



Operation, Maintenance and Rehabilitation (OMR) Program

Program Description and
Guidelines



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1. INTRODUCTION

1.1 MAJOR ROAD NETWORK

The Major Road Network (MRN) was established in 1998/99, as set out in the South Coast British Columbia Transportation Authority (SCBCTA) Act (formerly the Greater Vancouver Transportation Authority Act). The establishment, funding and operation of the MRN were initially guided by a set of 19 principles approved by the South Coast British Columbia Transportation Authority (formerly the Greater Vancouver Transportation Authority) or TransLink Board of Directors (the Board) in May 1999.

With the changes to the TransLink governance structure since 1999, many of the 19 MRN principles (Appendix A) are no longer applicable. TransLink initiated a MRN Sub-Regional Review process in 2010, and a new MRN and Bicycle Infrastructure management and funding structure was approved by RTAC and the TransLink Board in 2012. An updated set of MRN principles will also be reviewed with RTAC in the future.

Roads are included in the MRN only with the approval of TransLink and the local government in which the roads are located, per the criteria described in Appendix B. All roads in the MRN remain under local government control.

The management and funding structure and the criteria used to determine eligibility for the MRN are under review as part of the development of Regional Road Network Strategy (RRNS), and a future update of these Guidelines will be consistent with the RRNS.

1.2 PROGRAM BACKGROUND

One of RTAC's key tasks was to develop overall standards for the operation, maintenance, and rehabilitation of the MRN. Upon substantial deliberation, RTAC recommended that it would be more appropriate to produce a set of "guidelines" providing general expectations and directions, rather than a set of "standards" prescribing detailed performance specifications, for the following reasons:

- Local governments are owners of the Major Roads and are ultimately responsible for any legal liability associated with road conditions and safety. It is therefore reasonable to assume that local governments would inherently ensure proper upkeep of the MRN.
- A set of standards containing detailed performance indicators would necessitate "policing" of performance to check for compliance, whereas the use of guidelines would not.
- Consistency in performance could be achieved through financial monitoring of local government maintenance expenditures via a system of standardized cost accounting categories.
- Local governments use different maintenance and rehabilitation methods and materials in their work. Major Roads have varying traffic conditions, underlying soil types, rehabilitation history, etc., which require specific treatments. Local governments can most effectively determine maintenance strategies that fulfill these needs. It would not be possible to prescribe specific methods and materials that are suitable for all parts of the network. A set of performance guidelines would be more flexible and better able to accommodate the different ways local governments accomplish their maintenance objectives.
- Maintenance service standards used by the BC Ministry of Transportation and Infrastructure (MoTI) were reviewed. The MoTI standards are extremely detailed and contain specific stipulations regarding materials, method and timing on every aspect of maintenance activities to be undertaken by maintenance contractors. While such a document may be appropriate for use between an owner and a contractor, RTAC concluded that it is not the approach needed between the local governments and TransLink for the MRN.

Furthermore, RTAC determined that the guidelines should represent the expectations of both the road users and TransLink as the major funding agency. From the perspective of road users, travel on the MRN should appear "seamless". In other words, road users expect that characteristics such as ride-ability, cleanliness, clarity of street markings, level of snow removal, etc. will be fairly consistent across all Major Roads,

irrespective of local government boundaries, and at a level typical of arterial roads. From the funding agency perspective, there are expectations that local governments will perform the necessary works to protect the integrity of the road infrastructure so as to maximize service life and minimize long term rehabilitation costs.

Essentially, the OMR guidelines provide a categorization and description of the types of activities to be undertaken and the objectives to be achieved. It is the responsibility of local governments to design a program to achieve these objectives, and to supplement OMR funding with additional local government funding if they choose to enhance their level of service. For instance, a local government might spend much more on street cleaning than the average expenditure for other local governments. The local government could choose to either: (a) lower its current service standard to reflect the average level of effort, or (b) continue with its standards, with the understanding that OMR funds cover only an average level of service, and any additional cost associated with the higher standard must be absorbed by the local government.

1.3 PURPOSE

The purpose of the OMR Program is to provide annual funding for local governments towards the basic operation of the MRN, the maintenance of the MRN to a level of State of Good Repair, and road infrastructure rehabilitation.

To ensure consistent reporting and interpretation of data, the following definitions have been developed to delineate the difference between maintenance and rehabilitation for the purpose of the MRN:

- **Operation and Maintenance** refers to the day-to-day and regular upkeep activities and minor repairs of the existing road infrastructure to ensure it provides an acceptable level of service and remains in an acceptable state of repair.
- **Rehabilitation** refers to any major repair and reconstruction/replacement of the existing road infrastructure, which brings it to a target level of service.

The purpose of this document is to summarize key elements of TransLink’s Operations, Maintenance, and Rehabilitation (OMR) Program.

The funding framework of the OMR Program is illustrated in Table 1. This framework provides flexibility for local governments to access funds by allowing local governments the option to transfer funding from O&M to R according to their needs. Despite this flexibility, local governments still retain the responsibility to maintain MRN roads in a state of good repair.

Although Pavement Rehabilitation will be funded through TransLink’s Capital Budget as opposed to the Operating Budget, Pavement Rehabilitation still retains the same administrative procedures and shares the same funding objectives as the O&M funding. Therefore, it is reasonable to continue managing the R funding as part of the OMR program.

Table 1 TransLink OMR Funding Framework

Program	Fund	Purpose	TransLink Budget
OMR	O&M (allocated)	Operation, maintenance, non-pavement rehab on MRN	Operating
	R (allocated)	Pavement rehab on MRN	Capital

This document describes the funding allocation and provides a set of guidelines for administration of the funding framework.

At the recommendation of RTAC and TransLink staff, this document may be modified and expanded as necessary to improve program administration in the longer term.

2. ALLOCATION

2.1 OMR PROGRAM FUNDING

The OMR Program provides funding using formulas based on the lane kilometre cost for operating the MRN, maintaining the MRN to a level of State of Good Repair, and road infrastructure rehabilitation. The program budget is approved by the TransLink Board on a year-by-year basis. Although budget amounts for future years may be 'recommended', such amounts are for planning purposes only and may not actually materialize, depending on future funding availability and TransLink priorities.

To place higher priority on state of good repair, TransLink will fund Operations, Maintenance, and General Rehabilitation of the MRN through TransLink's operating budget and Pavement Rehabilitation of the MRN through a capital budget. Funds for the operation, maintenance and rehabilitation of the MRN are distributed directly to the local governments on a pro rata basis, depending on the number of MRN lane-kilometres within their jurisdiction. Please contact TransLink's Infrastructure Program Management Department for details on the annual OMR allocation.

Subject to budget availability, future annual adjustment of OMR funds may be determined using the OMR cost model jointly developed by TransLink and the RTAC OMR subcommittee.

2.2 COST SHARING

TransLink provides local governments with funding through annual cost share programs: the Major Road Network & Bike Minor Capital Upgrade (MRNB) Program, the Bicycle Infrastructure Capital Cost Sharing (BICCS) Program, the Walking Infrastructure to Transit (WITT) Program, and MRN Structures program. These programs are administered annually through project-based evaluation process dedicated to:

- multi-modal minor capital road projects such as infrastructure upgrade projects on the MRN including on structures (e.g. adding lanes, new signalization, etc.);
- bike and walking infrastructure projects on and off the MRN; and
- rehabilitation and seismic upgrades of "major" structures such as bridges, retaining walls and culverts on the MRN.

The respective program description and guidelines for each funding program can be obtained from TransLink's Roads, Bridges, and Goods Movement Website (<https://www.translink.ca/plans-and-projects/projects/roads-bridges-and-goods-movement>).

3. GUIDELINES

3.1 FUNDING GUIDELINES

The OMR funds are provided for:

- normal operation and maintenance of the MRN (major road network), including pavement maintenance, shoulder maintenance, drainage maintenance, pedestrian facility maintenance, street lighting maintenance, traffic signal maintenance, road markings and delineation, signage, lighting, signal operation, street cleaning, snow and ice control, and vegetation control;
- rehabilitation of other existing infrastructure on the MRN (e.g. curbs, shoulders, pedestrian facilities, retaining walls, culverts, drainage, street lighting and traffic signal systems, etc.);
- rehabilitation of existing pavement of the MRN; and
- maintenance of the variable message signs of the Railway Crossing Information System Project in City of Surrey, City of Langley, and Township of Langley, which is a regionally funded system to benefit the operation and safety of the MRN.

OMR funds should not be used to construct new infrastructure, to expand existing infrastructure (e.g. widen existing roads), to purchase equipment required for OMR activities, or to pay for any work whatsoever on facilities which are not part of the MRN.

OMR funds must be spent in a manner consistent with the following guidelines in this section. Continued receipt of OMR funding is dependent on meeting these guidelines.

Where required, TransLink will modify these guidelines or establish additional guidelines, upon recommendations by the RTAC. Once approved by RTAC, all OMR works and expenditures by the local governments must be consistent with the updated guidelines.

3.2 COST ELIGIBILITY

The following discussion gives guidance on the types of expenditures which OMR funding is intended to cover, and those which it is not.

As noted in the beginning of Section 2, local governments are free to choose how best to deliver operation, maintenance and rehabilitation services, whether through local government crews or contractors. In the case of OMR activities undertaken by local government crews, the following are eligible costs:

- salary, at an hourly rate, for time actually spent by local government staff and crews (including crew supervisors and inspectors) on OMR activities on the MRN, including time spent on planning, designing and administering OMR work;
- benefits, pro-rated to an hourly rate, for time spent on OMR activities on the MRN;
- equipment, charged at hourly rates not to exceed those typical of private industry; and
- consumables used in OMR activities on MRN roads that are not otherwise included in equipment hourly rates (e.g., de-icing chemicals).

In the case of OMR activities undertaken by contractors, the following are eligible costs:

- local government costs associated with tendering (advertising, printing, courier etc.); and
- contractor fees and expenses for OMR work on the MRN.

The following expenditures are not eligible under the OMR program:

- public consultation costs;
- general overhead, such as accounting time, managerial time, advertising, office space;
- purchase of equipment used in OMR activities (e.g., excavators, rollers, mowers etc.)

- charges for facilities and equipment used in normal course of local government operations (e.g., phones, computers, vehicles other than those used by construction crews); and
- consumables not directly related to OMR activities (e.g., paper, photocopying charges).

3.3 OPERATION AND MAINTENANCE GUIDELINES

A portion of the OMR funding is intended for operation and maintenance service of the Major Road Network. RTAC developed a comprehensive list of categories to reflect the scope of operation and maintenance service activities, as follows:

- 1) Pavement
- 2) Shoulders and Bicycle Facilities
- 3) Drainage
- 4) Pedestrian Facilities
- 5) Street Lighting
- 6) Traffic Signals
- 7) Signage
- 8) Road Markings and Delineation
- 9) Street Cleaning and Spill Response
- 10) Snow and Ice Control
- 11) Vegetation Control
- 12) Administration

The following subsections outline the recommended guidelines for operation and maintenance of the MRN, organized according to the 12 categories identified above. Each subsection begins with a general description of the intent of the category, followed by a table providing objectives and expected frequencies for each included activity.

The “Objective” column in each table identifies reason(s) why each activity should be undertaken, according to one or more of the following key indicators of need:

- **Safety** – operation and maintenance of the MRN to ensure safe conditions for the travelling public and other road users (e.g. pothole patching, guardrail repair).
- **Ride-ability** – operation and maintenance of the MRN to meet normal road user expectations (e.g. smooth pavement, road cleared of snow).
- **Aesthetics** – operation and maintenance of the MRN to ensure that road rights-of-way and facilities are attractive and clean (e.g. boulevard clean-up, graffiti removal).
- **Life cycle** – operation and maintenance of the MRN to protect road infrastructure and facilities in order to maximize service life and minimize long term rehabilitation costs (e.g., pavement sealing, ditch maintenance).

The guidelines indicate the expected frequency or timing of activities in two categories – Responsive and Planned.

- The “**Responsive**” category covers needs which require timely attention, but are generally unpredictable, such as potholes, spills, snow/ice, and so on. Local governments are expected to respond to these needs within a reasonable time, given the circumstances and the normal operation and maintenance practices of the local government.
- The “**Planned**” category covers needs that are typically more predictable, cyclical and/or quantifiable in nature. These activities are typically undertaken on an annual or semi-annual basis, primarily for the purpose of protecting infrastructure (e.g., pre-planned seasonal maintenance programs or work of a restorative nature).

The guidelines do not specify exact standards or timelines for operation and maintenance activities. However, local governments are expected to co-ordinate with neighboring jurisdictions to synchronize the delivery of some of these services (e.g., line painting, snow removal), where appropriate, to make the Major Road Network as “seamless” as possible.

3.3.1 PAVEMENT MAINTENANCE SERVICE GUIDELINES

The local government will maintain pavement on Major Roads, as required, to:

- provide a smooth, stable and safe road surface condition for the travelling public;
- seal pavement from moisture penetration;
- prepare and strengthen a paved road surface for an overlay or pavement surface treatment; and
- extend pavement life.

Table 2 Service Guideline (Pavement Maintenance)

Sub-Category	Objective	Frequency
Patching	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Ride-ability ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Crack Sealing	<ul style="list-style-type: none"> ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Planned
Islands and Medians	<ul style="list-style-type: none"> ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Planned ▪
Railway Crossings	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Ride-ability 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Curbs	<ul style="list-style-type: none"> ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Planned ▪ Responsive

3.3.2 SHOULDER AND BICYCLE FACILITY MAINTENANCE SERVICE GUIDELINES

The local government will maintain shoulders and bicycle facilities along Major Roads, as required, to:

- provide a smooth, unrutted and safe stopping area off the travelled road surface;
- provide safe conditions for cyclists;
- allow for free flowing drainage off the road surface and through the road base;
- remove and dispose of, or prevent the growth of, any turf, sod or other vegetation on the shoulder surface; and
- grade and re-shape dirt and gravel surfaces to maintain in a smooth and safe condition.

Table 3 Service Guideline (Shoulder and Cycling Facility Maintenance)

Sub-Category	Objective	Frequency
Guard rails	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Shoulders and Bike Lanes	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Shoulder Markings	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Planned
Roadside and median fences	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Crash Attenuators	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Slopes	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Retaining walls	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned

3.3.3 DRAINAGE MAINTENANCE SERVICE GUIDELINES

The Local government will maintain drainage systems on Major Roads, as required, to:

- ensure that road surfaces are safely and efficiently drained;
- ensure that water is efficiently channeled, contained and/or carried to ditches or other watercourses;
- provide space in ditches for storage of fallen road debris, ice and snow;
- prevent deterioration of Major Roads, and erosion of side slopes and surfaces or adjacent properties; and
- ensure that drainage infrastructure will accommodate peak runoff.

Table 4 Service Guideline (Drainage Maintenance)

Sub-Category	Objective	Frequency
Urban Roads		
Storm Sewers	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Planned ▪ Responsive
Blockage Removal	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive
Catch Basin Cleaning	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Culvert Headwalls and Outlets	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Planned ▪ Responsive
Rural Roads		
Ditch Maintenance	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Planned ▪ Responsive
Flood Control	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Culvert Maintenance	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Planned ▪ Responsive

3.3.4 PEDESTRIAN FACILITY MAINTENANCE SERVICE GUIDELINES

The local government will maintain pedestrian facilities on Major Roads, as required, to:

- ensure sidewalk surfaces are even, clean and in a safe condition for pedestrians;
- ensure crosswalks and curb ramps are in good condition for the safety of pedestrians and cyclists where permitted;
- ensure handrails are in good condition for the safety of pedestrians; and
- extend infrastructure life.

Table 5 Service Guideline (Pedestrian Facility Maintenance)

Sub-Category	Objective	Frequency
Sidewalk Maintenance	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Crosswalk Maintenance	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Handrail Maintenance	<ul style="list-style-type: none"> ▪ Safety ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned

3.3.5 STREET LIGHTING MAINTENANCE SERVICE GUIDELINES

The local government will maintain street lighting on Major Roads, as required, to:

- ensure illumination for safety; and
- extend the life cycle of the infrastructure (e.g., by painting street light poles).

Table 6 Service Guideline (Street Lighting Maintenance)

Sub-Category	Objective	Frequency
Roadway Lighting	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Planned ▪ Responsive

3.3.6 TRAFFIC SIGNAL MAINTENANCE SERVICE GUIDELINES

The local government will maintain traffic signals on the MRN, as required, including:

- maintenance of all signal controllers through annual inspections and testing;
- maintenance of all signal heads through an annual relamping program; and
- maintenance of all signal poles through painting to extend service life.

Table 7 Service Guideline (Traffic Signal Maintenance)

Sub-Category	Objective	Frequency
Signals (controllers, heads and poles)	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Signal Management Systems	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned

3.3.7 SIGN MAINTENANCE SERVICE GUIDELINES

The local government will maintain signs on Major Roads, as required, to:

- ensure that sign information is clear;
- ensure a consistent application of replacement and new signs to assist and guide road users in the safe and orderly movement of people and goods; and
- Ensure that the application and replacement of new signs is in accordance with TransLink’s Regional Wayfinding guidelines for Cycling.

Table 8 Service Guideline (Sign Maintenance)

Sub-Category	Objective	Frequency
Sign Maintenance, Cleaning and Replacement	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
New Signs	<ul style="list-style-type: none"> ▪ Safety ▪ Life Cycle ▪ Aesthetic 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned

3.3.8 ROAD MARKING AND DELINEATION SERVICE GUIDELINES

The local government will maintain road markings and delineation on Major Roads, as required, to:

- assist in the safe and orderly movement of people and goods by clear delineation of road centrelines, lane lines and turning lanes, and bike lanes, transition lanes, bike boxes, crosswalks, bike crossings in accordance with the standards of practice such as Transportation Association of Canada (TAC) standards.

Table 9 Service Guideline (Road Marking and Delineation)

Sub-Category	Objective	Frequency
Road Markings	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Surface Reflectors	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Delineators/No Post Barriers	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Responsive ▪ Planned
Curb Painting	<ul style="list-style-type: none"> ▪ Safety 	<ul style="list-style-type: none"> ▪ Planned

3.3.9 STREET CLEANING AND SPILL RESPONSE SERVICE GUIDELINES

The local government will clean streets and respond to spills on Major Roads, as required, to:

- maintain the travel lanes, shoulders and bike lanes in a safe and clean condition (e.g., free of litter, debris and other obstructions);
- prevent pavement markings from becoming obscured;
- prevent the obstruction of road drainage; and
- minimize migration of hazardous spilled substances.

Table 10 Service Guideline (Street Cleaning and Spill Response)

Sub-Category	Objective	Frequency
Refuse Container Pickup	▪ Aesthetic	▪ Planned ▪ Responsive
Boulevard (Litter) Cleanup	▪ Aesthetic	▪ Planned ▪ Responsive
Street Sweeping/Flushing	▪ Safety ▪ Aesthetic	▪ Planned ▪ Responsive
Spill Response	▪ Safety ▪ Life Cycle	▪ Responsive
Graffiti Removal	▪ Aesthetic	▪ Responsive
Accident Response	▪ Safety	▪ Responsive

3.3.10 SNOW AND ICE CONTROL SERVICE GUIDELINES

The local government will clear snow and remove ice buildup from travelled lanes, shoulders, pedestrian areas and bus pads on Major Roads, as required, to:

- prevent and eliminate hazardous, slippery surface conditions; and
- ensure roadways are kept smooth, open, and in a condition that is safe for the travelling public and other road users.

Table 11 Service Guideline (Snow and Ice Control)

Sub-Category	Objective	Frequency
Road Sanding/Salting	▪ Safety ▪ Ride-ability	▪ Responsive ▪ Planned
Road Plowing	▪ Safety ▪ Ride-ability	▪ Responsive ▪ Planned
Snow Removal/Hauling	▪ Safety	▪ Responsive ▪ Planned
Pedestrian Areas/Bus Pads	▪ Safety	▪ Responsive

3.3.11 VEGETATION CONTROL SERVICE GUIDELINES

The local government will control vegetation in the vicinity of Major Roads, as required, to:

- provide a safe driving environment with good visibility of traffic, cyclists, pedestrians, road signs, delineators and other roadside features;
- provide unobstructed drainage;
- reduce possible fire hazards; and
- provide neat and groomed roadsides.

Table 12 Service Guideline (Vegetation Control)

Sub-Category	Objective	Frequency
Shoulder/Boulevard Mowing/Brush Whacking	▪ Aesthetic ▪ Safety	▪ Planned
Sight-line Clearing	▪ Safety	▪ Responsive ▪ Planned

3.3.12 ADMINISTRATION

The local government will plan, design and administer the operation and maintenance of Major Roads within its jurisdiction, as required, to ensure efficient and effective use of OMR funds. This will include coordination of operation and maintenance activities with neighboring jurisdictions, where appropriate, to ensure seamless integration of the Major Road Network.

3.4 GENERAL REHABILITATION GUIDELINES

A portion of the OMR funding is intended for rehabilitation of road-related infrastructure on the MRN other than pavement, including:

- islands and medians;
- curbs;
- railway crossings;
- guard rails;
- crash attenuators;
- shoulders;
- roadside and median fences;
- retaining walls*;
- storm sewers;
- catch basins;
- culvert headwalls and outlets*;
- ditches;
- culverts;
- sidewalks;
- handrails;
- street lighting;
- traffic signals (controllers, heads and poles);
- signs;
- surface deflectors;
- delineators /no post barriers; and
- Inspection of any structure on the MRN (e.g. detailed bridge inspection, etc.).

*rehabilitation and seismic upgrading of “minor” MRN structures such as:

- retaining walls up to 2 m height, or
- culverts up to 1.0 m diameter, or
- bridges up to 3m length.

MRN structures with dimensions greater than above are not eligible as they are covered by the MRN Structures Program.

For a number of the above items, rehabilitation may simply consist of replacement of the asset (e.g., traffic controllers). The schedule for any major repair, reconstruction or replacement of road-related infrastructure on the MRN is determined by the local government. Programming of this work shall address safety concerns, maximize service life, and protect road-related infrastructure assets.

3.5 PAVEMENT REHABILITATION GUIDELINES

The pavement rehabilitation (R) funding is intended for rehabilitation of pavement on the MRN. Pavement rehabilitation should be undertaken to maintain two pavement performance objectives:

Table 12: Pavement Performance Objectives

Objective 1: Average MRN Condition for Each Municipality	
Measure	Target
Pavement Condition Index (PCI)	PCI ≥ 75
International Roughness Index (IRI)	IRI ≤ 2.9 (50 kph or under)
	IRI ≤ 2.4 (60 kph)
	IRI ≤ 2.0 (70 kph or over)
Structural Cracking - All Cracked Area (ACA)	ACA ≤ 4%
Objective 2: MRN Backlog (max 20% reaching trigger values)	
Measure	Target
Pavement Condition Index (PCI)	PCI ≤ 40
International Roughness Index (IRI)	IRI ≥ 4.5 (50 kph or under)
	IRI ≥ 3.5 (60 kph)
	IRI ≥ 3.0 (70 kph or over)
Structural Cracking - All Cracked Area (ACA)	ACA ≤ 12%

Note: kph = posted speed in kilometers per hour

The performance objectives use the International Roughness Index (IRI), Pavement Condition Index (PCI), and All Cracked Area (ACA) for pavement assessment. These indices were selected for the following reasons:

- **PCI:** A widely used, non-proprietary index that provides a transparent and flexible measure for assessing pavement conditions, enabling more effective data collection and analysis;
- **IRI:** A measure of road smoothness and ride-ability, providing a more accurate assessment of the road surface quality, making it consistent with TransLink’s pavement condition measurement objectives;
- **ACA:** An index used to measure surface cracking, helping to prioritize rehabilitation efforts by tracking pavement distress that is directly linked to increased maintenance costs and potential future damage;
- PCI, IRI and ACA are non-proprietary, industry-recognized¹ indices, thus ensuring greater transparency in pavement condition survey results, as well as providing TransLink greater flexibility in selecting pavement data collection contractors.

¹ Pavement Condition Index (PCI) was developed by ASTM International. International Roughness Index (IRI) and All Cracked Area (ACA) were developed by the World Bank.

4. ADMINISTRATIVE PROCEDURES

Administration of OMR funding for the MRN is based on the principles that:

- Local governments retain ownership of the roads and will undertake the operation, maintenance and rehabilitation functions;
- The local government will plan, design and administer the operation and maintenance of Major Roads within its jurisdiction, as required, to ensure efficient and effective use of OMR funds. This will include coordination of operation and maintenance activities with neighbouring jurisdictions, where appropriate, to ensure seamless integration of the Major Road Network; and
- TransLink will be responsible for providing basic funding towards operation, maintenance and rehabilitation functions. TransLink will distribute funds to local governments on a pro rata basis, and will not retain approval authority for any operation, maintenance or rehabilitation practices or projects. However, funding for local governments will be conditional on meeting certain basic TransLink criteria. TransLink will retain overall responsibility for ensuring that the MRN funding is being expended appropriately.

4.1 PAYMENT SCHEDULE

OMR funds will be provided to the local governments via Electronic Fund Transfers:

- O&M funds – in quarterly payments in arrears; and,
- R funds – in bi-yearly payments in arrears (end of June and end of December of the program year).

4.2 SERVICE DELIVERY

The responsibility to operate, maintain and rehabilitate MRN roads rests with individual local governments, who can choose to undertake the work in-house (i.e., by local government crews) or through contractors.

4.3 EXPENDITURE TRACKING AND REPORTING

Local governments are required to track and keep records of the use of OMR funds for reporting and auditing purposes. For operation and maintenance, cost tracking should be consistent with the 12 categories identified in Section 0.

Local governments are required to provide TransLink with annual **OMR expenditure reports**, to be submitted by the end of March of the following year. The reporting form will have pre-populated information of each local government's reporting year funding amount and reserve balance and it will be provided at the end of the reporting year to the respective local government by TransLink. The purposes of this submission are:

- to show that OMR funds are, in fact, spent on the operation, maintenance and rehabilitation of the MRN;
- to confirm if section(s) of MRN that are below standard are being rehabilitated; and
- to identify trends and funding needs so that future adjustments can be made to categories and allocations, where appropriate.

For consistency, local governments should include in their annual OMR reports all expenditures on the MRN in each category of activities, regardless of the source of funds. For example, if a local government were to supplement the OMR funds received from TransLink with funds from other sources to rehabilitate pavement on the MRN, then it should report the total amount spent (i.e., not just the TransLink contribution). This will help RTAC and TransLink continue to refine cost estimates for operation, maintenance and rehabilitation of the MRN.

4.4 FUNDING RESERVE

Local governments shall keep any unspent OMR funds in a reserve account designated for future use in operation, maintenance and rehabilitation of the MRN only. The reserved balance cannot be used for MRNB upgrade projects. The opening and closing balance of the reserve shall be reported annually on the OMR expenditure reports. The reserve balance shall never be less than zero as a result of a local government supplementing OMR funds with funds from other sources.

4.5 POOLING FUNDS FOR LARGE REHABILITATION PROJECTS

On the recommendation of RTAC and TransLink staff, TransLink may pool and reserve rehabilitation funds for allocation on a project-specific basis, where appropriate, for effective program management. This provision is intended to address issues such as the need to help smaller communities undertake necessary rehabilitation projects within their communities.

4.5.1 COMMUNICATION MATERIALS AND PROJECT SIGNAGE

Local governments will notify TransLink when preparing any communication materials on TransLink funded projects (i.e. project signage, press releases, newsletters and brochures, public events), so that TransLink staff has an opportunity to provide input prior to the release of information. Refer to the project funding agreements for additional details.

5. MONITORING AND EVALUATION

5.1 PAVEMENT CONDITION SURVEYS

TransLink will conduct regular pavement condition surveys of the MRN (every three years, on average) to assess the pavement quality of the network. In consultation with RTAC, TransLink may also undertake condition assessments of other road-related infrastructure, where appropriate.

APPENDIX A MAJOR ROAD NETWORK (MRN) PRINCIPLES

1. Role of SCBCTA in MRN

The role of the SCBCTA with respect to roads should primarily be limited to achieving overall coordination, planning and funding of the Major Road Network. SCBCTA funding to local governments is conditional on meeting certain criteria. However, the autonomy of the local government with respect to decisions concerning local government-owned roads within its boundaries should be absolute, excepting only the case where a local government wishes to decrease the person-trip capacity of an element of the Major Road Network.

2. Advisory Committee(s)

The principal source of staff advice to the SCBCTA Board, with respect to the Major Road Network, should be the staff of local governments gathered together in advisory committee(s). The role of SCBCTA staff, with respect to the Major Road Network, should largely be to support and complement such advisory committees, rather than be independent and apart from such committees. However, after consultation with advisory committee(s), SCBCTA staff may report to the SCBCTA Board on any matter with respect to which there is an unresolved difference of opinion with advisory committees.

3. Role of RTAC

The Regional Transportation Advisory Committee (RTAC), comprising staff appointees from each local government, will provide policy and technical advice to the SCBCTA Board together with SCBCTA staff. On matters of broad significance, the RTAC should report through RAAC; on other more specific, technical and day to day matters, such as the application of specific policies and service standards or guidelines, or the evaluation and funding of specific projects the RTAC and SCBCTA staff will report directly to the SCBCTA Board.

4. Declassified Provincial Roads

Any road declassified by way of the Agreement to establish the SCBCTA will be included in the Major Road Network at the sole discretion of the local government in which it is located.

5. Local Government MRN Elements

Any other road may be proposed for inclusion by the local government in which it is located; the SCBCTA will not consider a local government owned road for inclusion in the Major Road Network unless that road has been so proposed by the local government;

6. Establishing the MRN

The SCBCTA Board, on advice from the RTAC and SCBCTA staff, will establish guidelines for evaluating proposals to include roads in the Major Road Network and consider proposals to include roads in the Major Road Network in accordance with those guidelines.

7. Removing Roads from the MRN

Once included in the Major Road Network, roads can only be removed in accordance with the provisions of the Greater Vancouver Transportation Authority Act. However, SCBCTA funding for roads in the Major Road Network is contingent on local governments abiding by the agreed upon standards to maintain the functionality of the network.

8. Funding of Declassified Roads

The SCBCTA will provide 100% of the funding necessary to operate, maintain and rehabilitate declassified roads retained within the Major Road Network to an agreed upon set of standards or guidelines.

9. Funding of Local Government MRN

The SCBCTA will initially provide seventy percent of the funding necessary to operate, maintain and rehabilitate the local government-owned roads in the Major Road Network. This percentage will be adjusted

from year to year within SCBCTA budget limits, so that one hundred percent funding is provided after four years.

10. Block Funding Formula and Adjustments

Funding for the operation, maintenance and rehabilitation of the Major Road Network will be distributed directly to local governments on a block funding formula, based on the proportion of lane kilometres in a local government to the total lane kilometres in the Major Road Network. Adjustments will be made to account for:

- the initial difference in funding levels for declassified and uploaded roads,
- the need for the SCBCTA to fund the rehabilitation of declassified roads which do not meet the established standards or guidelines,
- the need to recognize the responsibility of local governments to fund the rehabilitation of uploaded roads which do not meet the established standards or guidelines,
- in the case of uploaded roads which do not meet the established standards or guidelines, the SCBCTA will withhold for those roads, or sections of roads, the portion of the Block Funding related to pavement rehabilitation, but will pay those funds which are to fund other road activities.

Operation, maintenance and rehabilitation funds provided by the SCBCTA can only be spent directly on the Major Road Network and the local governments shall keep a record of all expenditures for audit purposes. Where appropriate for effective program management, SCBCTA, on recommendation from RTAC, may pool and reserve funds for rehabilitation for allocation on a project basis.

11. Operations and Maintenance Standards and Guidelines

RTAC in conjunction with SCBCTA staff, will develop overall standards or guidelines for the operations and maintenance for roads in the Major Road Network, establish current average conditions of the Major Road Network, develop reliable per lane kilometre estimates of the costs to operate, maintain and rehabilitate roads of average condition to the proposed standards. For the purpose of establishing per lane kilometre costs, the SCBCTA, after advice from RTAC and SCBCTA staff, may establish criteria for the allocation of overhead and ancillary costs to road work.

12. Annual and Longer Term Capital Plans for MRN

As part of its overall Strategic Transportation Plan process the SCBCTA Board, having fully consulted RAAC and the RTAC, will adopt annual and longer term capital plans for the Major Road Network, circulate them to local governments for review and comment, provide for input from the public and other levels of government as appropriate, and submit final draft plans to the GVRD Board for ratification.

13. Establishing Funding Sources

The capital plans will establish the appropriate funding sources for the projects in the plan, including any cost sharing agreements.

14. Minimum Capital Budget Allocation

To ensure a reasonable base level of funding for ongoing capital improvement to the Major Road Network, the SCBCTA shall include in its budget submission a capital budget allocation for ongoing capital improvement of the Major Road Network.

15. Local Government Council Approval of Capital Projects

The approval of the local government council is required for a capital project to proceed within its jurisdiction.

16. Local Government Procurement of Projects

Local governments will be responsible for carrying out the projects contained within the approved capital plan except for facilities which are wholly-owned by the SCBCTA.

17. Local Government MRN Projects

Local governments may carry out other capital projects on the Major Road Network, not provided for in the approved SCBCTA capital plan(s), without financial support from the Authority, subject to the dispute

resolution procedure concerning projects which would reduce the people carrying capacity of the Major Road Network.

18. Disputes

A dispute is defined as a disagreement between the SCBCTA and a local government regarding issues such as the inclusion of roads in or removal of roads from the Major Road Network; definition and application of standards and guidelines; audited statement of expenses claimed by a local government to operate, maintain and rehabilitate Major Roads; capital project(s) proposed by a local government which reduces the capacity of an element of the network; or any other matter brought forward by the SCBCTA and a local government voluntarily for dispute resolution.

Where necessary to achieve resolution, disputes will be referred to a third party dispute resolution mechanism.

19. Consultation

The SCBCTA will consult with local government councils, consult with the public or participate in local government sponsored public consultation processes, and consult with and seek the cooperation of local government staff, through RTAC, on all matters of local government or public interest.

NB. These 19 "Major Road Network Principles" were approved by the Board on May 31, 1999.

APPENDIX B MAJOR ROAD NETWORK CRITERIA

During development of the road network, the following criteria were used – “A road is included in the Major Road Network if it:

- provides intra-regional access to predefined regional activity centre(s); AND
- carries:
 - minimum of 70% trips longer than 10 km in the peak hour and peak direction and total peak hour, peak direction traffic volume greater than 800 vehicles per hour; OR
 - minimum of 10 through buses in the peak hour and peak direction; OR
 - minimum of 800 trucks per day; AND
- meets an overall check for reasonableness and completeness.”²

These criteria are currently under review.

² Approved by the Board on December 9, 1998 as part of the report titled, “**Establishment of the Major Road Network: Recommended Guidelines and Network**”.