

Article 1. Definitions and Interpretation 1-1

- 1.1 Definitions 1-1
- 1.2 Interpretation and Application of Schedule 4 1-23
 - 1.2.1 General 1-23
 - 1.2.2 Application of Schedule 4 and Articles 1-24

Article 1. Definitions and Interpretation

1.1 Definitions

In this Schedule 4 [Design and Construction], in addition to the definitions set out in Schedule 1 [Definitions and Interpretation], and unless otherwise specified or the context otherwise requires, the following words and expressions have the following meanings.

“30-day Look Ahead Schedule” has the meaning given in Section 9.2 [Submittals] of Appendix G.

“90-day Look Ahead Schedule” has the meaning given in Section 9.2 [Submittals] of Appendix G.

“100-Year Return Period Earthquake Event Level” means the earthquake event level at which there is a high expectancy of an earthquake event during the design life of the applicable structure, with ground motion inputs corresponding to a 100-year return period.

“475-Year Return Period Earthquake Event Level” means the earthquake event level at which there is a moderate chance of an earthquake event during the design life of the applicable structure, with ground motion inputs corresponding to a 475-year return period.

“975-Year Return Period Earthquake Event Level” means the earthquake event level at which there is a low chance of an earthquake event during the design life of the applicable structure, with ground motion inputs corresponding to a 975-year return period.

“2475-Year Return Period Earthquake Even Level” means the earthquake event level at which there is rare chance of occurrence during the design life of the applicable Fixed Facility, with ground motion inputs corresponding to a 2475-year return period.

“AARU” means automatic assured receptivity unit.

“AC” means alternating current.

“ACER” means AC electrical room.

“Action Levels” has the meaning given in Article 4.2.2(b)(vii)B.(1) [Construction Risk and Impact Assessment Report] of Part 1.

“Active Construction Zone” means an area in which surveying, construction, maintenance, utility or any other Primary Contractor-initiated activities take place to the extent that the passage of Traffic may be influenced.

“AFM” means add fare machine.

“AHJ” has the same meaning as “Authority Having Jurisdiction”.

“AREMA” means the American Railway Engineering and Maintenance of Way Association.

“**ARS**” means acceleration response spectra.

“**Assessment Certificate (Existing Facilities)**” means a certificate issued pursuant to Article 2.2.3.5(d) [Technical Appraisal Submission Requirements] of Part 3.

“**ATC**” means automatic train control.

“**ATC Software Development Plan**” means the software development plan to be prepared and submitted by the Primary Contractor in accordance with Article 13.5.9 [Software Requirements] of Part 2 and Section 15.3 [Systems Preliminary Design Review (SPDR) Submissions] of Appendix G.

“**ATC Software Quality Assurance Plan**” means the software quality assurance plan to be prepared and submitted by the Primary Contractor in accordance with Article 13.5.9 [Software Requirements] of Part 2 and Section 15.3 [Systems Preliminary Design Review (SPDR) Submissions] of Appendix G.

“**ATEL**” means administration telephone.

“**ATO**” means automatic train operation.

“**ATP**” means automatic train protection.

“**ATPC**” has the same meaning as “Authorization to Proceed with Construction”.

“**ATS**” means automatic train supervision.

“**Attributable Delay Events**” means a Delay Event identified as “Included” under the heading “Applicability to Primary Contractor” at Table 1 [Evergreen Line Wayside Delay Allocation Scope] of Article 13 of Part 2.

“**Authority Having Jurisdiction**” means the person retained by the Province to act as authority having jurisdiction pursuant to and in respect to the Construction Approval Process.

“**Authorization to Proceed with Construction**” means an authorization to proceed with construction, issued by the AHJ in respect of a Fixed Facility in accordance with the Construction Approval Process.

“**AW0**” means the weight of an empty MKII 300/400 series Vehicle (21,500 kg).

“**AW1**” means AW0 plus the weight of all 33 seats occupied, assuming an average weight of 70 kg per passenger.

“**AW2**” means AW1 plus the weight of four standing passengers per square metre (99 standing passengers), assuming an average weight of 70 kg per passenger.

“**AW3**” means AW1 plus the weight of six standing passengers per square metre (148 standing passengers), assuming an average weight of 70 kg per passenger.

“**AW4**” means AW1 plus the weight of eight standing passengers per square metre (198 standing passengers), assuming an average weight of 70 kg per passenger.

“**AWG**” means American Wire Gauge.

“**BCBC**” means the British Columbia Building Code (BCBC).

“**Blue Light Station**” means a location along the guideway, indicated by a blue light, where emergency service or authorized personnel can disconnect traction power.

“**BTL**” means the BACnet Testing Laboratory.

“**Bus Integration Plans**” means the drawings titled “Bus Integration Plans” included in Appendix A [Drawings].

“**C**” means Celsius.

“**Capacity-Protected Components**” means those components of a Structure which are in the seismic load path, with capacities in excess of seismic demands limited by the lower capacities of a Permitted ERS in the same seismic load path. All components of the Guideway structure other than the components of a Permitted ERS are deemed to be Capacity-Protected Components.

“**CAT**” means category.

“**CCD**” means charge coupled device.

“**CCTV**” means closed circuit television.

“**CESS**” means central emergency stop system.

“**Computer Room**” means the existing computer room at the OCC, which is the primary room in which computers required for, as applicable, the Existing SkyTrain System or the Integrated SkyTrain System are located.

“**Concept Review**” means a concept review of Design Data in accordance with Bylaw 14(b) [Quality Management] of the APEGBC Bylaws and in accordance with the APEGBC Concept Review Guidelines.

“**Concurrent Landscaping Areas**” has the meaning given in Article 6.3.2(a) [Concurrent Landscaping Work] of Part 1.

“**Concurrent Transit Interface Facilities Work Areas**” has the meaning given in Article 6.3.3(a) [Concurrent Transit Interface Facilities Work] of Part 1.

“**Configuration Management Plan**” has the meaning given in Section 4.4 [Configuration Management Plan] of Appendix G.

“**Construction Approval Process**” means the process set out in Appendix E [Construction Approval Process for the Evergreen Line Rapid Transit Project], which process forms part of the Design and Construction Certification Procedures.

“**Construction Risk and Impact Assessment Report**” means the report prepared and submitted by the Primary Contractor in accordance with Article 4.2.2 [Construction Risk and Impact Assessment Report] of Part 1.

“Contractual Technical Specifications” means any technical specification which forms part of any contract between the Primary Contractor and a supplier of any part of the Work related to or in respect of the Systems.

“Control Operator” means the BCRTC employee responsible for monitoring train movements and vehicle/wayside equipment fault reporting on the mainline and in the automated portions of the OMC and the VSF.

“Control Room” means the room located in the OCC from which BCRTC controls and coordinates the system-wide movement of passengers.

“CPR Access Protocols” means the access protocols with respect to the CPR Lands as set out in Section 4.10 of CPR CATRA.

“CPR Approval Project Plans” means the approval project plans described in Section 4.3 of CPR CATRA.

“CPR Approved Reference Concept” means the plans and drawings, as may be amended in accordance with CPR CATRA, attached to CPR CATRA as Schedule “I”, which depict the proposed design and configuration of the Evergreen Line on the CPR Lands.

“CPR Crossing Agreements” means:

- (a) the CPR Ioco Crossing Agreement; and
- (b) the CPR Main Line Crossing Agreement.

“CPR Indemnity Claims” has the meaning given to “Claims” in each of CPR CATRA, the CPR SRW, the CPR Ioco Crossing Agreement, the CPR Main Line Crossing Agreement and the CPR Canopy Agreement, as applicable.

“CPR Interference” has the meaning given to “interference” in Section 1.1 ee) of CPR CATRA.

“CPR Lands ALRT Work” means the work set out in Paragraphs 2.1 through 2.20 of Schedule “A” to CPR CATRA.

“CPR Lands Project Plans” means the project plans described in Section 4.2 of CPR CATRA but excludes any project plans in respect of the CPR Track Relocation Work and the CPR/MOTI Fibre Optic Work.

“CPR Lands Routine Work” has the meaning given to “Routine Work” in the CPR SRW.

“CPR/MOTI Fibre Optic Work” means the work set out in Paragraphs 1.1 through 1.4 of Schedule “B” to CPR CATRA.

“CPR/MOTI Personnel” has the meaning given to “MOT Personnel” in Section 1.1 ll) of CPR CATRA.

“CPR Overpass Work” has the meaning given to “Work” in each of the CPR Ioco Crossing Agreement and the CPR Main Line Crossing Agreement.

"CPR Project Site" means the locations of the various elements of the CPR Lands ALRT Work, generally as shown on the Project Site - Conceptual Plan attached as Schedule "K" to CPR CATRA, showing all areas of the CPR Lands necessary for the completion of the CPR Lands ALRT Work, with detailed plans being provided in accordance with Section 4.2 of CPR CATRA and otherwise as modified in accordance with CPR CATRA.

"CPR Safety and Emergency Response Plan" means a "Safety and Emergency Response Plan" as defined in Section 1.1 yy) of CPR CATRA, and described in Sections 6.1(b) and 6.1(c) and Article 7 of CPR CATRA.

"CPR Safety Requirements" means:

- (a) the requirements entitled "CPR's Minimum Safety Requirements for Contractors on the CPR Lands" attached at Schedule "G" to CPR CATRA:
 - (i) subject to the modifications set out in CPR CATRA and Schedule "G" thereto; and
 - (ii) as such "CPR's Minimum Safety Requirements for Contractors on the CPR Lands" may be supplemented, replaced or updated from time to time; and
- (b) all other safety requirements described in CPR CATRA.

"CPR Specifications" means the specifications detailed in Schedule "J" to CPR CATRA.

"CPR SRW Work" means the "Work" as defined in the CPR SRW.

"CPR Waived Claims" has the meaning given to, as applicable:

- (a) "MOT Claims" in each of CPR CATRA, the CPR SRW, the CPR Ioco Crossing Agreement, and the CPR Main Line Crossing Agreement; and
- (b) "Province's Claims" in the CPR Canopy Agreement.

"CPR's Manager - Track Maintenance" means the person designated as "CPR's Manager - Track Maintenance" under the provisions of CPR CATRA.

"CPR's Project Managers" means the person(s) designated by CPR as "CPR's Project Managers" under the provisions of CPR CATRA.

"CPTED" has the same meaning as "Crime Prevention through Environmental Design".

"CRIAR" has the same meaning as "Construction Risk and Impact Assessment Report".

"Crime Prevention through Environmental Design" means an approach to planning and development that reduces opportunities for crime through environmental design as referenced in Article 10.18.2 [Crime Prevention Through Environmental Design] of Part 2.

"CRU" means commercial retail unit.

"CWR" means continuously welded rail.

“**DAQ**” means delivered audio quality.

“**dba**” means decibel.

“**DC**” means direct current.

“**DCA**” means designated coupling area.

“**DCIM**” has the same meaning as “Design - Construction Interface Manual”.

“**DDC**” means direct digital controls.

“**Definitive and Descriptive Drawings**” means the drawings titled “Fixed Facilities Standard Drawings (Definitive & Descriptive)” included in Appendix A [Drawings].

“**Delay Event**” means an event identified as a “Delay Event” at Table 1 [Evergreen Line Wayside Delay Allocation Scope] of Article 13 of Part 2.

“**Design Certificate (Environmental)**” means a design certificate issued in accordance with Article 2.2.6.1 [Design Certificates] of Part 3.

“**Design Certificate (General)**” means a design certificate issued in accordance with Article 2.2.6.1 [Design Certificates] of Part 3.

“**Design Certificate (Independent Check for Category III Structures)**” means a design certificate issued in accordance with Article 2.2.5.8 [Additional Structure Design Checking Responsibility] of Part 3.

“**Design - Construction Interface Manual**” has the meaning given in Section 4.5.1 [Design - Construction Interface Manual (DCIM)] of Appendix G.

“**Design Manual**” has the meaning given in Article 2.1.5 [Submission of Design Manual] of Part 3.

“**Designated Waiting Area**” means an area of every Station platform with additional security features as described in Article 10 [Architecture] of Part 2.

“**Drawing List**” has the meaning given in Article 17.2.2 [Drawing Lists] of Part 2.

“**DSP**” means digital signal processing.

“**DTMF**” means dual-tone multi-frequency.

“**DUA**” means designated uncoupling area.

“**DWA**” has the same meaning as “Designated Waiting Area”.

“**E-Comm**” means the Emergency Communications for Southwest British Columbia Incorporated.

“**Earthquake Event Level**” means all or any one of the following events levels, as applicable:

- (a) 100-Year Return Period Earthquake Event Level;

- (b) 475-Year Return Period Earthquake Event Level;
- (c) 975-Year Return Period Earthquake Event Level; and
- (e) Subduction Earthquake Event Level.

“Earthquake Resisting System” means a system of individual components of a Structure which:

- (a) provide a reliable and uninterrupted load path for transmitting seismic loads throughout a Structure and its foundation; and
- (b) are designed for and permitted to undergo limited inelastic response and energy dissipation to limit force transmitted to Capacity-Protected Components, while meeting the Seismic Performance Level requirements specified in Article 5 [Seismic] of Part 2.

“EECP” means emergency electrical control panel.

“EEPCP” means emergency electrical control panel at concourses.

“EECPT” means emergency electrical control panel with crew telephone.

“EEMAC” means the Electrical and Electronic Manufacturers Association of Canada.

“EER” means electronic equipment room.

“Electrical Contractor” means, for the purposes of Part 4 [Traffic Management], the person that is designated by the Primary Contractor and approved by the Province as the Electrical Contractor.

“Electromagnetic Compatibility Control Plan” has the meaning given in Section 7 [Electromagnetic Compatibility] of Appendix G.

“EMC” means electromagnetic compatibility.

“EMR” means elevator machine room.

“EPDM” means ethylene propylene diene Monomer (M-class) rubber.

“EPR” means ethylene propylene rubber.

“EPS” means expanded polystyrene.

“ER” means extensible reinforcement.

“ERS” has the same meaning as “Earthquake Resisting System”.

“ETEL” means emergency telephone.

“Evergreen Cultural Centre” means the existing cultural centre located at 1205 Pinetree Way, Coquitlam, BC V3B 7Y3.

“Evergreen Line Wayfinding Documents” means the following:

- (a) Evergreen Line Wayfinding Plan; and
- (b) TransLink Wayfinding Standards Manual;

both of which collectively form Appendix H [Evergreen Line Wayfinding Documents].

“Evergreen Line Wayfinding Plan” means the document titled “Evergreen Line Wayfinding Plan, dated 7 March 2012, which document forms part of Appendix H [Evergreen Line Wayfinding Documents].

“Evergreen Project Coordinate System” has the meaning set out in Article 16.3 [Control Survey] of Part 2.

“Exclusive Road” has the meaning given in Article 3.4(a)(i) of Part 1.

“Factory Acceptance Tests” has the meaning given in Section 13.3 [Factory Acceptance Tests] of Appendix G.

“FAI” has the same meaning as “First Article Inspection”.

“Fail-Safe” means the condition where the failure of any system, equipment, or component results in a safe condition.

“Failure Modes, Effects and Criticality Analysis” has the meaning given in Section 8.2.4 [Failure Modes, Effects and Criticality Analysis] of Appendix G.

“Failure Reporting, Analysis and Corrective Action System” has the meaning given in Section 10.6 [Failure Reporting, Analysis, and Corrective Action System] of Appendix G.

“Failure Reporting, Analysis and Corrective Action System Report” has the meaning given in Section 10.6 [Failure Reporting, Analysis, and Corrective Action System] of Appendix G.

“FAT” has the same meaning as “Factory Acceptance Tests”.

“Fault Tree Analysis” has the meaning given in Section 8.2.3 [Fault Tree Analysis] of Appendix G.

“FCC” means the Federal Communications Commission.

“FCP” has the same meaning as “Firefighters’ Command Post”.

“FCVM” means fare card vending machine.

“FDAS” means fire detection and alarm system.

“FID” means feed in device.

“Figures” means the figures included in Appendix B [Figures].

“Final Design” means the final design in respect of a Non-Systems Component of the Work produced by the Primary Contractor in accordance with Article 2.2.4.6 [Final Design Submissions for Non-Systems Components] of Part 3.

“**Final Durability Report**” has the meaning given in Article 3.2.1.3 [Final Durability Report] of Part 3.

“**Final Redlined Version**” has the meaning given in Article 3.3.3.2 [Systems Operations Manual Requirements] of Part 3.

“**Final Systems Safety Report**” has the meaning given in Section 8.2.5 [Final Systems Safety Report] of Appendix G.

“**Fire and Life Safety Committee**” means the committee established in accordance with Article 2.2 [Fire and Life Safety Committee] of Part 2.

“**Fire and Smoke Control Design Brief**” means the design brief contained within Appendix L [Fire and Smoke Control Design Brief].

“**Fire & Smoke Design Basis Report**” has the meaning given in Article 11.3.10 [Enclosed Station Emergency Ventilation] of Part 2.

“**Fire & Smoke Performance Analysis Report**” has the meaning given in Article 11.3.10 [Enclosed Station Emergency Ventilation] of Part 2.

“**Firefighters’ Command Post**” means the principal attended or un-attended location where the status of the detection, alarm communications, and control systems is displayed and from which these system(s) can be manually controlled.

“**First Article Inspection**” has the meaning given in Section 13.2 [First Article Inspection] of Appendix G.

“**FMEA**” means failure mode effects analysis.

“**FMECA**” means failure modes, effects and criticality analysis.

“**FOCS**” means fibre optic communications system.

“**Form of Independent Certifier Contract**” means the form contained in Appendix D [Form of Independent Certifier Contract].

“**FRE**” means fiberglass-reinforced epoxy.

“**FTA**” has the same meaning as “Fault Tree Analysis”.

“**Geotechnical Design Reports**” means the geotechnical design reports to be prepared and submitted by the Primary Contractor in accordance with Article 6.9.3 [Geotechnical Design Report(s)] of Part 2.

“**Geotechnical Investigation Report(s)**” has the meaning given in Article 6.9.2 [Geotechnical Investigation Report(s)] of Part 2.

“**Geotechnical Manager**” has the meaning given in Article 6.2.1 [Qualifications] of Part 2.

“**GIES**” means guideway intrusion emergency stop.

“**GIMS**” means guideway intrusion monitoring system.

“**Ground Improvement Plan**” has the meaning given in Article 6.8 [Ground Improvement] of Part 2.

“**GTO**” means gate turn-off.

“**GUI**” means graphical user interface.

“**Hazard Log**” means the hazard log to be prepared and submitted by the Primary Contractor in accordance with Section 8.2.1 [Preliminary Hazard Analysis] of Appendix G.

“**Headway**” means the amount of time which lapses between the passage of the leading bogey of one Train and the leading bogey of the next Train at any point where measured, as applicable, on the Existing SkyTrain System or the Integrated SkyTrain System.

“**HVAC**” means heating ventilation and air conditioning.

“**Hz**” means hertz.

“**IANS**” means integrated alarm notification system.

“**Immediate Use Performance Level**” means the Seismic Performance Level at which a Structure that has been damaged by an earthquake event is required to be available for immediate passenger service, subject only to the verification of the following permitted damage:

- (a) minor damage within a Permitted ERS as specified in Article 5.7.3.3.2 [Immediate Use Performance Level] of Part 2; and
- (b) where applicable, minimal damage as a result of expansion joint closure as specified in Article 5.7.3.4.6(a)(i) [Expansion Joints] of Part 2.

“**Impact Mitigation Plan**” has the meaning given in Article 4.3.1 [Impact Mitigation Plan] of Part 1.

“**Incident**” means any event, either natural or man-made, which occurs on, over or across the road infrastructure of the Relevant Authority, and results in the occurrence or potential occurrence of a Closure.

“**Incident Management Plan**” means the Sub-Plan to the Traffic Management Plan prepared by the Primary Contractor in accordance with Article 1.3.3 [Incident Management Plan] of Part 4.

“**Initial Durability Report**” means the durability report prepared by the Primary Contractor, included as a Proposal Extract at Part 2 [Initial Durability Report] of Schedule 25.

“**Instrumentation & Monitoring Plan**” has the meaning given in Article 6.10.7 [Instrumentation & Monitoring Plan] of Part 2.

“**Instrumentation & Monitoring Report(s)**” has the meaning given in Article 6.10.8 [Instrumentation & Monitoring Reporting] of Part 2.

“Instrumentation Specialist” has the meaning given in Article 6.10.9(b) [Quality Management of Instrumentation and Monitoring] of Part 2.

“Interface Management Plan” has the meaning given in Section 4.5 [Interface Management Plan] of Appendix G.

“Interim Design” means the interim design in respect of a Non-Systems Component of the Work produced by the Primary Contractor in accordance with Article 2.2.4.4 [Interim Design Review for Non-Systems Components] of Part 3.

“IRE” means the Institute of Radio Engineers.

“ITEL” means information telephone.

“kN” means kilonewton.

“kPa” means kilopascal.

“kV” means kilovolt.

“kVA” means kilovolt amperes.

“LAN” means local area network.

“LCD” means liquid crystal display.

“LED” means light emitting diode.

“Life-Safety/No-Collapse Performance Level” means the seismic performance level which requires the stability of the Structure, primarily to save the lives of the general public, and shall correspond to the following permitted damage:

- (a) damage to a Permitted ERS as specified in Article 5.7.3.3.4 [Life-Safety/No-Collapse Performance Level]; and
- (b) where applicable, damage to an expansion joint as specified in Article 5.7.3.4.6 (a)(iii) [Expansion Joints] of Part 2,

which damage shall be verified by calculations to avoid collapse with no loss of span and to achieve the life safety goal.

“Like-for-Like” means, in relation to any infrastructure (including Utilities and roads) which is being relocated, replaced or repaired as part of the Work, including as a result of being damaged during the course of the Work, a standard for the relocation, replacement or repair pursuant to which the functionality, capacity, and service of such infrastructure is equivalent to that which existed prior to the relocation, replacement or repair, provided that design details, materials and construction specifications for the relocated, replaced or repaired infrastructure shall be consistent with the current standards of the entity which owns the subject infrastructure.

“**Line**” means a sequence of Train routings to one or more stopping points that ends at the original point of departure and includes intermediate destinations (station dwell points), direction of travel and the route to be followed for each stopping point along the Line.

“**LLRU**” means lowest level replaceable unit.

“**LOS**” means level of service.

“**LRU**” means line replaceable unit.

“**lux**” means the SI unit of illuminance; one lux is one lumen per square meter (lm/m²).

“**Manual Delivery Plan**” has the meaning given in Article 3.3.1(a) [Manual Delivery Plan] of Part 3.

“**Master Traffic Control Plan**” means the Sub-Plan to the Traffic Management Plan prepared by the Primary Contractor in accordance with Article 1.3.1 [Master Traffic Control Plan] of Part 4.

“**Million Train Kilometres**” means, in respect of the Trains for the period for which it is calculated, the number obtained by dividing the cumulative total number of kilometres travelled by those Trains in passenger service during that period, by one million, which information will be derived from data compiled by the System Management Centre (SMC).

“**Minimum Considerations for Construction Specifications**” means the specifications included in Appendix C [Minimum Considerations for Construction Specifications].

“**Minimum Traffic Lane Requirements**” means the requirements for Minimum Traffic Lanes as prescribed in Attachment B [Minimum Traffic Lane Requirements] to Article 2 of Part 4.

“**Minimum Traffic Lanes**” means those Traffic lanes that the Primary Contractor shall, at a minimum, maintain as operational during construction activities as prescribed in Attachment B [Minimum Traffic Lane Requirements] to Article 2 of Part 4.

“**Minimum Traffic Performance Criteria**” means the minimum Traffic performance requirements applicable to the Traffic Management Plan as determined through Traffic modelling and analysis as prescribed in the Traffic Operations Requirements and Part 4 [Traffic Management].

“**Modified Base Case Traffic Models**” means Traffic micro-simulation models, developed using the PARAMICS (V6.7) software, and Traffic operational analysis models, developed using the SYNCHRO (V6) software, that reflect Traffic conditions during Spring 2010 and assumed to be representative of Traffic conditions during the weekday AM, midday and PM peak periods, as referenced in Part 4 [Traffic Management], on the date on which construction activities commence in respect of the Project.

“**MOW**” means maintenance of way.

“**MPa**” means megapascal.

“**MRL**” means machine-room less.

“**MSE**” means mechanically-stabilized earth.

“**MTBF**” means mean time between failures.

“**MTBSAF**” means mean time between service affecting failures.

“**MTTR**” means mean time to repair.

“**Municipal Road**” means a road or portion thereof:

- (a) within the City of Coquitlam or the City of Port Moody, as applicable, that lies within the jurisdiction of the relevant Municipality pursuant to the *Community Charter* and located within Municipal Lands within the Site; or
- (b) within the City of Burnaby, that has been resumed by the Province pursuant to section 35(8) of the *Community Charter* as set out in the documents provided as Disclosed Data and located within the Site,

and includes asphalt or concrete pavements, curbs and gutters, retaining walls, Pavement Markings, sidewalks, pedestrian and roadway lights, street lighting, manhole and valve covers, catch basins and catch basin leads, surface water inlets and traffic and pedestrian control signs and Traffic Signals, as they relate to a Municipal Road.

“**Murray Clarke Connector Drawings**” means the drawings titled “Murray Clarke Connector Drawings” included in Appendix A [Drawings].

“**MVA**” means megavolt ampere.

“**MVAR**” means megavolt ampere reactive.

“**MW**” means megawatt.

“**N**” means newtons.

“**NMS**” means network management system.

“**Non-Exclusive Road**” has the meaning given in Article 3.4(a)(ii) of Part 1.

“**Non-Systems Certification Procedure**” has the meaning given in Article 2.2.1 [General] of Part 3.

“**Non-Systems Review Meeting Minutes**” has the meaning given in Article 2.2.3.4(b) [Non-Systems Review Meetings and Minutes] of Part 3.

“**Non-Systems Review Meetings**” has the meaning given in Article 2.2.3.4(a) [Non-Systems Review Meetings and Minutes] of Part 3.

“**NVCC**” means neighbouring VCC.

“**NVR**” means network video recorder.

“**O & M Training**” has the meaning given in Article 3.5.1(a)(i) [Operations and Maintenance Training] of Part 3.

“**O & M Training Plan**” has the meaning given in Article 3.5.1(a) [Operations and Maintenance Training] of Part 3.

“**O&SHA**” has the same meaning as “Operational and Support Hazard Analysis”.

“**Occupancy Approval Certificate**” means an occupancy approval certificate issued by the AHJ in respect of a Fixed Facility in accordance with the Construction Approval Process.

“**On-Street Parking**” means on-street parking serving commercial, residential and institutional areas directly adjacent to the commercial, residential and institutional properties, respectively, as set out in the Traffic Management Block Marker Drawings included as part of Appendix I [Traffic Management Drawings].

“**Operational and Support Hazard Analysis**” has the meaning given in Section 8.2.2 [Operational and Support Hazard Analysis] of Appendix G.

“**OTN**” means optical transmission network.

“**Pa**” means pascal.

“**PA**” means public address.

“**PABX**” means private automatic branch exchange.

“**Pavement Markings**” means a retro-reflective mechanism such as paint used to delineate a profile, such as a road.

“**PC**” means personal computer.

“**PCU**” means power conversion unit.

“**PDF**” means portable document format.

“**Peak Hour**” means the hour within the respective Peak Period that has the highest assumed Traffic volumes.

“**Peak Period**” means a period shown in Table 5.2.4(a) [Weekday Peak Periods and Peak Hours] of Part 4.

“**Permanent Roadworks Drawings**” means the drawings titled “Permanent Roadworks Drawings” included in Appendix A [Drawings].

“**Permitted ERS**” means any of the following ERS, as applicable:

- (a) ductile reinforced concrete column plastic hinging or equivalent ductile steel component substructure system, subject to the strain limits associated with the performance requirements specified in Article 5.7.3.3 [Performance Requirements and Permitted ERSs] of Part 2;

- (b) isolation bearings, subject to testing validation of the design performance ranges, associated with the performance requirements specified in Article 5.7.3.3 [Performance Requirements and Permitted ERSs] of Part 2; or
- (c) seismic dampers, subject to testing validation of the design performance ranges, associated with the performance requirements specified in Article 5.7.3.3 [Performance Requirements and Permitted ERSs] of Part 2.

“**PHA**” means preliminary hazard analysis.

“**Phase 1 VSF**” has the meaning given in Article 10.20.3.1(a)(i) [Introduction] of Part 2.

“**Phase 2 VSF**” has the meaning given in Article 10.20.3.1(a)(ii) [Introduction] of Part 2.

“**PICO**” has the same meaning as “Post Installation Checkout Tests”.

“**PID**” means platform information display.

“**PIES**” means platform intrusion emergency stop.

“**PIS**” means passenger information system.

“**PLED**” means platform light emitting diode.

“**Post-Construction Condition Survey**” has the meaning given in Article 4.6.1 [Post-Construction Condition Surveys] of Part 1.

“**Post-Construction Condition Survey Report**” has the meaning given in Article 4.6.2 [Post-Construction Condition Survey Reports] of Part 1.

“**Post Installation Checkout Tests**” has the meaning given in Section 13.4 [Post Installation Checkout (PICO) Tests] of Appendix G.

“**Potentially Permitted ERS**” means an ERS other than a Permitted ERS and requires the acceptance of the Province’s Representative in accordance with the Consent Procedure. Upon acceptance of a Potentially Permitted ERS by the Province’s Representative pursuant to the Consent Procedure, a Potentially Permitted ERS shall be deemed to be a Permitted ERS for the purposes of Article 5 [Seismic] of Part 2, but only in respect of the specific Guideway structure and the accepted SDSM of such structure.

“**PPUDO**” means passenger pick up and drop off.

“**Pre-Construction Condition Survey**” has the meaning given in Article 4.4.1 [Pre-Construction Condition Surveys] of Part 1.

“**Pre-Construction Condition Survey Report**” has the meaning given in Article 4.4.2 [Pre-Construction Condition Survey Reports] of Part 1.

“**Preliminary Deficiency List**” has the meaning given in Article 4.1.2.2(a) [Deficiency List Prior to Substantial Completion] of Part 3.

“**Preliminary Hazard Analysis**” has the meaning given in Section 8.2.1 [Preliminary Hazard Analysis] of Appendix G.

“**Preliminary Station Design Drawings**” means the drawings titled “Preliminary Station Design Drawings” included in Appendix A [Drawings].

“**Project Control Survey**” has the meaning set out in Article 16.2(a) [Codes and Standards] of Part 2.

“**Provisioning Conference**” has the meaning given in Article 3.6.2(c) [Spare Parts Lists, Spare Parts Plan and Provisioning Conference] of Part 3.

“**PRP Facilitator**” has the meaning given in Article 5.2.2(f) of Part 2.

“**PSCU**” means portable switch control unit.

“**PTZ**” means pan-tilt-zoom.

“**PVC**” means polyvinyl chloride.

“**Radar Speed Display**” means an electronic device that measures the speed of an approaching vehicle using radar or similar technology, and displays the measured speed on an LED sign in accordance with Part 4 [Traffic Management].

“**RAM**” means reliability, availability and maintainability.

“**RAM Analysis Report**” has the meaning given in Section 5.3 [RAM Analysis Report] of Appendix G.

“**RCIU**” means remote control interface unit.

“**Repairable Performance Level**” means the seismic performance level which requires that the only permitted repairable damage to a Structure arising from an earthquake event is as follows:

- (a) damage as a result of inelastic response of a Permitted ERS shall be limited to the permitted range as specified in Article 5.7.3.3.3 [Repairable Performance Level] of Part 2;
- (b) where applicable, damage to expansion joints shall be limited to the damage set out in Article 5.7.3.4.6(a)(ii) [Expansion Joints] of Part 2;
- (c) the Structure shall be restorable to its pre-earthquake condition without replacement of primary structural members;
- (d) permanent offsets (residual displacements) for gravity load carrying members shall not exceed 0.5% or impede the required repairs;
- (e) any permanent offset of retaining walls and embankments in close proximity to the Guideway shall not impede any adjacent or dependent Existing Facilities from meeting their applicable performance criteria;

- (f) earthquake-induced foundation movements or other foundation effects shall be acceptable if such effects can be repaired to restore the Structure to full service;
- (g) the passenger service interruption for the inspection and immediate temporary repair of the Structure shall be limited to a period of no more than one month in total;
- (h) in respect of the Guideway, permanent repairs to the Guideway shall be limited to a repair period of no longer than three months; and
- (i) temporary repair components not part of the permanent repairs shall be removed upon completion of the permanent repairs without further disruption to passenger service of the Evergreen Line.

“Requirements Specifications” has the meaning given in Section 4.1.1(a) [Requirements Analysis Process] of Appendix G.

“Requirements Verification Categorization Report” has the meaning given in Section 4.1.1(b) [Requirements Analysis Process] of Appendix G.

“Requirements Verification Plan” has the meaning given in Section 4.1.1(c) [Requirements Analysis Process] of Appendix G.

“Requirements Verification Report” has the meaning given in Section 4.1.1(d) [Requirements Analysis Process] of Appendix G.

“Route” means a specific combination of switch points which defines the possible movement of a Train along the Guideway.

“RPVC” means rigid polyvinyl chloride.

“RR” means radio room.

“RTP” means rapid transit project.

“RTU” means remote terminal unit.

“s” means second.

“SAE” means the Society of Automotive Engineers.

“Safety Commissioning Test Plan” has the meaning given in Section 10.3 [Safety Commissioning Test Plan] of Appendix G.

“Safety Requirements Specifications” has the meaning given in Section 4.1.1(a) [Requirements Analysis Process] of Appendix G.

“Safety Requirements Verification Categorization Report” has the meaning given in Section 4.1.1(b) [Requirements Analysis Process] of Appendix G.

“Safety Requirements Verification Plan” has the meaning given in Section 4.1.1(c) [Requirements Analysis Process] of Appendix G.

“Safety Requirements Verification Report” has the meaning given in Section 4.1.1(d) [Requirements Analysis Process] of Appendix G.

“SAT” has the same meaning as “Site Acceptance Tests”.

“SCDR” has the same meaning as “Systems Concept Design Review”.

“SCFW Concurrent Work Contractor” means the contractor(s) retained by TransLink to carry out the Smart Card and Faregates Work.

“Scope Split Area” has the meaning given in Article 18.2.2(a) [Works Adjacent to Stations] of Part 2.

“Scope Split Drawings” means the drawings entitled “Scope Split Drawings” included in Appendix A [Drawings].

“Scope Split Matrix” means the scope split matrix that forms part of Attachment A [Split Scope Matrix and TransLink Resources] to Article 13 of Part 2.

“SCS” means switch control system.

“SCSR” means switch control system room.

“SCU” means switch control unit.

“Secondary Control Survey” has the meaning set out in Article 16.4(c) [Horizontal Control] of Part 2.

“SEEIP” means station entrance emergency information panel.

“Seismic Peer Review Panel” means the independent peer review panel to be appointed pursuant to Article 5.2.1 [Seismic Peer Review Panel] of Part 2.

“Seismic Performance Levels” means, as applicable, all or any one of the following performance levels:

- (a) the Immediate Use Performance Level;
- (b) the Repairable Performance Level; and
- (c) the Life-Safety/No-Collapse Performance Level.

“SESP” means station emergency stop processor.

“SFDR” has the same meaning as “Systems Final Design Review”.

“SIP” has the same meaning as “Subsurface Investigation Plan”.

“SIP Schedule” has the meaning given in Article 6.3.1(a)(iv) [Subsurface Investigation Plan - Content] of Part 2.

“Site Acceptance Tests” has the meaning given in Section 13.5 [Site Acceptance Tests] of Appendix G.

“**SIU**” means switch interface unit.

“**Smart Card and Faregates Collection System**” means the new electronic fare collection system for all of TransLink’s public transportation services and modes being designed, constructed, operated and maintained by TransLink and the SCFW Concurrent Work Contractor.

“**SMC**” means system management centre.

“**SMC Dwell**” means the time between the VCC reporting a Train arrival at a Station to the SMC, and the SMC sending a route request to the VCC to advance the Train’s target point.

“**Spare Parts Plan**” has the meaning given in Article 3.6.2(a) [Spare Parts, Spare Parts Plan and Provisioning Conference] of Part 3.

“**SPDR**” has the same meaning as “Systems Preliminary Design Review”.

“**SPFMA**” has the same meaning as “System Performance and Failure Management Analysis”.

“**SRFAE**” has the same meaning as “Systems Request for Amendment/Exemption”.

“**Station Emergency Egress Analysis Data**” means the data contained within Appendix K [Station Emergency Egress Analysis Data].

“**Station Ridership Data**” means the data contained within the document titled Appendix J [Station Ridership Data].

“**Subduction Earthquake Event**” means a subduction earthquake within the Cascadia Subduction Zone (as defined by the Geological Survey of Canada) and shall:

- (a) with respect to the Design of the structures, excluding Fixed Facilities, for that part of the Evergreen Line described in Article 5.4.1(b)(i) of Part 2, be subject to the Seismic Performance Level requirements as set out in Article 5.4.2(a)(iv) [Required Seismic Performance Levels] of Part 2; and
- (b) with respect to the Design of the structures, excluding Fixed Facilities, for that part of the Evergreen Line described in Article 5.4.1(b)(ii) of Part 2, be subject to the Seismic Performance Level requirements as set out in Article 5.4.2(b)(iii) [Required Seismic Performance Levels] of Part 2.

“**Subsurface Investigation Plan**” has the meaning given in Article 6.3.1(a) [Subsurface Investigation Plan – Content] of Part 2.

“**System Expandability Plan**” means the systems expandability plan to be prepared and submitted by the Primary Contractor in accordance with Article 13.12.1 [System Expandability Plan] of Part 2.

“**System Integration Tests**” means the systems testing to be carried out by the Primary Contractor in accordance with Sections 13.6.1 [System Integration Tests] and 15.1 [Systems Plan Submissions] both of Appendix G.

“System Performance and Failure Management Analysis” means the system performance and failure management analysis to be carried out by the Primary Contractor in accordance with Article 13.3.4 [System Performance and Failure Management Analysis] of Part 2 and Appendix G [Systems General Requirements].

“System Performance Demonstration” has the meaning given in Article 13.4 [System Performance Demonstration] of Part 2.

“Systems and Subsystems Test Plans” has the meaning given in Section 10.2 [Systems and Subsystem Test Plans] of Appendix G.

“Systems Assurance Plan” has the meaning given in Section 5.1 [Systems Assurance Plan] of Appendix G.

“Systems Concept Design Review” has the meaning given in Section 4.3.1 [Systems Concept Design Review (SCDR)] of Appendix G.

“Systems Cut-Over Plan” has the meaning given in Section 4.5.2 [Systems Cut-Over Plan] of Appendix G.

“Systems Engineer of Record” means the person who is registered as a Professional Engineer and will provide certification that the Integrated SkyTrain System is ready to carry passengers in accordance with the requirements of Section 14 [Systems Certification] of Appendix G.

“Systems Final Design Review” has the meaning given in Section 4.3.3 [Systems Final Design Review (SFDR)] of Appendix G.

“Systems General Requirements” means the requirements set out in Appendix G [Systems General Requirements].

“Systems Management Plan” has the meaning given in Section 4.2 [Systems Management Plan] of Appendix G.

“Systems Operations Manuals” has the meaning given in Article 3.3.3.2(a) [Systems Operations Manual Requirements] of Part 3.

“Systems Plan” has the meaning given in Section 2 [Systems Plan] of Appendix G.

“Systems Preliminary Design Review” has the meaning given in Section 4.3.2 [Systems Preliminary Design Review (SPDR)] of Appendix G.

“Systems Request for Amendment/Exemption” has the meaning given in Section 16 [Request for Amendment/Exemption for Systems Engineering General Requirements] of Appendix G.

“Systems Risk Management Plan” has the meaning given in Section 6.1 [Systems Risk Management Plan] of Appendix G.

“Systems Safety Program Plan” has the meaning given in Section 8.1 [Systems Safety Program Plan] of Appendix G.

“**Systems Software Design Management Plan**” has the meaning given in Section 4.7 [Systems Software Design Management Plan] of Appendix G.

“**Systems Verification Report**” has the meaning given in Section 4.1.1(d) [Requirements Verification Reports] of Appendix G [Systems General Requirements].

“**TAF**” has the same meaning as “Technical Appraisal Form”.

“**TDM**” means time division multiplexing.

“**Technical Appraisal Form**” means a technical appraisal form to be prepared and submitted by the Primary Contractor pursuant to Article 2.2.3 [Non-Systems Design Management Plan and Technical Appraisal Forms] of Part 3 and substantially in the format attached as Attachment B [Sample Contents for a Technical Appraisal Form] to Part 3.

“**TLBCC**” has the same meaning as “TransLink Building Code Criteria”.

“**TOR**” means top of rail.

“**Track Plan**” means the track plan included in Appendix B [Figures].

“**Traffic Barriers**” means physical barriers that are provided and erected by the Primary Contractor to protect workers, the public, the Construction Plant and materials from adjacent Traffic hazards, which barriers shall be from the Recognized Products List.

“**Traffic Control Persons**” means a person qualified to direct and control traffic in accordance with the requirements of the Traffic Control Plans.

“**Traffic Control Plans**” means the specific Sub-Plans to the Traffic Management Plan prepared by the Primary Contractor in accordance with Articles 1.3.1 [Master Traffic Control Plan] and 1.4 [Traffic Control Plans], both of Part 4.

“**Traffic Control Supervisor**” means a person designated as such by the Primary Contractor, who has the requisite experience and training, in accordance with the requirements of the Workers’ Compensation Board, to perform the functions and duties set out in Part 4 [Traffic Management], including Article 1.6.4 [Traffic Control Supervisors].

“**Traffic Data**” means reports, data and files containing Traffic information, including PARAMICS and SYNCHRO models, provided in the Data Room.

“**Traffic Modelling**” means the modelling of Traffic patterns and Traffic operations using specified software programs in accordance with the Traffic Operations Requirements and Part 4 [Traffic Management].

“**Traffic Operations Requirements**” means the document titled “Evergreen Line RTP Traffic Operations Modelling and Performance” provided in the Data Room.

“**Traffic Signals**” means traffic signals and pedestrian signals, as applicable.

“**Trans Canada Trail**” means that portion of the Trans Canada Trail, operated by The Trails Society of British Columbia, which passes through Port Moody.

“**TransLink Building Code Criteria**” means the TransLink Building Code Criteria for Fixed Guideway Rapid Transit Systems as set out in Appendix F [TransLink Building Code Criteria].

“**TransLink Resources**” means the resources identified in Table 1 of Attachment A [Scope Split Matrix and TransLink Resources] to Article 13 of Part 2.

“**TransLink Wayfinding Standards Manual**” means the document entitled TransLink Wayfinding Standards Manual, Version 2.0, 20 September 2010, which document forms part of Appendix H [Evergreen Line Wayfinding Documents].

“**Transit**” means, for the purposes of Part 4 [Traffic Management], the road-based public transportation system operated by the Transit Operators, comprising buses and community shuttles, and the Transit Operators’ service vehicles in respect of such buses and shuttles.

“**Transit Facilities Pre-Construction Condition Survey**” has the meaning given in Article 18.3.1 [Scope] of Part 2.

“**Transit Traffic**” means the movement of Transit vehicles within the Site.

“**Travel Time Demonstration**” has the meaning given in Article 13.4.1 [Travel Time Demonstration] of Part 2.

“**Trial Running Period**” has the meaning given in Section 13.6.2 [Trial Running] of Appendix G.

“**Trial Running Stage 1**” means the procedures described in Section 13.6.2.1 [Trial Running Stage 1] of Appendix G.

“**Trial Running Stage 2**” means the procedures described in Section 13.6.2.2 [Trial Running Stage 2] of Appendix G.

“**Trial Running Test Plan and Procedure**” means the Trial Running test plans and procedures to be carried out by the Primary Contractor in accordance with Section 13.6.2 [Trial Running] of Appendix G.

“**Trial Running Test Report**” has the meaning given in Section 13.6.2.3 [Trial Running Test Report] of Appendix G.

“**TRIMS**” means train radio information management system.

“**UIC**” means the Union International des Chemins de Fer.

“**ULC**” means the Underwriters Laboratories of Canada.

“**Updated Durability Report**” means the Initial Durability Report which has been amended from time to time in accordance with the Design and Construction Certification Procedures.

“**UPS**” means uninterruptible power supply.

“**Utility Information Sheets**” means the Disclosed Data compiled by the Province as contemplated in Article 8.11 [Utility Information Sheets] of Part 2.

“**UV**” means ultraviolet.

“**V**” means volt.

“**Validation, Inspection and Test Plan**” has the meaning given in Section 10.1 [Validation, Inspection and Test Plan] of Appendix G.

“**VCC**” means Vehicle control centre.

“**VCIF**” means Vehicle cleaning and inspection facility.

“**Vdc**” means volt direct current.

“**VESS**” means Vehicle emergency stop systems.

“**VOBC**” means Vehicle on-board controller.

“**Weekday**” means, for the purposes of Part 4 [Traffic Management], Monday to Friday, excluding Statutory Holidays in British Columbia.

“**Weekend**” means, for the purposes of Part 4 [Traffic Management], Saturdays, Sundays and Statutory Holidays in British Columbia.

“**XLPE**” means cross-linked polyethelene.

“**Zone of Influence**” has the meaning given in Article 4.2.1(c) [Construction Risk and Impact Assessment] of Part 1.

1.2 Interpretation and Application of Schedule 4

1.2.1 General

- (a) Without limiting the provisions of Part 2 [Interpretation] of Schedule 1 and save to the extent that the context of the express provisions of this Schedule 4 otherwise require, this Schedule 4 shall be interpreted according to the provisions set out in this Article 1.2 [Interpretation and Application of Schedule 4].
- (b) References in this Schedule 4 to a Section refer to the applicable Section in this Agreement (excluding Schedules) unless reference to a particular Schedule or Appendix to this Schedule is indicated.
- (c) Unless otherwise specified, references in this Schedule to Parts, Articles, Attachments to Articles, Sections of Attachments to Articles, Appendices and Sections of Appendices are references to Parts, Articles, Attachments to Articles, Sections of Attachments to Articles, Appendices and Sections of Appendices, as applicable, of or to this Schedule.

1.2.2 Application of Schedule 4 and Articles

- (a) Without limiting any other provision of this Agreement, including Section 2.1 [The Project] and Section 4.1 [Primary Constructor to Carry Out Work], this Schedule 4, including all of the terms, conditions, requirements, criteria and specifications set out or referenced in this Schedule 4, comprises the minimum obligations of the Primary Contractor in respect of the matters set out in this Schedule 4, including in respect of the Design and Construction of the Project Infrastructure to the extent required to be constructed, installed, altered, upgraded or augmented by the carrying out of the Work and the provision, performance and carrying out of the Work.
- (b) The Primary Contractor shall comply with the terms and conditions and apply the requirements, criteria and specifications set out or referenced in each of the Articles, Attachments to Articles and Appendices to this Schedule 4 and shall ensure that the Work, including the Design and Construction of the Project Infrastructure to the extent required to be constructed, installed, altered, upgraded or augmented by the carrying out of the Work, complies with and is undertaken in accordance with the requirements, criteria and specifications set out or referenced in this Schedule 4.
- (c) In complying with the terms and conditions, and applying the requirements, criteria, and specifications set out or referenced in each Article, Attachment to an Article and Appendix to this Schedule 4, the Primary Contractor shall have due regard to the terms, conditions, requirements, criteria and specifications set out or referenced in each of the other Articles, Attachments to Articles and Appendices to this Schedule 4 and to the other provisions of this Agreement.
- (d) Nothing in any one Article, Attachment to an Article or Appendix of this Schedule 4 shall relieve the Primary Contractor from its obligations to comply with the terms and conditions and apply the requirements, criteria and specifications set out or referenced in each of the other Articles, Attachments to Articles and Appendices of this Schedule 4.