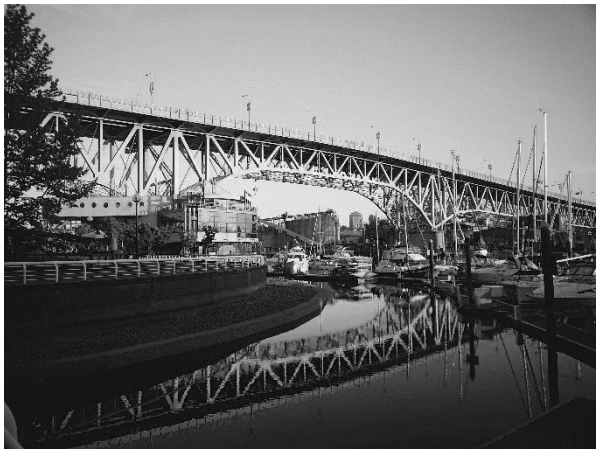

Major Road Network (MRN) Structures Program

2024 Program Description and Guidelines

Together all the way

Version updated: August 2023

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1. INTRODUCTION

1.1 MAJOR ROAD NETWORK (MRN) STRUCTURES FUNDING PROGRAM

The objective of the ***Major Road Network (MRN) Structures Funding Program (Program)*** is to provide funding to local governments to keep major structures along the MRN such as bridges, culverts, and retaining walls in a ***state of good repair***.

Both the Regional Transportation Strategy (2013) and the Mayors' Council 10-Year Vision identify planned investment for ***state of good repair*** projects. The Regional Transportation Strategy states that a key action necessary for maintaining what is needed in a state of good repair is to upgrade infrastructure to respond to climate and seismic risks. The 10-Year Vision includes expanded investment in state of good repair projects to ensure safe and reliable operations of the transportation system. Another critical component of the Plan is aimed toward providing regional funding for rehabilitation and seismic retrofit of MRN Structures such as bridges, retaining walls, and culverts.

To address these strategic goals, the MRN Structures Funding Program has been established to fund replacements, rehabilitations, and seismic upgrades of MRN Structures to achieve an inventory-wide ***state of good repair***.

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. DEFINITIONS

Term	Definition
Major Road Network (MRN)	The MRN is comprised of a network of approximately 675 km of road that facilitates the safe and efficient movement of people and goods across the region. TransLink, in partnership with Local Governments, plans the region's MRN. TransLink provides funding for the operation, maintenance, and rehabilitation of the MRN, but ownership and operational responsibility for the MRN remains with the respective Local Governments.
Project	A Project is defined as the scope of work, concerning one or more structures owned by the Local Government, that has been put forward for funding approval. Multiple application requests may be submitted for each Project, subject to the Project timeframe requirements specified in **Section 4.1.4**.

3. FUNDING FRAMEWORK

3.1 FUNDING DISTRIBUTION

In order to maintain structures supporting the MRN in a state of good repair, funding is available through this Program to Local Governments to replace, rehabilitate, or seismically upgrade these structures through a cost sharing partnership. In alignment with the 10-Year Vision, available MRN Structures Funding is distributed to project(s) through a competitive process. Projects are evaluated and shortlisted based on the evaluation criteria and funding allocation methodology, which was jointly developed by TransLink and the RTAC Transportation Planning Subcommittee.

For the 2024 program year, there is no limit to the number of Applications that each Local Government can submit to request funding for their Projects. Each Project can be a stand-alone project or one that is being partially funded by another funding program (e.g. a bridge deck rehabilitation project that is also requesting BICCS funding to improve cycling infrastructure on the bridge) – to a maximum MRN Structures Funding request of **$5 million per application, at a cost share ratio up to 75%.** (Further details provided in **Section 3.2**). The scope of each Project may consist of multiple structures, given that:

- All structures are of the same type (i.e., one of bridge, culvert, or retaining wall)
- The structures are located on the same **segment** of the MRN
- Rationale is provided to justify grouping these structures together in the same Project

The amount of funding each project would receive is determined through a competitive evaluation process and funding allocation methodology, described in **Section 4.2**, subject to budget availability.

3.2 COST SHARING

TransLink will fund up to 75% of eligible costs for approved MRN Structures projects. The Cost Share percentage is dependent on the amount of External / Third Party Contribution, and the population size of the Local Government that is applying for project funding. These stipulations are further detailed in the subsections below.

3.2.1 EXTERNAL / THIRD PARTY FUNDING

External / Third Party Funding is defined as secured funding by provincial or federal governments or external agencies (e.g., ICBC, Province's CIPP Grant, or Canada–BC Infrastructure Program). Funding contributions from local sources, such as development cost charges, development levies, agreements with private developers, for example, may be considered part of the municipal share of project costs. **Table 1 and Table 2** outline funding distribution with respect to External / Third Party Contributions.

3.2.2 COST-SHARING FOR SMALL LOCAL GOVERNMENTS

Local Governments with population less than 15,000 are eligible for up to 75% cost share for any projects that meet program eligibility criteria. This includes the opportunity to accumulate their allocated funds over several years towards a single project which can be cost shared up to 75%. For more details on projects with multiple program year funding, please refer to **Section 6.11** of the MRNB Program Description and Guidelines.

Table 1: Projects which qualify for 50% Cost Share

External Funding Contribution (% of Total Eligible Project Costs)	TransLink Contribution (% of Total Eligible Project Costs)	Municipal Contribution (% of Total Eligible Project Costs)
< 50%	Up to 50%	Minimum of 25%
≥ 50%	Equal to Municipal Contribution	Equal to TransLink Contribution

Table 2: Projects which qualify for 75% Cost Share

External Funding Contribution (% of Total Eligible Project Costs)	TransLink Contribution (% of Total Eligible Project Costs)	Municipal Contribution (% of Total Eligible Project Costs)
< 50%	Up to 75% of the remaining Eligible Project Costs	Minimum of 25%
≥ 50%[1]	Equal to Municipal Contribution	Equal to TransLink Contribution

[1] Subject to funding availability, TransLink may consider cost-sharing up to 75% of the remaining Eligible Project Costs.

3.3 Roads Operations, Maintenance, and Rehabilitation Costs

Through the Operations, Maintenance, and Rehabilitation (OMR) Program, TransLink provides Local Governments with an annual allowance for the operation, maintenance, and rehabilitation of MRN roads within their jurisdiction, which is independent of MRN Structures funds. However, to minimize both costs and traffic disruptions, Local Governments may choose to undertake OMR works on existing road infrastructure concurrently with structure replacement, rehabilitation, or seismic upgrade works that may be eligible for funding under the MRN Structures Funding Program.

Components of an MRN Structures project that comprise of operations or maintenance tasks, or rehabilitation of existing road infrastructure must be identified as such in the application process. The costs for these components are covered by OMR funds and are **not eligible** for cost sharing under the MRN Structures program.

3.4 TransLink and Local Governments Obligations

Local Governments are owners of MRN Structures and are ultimately responsible for any legal liability associated with the safety, functionality, and condition of the structures.

TransLink is entitled to deem a project ineligible for funding, to fund less than 50% of eligible project costs, or not to fund a project for any reason. This entitlement does not make TransLink responsible for any legal liability associated with the Local Governments' decision to proceed or not proceed with these projects, and the consequences of such action.

3.5 Regional Road Network Performance Monitoring

On October 1, 2020, TransLink publicly launched the Regional Road Performance Monitoring report which is a multi-faceted review of the performance of regional roads throughout Metro Vancouver. It responds to the Region's vision, goals and objectives for regional roads and will allow for a consistent and objective conversation on identifying and responding to issues on the Regional Road Network.

We have added questions with respect to two categories being measured on the Regional Road Network. The first is around Safety and the second is on Asset Condition. Answers to the questions on the Applications form can be easily determined via the Regional Road Network Dashboard via the link shown below.

https://public.tableau.com/profile/translink#!/vizhome/RoadMonitoringDashboard/ProjectOverview

4. GUIDELINES

4.1 PROJECT ELIGIBILITY

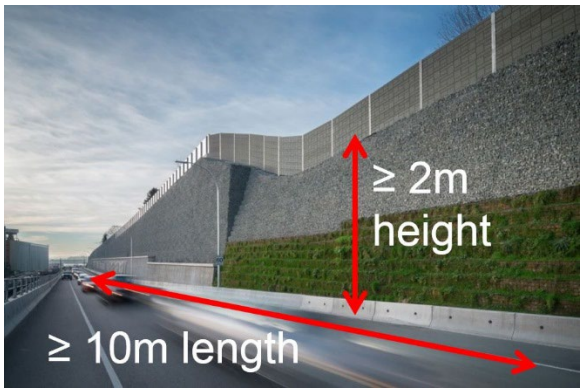
This section provides guidance on the **mandatory** project eligibility requirements that must be satisfied in order for the Application to be considered **eligible** under this Program. Subsequent evaluations to determine funding approval will be carried out considering eligible Applications only.

4.1.1 STRUCTURE SIZE

A minimum structure size, determined based on the governing dimensions for that structure type, shall be used by TransLink to determine project eligibility:

Table 3: Criteria for Structure Sizes

Structure Type	Governing Dimensions Criteria	
Bridge	Length greater than 3 metres	
Culvert	Culvert opening width greater than 1 metre	

Structure Type	Governing Dimensions Criteria	
Retaining Wall	Length greater than 10 metres AND Height greater than 2 metres	

Note that for Projects containing more than one structure to be considered eligible, **all** structures within its scope must satisfy the minimum dimensions listed above.

Structures that do not meet the above minimum dimension requirements may alternatively be eligible for OMR Funding for General Rehabilitation (Refer to OMR Program Description and Guidelines **Section 3.4**).

4.1.2 PROJECT TYPE

The MRN Structures Funding Program is intended to fund only rehabilitation, seismic upgrades and replacement projects. Operations and maintenance work, expansion upgrades or aesthetic improvement projects are **not eligible**.

Eligible Project Types:

- **Rehabilitation:** Modification, alteration, or improvement of the condition of a structure subsystem that is designed to correct deficiencies and achieve a particular design life and live load level. Examples include, but are not limited to:
    - **Bridge Rehabilitation**: partial or complete deck replacement, superstructure replacement, superstructure strengthening, expansion joint replacement, retrofit with semi-integral abutments
    - **Culvert Rehabilitation**: installing or replacing part of structure such as concrete collar, wing walls, culvert lining, metal plates on the bottom
    - **Retaining Wall Rehabilitation**: replacement for geotechnical or structural failure of part of structure; resurfacing wall face
- **Seismic Upgrade:** Modifications to a bridge that will allow it to meet the seismic (earthquake) performance objectives specified by the owner with jurisdiction of the structure. (e.g. concrete girder strengthening, installation of seismic restrainer cables)
- **Replacement:** Full structure replacement (Note: Partial replacements are covered under "Rehabilitation"). Replacement is defined to be the removal and reinstatement of a structure "in-kind" or to meet an improved design criteria (e.g. design flood levels/minimum hydraulic requirements, higher safety factors, etc.) required by the current codes and standards.

Ineligible Project Types:

- **Operations and maintenance:** includes work performed on a structure or subsystem to prevent or correct minor deficiencies and deterioration that are typically foreseeable or routine in nature. These activities differ from rehabilitation in that they generally do not extend service life or affect the structural capacity of the bridge.
    - Examples of routine maintenance activities:

        - Deck cleaning (e.g. power washing, debris removal)
          Drainage maintenance
        - Snow removal
        - Salting deck
        - Channel cleaning (e.g. vegetation removal)
    - Examples of non-routine maintenance activities:
        - Adjust or replace-in-kind traffic barriers
        - Install hazard signs
        - Extension of deck drains
        - Patching concrete or asphalt (potholes or spalls, etc.)
        - Replace isolated rotten timber planks
        - Repair grade differential or fill gravel potholes
        - Replace missing bolts or tighten existing bolts
        - Repair broken utilities
        - Replace damaged drain grates
        - Install lighting
        - Repainting pavement lines

- **Upgrades:** aesthetic improvement projects and expansion projects (to accommodate future population/development/employment needs). These projects could include changes to a structure that do not bring it to a higher level of safety performance or address structural concerns.
    - Examples of upgrades for future expansion:
        - Adding more lanes to an existing bridge
        - Raising vertical clearance of a bridge to accommodate over-height vehicles
    - Examples of upgrades that improve aesthetics:
        - Installing artwork

It is recognized that some structure replacement/rehabilitation projects may also comprise of expansion/upgrade elements (e.g. deck widening) in order to meet current and future traffic needs. It is not TransLink's intent to exclude these Projects from funding eligibility. To determine the proportion of the Project costs eligible for MRN Structures Funding, the ratio of the deck area associated with "in-kind" replacement will be compared to the total deck area of the proposed upgraded structure, as shown in **Figure 1** below.

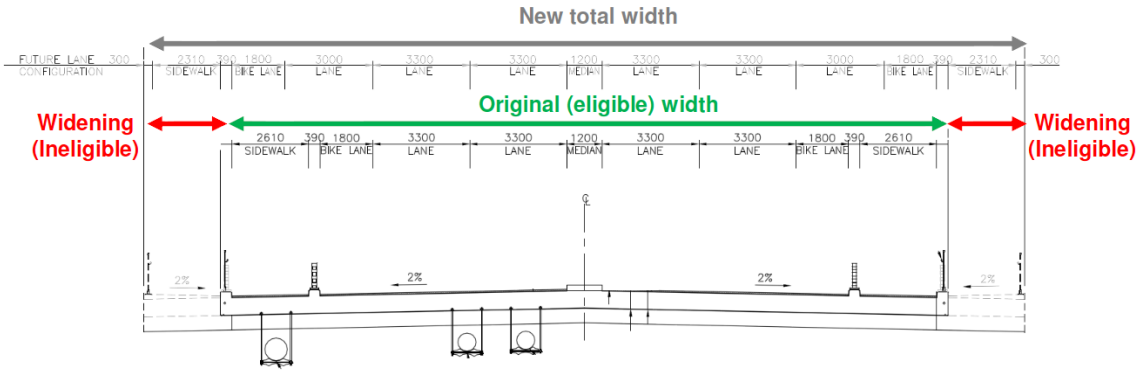


Figure 1: Example of Deck Cross Section Showing Partial Eligibility of Replacement Upgrade Projects

Costs associated with the expansion portion of the structure that are not eligible under this program may alternatively be eligible under MRNB Upgrade Program (Refer to MRNB Program Description and Guidelines).

4.1.3 PROJECT PHASE

Eligible and ineligible Project phases under the MRN Structures Funding Program are defined as follows:

Eligible Project Phases:

- ✓ Supporting Assessments*
- ✓ Feasibility, Planning, Preliminary, Detailed Design
- ✓ Tender
- ✓ Construction

Ineligible Project Phases:

- X Public Consultations
- X Structure Inspections**
- X Warranty

*Supporting assessments may include environmental, geotechnical and/or hydraulic assessments that provide direct input into the project design.

Structure inspections are eligible for OMR Funding, subject to the requirements outlined in **Section 3.4 of the OMR Program Description and Guidelines.

TransLink reserves the right to contact individual Local Governments to discuss the potential for adjusting the scope of an approved project to meet the criteria for eligibility. Local Governments must notify TransLink with any changes to the project scope or cost as soon as possible.

4.1.4 PROJECT READINESS

The application submission must demonstrate that the Local Government has considered feasibility issues and has taken reasonable measures to prevent delays or changes to the construction schedule.

Eligible projects are to be scheduled for completion within **four** (**4) years**.

The four-year timeframe is determined starting on the year of **initial TransLink funding approval** for a specific Project. i.e. Local Governments may submit additional funding request applications in subsequent years for the same Project, but the deadline will not be extended.

However, to provide Local Governments with flexibility to best deliver their structure improvement projects, TransLink will accept applications for Projects with single or multiple structures, and single or multiple phases. Local Governments may also elect to combine or separate multiple project types or sub-sections of a larger project.

4.1.5 PROJECT DESIGN

Eligible projects must meet or exceed the applicable standards and guidelines for the governing jurisdiction. Typically, this will require a minimum compliance to CSA S6 Canadian Highway Bridge Design Code requirements.

Tender documents must be prepared by a registered Professional Engineer through Engineers and Geoscientists BC (EGBC).

4.1.6 PROJECT PRIORITY

To be considered eligible, the Local Government must sufficiently demonstrate their commitment to securing the necessary external funding sources and successfully executing the Project. This can be achieved in a number of ways, including, but not limited to:

- Identification in Official Community Plans or Transportation Master Plans
- Proof of public consultation
- Council support
- Committed funding from Local Government or other sources

4.2 Project Evaluation Criteria And Funding Distribution

Only **eligible** Applications, as defined in **Section 4.0**, will be evaluated for MRN Structures funding by TransLink. Ineligible Applications will not be considered further except as modified based on TransLink direction on a case-by-case basis.

A competitive process will be used to compare and allocate funding to the Applications received for the year. A **Risk-Based Scoring Process** will be used to score Applications based on the risks identified and mitigated through completion of the Project. Four (4) separate evaluation criteria will be used to measure identified risks:

Table 4: Evaluation Criteria

Criteria		Weighting	Description
Criteria 1	**Condition**	30%	Evaluates the extent and effect on structure(s) where condition has deteriorated, resulting in a loss of functionality, and/or structural/safety risks
Criteria 2	**Importance**	20%	Considers characteristics of the route serviced by the structure(s) and the impact on movement of people and goods, with a focus on high-priority routes
Criteria 3	**Operations and Safety**	20%	Safety and operational deficiencies due to the design/configuration of the structure and roadway, including reductions to load carrying capacity
Criteria 4	**Seismic Vulnerability**	30%	Evaluates the need for seismic upgrades, based on recommendations of previous seismic studies/assessments

Local Governments should provide clear, concise responses in the Application and attach all relevant, supporting documentation to allow TransLink to assign an accurate risk score to the Application. TransLink will score all Applications using the rubric defined in **Appendix A** and based upon the considerations for each criteria listed in **Appendix B**.

Once all Applications have been evaluated and scored, funding will be distributed based on a **Ranking and Cut-off Process**. Projects are ranked in descending order by their risk score. Funding is allocated to the highest-risk projects first, up to 50% of eligible costs and up to the $5 million funding cap, until all available funding for the program year is exhausted. Projects at the "cut-off line" may only receive a partial amount of their full funding request. Projects ranked below the funding "cut-off line" will not be funded.

The transfer of funds between approved project applications may be permitted, provided that the following conditions are satisfied, in addition to the requirements defined in the MRNB Program Description and Guidelines **Section 6.10.3**:

- Projects applications must be submitted by the same Local Government in the same funding year
- Project applications must be eligible for funding and be ranked above the specified "cut-off line" for that program funding year
- No single project application may incur a combined funding greater than $5 Million (at a 50% cost sharing basis)

4.3 COST ELIGIBILITY

Project components that are considered essential to the successful delivery of the project are generally eligible for cost share, including (but not limited to):

- Property acquisition (not including leases)
- Fees for professionals, technical personnel, consultants, and contractors
- Materials and Equipment (including fabrication, supply, transportation, installation)
- Costs incurred for contract administration
- Detour costs
- Traffic management costs
- Environmental management costs

The costs of project components (including property acquisitions), incurred prior to the program year from which funding was first awarded, are not eligible for "retroactive" cost sharing under this program. In other words, only those costs incurred after the project is approved by TransLink's Capital Review Committee (CRC), or on such date the Local Governments are notified in writing by TransLink, will be eligible for cost sharing. (i.e., For Project funding first awarded in 2024 as part of the 2024 MRN Structures Program, only those costs incurred on or after **January 1st, 2024** will be eligible for cost sharing.) For more details on projects with multiple program year funding, please refer to **Section 6.11** of the MRNB Program Description and Guidelines.

Project-related property acquisitions are eligible for cost share at the original purchase price (i.e., not the current market value at the time of Payment Request). Such costs are eligible only for property actually required to complete an approved MRN Structures project (i.e., property required for a proposed "ultimate" alignment is not eligible if the current project involves construction to an "interim" standard) and are only reimbursed when the approved project is completed.

Project components that are **not eligible** for cost sharing under the MRN Structures Funding Program include:

- Project components acquired or completed prior to approval of the MRN Structures project
- Municipal overhead (e.g., senior management time, general office support, or other non-direct staff costs)
- Utility costs (including regular, long-distance or cellular phone charges)
- Financing (i.e., internal or external costs of borrowing TransLink's contribution, from the date of actual expenditure to the date of receipt of TransLink's contribution following completion of the project)
- Assets such as small tools that are normally charged against income
- Purchasing Equipment, furnishings, and fittings used for normal administrative purposes (e.g., office furniture, personal computers)
- Vehicles
- Gifts in kind
- Auditing or accounting fees, incurred in the normal course of municipal operations
- Legal services
- Operations and maintenance

Taxes are not eligible for cost sharing under the MRN Structures Funding Program.

5. ADMINISTRATIVE PROCEDURES

5.1 PROJECT APPLICATION

Local Governments are required to submit project applications to TransLink – by the deadline indicated on the application form – for proposed projects to be considered under the **2024 funding year.**

Local Governments may choose to combine their MRN Structures funding application with other available funding under the TransLink's MRNB program (i.e. MRNB Bike Upgrade, MRNB Road Upgrade, BICCS Route-based, and/or BICCS Bike Parking) if the scope of their project is eligible for funding under the respective program guidelines. If this is the intention, then Local Governments should indicate this on the application form.

Local Governments may also, if they choose, submit applications for multi-year, "phased" projects. In this case, a separate contribution agreement will apply to each stage of the project. However, separate applications for funding for the same project scope of work will all have the same deadline for completion as the earliest approved application.

Applications shall include a summary of anticipated funding sources for the project. Any previously approved and anticipated amount of funds from each source shall be noted, with the total amount equaling the project cost estimate. Possible sources of funding may include (but are not limited to):

- Local Government sources (e.g., municipal general revenues, development cost charges, development levies, work agreements with private developer)
- Other TransLink program funding (e.g., MRNB Upgrade, BICCS, OMR, or WITT funding)
- Federal government grants
- Provincial government grants (e.g., Cycling infrastructure partnership program (CIPP) Grant)
- ICBC grants

The application form for the 2024 funding year will be made available to Local Governments through RTAC Subcommittee representatives.

5.2 SUPPORTING DOCUMENTS FOR PROJECT APPLICATION

For all project applications, the following supporting documents are to be submitted to TransLink:

- **Project photos** - 'Before' and 'After' photos of the project need to be submitted to demonstrate project improvements prior to funding disbursement. The 'Before' photos will be requested at the project application stage, and the 'After' photos will be requested at the Payment Request stage after the project has been completed.
- **Project Map** – map clearly indicating the location of the project, and individual structure(s) within the Project
- **Plan Drawings and Cross Sections** - All developed concept sketches and drawings should be provided to indicate the project scope.
- **Documents demonstrating funding commitment** – Copies of any relevant documentation should be provided to indicate resolution from funding source(s) approving the project and the Local Government's cost-share of the project. (e.g. letters of support, Council resolutions or approvals, OCP, or other indicators of priority)
- **Certification by Professional Engineer** – A blank certification page is included with the Application form template, to be completed by the Professional Engineer who will be responsible for the Project. Completed certification pages should be submitted electronically as an attachment (.PDF format only).
- **Structure inspection report(s)** – Recent (i.e. within the last 5 years) structure inspection reports should be provided. Example inspection forms are provided in **Appendix C** for reference. If available, relevant testing, assessment or evaluation reports should also be provided.

The following supporting documents may also be required depending on the scope of the Project Application:

- **Detour Route Maps** – Detour routes should clearly indicate the alternative vehicular roadway(s) and/or pedestrian pathway(s) that will be used in event that the structure(s) are taken out of service.
- **Seismic Assessment Reports and Seismic Retrofit Drawings/Reports** (bridges only) – Relevant seismic studies or letters or recommendation should be attached that clearly indicate seismic vulnerability of the bridge(s). If previous seismic upgrades have already been completed for the bridge(s), please also provide as-built drawings and reports documenting the completed work.

Additionally, dependent on the applicable project phases, a copy of one or more of the following supporting documents should also be submitted:

- Project proposal(s) with fee estimate, prepared by a registered Professional Engineer
- Engineering report(s) prepared during previous design phases, prepared by a registered Professional Engineer
- Detailed construction cost estimate, prepared by a registered Professional Engineer
- Issued for Tender (IFT) documents (including drawings and specifications), prepared by a registered Professional Engineer

5.3 PROJECT PRESENTATIONS

Local Governments may choose to meet with TransLink staff to present additional project details, if needed. These project presentations are optional.

5.4 PROJECT EVALUATION AND APPROVAL

TransLink staff will review all Applications for the 2024 MRN Structures funding program. Incomplete applications will be returned to the Local Government for completion. Additional information or clarification may be requested during the review process.

Projects requesting MRN Structures funding will be reviewed for eligibility per **Section 4.0** and scored by TransLink staff according to evaluation criteria in **Section 4.2** and further defined in Appendix B. The selected projects and funding distribution will be reported to the RTAC OMR Subcommittee and RTAC. Subsequently, the endorsed projects are submitted to TransLink's Capital Management Committee for funding approval. Once approved, TransLink will draft project specific contribution agreements and administer the funding.

Local Governments must provide additional supporting documents for any project that impacts the people-moving capacity along the Major Road Network (MRN). All projects that impact the people-moving capacity along the MRN must include a Letter of Approval signed by the Director of Infrastructure Programs, per the SCBC Transportation Authority Act.

5.5 PROJECT IMPLEMENTATION AND FUNDING DEADLINE

Local Governments are solely responsible for the implementation of approved MRN Structures projects in accordance with a project-specific contribution agreement. Local Government responsibilities include, for example, project management, procurement of consultants, securing right-of-way, permitting, design, tender, construction, and inspection. TransLink responsibility is limited to the provision of funding per the contribution agreement.

Project status updates should be provided on a regular basis as defined in the MRNB Program Description and Guidelines **Section 6.10** and any changes to a previously approved project including project extensions are subject to the requirements of **Section 6.10.2** (information is also included below, in the following paragraph). Projects must be completed within **four (4) years** to be eligible for MRN Structures funding. The program year from which the funding was first awarded is considered Year 1. (i.e., All Projects awarded funding under the 2024 MRN Structures Program projects must be completed by **December 31, 2027**.)

The project completion deadlines for approved MRN Structures Program projects may be extended for projects that have received documented commitments demonstrating any third-party funding which has allowed for additional time to complete the project. Projects may also be granted extension if they can demonstrate delays caused by third parties which are outside of the control of the project. Contractor retainment, staffing challenges, project priority, cost escalations or supply chain issues are not considered issues caused by third parties as it is expected that these risks have been considered prior to application submission. The maximum extension that can be provided is one year.

5.6 REQUESTS FOR PAYMENT

TransLink will reimburse a Local Government for up to 75% of the eligible costs, net of contributions by any provincial or federal governments or agencies, up to a maximum dollar amount as set out in the relevant contribution agreement.

Requests for payment are subject to the requirements outlined in the MRNB Program Description and Guidelines **Section 6.14**. Only costs incurred within the four-year timeframe are eligible for reimbursement. Requests for payment of TransLink contributions shall be submitted to TransLink within 60 days after completion of the project. Requests which are submitted late may not be processed and funding may be forfeited.

5.7 COMMUNICATIONS MATERIALS AND PROJECT SIGNAGE

Local Governments will notify TransLink when preparing any communication materials related to 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. Specific requirements regarding project recognition signage are included under Section 3.5.6 of the project funding agreement. Refer to the project funding agreements for additional details.

5.8 OTHER ADMINISTRATIVE PROCEDURES

For further details regarding other administrative procedures, refer to the most recent revision of the MRNB Program Description and Guidelines.

1 APPENDIX A *MAJOR ROAD NETWORK STRUCTURES* PROJECT EVALUATION FRAMEWORK

Table A1: Project Eligibility and Scoring Evaluation Framework for MRN Structures Projects

Project Eligibility Requirements		
Projects must satisfy **all** requirements listed below in order to be evaluated for funding allocation.		
Structure Size	All structures within the Project scope satisfy the minimum threshold dimensions	**Pass/Fail**
Project Type	Project scope covers only rehabilitation, seismic upgrades, and/or replacement and does not include any ineligible project types	**Pass/Fail**
Project Phase	Project scope only covers eligible phases (i.e. feasibility and planning studies, preliminary and detailed design; tender and/or construction) and does not include any ineligible project phases	**Pass/Fail**
Project Readiness	The project is ready to move forward and can be completed within the 4-year timeframe. The project demonstrates that feasibility issues have been considered and there are no major obstacles to complete the project by the completion deadline.	**Pass/Fail**
Project Design	The project meets or exceeds applicable design standards and guidelines for the governing jurisdiction(s).	**Pass/Fail**
Project Priority	The Local Government has demonstrated commitment and/or high priority to the project via, for example, identification in Official Community Plans or Transportation Master Plans, Council support, and/or committed funding.	**Pass/Fail**

Project Evaluation Criteria Risk-Scoring Framework						
An overall Risk-Score will be determined based on the weighted scores awarded under each criteria.						
Criteria	Condition (30%)	Importance (20%)	Operations & Safety (20%)	Seismic Vulnerability (30%)	**Overall Risk Score**	
Score	__ / 15	__ / 15	__ / 15	__ / 15	**__ /60**	**____ %**

2 APPENDIX B *MAJOR ROAD NETWORK STRUCTURES* EVALUATION AND SCORING

Scoring is based on the risk of the "do-nothing" scenario (i.e. if the proposed Project is not completed as planned) for each of the four evaluation criteria referenced in **Table A1** and further defined in **Table B1** on the following page.

The greater the identified risk associated with each criterion, the higher the application will score (to a maximum of 15 points per criteria). **Table B1** provides a list of considerations that will be taken into account in the evaluation of risks and includes a non-exhaustive list of examples of Projects that will score high under each criterion. Note that some risks may be applicable across multiple categories.

TransLink reserves the right to alter the evaluation and scoring process in future funding years, with input from Local Governments.

Table B1: Guide to risk-based evaluation and scoring

PROJECT CRITERIA AND CONSIDERATIONS
CONDITION (30%)
The risk-score shall be evaluated based on the extent of deterioration on structure component(s), where it has resulted in a **loss of functionality or has created a structural/safety risk**. The Applicant must be able to demonstrate an improvement of the condition of the structure (i.e. reduction of risk) through implementation of the proposed Project. Some considerations in determining risks associated with a structure's ***condition***: ▪ Age of structure (i.e. year built) ▪ Expected remaining service life ▪ Extent of deterioration of component(s) ▪ Effect of deterioration on overall structure safety, functionality, and load bearing ▪ Past rehabilitation work completed on the structure(s) ▪ Likelihood of further deterioration occurring if deficiencies are not remediated ▪ Overall urgency of remedial work based on the above considerations Non-exhaustive list of Project examples that address the risks associated with ***condition***: ▪ Removing failed or deficient paint coatings and applying new paint coatings to steel girders ▪ Replacing corroded bearing assemblies ▪ Replacing expansion joint assemblies that have reached end of life and are no longer functioning as intended (i.e. leaking onto components below deck) ▪ Replacement of failed geotechnical components that caused settlement issues and subsequent defects in the superstructure/substructure ▪ Resurfacing a severely disintegrated asphalt wearing surface that is posing a safety hazard to vehicular traffic where intermittent patch repairs are no longer feasible ▪ Remediating scour/undermining at abutments **Scoring:** 0 points **No risk** associated with condition of structure(s) 5 points **Low risk** associated with condition of structure(s) 10 points **Moderate risk** associated with condition of structure(s) 15 points **High risk** associated with condition of structure(s)

Table B1 (cont'd): Guide to risk-based evaluation and scoring

PROJECT CRITERIA AND CONSIDERATIONS
IMPORTANCE (20%)

The risk-score shall be evaluated based on the characteristics of the route serviced by the structure(s) and the subsequent **impact on the movement of people and goods**, with a focus on high-priority routes. Routes with greater "importance" are considered to have higher inherent risk, as they have the potential to generate far-reaching impacts to the MRN.
 	
Some considerations in determining risks associated with a structure's ***importance:***
▪ Traffic volume and characteristics
  ▪ AADT and % heavy vehicles
  ▪ MRN Classification
  ▪ Pedestrian/cyclist volumes
▪ Structure supports one or more recognized designated routes, including but not limited to: Designated Major Route, Evacuation Route, Disaster Response Route, Frequent Transit Network, School bus route, Truck Route, Safe Route to School, Fire Truck Route, bike pathways, pedestrian pathways, and bus routes
▪ Availability and length of alternate detour route(s)
▪ Dependent infrastructure in close proximity to structure (e.g. community/Local Government services, transit, rail, businesses, industrial centres) that may be impacted by changes to the structure
 	
Non-exhaustive list of Project examples that address the risks associated with the structure's ***importance***:
▪ Replacement of a structure located on a high volume road servicing heavy bus traffic
▪ Rehabilitation of a retaining wall supporting a roadway leading into a small community, where the only other alternate route is a lengthy detour
▪ Rehabilitation of a structure located in an industrial area providing access to truck traffic from multiple businesses
 	
Scoring:
 	
0 points **No risk** of impact to the movement of people and goods
 	
5 points **Low risk** of impact to the movement of people and goods
 	
10 points **Moderate risk** of impact to the movement of people and goods
 	
15 points **High risk** of impact to the movement of people and goods

Table B1 (cont'd): Guide to risk-based evaluation and scoring

PROJECT CRITERIA AND CONSIDERATIONS
OPERATIONS & SAFETY (20%)
This risk-score shall be assessed based on identified **operational or safety deficiencies due to the design and/or configuration of the structure and roadway**. Current or future reductions to the **load carrying capacity** of the structure shall also increase the risk associated with a structure's safety and operation. Some considerations in determining risks associated with a structure's ***operations and safety:*** ▪ Issues posing a risk to roadway users (e.g. vertical/horizontal alignment at structure/approaches, railing adequacy, overhead clearance, end treatment, roadway capacity) ▪ Issues posing a risk to operations and maintenance staff when cleaning, inspecting or performing repairs at the structure site (e.g. confined spaces, hazardous substances, steep embankments) ▪ Current or future load posting restrictions ▪ Urgency of remedial work based on risk or reductions in level of service Non-exhaustive list of Project examples that address the risks associated with ***operations and safety***: ▪ Replacement and realignment of a structure that formerly exhibited poor vehicle sightlines and has resulted in significantly higher vehicle collision rates ▪ Re-design of railings and approach flares currently not in compliance with design codes ▪ Girder strengthening for a structure that has already been load posted but may require more severe restrictions if deterioration is not addressed ▪ Rehabilitation of structure access platforms and cables to improve safety of future inspection and maintenance work **Scoring:** 0 points **No risk** of impact to safety and operations 5 points **Low risk** of impact to safety and operations 10 points **Moderate risk** of impact to safety and operations 15 points **High risk** of impact to safety and operations

Table B1 (cont'd): Guide to risk-based evaluation and scoring

PROJECT CRITERIA AND CONSIDERATIONS
SEISMIC VULNERABILITY (30%)
This risk-score will be established based on the **seismic vulnerability** of the structure(s) and the need for seismic upgrades as recommended by previously completed seismic studies and assessments. Establishing minimum seismic performance requirements shall be the responsibility of the Regulatory Authority (i.e. Local Government/owner), and TransLink's evaluation will be based solely on the recommendations disclosed by the Local Government. Some considerations in determining risks associated with a structure's ***seismic vulnerability:*** ▪ Multi-span bridge ▪ Seismic upgrades have not been completed or are partially completed ▪ Seismic vulnerability is demonstrated through previous studies or recommendations ▪ Performance based principles used to develop the seismic upgrades (CSA S6 4.4.1) Non-exhaustive list of Project examples that address the risks associated with ***seismic vulnerability***: ▪ Concrete girder strengthening for seismic capacity ▪ Installation of seismic restrainer cables ▪ Substructure (e.g. column and pier cap) retrofit **Scoring:** 0 points **No risk** of negative effects due to seismic event 5 points **Low risk** of negative effects due to seismic event 10 points **Moderate risk** of negative effects due to seismic event 15 points **High risk** of negative effects due to seismic event

3 APPENDIX C *SAMPLE STRUCTURE INSPECTION FORMS*

TransLink requires Local Governments to submit recent (i.e. within the last 5 years) inspection reports for all structures requesting funding under the MRN Structures Program. The following sample inspection reports (provided in the *BC MoTI Bridge Management Information System User Manual*) illustrate the minimum condition information required for each type of structure.

This inspection form shall only be adapted for use by qualified personnel who are trained in and have sufficient field experience in using the BC MOTI condition rating system.

Ministry of Transportation and Infrastructure

BRIDGE CONDITION INSPECTION

Inspection Type: Routine ☐ Detailed ☐ Partial ☐

Structure Number | **Structure Name** | **Inspection Date (yyyy/mm/dd)**

	COMPONENT	PERCENT CONDITION RATING (Enter % in each condition. See BMIS User Manual 15.2.2) E	G	F	P	V	X	N
	HYDROTECHNICAL							
1	Debris Risk							
2	Channel							
3	Erosion Protection							
4	Substructure Scour							
	SUBSTRUCTURE							
5	Foundation Movement							
6	Abutments							
7	Wing/Retaining Walls							
8	Embankment							
9	Footings/Piling							
10	Pier Columns/Walls/Cribs							
11	Bearings							
12	Caps							
13	Corbels							
14	Dolphins/Fenders							
	SUPERSTRUCTURE							
15	Floor Beams/Transoms							
16	Stringers							
17	Girders							
18	Portals							
19	Bracing/Diaphragms							
20	Truss Chords/Arch Ribs							
21	Arch Ties							
22	Truss Diagonals							
23	Truss Rods/Verticals							
24	Cables							
25	Panels							
26	Pins/Bolts/Rivets							
27	Camber/Sag							
28	Live Load Vibration							
29	Coating (structure)							
	DECK							
30	Sub Deck/Cross Ties							
31	Wearing Surface							
32	Deck Joints							
33	Curbs/Wheelguards							
34	Sidewalk(s)							
35	Railings/Parapets							
36	Median Barrier							
37	Drains/Pipes							
38	Coating (Railings)							
	APPROACHES							
39	Signing/Lighting							
40	Roadway Approaches							
41	Roadway Flares							

INSPECTION NOTES BY COMPONENT

All poor or very poor conditions should be explained with notes and documented by photos. Label explanation(s) with component numbers.

Partial Inspection Notes:

General Inspection Notes:

Utility Concern Notes (Contact Utility Owner):

Urgency Rating Notes:

Condition Codes	
E Excellent	V Very Poor
G Good	X Not Inspected
F Fair	N Not Applicable
P Poor	

For Condition Guidelines see BMIS User Manual 15.2.2

Urgency Rating _____

For definition see BMIS User Manual 15.2.8 "4" and "5" rating must be explained.

Inspector (please type or print) _____ Signature _____

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Structure Number ____

Posted Weight Restriction *(print actual message on sign(s))*

Other Posted Hazard Warning Signs

Drainage Area Description *(water level fluctuation, logging debris, etc.)*

Scour Notes

Rehab Work Notes

Maintenance Work Notes

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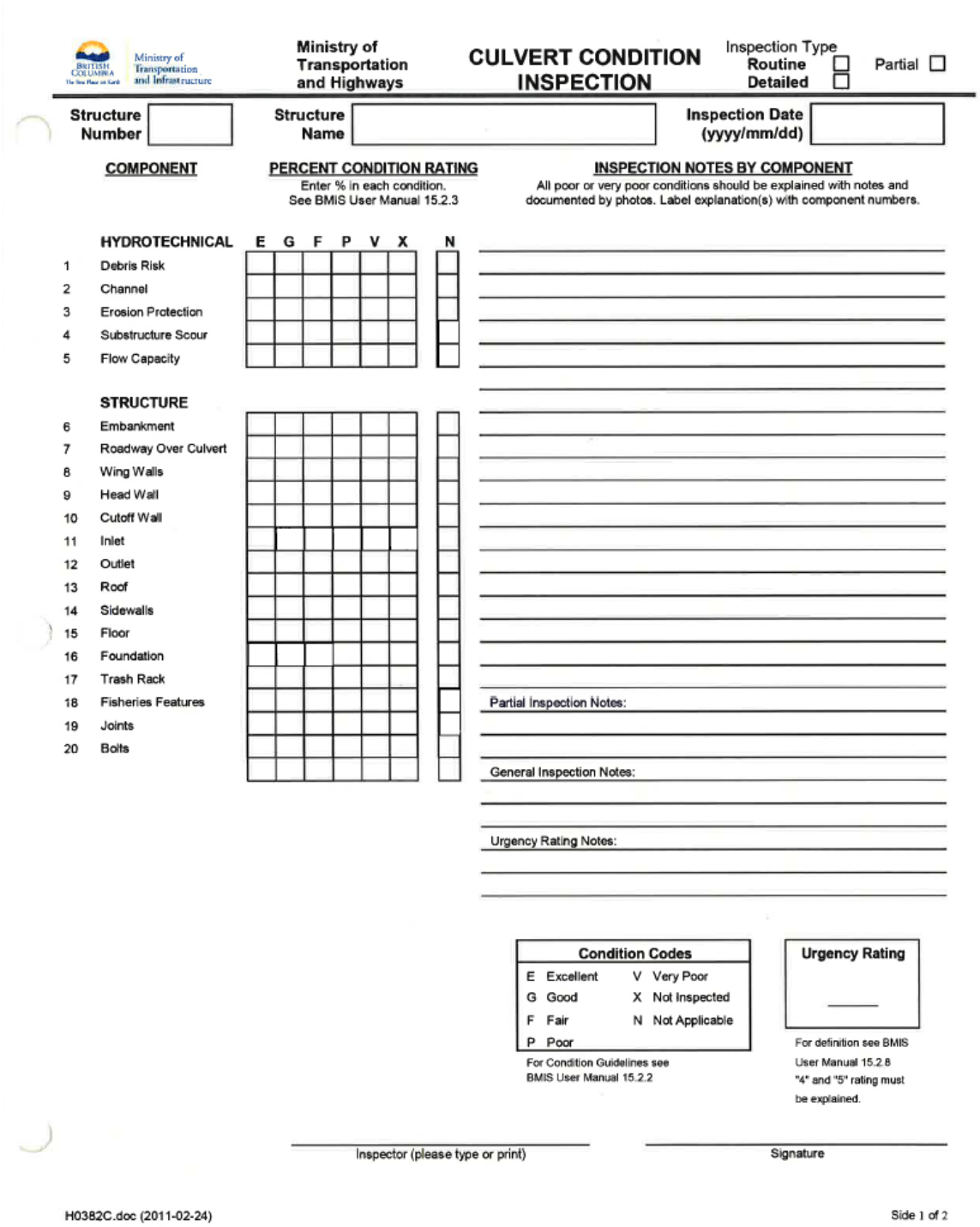

Ministry of Transportation and Infrastructure

Ministry of Transportation and Highways

CULVERT CONDITION INSPECTION

Inspection Type: **Routine** ☐ **Detailed** ☐ **Partial** ☐

Structure Number | **Structure Name** | **Inspection Date (yyyy/mm/dd)**

	COMPONENT	PERCENT CONDITION RATING (Enter % in each condition. See BMIS User Manual 15.2.3)						
	HYDROTECHNICAL	**E**	**G**	**F**	**P**	**V**	**X**	**N**
1	Debris Risk							
2	Channel							
3	Erosion Protection							
4	Substructure Scour							
5	Flow Capacity							
	STRUCTURE							
6	Embankment							
7	Roadway Over Culvert							
8	Wing Walls							
9	Head Wall							
10	Cutoff Wall							
11	Inlet							
12	Outlet							
13	Roof							
14	Sidewalls							
15	Floor							
16	Foundation							
17	Trash Rack							
18	Fisheries Features							
19	Joints							
20	Bolts							

INSPECTION NOTES BY COMPONENT
All poor or very poor conditions should be explained with notes and documented by photos. Label explanation(s) with component numbers.

Partial Inspection Notes:

General Inspection Notes:

Urgency Rating Notes:

Condition Codes

E	Excellent	V	Very Poor
G	Good	X	Not Inspected
F	Fair	N	Not Applicable
P	Poor		

For Condition Guidelines see BMIS User Manual 15.2.2

Urgency Rating _____

For definition see BMIS User Manual 15.2.8
"4" and "5" rating must be explained.

Inspector (please type or print) _____ Signature _____

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Structure Number ____

Drainage Area Description *(water level fluctuation, logging debris, etc.)*

Scour Notes

Rehab Work Notes

Maintenance Work Notes

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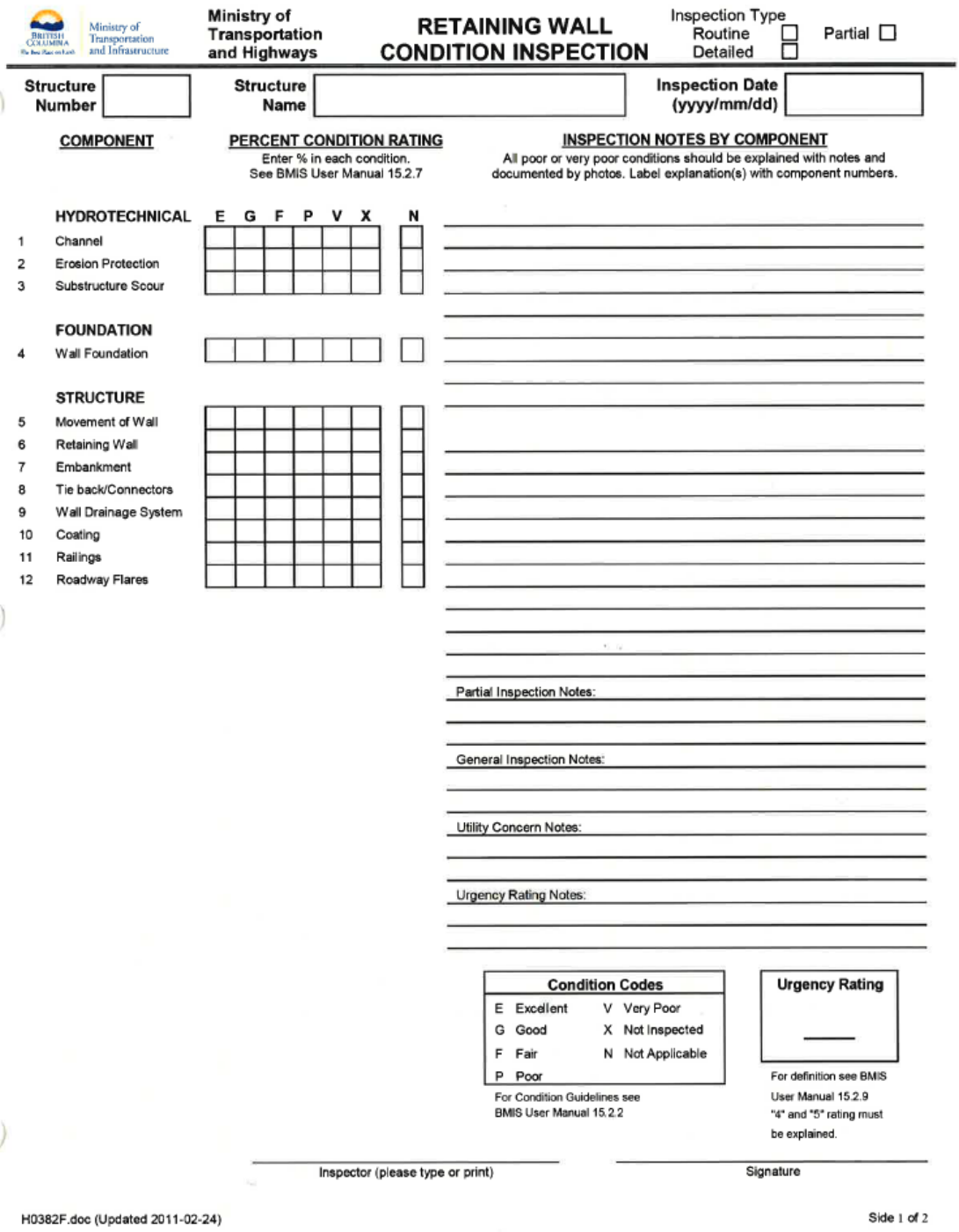

Ministry of Transportation and Infrastructure

Ministry of Transportation and Highways

RETAINING WALL CONDITION INSPECTION

Inspection Type: Routine ☐ Detailed ☐ Partial ☐

Structure Number | **Structure Name** | **Inspection Date (yyyy/mm/dd)**

	COMPONENT	PERCENT CONDITION RATING (Enter % in each condition. See BMIS User Manual 15.2.7)							INSPECTION NOTES BY COMPONENT (All poor or very poor conditions should be explained with notes and documented by photos. Label explanation(s) with component numbers.)
		E	G	F	P	V	X	N	
	HYDROTECHNICAL								
1	Channel								
2	Erosion Protection								
3	Substructure Scour								
	FOUNDATION								
4	Wall Foundation								
	STRUCTURE								
5	Movement of Wall								
6	Retaining Wall								
7	Embankment								
8	Tie back/Connectors								
9	Wall Drainage System								
10	Coating								
11	Railings								
12	Roadway Flares								

Partial Inspection Notes:

General Inspection Notes:

Utility Concern Notes:

Urgency Rating Notes:

Condition Codes

E	Excellent	V	Very Poor
G	Good	X	Not Inspected
F	Fair	N	Not Applicable
P	Poor		

For Condition Guidelines see BMIS User Manual 15.2.2

Urgency Rating _____

For definition see BMIS User Manual 15.2.9 "4" and "5" rating must be explained.

Inspector (please type or print) _____ Signature _____

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Structure Number

Instrumentation Notes

Drainage Area Description *(water level fluctuation, logging debris, etc.)*

Scour Notes

Rehab Work Notes

Maintenance Work Notes

H0382F.doc (Updated 2011-02-24)

Side 2 of 2