



# Corporate Report

NO: L004

COUNCIL DATE: February 23,

2004

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## REGULAR – LAND USE

TO: Mayor & Council                      DATE: February 18,  
2004

FROM: General Manager,  
Planning and Development              FILE: 6520-20  
(Highway 99  
Corridor)

SUBJECT: Highway 99 Corridor Local Area Plan – Final Plan

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## RECOMMENDATION

It is recommended that Council:

1. Receive this report as information;
2. Approve the Local Area Plan ("LAP") for the Highway 99 Corridor, attached to this report as Appendix I, which includes the proposed land use plan and policies, environmental management plan, urban design guidelines and the engineering servicing and financing strategies that will act to guide development and provide amenities in the Highway 99 Corridor plan area;
3. Instruct the City Clerk to introduce the necessary by-law to amend the Surrey Zoning By-law, 1993, No. 12000 (the "Zoning By-law"), as documented in Appendix VI, to include amenity contributions for the Highway 99 Corridor area, based on the density bonus concept outlined in this report;
4. Instruct staff to bring forward an amendment to the Official Community Plan (the "OCP") to establish the entire Highway 99 Corridor plan area as a Development Permit Area pursuant to the provisions of the OCP; and
5. Authorize staff to bring forward amendments to the Surrey Sign By-law, 1999, No 13656 to reflect the provisions of the Highway 99 Corridor Design Guidelines.

## INTENT

The purpose of this report is to provide background information to Council and to obtain Council approval of:

1. The complete and final LAP for the Highway 99 Corridor including a Land Use Plan, environmental management plan, urban design guidelines, engineering servicing and a financing strategy;
2. The funding mechanisms for amenities proposed for the Highway 99 Corridor LAP and the associated Zoning By-law amendments; and
3. A process for OCP and Zoning By-law amendments necessary to allow development in accordance with the Highway 99 Corridor LAP.

## BACKGROUND

On December 8, 2003, Council approved the proposed land use concept plan for the Highway 99 Corridor and instructed staff to proceed to finalize the Stage II component of the Highway 99 Corridor plan, including design guidelines, habitat preservation guidelines and engineering servicing and financial strategies.

On February 9, 2004, Council considered Corporate Report No. R027 and endorsed the recommendations of the General Manager, Engineering with regard to engineering servicing and financing (Appendix II). More specifically, Council approved:

1. The proposed scope of engineering services for the development of the Corridor including drainage, water, sanitary sewer, roads and environmental works; and
2. An area specific development cost charge ("DCC") to fund the cost of the trunk utility services and new or upgraded arterial and major collector roads necessary for development of the Highway 99 Corridor land use plan.

This report provides an overview of the proposed LAP for the Highway 99 Corridor and describes in more detail the proposed design guidelines and other items that are part of the final Corridor Plan.

## **DISCUSSION**

### **The Plan Area**

The Highway 99 Corridor is located in south-central Surrey and includes the lands generally bounded by Highway 99 to the west, the B.C. Hydro right-of-way and 164 Street to the east, 8 Avenue to the south and the Rosemary Heights Business Park to the north. To the east of the Corridor is the community of Grandview Heights, a largely suburban residential area characterized by single family homes on acreage lots.

### **Economic Development Context**

The Highway 99 Corridor Plan supports Council's business development objectives and policies and accommodates a variety of commercial, business park and high-end light impact industrial uses. With an area of approximately 158 hectares (390 acres) of land, the plan area is expected to generate approximately \$300 to \$350 million in new business property assessments, new property tax revenues of approximately \$3 million to \$3.5 million per year, and will be home to over 6,000 new jobs once it is developed to its full potential with a mix of business, industrial and commercial development.

### **Planning Process**

The planning process for the preparation of the Highway 99 Corridor LAP involved a number of steps with formal and informal opportunities for the public to participate in the process. These steps included:

1. Council approved Terms of Reference (January, 2002);
2. Establishment of inter-agency working group to provide technical input (February, 2002);
3. Public Open House on issues and concerns (March, 2002);
4. Public Open House to present three Land Use Plan options (May, 2002);
5. Issue analysis and preferred land use option preparation (June, 2002 – March, 2003);
6. Public Open House to present the Preferred Land Use Option (April, 2003);
7. Small group/stakeholder group meetings (September, 2003);
8. Community workshop (October, 2003);
9. Public Open Houses to present final draft Land Use Plan, servicing and financing strategies (November, 2003);
10. Council approval of Stage 1 Land Use Plan (December, 2003);

11. Finalization of Stage 2 component of the plan including final Land Use Plan, design guidelines, environmental management plan and engineering servicing and financing (January/February, 2004);
12. Council approval of proposed scope of engineering servicing and an area specific development cost charge to finance trunk utility services, and new or upgraded arterial and collector roads necessary for the development of the Corridor lands (February, 2004); and
13. Council approval of final and complete Local Area Plan (February, 2004).

## **The Land Use Plan**

The Local Area Plan for the Highway 99 Corridor sets out a policy framework for land use and density, a transportation network and an environmental management plan, as well as requirements for engineering servicing, amenities and a financing strategy.

The Land Use Plan is divided into five sub-areas. Each of these sub-areas supports different types of land uses. The five sub-areas are described below and are shown on the map attached as Appendix III to this report. The recommended Land Use Plan is contained in Appendix IV.

### ***28 Avenue Business Park/Light Industrial Area***

The 28 Avenue Business Park/Light Industrial Area is located in the north part of the Highway 99 Corridor. This area is bounded by the Rosemary Heights Business Park and by 28 Avenue to the north, and by 26 Avenue to the south. Comprising approximately 22 acres of land, it is presently characterized by rural acreages of varying areas and condition.

This area shares many of the characteristics of the properties located in the south part of the Rosemary Heights Business Park, including narrow frontages along Highway 99 and the encumbrances posed by the B.C. Hydro right-of-way to the east. The Land Use Plan proposes a continuation of the business park and high-end light impact industrial uses of the Rosemary Heights Business Park for this area.

### ***24 Avenue Commercial Node***

The Land Use Plan proposes a major commercial node at 24 Avenue and 160 Street. Comprising approximately 34.5 hectares (85 acres) of land, the northwest, southwest and southeast quadrants of this node are proposed for a variety of retail commercial uses including large format retail development. As a gateway to the Grandview Heights residential area to the east, careful attention must be given to the planning and design of new development within these quadrants.

The northeast quadrant of this node is envisioned for retail uses that can provide an appropriate transition between the potential large format retail uses in the other three quadrants and the existing and future residential uses to the east and north of this node. Large format retail uses in the form of single user "big box" buildings will not be permitted within this quadrant. This quadrant is focused on providing a neighbourhood scale of retail uses for the residential areas to the east (Figure 5 of Appendix I).

A concern raised through the public consultation process was that new commercial development at this node would be characterized by "big box" buildings with large expanses of blank walls surrounded by vast surface parking lots. While the Corridor Plan supports new commercial development including large format retail development, this development is to be of a high quality. A coordinated architectural and landscaping scheme for all four quadrants of the node is strongly encouraged. With respect to parking, the Plan proposes that surface parking lots for commercial developments within the Plan Area be limited to a maximum of 3.0 spaces for every 100 square metres of gross floor area on any lot. Parking over this cap may be provided below buildings or in parking structures. Given the constraints imposed on some sites by the B.C. Hydro right of-way, consideration for surface parking over the 3.0 spaces per 100 square metres may be considered subject to a comprehensive building siting, parking and landscaping scheme that provides for animated storefronts, pedestrian amenities, the breaking-up of large expanses of parking with appropriate landscaping, buildings and/or other features, and a high quality of landscaping and surface finishes.

### ***16 Avenue Commercial/Business Park Node***

A commercial node, which combines commercial and business park uses, is proposed at 16 Avenue that provides a direct link to the established White Rock/South Surrey residential areas to the west. This node includes approximately 13 ha (32 acres) of land. Smaller scale commercial development in the form of either freestanding buildings occupied by single tenants or in multi-tenant commercial retail buildings are proposed for this location. Unlike the 24 Avenue commercial node, single tenant retailers in freestanding buildings in excess of 20,000 to 25,000 square feet are not envisioned for this area.

### ***Central Business Park/Light Industrial Area***

The area between the commercial nodes at 16 Avenue and 24 Avenue is proposed for a combination of Business Park/Light Industrial (+/- 23 hectares or 56 acres) and Business Park uses (+/- 8 hectares or 20 acres). The Plan illustrates a precinct of business park and light industrial uses anchored at the north and south ends by two commercial nodes. A north-south spine road, the extension of Croydon Drive south to approximately 18 Avenue paralleling Highway 99, is proposed to provide access to this area.

To ensure high quality development, all light impact industrial uses within this precinct must be within an enclosed building. Outdoor storage of any goods, materials or supplies will be prohibited.

### ***8 Avenue Gateway Commercial/Business Park Area***

The area between 8 Avenue and the southerly limit of the Fergus Creek habitat preservation area is proposed for a combination of Business Park (+/- 8 hectares or 20 acres) and Business Park/Commercial uses (+/- 8.5 hectares or 21 acres). This area is an important gateway location into Surrey and Canada and as such, a high quality of urban design, architecture and landscaping is especially important at this location. Tourist commercial uses such as hotels, which take advantage of this gateway location, are allowed.

## **Environmental Preservation**

The Highway 99 Corridor includes a variety of habitat features that support resident and migratory populations of fish and wildlife. The Plan Area includes over 40 hectares (100 acres) of high value habitat area that will be preserved, enhanced and protected. High quality fish habitat forms the foundation of the habitat protection plan and is supplemented by a mix of upland habitat types that will maintain representation by all wildlife groups currently found in this area.

More specifically, three general habitat features are recommended to be preserved or established, as summarized below and shown in Appendix V.

1. A linear habitat feature adjacent to Highway 99, extending from approximately 12 Avenue to 23 Avenue including the upper section of Fergus Creek;
2. Two sections of proposed "food and nutrient" features are to be developed within the B.C. Hydro right-of-way; and
3. A large "block" of habitat comprising the Fergus Creek ravine and most of the critical wildlife habitat located generally south of 16 Avenue.

The lands associated with the significant environmental features are proposed to be acquired in conjunction with development as landowners/developers dedicate existing areas as fish habitat and, additionally, some areas are proposed to be purchased by the City as part of the City's on-going park acquisition program.

## **Design Guidelines**

Detailed urban design guidelines have been prepared for the Highway 99 Corridor. The primary intent of the guidelines is to provide guidance for the development of the public realm as well as for development proposals on private property to achieve specific urban design objectives for the Corridor. The detailed Design Guidelines are contained in Appendix I, Part VIII of this report.

The Guidelines are based on the following urban design objectives:

- To promote a high quality of urban design, architecture and landscaping, with special attention to development along Highway 99, and arterial and collector roads;
- To facilitate coordinated development, including the coordination of architectural expression, landscaping and site features on neighbouring sites, and along public streets;
- To integrate urban design and environmental protection by protecting and preserving important elements of the natural environment;
- To retain/provide a green corridor or buffer along Highway 99;
- To encourage development which incorporates principles of sustainability, site planning and building design, and to encourage the implementation of LEED (Leadership in Energy and Environmental Design) standards, where possible;
- To encourage unique design at visually prominent locations, including the commercial nodes at 24 Avenue, 16 Avenue and 8 Avenue;
- To enhance the interface of the private developments and buildings with public streets, with particular attention to the pedestrian environment;
- To provide an appropriate and attractive interface between the Highway 99 Corridor and non-commercial/industrial uses to the east; and
- To use CPTED (Crime Prevention Through Environmental Design) principles to achieve safe, attractive and pedestrian friendly urban spaces.

The guidelines provide general direction for the street character and form and character of developments, including the siting and design of buildings, parking areas, signage, landscaping, interface conditions and loading and service areas. Specific guidelines have been prepared for the 24 Avenue commercial node. As well, there are specific guidelines in support of sustainable development, which encourage new development to use LEED (Leadership in Energy and Environmental Design) or similar standards.

## Amenity Requirements

In accordance with City policy, to address the policing and fire protection needs of new development in the Highway 99 Corridor, all development proposals at the time of rezoning or building permit issuance will be required to make a monetary contribution toward the provision of new police and fire protection services.

The monetary contributions toward police and fire will offset the capital costs of providing these services to the new development and are applied on a standardized basis in all of Surrey's new neighbourhoods and plan areas.

The capital costs of providing these services are divided by the anticipated acreages to ensure an equitable contribution arrangement. Business, industrial and commercial developments are exempt from contributing toward park/ pathway development and library services as they are expected to have little impact on these services.

A summary of the applicable amenity contributions (per hectare/acre) and the estimated revenue the City can expect to receive from development in the Highway 99 Plan area are outlined in the following table.

	Per Acre Contribution <sup>[1]</sup>	Anticipated Revenue
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Police Protection	\$223.02 per acre	\$57,316
Fire Protection	\$963.57 per acre	\$247,637
Total Contribution: Per acre	\$1,186.59 per acre	
Total Anticipated Revenue		\$304,953

## Plan Implementation

### *Official Community Plan Amendments*

The area covered by the Highway 99 Corridor Plan is currently designated Suburban in the OCP. The implementation of the Corridor Plan will require changes to the current OCP designation in the area. It is recommended that these changes occur on a site by site basis in conjunction with a related rezoning application. This will allow Council the opportunity to evaluate OCP amendments in relation to each specific development proposal.

### **Development Permit Area Guidelines**

The entire Highway 99 Corridor Plan area will be designated a Development Permit Area and all developments will be subject to the Development Permit process outlined in Part 6 of the OCP. The Design Guidelines for the Highway 99 Corridor will supplement the Development Permit Area Guidelines contained in the OCP. Both sets of guidelines will be used as the basis for the design of and the review of all development proposals in the Highway 99 Corridor.

### *Zoning By-law Amendment for Amenity Contributions*

To enact the amenity contribution requirements for the lands in the Plan, the Zoning By law will need to be amended to add the Highway 99 Corridor to the list of Neighbourhood Concept Plans within which amenity contributions are to be collected. The proposed amendments to Schedule "G" of the Zoning By-law to incorporate the amenity contributions for the Highway 99 Corridor are documented in Appendix VI.

### *Sign By-law Amendment*

The Highway 99 Corridor Design Guidelines restricts the height of freestanding signs to no more than 2.4 metres (8 ft.). It is recommended that the Sign By-law be amended to reflect this provision.

## CONCLUSION

The Highway 99 Corridor Plan supports Council's business development objectives and policies and accommodates a variety of commercial, business park and high-end light impact industrial uses. The Plan provides for the creation of new jobs in the City and an increased business property tax assessment base related to the business-related development that will result from implementation of the Plan.

It is recommended that Council:

- Approve the LAP for the Highway 99 Corridor, attached to this report as Appendix I, which includes the proposed Land Use Plan and policies, environmental management plan, urban design guidelines, and the engineering servicing and financing strategies that will act to guide development and provide amenities in the Highway 99 Corridor Plan area;
- Instruct the City Clerk to introduce the necessary by-law to amend the Zoning By law, as documented in Appendix VI, to include amenity contributions for the Highway 99 Corridor area, based on the density bonus concept;
- Instruct staff to bring forward an amendment to the OCP to establish the entire Highway 99 Corridor plan area as a Development Permit Area pursuant to the provisions of the OCP; and

- Authorize staff to bring forward amendments to the Sign By-law to reflect the provisions of the Highway 99 Corridor Design Guidelines.

Murray Dinwoodie  
 General Manager  
 Planning and Development

GF:saw

## Attachments

- Appendix I Highway 99 Corridor Local Area Plan
- Appendix II Corporate Report No. R027 – Highway 99 Corridor – Financing of Services
- Appendix III Highway 99 Corridor Sub-Areas
- Appendix IV Land Use Plan
- Appendix V Habitat Management Plan
- Appendix VI Proposed Zoning By-law Amendment for Amenity Requirement

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Appendix II



# Corporate Report

NO: R027

COUNCIL DATE: February 9/04

## REGULAR COUNCIL

TO: Mayor & Council      DATE: **February 6, 2004**

FROM: **General Manager, Engineering**      FILE: **6520-20 (Hwy 99 Corridor)**  
**6520-20 (GH)**  
**3150-00**

SUBJECT:

## Highway 99 Corridor – Financing of Servicing

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# RECOMMENDATIONS

1. That the proposed scope of engineering services as summarized in Section 4 of this report form the basis for the development of the Corridor.
2. That the trunk utility services, and new or upgraded arterial and major collector roads necessary for the development of the Highway 99 Corridor Land Use Plan, be funded through an area specific development cost charge (DCC).
3. That staff be authorized to take the necessary steps to implement the required amendment to the DCC By-law.

## 1.0 INTENT

The purpose of this report is to:

1. Provide Council with an overview of the engineering servicing and financial strategy for the Highway 99 Corridor Land Use Plan (Corridor).
2. Seek Council support for an area specific DCC.

## 2.0 BACKGROUND

The Proposed Land Use Concept Plan for the Highway 99 Corridor study area was presented and approved by council on December 8, 2003. This report outlines the engineering servicing concepts and financial strategies to achieve this servicing plus acquire lands for environmental preservation.

## 3.0 CONTEXT OF SERVICING

As part of the overall evaluation of the viability of developing this Corridor, the feasibility and costs for the provision of municipal infrastructure to support the proposed land uses were reviewed.

One of the key components of this area's servicing strategy is its integration with adjacent lands. The Highway 99 Corridor study area is marked by a number of servicing constraints resulting from topography and the long, narrow shape of the plan area. All services proposed fit within a broader context at a neighbourhood level, as well as at a regional level. This broader context provides both constraints and opportunities for the servicing of the Corridor. The constraints are related to existing infrastructure that must be used to service the Corridor area while the opportunities reflect the concept that new servicing can be constructed as part of development of the Corridor to help facilitate the long term servicing plans for adjacent area .

Lands to the east of the subject Corridor will soon be the subject of an extensive land use planning exercise as part of the Grandview Heights General Land Use Plan. Final details of servicing within the Corridor will need to reflect the ultimate land uses proposed within the broader Grandview Heights General Land Use Plan.

The engineering services discussed in the report relate to major community infrastructure. Only those works, which are trunk or major facilities and normally funded through the City's Development Cost Charge (DCC) programs, are included in the area specific DCC. Interim servicing and local site servicing requirements of individual developments were not analyzed.

## 4.0 CONCEPTUAL SCOPE OF SERVICING

As outlined above, the topography and geographic extent of the Corridor dictate the servicing strategy for the area. A more detailed description of the servicing issues is provided in Appendix A but summarized here for reference.

#### 4.1 Drainage

The Corridor falls within two distinct watersheds: Morgan (or Titman) Creek for areas north of 24 Avenue; and Fergus Creek which flows into the Campbell River for areas south of 24 Avenue. The area is currently serviced by ditches, culverts, minor storm sewers and an extensive network of natural watercourses. A number of existing drainage studies, as well as more recent environmental reviews of the project area, have lead to the proposed servicing strategy for the site which is aimed at attenuating the post-development flows to ensure protection of valuable aquatic habitat within and downstream of the corridor area. The plan includes a number of ponds, piped and ditched diversions and where possible, low impact development strategies. Natural watercourses are integrated into the plan as these continue to convey drainage flows and provide aquatic habitat as well as green space for the neighbourhood. (Please see Figure A1 - Appendix A.)

#### 4.2 Water

With respect to potable water, the existing reservoir at 24 Avenue has sufficient capacity to supply water for the Corridor. The future pump station needed for the overall Grandview Heights area can be upsized to service the corridor. Some areas will be serviced directly from the pump station while others will be connected to existing infrastructure at King George Highway. The grid system within the Corridor will be looped to ensure the necessary fire flows. (Please see Figure A2 - Appendix A.)

#### 4.3 Sewer

As with drainage servicing, sanitary servicing is driven by the topography of the site and is limited by existing conveyance capacities. Generally, areas north of 24 Avenue will be serviced by gravity sewer to the north and areas south of 24 Avenue will flow by gravity to the south. Sanitary pump capacity at the Semiahmoo Pump Station will be provided to service the corridor area on an interim basis until the ultimate Grandview Heights South Pump Station is constructed in the vicinity of 168 Street and 12 Avenue. A detailed description of the sewer servicing strategy and issues related to interim pump capacity is provided in Appendix A. It should be noted that all interim sewer facilities will be the responsibility of the various proponents and are not included in the corridor infrastructure costs or part of the area specific DCC charge. (Please see Figure A3 - Appendix A.)

#### 4.4 Roads

A number of the key transportation issues were dealt with in the December 8, 2003, Report to Council. These issues included the deferring of a new interchange on Highway 99 as the traffic analysis found it was not necessary for the development of the corridor alone. However, on and off ramps may be added at either 24 Avenue or 16 Avenue in the future.

The road and bridge widenings identified to meet the traffic capacity needs for the corridor at build-out are shown in Figure A4 in Appendix A. The plan calls for the widening of sections of 24 Avenue and 16 Avenue including the freeway overpasses, and the construction / widening of the spine road, together with other more minor road improvements. The cost of the road works assigned to the corridor is net of any eligibility for TransLink MRN funding, existing funding identified in the current 10 Year Plan (2001-2010), and of needs that would apply for the period 2004-2013, should the corridor plan not proceed.

#### 4.5 Environmental Reserve Area

A key component of the overall layout of the corridor is the concept of consolidating a natural environmental reserve area between 12 Avenue and 15 Avenue. Although this natural park feature is independent of the servicing requirements for the corridor, it must be covered within its funding strategy. A detailed description of the area, and the public and agency process that lead to the proposed creation of this reserve, is provided in previous corporate reports.

### 5.0 FUNDING OPTIONS

#### 5.1 Funding Philosophy

Council has directed that, similar to other NCP areas, this Corridor must be self-financing. This means that the transportation and other servicing infrastructure requirements will be funded on a development pay approach.

#### 5.2 Costs and Revenues for the Area

As this area was not previously designated urban in the OCP, most of the Arterial, Major Roads and other trunk services required for the development in the Corridor are not included in the current DCC program. Also, as outlined previously, the long, narrow shape of the plan area and the fact that it abuts a freeway with any road widenings also requiring widening of the overpasses over the freeway makes the cost of servicing this area higher than other NCPs.

When comparing the costs against current DCCs generated in the area, there is a significant shortfall. This would apply to both the full "build out" condition as shown in the table below and, more importantly, on a cash flow basis as development proceeds.

	DCC Corridor Costs	DCCs Generated	Shortfall (Surplus)
Arterial Roads	\$16.6 million	\$ 4.6 million	\$12.0 million
Major Collectors	\$ 3.8 million	\$ 1.2 million	\$ 2.6 million
Drainage	\$ 1.9 million	\$ 5.1 million	(\$ 3.2 million)

Sewer	\$ 3.2 million	\$ 0.6 million	\$ 2.6 million
Water	\$ 1.7 million	\$ 0.7 million	\$ 1.0 million
Environmental Preserve Area	\$ 3.0 million	\$ 0.0 million *	\$ 3.0 million
Total	\$30.2 million	\$12.2 million	\$18.0 million

\* The current DCC structure for industrial and commercial does not include any DCC for open space / environmental preserve areas.

## 6.0 FUNDING ALTERNATIVES

The City has a number of alternatives for dealing with this shortfall. The City may:

1. Raise the required funds by imposing a special levy to be charged against the benefiting lands;
2. Choose to include these works in the overall DCC program and adjust overall DCC accordingly;
3. Create an area-specific DCC for the Corridor.

### 6.1 Special Levy

A special levy to address the shortfall is an option. This levy would be in addition to the regular DCCs and would likely be made a condition of rezoning.

Commercial developments generate significantly more traffic than light industrial / business park uses (approximately 3.4:1 on an average daily basis) thus should bear a proportionately higher share of the road costs.

The proposed levy for the entire Corridor (in addition to DCC's) necessary to cover the shortfall for roads, water, sewer and environmental reserve area is:

- Commercial Areas: \$110,000/acre
- Light Industrial/Business Park Areas: \$ 49,000/acre

As well as requiring the developers to pay the levy in addition to their Development Cost Charges, the initial developers would have to front end the construction of the required infrastructure necessary in advance of their developments. This will be an issue with all the alternatives as the City does not have the funds available to advance the construction.

### 6.2 Include in Overall DCC Program as Increase Overall DCCs

An alternative to the levy would be for the City to add the additional road works and engineering services to the City's overall DCC program and to collect the funds required over time through the City-wide DCCs. This alternative would still require that a developer front-end the road works and other servicing works required in conjunction with their development.

It is estimated that the City wide Arterial Road Development Cost Charges would have to be increased by about 6 to 8% to allow for the Corridor works proposed in the next 10 years to be included in the DCC program. The Major Collector DCC would likely have to be increased by about 4%. Similarly, overall sewer and water DCC would have to increase 4 to 6%. Additionally, by including the corridor works in the overall DCC program, the somewhat lower DCCs (compared to Area Specific DCCs) would create more of a cash flow problem for the frontending of servicing plus there is reduced opportunity for initial developers to recover costs from other development through such mechanisms as DCC frontending agreements.

### 6.3 Area Specific DCCs

An area specific DCC could be established to fund the roads, engineering services and environmental reserve area identified for the corridor. The area specific DCC has the advantage that the works for the corridor do not increase the DCCs elsewhere in the City.

It also has the advantage for the developers in the corridor in that all DCCs collected in this area are to fund works for the corridor.

The area specific DCC was the approach that the City adopted for the Campbell Heights industrial area. The DCCs per acre of development for the corridor would be approximately as follows:

	<i>Industrial</i>	<i>Commercial</i>
Drainage	\$ 7,000	\$ 7,000
Water	6,300	6,300

Sewer	11,800	11,800
Environmental Reserve	12,100	12,100
Transportation	<u>35,600</u>	<u>121,000</u>
 Total	 \$72,800	 \$158,300

It should be noted that this DCC calculation includes the current DCC by-law specified City assist factors of 5% for roads and open space (from City general revenue), and 10% for sewer, water and drainage (from City utilities).

## 7.0 DISCUSSION OF FUNDING ALTERNATIVES

Of the alternatives available to cover the funding shortfall, the area specific DCC offers the most advantages. It does not increase DCCs in other areas of the City and it provides a greater level of certainty than a special levy payable as a rezoning requirement. Also, the area specific DCC is more consistent with the approach taken for Campbell Heights where an area with greater servicing scope and cost than other NCPs was not added into the overall DCC program but was dealt with separately. The scope of works and the resulting DCC rates have been discussed with the key development proponents in the corridor, and they have a good understanding and appreciation of the costs and servicing needs involved. Initially, it was envisaged that the commercial per acre DCC would be around \$171,000 an acre. The key proponents raised concerns at this per acre rate. Further detail review of servicing components and a more detailed calculation of the DCCs resulted in a reduced per acre commercial DCC of \$158,000.

## 8.0 CONCLUSION

The servicing needs for the corridor have been summarized in this report and outlined in Appendix A. The servicing study shows that with current City-wide DCC rates, there is a considerable shortfall in funding available for servicing. To overcome this shortfall, the best funding alternative is an area specific DCC. Council's authority is requested to proceed with the necessary steps, including Provincial approval, to amend the current DCC By-law to include an area specific DCC for the Highway 99 Corridor. Approval of the financing strategy is a necessary precursor to bringing the final NCP document for Council approval which is expected to occur in two weeks.

Paul Ham, P.Eng.  
General Manager, Engineering

PH/RD/brb  
Attachment

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## APPENDIX A

### Summary of Servicing Plan for the Highway 99 Corridor

# Drainage/Stormwater Management

The project area lies within two very distinct watersheds. Areas north of 24 Avenue drain to Titman (aka Morgan) Creek which is tributary to the Old Logging Ditch system within the Nicomekl Watershed. Areas south of 24 Avenue drain to Fergus Creek which is tributary to the Little Campbell River. Currently drainage servicing is provided by a system of man made ditches and culverts as well as many natural water courses. Environmental aspects of the watercourse network were provided to council in the December 8, 2003 Planning Report.

The Stormwater Management Plan for the study area is aimed at providing drainage servicing to the City of Surrey standard while ensuring protection of the natural aquatic habitat features in and about the plan area. Although the drainage plan is presented for the Highway 99 Corridor area it must be considered in a more regional context of drainage through this area. This regional context is known as a watershed based drainage planning approach.

The Morgan Creek/Old Logging Ditch systems have been the subject of numerous drainage and planning studies and the plan proposed for Corridor area is consistent with the studies. Currently a detention pond at the north end of the Corridor with a network of surface drainage features are being proposed for the area falling within the Morgan Creek/Old Logging Ditch portion of the project.

In order to address concerns raised in previous reports and through the planning consultative process a number of key strategies are proposed for

the Fergus Creek portion of the plan area. A system of creek and pipe diversions will provide increased conveyance capacity for the area without compromising the integrity of Fergus Creek. A substantial diversion running along King George Highway from 14 Avenue to the Campbell River is proposed to deal with increased flows originating from areas of Sunnyside that have already been developed. Base flows to Fergus Creek will be maintained at the diversion point in an effort to maintain pre-development hydrologic regimes. The commercial node at 24 Avenue will be expected to provide detention in order to limit peak flows to creek reaches upstream of the diversion point. Open swales located through the BC Hydro right-of-way is proposed to help maintain the integrity of the Fergus Creek headwaters.

Drainage originating from areas outside of the Corridor area north east of the BC Hydro ROW will be conveyed through the site in ditches and pipes. The Drainage plan that will be completed as part of the Grandview Heights General Land Use Plan will account for this situation.

Hydrogeological reports of the area indicate that there is limited opportunity for groundwater exfiltration best management practices through the corridor. The soil deposits through the area have low infiltration capacities and would not be conducive to infiltration trenches and swales. Nonetheless, it is expected that impacts normally associated development will be mitigated through on site bioretention, surface drainage treatment and other low impact development measures throughout the plan area.

The proposed stormwater control plan for the Corridor area is provided as Figure A.1 attached. Estimated DCC eligible costs are summarized in Table A1.

## Sanitary Sewer

Currently, septic fields service existing dwellings and there are no sewers in the corridor area. The topography of the land dictates that gravity sewers run either north or south from the study area's height of land around 24 Avenue. Ultimately, sewers running north will tie into the future North Grandview Gravity Interceptor that will run from approximately 172 Street to Highway 99 along 28 Avenue. This future interceptor will also be able to service the broader Grandview Heights area. Areas to the south of 24 Avenue will ultimately be serviced by gravity sewers to a future pump station (Grandview Heights South PS) anticipated the vicinity of 168 Street south of 12 Avenue. A force main will run from the pump station north to 24 Avenue at which point a gravity sewer will tie into the North Grandview Gravity Interceptor described above. Such a system could also potentially service the broader Grandview Heights area. The sanitary sewer servicing plan is shown on Figure A2.

It is anticipated that lands within the Corridor will develop prior to the availability of the future North Grandview Gravity Interceptor and Grandview Heights South PS. As such, the following interim sanitary sewer servicing strategy is proposed for the corridor area.

As described above, two sewer systems – one running north, the other running south – will be required to service the area. A gravity sanitary sewer system is proposed to serve the Corridor from approximately 24 Avenue southwards to about 16 Avenue, at which point a new gravity sewer can be constructed to cross Highway 99 and tie into an existing trunk at King George Highway. For the area south of 16 Avenue to Fergus Creek at about 12 Avenue, a new lift station will be required to pump the sewage back to the 16 Avenue crossing. Areas south of 12 Avenue will be serviced by another interim pump station directing sewerage to the existing system on 8 Avenue. All of the above-mentioned systems will lead to the existing Semiahmoo Pump Station. This pump station has sufficient capacity to convey the anticipated load from the corridor on an interim basis only. It is anticipated the full capacity of the Semiahmoo pump station will be required to accommodate its own existing catchment as redevelopment progresses. At that point in time, we expect both the North Grandview Gravity Interceptor and the Grandview Heights South PS will be in operation and sanitary sewers from the Corridor will be directed to those systems.

Currently only 40 l/s of pumping capacity has been put aside at the Semiahmoo pump station to service the Highway 99 Corridor on an interim basis. This pumping capacity will be allocated on a first come first serve basis. When the pumping capacity reaches capacity, no further development will be able to discharge to the Semiahmoo pump station. This capacity constraint means that only one section of the corridor can be connected to the Semiahmoo pump station; either the area from 16 Avenue to 24 Avenue or the area from 8 Avenue to 16 Avenue.

Areas to the north of 24 Avenue can discharge by gravity northward to cross Highway 99 at 28 Avenue into the existing system or potentially north to the Morgan Creek pump station. Again, this is an interim system and the sewerage from the corridor will ultimately be directed to the North Grandview Gravity Interceptor.

It should be noted that other than a few trunk sewers that will be used under the ultimate servicing scenario the interim systems described above are the responsibility of the developers. It is anticipated that although the interim plans described above are feasible that other interim plans may be proposed by individual developers. These will be evaluated to ensure the interim strategies will not compromise the overall servicing strategy for the area.

Financial details are provided in Table A2.

## Water

The existing reservoir at 24 Avenue has sufficient capacity to supply water for the Corridor. A new pump station at this reservoir will also be needed for the overall Grandview Heights area; consequently, a proportion of the cost of this new pump station has been assigned to the corridor.

Areas above the 75 metre contour will be serviced from the pump station directly and the remaining areas will be serviced via the existing 450mm trunk water main along King George Highway with two new grid mains crossing Highway 99. The grid system within the Corridor will be looped to ensure the necessary fire flows.

The water servicing plan is shown on Figure A3 attached and the financial details are provided in Table A3.

## **Transportation**

Based on a detailed traffic analysis, the Major Road requirements to service build-out of the Corridor were determined and are illustrated in Figure A4. Additional auxiliary lanes may be required for specific intersections and road segments relating to specific individual developments. These will be determined through future Traffic Impact Studies for development applications.

The key improvements are widening of 24 Avenue from King George Highway to 164 Street and 16 Avenue from King George Highway to 168 Street to four through lanes plus a median/left turn lane. This work includes new bridges across Highway 99 at 24 Avenue and at 16 Avenue. In addition, an extended, realigned and widened Croydon Drive is required to function as a spine road for the Corridor. The cross-section along this road varies between two and four lanes plus a left turn lane.

The servicing costs are provided in Table A4.

The other key aspect of the road requirements is timing of the road improvements. In order to maintain functionality on the arterial roads with the addition of the significant traffic volumes associated with large scale commercial development within the Corridor, some of the roads will need to be upgraded prior to opening of the commercial areas. This issue is addressed in more detail in the Financing Section.

# **Development Phasing**

Development phasing will be developer driven and will be subject to completion of downstream infrastructure requirements.

## **CONCLUSION**

The Highway 99 Corridor Plan area can be serviced on an interim and under ultimate conditions with the financial strategies described in this report. Interim works are not, however, included in the DCC program, and have to be funded directly by developers.















Appendix IV





Appendix VI

**Proposed Amendments to  
Surrey Zoning By-law, 1993, No. 12000**

1. The following amendment is proposed to Schedule F - Map of Neighbourhood Concept Plan and Infill Areas of Surrey Zoning By-law, 1993, No. 12000:
  - Schedule F – Map of Neighbourhood Concept Plan and Infill Areas is amended by inserting Map 20 – Area XX for the Highway 99 Corridor Local Area Plan\*.

**20. Area XX**



\*The Highway 99 Corridor Local Area Plan, shown above as the "LAP Area", shall be considered to be a NCP Area for the purpose of assessing and collecting Amenity Contributions.

2. The following amendments are proposed to Schedule G - Amenity Requirements in Neighbourhood Concept Plan (NCP) and Infill Areas of Surrey Zoning By-law, 1993, No. 12000:
  - Schedule G – Amenity Requirements in Neighbourhood Concept Plan (NCP) and Infill Areas is amended by adding a new Item 20 after Item 19, as follows:

NCP and Infill Areas		Amenity	Contributions Per Dwelling Unit <sup>1</sup>	Contributions For All Other Land Uses <sup>2</sup>
20.	Area XX on Schedule F of this By-law	Police Protection Fire Protection	N/A N/A	\$232.02 per acre \$963.57 per acre
		<i>Total Amenity Contributions (2004 Dollars) – Area XX</i>	N/A	\$1,186.59 per acre

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<sup>1</sup> Based upon: 257 acres of business development uses.

