term (7 - 10 Yrs)	6,000,000	6,000,000	-	-
10057	Arterial Ultimate Widening	148 St: 058 Ave - 060 Ave	Medium Term (4 - 6 Yrs)	2,000,000	2,000,000	-	-
10098	Arterial Ultimate Widening	160 St: Fraser Hwy - 088 Ave	Long Term (7 - 10 Yrs)	4,500,000	4,500,000	-	-
10534	Arterial Ultimate Widening	Fraser Hwy: 138 St - 140 St	Short Term (1 - 3 Yrs)	8,000,000	4,000,000	-	4,000,000
10535	Arterial Ultimate Widening	Fraser Hwy: 140 St - 148 St	Medium Term (4 - 6 Yrs)	18,000,000	9,000,000	-	9,000,000
10620	Arterial Ultimate Widening	160 St: 026 Ave - 032 Ave	Medium Term (4 - 6 Yrs)	9,000,000	9,000,000	-	-
10626	Arterial Ultimate Widening	016 Ave: King George Blvd - Hwy 99	Short Term (1 - 3 Yrs)	900,000	900,000	-	-
11735	Arterial Ultimate Widening	King George Blvd: 032 Ave Div - 152 St	Short Term (1 - 3 Yrs)	6,000,000	3,000,000	-	3,000,000
11736	Arterial Ultimate Widening	King George Blvd: 148 St - Crescent Rd	Short Term (1 - 3 Yrs)	6,750,000	3,375,000	-	3,375,000
11737	Arterial Ultimate Widening	140 St: 088 Ave - 092 Ave	Long Term (7 - 10 Yrs)	6,000,000	6,000,000	-	-
11738	Arterial Ultimate Widening	160 St: 088 Ave - 096 Ave	Medium Term (4 - 6 Yrs)	12,000,000	12,000,000	-	-
12964	Arterial Ultimate Widening	148 St: 060 - 064 Ave	Short Term (1 - 3 Yrs)	4,000,000	4,000,000	-	-
12967	Arterial Ultimate Widening	156 St: 104 Ave - Hwy 1	Medium Term (4 - 6 Yrs)	1,875,000	1,875,000	-	-
14241	Arterial Property Acquisition	Various Locations	Annual	10,000,000	10,000,000	-	-
14242	Arterial Development Coordinated Works	Various Locations	Annual	3,500,000	3,500,000	-	-
14243	Arterial Ultimate Widening	064 Ave: 188 St - Fraser Hwy	Medium Term (4 - 6 Yrs)	4,000,000	2,000,000	-	2,000,000
				168,900,000	137,025,000	-	31,875,000

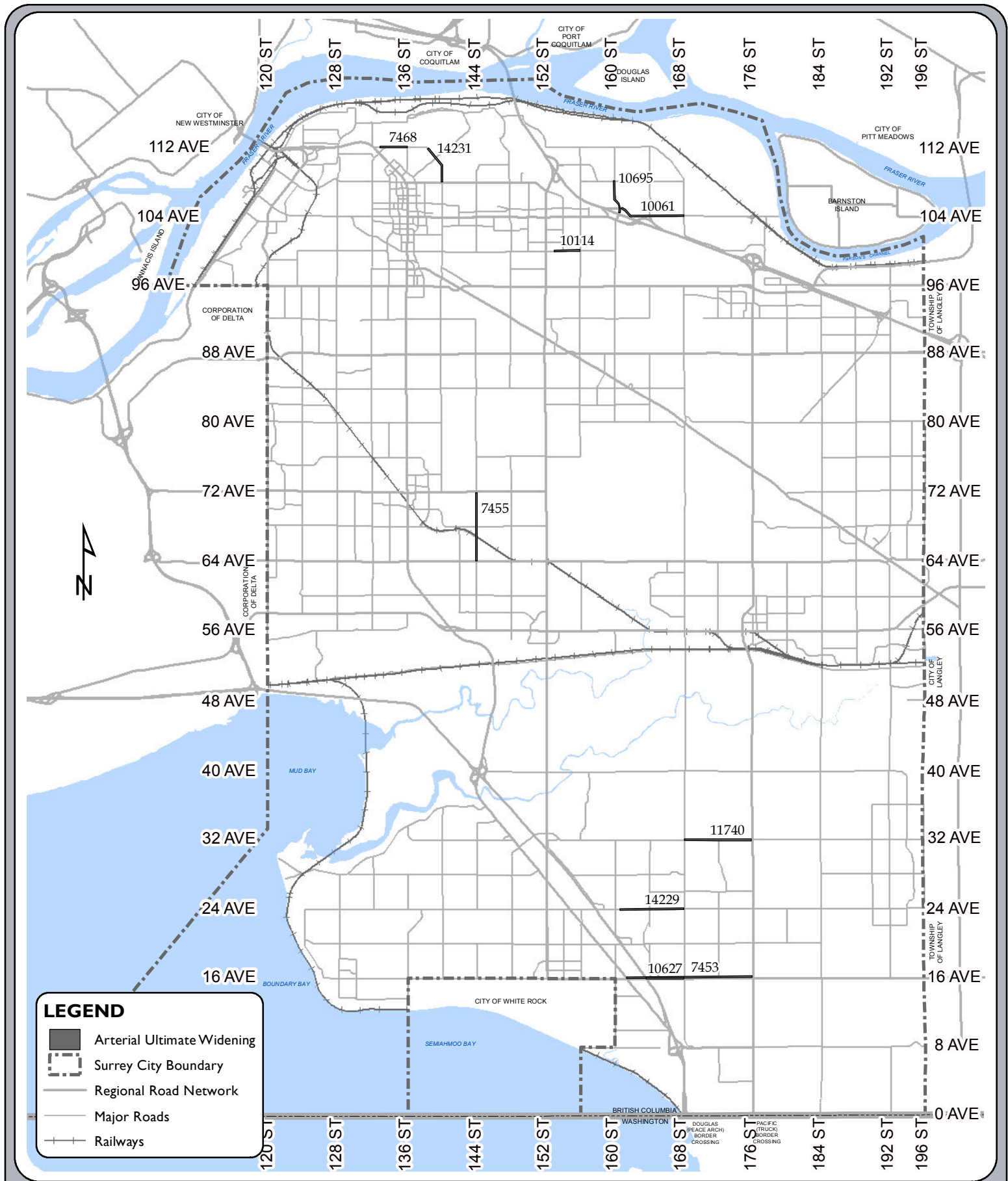
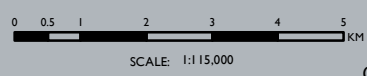


FIGURE 10.3 - Transportation Arterial Interim Widening (Program 1004)



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TRANSPORTATION

Program 1004 - Arterial Interim Widening

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
7441	Arterial Median Projects	Various Locations	Annual	2,000,000	2,000,000	-	-
7453	Arterial Interim Widening	016 Ave: 168 St - 176 St	Medium Term (4 - 6 Yrs)	5,600,000	2,800,000	-	2,800,000
7455	Arterial Interim Widening	144 St: 064 Ave - 072 Ave	Medium Term (4 - 6 Yrs)	5,600,000	5,600,000	-	-
7468	Arterial Interim Widening	112 Ave: 133 St - 13600 blk	Long Term (7 - 10 Yrs)	3,500,000	3,500,000	-	-
10061	Arterial Interim Widening	104 Ave: 160 St - 168 St	Long Term (7 - 10 Yrs)	5,600,000	5,600,000	-	-
10114	Arterial Interim Widening	100 Ave: 153 St - 156 St	Medium Term (4 - 6 Yrs)	2,100,000	2,100,000	-	-
10627	Arterial Interim Widening (50% share w/ ID 10636)	016 Ave: Hwy 99 - 168 St	Long Term (7 - 10 Yrs)	6,000,000	1,500,000	-	4,500,000
10695	Arterial Interim Widening	160 St: 104 Ave - 108 Ave	Long Term (7 - 10 Yrs)	2,800,000	2,800,000	-	-
11740	Arterial Interim Widening	032 Ave: 168 St - 176 St	Long Term (7 - 10 Yrs)	5,600,000	5,600,000	-	-
14229	Arterial Interim Widening	024 Ave: 161 St - 168 St	Short Term (1 - 3 Yrs)	4,900,000	4,900,000	-	-
14231	Arterial Interim Widening	Hansen Rd: 112 Ave - 108 Ave	Long Term (7 - 10 Yrs)	3,500,000	3,500,000	-	-
14244	Arterial Minor Projects	Various Locations	Annual	5,000,000	3,350,000	1,650,000	-
				52,200,000	43,250,000	1,650,000	7,300,000

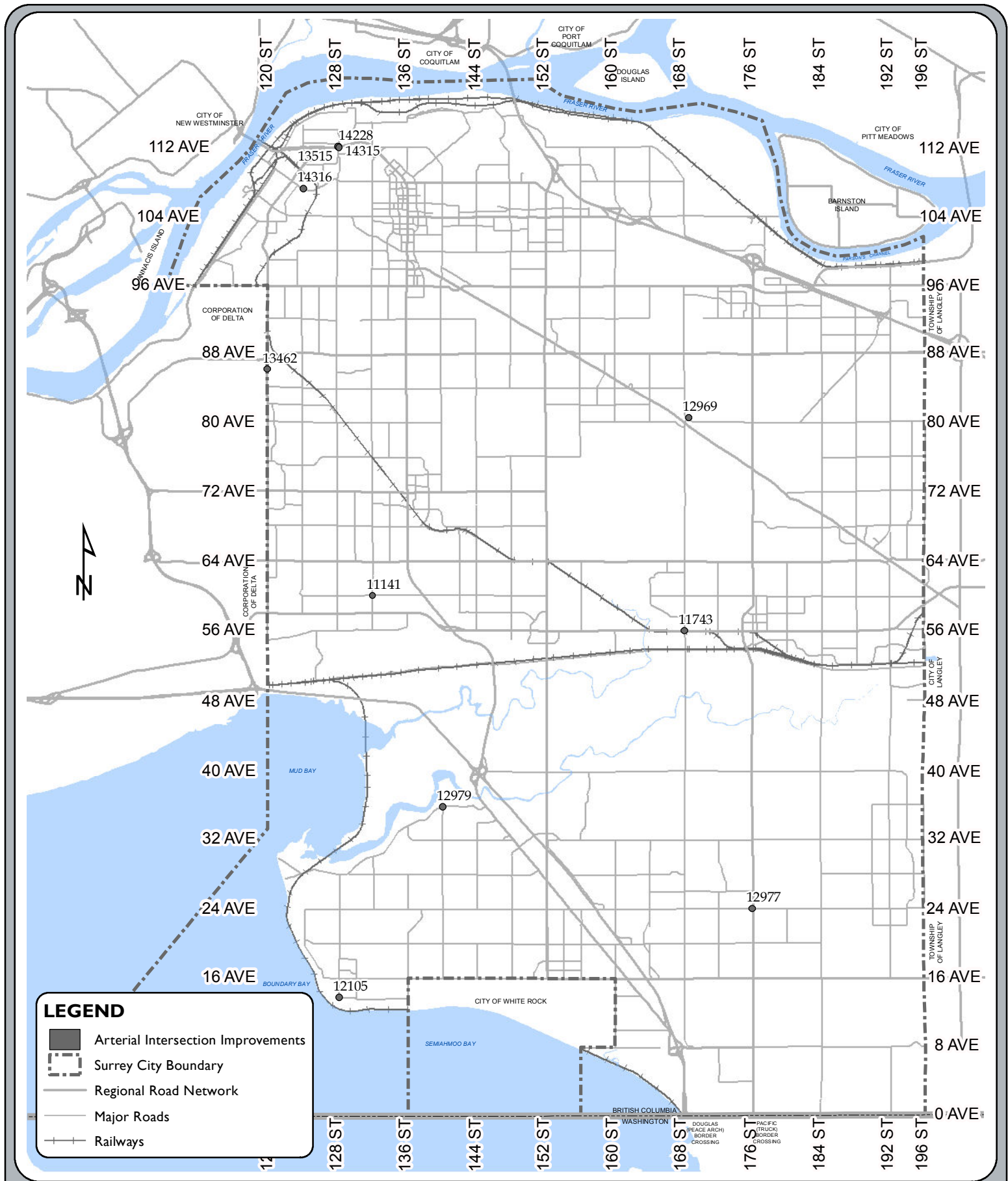


FIGURE 10.4 - Transportation
Arterial Intersection Improvements (Program 1012)

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 Date Printed: 05/12/2013 Cartographer: aw8 © City of Surrey
 Source: G:\MAPPING\GIS\Maps\Recurring\10yr\ServicingPlan2014-23\Figure 10-4-Transportation.mxd

TRANSPORTATION

Program 1012 - Arterial Intersection Improvements

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10075	Arterial Intersection Improvements	Various Locations	Annual	22,000,000	22,000,000	-	-
11141	Arterial Intersection Improvements	060 Ave / 132 St	Medium Term (4 - 6 Yrs)	1,200,000	1,200,000	-	-
11743	Arterial Intersection Improvements	Hwy 10 / 168 St	Short Term (1 - 3 Yrs)	3,500,000	3,500,000	-	-
12105	Arterial Intersection Improvement	128 St / Marine Dr (Kwomais Park)	Short Term (1 - 3 Yrs)	450,000	450,000	-	-
12969	Arterial Intersection Improvement	080 Ave / 168 St South of Fraser Hwy	Short Term (1 - 3 Yrs)	1,500,000	1,500,000	-	-
12977	Arterial Intersection Improvement	024 Ave / Hwy 15	Short Term (1 - 3 Yrs)	1,500,000	750,000	-	750,000
12979	Arterial Intersection Improvement	Crescent Rd / 140 St	Long Term (7 - 10 Yrs)	1,500,000	1,500,000	-	-
13462	Arterial Intersection Improvement	Scott Rd / 86 Ave	Short Term (1 - 3 Yrs)	450,000	450,000	-	-
13515	Left Turn Bay Extension	King George Blvd / 128 St (Eastbound)	Short Term (1 - 3 Yrs)	825,000	825,000	-	-
14228	Arterial Intersection Improvements	Bridgeview Dr / King George Blvd	Short Term (1 - 3 Yrs)	1,500,000	1,500,000	-	-
14315	Arterial Intersection Improvement	128 St: King George Blvd (South)	Short Term (1 - 3 Yrs)	825,000	825,000	-	-
14316	Arterial Intersection Improvement	Old Yale Rd at 124 Street	Short Term (1 - 3 Yrs)	600,000	600,000	-	-
				35,850,000	35,100,000	-	750,000

TRANSPORTATION

Program 1018 - Arterial Bridges

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
7494	Replace Crossing	152 St / Nicomekl River	Long Term (7 - 10 Yrs)	10,000,000	5,000,000	-	5,000,000
11745	Replace Crossing	King George Blvd / Bear Creek	Short Term (1 - 3 Yrs)	3,000,000	1,000,000	2,000,000	-
11747	Replace Crossing	Colebrook Rd / Anderson Creek	Long Term (7 - 10 Yrs)	3,000,000	1,500,000	1,500,000	-
14247	New Crossing	020 Ave / Hwy 99	Long Term (7 - 10 Yrs)	10,000,000	5,000,000	-	5,000,000
				26,000,000	12,500,000	3,500,000	10,000,000

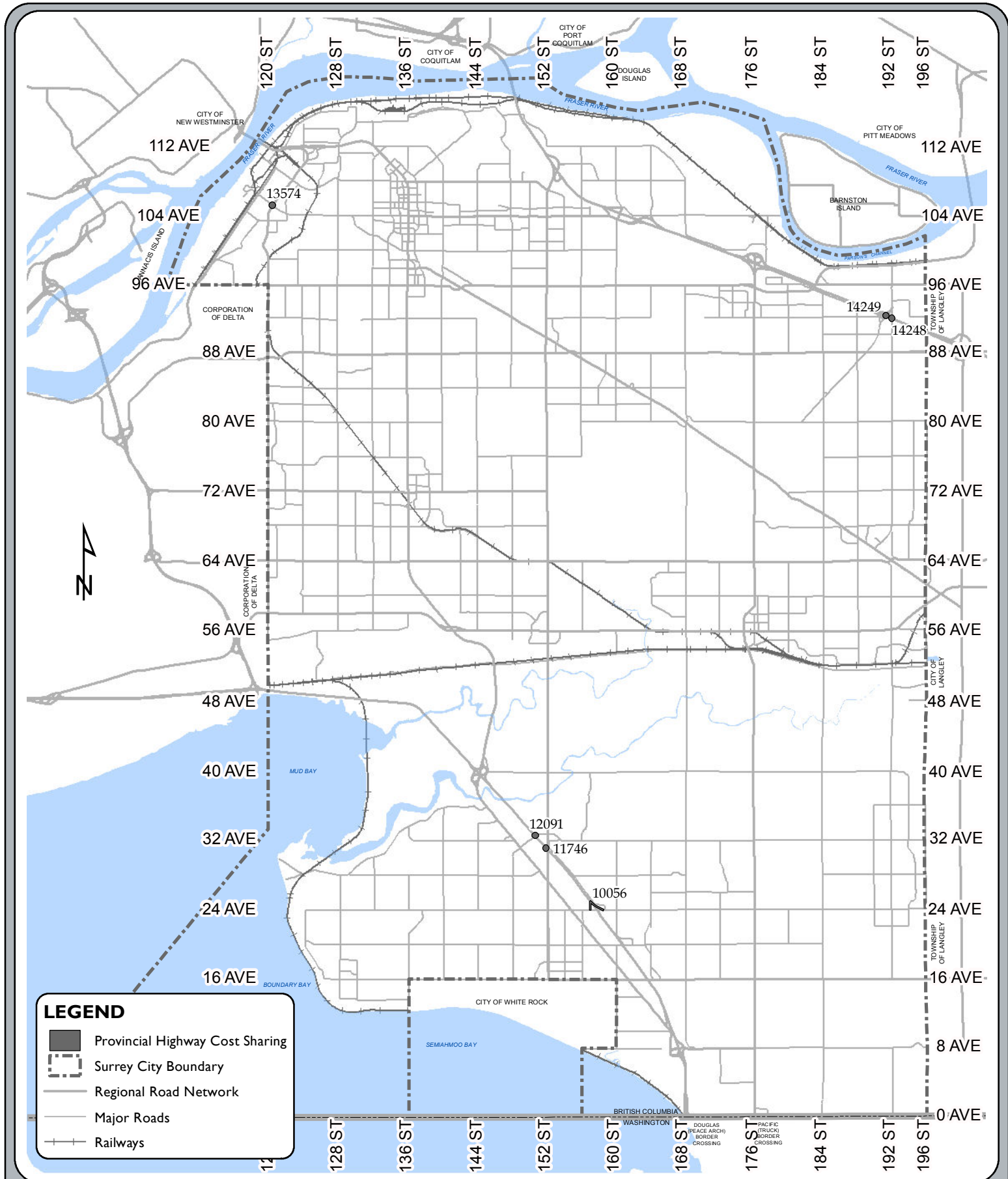


FIGURE 10.6 - Transportation
Provincial Highway Cost Sharing (Program 1020)

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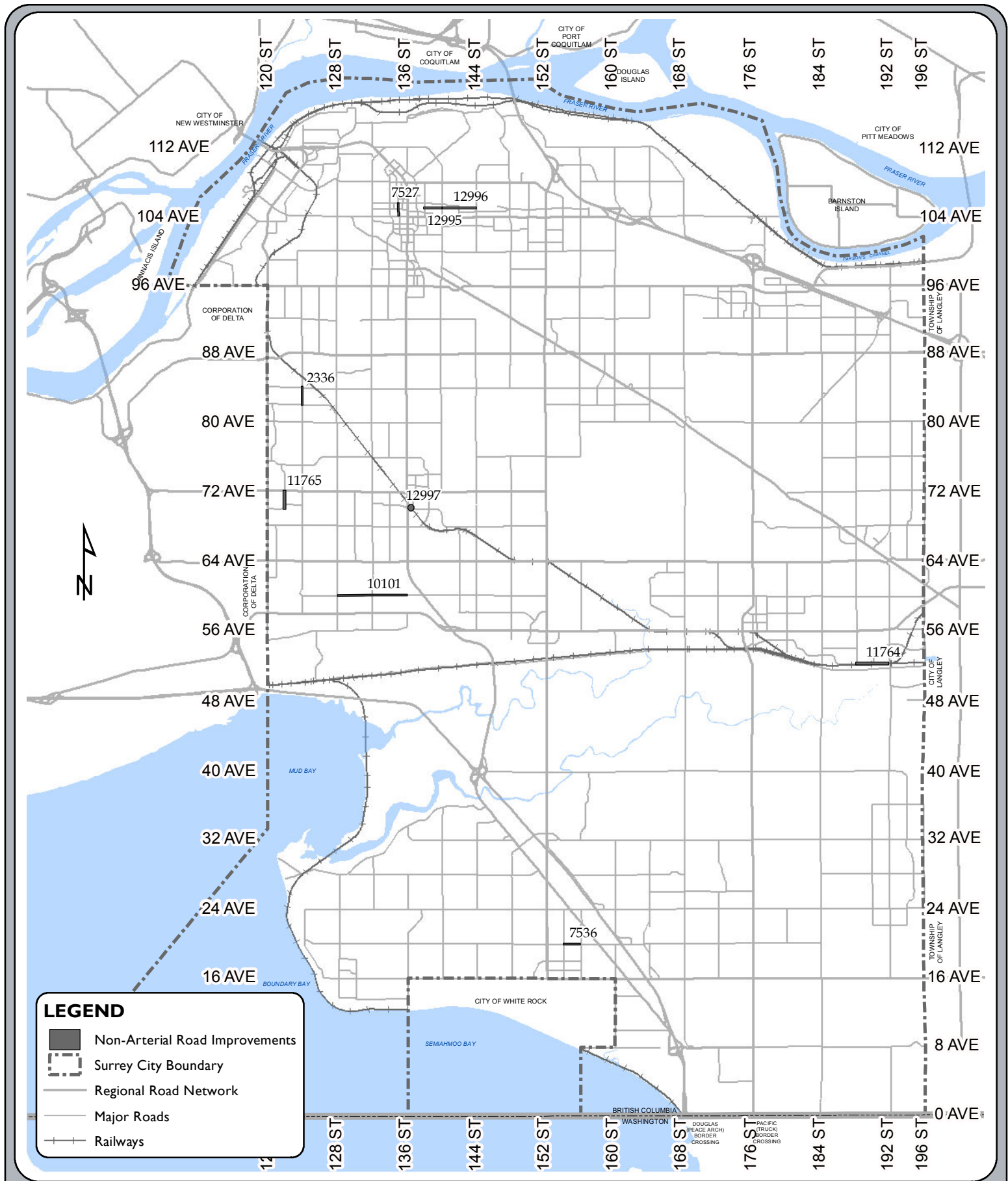
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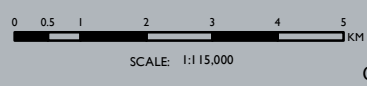
TRANSPORTATION

Program 1020 - Provincial Highway Cost Sharing

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10056	New Arterial Construction On-Ramps	Hwy 99 / 024 Ave (North Facing Ramps)	Medium Term (4 - 6 Yrs)	5,000,000	2,500,000	-	2,500,000
11746	Replace and Widen Crossing	152 St / Hwy 99	Long Term (7 - 10 Yrs)	16,000,000	4,000,000	1,440,000	10,560,000
11751	Coordinated Works	Various Locations	Annual	5,000,000	5,000,000	-	-
12091	Southbound Exit Upgrade	032 Ave / Hwy 99	Short Term (1 - 3 Yrs)	7,500,000	3,000,000	-	4,500,000
13574	Arterial Intersection Improvement	Tannery Rd / Scott Rd	Short Term (1 - 3 Yrs)	2,500,000	875,000	-	1,625,000
14248	Overpass	192 St / Hwy 1	Annual	12,000,000	6,000,000	-	6,000,000
14249	Interchange Ramps	192 St / Hwy 1	Long Term (7 - 10 Yrs)	12,000,000	-	-	12,000,000
				60,000,000	21,375,000	1,440,000	37,185,000



**FIGURE 10.7 - Transportation
Non-Arterial Road Improvements (Program 1030)**



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TRANSPORTATION

Program 1030 - Non-Arterial Road Improvements

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
2336	Collector Widening	124 St: 082 Ave - 084 Ave	Medium Term (4 - 6 Yrs)	1,400,000	1,400,000	-	-
7527	New Collector Construction	135 St (City Parkway): 104 Ave - 105 Ave	Medium Term (4 - 6 Yrs)	1,000,000	1,000,000	-	-
7536	Collector Widening	020 Ave: 152 St - King George Blvd	Long Term (7 - 10 Yrs)	4,200,000	4,200,000	-	-
7540	Collector Widening	084 Ave: 166 St - 168 St	Medium Term (4 - 6 Yrs)	1,000,000	1,000,000	-	-
10101	Collector Widening	060 Ave: 128 St - 136 St (North)	Long Term (7 - 10 Yrs)	2,000,000	2,000,000	-	-
10110	Collector Widening	060 Ave: 136 St - King George Blvd	Medium Term (4 - 6 Yrs)	1,000,000	1,000,000	-	-
11764	Collector Widening	052 Ave: 188 St - 190 St (South)	Short Term (1 - 3 Yrs)	1,500,000	1,500,000	-	-
11765	Collector Widening	122 St: 070 Ave - 072 Ave	Short Term (1 - 3 Yrs)	1,000,000	1,000,000	-	-
12148	Collector Intersection Improvements	Various Locations	Annual	2,500,000	2,500,000	-	-
12995	New Collector Construction	105A Ave: 138 St - 140 St	Medium Term (4 - 6 Yrs)	2,000,000	2,000,000	-	-
12996	New Collector Construction	105A Ave / 104A Ave: 140 St - 144 St	Long Term (7 - 10 Yrs)	4,500,000	4,500,000	-	-
12997	New Collector Construction	070A Ave : King George Blvd - 136B St	Long Term (7 - 10 Yrs)	900,000	900,000	-	-
13000	Collector Widening	148 St: 064 Ave - 068 Ave	Short Term (1 - 3 Yrs)	2,800,000	2,800,000	-	-
13001	Collector Widening	148 St : 068 Ave - 071 Ave	Short Term (1 - 3 Yrs)	2,100,000	2,100,000	-	-
14252	Collector Widening	Various Locations	Annual	6,000,000	6,000,000	-	-
14253	Collector Property Acquisition	Various Locations	Annual	10,000,000	6,000,000	4,000,000	-
14305	Collector Development Coordinated Works	Various Locations	Annual	5,000,000	4,000,000	1,000,000	-
				48,900,000	43,900,000	5,000,000	-

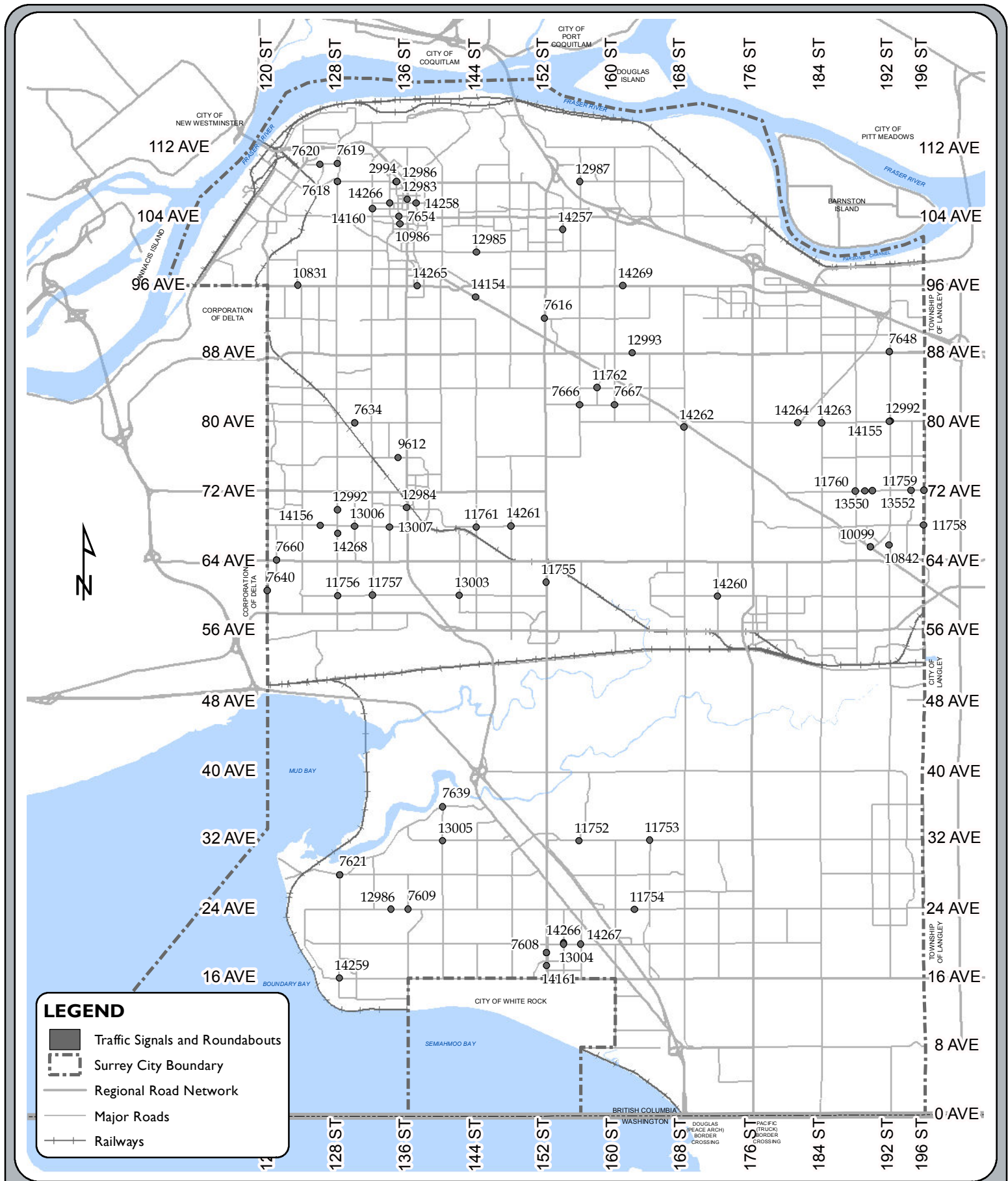


FIGURE 10.8 - Transportation
Traffic Signals and Roundabouts (Program 1102)

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TRANSPORTATION

Program 1102 - Traffic Signals and Roundabouts

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
2994	Traffic Signal	108 Ave / City Parkway	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
7608	Traffic Signal	019 Ave / 152 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7609	Pedestrian Signal	024 Ave / 136 St	Short Term (1 - 3 Yrs)	150,000	150,000	-	-
7616	Traffic Signal	092 Ave / 152 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
7618	Traffic Signal	108 Ave / 128 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7619	Traffic Signal	110 Ave / 128 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7620	Traffic Signal	110 Ave / 126 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7621	Traffic Signal	Crescent Rd / 128 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7634	Traffic Signal	080 Ave / 130 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
7639	Traffic Signal	Crescent Rd / 140 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7644	Traffic Signal	King George Blvd / 2800 blk	Medium Term (4 - 6 Yrs)	200,000	200,000	-	-
7648	Traffic Signal	088 Ave / 192 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7649	Traffic Signal	088 Ave / Harvie Rd	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7660	Traffic Signal	064 Ave / 121 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
7666	Roundabout	082 Ave / 156 St	Short Term (1 - 3 Yrs)	500,000	500,000	-	-
7667	Roundabout	082 Ave / 160 St	Short Term (1 - 3 Yrs)	500,000	500,000	-	-
8035	Traffic Signal	Various Locations	Annual	1,000,000	-	1,000,000	-
9612	Traffic Signal	076 Ave / 135 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
10099	Traffic Signal	Fraser Hwy / 192 St Diversion	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
10831	Traffic Signal	096 Ave / 123A St (Conversion)	Medium Term (4 - 6 Yrs)	100,000	100,000	-	-
10842	Traffic Signal	065 Ave / 192 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
10986	Traffic Signal	103 Ave / 135 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
11752	Traffic Signal	032 Ave / 156A St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
11753	Traffic Signal	032 Ave / 164 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
11754	Traffic Signal	024 Ave / 164 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
11755	Traffic Signal	062 Ave / 152 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
11756	Traffic Signal	060 Ave / 128 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
11757	Traffic Signal	060 Ave / 132 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
11758	Traffic Signal	068 Ave / 196 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
11759	Traffic Signal	072 Ave / 196 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
11760	Traffic Signal	072 Ave / 188 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
11761	Traffic Signal	068 Ave / 144 St	Medium Term (4 - 6 Yrs)	200,000	200,000	-	-
11762	Traffic Signal	084 Ave / 158 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
12983	Traffic Signal	106 Ave / King George Blvd	Medium Term (4 - 6 Yrs)	200,000	200,000	-	-
12984	Traffic Signal	070A Ave / King George Blvd	Medium Term (4 - 6 Yrs)	200,000	200,000	-	-
12985	Traffic Signal	100 Ave / 144 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
12986	Pedestrian Signal	024 Ave / 134 St	Short Term (1 - 3 Yrs)	150,000	150,000	-	-

TRANSPORTATION

Program 1102 - Traffic Signals and Roundabouts

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
12987	Traffic Signal	108 Ave / 156 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
12992	Traffic Signal	070 Ave / 128 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
13003	Roundabout	060 Ave / 142 St	Medium Term (4 - 6 Yrs)	500,000	500,000	-	-
13004	Traffic Signal	020 Ave / 154 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
13005	Roundabout	032 Ave / 140 St	Long Term (7 - 10 Yrs)	500,000	500,000	-	-
13006	Traffic Signal	068 Ave / 130 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
13007	Traffic Signal	068 Ave / 134 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
13052	ITS Improvements	Various Locations	Annual	3,000,000	-	3,000,000	-
13053	Traffic Signal	Various Locations	Annual	12,000,000	-	3,000,000	9,000,000
13550	Traffic Signal	072 Ave / 189 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
13551	Traffic Signal	072 Ave / 190 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
13552	Traffic Signal	072 Ave / 194A St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14154	Traffic Signal	Fraser Hwy / 144 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14155	Traffic Signal	080 Ave / 192 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14156	Traffic Signal	068 Ave / 126 St	Short Term (1 - 3 Yrs)	300,000	300,000	-	-
14160	Pedestrian Signal	132 St at 105 Ave	Short Term (1 - 3 Yrs)	150,000	150,000	-	-
14161	Pedestrian Signal	152 St / 17A Ave	Long Term (7 - 10 Yrs)	150,000	150,000	-	-
14255	Pedestrian Signal	Various Locations	Annual	2,500,000	2,500,000	-	-
14256	Traffic Signal	Various Locations	Annual	4,000,000	4,000,000	-	-
14257	Traffic Signal	102A Ave / 154 St	Medium Term (4 - 6 Yrs)	100,000	100,000	-	-
14258	Traffic Signal	105A Ave / Whalley Blvd	Medium Term (4 - 6 Yrs)	200,000	200,000	-	-
14259	Traffic Signal	016 Ave / 128 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
14260	Traffic Signal	060 Ave / 172 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14261	Traffic Signal	068 Ave / 148 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14262	Traffic Signal	080 Ave / 168 St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14263	Traffic Signal	080 Ave / 184 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
14264	Traffic Signal	080 Ave / Harvie Rd	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
14265	Traffic Signal	096 Ave / 137A St	Short Term (1 - 3 Yrs)	200,000	200,000	-	-
14266	Pedestrian Signal	105A Ave / University Blvd	Short Term (1 - 3 Yrs)	150,000	150,000	-	-
14267	Traffic Signal	020 Ave / 156 St	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
14268	Pedestrian Signal	067A Ave / 128 St	Short Term (1 - 3 Yrs)	150,000	150,000	-	-
14269	Pedestrian Signal	096 Ave / 161 St	Medium Term (4 - 6 Yrs)	150,000	150,000	-	-
14345	Activated Flashing Crosswalks	Various Locations	Annual	4,000,000	4,000,000	-	-
				40,050,000	24,050,000	7,000,000	9,000,000

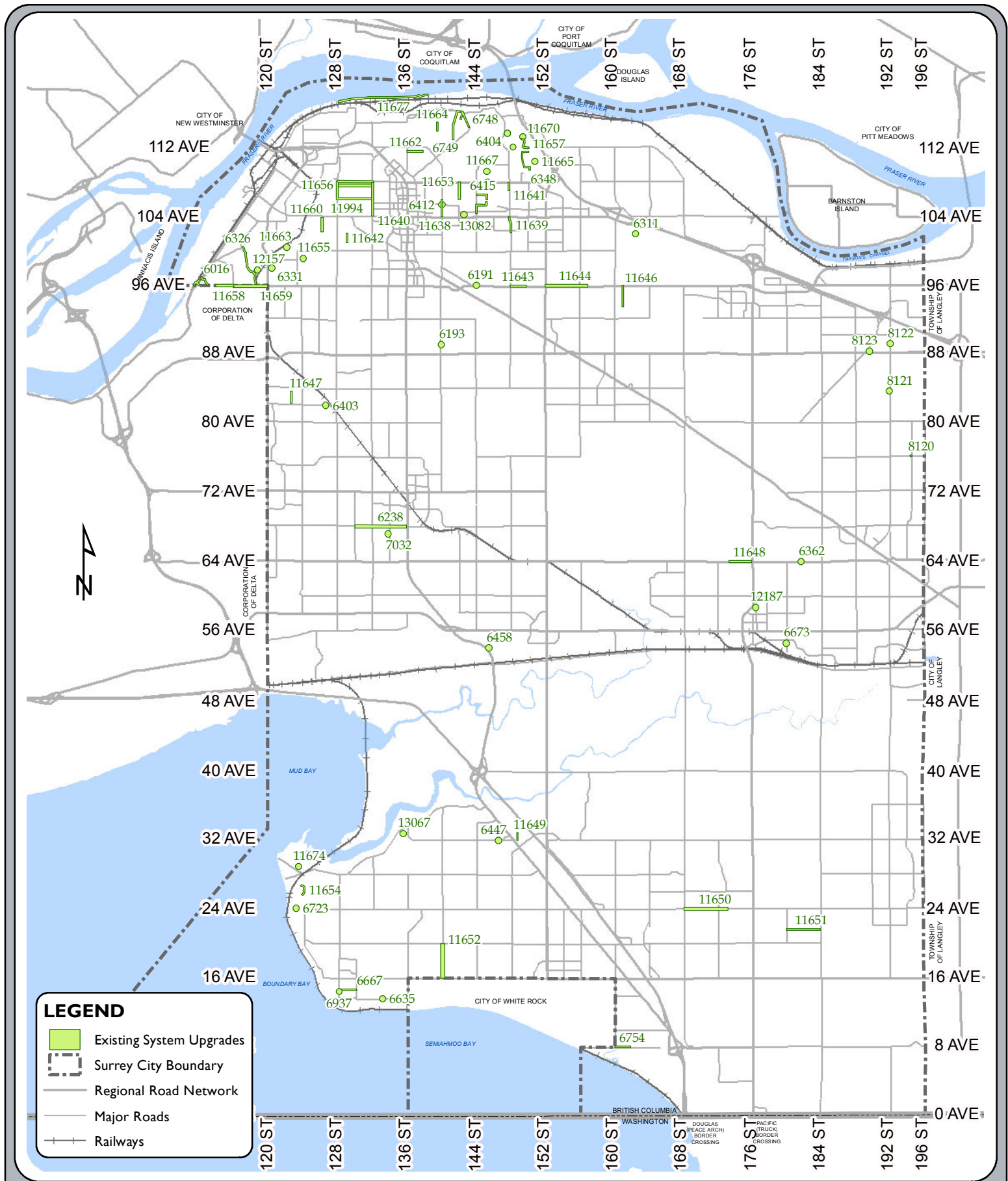


FIGURE 10.9 - Drainage Existing System Upgrades (Program 1662)

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DRAINAGE

Program 1662 - Existing System Upgrades

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
6013	Armstrong Creek Culvert Upgrades	Armstrong Creek	Short Term (1 - 3 Yrs)	338,000	-	338,000	-
6016	Shadow Brook and Armstrong Creek Improvement	Shadow Brook: River Rd / 096 Ave	Medium Term (4 - 6 Yrs)	388,000	-	388,000	-
6191	Headwall Repair	King Cr : Fraser and 96 Ave	Long Term (7 - 10 Yrs)	10,000	-	10,000	-
6193	Headwall Repair	8881 140 St - King Cr: 88 ave and 90 ave	Short Term (1 - 3 Yrs)	20,000	-	20,000	-
6238	Pipe Upgrade: 1200m	068 Ave: 130 St - KG Hwy	Long Term (7 - 10 Yrs)	244,000	24,000	220,000	-
6311	Culvert Upgrade: 12m of 1,200mm diameter	102 Ave / 162A St	Long Term (7 - 10 Yrs)	20,000	-	20,000	-
6326	Delta Creek Ravine protection	118 St 96 - River Rd (100 Ave)	Medium Term (4 - 6 Yrs)	791,000	160,000	631,000	-
6331	Culvert Upgrade	120A St - 98 Ave	Long Term (7 - 10 Yrs)	133,000	27,000	106,000	-
6348	Pipe Upgrade: 656m of 600mm diameter	Partridge from Canary to Pheasant Dr	Long Term (7 - 10 Yrs)	570,000	29,000	541,000	-
6358	Ellendale Crossing: 45m of 900mm diameter	Ellendale Dr / Glen Ave	Long Term (7 - 10 Yrs)	40,000	-	40,000	-
6362	Culvert Upgrade	064 Ave / 181B St	Long Term (7 - 10 Yrs)	50,000	-	50,000	-
6403	Trunk Upgrade: 1200mm diameter	082 Ave: 126 - 127 St	Long Term (7 - 10 Yrs)	25,000	5,000	20,000	-
6404	Wallace Creel Outlet Improvements	Wellington Dr. / Wallace Cr.	Long Term (7 - 10 Yrs)	60,000	-	60,000	-
6412	172m of 450mm and 600 mm diameter	140 St 105 - 105A Ave	Long Term (7 - 10 Yrs)	119,200	11,920	107,280	-
6413	Pipe Upgrade: 428m of 600mm diameter	105A Ave: 144 - 145 St	Long Term (7 - 10 Yrs)	302,700	30,200	272,500	-
6415	Pipe Upgrade: 129m of 600mm diameter	106A Ave: 145 - 144 St	Long Term (7 - 10 Yrs)	102,000	10,200	91,800	-
6447	Pipe Upgrade: 100m of 600mm diameter	032 Ave: 146 -145A St	Long Term (7 - 10 Yrs)	53,000	-	53,000	-
6458	Culvert Replacement Crossing	054 Ave / E of King George Hwy	Medium Term (4 - 6 Yrs)	40,000	-	40,000	-
6635	Pipe Upgrade: 675mm diameter	Marine Dr: 132B St - Knudson Creek	Long Term (7 - 10 Yrs)	77,400	4,000	73,400	-
6667	Storm System Performance Review	14A Ave: 130 - 128 St	Long Term (7 - 10 Yrs)	5,000	-	5,000	-
6673	Trunk Upgrade: 220m of 1350mm diameter	180 St: 054 - 055 Ave	Medium Term (4 - 6 Yrs)	320,000	-	320,000	-
6723	Pipe Upgrade: 1350mm diameter	024 Ave / Harbourgreene Dr	Long Term (7 - 10 Yrs)	212,000	11,000	201,000	-
6748	Wellington Drive Diversion Sewer	McBride Dr: Grosvenor Rd. - King Rd	Short Term (1 - 3 Yrs)	1,000,000	200,000	800,000	-
6749	Alexandra Creek Diversion	Grosvenor Rd: 141A St - 141A St / King Rd	Short Term (1 - 3 Yrs)	1,000,000	200,000	800,000	-
6754	Ditch: 350m of 600mm diameter	8th Ave: 160 - 161	Long Term (7 - 10 Yrs)	200,000	-	200,000	-
6937	New Pipe: 115m of 600mm diameter	128 St: 014A - 014 Ave	Long Term (7 - 10 Yrs)	70,000	-	70,000	-
7032	Pipe Upgrade: 195m	067A Ave: 133 - 134 St	Long Term (7 - 10 Yrs)	39,000	2,000	37,000	-
8120	Upgrade Existing Culvert (650mm to 1000mm)	Latimer Creek Trib: 076 Ave / 194 St	Long Term (7 - 10 Yrs)	25,000	22,500	2,500	-
8121	Upgrade Existing Culvert (850mm to 1200mm)	Latimer Creek Trib: 192 St / 084 Ave	Long Term (7 - 10 Yrs)	25,000	22,500	2,500	-
8122	Upgrade Existing Culvert (600mm to 1000mm)	Bartesko Brook (129 St and 89 Ave)	Long Term (7 - 10 Yrs)	25,000	22,500	2,500	-
8123	Upgrade Existing Culvert (700mm to 1500mm)	Old Sawmill Creek: 088 Ave / 190 St	Long Term (7 - 10 Yrs)	25,000	22,500	2,500	-
11638	Storm Sewer Upgrade	140 St: 104 - 106 Ave	Long Term (7 - 10 Yrs)	250,000	-	250,000	-
11639	Storm Sewer Upgrade	148 St: Halsted Pl - 104Ave	Long Term (7 - 10 Yrs)	840,422	-	840,422	-
11640	Storm Sewer Upgrade	132 St: 104 - 108Ave	Long Term (7 - 10 Yrs)	592,843	-	592,843	-
11641	Storm Sewer Upgrade	148 St to 150 St: 107 - 108 Ave and Raven Pl	Long Term (7 - 10 Yrs)	518,788	-	518,788	-
11642	Storm Sewer Upgrade	129 St to 129A St; from 102 Ave to 103A Ave	Long Term (7 - 10 Yrs)	334,765	-	334,765	-
11643	Storm Sewer Upgrade	096 Ave: 148 St - 14979	Long Term (7 - 10 Yrs)	208,219	-	208,219	-
11644	Storm Sewer Upgrade	096Ave: 152 - 157St	Long Term (7 - 10 Yrs)	998,455	-	998,455	-

DRAINAGE

Program 1662 - Existing System Upgrades

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
11646	Storm Sewer Upgrade	160 St to 162 St: 93A Ave to 96 Ave	Long Term (7 - 10 Yrs)	418,347	-	418,347	-
11647	Storm Sewer Upgrade	122A St to 125 St: 82 Ave to 83A Ave	Long Term (7 - 10 Yrs)	228,971	-	228,971	-
11648	Storm Sewer Upgrade	63A Ave to 64 Ave: 173A - 176St	Long Term (7 - 10 Yrs)	433,888	-	433,888	-
11649	Storm Sewer Upgrade	148A St: 033 - 032Ave	Long Term (7 - 10 Yrs)	173,719	-	173,719	-
11650	Storm Sewer Upgrade	024 Ave: 168 St to 17331-24 Ave	Long Term (7 - 10 Yrs)	493,741	-	493,741	-
11651	Storm Sewer Upgrade	21A Ave: 180 - 184St	Long Term (7 - 10 Yrs)	278,829	-	278,829	-
11652	Storm Sewer Upgrade	139 St to 140 St: 16 to 20 Ave	Long Term (7 - 10 Yrs)	548,176	-	548,176	-
11653	Storm Sewer Upgrade	142 St: 106 Ave to 108 Ave	Long Term (7 - 10 Yrs)	179,745	-	179,745	-
11654	Storm Sewer Upgrade	Dogwood Dr: From Crescent - Cedar Dr	Long Term (7 - 10 Yrs)	276,759	-	276,759	-
11655	Storm Sewer Upgrade	124 St to 127 St: 97B Ave to 100 Ave	Long Term (7 - 10 Yrs)	709,468	-	709,468	-
11656	Storm Sewer Upgrade	106A Ave to 107 Ave: Old Yale Rd - 132 St	Long Term (7 - 10 Yrs)	709,306	-	709,306	-
11657	Storm Sewer Upgrade	Kew Dr to Glen Avon Dr: 150 St - Loughren Dr	Long Term (7 - 10 Yrs)	586,328	-	586,328	-
11658	Storm Sewer Upgrade	96A Ave to 97A Ave: 116 St - Townline Div	Long Term (7 - 10 Yrs)	422,625	-	422,625	-
11659	Storm Sewer Upgrade	96A Ave to 99A Ave: 116 St - 120 St	Long Term (7 - 10 Yrs)	841,766	-	841,766	-
11660	Storm Sewer Upgrade	124 St to 127A St: 100 Ave to 104 Ave	Long Term (7 - 10 Yrs)	1,458,804	-	1,458,804	-
11662	Storm Sewer Upgrade	Grosvenor Rd to 111A Ave: 136 St - Brentwood Cr	Long Term (7 - 10 Yrs)	355,753	-	355,753	-
11663	Storm Sewer Upgrade	122 St: 100A -100Ave	Long Term (7 - 10 Yrs)	73,198	-	73,198	-
11664	Storm Sewer Upgrade	139 St to 140 St: 113A Ave to 115 Ave	Long Term (7 - 10 Yrs)	299,956	-	299,956	-
11665	East Bon Accord Phase 2 and 4	107A Ave to Pheasant Dr from 148A St to Canary Dr	Long Term (7 - 10 Yrs)	8,680,000	-	8,680,000	-
11667	Storm Sewer Upgrade	108 Ave to 110 Ave : 145 St to 146 St	Long Term (7 - 10 Yrs)	1,000,000	-	1,000,000	-
11670	East Bon Accord Peak Flow Diversion	Glen Avon Dr - 150 St (North Birdland)	Short Term (1 - 3 Yrs)	2,250,000	-	2,250,000	-
11674	Crescent Beach Drainage Improvements	Crescent Beach	Long Term (7 - 10 Yrs)	6,500,000	-	6,500,000	-
11677	Fraser River Dyke Improvement	Vancouver Fraser Port Authority (VFPA) Land	Long Term (7 - 10 Yrs)	1,200,000	-	1,200,000	-
11994	Upland Pattullo and Bolivar Drainage Works	108 Ave - 132 St - 106 Ave - 128 St	Short Term (1 - 3 Yrs)	3,000,000	-	3,000,000	-
12157	Storm Sewer Extension	118B Street: 98Ave to 97A Ave	Medium Term (4 - 6 Yrs)	70,000	-	70,000	-
12187	Drainage Improvement	176A St: lot 5871 ROW	Medium Term (4 - 6 Yrs)	50,000	-	50,000	-
12857	Existing infrastructure and Culvert Upgrades	179 St and 188 and 20 to 32 Ave	NCP Driven	1,335,714	1,335,714	-	-
13067	Fish Ladder Improvements	Crescent Rd: lot 13568	Short Term (1 - 3 Yrs)	100,000	-	100,000	-
13082	East Bon Accord Creek Drainage Improvements	104 Ave (North) at 14400 BLk	Medium Term (4 - 6 Yrs)	4,200,000	500,000	3,700,000	-
				46,947,885	2,640,034	44,307,851	-

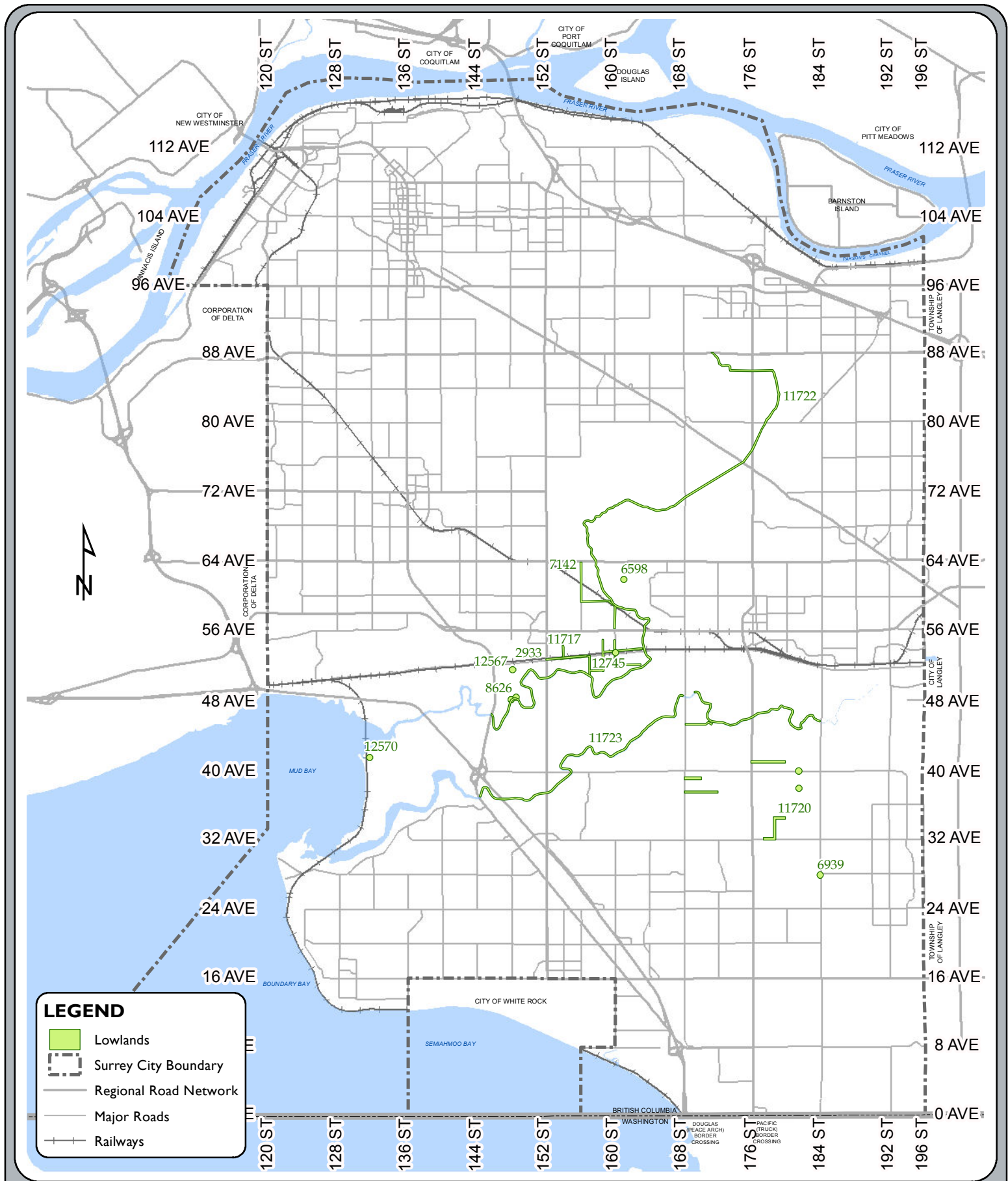
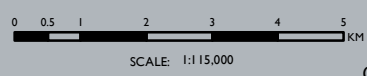


FIGURE 10.10 - Drainage Lowlands (Program 1664)



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DRAINAGE

Program 1664 - Lowlands

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
2933	Ditch Widening	Colebrook Rd (North): 152 - 157 St	Short Term (1 - 3 Yrs)	5,000	-	5,000	-
6598	North Cloverdale Pump Station (Area F)	Serpentine Canal / 062 Ave	Medium Term (4 - 6 Yrs)	2,359,000	471,800	1,887,200	-
6939	39m of 1200mm diameter	027A Ave: 184 St	Long Term (7 - 10 Yrs)	50,000	-	50,000	-
7142	Hook Brook Drainage Improvements	Various Locations	Medium Term (4 - 6 Yrs)	2,443,000	488,600	1,954,400	-
8626	Pump Station Upgrades	048 Ave / 148 St (North of Serpentine River)	Medium Term (4 - 6 Yrs)	650,000	550,000	100,000	-
11717	Gray Creek Conveyance Works	Various Locations	Medium Term (4 - 6 Yrs)	1,900,000	380,000	1,520,000	-
11720	Erickson/Burrow Conveyance Works	Erickson / Burrow	Long Term (7 - 10 Yrs)	1,250,000	250,000	1,000,000	-
11722	Serpentine River Dyking	Serpentine River: Sea Dam to 088 Avenue	Short Term (1 - 3 Yrs)	3,466,711	693,342	2,773,369	-
11723	Nicomekl River Dyking	Nicomekl River: Sea Dam to 184 Street	Short Term (1 - 3 Yrs)	1,100,000	220,000	880,000	-
12567	Panorama Conveyance Works	Various Locations	Short Term (1 - 3 Yrs)	2,700,000	540,000	2,160,000	-
12570	Dyking District Erosion Project	Various Locations	Annual	5,000,000	1,000,000	4,000,000	-
12745	Grey Creek Conveyance Project	160 St / Colebrook Rd	Short Term (1 - 3 Yrs)	500,000	100,000	400,000	-
13451	Spillway Construction	Various Locations	Short Term (1 - 3 Yrs)	200,000	40,000	160,000	-
13456	Old Logging Ditch Detailed Design	Old Logging Ditch	Short Term (1 - 3 Yrs)	2,180,500	436,000	1,744,500	-
13457	Emergency Dyke Repair Designs	Various Locations	Annual	1,000,000	-	1,000,000	-
				24,804,211	5,169,742	19,634,469	-

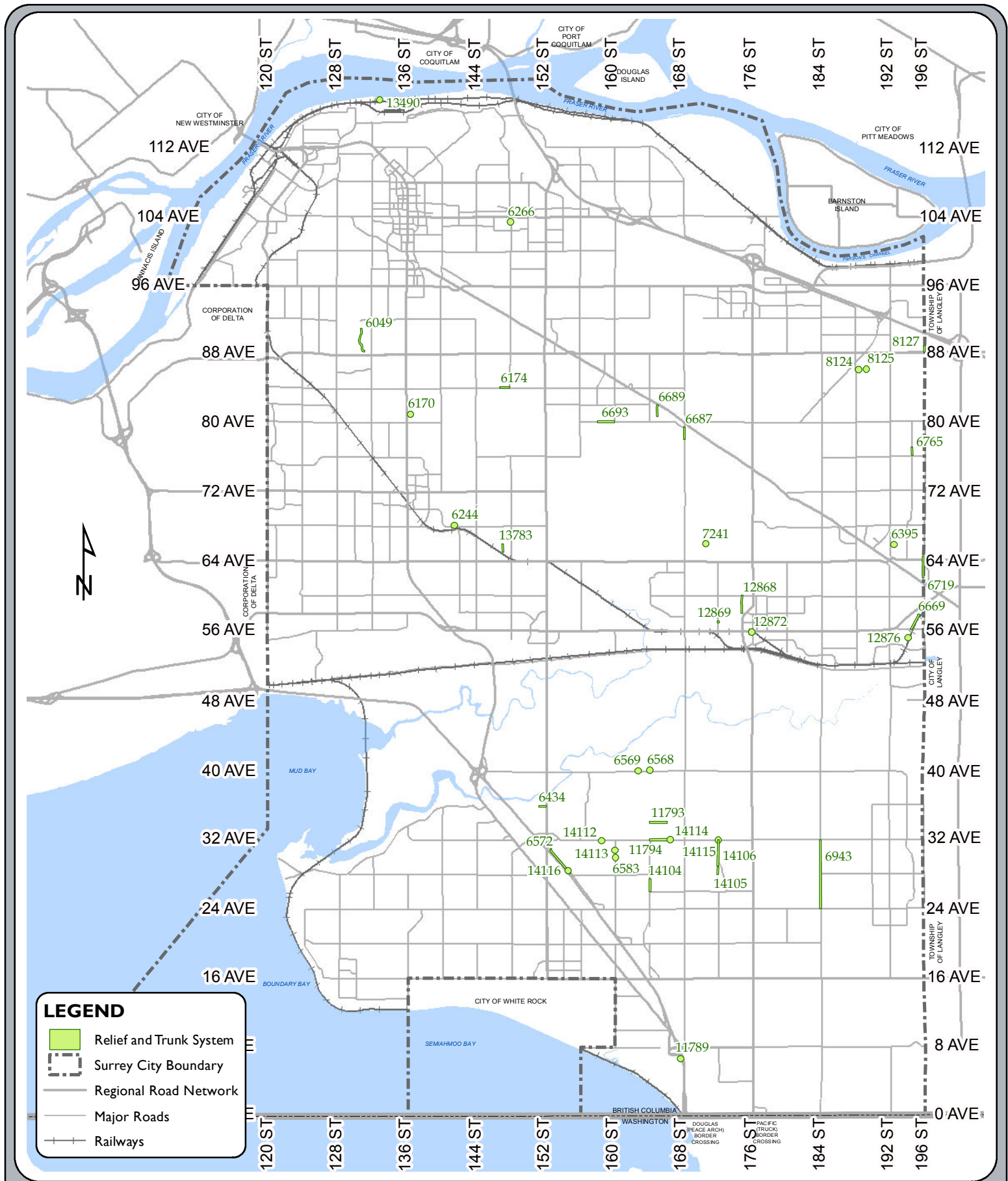
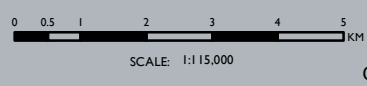


FIGURE 10.11 - Drainage Relief and Trunk Systems (Program 1670)



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DRAINAGE

Program 1670 - Relief and Trunk Systems

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
6014	Delta Creek Trunk Diversion	096 Ave: 11800 blk - Scott Rd / 99 Ave	Short Term (1 - 3 Yrs)	3,500,000	500,000	3,000,000	-
6049	Watercourse Erosion Protection Works: 918m	130 St: 088 - 092 Ave	Short Term (1 - 3 Yrs)	486,000	486,000	-	-
6170	115m of 1050mm diameter	081A Ave / 136 St	Medium Term (4 - 6 Yrs)	540,000	450,000	90,000	-
6174	Trunk Upgrade: 213m of 750mm - 900mm diameter	084 Ave: E of 148 St	Long Term (7 - 10 Yrs)	175,000	175,000	-	-
6244	Pipe Upgrade: 900mm diameter	068 Ave: 141 - 142 St	Medium Term (4 - 6 Yrs)	450,000	450,000	-	-
6266	Pipe Upgrade: 120m of 600mm diameter	148 St: North of 103 Ave	Medium Term (4 - 6 Yrs)	70,000	70,000	-	-
6395	Trunk Upgrade: 110m	065 Ave: 192A - 193 St	Long Term (7 - 10 Yrs)	71,000	71,000	-	-
6434	Trunk Drain: 170m - 450mm diameter	036 Ave: 152 St - 151 St	Medium Term (4 - 6 Yrs)	90,000	90,000	-	-
6568	Culvert Upgrade: 15m of 1,800mm diameter	164 St / 040 Ave	Medium Term (4 - 6 Yrs)	54,000	54,000	-	-
6569	Culvert Upgrade: 7m of 1,800mm diameter	163 St / 040 Ave	Medium Term (4 - 6 Yrs)	54,000	54,000	-	-
6572	Trunk Upgrade: 630m of 1,200mm diameter	Croydon Dr: 029 - 031 Ave	NCP Driven	1,089,000	1,089,000	-	-
6583	Upgrade Culvert Crossing	160 St / 030 Ave	Medium Term (4 - 6 Yrs)	45,000	45,000	-	-
6669	Erosion Protection: 406m	195 St: 56 - 58 Ave	Long Term (7 - 10 Yrs)	200,000	200,000	-	-
6687	Trunk: 300m of 750mm diameter	168 St: Fraser Hwy - 078 Ave	Medium Term (4 - 6 Yrs)	370,000	370,000	-	-
6689	Flow Diversion: 210m of 675mm diameter	16518 Fraser Hwy - 081 Ave	Medium Term (4 - 6 Yrs)	238,000	238,000	-	-
6693	Flow Diversion: 410m of 1,050mm diameter	080 Ave: 158 - 160 St	Medium Term (4 - 6 Yrs)	797,000	797,000	-	-
6719	Trunk Diversion	196 St: 064 Ave - outfall	Medium Term (4 - 6 Yrs)	1,895,000	1,895,000	-	-
6765	Latimer Creek: 50m Erosion Control	076 Ave (North) / 194A St	Long Term (7 - 10 Yrs)	42,300	40,500	1,800	-
6943	Pipe Upgrade: 1,617m of 600mm diameter	184 St: 024 Ave - 032 Ave	NCP Driven	970,000	970,000	-	-
7241	Culvert Drainage	066 Ave / 171 St	Short Term (1 - 3 Yrs)	72,000	36,000	36,000	-
8124	Upgrade Existing Culvert	Old Sawmill Creek: 188 St / 086 Ave	Long Term (7 - 10 Yrs)	45,000	40,500	4,500	-
8125	Upgrade Existing Culvert	Latimer Creek: 086 Ave / 189 St	Long Term (7 - 10 Yrs)	45,000	40,500	4,500	-
8127	New Storm Trunk Pipe: 150m	088 Ave - 196 St to Latimer Creek	Long Term (7 - 10 Yrs)	125,000	112,500	12,500	-
11789	Campbell River Culvert Upgrade	Hwy 99 / Campbell River	NCP Driven	150,000	150,000	-	-
11793	Ditch: 770m	034 Ave: 164 St to 166 St	Short Term (1 - 3 Yrs)	777,800	777,800	-	-
11794	Trunk and Creek Works: 150m	032 Ave: 164 to 166 St	Short Term (1 - 3 Yrs)	422,900	422,900	-	-
11803	Trunk Upgrades	Grandview Heights #2 NCP	NCP Driven	1,418,400	1,418,400	-	-
11804	Ditch / Channel Erosion Protection	Grandview Heights #2 NCP	NCP Driven	25,560	25,560	-	-
11806	ROW Requirements	Grandview Heights #2 NCP	NCP Driven	12,674,000	12,674,000	-	-
12866	Cloverdale Canal and Storm System Study	056 - 60 Ave: 172 - 177 St	Short Term (1 - 3 Yrs)	3,000,000	-	3,000,000	-
12868	Storm Pipe Upgrade	175 St: 58 - 60 Ave	Short Term (1 - 3 Yrs)	700,000	-	700,000	-
12869	Storm Pipe Upgrade	057 Ave: 172 - 177 St	Short Term (1 - 3 Yrs)	300,000	-	300,000	-
12872	Railway Culvert Upgrades	176 St / Railway Crossing	Medium Term (4 - 6 Yrs)	250,000	-	250,000	-
12876	Railway Culvert Upgrades	055 Ave / Railway Crossing	Short Term (1 - 3 Yrs)	100,000	-	100,000	-
13490	Bolivar Pump Station	Bolivar Creek / Fraser River	Short Term (1 - 3 Yrs)	7,000,000	3,000,000	4,000,000	-
13783	Ditch Improvements	147 St: 66 Ave to Hyland Creek	Short Term (1 - 3 Yrs)	500,000	500,000	-	-
14104	Orchard Grove NCP Trunk Upgrade	164 St: 26 Ave to 2700 block	NCP Driven	395,000	395,000	-	-
14105	Trunk Upgrade to 600mm diameter	172 St: lot 2815 - 2875 Country Woods Dr	NCP Driven	227,000	227,000	-	-

DRAINAGE

Program 1670 - Relief and Trunk Systems

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
14106	Trunk Upgrade to 1200mm diameter	172 St / 32 Ave - Country Woods Dr: lot 2875	NCP Driven	1,459,000	1,459,000	-	-
14112	Culvert Upgrade	032 Ave: lot 15850 - Titman Creek	Long Term (7 - 10 Yrs)	115,000	115,000	-	-
14113	Culvert Upgrade	160 St: lot 3087 - Wills Brook	NCP Driven	45,000	45,000	-	-
14114	Culvert Upgrade	032 Ave: lot 16636	Long Term (7 - 10 Yrs)	140,000	-	140,000	-
14115	Culvert Upgrade	032 Ave / 172 St	Long Term (7 - 10 Yrs)	100,000	-	100,000	-
14116	Culvert Upgrade	Hwy 99 / 28 Ave: Upper Titman Creek	Medium Term (4 - 6 Yrs)	100,000	-	100,000	-
				41,322,960	29,483,660	11,839,300	-

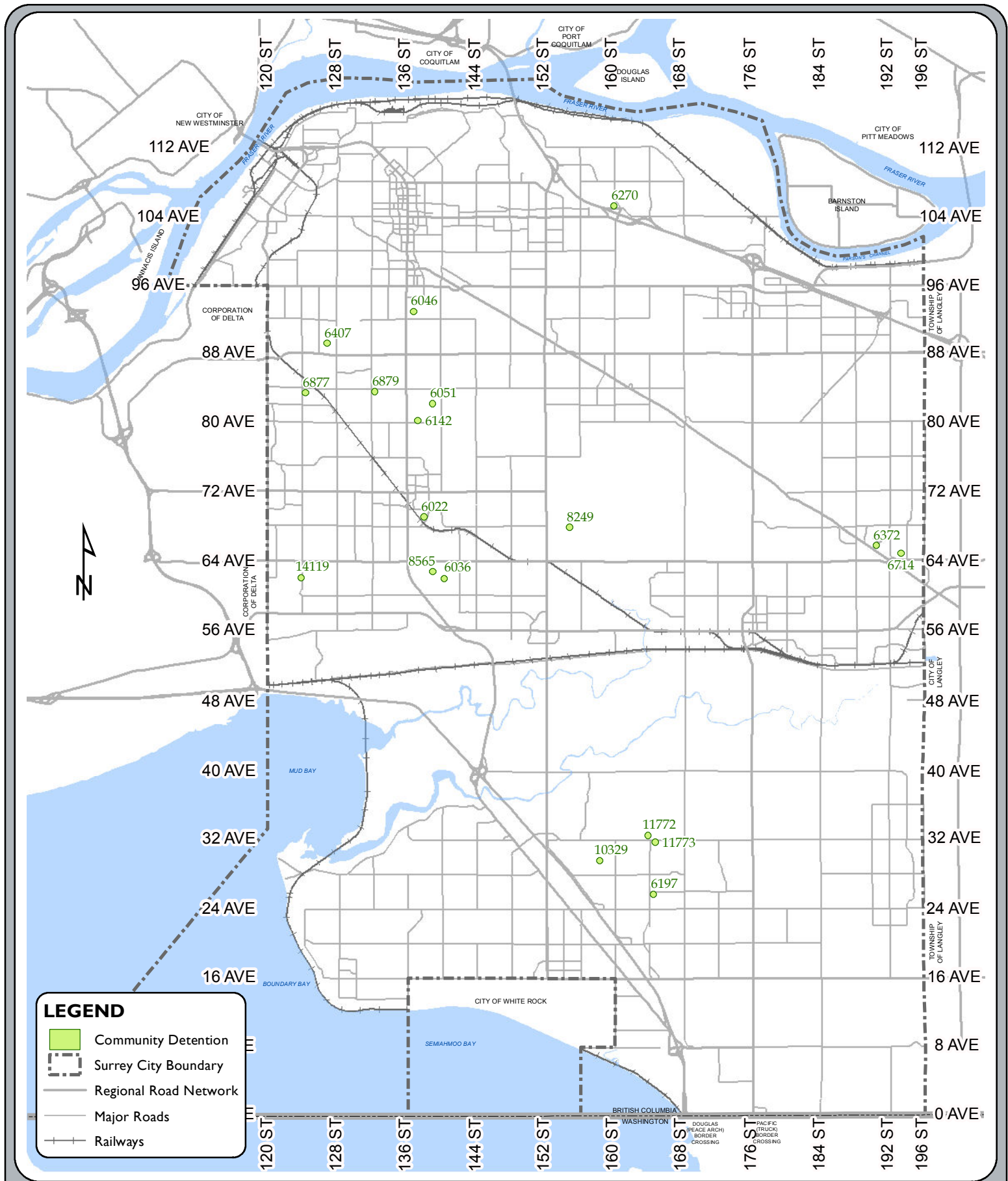
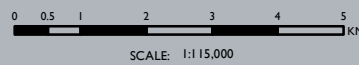


FIGURE 10.12 - Drainage Community Detention (Program 1672)



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DRAINAGE

Program 1672 - Community Detention

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
6022	Stormwater Detention Pond: Newton Town Centre	138 St / 068 Ave	Short Term (1 - 3 Yrs)	2,000,000	2,000,000	-	-
6036	Recharge Pond: P4B South Newton	141 St / 062 Ave	NCP Driven	844,000	844,000	-	-
6046	Detention Pond	093Ave: 136A St - Hydro ROW	Medium Term (4 - 6 Yrs)	55,000	5,000	50,000	-
6051	Ravine Storage Pond	139 St / 82 Ave	Long Term (7 - 10 Yrs)	30,000	-	30,000	-
6142	Detention Pond	080A Ave / 137 St	Long Term (7 - 10 Yrs)	1,500,000	1,200,000	300,000	-
6197	Detention Pond: Orchard Grove	164 St / 026 Ave	NCP Driven	2,690,000	2,690,000	-	-
6270	Detention Pond	160 St / 106 Ave	Long Term (7 - 10 Yrs)	1,638,000	1,638,000	-	-
6372	Detention Pond	Fraser Hwy / 190 St	NCP Driven	665,000	665,000	-	-
6407	Detention Pond: Grenville Pond 3	089A / 127 St (Hydro ROW)	Medium Term (4 - 6 Yrs)	2,469,000	2,217,000	252,000	-
6714	Detention Pond	194 St / 064 Ave	NCP Driven	2,257,200	2,257,200	-	-
6877	Detention Pond: Mahood Cruickshank 1	Mahood Creek: 083A Ave / 124 St	Medium Term (4 - 6 Yrs)	4,078,000	3,670,000	408,000	-
6879	Detention Pond: Mahood Cruickshank 6	Mahood Creek: 084 Ave / 132 St	Medium Term (4 - 6 Yrs)	4,675,000	4,250,000	425,000	-
8249	Biofiltration Pond: East Newton	155 St / 068 Ave	NCP Driven	972,000	972,000	-	-
8565	Detention Pond: Archibald P1B	138 St / 62 Ave	NCP Driven	1,170,000	1,170,000	-	-
10329	Detention Pond B	030 Ave / 158 St	NCP Driven	1,323,000	1,323,000	-	-
11772	Detention Pond: North Grandview Heights E	032 Ave / 164 St	NCP Driven	172,000	172,000	-	-
11773	Detention Pond: North Grandview Heights F	032 Ave / 166 St (April Creek)	NCP Driven	616,000	616,000	-	-
11782	Detention System	Grandview Heights #2 NCP	NCP Driven	5,266,040	5,266,040	-	-
14119	Rain Garden	Boundary Dr / 62 Ave (Boundary Park)	Long Term (7 - 10 Yrs)	340,000	-	340,000	-
				32,760,240	30,955,240	1,805,000	-

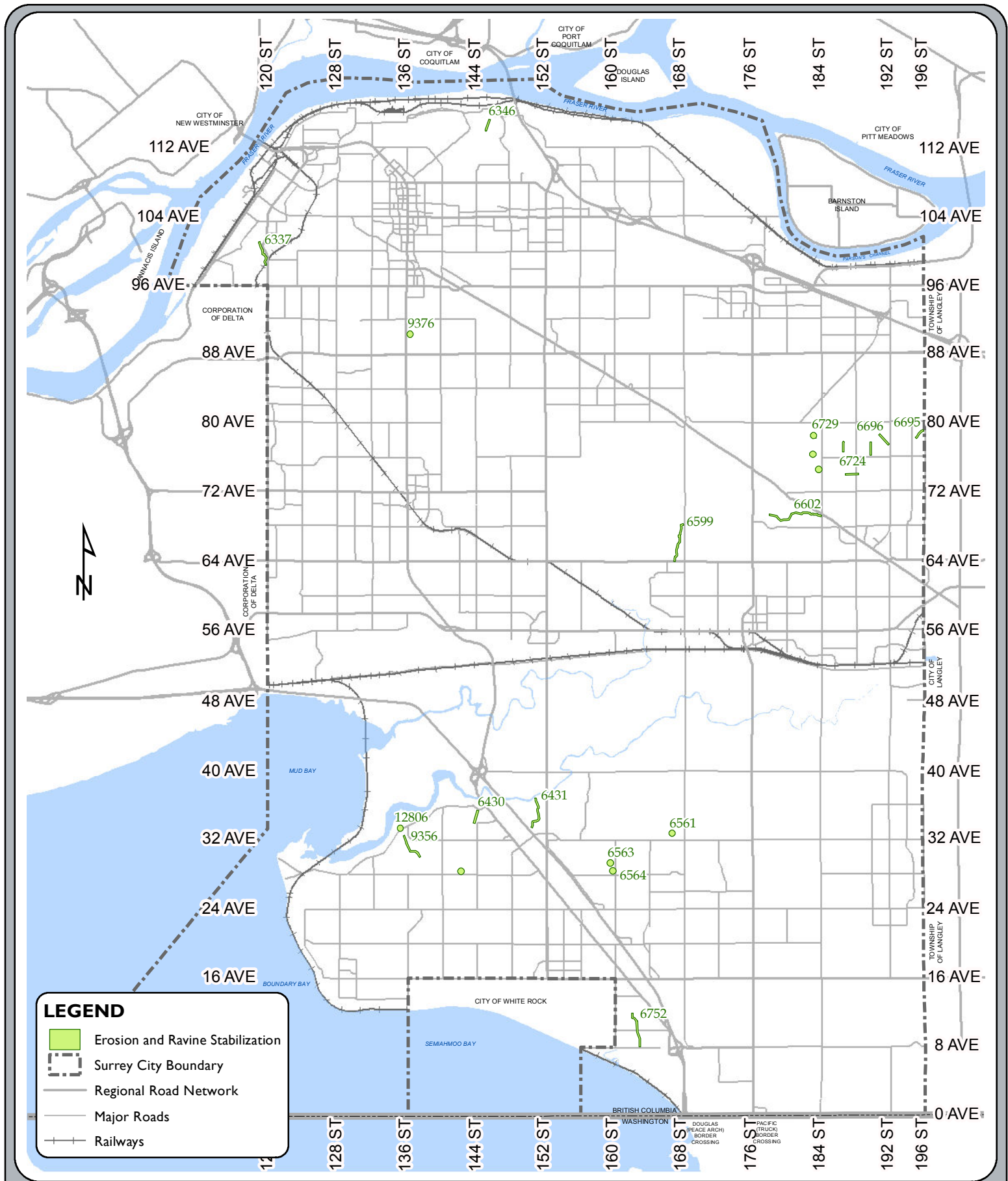
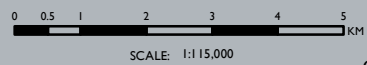


FIGURE 10.13 - Drainage Erosion and Ravine Stabilization (Program 1679)



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DRAINAGE

Program 1679 - Erosion and Ravine Stabilization

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
6337	Scott Creek Ravine Erosion Protection Works	099 Ave / 120 St - River Rd (Scott Creek)	Medium Term (4 - 6 Yrs)	331,000	66,000	265,000	-
6346	Bon Accord Creek Log Weir Removal	146 St: 114 - 115A Ave	Medium Term (4 - 6 Yrs)	210,000	189,000	21,000	-
6430	Creek Improvements: 690m	028 - 029 Ave / 034 Ave - Elgin Rd (Elgin Creek)	Short Term (1 - 3 Yrs)	60,000	60,000	-	-
6431	Creek Improvements	Hwy 99 - Nicomekl River (Barbara Creek)	Short Term (1 - 3 Yrs)	240,000	240,000	-	-
6561	Erosion Protection	167 St / 033 Ave	NCP Driven	60,000	60,000	-	-
6563	Erosion Protection	159 St / 029 Ave	Long Term (7 - 10 Yrs)	10,000	10,000	-	-
6564	Erosion Protection	160 St / 028 Ave	Long Term (7 - 10 Yrs)	10,000	10,000	-	-
6599	Creek Protection	064 Ave - 168 St (East Creek)	NCP Driven	320,000	320,000	-	-
6602	Creek Improvement: 900m	070 Ave / 184 - 178 St (North Creek)	NCP Driven	350,000	350,000	-	-
6695	Latimer Creek Erosion Control	194A St / 078 Ave	Long Term (7 - 10 Yrs)	46,825	44,500	2,325	-
6696	Latimer Creek Erosion control	076 - 078 Ave / 190 - 192 St (Latimer Creek)	Long Term (7 - 10 Yrs)	250,000	237,500	12,500	-
6724	Ditch Erosion control	076 Ave: lot 18619	Long Term (7 - 10 Yrs)	36,600	34,770	1,830	-
6729	Erosion Control and Culvert Replacement	077 Ave / 184 St	Long Term (7 - 10 Yrs)	112,500	106,875	5,625	-
6752	Erosion Protection: 803m	162 St: 008 - 012 Ave (McNally Creek)	Short Term (1 - 3 Yrs)	80,000	5,000	75,000	-
9356	Ravine Stability Works	032 Ave / 136 St (Chantrell Creek)	Medium Term (4 - 6 Yrs)	283,000	25,000	258,000	-
9376	Ravine Stability Works	090 Ave / King George Blvd (Quibble Creek)	Medium Term (4 - 6 Yrs)	77,000	7,000	70,000	-
12806	Chantrell Creek Realignment	136 St and Crescent (North)	Short Term (1 - 3 Yrs)	4,000,000	-	4,000,000	-
				6,476,925	1,765,645	4,711,280	-

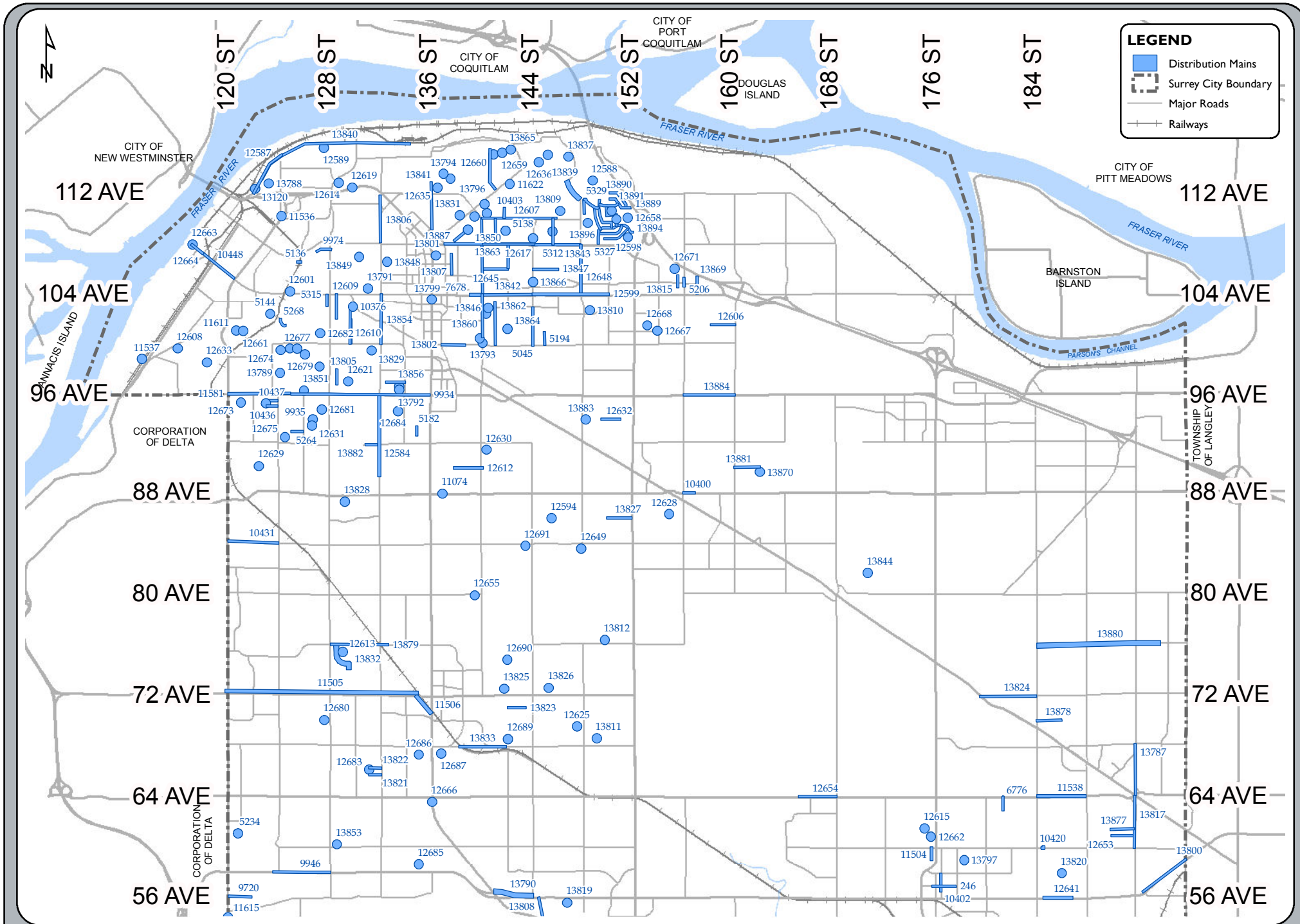


FIGURE 10.14 - Water Distribution Mains (Program 1602)

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

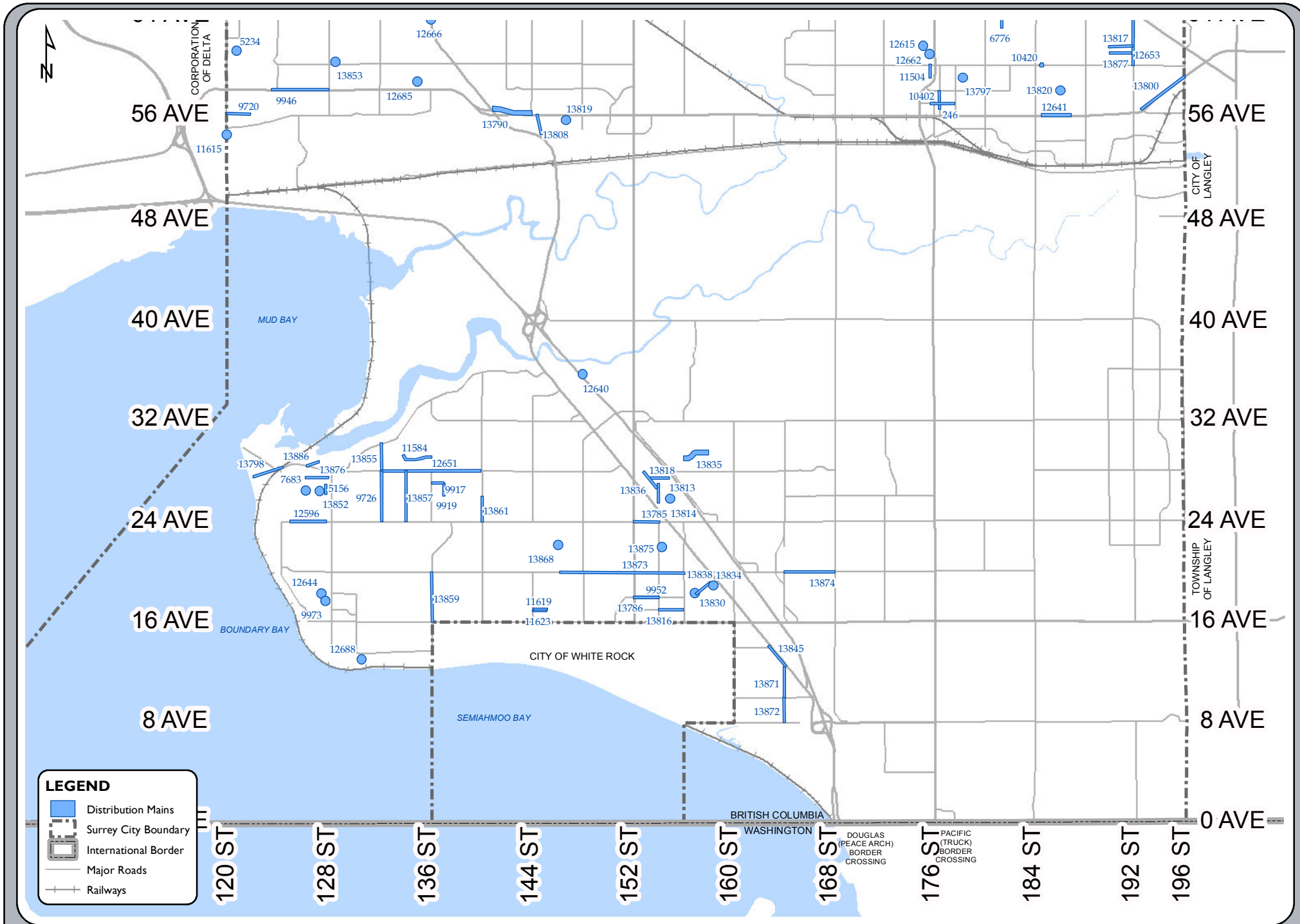
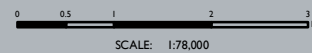


FIGURE 10.14 - Water Distribution Mains (Program 1602)



WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
246	50m of 250mm diameter	057 Ave: 175B St - 176A St	Short Term (1 - 3 Yrs)	105,000	58,000	47,000	-
5045	610m of 300mm diameter	144 St: 100 - 103 Ave	Medium Term (4 - 6 Yrs)	504,000	277,000	227,000	-
5136	100m of 200mm diameter	106A Ave: 125A - 125B St	Short Term (1 - 3 Yrs)	51,000	-	51,000	-
5138	100m of 200mm diameter	109 Ave: 141A - 142 St	Short Term (1 - 3 Yrs)	78,000	-	78,000	-
5144	150m of 100mm diameter	123A St: 102 Ave - 102A Ave	Short Term (1 - 3 Yrs)	100,000	-	100,000	-
5156	270m of 200mm diameter	127A St: 026 - 026B Ave	Short Term (1 - 3 Yrs)	117,000	-	117,000	-
5161	585m of 200mm diameter	129A St: 100 - 103A Ave	Short Term (1 - 3 Yrs)	631,000	347,000	284,000	-
5182	60m of 200mm diameter, 100m of 100mm diameter	135 St: 092A - 93A Ave	Short Term (1 - 3 Yrs)	125,000	-	125,000	-
5194	140m of 200mm diameter	145 St: 101 Ave - lot 10175	Short Term (1 - 3 Yrs)	113,000	-	113,000	-
5206	195m of 200mm diameter	155A St: 104A - 105A Ave	Medium Term (4 - 6 Yrs)	152,000	-	152,000	-
5234	105m of 200mm diameter	061 Ave: 120A - 121 St	Long Term (7 - 10 Yrs)	156,000	-	156,000	-
5264	510m of 200mm diameter	093 Ave: 124A - 127 St	Short Term (1 - 3 Yrs)	398,000	-	398,000	-
5268	90m of 200mm diameter	Beaver Dr: 102 Ave - Centre Dr	Short Term (1 - 3 Yrs)	70,000	-	70,000	-
5312	400m of 200mm diameter	145A St: 108 - 110 Ave	Short Term (1 - 3 Yrs)	312,000	-	312,000	-
5315	190m of 200mm diameter	127B St: 103 - 104 Ave	Short Term (1 - 3 Yrs)	164,000	-	164,000	-
5327	240m of 200mm diameter	Oriole Dr: 108 Ave - Canary Dr	Short Term (1 - 3 Yrs)	187,000	-	187,000	-
5329	310m of 200mm diameter	Blackbird Cres: 148A St - Partridge Cres	Short Term (1 - 3 Yrs)	242,000	-	242,000	-
6776	75m of 200mm diameter	181A St: 063A Ave - 064 Ave	Medium Term (4 - 6 Yrs)	59,000	-	59,000	-
7678	210m of 300mm diameter	104 Ave: 139 - 140 St	Medium Term (4 - 6 Yrs)	1,260,000	693,000	567,000	-
7680	200m of 200mm diameter	109 Ave: 144A - 146 St	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
7683	700m of 200mm diameter	126 St: 026 Ave - 026A Ave & 27A Ave: 126 - 127 St	Short Term (1 - 3 Yrs)	94,000	-	94,000	-
7908	Watermain Replacements	Various Locations	Medium Term (4 - 6 Yrs)	3,000,000	-	3,000,000	-
9720	300m of 200mm diameter	056 Ave: 120 St - 121A St	Medium Term (4 - 6 Yrs)	234,000	-	234,000	-
9726	220m of 300mm diameter	132 St: 2540 - 026 Ave	Short Term (1 - 3 Yrs)	131,000	72,000	59,000	-
9917	200m of 300mm diameter	137 ST: 026 Ave - 027 Ave	Long Term (7 - 10 Yrs)	211,000	116,000	95,000	-
9919	200m of 300mm diameter	027 Ave: 136 - 137 St	Long Term (7 - 10 Yrs)	211,000	116,000	95,000	-
9934	1,000m of 300mm diameter	096 Ave: 131 - 136 St*	Short Term (1 - 3 Yrs)	1,051,000	578,000	473,000	-
9935	200m of 200mm diameter	094 Ave: 126 - 127 St	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
9946	abandon 100mm diameter	058 Ave: 123A - 128 St	Short Term (1 - 3 Yrs)	25,000	-	25,000	-
9952	230m of 300mm diameter	018 Ave: 152 - 153 St	Long Term (7 - 10 Yrs)	242,000	-	242,000	-
9973	40m of 100mm diameter	127A St: 017A Ave - 018 Ave	Medium Term (4 - 6 Yrs)	31,000	-	31,000	-
9974	150m of 100mm diameter	127 St: 107A Ave - Old Yale Rd	Short Term (1 - 3 Yrs)	100,000	-	100,000	-
10376	50m of 200mm diameter	103 Ave: 129A St - Semiahmoo Rd	Short Term (1 - 3 Yrs)	39,000	-	39,000	-
10384	130m of 200mm diameter	Douglas Rd: Antrim - Grosvenor Rd	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
10385	100m of 200mm diameter	123 St: 095 - 095A Ave	Short Term (1 - 3 Yrs)	78,000	-	78,000	-
10400	220m of 200mm diameter	088 Ave (Lane to South): 156 - 157 St	Short Term (1 - 3 Yrs)	168,000	-	168,000	-
10402	315m of 250mm diameter	176A St (Lane to West): 56A -58 Ave	Short Term (1 - 3 Yrs)	234,000	-	234,000	-
10403	12m of 150mm diameter	141B St: 110 Ave - Park Dr	Short Term (1 - 3 Yrs)	137,000	-	137,000	-

WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10420	260m of 250mm diameter	057A Ave: 176A - 177B Ave	Short Term (1 - 3 Yrs)	117,000	-	117,000	-
10431	800m of 300mm diameter	084 Ave: 120 - 124 St	Medium Term (4 - 6 Yrs)	840,000	462,000	378,000	-
10436	200m of 200mm diameter	095 Ave: 123 - 124 St	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
10437	200m of 200mm diameter	095A Ave: 123 - 124 St	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
10448	1,000m of 300mm diameter	Tannery Rd: 104 Ave - Timberland Rd - Old Yale Rd	Long Term (7 - 10 Yrs)	682,000	375,000	307,000	-
11074	100m of 300 mm diameter	088 Ave: 136 - 137 St*	Medium Term (4 - 6 Yrs)	105,000	58,000	47,000	-
11504	200m of 300mm diameter	175B St: 059 - 060 Ave	Medium Term (4 - 6 Yrs)	211,000	116,000	95,000	-
11505	220m of 300mm diameter	072 Ave: 120 St - Hall Rd	Medium Term (4 - 6 Yrs)	246,000	84,000	162,000	-
11506	320m of 300mm diameter	Hall Rd: 72 Ave - King George Blvd	Medium Term (4 - 6 Yrs)	336,000	185,000	151,000	-
11536	60m of 300mm diameter	Scott Rd / 110 Ave	Short Term (1 - 3 Yrs)	150,000	-	150,000	-
11537	150m of 300mm diameter	Plywood Rd: Robson Rd and River Rd	Short Term (1 - 3 Yrs)	158,000	87,000	71,000	-
11538	800m of 300mm diameter	064 Ave: 184 - 188 St	Short Term (1 - 3 Yrs)	840,000	462,000	378,000	-
11581	1,000m of 300mm diameter	096 Ave: 120 - 125 St*	Short Term (1 - 3 Yrs)	1,051,000	578,000	473,000	-
11584	500m of 200mm diameter	Woodcrest Cr: Vine Maple Dr - 136 St	Medium Term (4 - 6 Yrs)	663,000	-	663,000	-
11611	210m of 200mm diameter	101 Ave: 120 - 121 St	Short Term (1 - 3 Yrs)	180,000	-	180,000	-
11613	170m of 200mm diameter	Currie Dr: 115 Ave - Wellington Dr	Short Term (1 - 3 Yrs)	242,000	-	242,000	-
11615	150m of 100mm diameter	120A St: lot 5446	Short Term (1 - 3 Yrs)	35,000	-	35,000	-
11619	200m of 200mm diameter	017 Ave: 144 - 145 St	Medium Term (4 - 6 Yrs)	156,000	-	156,000	-
11622	150m of 200mm diameter	Gladstone Dr: Grosvenor Rd - lot 14261	Short Term (1 - 3 Yrs)	117,000	-	117,000	-
11623	200m of 200mm diameter	017 Ave: 144 - 145 St	Medium Term (4 - 6 Yrs)	156,000	-	156,000	-
12584	1300m of 300mm diameter	132 St: 96 - 89A Ave	Short Term (1 - 3 Yrs)	1,364,000	750,000	614,000	-
12587	900m of 300mm diameter	Industrial Rd: 124 St - 111A Ave	Medium Term (4 - 6 Yrs)	840,000	-	840,000	-
12588	220m of 200mm diameter	Loughren Dr: Perth - Glen Avon Dr	Short Term (1 - 3 Yrs)	172,000	-	172,000	-
12589	130m of 300mm diameter	115B Ave: 128 - 127A St	Short Term (1 - 3 Yrs)	101,000	-	101,000	-
12594	50m of 200mm diameter	145A St: 86A - 86 Ave	Short Term (1 - 3 Yrs)	39,000	-	39,000	-
12596	670m of 300mm diameter	024 Ave: 127B - 124 St	Short Term (1 - 3 Yrs)	704,000	387,000	317,000	-
12598	550m of 200mm diameter	Raven Pl: Bluebird Cres - Canary Dr	Short Term (1 - 3 Yrs)	429,000	-	429,000	-
12599	1230m of 300mm diameter	104 Ave: 150 - 144 St	Long Term (7 - 10 Yrs)	862,000	474,000	388,000	-
12601	90m of 200mm diameter	104B Ave: 125A - 125 St	Short Term (1 - 3 Yrs)	47,000	-	47,000	-
12606	450m of 200mm diameter	101A Ave: 160 - 158 St	Medium Term (4 - 6 Yrs)	320,000	-	320,000	-
12607	1160m of 200mm diameter	110 Ave: 140 - 146 St	Medium Term (4 - 6 Yrs)	905,000	-	905,000	-
12608	200m of 200mm diameter	116 St: River Rd - 99 Ave	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
12609	380m of 200mm diameter	129 St: 102 - 104 Ave	Short Term (1 - 3 Yrs)	304,000	-	304,000	-
12610	680m of 200mm diameter	129 A St: 103 - 100 Ave	Short Term (1 - 3 Yrs)	530,000	-	530,000	-
12612	400m of 300mm diameter	90 Ave: 140 - 138 St	Short Term (1 - 3 Yrs)	409,000	225,000	184,000	-
12613	480m of 200mm diameter	Sinclair Cres: 129A St - 76 Ave	Medium Term (4 - 6 Yrs)	374,000	-	374,000	-
12614	270m of 300mm diameter	112B Ave: 129 - 126A St	Long Term (7 - 10 Yrs)	284,000	-	284,000	-
12615	60m of 200mm diameter	175A St: 61B - 61A Ave	Short Term (1 - 3 Yrs)	47,000	-	47,000	-

WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
12617	980m of 300mm diameter	108 Ave: 140 - 144 St	Medium Term (4 - 6 Yrs)	1,029,000	566,000	463,000	-
12619	420m of 300mm diameter	King George Blvd: 130 - 128 St	Short Term (1 - 3 Yrs)	105,000	105,000	-	-
12621	60m of 100mm diameter, 360m of 200mm diameter	129A St: 96B - 97A Ave; 128A St: 96B Ave - lot 9734	Short Term (1 - 3 Yrs)	74,000	-	74,000	-
12622	1240m of 300mm diameter	140 St: 110 - 104 Ave	Medium Term (4 - 6 Yrs)	1,302,000	716,000	586,000	-
12625	180m of 200mm diameter	069A Ave: 148 - 147 St	Medium Term (4 - 6 Yrs)	140,000	-	140,000	-
12628	100m of 100mm diameter	086A Ave: 155 - 154B St	Medium Term (4 - 6 Yrs)	67,000	-	67,000	-
12629	340m of 300mm diameter	090 Ave: 123A St - Kennedy	Medium Term (4 - 6 Yrs)	67,000	-	67,000	-
12630	30m of 200mm diameter	091A Ave / 140A St	Short Term (1 - 3 Yrs)	24,000	-	24,000	-
12631	70m of 200mm diameter	093A Ave: 126A - 127 St	Short Term (1 - 3 Yrs)	55,000	-	55,000	-
12632	340m of 200mm diameter	094 Ave: 151 - 149A St	Medium Term (4 - 6 Yrs)	265,000	-	265,000	-
12633	400m of 200mm diameter	098A Ave: 118 - 118B St; 118B St: 98A - 99 Ave	Short Term (1 - 3 Yrs)	164,000	-	164,000	-
12634	250m of 200mm diameter	Dove Pl: Canary Dr - Raven Pl	Short Term (1 - 3 Yrs)	195,000	-	195,000	-
12635	170m of 100mm diameter	112A Ave: 137 - 136 St	Medium Term (4 - 6 Yrs)	114,000	-	114,000	-
12636	50m of 100mm diameter	114A Ave: Currie Dr - 144A St	Short Term (1 - 3 Yrs)	34,000	-	34,000	-
12640	60m of 100mm diameter	148 St: 36A - 36 Ave	Short Term (1 - 3 Yrs)	40,000	-	40,000	-
12641	460m of 100mm diameter	056 Ave: 187 - 184A St	Short Term (1 - 3 Yrs)	308,000	-	308,000	-
12644	50m of 100mm diameter	127 St: 18A - 18 Ave	Short Term (1 - 3 Yrs)	34,000	-	34,000	-
12645	420m of 200mm diameter	106 Ave: 142 - 140 St	Medium Term (4 - 6 Yrs)	328,000	-	328,000	-
12646	90m of 100mm diameter	120 St: Antrim Rd - 110 Ave	Medium Term (4 - 6 Yrs)	60,000	-	60,000	-
12647	200m of 200mm diameter	140A St: Antrim Rd - 110 Ave	Short Term (1 - 3 Yrs)	125,000	-	125,000	-
12648	750m of 300mm diameter	148 St: 108 - 104 Ave	Short Term (1 - 3 Yrs)	819,000	450,000	369,000	-
12649	130m of 200mm diameter	148 St: 84 - 83A Ave	Medium Term (4 - 6 Yrs)	101,000	-	101,000	-
12651	1620m of 300mm diameter	028 Ave: 140 - 132 St	Short Term (1 - 3 Yrs)	1,702,000	936,000	766,000	-
12653	230m of 200mm diameter	060B Ave: 192 - 190B St	Short Term (1 - 3 Yrs)	180,000	-	180,000	-
12654	800m of 300mm diameter	064 Ave: 168 - 165 St	Long Term (7 - 10 Yrs)	630,000	-	630,000	-
12655	150m of 200mm diameter	080 Ave: 140A - 140 St	Medium Term (4 - 6 Yrs)	117,000	-	117,000	-
12656	120m of 100mm diameter	Eagle Pl: lot 15111 - Jay Cres	Short Term (1 - 3 Yrs)	80,000	-	80,000	-
12658	440m of 200mm diameter	Swan Cres: Canary - Pheasant Dr	Short Term (1 - 3 Yrs)	343,000	-	343,000	-
12659	20m of 200mm diameter	115 Ave / 141A St	Medium Term (4 - 6 Yrs)	16,000	-	16,000	-
12660	240m of 200mm diameter	115A Ave: 141A - 140A St	Medium Term (4 - 6 Yrs)	187,000	-	187,000	-
12661	290m of 200mm diameter	121 St: 101 - 101A Ave; 101A Ave: 121 - 122 St	Short Term (1 - 3 Yrs)	109,000	-	109,000	-
12662	90m of 100mm diameter	175B St: 61B - 61A Ave	Short Term (1 - 3 Yrs)	60,000	-	60,000	-
12663	160m of 100mm diameter	Dyke Rd / lot 10839 Tannery Rd	Long Term (7 - 10 Yrs)	168,000	-	168,000	-
12664	210m of 300mm diameter	Tannery Rd: Timberland - Dyke Rd	Long Term (7 - 10 Yrs)	220,000	-	220,000	-
12666	130m of 300mm diameter	King George Blvd: 64 - 63A Ave	Short Term (1 - 3 Yrs)	136,000	75,000	61,000	-
12667	290m of 300mm diameter	101 Ave: 154 - 153 St	Medium Term (4 - 6 Yrs)	304,000	167,000	137,000	-
12668	200m of 200mm diameter	101A Ave: 154 - 153 St	Medium Term (4 - 6 Yrs)	156,000	-	156,000	-
12669	50m of 100mm diameter	102B Ave: 140A - 140 St	Short Term (1 - 3 Yrs)	40,000	-	40,000	-

WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
12671	110m of 100mm diameter	106 Ave: 155A - 155 St	Medium Term (4 - 6 Yrs)	74,000	-	74,000	-
12673	80m of 200mm diameter	121 St: 95A - 95 Ave	Short Term (1 - 3 Yrs)	62,000	-	62,000	-
12674	220m of 200mm diameter	124 St: 100 - 99 Ave	Short Term (1 - 3 Yrs)	172,000	-	172,000	-
12675	160m of 200mm diameter	124A St: 93 - 92 Ave	Short Term (1 - 3 Yrs)	125,000	-	125,000	-
12676	120m of 200mm diameter	124B St: 100 - 99A Ave	Short Term (1 - 3 Yrs)	94,000	-	94,000	-
12677	80m of 100mm diameter	125 St: 100 - 99A Ave	Short Term (1 - 3 Yrs)	54,000	-	54,000	-
12679	800m of 200mm diameter	126 St: 99A - 99 Ave; 99 Ave: 124 - 128 St	Short Term (1 - 3 Yrs)	86,000	-	86,000	-
12680	170m of 100mm diameter	127A St: 71A - 70 Ave	Short Term (1 - 3 Yrs)	114,000	-	114,000	-
12681	300m of 200mm diameter	127A St: 95 - 94 Ave; 94A Ave: 127 - 127A St	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
12682	180m of 200mm diameter, 80m of 100mm diameter	127B St: 101B - 100 Ave	Short Term (1 - 3 Yrs)	203,000	-	203,000	-
12683	100m of 200mm diameter	131 St: 66A - 65B Ave	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
12684	360m of 200mm diameter	133A St: 94 - 92B Ave	Medium Term (4 - 6 Yrs)	281,000	-	281,000	-
12685	220m of 200mm diameter	135A St: 59 - 58A Ave	Medium Term (4 - 6 Yrs)	172,000	-	172,000	-
12686	100m of 200mm diameter	135A St: 67A - 67 Ave	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
12687	190m of 200mm diameter	137 St: 67A - 67 Ave	Medium Term (4 - 6 Yrs)	148,000	-	148,000	-
12688	40m of 100mm diameter	13A Ave: 131A - 131 St	Short Term (1 - 3 Yrs)	27,000	-	27,000	-
12689	220m of 300mm diameter	142 St: 69 - 68 Ave	Medium Term (4 - 6 Yrs)	231,000	127,000	104,000	-
12690	90m of 200mm diameter	142 St: 75A - 75 Ave	Medium Term (4 - 6 Yrs)	70,000	-	70,000	-
12691	100m of 100mm diameter	143A St: 84 - 83A Ave	Medium Term (4 - 6 Yrs)	67,000	-	67,000	-
13120	150m of 300mm diameter	Industrial Rd: 112 - 112A Ave	Short Term (1 - 3 Yrs)	110,000	-	110,000	-
13784	810m of 200mm diameter	142 St: 106 - 108 Ave	Short Term (1 - 3 Yrs)	632,000	-	632,000	-
13785	460m of 200mm diameter	024 Ave: 152 - 154 St	Short Term (1 - 3 Yrs)	359,000	-	359,000	-
13786	400m of 300mm diameter	018 Ave: 152 - 153 St	Long Term (7 - 10 Yrs)	420,000	-	420,000	-
13787	800m of 200mm diameter	192 St: 64 - 68 Ave	Short Term (1 - 3 Yrs)	624,000	-	624,000	-
13788	60m of 100mm diameter	123 St: 112A - 113 Ave	Medium Term (4 - 6 Yrs)	40,000	-	40,000	-
13789	110m of 100mm diameter	124 St: 97A - 98 Ave	Medium Term (4 - 6 Yrs)	74,000	-	74,000	-
13790	660m of 200mm diameter	056 Ave: King George Blvd - 144 St	Medium Term (4 - 6 Yrs)	693,000	381,000	312,000	-
13791	30m of 200mm diameter	131 St: 104 - 104A St	Short Term (1 - 3 Yrs)	24,000	-	24,000	-
13792	200m of 200mm diameter	133A St: 96 - 97 Ave	Medium Term (4 - 6 Yrs)	156,000	-	156,000	-
13793	70m of 250mm diameter	140 St: 100 - 100A Ave	Long Term (7 - 10 Yrs)	70,000	25,000	45,000	-
13794	230m of 200mm diameter	137 St: 113 - 114 Ave	Medium Term (4 - 6 Yrs)	180,000	-	180,000	-
13795	220m of 200mm diameter	137A St: 113 - 114 Ave	Medium Term (4 - 6 Yrs)	172,000	-	172,000	-
13796	630m of 200mm diameter	140A St: Grosvenor Rd - 115A Ave	Medium Term (4 - 6 Yrs)	491,000	-	491,000	-
13797	70m of 100mm diameter	059 Ave: 178A - 178B St	Short Term (1 - 3 Yrs)	47,000	-	47,000	-
13798	650m of 250mm diameter	Beecher St: McBride Ave - Bayview St	Medium Term (4 - 6 Yrs)	650,000	234,000	416,000	-
13799	80m of 300mm diameter	King George Blvd: 103 - 104 Ave	Medium Term (4 - 6 Yrs)	84,000	46,000	38,000	-
13800	690m of 300mm diameter	Hwy 10: 193 - 196 St	Long Term (7 - 10 Yrs)	726,000	400,000	326,000	-
13801	1460m of 600mm diameter	108 Ave: Whalley Blvd - 144 St	Long Term (7 - 10 Yrs)	2,118,000	932,000	1,186,000	-

WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13802	350m of 250mm diameter	100 Ave: Blvd - 138 St	Medium Term (4 - 6 Yrs)	350,000	126,000	224,000	-
13803	110m of 250mm diameter	100A Ave: 140 St - 13962	Short Term (1 - 3 Yrs)	110,000	40,000	70,000	-
13804	80m of 100mm diameter	127A St: 98 - 98A Ave	Medium Term (4 - 6 Yrs)	54,000	-	54,000	-
13805	130m of 200mm diameter	128A St: 96B - 97 Ave	Medium Term (4 - 6 Yrs)	102,000	-	102,000	-
13806	880m of 200mm diameter	132 St: 108 - 112 Ave	Medium Term (4 - 6 Yrs)	686,000	-	686,000	-
13807	330m of 250mm diameter	137A St: 105A - 107A Ave	Medium Term (4 - 6 Yrs)	330,000	119,000	211,000	-
13808	490m of 200mm diameter	144A St - Lombard Pl - 56 Ave	Medium Term (4 - 6 Yrs)	382,000	-	382,000	-
13809	190m of 200mm diameter	146A St: 110 - 111 Ave	Short Term (1 - 3 Yrs)	172,000	-	172,000	-
13810	70m of 100mm diameter	148A St: 102A - 103 Ave	Short Term (1 - 3 Yrs)	54,000	-	54,000	-
13811	190m of 200mm diameter	149 St: 68 69 Ave	Medium Term (4 - 6 Yrs)	148,000	-	148,000	-
13812	90m of 200mm diameter	149B St: 76 - 76A Ave	Medium Term (4 - 6 Yrs)	70,000	-	70,000	-
13813	310m of 200mm diameter	154 St: 26 Ave - 27 Ave /154 St	Medium Term (4 - 6 Yrs)	242,000	-	242,000	-
13814	60m of 100mm diameter	155 St: 25B - 26 Ave	Medium Term (4 - 6 Yrs)	40,000	-	40,000	-
13815	160m of 200mm diameter	155A St: 104A - 105A Ave	Medium Term (4 - 6 Yrs)	125,000	-	125,000	-
13816	220m of 200mm diameter	017 Ave: 155 - 156 St	Medium Term (4 - 6 Yrs)	172,000	-	172,000	-
13817	760m of 200mm diameter	192 St: 60 - 64 Ave	Short Term (1 - 3 Yrs)	593,000	-	593,000	-
13818	200m of 200mm diameter	027A Ave: 153A St - Cranley Dr	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
13819	430m of 200mm diameter	055A Ave: Southview Dr - 147A St	Medium Term (4 - 6 Yrs)	336,000	-	336,000	-
13820	100m of 200mm diameter	058 Ave: 185A - 186A St	Short Term (1 - 3 Yrs)	78,000	-	78,000	-
13821	210m of 200mm diameter	065B Ave: 131 - 132 St	Medium Term (4 - 6 Yrs)	164,000	-	164,000	-
13822	190m of 200mm diameter	066A Ave: 131 - 132 St	Medium Term (4 - 6 Yrs)	148,000	-	148,000	-
13823	210m of 200mm diameter	071 Ave: 142 - 143 St	Medium Term (4 - 6 Yrs)	164,000	-	164,000	-
13824	850m of 300mm diameter	072 Ave: Fr Hwy - 184 St	Medium Term (4 - 6 Yrs)	893,000	491,000	402,000	-
13825	40m of 200mm diameter	072A Ave: 141A - 141B St	Medium Term (4 - 6 Yrs)	32,000	-	32,000	-
13826	90m of 200mm diameter	072A Ave: 145 - 145A St	Medium Term (4 - 6 Yrs)	70,000	-	70,000	-
13827	460m of 200mm diameter	086 Ave: 150 - 152 St	Medium Term (4 - 6 Yrs)	360,000	-	360,000	-
13828	100m of 100mm diameter	087A Ave: 129 - 129A St	Medium Term (4 - 6 Yrs)	67,000	-	67,000	-
13829	150m of 100mm diameter	099A Ave: Semiahmoo Rd - 131B St	Medium Term (4 - 6 Yrs)	100,000	-	100,000	-
13830	170m of 200mm diameter	Flower Rd: 157A St - 18A Ave	Medium Term (4 - 6 Yrs)	133,000	-	133,000	-
13831	100m of 200mm diameter	Harper Rd: Bentley Rd - lot 13791	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
13832	510m of 200mm diameter	Hurdle Cr: 74 - 76 Ave	Medium Term (4 - 6 Yrs)	398,000	-	398,000	-
13833	750m of 300mm diameter	Hyland Rd: 138 - 142 St	Medium Term (4 - 6 Yrs)	787,000	433,000	354,000	-
13834	100m of 200mm diameter	Lilac Dr: Tulip Dr - McBeth Rd	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
13835	430m of 200mm diameter	Mountainview Dr: 156 - 158 St	Long Term (7 - 10 Yrs)	335,000	-	335,000	-
13836	250m of 200mm diameter	Parkway Dr: 27 - 28 Ave	Medium Term (4 - 6 Yrs)	195,000	-	195,000	-
13837	60m of 200mm diameter	St Andrews Dr: 147 St - Surrey Rd	Medium Term (4 - 6 Yrs)	47,000	-	47,000	-
13838	320m of 200mm diameter	Tulip Dr: Flower Rd - Lilac Dr	Medium Term (4 - 6 Yrs)	250,000	-	250,000	-
13839	360m of 300mm diameter	Wallace Dr: Surrey Rd - 111A Ave	Medium Term (4 - 6 Yrs)	378,000	208,000	170,000	-

WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13840	2140m of 300mm diameter	116 Ave: 122 - 134 St	Long Term (7 - 10 Yrs)	2,247,000	1,236,000	1,011,000	-
13841	740m of 300mm diameter	136 St: Hilton Rd - 113 Ave	Long Term (7 - 10 Yrs)	777,000	427,000	350,000	-
13842	960m of 300mm diameter	104 Ave: 140 - 144 St	Medium Term (4 - 6 Yrs)	1,008,000	554,000	454,000	-
13843	820m of 300mm diameter	108 Ave: 144 - 148 St	Long Term (7 - 10 Yrs)	862,000	474,000	388,000	-
13844	110m of 200mm diameter	170A St: 81A - 82 Ave	Medium Term (4 - 6 Yrs)	86,000	-	86,000	-
13845	320m of 300mm diameter	King George Blvd: 12A - 14 Ave	Medium Term (4 - 6 Yrs)	336,000	185,000	151,000	-
13846	190m of 250mm diameter	103 Ave: 140 - 141 St	Medium Term (4 - 6 Yrs)	190,000	68,000	122,000	-
13847	350m of 200mm diameter	106 Ave: 144 - 146 St	Medium Term (4 - 6 Yrs)	273,000	-	273,000	-
13848	310m of 200mm diameter	106A Ave: 132 - 133 St	Medium Term (4 - 6 Yrs)	242,000	-	242,000	-
13849	100m of 200mm diameter	107 Ave: 130 - 130A St	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
13850	320m of 200mm diameter	109 Ave: Selkirk Dr - 139A St	Medium Term (4 - 6 Yrs)	250,000	-	250,000	-
13851	160m of 200mm diameter	126 St: 96 - 96A Ave	Medium Term (4 - 6 Yrs)	125,000	-	125,000	-
13852	110m of 200mm diameter	127 St: 26 - 26A Ave	Short Term (1 - 3 Yrs)	86,000	-	86,000	-
13853	100m of 100mm diameter	128A St: 60 - 60A Ave	Medium Term (4 - 6 Yrs)	67,000	-	67,000	-
13854	970m of 300mm diameter	132 St: 100 - 104 Ave	Long Term (7 - 10 Yrs)	1,019,000	-	1,019,000	-
13855	450m of 200mm diameter	132 St: 28 Ave - Crescent Rd	Short Term (1 - 3 Yrs)	351,000	-	351,000	-
13856	230m of 200mm diameter	133A St: 96 - 97 Ave	Medium Term (4 - 6 Yrs)	180,000	-	180,000	-
13857	380m of 200mm diameter	134 St: 26 - 28 Ave	Short Term (1 - 3 Yrs)	296,000	-	296,000	-
13858	150m of 100mm diameter	135B St: 107 - 107A Ave	Medium Term (4 - 6 Yrs)	100,000	-	100,000	-
13859	820m of 300mm diameter	136 St: 16 - 20 Ave	Long Term (7 - 10 Yrs)	861,000	-	861,000	-
13860	840m of 300mm diameter	140 St: 100A - 104 Ave	Long Term (7 - 10 Yrs)	882,000	-	882,000	-
13861	380m of 200mm diameter	140 St: 24 - 26 Ave	Medium Term (4 - 6 Yrs)	296,000	-	296,000	-
13862	700m of 200mm diameter	141 St: 100 - 103A Ave	Medium Term (4 - 6 Yrs)	700,000	-	700,000	-
13863	450m of 200mm diameter	141 St: 108 - 110 Ave	Medium Term (4 - 6 Yrs)	351,000	-	351,000	-
13864	80m of 250mm diameter	142 St: 101 - 101A Ave	Medium Term (4 - 6 Yrs)	80,000	-	80,000	-
13865	140m of 200mm diameter	142 St: 115 - 115A Ave	Medium Term (4 - 6 Yrs)	109,000	-	109,000	-
13866	290m of 250mm diameter	144 St: 104 - 105A Ave	Medium Term (4 - 6 Yrs)	290,000	-	290,000	-
13867	270m of 200mm diameter	144 St: 108 - 109 Ave	Medium Term (4 - 6 Yrs)	211,000	-	211,000	-
13868	70m of 300mm diameter	146 St @ Sunnyside PS	Long Term (7 - 10 Yrs)	74,000	-	74,000	-
13869	450m of 300mm diameter	157 St: 104 Ave - 105A Ave /157 St	Medium Term (4 - 6 Yrs)	473,000	260,000	213,000	-
13870	100m of 200mm diameter	162 St: 89A - 90 Ave	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
13871	600m of 300mm diameter	164 St: 10 Ave - KG Blvd	Medium Term (4 - 6 Yrs)	631,000	347,000	284,000	-
13872	400m of 300mm diameter	164 St: 8 - 10 Ave	Medium Term (4 - 6 Yrs)	420,000	231,000	189,000	-
13873	2010m of 300mm diameter	020 Ave: 146 - 156 St	Long Term (7 - 10 Yrs)	2,111,000	-	2,111,000	-
13874	81m of 200mm diameter	020 Ave: 164 - 168 St	Short Term (1 - 3 Yrs)	632,000	-	632,000	-
13875	60m of 200mm diameter	022 Ave: 154 - 154A St	Short Term (1 - 3 Yrs)	47,000	-	47,000	-
13876	290m of 200mm diameter	027A Ave: 27 Ave - 127 St	Short Term (1 - 3 Yrs)	226,000	-	226,000	-
13877	330m of 200mm diameter	061A Ave: 190 - 192 St	Medium Term (4 - 6 Yrs)	258,000	-	258,000	-

WATER

Program 1602 - Distribution Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13878	200m of 200mm diameter	070 Ave: 184 - 185 St	Short Term (1 - 3 Yrs)	156,000	-	156,000	-
13879	940m of 300mm diameter	076 Ave: 128 - 132A St	Long Term (7 - 10 Yrs)	987,000	-	987,000	-
13880	2010m of 300mm diameter	076 Ave: 184 - 194 St	Long Term (7 - 10 Yrs)	2,111,000	1,161,000	950,000	-
13881	430m of 200mm diameter	090 Ave: 160 - 162 St	Medium Term (4 - 6 Yrs)	335,000	-	335,000	-
13882	200m of 200mm diameter	092 Ave: 131 - 132 St	Medium Term (4 - 6 Yrs)	156,000	-	156,000	-
13883	110m of 200mm diameter	094 Ave: 148 - 148A St	Medium Term (4 - 6 Yrs)	86,000	-	86,000	-
13884	830m of 300mm diameter	096 Ave: 156 - 160 St	Long Term (7 - 10 Yrs)	872,000	-	872,000	-
13885	100m of 200mm diameter	097 Ave: 133A - 134 St	Medium Term (4 - 6 Yrs)	78,000	-	78,000	-
13886	340m of 200mm diameter	Beckett Rd: Crescent Rd - lot 12691	Medium Term (4 - 6 Yrs)	265,000	-	265,000	-
13887	280m of 200mm diameter	Cowan Rd: Larner Rd - 109 Ave	Medium Term (4 - 6 Yrs)	218,000	-	218,000	-
13888	160m of 200mm diameter	Peacock Pl: Jay Cr - 151 St	Short Term (1 - 3 Yrs)	125,000	-	125,000	-
13889	460m of 300mm diameter	Pheasant Dr: 150 - 152 St	Short Term (1 - 3 Yrs)	483,000	266,000	217,000	-
13890	420m of 200mm diameter	Robin Cr: 150 St - Pheasant Dr	Short Term (1 - 3 Yrs)	328,000	-	328,000	-
13891	330m of 200mm diameter	Swallow Dr: Patridrige Cr - Pheasant Dr	Short Term (1 - 3 Yrs)	258,000	-	258,000	-
13892	380m of 200mm diameter	148A St: 110 Ave - Blackbird Cr	Short Term (1 - 3 Yrs)	296,000	-	296,000	-
13893	460m of 200mm diameter	Bluebird Cr: Oriole Dr - Canary Dr	Short Term (1 - 3 Yrs)	360,000	-	360,000	-
13894	600m of 200mm diameter	Canary Dr: Oriole Dr - 152 St	Short Term (1 - 3 Yrs)	468,000	-	468,000	-
13895	70m of 100mm diameter	Lark Pl: Wren Cr - 148 St	Short Term (1 - 3 Yrs)	47,000	-	47,000	-
13896	370m of 200mm diameter	Oriole Dr: Canary Dr - Blackbird Cr	Short Term (1 - 3 Yrs)	290,000	-	290,000	-
13897	600m of 200mm diameter	Partridge Cr: Canary Dr - 111A Ave	Short Term (1 - 3 Yrs)	268,000	-	268,000	-
13898	480m of 200mm diameter	Jay Cr: Canary Dr - Swallow Dr	Short Term (1 - 3 Yrs)	374,000	-	374,000	-
				80,363,000	18,286,000	62,077,000	-

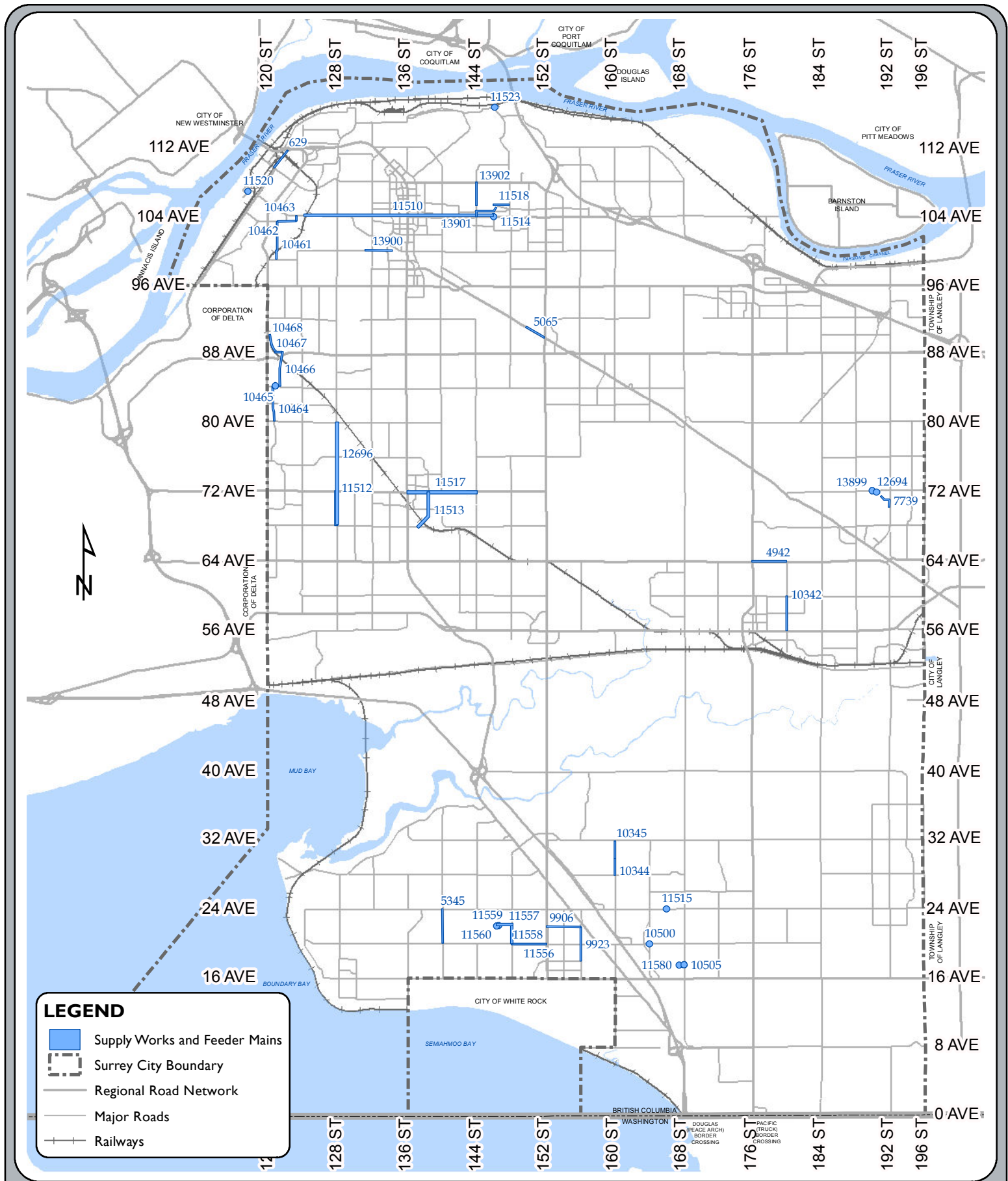
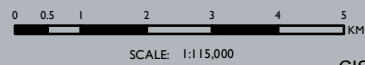


FIGURE 10.15 - Water Supply Works and Feeder Mains (Program 1610)



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WATER

Program 1610 - Supply Works and Feeder Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
629	500m of 400mm diameter	Bridge Road: Old Yale Rd - 112 Ave	Short Term (1 - 3 Yrs)	600,000	600,000	-	-
4942	460m of 350mm diameter	064 Ave: 177B - 180 St®	Short Term (1 - 3 Yrs)	396,000	-	396,000	-
5065	Watermain Upgrades	Fraser Hwy: 150 - 152 St - Fleetwood Way®	Upsizing Contribution	18,000	18,000	-	-
5345	800m of 350mm diameter	140 St: 020 - 024 Ave	Long Term (7 - 10 Yrs)	880,000	880,000	-	-
7739	800m of 600mm diameter	190 St: 068 - 072 Ave	Short Term (1 - 3 Yrs)	609,000	609,000	-	-
9906	930m of 450mm diameter	024 Ave: 150 St - King George Blvd	Short Term (1 - 3 Yrs)	945,000	945,000	-	-
9923	420m of 450mm diameter	152 St: 018 Ave - 022 Ave	Short Term (1 - 3 Yrs)	567,000	567,000	-	-
10342	835m of 450mm diameter	180 St: 056 - 060 Ave	Medium Term (4 - 6 Yrs)	1,127,000	1,127,000	-	-
10344	600m of 400mm diameter	160 St: 028 - 030 Ave	Medium Term (4 - 6 Yrs)	720,000	720,000	-	-
10345	200m of 400mm diameter	160 St: 030 - 032 Ave	Medium Term (4 - 6 Yrs)	240,000	240,000	-	-
10461	600m of 600mm diameter	123A St: 096 Ave - 099 Ave	Medium Term (4 - 6 Yrs)	870,000	870,000	-	-
10462	900m of 600mm diameter	099 Ave: 123A St - 128 Ave	Medium Term (4 - 6 Yrs)	1,305,000	1,305,000	-	-
10463	600m of 600mm diameter	099 St / 128 St to 100 Ave / 129A St	Medium Term (4 - 6 Yrs)	870,000	870,000	-	-
10464	800m of 450mm diameter	120A St: 080 - 084 Ave	Short Term (1 - 3 Yrs)	1,080,000	1,080,000	-	-
10465	160m of 450mm diameter	084 Ave: 120A - 121A St	Short Term (1 - 3 Yrs)	216,000	216,000	-	-
10466	875m of 450mm diameter	121A St: 084 - 088 Ave	Short Term (1 - 3 Yrs)	1,181,000	1,181,000	-	-
10467	150m of 450mm diameter	088 Ave: 120A - 121A St	Short Term (1 - 3 Yrs)	203,000	203,000	-	-
10468	720m of 600mm diameter	120A St (Holt Rd): 088 - 090 Ave	Short Term (1 - 3 Yrs)	1,044,000	1,044,000	-	-
10500	Pressure Reducing Valve	164 St / 20 Ave	Medium Term (4 - 6 Yrs)	150,000	150,000	-	-
10505	Pressure Reducing Valve	168 St / 18 Ave	Long Term (7 - 10 Yrs)	150,000	150,000	-	-
11510	2,200m of 600mm diameter (relining)	104 Ave: East Whalley Ring Rd - 146 St	Medium Term (4 - 6 Yrs)	3,000,000	3,000,000	-	-
11512	800m of 750mm diameter	128 St: 068 - 072 Ave	Medium Term (4 - 6 Yrs)	1,680,000	605,000	1,075,000	-
11513	930m of 450mm diameter	138 St: 068 - 072 Ave	Short Term (1 - 3 Yrs)	1,215,000	1,215,000	-	-
11514	Whalley Pump Station: 6th Pump	104A Ave / 146 St	Long Term (7 - 10 Yrs)	750,000	750,000	-	-
11515	Grandview Pump Station: 4th and 5th Pump	Grandview Pump Station	Long Term (7 - 10 Yrs)	750,000	750,000	-	-
11517	1,120m of 450mm diameter	072 Ave: 140 - 146 St	Short Term (1 - 3 Yrs)	2,300,000	2,300,000	-	-
11518	450m of 1,200mm diameter	105A Ave: 146 - 148 St	Medium Term (4 - 6 Yrs)	1,260,000	945,000	315,000	-
11520	130m of 350mm diameter	Timberland Rd: Tannery Rd - 10671	Medium Term (4 - 6 Yrs)	143,000	-	143,000	-
11521	Pump Station Upgrades	Various Locations	Short Term (1 - 3 Yrs)	1,000,000	-	1,000,000	-
11523	Pressure Reducing Valve	116 Ave / 147 St	Short Term (1 - 3 Yrs)	150,000	-	150,000	-
11535	Pressure Reducing Valve Upgrades	Various Locations	Short Term (1 - 3 Yrs)	1,000,000	-	1,000,000	-
11556	805m of 450mm diameter	020 Ave: 148 - 152 St	Long Term (7 - 10 Yrs)	1,080,000	1,080,000	-	-
11557	408m of 600mm diameter	148 St: 020 - 022 Ave	Long Term (7 - 10 Yrs)	595,000	595,000	-	-
11558	408m of 600mm diameter	022 Ave: 148 - 146 St	Long Term (7 - 10 Yrs)	595,000	595,000	-	-
11559	220m of 900mm diameter	146 St / 022 Ave	Long Term (7 - 10 Yrs)	616,000	462,000	154,000	-
11560	Sunnyside Pump Station Upgrade	146 St / 022 Ave	Long Term (7 - 10 Yrs)	750,000	750,000	-	-
11580	Pressure Reducing Valve	017A Ave / 167A St	Long Term (7 - 10 Yrs)	150,000	150,000	-	-

WATER

Program 1610 - Supply Works and Feeder Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
12694	Clayton Pump Station: 5th Pump	072 Ave at 190 St	Long Term (7 - 10 Yrs)	750,000	750,000	-	-
12696	1990m of 600mm diameter	128 St: 80 - 68 Ave	Medium Term (4 - 6 Yrs)	2,321,000	1,021,000	1,300,000	-
13899	Clayton Pump Station: 6th Pump	072 Ave / 190 St	Long Term (7 - 10 Yrs)	750,000	750,000	-	-
13900	740m of 600mm diameter	100 Ave: 131A St - 134A St / Old Yale Rd	Long Term (7 - 10 Yrs)	1,073,000	-	1,073,000	-
13901	540m of 750mm diameter	144 St: 104 St - 104A Ave / 146 St	Medium Term (4 - 6 Yrs)	432,000	-	432,000	-
13902	540m of 750mm diameter	144 St: Whalley Pump Station / 108 Ave	Medium Term (4 - 6 Yrs)	1,134,000	408,000	726,000	-
				36,665,000	28,901,000	7,764,000	-

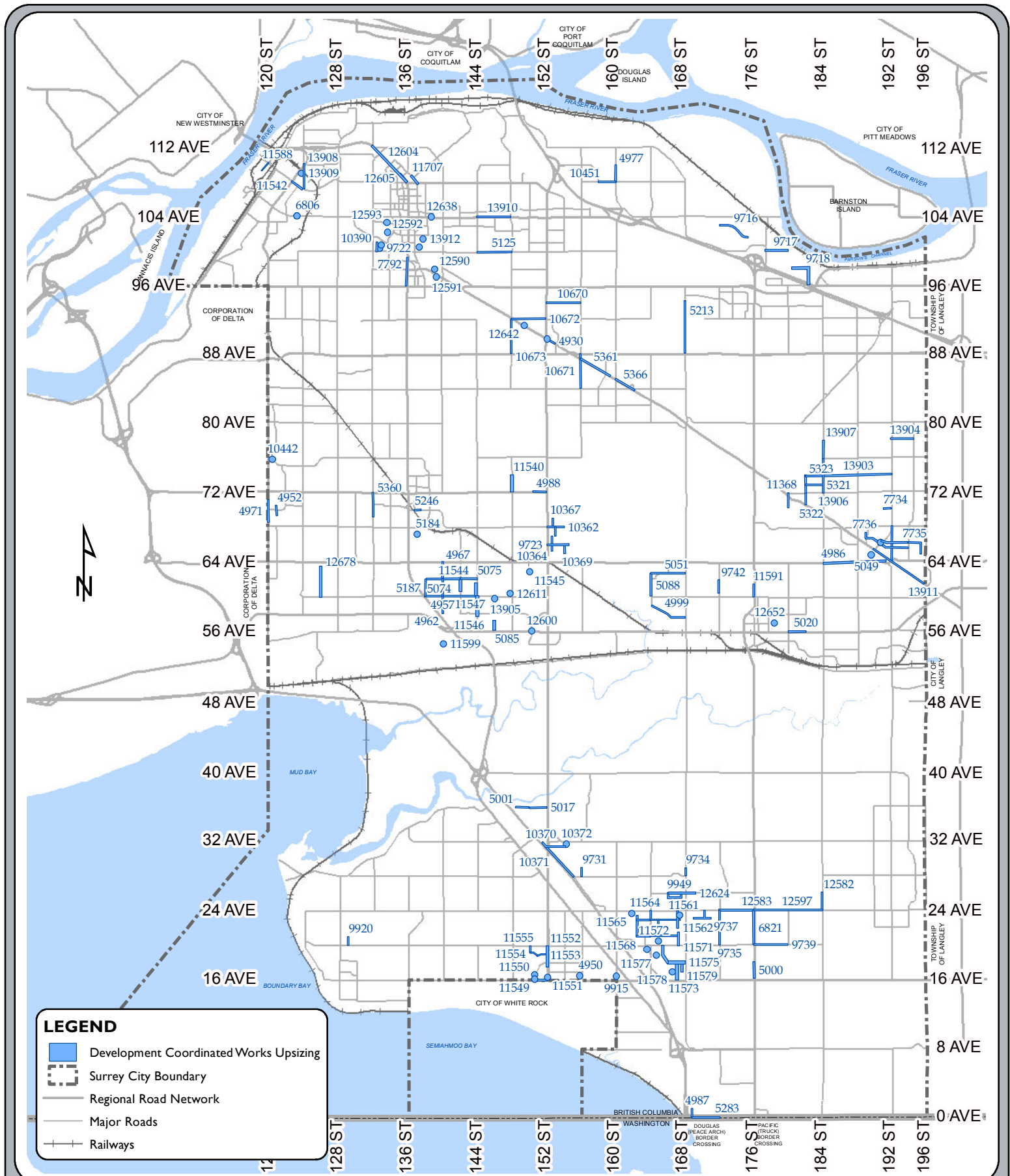
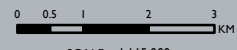


FIGURE 10.16 - Water Development Coordinated Works Upsizing (Program 1620)



SCALE: 1:115,000



GIS SECTION

The data provided is compiled from various sources and is NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

WATER

Program 1620 - Development Coordinated Works Upsizing

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
4930	70m of 300mm diameter	Fraser Hwy: 152 - 153A St	Upsizing Contribution	18,000	18,000	-	-
4950	85m of 300mm diameter	016A Ave: 15545 - 156 St	Upsizing Contribution	21,000	21,000	-	-
4952	165m of 300mm diameter	121 St: 069A - 070A Ave	Upsizing Contribution	41,000	41,000	-	-
4957	400m of 300mm diameter	140 St: 060 - 062 Ave	Upsizing Contribution	100,000	100,000	-	-
4962	400m of 300mm diameter	140 St: 058 - 060 Ave	Upsizing Contribution	100,000	100,000	-	-
4967	400m of 300mm diameter	140 St: 062 - 064 Ave	Upsizing Contribution	100,000	100,000	-	-
4971	300m of 300mm diameter	120 St: 6942 - 72 Ave	Upsizing Contribution	40,000	40,000	-	-
4977	395m of 300mm diameter	160 St: 108 - 110 Ave	Upsizing Contribution	99,000	99,000	-	-
4986	310m of 200mm diameter	064 Ave: 184 St - 192 St	Upsizing Contribution	62,000	62,000	-	-
4987	220m of 300mm diameter	Peace Park Dr: 0 Ave - 1 Ave	Upsizing Contribution	55,000	55,000	-	-
4988	175m of 300mm diameter	072 Ave: 150A - 151A St	Upsizing Contribution	44,000	44,000	-	-
4999	350m of 300mm diameter	057A Ave: 167A St - Old McLellan Rd	Upsizing Contribution	25,000	25,000	-	-
5000	375m of 300mm diameter	176 St: 016 - 018 Ave	Upsizing Contribution	94,000	94,000	-	-
5001	400m of 300mm diameter	036 Ave: 148 - 150 St	Upsizing Contribution	100,000	100,000	-	-
5009	800m of 400mm diameter	192 St: 064 - 068 Ave	Upsizing Contribution	360,000	360,000	-	-
5017	400m of 300mm diameter	036 Ave: 150 - 152 St	Upsizing Contribution	100,000	100,000	-	-
5020	300m of 300mm diameter	056 Ave: 180 - 182 St	Upsizing Contribution	75,000	75,000	-	-
5049	220m of 300mm diameter	065 Ave / 189A Ave - 064 Ave / 191 St	Upsizing Contribution	55,000	55,000	-	-
5051	200m of 300mm diameter	063 Ave: 164 - 165 St	Upsizing Contribution	50,000	50,000	-	-
5074	800m of 300mm diameter	062 Ave: 138 - 142 St	Upsizing Contribution	100,000	100,000	-	-
5075	400m of 300mm diameter	062 Ave: 142 - 144 St	Upsizing Contribution	50,000	50,000	-	-
5085	210m of 300mm diameter	146 St: 056 - 057 Ave	Upsizing Contribution	52,000	52,000	-	-
5088	300m of 300mm diameter	164 St: 060 - 061 Ave 164 St: 062 - 063 Ave	Upsizing Contribution	38,000	38,000	-	-
5104	900m of 450mm diameter	058 Ave: King George Blvd - 144 St	Upsizing Contribution	585,000	585,000	-	-
5125	600m of 300mm diameter	100 Ave: 145 - 148 St	Upsizing Contribution	150,000	150,000	-	-
5184	90m of 200mm diameter	137 St: 067A - 067 Ave	Upsizing Contribution	18,000	18,000	-	-
5187	70m of 300mm diameter	138 St: 06138 to 6156	Upsizing Contribution	18,000	18,000	-	-
5213	260m of 200mm diameter	168 St: 088 Ave - North	Upsizing Contribution	57,000	57,000	-	-
5246	155m of 200mm diameter	070A Ave: 136B - 137A St	Upsizing Contribution	62,000	62,000	-	-
5283	260m of 300mm diameter	000A Ave: Peace Park Dr - 170 St	Upsizing Contribution	65,000	65,000	-	-
5321	420m of 250mm diameter	073 Ave: 182 -184 St	Upsizing Contribution	84,000	84,000	-	-
5322	300m of 250mm diameter	182 St: Fraser Hwy - 072 Ave	Upsizing Contribution	60,000	60,000	-	-
5323	400m of 300mm diameter	182 St: 72 - 74 Ave	Upsizing Contribution	100,000	100,000	-	-
5360	580m of 300mm diameter	132 St: 069 - 072 Ave	Upsizing Contribution	145,000	145,000	-	-
5361	700m of 400mm diameter	Fraser Hwy: 156 St - 159A St	Upsizing Contribution	390,000	390,000	-	-
5366	500 m of 300mm diameter	Fraser Hwy: 160 - 162A St	Upsizing Contribution	225,000	225,000	-	-
6806	400m of 250mm diameter	026 Ave: 169 St - 171 St	Upsizing Contribution	80,000	80,000	-	-

WATER

Program 1620 - Development Coordinated Works Upsizing

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
6821	800m of 300mm diameter	176 St: 020 Ave - 024 Ave	Upsizing Contribution	200,000	200,000	-	-
7734	690m of 400mm diameter	070 Ave: 191 St - 194A St	Upsizing Contribution	99,000	99,000	-	-
7735	500m of 350mm diameter	190 St / 068 Ave - 192 St / 066 Ave	Upsizing Contribution	52,000	52,000	-	-
7736	1,245m of 300mm diameter	189 St / 068 Ave - 191 St / 065 Ave	Upsizing Contribution	75,000	75,000	-	-
7737	250m of 300mm diameter	192 St Diversion: 065 - 067 Ave®	Upsizing Contribution	63,000	63,000	-	-
7742	760m of 300mm diameter	195 St / 66 Ave - 195A St - 65 Ave - 194 St	Upsizing Contribution	65,000	65,000	-	-
7792	650m of 300mm diameter	King George Blvd: 096 Ave - Old Fraser Hwy®	Upsizing Contribution	162,000	162,000	-	-
7910	Upsizing	Various Locations	Upsizing Contribution	1,400,000	1,400,000	-	-
9716	600m of 400mm diameter	103 Ave / 172 St to 101A Ave / 175A St	Upsizing Contribution	140,000	140,000	-	-
9717	580m of 400mm diameter	100 Ave: 177 to 180 St	Upsizing Contribution	261,000	261,000	-	-
9718	700m of 400mm diameter	098 Ave: 181 - 182A St , 182A St: 098 Ave - 096 Ave	Upsizing Contribution	315,000	315,000	-	-
9722	125m of 200mm diameter	100A Ave: 132 A - 133 St	Upsizing Contribution	31,000	31,000	-	-
9723	480m of 300mm diameter	066 Ave: 152 St - 154 St	Upsizing Contribution	90,000	90,000	-	-
9731	1,050m of 300mm diameter	156 St: 28 Ave - Mountainview Dr	Upsizing Contribution	213,000	213,000	-	-
9734	190m of 300mm diameter	168 St: 028 Ave (183 m North)	Upsizing Contribution	48,000	48,000	-	-
9735	800m of 300mm diameter	172 St: 024 - 020 Ave	Upsizing Contribution	200,000	200,000	-	-
9737	500m of 200mm diameter	170 St: 024 - 023 Ave, 023 Ave: 170 - 171 St	Upsizing Contribution	100,000	100,000	-	-
9739	820m of 300mm diameter	020 Ave: 176 St - 180 St	Upsizing Contribution	203,000	203,000	-	-
9742	375m of 300mm diameter	172 St: 060A - 062 Ave	Upsizing Contribution	94,000	94,000	-	-
9915	200m of 300mm diameter	160 St: 16 Ave - Lilac Dr	Upsizing Contribution	50,000	50,000	-	-
9920	200m of 250mm diameter	129 St: 020 - 021 Ave	Upsizing Contribution	40,000	40,000	-	-
9949	280m of 250mm diameter, 460m of 200mm diameter	026 Ave: 166 - 167A St; 25A Ave: 166 - 167A St	Upsizing Contribution	184,000	184,000	-	-
10362	400m of 300mm diameter	068 Ave: 152 - 154 St	Upsizing Contribution	50,000	50,000	-	-
10364	100m of 200mm diameter	152A St: 065 - 066 Ave	Upsizing Contribution	13,000	13,000	-	-
10366	200m of 300mm diameter	153 St: 067 - 068 Ave	Upsizing Contribution	50,000	50,000	-	-
10367	200m of 300mm diameter	152B St: 068 - 069 Ave	Upsizing Contribution	50,000	50,000	-	-
10368	200m of 300mm diameter	152A St: 066 - 067 Ave	Upsizing Contribution	50,000	50,000	-	-
10369	150m of 200mm diameter	154 St: 065 - 066 Ave	Upsizing Contribution	25,000	25,000	-	-
10370	300m of 250mm diameter	031 Ave: Crodon Dr - 154 St	Upsizing Contribution	60,000	60,000	-	-
10371	710m of 300mm diameter	Croydon Dr : 028A - 031 Ave	Upsizing Contribution	178,000	178,000	-	-
10372	225m of 250mm diameter	154 St: 031 - 032 Ave	Upsizing Contribution	45,000	45,000	-	-
10390	100m of 200mm diameter, 100m of 100mm diameter	132A St: 100 -101 Ave	Upsizing Contribution	50,000	50,000	-	-
10392	150m of 100mm diameter	133 St: 100A Ave (North)	Upsizing Contribution	38,000	38,000	-	-
10442	100m of 400mm diameter	120A St: 075A - 076 Ave	Upsizing Contribution	45,000	45,000	-	-
10451	200m of 350mm diameter	108 Ave: 158 - 159 St	Upsizing Contribution	70,000	70,000	-	-
10670	825m of 300mm diameter	094 Ave: 152-156 St	Upsizing Contribution	206,000	206,000	-	-
10671	690m of 300mm diameter	156 St: 084 - 088 Ave	Upsizing Contribution	172,000	172,000	-	-

WATER

Program 1620 - Development Coordinated Works Upsizing

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
10672	800m of 300mm diameter	092 Ave: 148-152 St	Upsizing Contribution	200,000	200,000	-	-
10673	800m of 300mm diameter	148 St: 088 - 092 Ave	Upsizing Contribution	200,000	200,000	-	-
11368	250m of 250mm diameter	180 St: 070A - 072 Ave	Upsizing Contribution	20,000	20,000	-	-
11540	400m of 300mm diameter	148 St: 072 - 074 Ave	Upsizing Contribution	100,000	100,000	-	-
11542	400m of 400mm diameter	Old Yale Rd: 124 St - Scott Rd	Upsizing Contribution	144,000	144,000	-	-
11544	300m of 300mm diameter	142 St: 060A - 062 Ave	Upsizing Contribution	25,000	25,000	-	-
11545	90m of 300mm diameter	150 St: 062 - 6262	Upsizing Contribution	23,000	23,000	-	-
11546	530m of 300mm diameter	144 St: 5740 - 060 Ave	Upsizing Contribution	133,000	133,000	-	-
11547	300m of 300mm diameter	144St: 060 Ave - 6157	Upsizing Contribution	75,000	75,000	-	-
11548	312m of 300mm diameter	016 Ave: Martin Dr - 152 St	Upsizing Contribution	78,000	78,000	-	-
11549	60m of 300mm diameter	Martin Dr: 016 Ave - 1656	Upsizing Contribution	15,000	15,000	-	-
11550	105m of 300mm diameter	Martin Dr: lot 1656 - Southmere Cr	Upsizing Contribution	26,000	26,000	-	-
11551	72m of 300mm diameter	152St: North of 016 Ave	Upsizing Contribution	18,000	18,000	-	-
11552	508m of 350mm diameter	152 St: 017A - 020 Ave	Upsizing Contribution	179,000	179,000	-	-
11553	250m of 350mm diameter	019 Ave: Southmere Cr - 152 St	Upsizing Contribution	88,000	88,000	-	-
11554	204m of 350mm diameter	Southmere Cr: 150 St - 019 Ave	Upsizing Contribution	70,000	70,000	-	-
11555	152m of 350mm diameter	150 St: 020 Ave - Southmere Cr	Upsizing Contribution	52,000	52,000	-	-
11561	100m of 250mm diameter	023A Ave: 167 - 167A St	Upsizing Contribution	20,000	20,000	-	-
11562	490m of 300mm diameter	167 St: Edgewood Dr - 024 Ave	Upsizing Contribution	123,000	123,000	-	-
11563	710m of 300mm diameter	023 Ave: 164 - 167A St	Upsizing Contribution	178,000	178,000	-	-
11564	210m of 300mm diameter	164 St: 023 - 024 Ave	Upsizing Contribution	52,000	52,000	-	-
11565	210m of 300mm diameter	024 Ave / 161A St - 023A Ave / 162 St	Upsizing Contribution	52,000	52,000	-	-
11566	560m of 300mm diameter	162St: 023A - 021Ave	Upsizing Contribution	140,000	140,000	-	-
11567	400m of 300mm diameter	023 Ave: 162 - 164 St	Upsizing Contribution	100,000	100,000	-	-
11568	210m of 300mm diameter	021 Ave: 163-164 St	Upsizing Contribution	52,000	52,000	-	-
11569	650m of 300mm diameter	021 Ave: 164 - 167 St	Upsizing Contribution	162,000	162,000	-	-
11570	420m of 300mm diameter	165 St: 021 - 023 Ave	Upsizing Contribution	105,000	105,000	-	-
11571	430m of 300mm diameter	Edgewood Dr: 020 - 022 Ave	Upsizing Contribution	108,000	108,000	-	-
11572	250m of 300mm diameter	165 St: 020 - 021 Ave	Upsizing Contribution	62,000	62,000	-	-
11573	440m of 300mm diameter	167 St: 018 - 020 Ave	Upsizing Contribution	110,000	110,000	-	-
11574	440m of 300mm diameter	165A St: 018 - 020 Ave	Upsizing Contribution	110,000	110,000	-	-
11575	440m of 300mm diameter	018 Ave: 166 - 168 St	Upsizing Contribution	110,000	110,000	-	-
11576	300m of 300mm diameter	020 Ave / 163A St - 019A Ave / 164A St	Upsizing Contribution	75,000	75,000	-	-
11577	700m of 300mm diameter	019A Ave / 164A St - 017 Ave / 165A St	Upsizing Contribution	175,000	175,000	-	-
11578	440m of 300mm diameter	017 Ave: 165A - 167A St	Upsizing Contribution	110,000	110,000	-	-
11579	210m of 300mm diameter	167A St: 017 - 018 Ave	Upsizing Contribution	52,000	52,000	-	-
11588	220m of 200mm diameter	Olsen Rd: Old Yale Rd - 10942	Upsizing Contribution	55,000	55,000	-	-

WATER

Program 1620 - Development Coordinated Works Upsizing

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
11591	300m of 200mm diameter	176 St: 060 Ave - 6152	Upsizing Contribution	75,000	75,000	-	-
11599	50m of 200mm diameter	Trites Rd: 13995 - 14023	Upsizing Contribution	10,000	10,000	-	-
11707	1,000m of 300mm diameter	Hilton Rd: 108 Ave - Bentley Rd®	Upsizing Contribution	150,000	150,000	-	-
12582	360m of 200mm diameter	184 St: 26 - 24 Ave	Upsizing Contribution	90,000	90,000	-	-
12583	810m of 300mm diameter	24 Ave: 176 - 172 St	Upsizing Contribution	202,000	202,000	-	-
12590	150m of 300mm diameter	Fraser Hwy: 140 - 139 St (North)	Upsizing Contribution	38,000	38,000	-	-
12591	140m of 300mm diameter	Fraser Hwy: 140 - 139 St (South)	Upsizing Contribution	35,000	35,000	-	-
12592	90m of 250mm diameter	133A St: 102A - 102 Ave	Upsizing Contribution	18,000	18,000	-	-
12593	230m of 250mm diameter	133A St: 104 - 103 Ave	Upsizing Contribution	46,000	46,000	-	-
12597	1,610m of 300mm diameter	024 Ave: 184 - 176 St	Upsizing Contribution	403,000	403,000	-	-
12600	150m of 300mm diameter	056 Ave: 151 - 150A St	Upsizing Contribution	38,000	38,000	-	-
12604	930m of 300mm diameter	King George Blvd: 136 - 132 St	Upsizing Contribution	233,000	233,000	-	-
12605	250m of 300mm diameter	King George Blvd: 108 Ave - Bentley Rd	Upsizing Contribution	63,000	63,000	-	-
12611	40m of 300mm diameter	148 St: 60A - 60 Ave	Upsizing Contribution	10,000	10,000	-	-
12624	420m of 300mm diameter	026 Ave: 169 - 166 St	Upsizing Contribution	105,000	105,000	-	-
12638	330m of 300mm diameter	104 Ave: 139 - 138 St	Upsizing Contribution	83,000	83,000	-	-
12642	80m of 300mm diameter	Fraser Hwy: 149A - 149 St	Upsizing Contribution	20,000	20,000	-	-
12652	620m of 300mm diameter	057 Ave: 179A - 177A St	Upsizing Contribution	155,000	155,000	-	-
12678	560m of 300mm diameter	126 St: 63A - 60 Ave	Upsizing Contribution	140,000	140,000	-	-
13903	1220m of 300mm diameter	074 Ave: 182 - 192 St	Upsizing Contribution	305,000	305,000	-	-
13904	550m of 300mm diameter	078 Ave: 192 - 194A St	Upsizing Contribution	138,000	138,000	-	-
13905	90m of 300mm diameter	146 St: 59A - 60 Ave	Upsizing Contribution	22,000	22,000	-	-
13906	760m of 300mm diameter	184 St: 72 - 76 Ave	Upsizing Contribution	190,000	190,000	-	-
13907	460m of 300mm diameter	184 St: 76 - 78 Ave	Upsizing Contribution	115,000	115,000	-	-
13908	330m of 300mm diameter	124 St: Old Yale - 110 Ave	Upsizing Contribution	83,000	83,000	-	-
13909	120m of 300mm diameter	Larson: Scott Rd - 124 St	Upsizing Contribution	30,000	30,000	-	-
13910	810m of 300mm diameter	104 Ave: 144 - 148 St	Upsizing Contribution	203,000	203,000	-	-
13911	1260m of 300mm diameter	Fraser Hwy: 190 - 196 St	Upsizing Contribution	315,000	315,000	-	-
13912	100m of 250mm diameter	101A Ave: 137A - 138 St	Upsizing Contribution	25,000	25,000	-	-
13913	180m of 300mm diameter	137A St: 101 - 102 Ave	Upsizing Contribution	45,000	45,000	-	-
14099	70m of 300mm diameter	Fraser Hwy: 152 - 152A St	Upsizing Contribution	18,000	18,000	-	-
				15,805,000	15,805,000	-	-

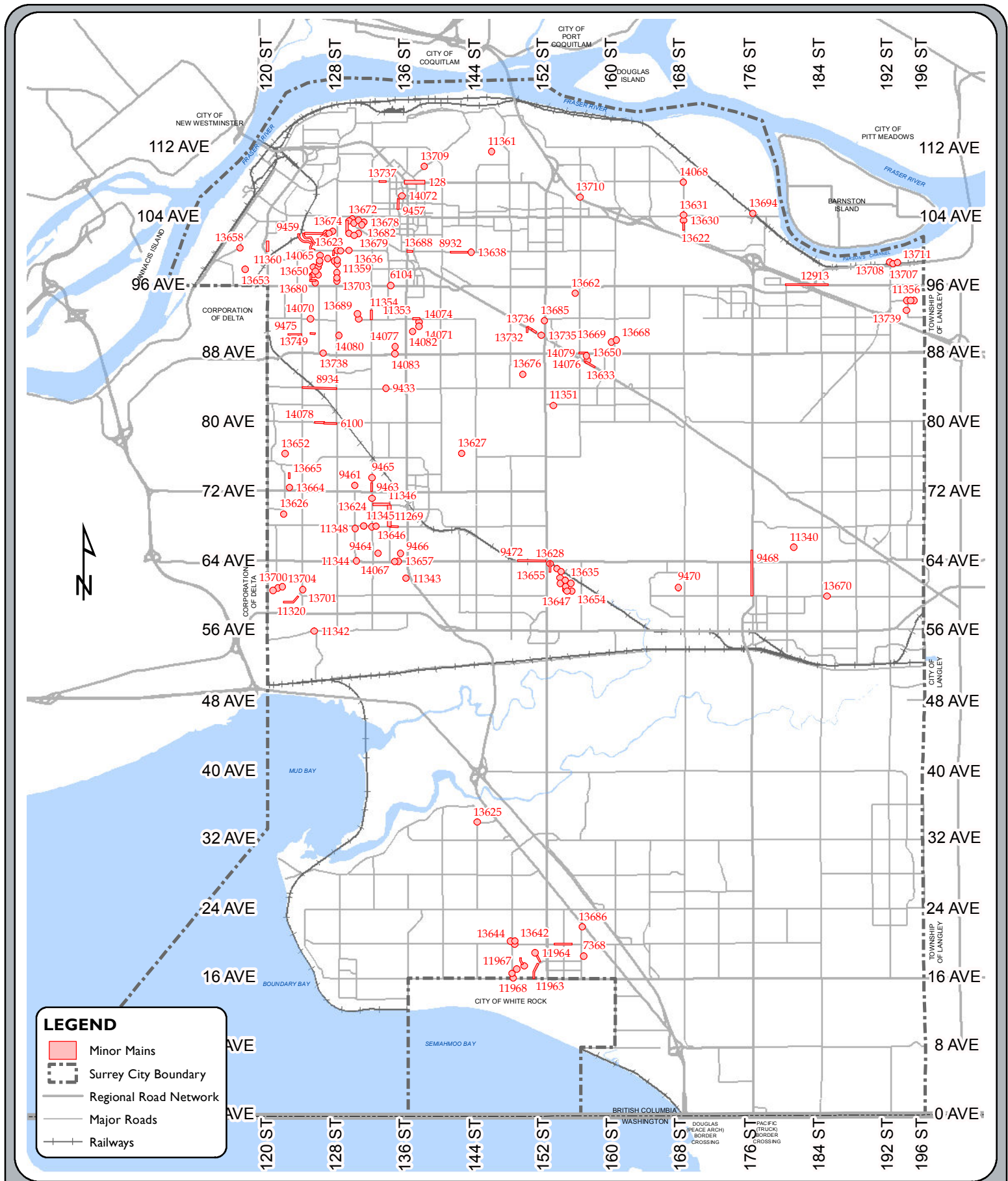
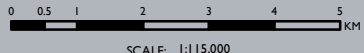


FIGURE 10.17 - Sewer Minor Mains (Program 1632)



SCALE: 1:15,000



GIS SECTION

The data provided is compiled from various sources and is NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

SEWER

Program 1632 - Minor Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
128	380m of 300mm diameter	108 Ave: 138 St - King George Blvd	Long Term (7 - 10 Yrs)	608,000	608,000	-	-
6100	295m of 300mm diameter ®	080 Ave: 126A - 128 St	Short Term (1 - 3 Yrs)	453,000	453,000	-	-
6104	100m of 375mm diameter relief sewer	096 Ave: 134 - 134A St	Long Term (7 - 10 Yrs)	128,000	89,600	38,400	-
7368	340m of 300mm diameter	156 St: 17A - 18 Ave and 18 Ave: 156 St - Flower Rd	Long Term (7 - 10 Yrs)	436,000	306,000	130,000	-
7770	200m of 300mm diameter relief sewer ®	Fraser Hwy: 157 - 158 St	Medium Term (4 - 6 Yrs)	256,000	179,000	77,000	-
8932	200m of 300mm diameter relief sewer	100 Ave: 142 St - 143 St	Short Term (1 - 3 Yrs)	256,000	203,000	53,000	-
8934	720m of 375mm diameter relief sewer	084 Ave: 12450 - 128 St	Short Term (1 - 3 Yrs)	869,000	869,000	-	-
9300	105m of 375mm diameter relief sewer	188 St: 068 - 069 Ave	Long Term (7 - 10 Yrs)	144,000	144,000	-	-
9396	300m of 300mm diameter relief sewer	129 St: 102 Ave - 10352	Medium Term (4 - 6 Yrs)	346,000	208,000	138,000	-
9424	300m of 375mm diameter relief sewer	068 Ave: 134 St - 135A St	Short Term (1 - 3 Yrs)	426,000	299,000	127,000	-
9433	100m of 375mm diameter relief sewer	084 Ave: 133A - 134 St	Short Term (1 - 3 Yrs)	178,000	125,000	53,000	-
9435	730m of 375mm diameter relief sewer	Robson Creek 100 - 102 Ave	Medium Term (4 - 6 Yrs)	657,000	197,100	459,900	-
9457	90m of 250mm diameter relief sewer	City Parkway: 105 Ave to 106 Ave	Medium Term (4 - 6 Yrs)	108,000	65,000	43,000	-
9459	490m of 250mm diameter relief sewer	124 St - 126 St (Park and Centre Drive)	Medium Term (4 - 6 Yrs)	525,000	105,000	420,000	-
9461	245m of 250mm diameter relief sewer	130A St: 72 Ave to 73 Ave	Medium Term (4 - 6 Yrs)	239,000	144,000	95,000	-
9462	400m of 250mm diameter relief sewer	068 Ave: 130 St - 132 St	Medium Term (4 - 6 Yrs)	434,000	261,000	173,000	-
9463	200m of 250mm diameter relief sewer	132 St: 072 - 073 Ave	Medium Term (4 - 6 Yrs)	238,000	143,000	95,000	-
9464	235m of 250mm diameter relief sewer ®	132 St and 64A Ave to 133 St and 65A Ave	Short Term (1 - 3 Yrs)	252,000	202,000	50,000	-
9465	45m of 250mm diameter relief sewer	132 St: 073A Ave to 7360	Short Term (1 - 3 Yrs)	67,000	54,000	13,000	-
9466	55m of 250mm diameter relief sewer	135 St: 64A Ave to 65A Ave	Medium Term (4 - 6 Yrs)	49,000	40,000	9,000	-
9468	1,080m of 375mm diameter relief sewer	176 St: 065A - 060 Ave	Long Term (7 - 10 Yrs)	1,716,000	1,373,000	343,000	-
9470	130m of 375mm diameter relief sewer	061 Ave: East of 167A St	Short Term (1 - 3 Yrs)	167,000	117,000	50,000	-
9472	660m of 375mm diameter relief sewer	064 Ave: 149 St to 152 St	Medium Term (4 - 6 Yrs)	1,172,000	821,000	351,000	-
9475	260m fo 250mm diameter relief sewer	090 Ave: 12267 - 124 St	Short Term (1 - 3 Yrs)	254,000	153,000	101,000	-
11266	180m of 375mm diameter sewer upgrade	126 St: 99 Ave - Robson Ck / 9970 blk	Medium Term (4 - 6 Yrs)	79,000	-	79,000	-
11268	137m of 375 diameter relief sewer	099 Ave/Woodland Pl (Robson Park)	Medium Term (4 - 6 Yrs)	166,000	166,000	-	-
11269	500m of 375mm diameter relief sewer	134 St: 070B - 068 Ave	Long Term (7 - 10 Yrs)	657,000	657,000	-	-
11320	415m of 375 diameter relief sewer	Boundary Dr (South): Boundary Cr - lot 12181 (North)	Short Term (1 - 3 Yrs)	531,000	531,000	-	-
11340	95m of 375mm diameter relief sewer	Claytonhill Dr / Claytonwood Cr - 67A Ave Utility ROW	Short Term (1 - 3 Yrs)	86,000	86,000	-	-
11341	525m of 250mm diameter	020 Ave: 153 -155 St & 15272 - 020 Ave	Long Term (7 - 10 Yrs)	625,000	450,000	175,000	-
11342	65m of 200mm diameter relief sewer	125A St (West) / New McLellan Rd	Short Term (1 - 3 Yrs)	65,000	33,000	32,000	-
11343	50m of 300mm diameter relief sewer	062 Ave: 13570 to 136 St	Medium Term (4 - 6 Yrs)	58,000	29,000	29,000	-
11344	90m of 300mm diameter relief sewer	064 Ave: 130 St - 13031	Medium Term (4 - 6 Yrs)	144,000	72,000	72,000	-
11345	200m of 375mm diameter relief sewer	068 Ave: 132 St - 13300 blk	Short Term (1 - 3 Yrs)	284,000	284,000	-	-
11346	190m of 375mm diameter relief sewer	070B Ave: 132 St - lot 13301	Short Term (1 - 3 Yrs)	243,000	243,000	-	-
11348	120m of 375mm diameter relief sewer	130 St: 067A Ave - 068 Ave	Short Term (1 - 3 Yrs)	153,000	153,000	-	-
11351	25m of 200mm diameter relief sewer	082 Ave (South) / 153 St	Short Term (1 - 3 Yrs)	20,000	12,000	8,000	-
11353	130m of 200mm diameter relief sewer	092 Ave: 137A St - lot 13684	Short Term (1 - 3 Yrs)	162,000	130,000	32,000	-

SEWER

Program 1632 - Minor Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
11354	200m of 300mm diameter relief sewer	132 St: 092 Ave to lot 9307	Short Term (1 - 3 Yrs)	320,000	192,000	128,000	-
11356	200m of 375mm diameter relief sewer	094 Ave: 194-195 St	Short Term (1 - 3 Yrs)	284,000	284,000	-	-
11359	140m of 375mm diameter relief sewer	128 St: 099 Ave - lot 9847	Medium Term (4 - 6 Yrs)	227,000	114,000	113,000	-
11360	300m of 300mm diameter relief sewer	120 St: 100 Ave - 101A Ave	Long Term (7 - 10 Yrs)	332,000	100,000	232,000	-
11361	20m of 200mm diameter relief sewer	111A Ave / 146 St	Short Term (1 - 3 Yrs)	22,000	22,000	-	-
11963	282m of 300mm diameter gravity sewer	Martin Dr: lot 1750 - Martin Dr / 16 Ave	Long Term (7 - 10 Yrs)	452,000	452,000	-	-
11964	80m of 300 diameter gravity (N)	Southmere Cr (East): lot 1881	NCP Driven	103,000	103,000	-	-
11965	420m of 250mm diameter gavity (N)	Southmere Village Park	NCP Driven	207,000	207,000	-	-
11966	267m of 250mm diameter gravity (N)	Southmere Cr: lot 1766 - lot 14812 17A Ave	Short Term (1 - 3 Yrs)	196,000	196,000	-	-
11967	170m of 250mm diameter gravity (N)	017A Ave: lot 14812 - 016 Ave	Long Term (7 - 10 Yrs)	125,000	125,000	-	-
11968	28m of 250mm diameter	016 Ave: 148 - 148A St	Long Term (7 - 10 Yrs)	42,000	42,000	-	-
11969	93m of 375mm diameter (N)	148 St from 1645 to 016 Ave	Short Term (1 - 3 Yrs)	166,000	166,000	-	-
12913	2,140m of 300mm diamter	096 Ave: 179 - 185 St	Medium Term (4 - 6 Yrs)	2,739,200	2,739,200	-	-
13013	Rehabilitation and Replacement of Minor Mains	Various Locations	Short Term (1 - 3 Yrs)	3,000,000	-	3,000,000	-
13622	140m of 300mm diameter sewer upgrade	168 St: 102 Ave - 103 Ave	Short Term (1 - 3 Yrs)	164,000	32,800	131,200	-
13623	106m of 300mm diameter sewer upgrade	102 Ave: 129 St to 129A St	Short Term (1 - 3 Yrs)	117,000	23,400	93,600	-
13624	51m of 300mm diameter sewer upgrade	132 St: lot 7117 to 7129	Short Term (1 - 3 Yrs)	68,000	13,600	54,400	-
13625	33m of 300mm diameter sewer upgrade	144 St: lot 3422 to 3402	Short Term (1 - 3 Yrs)	36,000	7,200	28,800	-
13626	21m of 300mm diameter sewer upgrade	122 St: lot 6935 (South)	Short Term (1 - 3 Yrs)	18,000	3,600	14,400	-
13627	34m of 300mm diameter sewer upgrade	143 St: 142 St to lot 7639	Short Term (1 - 3 Yrs)	33,000	33,000	-	-
13628	19m of 300mm diameter sewer upgrade	Bose Rd	Short Term (1 - 3 Yrs)	16,000	3,200	12,800	-
13629	23m of 300mm diameter sewer upgrade	Killarney Pl: lot 15417	Short Term (1 - 3 Yrs)	19,000	3,800	15,200	-
13630	126m of 250mm diameter sewer upgrade	168 St: 103 Ave to lot 10362	Short Term (1 - 3 Yrs)	144,000	28,800	115,200	-
13631	60m of 250mm diameter sewer upgrade	168 St: 104 Ave to lot 10362	Short Term (1 - 3 Yrs)	74,000	14,800	59,200	-
13632	164m of 300mm diameter sewer upgrade	064 Ave: lot 15382 (South)	Short Term (1 - 3 Yrs)	132,000	26,400	105,600	-
13633	215m of 300mm diameter sewer upgrade	Fraser Hwy: lot 15685 to 158 St	Short Term (1 - 3 Yrs)	287,000	57,400	229,600	-
13634	81m of 300mm diameter sewer upgrade	128St: 099 Ave to lot 9847	Short Term (1 - 3 Yrs)	109,000	21,800	87,200	-
13635	114m of 300mm diameter sewer upgrade	Killarney Pl: lot 15417 (North)	Short Term (1 - 3 Yrs)	92,000	18,400	73,600	-
13636	103m of 250mm diameter sewer upgrade	100 Ave - 129A to 129 St	Short Term (1 - 3 Yrs)	124,000	24,800	99,200	-
13637	23m of 300mm diameter sewer upgrade	Killarney Pl: lot 15411 (in culdesac)	Short Term (1 - 3 Yrs)	25,000	5,000	20,000	-
13638	26m of 300mm diameter sewer upgrade	100 Ave: lot 14345 - 143A St	Short Term (1 - 3 Yrs)	35,000	7,000	28,000	-
13639	57m of 300mm diameter sewer upgrade	Killarney Pl: lot 15429 (East)	Short Term (1 - 3 Yrs)	51,000	10,200	40,800	-
13640	104m of 300mm diameter sewer upgrade	128 St: 097 Ave (North) to lot 9769	Short Term (1 - 3 Yrs)	139,000	27,800	111,200	-
13641	141m of 300mm diameter sewer upgrade	Killarney Pl: lot 15417 (North)	Short Term (1 - 3 Yrs)	114,000	22,800	91,200	-
13642	27m of 300mm diameter sewer upgrade	148 St: lot 2036 - 020 Ave	Short Term (1 - 3 Yrs)	25,000	5,000	20,000	-
13643	84m of 300mm diameter sewer upgrade	Pinewood Cr:125A St to 126 St	Short Term (1 - 3 Yrs)	81,000	16,200	64,800	-
13644	11m of 300mm diameter sewer upgrade	148 St: lot 2036 (Lane)	Short Term (1 - 3 Yrs)	11,000	2,200	8,800	-
13646	55m of 300mm diameter sewer upgrade	132 St: 068 Ave to lot 6775	Short Term (1 - 3 Yrs)	74,000	14,800	59,200	-

SEWER

Program 1632 - Minor Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13647	123m of 300mm diameter sewer upgrade	134B St: lot 8826 to 088A Ave	Short Term (1 - 3 Yrs)	131,000	26,200	104,800	-
13648	29m of 250mm diameter sewer upgrade	Killarney Pl: lot 15436	Short Term (1 - 3 Yrs)	27,000	5,400	21,600	-
13649	29m of 250mm diameter sewer upgrade	064 Ave: lot 15382 (South)	Short Term (1 - 3 Yrs)	21,000	4,200	16,800	-
13650	79m of 300mm diameter sewer upgrade	157 St: lot 8740 to Fraser Hwy	Short Term (1 - 3 Yrs)	64,000	12,800	51,200	-
13651	51m of 300mm diameter sewer upgrade	125A: Pinewood Cr to lot 12559	Short Term (1 - 3 Yrs)	50,000	10,000	40,000	-
13652	98m of 300mm diameter sewer upgrade	122 St: 076 Ave to 076A Ave	Short Term (1 - 3 Yrs)	95,000	19,000	76,000	-
13653	19m of 250mm diameter sewer upgrade	098Ave: lot 11730 (South-East)	Short Term (1 - 3 Yrs)	14,000	2,800	11,200	-
13654	63m of 250mm diameter sewer upgrade	060A Ave: lot 15457 (East)	Short Term (1 - 3 Yrs)	54,000	10,800	43,200	-
13655	164m of 250mm diameter sewer upgrade	064 Ave: lot 15238 (East)	Short Term (1 - 3 Yrs)	121,000	24,200	96,800	-
13656	32m of 300mm diameter sewer upgrade	020 Ave: lot 14833 to lot 14853	Short Term (1 - 3 Yrs)	38,000	7,600	30,400	-
13657	16m of 300mm diameter sewer upgrade	064 Ave: lot 13498 - 13514	Short Term (1 - 3 Yrs)	22,000	4,400	17,600	-
13658	45m of 250mm diameter sewer upgrade	River Rd: lot 10035 to 10019	Short Term (1 - 3 Yrs)	42,000	8,400	33,600	-
13659	54m of 300mm diameter sewer upgrade	125A St: 097A Ave to lot 12559	Short Term (1 - 3 Yrs)	52,000	10,400	41,600	-
13660	105m of 300mm diameter sewer upgrade	097Ave: 125St to 125A St	Short Term (1 - 3 Yrs)	116,000	23,200	92,800	-
13661	106m of 250mm diameter sewer upgrade	Southmere Cres: 017 Ave to lot 1811	Short Term (1 - 3 Yrs)	114,000	22,800	91,200	-
13662	46m of 300mm diameter sewer upgrade	095Ave: lot 15547 (East Property Line)	Medium Term (4 - 6 Yrs)	37,000	27,750	9,250	-
13664	45m of 300mm diameter sewer upgrade	122A St: 072 Ave to lot 7235	Medium Term (4 - 6 Yrs)	46,000	34,500	11,500	-
13665	112m of 300mm diameter sewer upgrade	122A St: lot 7355 to 074 Ave	Medium Term (4 - 6 Yrs)	118,000	88,500	29,500	-
13668	38m of 300mm diameter sewer upgrade	089A Ave: 160 St to lot 16016	Medium Term (4 - 6 Yrs)	54,000	40,500	13,500	-
13669	44m of 300mm diameter sewer upgrade	160 St: lot 8909 to 8925	Medium Term (4 - 6 Yrs)	59,000	44,250	14,750	-
13670	81m of 300mm diameter sewer upgrade	060Ave: lot 18486 to 18456	Medium Term (4 - 6 Yrs)	92,000	69,000	23,000	-
13671	55m of 250mm diameter sewer upgrade	101B Ave: Semiahmoo Rd to lot 13047	Medium Term (4 - 6 Yrs)	54,000	37,800	16,200	-
13672	97m of 250mm diameter sewer upgrade	103A Ave: lot 13022 to 13062 (Lane)	Medium Term (4 - 6 Yrs)	104,000	72,800	31,200	-
13673	49m of 250mm diameter sewer upgrade	103A Ave: lot 13022 (West of Property)	Medium Term (4 - 6 Yrs)	44,000	30,800	13,200	-
13674	66m of 300mm diameter sewer upgrade	129 St: lot 10352 (South)	Medium Term (4 - 6 Yrs)	56,000	39,200	16,800	-
13675	53m of 300mm diameter sewer upgrade	125A St: 097A Ave to 097 Ave	Medium Term (4 - 6 Yrs)	52,000	36,400	15,600	-
13676	13m of 300mm diameter sewer upgrade	085A and 149A St (intersection)	Medium Term (4 - 6 Yrs)	13,000	9,100	3,900	-
13677	67m of 300mm diameter sewer upgrade	100 Ave and 128 St	Medium Term (4 - 6 Yrs)	95,000	66,500	28,500	-
13678	94m of 250mm diameter sewer upgrade	103A Ave: lot 13071 to 13101 (Lane)	Medium Term (4 - 6 Yrs)	92,000	64,400	27,600	-
13679	45m of 250mm diameter sewer upgrade	Semiahmoo Rd: 101B Ave to 102 Ave	Medium Term (4 - 6 Yrs)	40,000	28,000	12,000	-
13680	108m of 300mm diameter sewer upgrade	096A Ave: 125 St to lot 12555	Medium Term (4 - 6 Yrs)	109,000	76,300	32,700	-
13682	46m of 250mm diameter sewer upgrade	103 Ave: lot 13113 (Easement West)	Medium Term (4 - 6 Yrs)	34,000	23,800	10,200	-
13683	138m of 300mm diameter sewer upgrade	127B St: lot 9946 to 100 Ave	Medium Term (4 - 6 Yrs)	133,000	93,100	39,900	-
13684	87m of 300mm diameter sewer upgrade	Prince Charles Blvd: 092 Ave to lot 9232	Medium Term (4 - 6 Yrs)	100,000	70,000	30,000	-
13685	90m of 300mm diameter sewer upgrade	152 St: 091A to 092 Ave	Medium Term (4 - 6 Yrs)	132,000	92,400	39,600	-
13686	60m of 300mm diameter sewer upgrade	022 Ave: 156 St to King George Blvd	Medium Term (4 - 6 Yrs)	59,000	41,300	17,700	-
13687	50m of 300mm diameter sewer upgrade	100 Ave: 128 St to lot 12834	Medium Term (4 - 6 Yrs)	54,000	37,800	16,200	-
13688	96m of 300mm diameter sewer upgrade	100 Ave: lot 13618	Medium Term (4 - 6 Yrs)	128,000	89,600	38,400	-

SEWER

Program 1632 - Minor Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13689	99m of 300mm diameter sewer upgrade	Prince Charles Blvd: 092A Ave to Applehill Cr	Medium Term (4 - 6 Yrs)	115,000	80,500	34,500	-
13694	19m of 375mm diameter sewer upgrade	104 Ave / 176 St	Short Term (1 - 3 Yrs)	18,000	3,600	14,400	-
13696	9m of 375mm diameter sewer upgrade	127St / 102Ave	Short Term (1 - 3 Yrs)	11,000	2,200	8,800	-
13700	28m of 375mm diameter sewer upgrade	Boundary Dr: 6101 (West)	Short Term (1 - 3 Yrs)	30,000	6,000	24,000	-
13701	29m of 375mm diameter sewer upgrade	Boundary Dr: lot 6074 (South)	Short Term (1 - 3 Yrs)	33,000	6,600	26,400	-
13703	97m of 375mm diameter sewer upgrade	128St: 096B Ave to lot 9713	Short Term (1 - 3 Yrs)	147,000	29,400	117,600	-
13704	37m of 375mm diameter sewer upgrade	Northpark Cr / Boundary Dr (West)	Short Term (1 - 3 Yrs)	40,000	8,000	32,000	-
13706	106m of 375mm diameter sewer upgrade	Boundary Dr (West): lot 6074 to 6069	Short Term (1 - 3 Yrs)	115,000	23,000	92,000	-
13707	86m of 375mm diameter sewer upgrade	098A Ave: lot 19250	Short Term (1 - 3 Yrs)	130,000	26,000	104,000	-
13708	24m of 375mm diameter sewer upgrade	192St / 098A Ave	Short Term (1 - 3 Yrs)	37,000	7,400	29,600	-
13709	102m of 375mm diameter sewer upgrade	Grosvenor Rd: Berg Rd - Selkirk Rd	Short Term (1 - 3 Yrs)	140,000	28,000	112,000	-
13710	37m of 375mm diameter sewer upgrade	Hwy 1: lot 15627	Short Term (1 - 3 Yrs)	34,000	6,800	27,200	-
13711	135m of 375mm diameter sewer upgrade	098A Ave: lot 19250	Short Term (1 - 3 Yrs)	204,000	40,800	163,200	-
13712	97m of 375mm diameter sewer upgrade	094 Ave: 195 St to lot 19434	Short Term (1 - 3 Yrs)	122,000	91,500	30,500	-
13732	83m of 375mm diameter sewer upgrade	150 St: Fraser Hwy to 090A Ave	Short Term (1 - 3 Yrs)	98,000	73,500	24,500	-
13733	102m of 375mm diameter sewer upgrade	094Ave: 194 St to lot 19434	Short Term (1 - 3 Yrs)	129,000	96,750	32,250	-
13734	107m of 375mm diameter sewer upgrade	Fraser Hwy: lot 15107 to 15043	Short Term (1 - 3 Yrs)	163,000	122,250	40,750	-
13735	39m of 375mm diameter sewer upgrade	Fraser Hwy: lot 15161 to 15167	Short Term (1 - 3 Yrs)	59,000	44,250	14,750	-
13736	112m of 375mm diameter sewer upgrade	Fraser Hwy: lot 15043 to 150 St	Short Term (1 - 3 Yrs)	170,000	127,500	42,500	-
13737	97m of 375mm diameter sewer upgrade	108 Ave: lot 13277 to 13353	Short Term (1 - 3 Yrs)	154,000	115,500	38,500	-
13738	26m of 375mm diameter sewer upgrade	088 Ave: lot 12645	Short Term (1 - 3 Yrs)	40,000	30,000	10,000	-
13739	27m of 375mm diameter sewer upgrade	194 St: lot 9275	Short Term (1 - 3 Yrs)	33,000	24,750	8,250	-
13743	35m of 375mm diameter sewer upgrade	127St / 102Ave (East)	Short Term (1 - 3 Yrs)	40,000	28,000	12,000	-
13749	107m of 375mm diameter sewer upgrade	090 Ave: lot 12521 (Lane)	Short Term (1 - 3 Yrs)	137,000	95,900	41,100	-
13755	500m of 375mm diameter sewer upgrade	102 Ave: 124 St to 127 St	Short Term (1 - 3 Yrs)	543,000	380,100	162,900	-
13770	66m of 375mm diameter sewer upgrade	099 Ave: 128 St to lot 12769	Medium Term (4 - 6 Yrs)	79,000	55,300	23,700	-
14065	35m of 250mm diameter sewer upgrade	099 Ave: lot 12594 (East of Property Line)	Long Term (7 - 10 Yrs)	26,000	26,000	-	-
14066	11m of 250mm diameter sewer upgrade	099 Ave: lot 12594 (North-East)	Long Term (7 - 10 Yrs)	11,000	11,000	-	-
14067	92m of 300mm diameter sewer upgrade	064 Ave: 134A St to lot 13498	Long Term (7 - 10 Yrs)	135,000	135,000	-	-
14068	79m of 300mm diameter sewer upgrade	168 St: 108 Ave to lot 10769	Long Term (7 - 10 Yrs)	111,000	111,000	-	-
14069	37m of 300mm diameter sewer upgrade	103A Ave / Old Yale Rd (East)	Long Term (7 - 10 Yrs)	50,000	50,000	-	-
14070	11m of 300mm diameter sewer upgrade	125 St / 092 Ave	Long Term (7 - 10 Yrs)	12,000	12,000	-	-
14071	88m of 300mm diameter sewer upgrade	091 Ave: lot 13753	Long Term (7 - 10 Yrs)	71,000	71,000	-	-
14072	114m of 300mm diameter sewer upgrade	135A St: lot 10637	Long Term (7 - 10 Yrs)	126,000	126,000	-	-
14073	146m of 300mm diameter sewer upgrade	125 St: 096A Ave to 097 Ave	Long Term (7 - 10 Yrs)	150,000	150,000	-	-
14074	102m of 300mm diameter sewer upgrade	092 Ave: lot 13750 (West)	Long Term (7 - 10 Yrs)	98,000	98,000	-	-
14075	50m of 300mm diameter sewer upgrade	096A Ave: lot 12560 (Lane)	Long Term (7 - 10 Yrs)	49,000	49,000	-	-
14076	71m of 300mm diameter sewer upgrade	157 St: lot 8749	Long Term (7 - 10 Yrs)	79,000	79,000	-	-

SEWER

Program 1632 - Minor Mains

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
14077	88m of 300mm diameter sewer upgrade	088A / 134B St	Long Term (7 - 10 Yrs)	98,000	98,000	-	-
14078	111m of 300mm diameter sewer upgrade	080 Ave: lot 12586 to 126A St	Long Term (7 - 10 Yrs)	148,000	148,000	-	-
14079	81m of 300mm diameter sewer upgrade	088 Ave: 156 St to 157 St	Long Term (7 - 10 Yrs)	120,000	120,000	-	-
14080	37m of 300mm diameter sewer upgrade	128 St / Prince Charles Blvd (East)	Long Term (7 - 10 Yrs)	40,000	40,000	-	-
14081	104m of 300mm diameter sewer upgrade	128 St / 096A Ave	Long Term (7 - 10 Yrs)	139,000	139,000	-	-
14082	60m of 300mm diameter sewer upgrade	090A Ave - 136B St	Long Term (7 - 10 Yrs)	70,000	70,000	-	-
14083	37m of 300mm diameter sewer upgrade	088 Ave / 134B St	Long Term (7 - 10 Yrs)	40,000	40,000	-	-
14084	97m of 250mm diameter sewer upgrade	102 Ave: lot 12747	Long Term (7 - 10 Yrs)	72,000	72,000	-	-
14102	Rehabilitation and Replacement of Minor Mains	Various Locations	Medium Term (4 - 6 Yrs)	3,000,000	-	3,000,000	-
14103	Rehabilitation and Replacement of Minor Mains	Various Locations	Long Term (7 - 10 Yrs)	4,000,000	-	4,000,000	-
				37,586,200	19,775,500	17,810,700	-

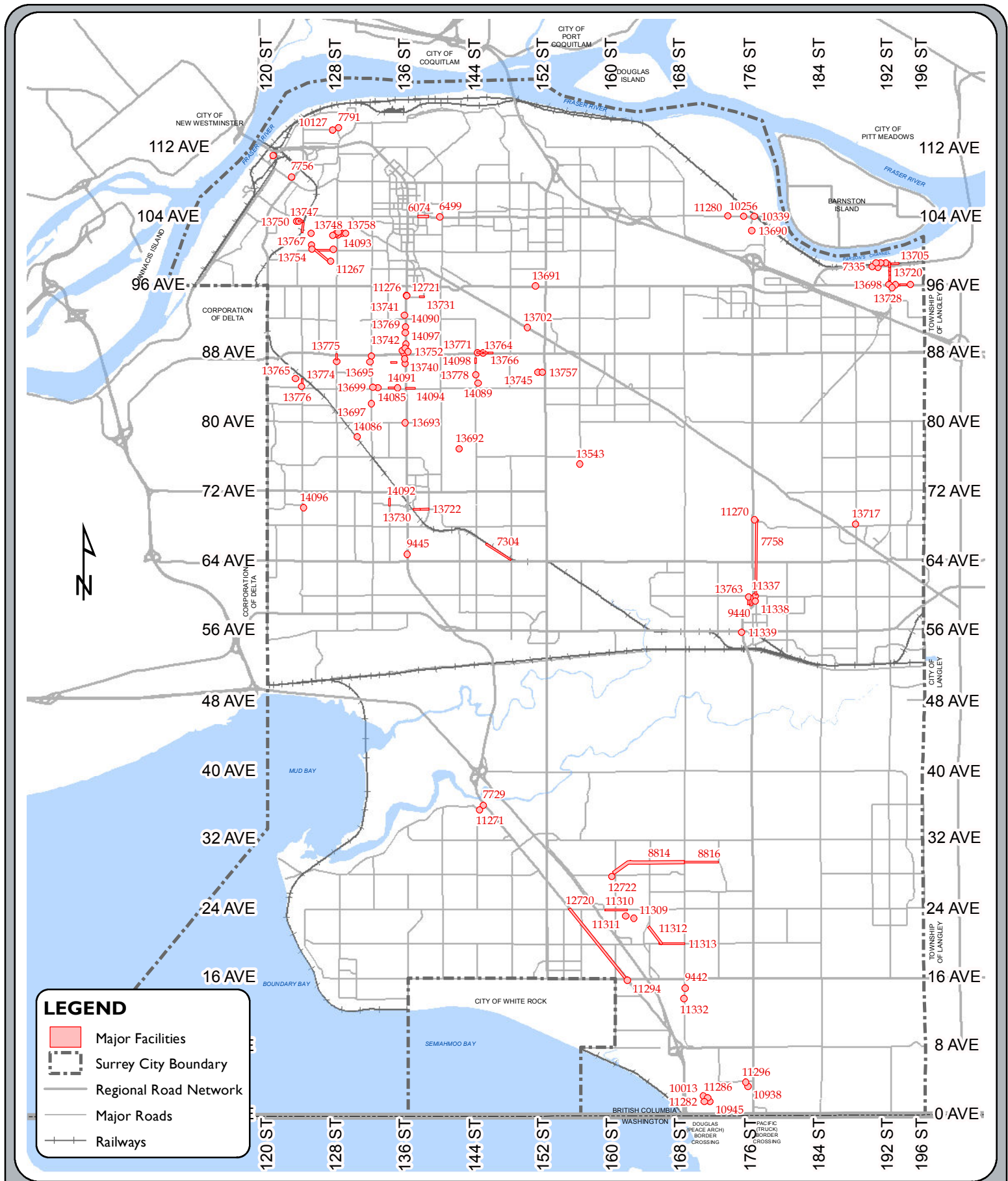
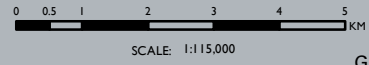


FIGURE 10.18 - Sewer Major Facilities (Program 1644)



The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

SEWER

Program 1644 - Major Facilities

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
6074	250m of 525mm diameter	104 Ave: Whalley Blvd - 138A St	Short Term (1 - 3 Yrs)	465,000	326,000	139,000	-
6499	123m of 525 diameter relief sewer	104 Ave: 139A - 140 St	Short Term (1 - 3 Yrs)	209,100	209,100	-	-
7304	700m of 750mm diameter relief sewer	Hyland Rd: 066 - 064 Ave	Medium Term (4 - 6 Yrs)	1,677,000	1,677,000	-	-
7335	Port Kells Lift Station: Pump Upsizing	190 St / 098 Ave	Medium Term (4 - 6 Yrs)	2,003,400	2,003,400	-	-
7729	Upgrade Pump Capacity	Crescent Rd / lot 3603 King George Blvd	Medium Term (4 - 6 Yrs)	1,001,700	1,001,700	-	-
7756	Steep Grade Lift Stations	South Westminster	Short Term (1 - 3 Yrs)	2,403,020	2,042,620	360,400	-
7758	1,800m of 1050mm diameter	176A St: 068A - 060 Ave	Medium Term (4 - 6 Yrs)	1,884,000	1,884,000	-	-
7791	Steep Grade System for Bridgeview East	Bridgeview East Cell	Long Term (7 - 10 Yrs)	10,918,000	3,275,400	7,642,600	-
8814	875m of 750mm diameter upsizing	164 St / 2900 blk - 168 St / 3000 blk	Upsizing Contribution	998,366	998,366	-	-
8816	Grandview Height Interceptor Ph 3 Upsizing	168 St - 172 St: lot 2900	Long Term (7 - 10 Yrs)	687,754	687,754	-	-
9440	305m of 1,050mm diameter relief trunk	176 St / 060 Ave to 175B St/059 Ave	Short Term (1 - 3 Yrs)	945,000	945,000	-	-
9442	Grandview South Pump Station and Forcemain Trunk	168 St / 13 Ave	Short Term (1 - 3 Yrs)	5,957,800	3,423,800	-	2,534,000
9445	162m of 450mm diameter relief sewer	King George Blvd: 064 Ave - 6475	Long Term (7 - 10 Yrs)	293,000	293,000	-	-
10013	Emergency Storage for Douglas Pump Station	171 St / 002 Ave	Medium Term (4 - 6 Yrs)	530,000	530,000	-	-
10127	Bridgeview Pump Station and Forcemain	Various Locations	Long Term (7 - 10 Yrs)	1,442,000	721,000	721,000	-
10256	305m of 750 mm diameter (NSI Connector)	104 Ave: 176 St - lot 17425	Long Term (7 - 10 Yrs)	731,000	731,000	-	-
10339	Big Bend Pump Station Upgrade	104A Ave: lot 17337	Medium Term (4 - 6 Yrs)	1,590,000	1,590,000	-	-
10938	Douglas Pump Station 2 (Front Ender)	004 Ave / 175 St	Short Term (1 - 3 Yrs)	689,000	689,000	-	-
10945	Douglas Pump Station 1 Standby Generator	171 St / 002 blk	Long Term (7 - 10 Yrs)	265,000	265,000	-	-
11267	228m of 450mm diameter	099 Ave: Woodland Pl - 128 St	Short Term (1 - 3 Yrs)	128,000	-	128,000	-
11270	Pump Station Upgrade	176 St / 68 Ave (North)	Long Term (7 - 10 Yrs)	429,300	429,300	-	-
11271	Pinch Valve Replacement at Crescent Road	144 St / Crescent Rd (North)	Short Term (1 - 3 Yrs)	161,120	161,120	-	-
11276	Quibble Creek Pump Station Upgrade	King George Blvd / 094A Ave	Short Term (1 - 3 Yrs)	424,000	424,000	-	-
11280	Odour Control Facility	173 St / 104 Ave	Short Term (1 - 3 Yrs)	636,000	636,000	-	-
11281	Odour Control Facility	Various Locations	Medium Term (4 - 6 Yrs)	2,003,400	501,380	1,502,020	-
11282	Douglas Pump Station West Surge Tank	171 St / 002 Ave	Long Term (7 - 10 Yrs)	350,860	350,860	-	-
11285	Surcharge/Manhole Lockdown	Various Locations	Long Term (7 - 10 Yrs)	530,000	318,000	212,000	-
11286	Douglas Pump Station Relocation	171 St / 002 Ave (North)	Long Term (7 - 10 Yrs)	1,202,040	1,202,040	-	-
11287	Pump Station Upgrade	Various Locations	Short Term (1 - 3 Yrs)	2,400,000	-	2,400,000	-
11290	Sag Repairs (N)	Various Locations	Medium Term (4 - 6 Yrs)	1,590,000	-	1,590,000	-
11294	North Bluff Pump Station Surge Tank (N)	King George Blvd / 016 Ave	Long Term (7 - 10 Yrs)	501,380	501,380	-	-
11296	Douglas Pump Station East Upgrade	004 Ave / 175 St	Long Term (7 - 10 Yrs)	251,000	251,000	-	-
11309	Grandview South Odour Control	023 Ave / 162 St	Long Term (7 - 10 Yrs)	701,700	701,700	-	-
11310	590m of 750 diameter	029A Ave: 160A - 162 St	Short Term (1 - 3 Yrs)	500,000	500,000	-	-
11311	80m of 525 diameter	022A Ave: 163 - 163A St; 163 St: 22A Ave - 22 Ave	Short Term (1 - 3 Yrs)	910,000	910,000	-	-
11312	350m of 450 diameter	022 Ave / 164 St - 021 Ave / 165A St	Long Term (7 - 10 Yrs)	907,000	907,000	-	-
11313	485m of 450 diameter	020 Ave: 165A - 168 St	Long Term (7 - 10 Yrs)	752,000	752,000	-	-

SEWER

Program 1644 - Major Facilities

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
11332	100m of 525mm diameter	168 St: 012 Ave	Short Term (1 - 3 Yrs)	170,000	170,000	-	-
11337	100m of 1,050mm diameter	060 Ave: 176 St to ROW	Long Term (7 - 10 Yrs)	310,000	310,000	-	-
11338	210m of 1,050mm diameter	176 St: 059 Ave - 060 Ave	Medium Term (4 - 6 Yrs)	651,000	651,000	-	-
11339	390m of 1200mm diameter	175 St: Cloverdale By-pass to Hwy 10	Long Term (7 - 10 Yrs)	1,052,000	1,052,000	-	-
11357	250m of 450mm diameter	099 Ave / Woodland Pl - lot 9970 / 126 St	Medium Term (4 - 6 Yrs)	140,000	-	140,000	-
12720	Twin 500mm FM from North Buff to 24 Avenue	King George Blvd: 016 - 024 Ave	Medium Term (4 - 6 Yrs)	4,010,000	4,010,000	-	-
12721	Quibble Creek 4th pump	094A Ave / King George Blvd	Long Term (7 - 10 Yrs)	424,000	424,000	-	-
12722	Odour Control for Grandview Heights	160 St / 028 Ave	Medium Term (4 - 6 Yrs)	1,060,000	1,060,000	-	-
13543	Lower Tynehead Siphon	075 Ave / 156 St	Medium Term (4 - 6 Yrs)	2,650,000	2,650,000	-	-
13690	14m of 1050mm diameter sewer upgrade	176 Ave: lot 10219 (North-East)	Short Term (1 - 3 Yrs)	45,000	9,000	36,000	-
13691	13m of 525mm diameter sewer upgrade	096 Ave / 151 St	Short Term (1 - 3 Yrs)	24,000	4,800	19,200	-
13692	27m of 450mm diameter sewer upgrade	142 St: lot 7683	Short Term (1 - 3 Yrs)	28,000	5,600	22,400	-
13693	62m of 450mm diameter sewer upgrade	080 Ave: lot 13558 - 080 Ave - King George Blvd	Short Term (1 - 3 Yrs)	104,000	20,800	83,200	-
13695	13m of 675mm diameter sewer upgrade	132St: lot 8696	Short Term (1 - 3 Yrs)	29,000	5,800	23,200	-
13697	29m of 525mm diameter sewer upgrade	132 St: 082A Ave to lot 8217	Short Term (1 - 3 Yrs)	55,000	11,000	44,000	-
13698	21m of 525mm diameter sewer upgrade	096 Ave / 192 St	Short Term (1 - 3 Yrs)	39,000	7,800	31,200	-
13699	104m of 600mm diameter sewer upgrade	084 Ave: 132 St to lot 13229	Short Term (1 - 3 Yrs)	211,000	42,200	168,800	-
13702	10m of 450mm diameter sewer upgrade	150 St / Fraser Hwy	Short Term (1 - 3 Yrs)	18,000	3,600	14,400	-
13705	92m of 450mm diameter sewer upgrade	098A Ave: lot 19250	Short Term (1 - 3 Yrs)	155,000	31,000	124,000	-
13713	99m of 600mm diameter sewer upgrade	190St: lot 9830	Short Term (1 - 3 Yrs)	121,000	90,750	30,250	-
13714	124m of 450mm diameter sewer upgrade	096 Ave: lot 19272 (North of Property)	Short Term (1 - 3 Yrs)	208,000	156,000	52,000	-
13715	97m of 600mm diameter sewer upgrade	190St: lot 9830	Short Term (1 - 3 Yrs)	119,000	89,250	29,750	-
13716	106m of 525mm diameter sewer upgrade	192 St: lot 9715 to 9761	Short Term (1 - 3 Yrs)	212,000	159,000	53,000	-
13717	105m of 525mm diameter sewer upgrade	188 St: 068 Ave to 068A Ave	Short Term (1 - 3 Yrs)	163,000	122,250	40,750	-
13718	105m of 525mm diameter sewer upgrade	192 St: lot 9761 to 9785	Short Term (1 - 3 Yrs)	223,000	167,250	55,750	-
13719	103m of 600mm diameter sewer upgrade	190 St: lot 9830	Short Term (1 - 3 Yrs)	126,000	94,500	31,500	-
13720	56m of 525mm diameter sewer upgrade	192St: lot 9785 - Golden Ears Way	Short Term (1 - 3 Yrs)	105,000	78,750	26,250	-
13721	99m of 525mm diameter sewer upgrade	084 Ave: lot 13277	Short Term (1 - 3 Yrs)	184,000	138,000	46,000	-
13722	191m of 450mm diameter sewer upgrade	070 Ave: 137A to 138 St	Short Term (1 - 3 Yrs)	256,000	192,000	64,000	-
13723	100m of 600mm diameter sewer upgrade	190 St: lot 9830	Short Term (1 - 3 Yrs)	122,000	91,500	30,500	-
13724	63m of 450mm diameter sewer upgrade	096 Ave: lot 19272 to 19238	Short Term (1 - 3 Yrs)	106,000	79,500	26,500	-
13725	120m of 450mm diameter sewer upgrade	096 Ave: lot 19358	Short Term (1 - 3 Yrs)	201,000	150,750	50,250	-
13726	45m of 450mm diameter sewer upgrade	194A St / 096 Ave - lot 19438 96 Ave	Short Term (1 - 3 Yrs)	78,000	58,500	19,500	-
13727	96m of 525mm diameter sewer upgrade	192 St: 096 Ave to lot 9659	Short Term (1 - 3 Yrs)	192,000	144,000	48,000	-
13728	42m of 450mm diameter sewer upgrade	096 Ave: lot 19218 (North)	Short Term (1 - 3 Yrs)	70,000	52,500	17,500	-
13729	107m of 525mm diameter sewer upgrade	192 St: lot 9659 to 9699	Short Term (1 - 3 Yrs)	214,000	160,500	53,500	-
13730	157m of 450mm diameter sewer upgrade	070 Ave / 136B - 137A St	Short Term (1 - 3 Yrs)	228,000	171,000	57,000	-

SEWER

Program 1644 - Major Facilities

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
13731	106m of 525mm diameter sewer upgrade	094A Ave: 138 St to lot 13764	Short Term (1 - 3 Yrs)	147,000	110,250	36,750	-
13740	25m of 900mm diameter sewer upgrade	King George Blvd: lot 8739	Short Term (1 - 3 Yrs)	70,000	49,000	21,000	-
13741	49m of 750mm diameter sewer upgrade	092A Ave: lot 13499 (East)	Short Term (1 - 3 Yrs)	118,000	82,600	35,400	-
13742	31m of 675mm diameter sewer upgrade	King Geroge Blvd: lot 8835	Short Term (1 - 3 Yrs)	69,000	48,300	20,700	-
13744	91m of 675mm diameter sewer upgrade	King George Blvd: 88 Ave - lot 13588	Short Term (1 - 3 Yrs)	203,000	142,100	60,900	-
13745	87m of 450mm diameter sewer upgrade	151A St: lot 8585 (Lane) - 86 Ave: lot 15096	Short Term (1 - 3 Yrs)	122,000	85,400	36,600	-
13746	151m of 525mm diameter sewer upgrade	124 St: lot 10257	Short Term (1 - 3 Yrs)	181,000	126,700	54,300	-
13747	104m of 525mm diameter sewer upgrade	103A Ave: lot 12375 to 12336	Short Term (1 - 3 Yrs)	149,000	104,300	44,700	-
13748	19m of 450mm diameter sewer upgrade	102 Ave: lot 12720	Short Term (1 - 3 Yrs)	23,000	16,100	6,900	-
13750	6m of 450mm diameter sewer upgrade	123A St / 103A Ave	Short Term (1 - 3 Yrs)	8,000	5,600	2,400	-
13751	38m of 450mm diameter sewer upgrade	Park Dr: lot 10079	Short Term (1 - 3 Yrs)	39,000	27,300	11,700	-
13752	76m of 675mm diameter sewer upgrade	King George Blvd - 88 Ave (North)	Short Term (1 - 3 Yrs)	169,000	118,300	50,700	-
13753	48m of 450mm diameter sewer upgrade	128 St / 102 Ave (West)	Short Term (1 - 3 Yrs)	81,000	56,700	24,300	-
13754	32m of 450mm diameter sewer upgrade	100 Ave: lot 12499 (East)	Short Term (1 - 3 Yrs)	32,000	22,400	9,600	-
13756	32m of 450mm diameter sewer upgrade	123A St / 103A Ave (East)	Short Term (1 - 3 Yrs)	39,000	27,300	11,700	-
13757	45m of 450mm diameter sewer upgrade	151A St: lot 8578 (South Property Line)	Short Term (1 - 3 Yrs)	49,000	34,300	14,700	-
13758	63m of 450mm diameter sewer upgrade	102 Ave / 128A St (West)	Short Term (1 - 3 Yrs)	76,000	53,200	22,800	-
13759	53m of 450mm diameter sewer upgrade	128 St / 102 Ave (East)	Short Term (1 - 3 Yrs)	90,000	63,000	27,000	-
13760	96m of 450mm diameter sewer upgrade	102 Ave: 128A St to 129 St	Short Term (1 - 3 Yrs)	130,000	91,000	39,000	-
13761	110m of 1050mm diameter sewer upgrade	059 Ave: lot 17561 (East Property Line)	Short Term (1 - 3 Yrs)	205,000	143,500	61,500	-
13762	113m of 600mm diameter sewer upgrade	132 St: 088 Ave to lot 8766	Short Term (1 - 3 Yrs)	230,000	161,000	69,000	-
13763	100m of 1050mm diameter sewer upgrade	060 Ave: lot 17560 (East Property Line)	Medium Term (4 - 6 Yrs)	185,000	129,500	55,500	-
13764	122m of 600mm diameter sewer upgrade	088 Ave: #14422 to #14478	Medium Term (4 - 6 Yrs)	265,000	185,500	79,500	-
13765	57m of 375mm diameter sewer upgrade	123 St: lot 8482 (East)	Medium Term (4 - 6 Yrs)	52,000	36,400	15,600	-
13766	82m of 525mm diameter sewer upgrade	088 Ave: lot 14493 to 14542	Medium Term (4 - 6 Yrs)	174,000	121,800	52,200	-
13767	98m of 525mm diameter sewer upgrade	102 Ave: 124A St to 125 St	Medium Term (4 - 6 Yrs)	141,000	98,700	42,300	-
13768	40m of 525mm diameter sewer upgrade	88 Ave: lot 14496 to 14478	Medium Term (4 - 6 Yrs)	86,000	60,200	25,800	-
13769	50m of 600mm diameter sewer upgrade	King Geroge Blvd: lot 9045 to 9023	Medium Term (4 - 6 Yrs)	109,000	76,300	32,700	-
13771	33m of 525mm diameter sewer upgrade	144 St / 088 Ave (East)	Medium Term (4 - 6 Yrs)	66,000	46,200	19,800	-
13772	9m of 600mm diameter sewer upgrade	087A: lot 13570	Medium Term (4 - 6 Yrs)	19,000	13,300	5,700	-
13773	29m of 450mm diameter sewer upgrade	King George Blvd: lot 8835	Medium Term (4 - 6 Yrs)	50,000	35,000	15,000	-
13774	119m of 450mm diameter sewer upgrade	124 St: lot 8480 to 8400	Medium Term (4 - 6 Yrs)	159,000	111,300	47,700	-
13775	111m of 600mm diameter sewer upgrade	128 St: 088 Ave to lot 8740	Medium Term (4 - 6 Yrs)	234,000	163,800	70,200	-
13776	53m of 450mm diameter sewer upgrade	124 St: lot 8400 (South-West)	Medium Term (4 - 6 Yrs)	64,000	44,800	19,200	-
13777	89m of 600mm diameter sewer upgrade	128 St: 087 Ave to lot 8740	Medium Term (4 - 6 Yrs)	194,000	135,800	58,200	-
13778	110m of 525mm diameter sewer upgrade	144 St: 085A Ave to lot 8576	Medium Term (4 - 6 Yrs)	234,000	163,800	70,200	-
13779	425m of 450mm diameter sewer upgrade	100 Ave: 127B St to 125 St	Medium Term (4 - 6 Yrs)	614,000	429,800	184,200	-

SEWER

Program 1644 - Major Facilities

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
14085	151m of 525mm diameter sewer upgrade	084 Ave: 134 St to 134B St	Long Term (7 - 10 Yrs)	321,000	321,000	-	-
14086	64m of 450mm diameter sewer upgrade	078A Ave: lot 13060 (West Property Line)	Long Term (7 - 10 Yrs)	65,000	65,000	-	-
14087	118m of 525mm diameter sewer upgrade	088 Ave: lot 14542 to 146 St	Long Term (7 - 10 Yrs)	243,000	243,000	-	-
14088	143m of 600mm diameter sewer upgrade	87A Ave: lot 13430 to 13494 (South Property Line)	Long Term (7 - 10 Yrs)	210,000	210,000	-	-
14089	8m of 525mm diameter sewer upgrade	144 St: lot 8448	Long Term (7 - 10 Yrs)	12,000	12,000	-	-
14090	14m of 525mm diameter sewer upgrade	King George Blvd: lot 9093 (North-East)	Long Term (7 - 10 Yrs)	26,000	26,000	-	-
14091	69m of 525mm diameter sewer upgrade	084 Ave: 134B St to lot 13505	Long Term (7 - 10 Yrs)	147,000	147,000	-	-
14092	156m of 450mm diameter sewer upgrade	134 St: 070B Ave to lot 7125	Long Term (7 - 10 Yrs)	189,000	189,000	-	-
14093	21m of 375mm diameter sewer upgrade	128 St / 102 Ave	Long Term (7 - 10 Yrs)	32,000	32,000	-	-
14094	124m of 600mm diameter sewer upgrade	084 Ave: King George Blvd to lot 13680	Long Term (7 - 10 Yrs)	253,000	253,000	-	-
14095	4m of 375mm diameter sewer upgrade	100 Ave: lot 12770 (North-East)	Long Term (7 - 10 Yrs)	5,000	5,000	-	-
14096	34m of 525mm diameter sewer upgrade	070 Ave / 124 St (East)	Long Term (7 - 10 Yrs)	54,000	54,000	-	-
14097	25m of 525mm diameter sewer upgrade	089 Ave: lot 13595	Long Term (7 - 10 Yrs)	48,000	48,000	-	-
14098	122m of 525mm diameter sewer upgrade	144 St: lot 8684 to 8734	Long Term (7 - 10 Yrs)	259,000	259,000	-	-
14132	Pump Station Upgrades	Various Locations	Medium Term (4 - 6 Yrs)	2,400,000	-	2,400,000	-
14134	Pump Station Upgrades	Various Locations	Long Term (7 - 10 Yrs)	3,200,000	-	3,200,000	-
				75,510,940	49,788,070	23,188,870	2,534,000

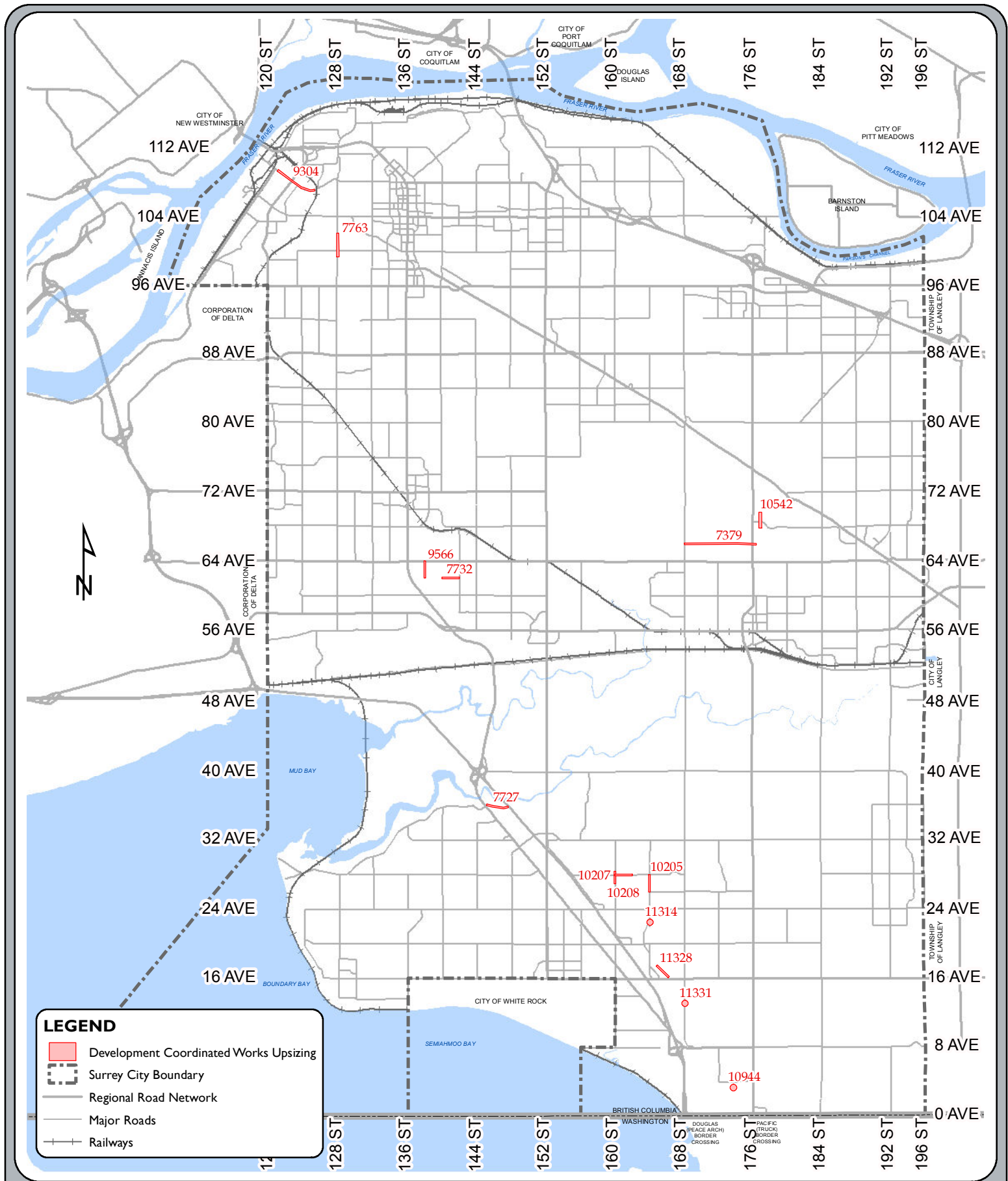
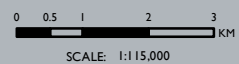


FIGURE 10.19 - Sewer Development Coordinated Works Upsizing (Program 1650)



The data provided is compiled from various sources and is NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

SEWER

Program 1650 - Development Coordinated Works Upsizing

Project ID	Project Name	Project Location	Priority	Total Cost	Growth Component	Non-Growth Component	External Funding
7379	1800m of 600mm diameter (Front Ender)	066 Ave: 168 - 176A St	Upsizing Contribution	50,000	50,000	-	-
7727	450m of 375mm diameter	Winter Cr (North): Hwy 99 - King George Blvd	Upsizing Contribution	140,000	140,000	-	-
7732	790m of 450mm diameter	062/063 Ave: 140 St - 142 St	Upsizing Contribution	356,000	356,000	-	-
7763	230m of 450mm diameter (DCW)	128 St: 100 - 099 Ave	Upsizing Contribution	104,000	104,000	-	-
7779	Upsizing	Various Locations	Upsizing Contribution	6,500,000	6,500,000	-	-
9304	400m of 250mm diameter	Old Yale Rd: 121 St - 125A St	Upsizing Contribution	25,000	25,000	-	-
9566	400m of 250mm diameter	138 St: 062 - 064 Ave	Upsizing Contribution	36,000	36,000	-	-
10205	410m of 250mm diameter	164 St: 026 Ave - 028 Ave	Upsizing Contribution	37,000	37,000	-	-
10207	410m of 375mm diameter	028 Ave: 160 - 162 St	Upsizing Contribution	127,000	127,000	-	-
10208	300m of 450mm diameter	160 St: 027 Ave to lot 2846	Upsizing Contribution	135,000	135,000	-	-
10542	320m of 1050mm diameter (Front Ender)	177 St: 068 Ave - 070 Ave	Upsizing Contribution	50,000	50,000	-	-
10944	260m of 375mm diameter	174 Street: 002 Ave to 003 Ave	Upsizing Contribution	81,000	81,000	-	-
11314	Upsizing	Grandview Heights Area 2	NCP Driven	1,300,000	1,300,000	-	-
11328	320m of 375mm diameter	017A Ave / 165A St - 16 Ave / 166A St	Upsizing Contribution	211,000	211,000	-	-
11331	370m of 375mm diameter	168 St: 016 - 012 Ave	Upsizing Contribution	115,000	115,000	-	-
				9,267,000	9,267,000	-	-



CITY OF SURREY

BY-LAW NO. 18148

A By-law of the City to impose development cost charges.
.....

WHEREAS:

- A. Pursuant to Section 933 of the *Local Government Act* and the regulations passed pursuant thereto, the Council of the City of Surrey may, by by-law, impose development cost charges; and
- B. The development cost charges may be imposed for the purpose of providing funds to assist the City of Surrey in paying the capital cost of providing, constructing, altering, or expanding sewage, water, drainage and highway facilities, other than off-street parking facilities, and providing and improving park land or any of them, in order to service, directly or indirectly, the development for which the charge is being imposed.

NOW THEREFORE, the Council of the City of Surrey, ENACTS AS FOLLOWS:

TITLE

- 1. This By-law may be cited for all purposes as "Surrey Development Cost Charge By-law, 2014, No. 18148".

DEFINITIONS AND INTERPRETATION

- 2. For the purposes of this By-law, unless the context otherwise requires:

Anniedale-Tynehead means the area of the City of Surrey shown as Area XXVII in Schedule "F" of the Surrey Zoning By-law.

Assisted Living Residence means a multiple-unit residential building containing 45 dwelling units per acre or greater which is subject to a housing agreement pursuant to

Section 905 of the *Local Government Act* between the City of Surrey and the owner of the building, but does not include not-for-profit rental housing. The housing agreement will specify that the multiple unit residential building will:

- (a) be occupied only by persons who are “Qualified Occupants”;
- (b) be registered as an “Assisted Living Residence” under the *Community Care and Assisted Living Act*, S.B.C. 2002, c. 75, as amended from time to time; and
- (c) not be strata-titled or further subdivided.

BA or Building Area means building area as defined by the total sum of all floor areas enclosed or partially enclosed by the exterior perimeter of a building or structure including without limitation stairways, elevator shafts, storage rooms, mechanical rooms and basements, and excluding areas for parking that are provided as an accessory use to the building or structure.

Campbell Heights means the area of the City of Surrey shown as Area XVII in Schedule "F" of the Surrey Zoning By-law.

City Centre means the area of the City of Surrey shown in Schedule "D1" of the Surrey Zoning By-law.

Community Charter means the *Community Charter*, S.B.C. 2003, c.26, as amended from time to time.

Completed means, in the case of a subdivision, an application for which the servicing agreement is completed and signed, zoning is in place, all applicable fees and levies are paid, all conditions of approval are fulfilled and the final plans of subdivision are ready for approval by the approving officer.

DA or Developed Area means that area of a lot containing any improvements for the accommodation of a building, accessory building, structure, storage or parking or circulation area, landscaping or anything or device to facilitate the permitted use.

DU or Dwelling Unit means dwelling unit as defined in the Surrey Zoning By-law.

Effective Date means the date on which this by-law comes into force, which is established as March 15, 2014.

Federal and Provincial Buildings means buildings or land owned by the Provincial or Federal government for use by the Provincial or Federal Government or Crown corporations, excluding hospitals operating under Federal or Provincial legislation, located in any zone.

Highway 99 Corridor means the area of the City of Surrey shown as Area XX in Schedule "F" of the Surrey Zoning By-law.

Hospitals means hospitals as defined under the *Hospital Act*, R.S.B.C. 1996, c. 200, as amended from time to time, the *Hospital Insurance Act*, R.S.B.C. 1996, c. 204, as amended from time to time, private hospitals as defined under the *Hospital Act* and private mental hospitals as defined under the *Mental Health Act*, R.S.B.C. 1996, c. 288, as amended from time to time.

In-stream means,

- (a) in the case of an application for subdivision, one for which the application form has been completed, the application fees have been paid and all required supporting documentation necessary to make the application complete have been submitted and accepted by the City as a legitimate application; and
- (b) in the case of an application for building permit, one for which the application form has been completed, the application fee has been paid, and all required supporting documentation including all applicable architectural, structural, plumbing, electrical, mechanical and site drainage drawings necessary to make the application complete have been submitted and accepted by the City as a legitimate application.

Issuable means, in the case of a building permit, an application which meets the requirements of an in-stream application and for which:

- (a) Council has approved any applicable rezoning and/or development permit;
- (b) all required off-site legal encumbrances relating to engineering services have been registered at the Land Title Office on title to the subject property;

- (c) any plan, including a plan of subdivision, consolidation, or road dedication, that would affect the legal description of the subject property has been registered at the Land Title Office on title to the subject property; and
- (d) all applicable fees and levies have been paid.

Local Government Act means *Local Government Act*, R.S.B.C. 1996, c. 323, as amended from time to time.

LA or Lot area means the total area of a lot.

Minor Change means a change to the scope of work authorized by a building permit which results in an increase of five percent (5%) or less in the cumulative total square footage of the dwelling unit of all dwelling units, the building area, the number of dwelling units within a building or on a lot, or the developed area of a lot.

Not-for-profit rental housing means a non-for-profit housing development project subject to the Memorandum of Understanding on Responding to Homelessness between the BC Housing Management Commission and the City of Surrey dated for reference March 31, 2008.

Person with Disability means a person who, in the written opinion of a medical doctor or registered psychologist, has a significant permanent disability that cannot be significantly permanently improved by medical treatment, and that produces a loss or impairment of physical or mental ability.

Qualified Occupant means:

- (a) a person who is 70 years of age or older;
- (b) a person with disability;
- (c) a person who is employed to manage the assisted living residence, provided only one dwelling unit within the assisted living residence is designated for this type of occupant; and
- (d) a person who is a companion or spouse of a person in (a), (b) or (c) herein, and resides in the same dwelling unit.

Revision Permit means a revised building permit issued by the City where the City has accepted a proposed change to the scope of work originally authorized by a building permit.

Seniors Apartments means a multiple unit residential building containing 45 dwelling units per acre or greater and where there exists a housing agreement pursuant to Section 905 of the *Local Government Act* between the City of Surrey and the owner specifying that the multiple unit residential building will be restricted to seniors, but does not include not-for-profit rental housing.

Square footage of the DU or sq. ft. of DU means the cumulative floor area measured from the outside edge of the exterior walls or sheathing of the dwelling unit and, where applicable, the centre line of the common walls dividing the dwelling units and shall include all the internal walls within each dwelling unit excluding parking areas (to a maximum of 250 square feet per parking space), crawl spaces less than or equal to 1.5 metres [5 ft.] clear height, balconies, canopies, terraces and sun decks.

Substantial change means a change to the scope of work authorized by a building permit which results in either:

- (a) an increase by more than five percent (5%) in the cumulative total square footage of the dwelling units, the building area, the number of dwelling units within a building or on a lot, or the developed area of a lot; or
- (b) a change to the zone or land use on which the development cost charges was based, as determined by the City.

Surrey Zoning By-law means Surrey Zoning By-law, 1993, No. 12000, as amended from time to time.

3. Words not specifically defined in this By-law shall have the same meaning as defined in Surrey Zoning By-law.
4. If any section, clause or phrase of this By-law is held to be invalid by a court of competent jurisdiction, the invalid portion shall be severed and the remainder of the By-law shall be deemed to have been enacted without the invalid portion.

DEVELOPMENT COST CHARGES

5. Every person who obtains:
 - (a) approval of a subdivision; or
 - (b) a building permit authorizing the construction, alteration or extension of a building or structure including a building permit that authorizes the construction, alteration or extension of a building or part of a building that will, after the construction, alteration or extension, contain one or more self-contained dwelling units;

shall pay to the City of Surrey the development cost charge in the amounts set out in Schedule "A" of this By-law for the entire City of Surrey except Anniedale-Tynehead, and Schedule "A-1" of this By-law for Anniedale-Tynehead. The list of zones set out in Schedule "B" of this By-law include zones in both Surrey Zoning By-law and Surrey Zoning By-law, 1979, No. 5942, as amended ("By-law 5942"). The development cost charges payable for any zones where By-law 5942 is applicable are determined by referring to its equivalent zone in the "By-law 12000" column in Schedule "B".

6. Development cost charges shall be payable at the time specified below:
 - (a) after application for a subdivision has been made, but before the final approval of the subdivision has been given, for agricultural, single family, single family with a secondary suite land use, or all zones and land uses within Campbell Heights;
 - (b) for all zones and land uses within Campbell Heights whose development cost charges were not collected upon approval of the subdivision as described in clause 6(a), after application for a building permit has been made, but before the building permit has been issued; and
 - (c) for all cases other than those described in clause 6(a) and clause 6(b), after application for a building permit has been made, but before the building permit has been issued.

EXEMPTIONS

7. A development cost charge is not payable if any of the following applies in relation to a development authorized by a building permit:
 - (a) the permit authorizes the construction, alteration or extension of a building or part of a building that is, or will be, after the construction, alteration or extension, exempt from taxation under Section 220(1)(h) or 224(2)(f) of the *Community Charter*;
 - (b) in the case of residential zones and land uses, the value of the work authorized by the permit does not exceed \$100,000;
 - (c) for all cases other than those described in clause 7(b), the value of the work authorized by the permit does not exceed \$50,000;
 - (d) the square footage of the DU is no larger than 312.2 ft² [29m²];
 - (e) the permit authorizes the construction, alteration or extension of a building or part of a building that is, or will be, after the construction, alteration or extension, used for not-for-profit rental housing.

MIXED USE AND COMPREHENSIVE DEVELOPMENTS

8. For mixed use developments, the development cost charge payable shall be calculated separately for each portion of the development contained in the building permit or subdivision application in accordance with the zones and land uses identified in Schedule "A". The total payable will be the sum of the development cost charges for each portion of the development.
9. Development cost charges payable for comprehensive development zones shall be calculated as specified in the applicable comprehensive development zone amendment to Surrey Zoning By-law.

CHANGES TO WORK AUTHORIZED BY A BUILDING PERMIT

10. If a minor change to a building permit is proposed, the development cost charges will be recalculated based on the increase in building area, developed area, or dwelling units (as applicable) using the rates in the Surrey Development Cost Charge By-law in effect at the time of issuance of the revision permit. The difference between the original development cost charge amount and the recalculated development cost charge amount shall be paid to the City prior to the issuance of the revision permit.
11. If a substantial change to a building permit is proposed, the development cost charges will be recalculated on the entire project at the rates in the Surrey Development Cost Charge By-law in effect at the time of issuance of the revision permit. The difference between the original development cost charge amount and the recalculated development cost charge amount shall be paid to the City prior to the issuance of the revision permit.

EFFECTIVE DATE AND TRANSITIONAL PROVISIONS

12. This by-law will come into force on the Effective Date.
13. *Surrey Development Cost Charge By-law, 2013, No. 17856*, and all amendments thereto, is hereby repealed except in the case of:
 - (a) applications for subdivision of land that are in-stream on the effective date and which are completed within one year of the effective date; and
 - (b) building permits that are in-stream on the effective date and which are issuable within one year of the effective date,in which case *Surrey Development Cost Charge By-law, 2013, No. 17856*, and all amendments thereto, shall apply. *Surrey Development Cost Charge By-law, 2013, No. 17856*, and all amendments thereto, shall be wholly repealed one year from the effective date.

PASSED FIRST READING on the day of.

PASSED SECOND READING on the day of.

PASSED THIRD READING on the day of.

APPROVED BY THE DEPUTY INSPECTOR OF MUNICIPALITIES on the day of.

RECONSIDERED AND FINALLY ADOPTED, signed by the Mayor and Clerk, and sealed with the Corporate Seal on the day of.

_____MAYOR

_____CLERK

[[KER1]]

Schedule "A"
City Wide

Surrey Development Cost Charge By-law, 2014, No. 18148
Effective Date: March 15, 2014

No	Zones and Land Uses	DCC Components						Total	Units for Each Column
		Water	Sewer	Arterial Roads	Collector Roads	Drainage	Parkland Acquisition		
	CTA, CPG, CPM CPR, and CCR (except for lines 33, 34 & 35)								
21	CTA	\$820	\$1,030	\$3,290	\$760	\$770	\$0	\$6,670	/pad (h)
22	CPG, CPM, CPR, CCR	\$0.60	\$0.69	\$4.26	\$0.98	\$1.36	\$0.00	\$7.89	/sq.ft. of BA
	Dwelling Units in Non Residential								
23	DU in Non Residential Zones (excluding line 24)	\$1.09	\$1.37	\$6.70	\$1.55	\$0.87	\$6.48	\$18.06	/sq.ft. of DU (c)
24	DU in Non Residential Zones (in City Centre)	\$1.09	\$1.37	\$4.26	\$0.98	\$0.87	\$3.45	\$12.02	/sq.ft. of DU (d)
	Industrial (except for lines 33,34 & 35)								
25	All Industrial Zones & Land Uses - Developed Area	\$5,454	\$6,861	\$28,877	\$6,664	\$29,651	\$0	\$77,507	/acre (g)
26	All Industrial Zones & Land Uses - All other floors	\$0.13	\$0.16	\$0.42	\$0.10	\$0.14	\$0.00	\$0.95	/sq.ft. of BA (g) (i)
	Institutional (except for lines 33, 34 & 35)								
27	PA-1, PA-2, PC	\$0.60	\$0.69	\$0.00	\$0.00	\$1.36	\$0.00	\$2.65	/sq.ft. of BA (g)
28	Public & Private Schools (to grade 12)	\$0.60	\$0.69	\$0.00	\$0.00	\$1.36	\$0.00	\$2.65	/sq.ft. of BA (g)
29	Public & Private Schools (Post Secondary)	\$0.60	\$0.69	\$3.41	\$0.79	\$1.36	\$0.00	\$6.85	/sq.ft. of BA (g)
30	Hospitals	\$0.60	\$0.69	\$1.71	\$0.39	\$1.36	\$0.00	\$4.75	/sq.ft. of BA (g)
31	Federal and Provincial Buildings	\$0.60	\$0.69	\$3.35	\$0.77	\$0.45	\$0.00	\$5.86	/sq.ft. of BA (g)
32	Municipal Buildings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	/sq.ft. of BA
	Highway 99 Corridor								
33	All Commercial Zones & Land Uses	\$16,853	\$26,965	\$106,478	\$46,466	\$2,247	\$11,332	\$210,341	/acre (g)
34	All Industrial Zones & Land Uses	\$16,853	\$26,965	\$31,317	\$13,666	\$2,247	\$11,332	\$102,380	/acre (g)
	Campbell Heights								
35	All Zones & Land Uses	\$10,302	\$14,826	\$89,407	\$12,384	\$12,871	\$0	\$139,790	/acre (g)

Comments:

- (a) Based on an ultimate of 2 DU per lot.
- (b) Rate to be charged based on the total sq. ft. of DU to a maximum of \$28,735/DU.
- (c) Rate to be charged based on the total sq. ft. of DU to a maximum of \$24,381/DU.
- (d) Rate to be charged based on the total sq. ft. of DU to a maximum of \$16,227/DU.
- (e) Rate to be charged based on the total sq. ft. of DU to a maximum of \$18,975/DU.
- (f) Rate to be charged based on the total sq. ft. of DU to a maximum of \$12,550/DU.
- (g) Dwelling Units within Non Residential Zones and Land Uses shall be charged the applicable rate in line 23 or line 24.
- (h) Rate to be charged per trailer pad or camping site in addition to rate of lines 19 and 20 for BA of any other building.
- (i) Rate to be charged for all other floors in addition to rate of line 25.

Schedule "A-1"
Anniedale-Tynehead

Surrey Development Cost Charge By-law, 2014, No. 18148
Effective Date: March 15, 2014

No	Zones and Land Uses	DCC Components						Total	Units for Each Column
		Water	Sewer	Arterial Roads	Collector Roads	Drainage	Parkland Acquisition		
	CTA, CPG, CPM CPR, and CCR								
14	CTA	\$1,450	\$2,080	\$5,060	\$1,310	\$1,050	\$0	\$10,950	/pad (e)
15	CPG, CPM, CPR, CCR	\$1.06	\$1.38	\$6.56	\$1.70	\$1.86	\$0.00	\$12.56	/sq.ft. of BA
	Dwelling Units in Non Residential								
16	DU in Non Residential Zones	\$2.00	\$2.87	\$10.31	\$2.67	\$1.19	\$6.48	\$25.52	/sq.ft. of DU (c)
	Industrial								
17	All Industrial Zones & Land Uses - Developed Area	\$9,679	\$13,844	\$60,928	\$15,773	\$40,489	\$0	\$140,713	/acre (d)
18	All Industrial Zones & Land Uses - All other floors	\$0.22	\$0.32	\$0.64	\$0.17	\$0.19	\$0.00	\$1.54	/sq.ft. of BA (d) (f)
	Institutional								
19	PA-1, PA-2, PC	\$1.06	\$1.38	\$0.00	\$0.00	\$1.86	\$0.00	\$4.30	/sq.ft. of BA (d)
20	Public & Private Schools (to grade 12)	\$1.06	\$1.38	\$0.00	\$0.00	\$1.86	\$0.00	\$4.30	/sq.ft. of BA (d)
21	Public & Private Schools (Post Secondary)	\$1.06	\$1.38	\$5.25	\$1.36	\$1.86	\$0.00	\$10.91	/sq.ft. of BA (d)
22	Hospitals	\$1.06	\$1.38	\$2.62	\$0.68	\$1.86	\$0.00	\$7.60	/sq.ft. of BA (d)
23	Federal and Provincial Buildings	\$1.06	\$1.38	\$5.16	\$1.33	\$0.62	\$0.00	\$9.55	/sq.ft. of BA (d)
24	Municipal Buildings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	/sq.ft. of BA

Comments:

- (a) Based on an ultimate of 2 DU per lot.
- (b) Rate to be charged based on the total sq. ft. of DU to a maximum of \$39,550/DU.
- (c) Rate to be charged based on the total sq. ft. of DU to a maximum of \$34,410/DU.
- (d) Dwelling Units within Non Residential Zones and Land Uses shall be charged the applicable rate in line 16.
- (e) Rate to be charged per trailer pad or camping site in addition to rate of lines 12 and 13 for BA of any other building.
- (f) Rate to be charged for all other floors in addition to rate of line 17.

SCHEDULE "B"

LIST OF ZONES

SURREY ZONING BY-LAWS 12000 AND 5942

	Name of Zone	By-law 12000 Zone	By-law 5942 Zone
Residential Zones	General Agriculture	A-1	A-1, A-3
	Intensive Agriculture	A-2	A-2
	One-Acre Residential	RA	RS
	Acreage Residential Gross Density	RA-G	R-A(G)
	Half-Acre Residential	RH	R-1
	Half-Acre Residential Gross Density	RH-G	R-H(G)
	Single Family Residential	RF	R-F, R-F(R), R-F(F)
	Single Family Residential Secondary Suite	RF-SS	RF-SS, RFR-SS
	Single Family Residential Gross Density	RF-G	R-F(C)
	Duplex Residential	RM-D	R-F(D)
	Manufactured Home Residential	RM-M	R-F(M), CT(2)
	Multiple Residential 15	RM-15	RT-1
	Multiple Residential 30	RM-30	RM-1
	Multiple Residential 45	RM-45	RM-2
	Multiple Residential 70	RM-70	RM-3
	Multiple Residential Commercial 150	RMC-150	RM-4
	Special Care Housing 1	RMS-1	P-P, P-P(2)
Special Care Housing 2	RMS-2	P-P, P-P(2)	
Institutional Zones	Cemetery	PC	P-C
	Assembly Hall 1	PA-1	P-A
	Assembly Hall 2	PA-2	P-A

SCHEDULE "B"
LIST OF ZONES
 continued
SURREY ZONING BY-LAWS 12000 AND 5942

	Name of Zone	By-law 12000 Zone	By-law 5942 Zone
Commercial Zones	Local Commercial	C-4	C-L
	Community Commercial	C-8	C-S
	Town Centre Commercial	C-15	CR-1, CR-2, CR-3, CR-4
	Downtown Commercial	C-35	C-C
	Highway Commercial Industrial	CHI	C-H, I-S
	Self-Service Gasoline Station	CG-1	C-G(1)
	Combined Service Gasoline Station	CG-2	C-G(2), CG
	Tourist Accommodation	CTA	C-T(1), C-T(2)
	Child Care	CCR	P-P(1)
	Commercial Recreation	CPR	P-R, P-D
	Golf Course	CPG	P-R
	Marina	CPM	P-R
Industrial Zones	Business Park	IB	I-1, I-P(2), I-G, I-4
	Light Impact Industrial	IL	I-G, I-S, I-T, I-W
	High Impact Industrial	IH	I-H, I-W
	Salvage Industrial	IL	I-L(S)
	Agro-Industrial	IA	I-A
Comprehensive Development Zone	Comprehensive Development	CD	C-D

2012 Development Cost Charge Report

The City of Surrey's 2012 Development Cost Charge (DCC) Report contains the following sections:

1. Summary of the DCC Program
2. 2012 DCC Financial Transactions
3. 2012 DCC Program
4. DCC Waivers and Reductions
5. Municipal Assist Factor Contributions
6. Inter-fund Transfers
7. 2013 DCC Program

1) SUMMARY OF THE DCC PROGRAM

The City of Surrey (the "City") maintains a 10-Year Engineering Servicing Plan, containing projects planned for and required in the next 10 years. DCC rates are calculated based on the 10-Year Engineering Servicing Plan. The 2012 DCC rates were calculated based on the 2012-2021 version of the Servicing Plan, adopted in January 2012. This plan updated the previous 2010-2019 version of the Servicing Plan.

To finance the cost of implementing the development related component of the 2012-2021 Servicing Plan, the City revised its current Development Cost Charge ("DCC") program in 2012. DCCs collected in 2012 were based on the rates established in Surrey Development Cost Charge By-law No. 17539. The DCC rates are included in the By-law, as attached in Appendix I.

Objectives

The purpose of the DCC program is to:

1. provide infrastructure to ensure a healthy stock of developable land is available;
2. fund the various types of capital works required by or for development, in a fair, equitable and orderly manner;
3. set development cost charges and policies based on various factors such as community growth projections, equivalent unit calculations, analysis of needs, allocation of needs between the existing population and new growth, and municipal assist factor; and
4. remain current, through periodic and timely review of construction costs and growth projects to ensure the plan is sustainable.

Achieving these objectives allows the City to accomplish several broad goals. It requires consistency between the DCC program and the planning objectives and financial strategies articulated by the City. It ensures that those people who will use and benefit from the

services provided will pay their share of the costs in a fair and equitable manner. It provides the information that was used to determine the DCCs, allowing for accountability to the public. It creates certainty by providing stable charges to the development industry and by allowing the orderly and timely construction of infrastructure.

Guiding Principles

There are some initial considerations that should be mentioned and kept in mind regarding Surrey's DCC program.

In general, the DCCs for the City are on a municipal wide basis, instead of an area specific basis, with the exception of the Highway 99 Corridor, Campbell Heights, and Anniedale-Tynehead areas which are area specific. That is to say that the same rate will be applied to the same types of land use throughout the City, regardless of the location of the development within the City. The exception to this will be the apartment DCC charged for parkland and roads as there will be different DCC rates for Surrey City Centre compared to the rest of the City. This difference in rates is to reflect the different open space needs in the City Centre with those of the rest of the City. In addition the traffic impact of apartment dwellers in the City Centre has been reviewed and determined to warrant a reduced DCC.

The timeframe for the City's DCC program is based on a ten year revolving program, rather than a build-out program, with the exception of Highway 99 Corridor, Campbell Heights, and Anniedale-Tynehead, which are build-out programs. A revolving program includes only those projects which need to be constructed in a specified time period such as five years or ten years. This revolving program correlates to the timeframes set out in Engineering's 10-Year Servicing Plan.

All categories of development ranging from residential to non-residential shall have DCCs apply to them. Moreover, the range of land uses within those categories of development shall be considered in the calculation of the DCCs.

Use of Best Practices Guide

The Ministry of Community and Rural Development, with the assistance of various persons throughout the Province, has prepared a Development Cost Charge Best Practices Guide (the "Best Practices Guide"). This Best Practices Guide provides accepted administrative practices for a DCC program and allows for a streamlined approach for the review of the DCC program by the Ministry, and all of its principles have been applied in the development of the City's DCC Program.

2) 2012 DCC FINANCIAL TRANSACTIONS

Detailed are the financial transactions of each of the DCC reserve accounts in 2012.

DCC Program	Reserve Account Balance Dec 31, 2011	Total DCC Expenditures in 2012	Interest Earned in 2012	DCC Contributions & Transfers in 2012	Reserve Account Balance Dec 31, 2012
Water	\$12,429,788	\$3,185,706	\$204,386	\$3,600,090	\$13,048,557
Drainage	\$33,968,926	\$3,452,856	\$626,812	\$6,176,480	\$37,319,362
Arterial Roads	\$54,033,050	\$15,753,540	\$810,948	\$16,368,465	\$55,458,923
Collector Roads	\$15,246,759	\$4,445,157	\$247,590	\$2,928,988	\$13,978,179
Sanitary Sewer	\$18,472,363	-\$69,202	\$324,251	\$3,983,825	\$22,849,642
Parkland	\$44,313,780	\$9,513,495	\$682,854	\$14,046,490	\$49,529,630
Parkland Development	\$2,724,282	\$1,772,167	\$54,486	\$1,458,083	\$2,464,684
Campbell Heights	\$2,732,597	\$0	\$54,652	\$7,450,138	\$10,237,387
Hwy 99 Corridor	\$0	\$0	\$0	\$13,913,990	\$13,913,990
Annedale-Tynehead	\$0	\$0	\$0	\$0	\$0
TOTAL	\$183,921,545	\$38,053,720	\$3,005,979	\$69,926,549	\$218,800,353

- Notes: (1) This summary does not identify DCCs that were allocated to projects, but have yet to be spent.
(2) This summary does not include MAF contributions.

3) 2012 DCC PROGRAM

Although significant funding exists within each reserve account, the majority of the funding is allocated to projects, as illustrated by the 2012 DCC program:

DCC Program	Account Balance Dec 31, 2011	Prior Years Carry Forwards to 2012	Budgeted DCC Program in 2012	Total DCC Program in 2012	Unallocated Future Years
Water	\$13,048,557	\$9,154,300	\$1,634,000	\$10,788,300	\$2,260,257
Drainage	\$37,319,362	\$28,200,800	\$3,193,000	\$31,393,800	\$5,925,562
Arterial Roads	\$55,458,923	\$35,391,702	\$10,862,000	\$46,253,702	\$9,205,221
Collector Roads	\$13,978,179	\$12,232,597	\$2,566,000	\$14,798,597	-\$820,418
Sanitary Sewer	\$22,849,642	\$12,835,600	\$3,561,000	\$16,396,600	\$6,453,042
Parkland	\$49,529,630	\$10,678,900	\$6,293,000	\$16,971,900	\$32,557,730
Parkland Development	\$2,464,684	\$1,309,513	\$1,515,000	\$2,824,513	-\$359,829
Campbell Heights	\$10,237,387	\$1,148,300	\$2,182,000	\$3,330,300	\$6,907,087
Hwy 99 Corridor	\$13,913,990	\$0	\$867,000	\$867,000	\$13,046,990
Annedale-Tynehead	\$0	\$0	\$0	\$0	\$0
TOTAL	\$218,800,353	\$110,951,712	\$32,673,000	\$143,624,712	\$75,175,641

In general, the Engineering Department seeks to maintain an unallocated budget of approximately 10% to ensure that there is adequate funding to fund any necessary refunds and any urgent priorities that develop.

An overview of significant projects funded (or partially) by each DCC Reserve Account in 2012, and a summary of each rebate provided, is provided in Appendix II.

4) 2012 DCC PROGRAM – WAIVERS AND REDUCTIONS

There were no waivers or reductions of DCCs in 2012.

5) 2012 DCC PROGRAM – MUNICIPAL ASSIST FACTOR

Recognizing the benefit of growth, the City has established Municipal Assist Factors (MAFs) well above the minimum stipulated within the Local Government Act. The City's MAFs and its funding contributions for 2012 are as follows:

DCC Program	Established MAF	Minimum Required MAF	2012 MAF Expenditures	Minimum Required MAF Expenditures
Water	10%	1%	\$353,967	\$35,397
Drainage	10%	1%	\$383,651	\$38,365
Arterial Roads	5%	1%	\$829,134	\$165,827
Collector Roads	5%	1%	\$233,956	\$46,791
Sanitary Sewer	10%	1%	-\$7,689	-\$769
Parkland	5%	1%	\$500,710	\$100,142
Parkland Development	5%	1%	\$93,272	\$18,654
TOTAL			\$2,387,000	\$404,407

6) 2012 DCC PROGRAM – INTER-FUND TRANSFERS

There were 14 internal transfers between DCC reserve accounts. A total of \$16,593,612 was transferred to Campbell Heights and Highway 99 Corridor reserve accounts, as follow:

Transfer from:	Transfer to Campbell Heights	Transfer to Highway 99 Corridor	Total Transfers
Water	\$187,223	\$541,509	\$728,732
Drainage	\$254,552	\$568,902	\$823,454
Arterial Roads	\$550,833	\$8,000,769	\$8,551,602
Collector Roads	\$166,473	\$1,808,031	\$1,974,503
Sewer	\$647,073	\$1,276,484	\$1,923,557
Parkland	\$932,701	\$1,528,350	\$2,461,051
Parkland Development	\$49,090	\$81,624	\$130,713
Total	\$2,787,943	\$13,805,669	\$16,593,612

DCC funds collected in prior years for Campbell Heights and Highway 99 Corridor were included in the separate City wide utility funds. An adjustment was made to transfer these funds from the utility funds to the area specific funds for Campbell Heights and Highway 99 Corridor.

7) 2013 DCC PROGRAM

DCC Program	2013 DCC Program
Water	\$3,473,000
Drainage	\$6,206,000
Arterial Roads	\$21,742,000
Collector Roads	\$3,552,000
Sanitary Sewer	\$3,461,000
Parkland	\$14,231,000
Parkland Development	\$1,714,000
Campbell Heights	\$6,931,000
Hwy 99 Corridor	\$4,105,000
Anniedale-Tynehead	\$0
TOTAL	\$65,415,000

A summary of the significant projects funded by each DCC Reserve Account in 2013 is provided in Appendix III.

APPENDIX I
Surrey DCC By-law, 2012, No. 17539

CITY OF SURREY

BY-LAW NO. 17539

As amended by By-law No: [17668](#), 09/10/2012

A By-law of the City to impose development cost charges.

.....

THIS IS A CONSOLIDATED BY-LAW PREPARED BY THE CITY OF SURREY FOR CONVENIENCE ONLY. THE CITY DOES NOT WARRANT THAT THE INFORMATION CONTAINED IN THIS CONSOLIDATION IS CURRENT. IT IS THE RESPONSIBILITY OF THE PERSON USING THIS CONSOLIDATION TO ENSURE THAT IT ACCURATELY REFLECTS CURRENT BY-LAW PROVISIONS.

WHEREAS:

- A. Pursuant to Section 933 of the *Local Government Act* and the regulations passed pursuant thereto, the Council of the City of Surrey may, by by-law, impose development cost charges; and
- B. The development cost charges may be imposed for the purpose of providing funds to assist the City of Surrey in paying the capital cost of providing, constructing, altering, or expanding sewage, water, drainage and highway facilities, other than off-street parking facilities, and providing and improving park land or any of them, in order to service, directly or indirectly, the development for which the charge is being imposed.

NOW THEREFORE, the Council of the City of Surrey, in open meeting assembled, ENACTS AS FOLLOWS:

TITLE

- 1. This By-law may be cited for all purposes as "Surrey Development Cost Charge By-law, 2012, No. 17539".

DEFINITIONS AND INTERPRETATION

2. For the purposes of this By-law, unless the context otherwise requires:

Anniedale-Tynehead means the area of the City of Surrey shown as Area XXVII in Schedule "F" of the Surrey Zoning By-law.

Assisted Living Residence means a multiple-unit residential building containing 45 dwelling units per acre or greater which is subject to a housing agreement pursuant to Section 905 of the *Local Government Act* between the City of Surrey and the owner of the building, but does not include not-for-profit rental housing. The housing agreement will specify that the multiple unit residential building will:

- (a) be occupied only by persons who are "Qualified Occupants";
- (b) be registered as an "Assisted Living Residence" under the *Community Care and Assisted Living Act*, S.B.C. 2002, c. 75, as amended from time to time; and
- (c) not be strata-titled or further subdivided.

BA or Building Area means building area as defined by the total sum of all floor areas enclosed or partially enclosed by the exterior perimeter of a building or structure including without limitation stairways, elevator shafts, storage rooms, mechanical rooms and basements, and excluding areas for parking that are provided as an accessory use to the building or structure.

Campbell Heights means the area of the City of Surrey shown as Area XVII in Schedule "F" of the Surrey Zoning By-law.

City Centre means the area of the City of Surrey shown in Schedule "D1" of the Surrey Zoning By-law.

Community Charter means the *Community Charter*, S.B.C. 2003, c.26, as amended from time to time.

Completed means, in the case of a subdivision, an application for which the servicing agreement is completed and signed, zoning is in place, all applicable fees and levies are

paid, all conditions of approval are fulfilled and the final plans of subdivision are ready for approval by the approving officer.

DA or Developed Area means that area of a lot containing any improvements for the accommodation of a building, accessory building, structure, storage or parking or circulation area, landscaping or anything or device to facilitate the permitted use.

DU or Dwelling Unit means dwelling unit as defined in the Surrey Zoning By-law.

Effective Date means the date on which this by-law comes into force, which is established as March 15, 2012.

Federal and Provincial Buildings means buildings or land owned by the Provincial or Federal government for use by the Provincial or Federal Government or Crown corporations, excluding hospitals operating under Federal or Provincial legislation, located in any zone.

Highway 99 Corridor means the area of the City of Surrey shown as Area XX in Schedule "F" of the Surrey Zoning By-law.

Hospitals means hospitals as defined under the *Hospital Act*, R.S.B.C. 1996, c. 200, as amended from time to time, the *Hospital Insurance Act*, R.S.B.C. 1996, c. 204, as amended from time to time, private hospitals as defined under the *Hospital Act* and private mental hospitals as defined under the *Mental Health Act*, R.S.B.C. 1996, c. 288, as amended from time to time.

In-stream means,

- (a) in the case of an application for subdivision, one for which the application form has been completed, the application fees have been paid and all required supporting documentation necessary to make the application complete have been submitted and accepted by the City as a legitimate application; and
- (b) in the case of an application for building permit, one for which the application form has been completed, the application fee has been paid, and all required supporting documentation including all applicable architectural, structural,

plumbing, electrical, mechanical and site drainage drawings necessary to make the application complete have been submitted and accepted by the City as a legitimate application.

Issuable means, in the case of a building permit, an application which meets the requirements of an in-stream application and for which:

- (a) Council has approved any applicable rezoning and/or development permit;
- (b) all required off-site legal encumbrances relating to engineering services have been registered at the Land Title Office on title to the subject property;
- (c) any plan, including a plan of subdivision, consolidation, or road dedication, that would affect the legal description of the subject property has been registered at the Land Title Office on title to the subject property; and
- (d) all applicable fees and levies have been paid.

Local Government Act means *Local Government Act*, R.S.B.C. 1996, c. 323, as amended from time to time.

LA or Lot area means the total area of a lot.

Minor Change means a change to the scope of work authorized by a building permit which results in an increase of five percent (5%) or less in the cumulative total square footage of the dwelling unit of all dwelling units, the building area, the number of dwelling units within a building or on a lot, or the developed area of a lot.

Not-for-profit rental housing means a non-for-profit housing development project subject to the Memorandum of Understanding on Responding to Homelessness between the BC Housing Management Commission and the City of Surrey dated for reference March 31, 2008.

Person with Disability means a person who, in the written opinion of a medical doctor or registered psychologist, has a significant permanent disability that cannot be significantly permanently improved by medical treatment, and that produces a loss or impairment of physical or mental ability.

Qualified Occupant means:

- (a) a person who is 70 years of age or older;
- (b) a person with disability;
- (c) a person who is employed to manage the assisted living residence, provided only one dwelling unit within the assisted living residence is designated for this type of occupant; and
- (d) a person who is a companion or spouse of a person in (a), (b) or (c) herein, and resides in the same dwelling unit.

Revision Permit means a revised building permit issued by the City where the City has accepted a proposed change to the scope of work originally authorized by a building permit.

Seniors Apartments means a multiple unit residential building containing 45 dwelling units per acre or greater and where there exists a housing agreement pursuant to Section 905 of the *Local Government Act* between the City of Surrey and the owner specifying that the multiple unit residential building will be restricted to seniors, but does not include not-for-profit rental housing.

Square footage of the DU or sq. ft. of DU means the cumulative floor area measured from the outside edge of the exterior walls or sheathing of the dwelling unit and, where applicable, the centre line of the common walls dividing the dwelling units and shall include all the internal walls within each dwelling unit excluding parking areas (to a maximum of 250 square feet per parking space), basements, crawl spaces less than or equal to 1.5 metres [5 ft.] clear height, balconies, canopies, terraces and sun decks.

Substantial change means a change to the scope of work authorized by a building permit which results in either:

- (a) an increase by more than five percent (5%) in the cumulative total square footage of the dwelling units, the building area, the number of dwelling units within a building or on a lot, or the developed area of a lot; or
- (b) a change to the zone or land use on which the development cost charges was based, as determined by the City.

Surrey Zoning By-law means Surrey Zoning By-law, 1993, No. 12000, as amended from time to time.

3. Words not specifically defined in this By-law shall have the same meaning as defined in Surrey Zoning By-law.
4. If any section, clause or phrase of this By-law is held to be invalid by a court of competent jurisdiction, the invalid portion shall be severed and the remainder of the By-law shall be deemed to have been enacted without the invalid portion.

DEVELOPMENT COST CHARGES

5. Every person who obtains:
 - (a) approval of a subdivision; or
 - (b) a building permit authorizing the construction, alteration or extension of a building or structure including a building permit that authorizes the construction, alteration or extension of a building or part of a building that will, after the construction, alteration or extension, contain one or more self-contained dwelling units;

shall pay to the City of Surrey the development cost charge in the amounts set out in Schedule "A" for the entire City of Surrey except Anniedale-Tynehead, and Schedule "A-1" for Anniedale-Tynehead of this By-law. The list of zones set out in Schedule "B" of this By-law include zones in both Surrey Zoning By-law and Surrey Zoning By-law, 1979, No. 5942, as amended ("By-law 5942"). The development cost charges payable for any zones where By-law 5942 is applicable are determined by referring to its equivalent zone in the "By-law 12000" column in Schedule "B".

6. Development cost charges shall be payable at the time specified below:
 - (a) after application for a subdivision has been made, but before the final approval of the subdivision has been given, for agricultural, single family,

single family with a secondary suite land use, or all zones and land uses within Campbell Heights;

- (b) for all zones and land uses within Campbell Heights whose development cost charges were not collected upon approval of the subdivision as described in clause 6(a), after application for a building permit has been made, but before the building permit has been issued; and
- (c) for all cases other than those described in clause 6(a) and clause 6(b), after application for a building permit has been made, but before the building permit has been issued.

EXEMPTIONS

- 7. A development cost charge is not payable if any of the following applies in relation to a development authorized by a building permit:
 - (a) the permit authorizes the construction, alteration or extension of a building or part of a building that is, or will be, after the construction, alteration or extension, exempt from taxation under Section 220(1)(h) or 224(2)(f) of the *Community Charter*;
 - (b) in the case of residential zones and land uses, the value of the work authorized by the permit does not exceed \$100,000;
 - (c) for all cases other than those described in clause 7(b), the value of the work authorized by the permit does not exceed \$50,000;
 - (d) the square footage of the DU is no larger than 312.2 ft² [29m²];
 - (e) the permit authorizes the construction, alteration or extension of a building or part of a building that is, or will be, after the construction, alteration or extension, used for not-for-profit rental housing.

MIXED USE AND COMPREHENSIVE DEVELOPMENTS

8. For mixed use developments, the development cost charge payable shall be calculated separately for each portion of the development contained in the building permit or subdivision application in accordance with the zones and land uses identified in Schedule "A". The total payable will be the sum of the development cost charges for each portion of the development.
9. Development cost charges payable for comprehensive development zones shall be calculated as specified in the applicable comprehensive development zone amendment to Surrey Zoning By-law.

CHANGES TO WORK AUTHORIZED BY A BUILDING PERMIT

10. If a minor change to a building permit is proposed, the development cost charges will be recalculated based on the increase in building area, developed area, or dwelling units (as applicable) using the rates in the Surrey Development Cost Charge By-law in effect at the time of issuance of the revision permit. The difference between the original development cost charge amount and the recalculated development cost charge amount shall be paid to the City prior to the issuance of the revision permit.
11. If a substantial change to a building permit is proposed, the development cost charges will be recalculated on the entire project at the rates in the Surrey Development Cost Charge By-law in effect at the time of issuance of the revision permit. The difference between the original development cost charge amount and the recalculated development cost charge amount shall be paid to the City prior to the issuance of the revision permit.

EFFECTIVE DATE AND TRANSITIONAL PROVISIONS

12. This by-law will come into force on the Effective Date.
13. Subject to section 14, *Surrey Development Cost Charge By-law, 2011, No. 17330*, and all amendments thereto, is hereby repealed except in the case of:
 - (a) applications for subdivision of land that are in-stream on the effective date and which are completed within one year of the effective date; and

(b) building permits that are in-stream on the effective date and which are issuable within one year of the effective date, in which case *Surrey Development Cost Charge By-law, 2011, No. 17330*, and all amendments thereto, shall apply. *Surrey Development Cost Charge By-law, 2011, No. 17330*, and all amendments thereto, shall be wholly repealed one year from the effective date.

14. For Anniedale-Tynehead, *Surrey Development Cost Charge By-law, 2012, No. 17539, Amendment By-law, 2012, No. 17668* is applicable, except in the case of:

- (a) applications for subdivision of land that are in-stream on July 27, 2012 and which are completed within one year of July 27, 2012; and
- (b) building permits that are in-stream on July 27, 2012 and which are issuable within one year of July 27, 2012, in which case *Surrey Development Cost Charge By-law, 2011, No. 17330* or *Surrey Development Cost Charge By-law, 2012, No. 17539*, prior to this amendment by-law, shall apply.

PASSED FIRST READING on the 9th day of January, 2012.

PASSED SECOND READING on the 9th day of January, 2012.

PASSED THIRD READING on the 9th day of January, 2012.

APPROVED BY THE DEPUTY INSPECTOR OF MUNICIPALITIES on the 27th day of February, 2012.

RECONSIDERED AND FINALLY ADOPTED, signed by the Mayor and Clerk, and sealed with the Corporate Seal on the 12th day of March, 2012.

_____MAYOR

_____CLERK

Schedule "A"
Surrey Development Cost Charge By-law, 2012, No. 17539

No	Zones and Land Uses	DCC Components						Total	Units for Each Column
		Water	Sewer	Arterial Roads	Collector Roads	Drainage	Parkland Acquisition		
	CTA, CPG, CPM CPR, and CCR (except for lines 33, 34 & 35)								
21	CTA	\$790	\$1,040	\$3,010	\$660	\$740	\$0	\$6,240	/pad (h)
22	CPG, CPM, CPR, CCR	\$0.58	\$0.69	\$3.90	\$0.85	\$1.31	\$0.00	\$7.33	/sq.ft. of BA
	Dwelling Units in Non Residential								
23	DU in Non Residential Zones (excluding line 24)	\$1.09	\$1.43	\$6.13	\$1.34	\$0.84	\$5.63	\$16.46	/sq.ft. of DU (c)
24	DU in Non Residential Zones (in City Centre)	\$1.09	\$1.43	\$3.90	\$0.85	\$0.84	\$3.00	\$11.11	/sq.ft. of DU (d)
	Industrial (except for lines 33,34 & 35)								
25	All Industrial Zones & Land Uses Developed Area	\$5,290	\$6,908	\$26,417	\$5,771	\$28,493	\$0	\$72,879	/acre (g)
26	All Industrial Zones & Land Uses All other floors	\$0.12	\$0.16	\$0.38	\$0.08	\$0.13	\$0.00	\$0.87	/sq.ft. of BA (g) (i)
	Institutional (except for lines 33, 34 & 35)								
27	PA-1, PA-2, PC	\$0.58	\$0.69	\$0.00	\$0.00	\$1.31	\$0.00	\$2.58	/sq.ft. of BA (g)
28	Public & Private Schools (to grade 12)	\$0.58	\$0.69	\$0.00	\$0.00	\$1.31	\$0.00	\$2.58	/sq.ft. of BA (g)
29	Public & Private Schools (Post Secondary)	\$0.58	\$0.69	\$3.12	\$0.68	\$1.31	\$0.00	\$6.38	/sq.ft. of BA (g)
30	Hospitals	\$0.58	\$0.69	\$1.56	\$0.34	\$1.31	\$0.00	\$4.48	/sq.ft. of BA (g)
31	Federal and Provincial Buildings	\$0.58	\$0.69	\$3.07	\$0.67	\$0.44	\$0.00	\$5.45	/sq.ft. of BA (g)
32	Municipal Buildings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	/sq.ft. of BA
	Highway 99 Corridor								
33	All Commercial Zones & Land	\$9,756	\$26,033	\$152,273	\$0	\$9,320	\$11,331	\$208,713	/acre (g)
34	All Industrial Zones & Land Uses	\$9,756	\$26,033	\$44,786	\$0	\$9,320	\$11,331	\$101,226	/acre (g)
	Campbell Heights								
35	All Zones & Land Uses	\$10,063	\$14,564	\$97,511	\$0	\$12,314	\$0	\$134,452	/acre (g)

Comments:

- (a) Based on an ultimate of 2 DU per lot.
- (b) Rate to be charged based on the total sq. ft. of DU to a maximum of \$26,075/DU.
- (c) Rate to be charged based on the total sq. ft. of DU to a maximum of \$22,221/DU.
- (d) Rate to be charged based on the total sq. ft. of DU to a maximum of \$14,999/DU.
- (e) Rate to be charged based on the total sq. ft. of DU to a maximum of \$17,000/DU.
- (f) Rate to be charged based on the total sq. ft. of DU to a maximum of \$11,375/DU.
- (g) Dwelling Units within Non Residential Zones and Land Uses shall be charged the applicable rate in line 23 or line 24.
- (h) Rate to be charged per trailer pad or camping site in addition to rate of lines 19 and 20 for BA of any other building.
- (i) Rate to be charged for all other floors in addition to rate of line 25.

Schedule "A-1"
Surrey Development Cost Charge By-law, 2012, No. 17539

No	Zones and Land Uses	DCC Components						Total	Units for Each Column
		Water	Sewer	Arterial Roads	Collector Roads	Drainage	Parkland Acquisition		
	CTA, CPG, CPM CPR, and CCR								
14	CTA	\$1,450	\$2,080	\$5,060	\$1,310	\$1,050	\$0.00	\$10,950	/pad (e)
15	CPG, CPM, CPR, CCR	\$1.06	\$1.38	\$6.56	\$1.70	\$1.86	\$0.00	\$12.56	/sq.ft. of BA
	Dwelling Units in Non Residential								
16	DU in Non Residential Zones	\$2.00	\$2.87	\$10.31	\$2.67	\$1.19	\$5.63	\$24.67	/sq.ft. of DU (c)
	Industrial								
17	All Industrial Zones & Land Uses - Developed Area	\$9,679	\$13,844	\$60,928	\$15,773	\$40,489	\$0.00	\$140,713	/acre (d)
18	All Industrial Zones & Land Uses - All other floors	\$0.22	\$0.32	\$0.64	\$0.17	\$0.19	\$0.00	\$1.54	/sq.ft. of BA (d) (f)
	Institutional								
19	PA-1, PA-2, PC	\$1.06	\$1.38	\$0.00	\$0.00	\$1.86	\$0.00	\$4.30	/sq.ft. of BA (d)
20	Public & Private Schools (to grade 12)	\$1.06	\$1.38	\$0.00	\$0.00	\$1.86	\$0.00	\$4.30	/sq.ft. of BA (d)
21	Public & Private Schools (Post Secondary)	\$1.06	\$1.38	\$5.25	\$1.36	\$1.86	\$0.00	\$10.91	/sq.ft. of BA (d)
22	Hospitals	\$1.06	\$1.38	\$2.62	\$0.68	\$1.86	\$0.00	\$7.60	/sq.ft. of BA (d)
23	Federal and Provincial Buildings	\$1.06	\$1.38	\$5.16	\$1.33	\$0.62	\$0.00	\$9.55	/sq.ft. of BA (d)
24	Municipal Buildings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	/sq.ft. of BA

Comments:

- (a) Based on an ultimate of 2 DU per lot.
- (b) Rate to be charged based on the total sq. ft. of DU to a maximum of \$38,098/DU.
- (c) Rate to be charged based on the total sq. ft. of DU to a maximum of \$33,264/DU.
- (d) Dwelling Units within Non Residential Zones and Land Uses shall be charged the applicable rate in line 16.
- (e) Rate to be charged per trailer pad or camping site in addition to rate of lines 12 and 13 for BA of any other building.
- (f) Rate to be charged for all other floors in addition to rate of line 17.

SCHEDULE "B"

LIST OF ZONES

SURREY ZONING BY-LAWS 12000 AND 5942

	Name of Zone	By-law 12000 Zone	By-law 5942 Zone
Residential Zones	General Agriculture	A-1	A-1, A-3
	Intensive Agriculture	A-2	A-2
	One-Acre Residential	RA	RS
	Acreage Residential Gross Density	RA-G	R-A(G)
	Half-Acre Residential	RH	R-1
	Half-Acre Residential Gross Density	RH-G	R-H(G)
	Single Family Residential	RF	R-F, R-F(R), R-F(F)
	Single Family Residential Secondary Suite	RF-SS	RF-SS, RFR-SS
	Single Family Residential Gross Density	RF-G	R-F(C)
	Duplex Residential	RM-D	R-F(D)
	Manufactured Home Residential	RM-M	R-F(M), CT(2)
	Multiple Residential 15	RM-15	RT-1
	Multiple Residential 30	RM-30	RM-1
	Multiple Residential 45	RM-45	RM-2
	Multiple Residential 70	RM-70	RM-3
	Multiple Residential Commercial 150	RMC-150	RM-4
	Special Care Housing 1	RMS-1	P-P, P-P(2)
Special Care Housing 2	RMS-2	P-P, P-P(2)	
Institutional Zones	Cemetery	PC	P-C
	Assembly Hall 1	PA-1	P-A
	Assembly Hall 2	PA-2	P-A

SCHEDULE "B"
LIST OF ZONES
continued
SURREY ZONING BY-LAWS 12000 AND 5942

	Name of Zone	By-law 12000 Zone	By-law 5942 Zone
Commercial Zones	Local Commercial	C-4	C-L
	Community Commercial	C-8	C-S
	Town Centre Commercial	C-15	CR-1, CR-2, CR-3, CR-4
	Downtown Commercial	C-35	C-C
	Highway Commercial Industrial	CHI	C-H, I-S
	Self-Service Gasoline Station	CG-1	C-G(1)
	Combined Service Gasoline Station	CG-2	C-G(2), CG
	Tourist Accommodation	CTA	C-T(1), C-T(2)
	Child Care	CCR	P-P(1)
	Commercial Recreation	CPR	P-R, P-D
	Golf Course	CPG	P-R
	Marina	CPM	P-R
Industrial Zones	Business Park	IB	I-1, I-P(2), I-G, I-4
	Light Impact Industrial	IL	I-G, I-S, I-T, I-W
	High Impact Industrial	IH	I-H, I-W
	Salvage Industrial	IL	I-L(S)
	Agro-Industrial	IA	I-A
Comprehensive Development Zone	Comprehensive Development	CD	C-D

APPENDIX II

2012 DCC Program – Project Overview

Summarized below are the DCC budget and expenditures by program and the significant projects funded (or partially) within each DCC Reserve Account in 2012.

Arterial Roads

Project ID	Project Description	2012 DCC Budget	2012 DCC Expenditures	2012 Unspent DCC Allocations
8963	Ultimate Widening: 96 Ave, 168 St - 176 St	\$3,719,300	\$83,344	\$3,635,956
10042	Ultimate Widening: 192 St, 68 Ave - 72 Ave	\$4,165,300	\$3,564,199	\$601,101
9319	Interim Widening: Fraser Hwy, 168 St - 17900 blk	\$8,031,400	\$0	\$8,031,400
11225	Roberts Bank Overpass: 152 St / BC Railway	\$2,980,100	\$0	\$2,980,100
11989	Roberts Bank Overpass: 192 St / BC Railway	\$2,120,100	\$1,550,388	\$569,712
11990	Roberts Bank Overpass: 196 St / BC Railway	\$2,149,400	\$909,614	\$1,239,786

Collector Roads

Project ID	Project Description	2012 DCC Budget	2012 DCC Expenditures	2012 Unspent DCC Allocations
12885	Ultimate Widening: 103 Ave, 133A St - University Blvd	\$758,900	\$144,801	\$614,100
13440	Ultimate Widening: 28 Ave, 158 St - 161 St	\$1,000,000	\$380,040	\$619,960
13061	Non-arterial Property Acquisition	\$2,080,000	\$1,067,926	\$1,012,074
2664	Major Collector Development Coordinated Works	\$1,305,600	\$0	\$1,305,600
13059	Major Collector Upsizing: Various Locations	\$941,700	\$0	\$941,700

Drainage

Project ID	Project Description	2012 DCC Budget	2012 DCC Expenditures	2012 Unspent DCC Allocations
6247	Culvert Crossing Upgrade: 148 St / Hyland Cr	\$1,950,650	\$126,364	\$1,824,286
11788	Truck Sewer: Peace Park Dr / West Douglas Outfall	\$939,518	\$0	\$939,518
12946	Trunk Sewer Upgrades: East Newton	\$1,129,500	\$719,409	\$410,091
12744	Newton Hyland Creek Detention Pond	\$2,148,800	\$71,421	\$2,077,379
12788	Storm Sewer Upsizing: Various Locations	\$1,500,000	\$0	\$1,500,000

Sewer

Project ID	Project Description	2012 DCC Budget	2012 DCC Expenditures	2012 Unspent DCC Allocations
7765	Minor Sewer Mains: 134 St, 98B Ave - 096 Ave	\$709,200	\$704,276	\$4,924
10256	Interceptor Connection: 104 Ave, lot 17425 - 176 St	\$881,000	\$0	\$881,000
7733	Morgan Creek Pump Station Upgrade	\$1,045,000	\$9,780	\$1,035,220
7759	Bridgeview Vacuum Sewer, Phase 1	\$1,957,500	-\$1,250,712	\$3,208,212
10126	Bridgeview Lower Pressure System, Phase 2	\$4,305,300	\$84,570	\$4,220,730

Water

Project ID	Project Description	2012 DCC Budget	2012 DCC Expenditures	2012 Unspent DCC Allocations
9758	Kennedy Pump Station Upgrades	\$1,238,200	\$172,418	\$1,065,782
10343	Feeder Main: 28 Ave, 160 St - 164 St	\$1,055,000	\$241,440	\$813,560
5379	Feeder Main: 24 Ave and 164 St	\$1,920,000	\$0	\$1,920,000
4936	Distribution Main: 60 Ave, lot 18456 - 188 St	\$522,860	\$565,444	-\$42,584
11602	Distribution Main: 128 St, 76 Ave - 90 Ave	\$1,082,070	\$546,911	\$535,159
9918	Distribution Main: 32 Ave, 136 St - 144 St	\$660,580	\$457,958	\$202,622

- Notes:**
- This summary does not take into account any Utility or General Revenue funding which is typically included as a funding source with these projects.
 - Unspent Allocations remain with the project until the project is complete. Once a project is complete, all the Unspent Allocations are returned to the applicable DCC reserve account.

Parkland Acquisition

Program ID	Project Description	2012 DCC Expenditures
585	Growth – Neighbourhood Parks	\$9,294,803
585	Functionality – Neighbourhood and Community Parks	\$4,137,000
585	Linear Connections	\$415,500
585	Areas of Special Significance	\$5,807,038

- Notes:**
- As the timeline for park parcel acquisitions vary, and also are dependent on negotiations, a specific budget for each planned acquisition is not established each calendar year, but a general acquisition program budget is established.

Parkland Development

Program ID	Program Description	2012 DCCs Budgeted	2012 DCCs Expenditures	2012 Unspent Allocations
105	City Parks	\$829,630	\$515,345	\$314,285
1710	Minor Park Projects	\$952,245	\$369,017	\$583,228
1712	Developer Funded Works	\$4,750	\$0	\$4,750
1715	Renovations of Existing Parks	\$323,010	\$161,716	\$161,294
1720	Environmental/Greenways	\$35,280	\$31,720	\$3,560
1725	Schools Parks	\$69,600	\$14,792	\$54,809
1730	Neighbourhood Parks	\$163,630	\$96,756	\$66,874
1735	Park Support Facilities	\$17,930	\$14,622	\$3,308
1740	Partnerships / Joint Community Parks Projects	\$97,495	\$77,209	\$20,286
1750	City Cemeteries	\$25,000	\$0	\$25,000
1755	Community Parks	\$238,670	\$106,078	\$132,592
1760	Youth and Senior Parks Projects	\$500	\$481	\$19
1770	Urgent Community Needs	\$69,940	\$69,872	\$68
1775	Advance Planning	\$736,220	\$312,382	\$423,838

2012 DCC Program – DCC Reimbursements

Detailed below are the DCC reimbursements provided to the developers who had previously completed DCC eligible works on behalf of the City.

Drainage

Project No.	Project Description	2012 DCCs Reimbursed
7801-0198-00	BFW Developments Ltd	\$60,042
7807-0041-00	Cressey (Douglas) Development Ltd.	\$180,520

Water

Project No.	Project Description	2012 DCCs Reimbursed
7807-0041-00	Cressey (Douglas) Development Ltd.	\$114,934

Sewer

Project No.	Project Description	2012 DCCs Reimbursed
7807-0041-00	Cressey (Douglas) Development Ltd.	\$150,022
7807-0055-00	Chia Joint Venture	\$280,322

APPENDIX III

2013 DCC Program – Overview

Summarized below is a sample of DCC funded projects included in the Engineering Department's 2013 Capital Construction Plan. A full listing of all projects included in this plan is available at <http://www.surrey.ca/plans-strategies/3138.aspx>

Arterial Roads

Project No	Project Description	2013 DCCs Budgeted
11989	Railway Overpass 192 St / 52 Ave	\$4,841,400
10042	Ultimate Arterial Widening 192 St: 68 Ave - 73 Ave and 72 Ave: 191 St - 193 St	\$2,400,000
13460	Arterial Intersection Improvements 104 Ave: 13400 blk - 13500 blk	\$2,000,000
10626	Ultimate Arterial Widening (3 to 5 Lanes) 16 Ave: King George Blvd - Hwy 99	\$1,680,000
12025	Railway Overpass 54 Ave / 19300 blk	\$1,535,100

Collector Roads

Project No	Project Description	2013 DCCs Budgeted
7527	Ultimate Major Collector Widening 135 St (City Parkway): 104 Ave - 105 Ave	\$1,000,000
11764	Ultimate Major Collector Widening 52 Ave: 188 St - 190 St	\$350,000
12819	Collector Road Sidewalk 136 St: 112 Ave - 113 Ave	\$127,200
13314	Curb Bulges and Raised Crosswalk 168 St / 103 Ave	\$89,200
13316	Curb Bulges 188 St / 59 Ave	\$58,600

Drainage

Project No	Project Description	2013 DCCs Budgeted
12942	East Bolivar Storm Trunk Upgrades 136 St: 111 Ave - Harper Rd	\$2,116,000
13340	Habitat Channel Construction 192 St: lot 2594	\$300,000
13453	Interim Lowlands Improvements 52 Ave: 160 St - 164 St	\$80,000
8663	Central Nicomekl River Dyke Upgrade 48 Ave: 168 St - 184 St	\$72,000
13450	Floodbox Upgrades Nicomekl and Serpentine Rivers	\$65,000

Sewer

Project No	Project Description	2013 DCCs Budgeted
13431	Sewer Main 624m of 375mm dia. King George Blvd: 108 Ave - Haddon Rd	\$800,000
12554	Sewer Main Rail Crossing 196 St / 5200 blk	\$400,000
13020	Semiahmoo Odour Control 160 St / 8 Ave	\$400,000
9442	Grandview South Pump Station and Forcemain Trunk 168 St / 15 Ave	\$334,000
12729	Sewer Main 166m of 600 mm dia. King George Blvd: 26 Ave - lot 2678	\$253,000

Water

Project No	Project Description	2013 DCCs Budgeted
12932	Water Main 400m of 450mm dia.	\$378,975
11507	Water Main 800m of 600mm dia. 104 Ave: 148 St - 152 St	\$374,225
11602	Water Main 2800m of 300mm dia. 128 St: 76 Ave - 90 Ave	\$234,750
11511	Water Main 370m of 450mm dia. 64 Ave: 134 St - 136 St	\$187,660
4949	Water Main 400m of 300mm dia. 132 St: 76 Ave - 78 Ave	\$158,730

Parkland

Program ID	Project Description	2013 DCCs Budgeted
585	Growth – Neighbourhood Parks	\$18,800,000
585	Functionality – Neighbourhood and Community Parks	\$3,800,000
585	Linear Connections	\$2,200,000
585	Areas of Special Significance	\$2,200,000

Note: As the timeline for park parcel acquisitions vary, and also are dependent on negotiations, a specific budget for each planned acquisition is not established each calendar year, but a general acquisition program budget is established.

Parkland Development

Program ID	Project Description	2013 DCCs Budgeted
1705	City Parks	\$168,750
1710	Minor Parks	\$74,000
1730	Neighbourhood Parks	\$281,250
1755	Community Parks	\$300,000
1740	Partnerships/Joint Community Park Projects	\$25,000
1775	Advance Planning	\$468,750