



South Coast British Columbia Transportation Authority

REQUEST FOR PROPOSALS

Reference Number: Q13-003
Contract Number: 0620-10
Title: Detailed Design for Richmond Brighthouse Bus Mall
Issue Date: January 29, 2013
Closing Time: 2:00:00 p.m., Pacific time, **February 19, 2013**, subject to section 5.2.

Pre-Proposal Meeting:

TransLink will conduct a pre-proposal information meeting as follows:
Proponents should meet at **RICHMOND BRIGHOUSE STATION ENTRANCE**
DATE: TUESDAY, FEBURARY 5, 2013
TIME: 10 A.M.

Submission Instructions:

- Four (4) complete sets of each proposal should be submitted as follows:
- The complete sets should be contained in one sealed envelope or other suitable package.
 - Proposals must be delivered to the following address (the “**Closing Place**”):
RFP Reference No. Q13-003
TransLink Procurement Department
1600 - 4720 Kingsway (Metrotower II)
Burnaby, BC V5H 4N2
 - Proposals and their envelopes should be clearly marked with:
 1. name and address of the Proponent, and
 2. reference number indicated above.

Proposals received by facsimile (fax) or e-mail will not be accepted.

Acceptance Period:

From the Closing Time to 45 days from the Closing Time.

Inquiries:

All inquiries should be submitted **in writing** to the attention of the Procurement Department by fax at: (604) 453-4630 or e-mail at: procurement@translink.ca no later than three (3) business days prior to the Closing Time, quoting the above reference number.

No telephone queries, please.

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PART A - GENERAL

1.0 BACKGROUND

1.1 South Coast British Columbia Transportation Authority (“TransLink”) is responsible for planning, financing and operating the transportation system throughout Metro Vancouver pursuant to the *South Coast British Columbia Transportation Authority Act*. Additional information about TransLink is available at www.translink.ca.

2.0 PURPOSE AND SCOPE OF RFP

2.1 Through this Request for Proposals (“RFP”), TransLink is seeking proposals for the supply of the goods, works and/or services identified in Appendix 1. Appendix 1, with such modifications as may be agreed between TransLink and the successful Proponent, will be incorporated into any contract between TransLink and the successful Proponent.

2.2 For the purpose of this RFP, references to a Proponent are deemed to include potential Proponents.

3.0 REFERENCE DOCUMENTS

3.1 Reference documents applicable to this RFP, if any, are listed in the Index and, as identified in the Index, will be:

- (a) posted on TransLink’s web-site (www.translink.ca) as a supplemental document to this RFP;
- (b) provided directly to Proponents by TransLink; or
- (c) made available to Proponents upon execution of a confidentiality agreement.

3.2 Reference documents are provided for information purposes only. Statistical and other information contained therein may not be exact and may include application of undisclosed assumptions and extrapolations and should not be relied upon by the Proponent to any greater extent than is appropriate having regard to the independent analysis, investigations and judgments performed by the Proponent. TransLink does not make any warranties regarding any information contained in the reference documents and shall not be liable for any of the information contained therein.

4.0 PRE-PROPOSAL INFORMATION MEETING

4.1 Where TransLink has identified on the cover page of this RFP it does not intend to hold a pre-proposal information meeting, any Proponent may request such a meeting by delivering a written request to the Procurement Department by fax or e-mail (using the fax number and e-mail address shown on the cover page of this RFP for inquiries). Despite any such request, TransLink shall be under no obligation to conduct such a meeting.

4.2 If TransLink conducts a pre-proposal information meeting, following the meeting, TransLink will, if it deems necessary, issue an addendum identifying any changes to this RFP.

PART B - PROPOSAL SUBMISSION

5.0 SUBMISSION INSTRUCTIONS

5.1 Proponents shall comply with the submission instructions on the cover page of this RFP.

5.2 Proposals must be delivered to the Closing Place by no later than the date and time shown on the cover page of this RFP, or such other time as TransLink may specify by an addendum to this RFP (which time is called the “**Closing Time**”). **Late proposals will not be accepted.**

5.3 Proposals may be withdrawn or amended at any time before the Closing Time by written notice signed by the Proponent and delivered to the Closing Place.

6.0 INQUIRIES

6.1 All inquiries and communications relative to this RFP should be submitted in accordance with the instructions on the cover page of this RFP. TransLink will, if it deems necessary, issue an addendum identifying any changes to the RFP arising from inquiries received.

7.0 ADDENDA

7.1 TransLink may at any time, and from time to time, issue written addenda for clarification or to alter or supplement this RFP.

7.2 TransLink will not be bound by any explanation, clarification or interpretation, whether given orally or in writing, by whomsoever made, that is not incorporated into an addendum to the RFP documents.

7.3 Subject to section 7.4, any addenda issued will be posted to the TransLink web-site at: www.translink.ca. It is a Proponent’s responsibility to check the TransLink web-site for any addenda issued before the Closing Time. TransLink assumes no responsibility for notifying Proponents of the existence of addenda.

7.4 Where TransLink has delivered this RFP directly to potential Proponents and not posted it on its web-site, TransLink will provide any addenda issued directly to such Proponents.

7.5 By submitting a Proposal, the Proponent acknowledges receipt of all addenda issued by TransLink.

8.0 REQUIREMENTS

8.1 All requirements utilizing the words “**shall**” or “**must**” are mandatory and proposals must substantially comply or fulfill such requirements. Unless otherwise provided in this RFP, Proposals not clearly demonstrating they substantially comply with or fulfill the mandatory requirements may not be considered.

8.2 All requirements utilizing the word “**should**” are desired and the Proponent’s response to such requirements will be considered in analyzing proposals.

8.3 All statements using the words “**may**” or “**might**” are in TransLink’s discretion.

PART C – CONTENTS OF PROPOSAL

9.0 FORM AND CONTENTS OF PROPOSAL

- 9.1 Proposals should be submitted in English. Any portions of a proposal not in English might not be considered.
- 9.2 Proposals should not include web links or hyperlinks. Web links and hyperlinks might not be reviewed or considered.
- 9.3 TransLink does not require any specific form of proposal, however, Proponents should use the Submission Guidelines set out in Appendix 2 for reference. Regardless of the form of proposal submitted, proposals should include the information requested in the Submission Guidelines.

10.0 ACCEPTANCE OF TERMS

- 10.1 The terms and conditions of this RFP (including all addenda issued) and the contract terms and conditions set out in Appendix 3, are deemed to be accepted by the Proponent and incorporated into its proposal, except to the extent expressly excluded, supplemented or replaced in the proposal in accordance with the requirements of section 10.2.
- 10.2 Where a proposal includes alternatives or modifications to the terms and conditions of this RFP, including the scope/specifications and the contract terms and conditions, the Proponent should clearly and separately identify:
- the suggested alternative or modification, providing detailed description;
 - the reason for its inclusion in the Proposal, including the advantages, benefits and risks associated with each alternative and modification;
 - the schedule impact ascribed to each suggested alternative or modification, provided that if the Proponent fails to ascribe a schedule impact, it shall be deemed to have no impact;
 - the financial impact (the dollar value of the increase or decrease in the contract price) ascribed to each suggested alternative or modification, provided that if the Proponent fails to ascribe a value to a particular alternative or modification, it shall be deemed to have a \$0 value.
- 10.3 TransLink may accept any proposal submitted, with or without regard to any alternatives or modifications submitted by the Proponent.

11.0 CURRENCY

- 11.1 All monetary amounts (including Proponent financial information and pricing) should be expressed in Canadian dollars. If not expressed in Canadian dollars, the proposal should clearly state the currency. In assessing a Proposal not expressed in Canadian currency, TransLink will apply the currency conversion rate obtained online at www.xe.com as at the Closing Time (or a reasonable time thereafter) and such converted rate shall be deemed to be the proposal price.

12.0 FEES AND EXPENSES

- 12.1 The Proponent should provide rates, prices and proposed expenses as identified and in the format shown in the Submission Guidelines.

13.0 PRICE DISCREPANCY

- 13.1 Where applicable, in the event of a discrepancy in a proposal between the individual prices and the total amount, the individual prices will govern.

14.0 PROPONENT'S OVERALL RESPONSIBILITY

- 14.1 Where a Proponent intends to use other parties to supply any portion of the goods, works and/or services, the Proponent should include a list of all such parties in its proposal and identify the goods, works and/or services to be supplied by such party and their approximate value. Where final selection of such other parties has not been made, the list should identify all potential parties from which the selection will be made.
- 14.2 Use of other parties constitutes the Proponent's assurance as to their competency and acceptance of full responsibility for their goods, works and/or services under any resulting contract between TransLink and the Proponent.

15.0 JOINT SUBMISSIONS

- 15.1 In the case of joint submissions, one party must assume overall responsibility for communications within the RFP process and be identified accordingly in the proposal, but all parties must be jointly and severally responsible for completion of any resulting contract.

16.0 NO COLLUSION

- 16.1 Each proposal shall be independently prepared and submitted without connection, knowledge, consultation or comparison of figures or agreement with any other Proponent.
- 16.2 The Proponent shall ensure no individual named in its management team is an officer or director of another Proponent.

PART D – EVALUATION AND SELECTION

17.0 AGREEMENT BETWEEN TRANSLINK AND THE PROPONENT

- 17.1 The Proponent agrees TransLink's sole obligation is to give consideration to the proposal in accordance with the RFP. In return, the Proponent has prepared and submitted its proposal and agrees:
- to negotiate with the intention to enter into a contract with TransLink during the Acceptance Period (or such longer period as is agreed between the parties); and
 - that the proposal is irrevocable, valid and shall remain open for acceptance during the Acceptance Period (or such longer period as is agreed between the parties).

18.0 EVALUATION PROCESS

- 18.1 Proposals will be opened privately.

- 18.2 If proposals are required to be submitted using a single envelope system (as identified on the cover page of this RFP), the evaluation committee will not be required to keep any parts of the proposal separate or undisclosed while carrying out the evaluation.
- 18.3 If proposals are required to be submitted using a multi-envelope system (as identified on the cover page of this RFP), proposals will initially be evaluated on the envelope containing the non-financial part of the proposal. Proposals meeting TransLink's minimum requirements will be short-listed to receive further consideration. Short-listed proposals will then be evaluated on their entire proposal. The results from both evaluation stages will be aggregated for each Proponent.

19.0 ACCEPTANCE OR REJECTION OF PROPOSALS

- 19.1 TransLink reserves the right, in its discretion, to:
- (a) accept or reject any or all proposals,
 - (b) accept or reject any part of any proposal,
 - (c) accept a proposal which is not the lowest cost proposal;
 - (d) accept a proposal that deviates from the requirements, scope/specifications or conditions specified in this RFP;
 - (e) reject a proposal even if it is the only proposal received in response to this RFP;
 - (f) split the scope/specifications between one or more Proponents.
- 19.2 TransLink further reserves the right, in its discretion, to reject all or part of any proposal which:
- (a) is incomplete, obscure, irregular or unrealistic;
 - (b) contains unauthorized erasures or corrections;
 - (c) contains terms, conditions or provisions unacceptable to TransLink;
 - (d) is a conditional or qualified offer which is unacceptable to TransLink;
 - (e) fails to comply with, or omits, any required or mandatory information; or
 - (f) is materially non-compliant with the requirements of this RFP.

20.0 EVALUATION AND SELECTION

- 20.1 TransLink will have discretion in considering and evaluating proposals, judging the acceptability of proposals, and awarding or not awarding any contract(s) contemplated by this RFP. TransLink is not obliged to provide reasons to any Proponent with respect to any use of TransLink's discretion.
- 20.2 TransLink reserves the discretion to accept the proposal, or negotiate with one or more Proponents, with respect to the proposal TransLink deems, in its discretion, to be most advantageous. TransLink may take into account the criteria set out in Appendix 4 to this RFP.
- 20.3 Proponents will be considered on the basis of the information presented in their proposal and on the basis of any information obtained by TransLink as a result of any subsequent clarifications, interviews, discussions, negotiations or reference checks, including past dealings with TransLink.

- 20.4 The evaluation process may evaluate and rank proposals applying a variety of methodologies, including a "pass/fail" basis, minimum threshold requirements and/or weightings, pursuant to which proposals deemed, in TransLink's discretion, to have failed criteria or not satisfying the minimum threshold will not receive further consideration. TransLink is under no obligation to identify weightings, the criteria that are "pass/fail" or minimum thresholds.

21.0 SHORTLIST

- 21.1 TransLink may, in its discretion, establish one or more shortlists of Proponents for further consideration.

22.0 CLARIFICATIONS AND INTERVIEWS

- 22.1 Whether or not TransLink elects to establish a shortlist, TransLink may, in its discretion:
- (a) conduct interviews, discussions and/or negotiations with one or more of the Proponents, either serially or concurrently;
 - (b) not conduct interviews, discussions and/or negotiations with one or more of the Proponents;
 - (c) terminate interviews or discussions with one or more Proponents, for any reason;
 - (d) seek further information or clarifications from one or more Proponents, and may give any Proponent an opportunity to correct its proposal or to cure, regardless of severity, any non-conformity, non-compliance, irregularity or error;
 - (e) not seek further information or clarifications from one or more Proponents;
 - (f) not disclose to any Proponent what information or clarifications were sought from any other Proponent;
 - (g) seek different information or clarifications from different Proponents.
- 22.2 TransLink shall not be under any obligation to interview, enter into discussions or negotiations with, or solicit or receive further information or clarifications from, any Proponent.

23.0 RIGHT TO VERIFY AND INVESTIGATE

- 23.1 TransLink reserves the right, in its discretion, to verify any or all of the information regarding a Proponent, whether contained in its proposal or not, and to conduct any background investigations TransLink considers necessary in the course of this RFP. By submitting a proposal, each Proponent authorizes TransLink to conduct such searches, enquiries and investigations.
- 23.2 TransLink may consider any information obtained in connection with any searches, enquiries or investigations in evaluating proposals, establishing one or more shortlists, or awarding a contract.

24.0 NEGOTIATION

- 24.1 TransLink reserves the right, in its discretion, to engage in discussions and negotiations with one or more Proponents, and to conduct such discussions or negotiations serially or concurrently in respect of any of the terms and conditions of the RFP, including but not limited to the purpose of:
- (a) exploring ways to alter, refine or improve the opportunity or the ultimate arrangement or contract;
 - (b) attempting to better compare proposals;
 - (c) achieving optimal overall results as judged and perceived by TransLink; and
 - (d) negotiating and finalizing contract(s) based on such discussions and negotiations.
- 24.2 TransLink will not be obligated to offer any modified terms and conditions offered to, or discussed with, one Proponent to any other Proponent.
- 24.3 TransLink is entitled to utilize the information or clarifications received or the modified terms and conditions resulting from any discussions or negotiations in selecting the successful Proponent and in awarding any contract resulting from this RFP.
- 24.4 The Proponent agrees that if TransLink chooses to negotiate:

- (a) the original proposal remains open for acceptance and its irrevocability is not affected by such negotiations.

- 24.5 TransLink may, in its discretion, terminate the negotiations at any time.

25.0 FINANCIAL STABILITY

- 25.1 Before the award of any contract, the Proponent may be required to furnish evidence satisfactory to TransLink, in its discretion, of the necessary facilities, ability and financial resources to fulfill the conditions of the contract.

26.0 CONTRACT

- 26.1 By submitting a proposal, the Proponent agrees that, should its proposal be successful, the Proponent will enter into a contract with TransLink substantially in the form set out in Appendix 3. Upon consideration of any alternates or modifications identified in the Proposal as described in section 10.2 of this RFP and the balance of the proposal and upon successful completion of negotiations, if any, (including with respect to pricing based on revised interpretation and definition of the scope of work/specifications) TransLink will provide the contract to the successful Proponent for execution. Within fourteen (14) days of receipt of the contract for execution and prior to the contract coming into force, the successful Proponent must deliver to TransLink:
- (a) all copies of the contract fully executed by the successful Proponent;
 - (b) any insurance and any security required by the contract; and
 - (c) a valid and current WorkSafe BC registration number and clearance letter, if required by the contract;
- failing which, TransLink may, in its discretion:

- (d) terminate negotiations with the Proponent and hold such Proponent liable for any damages suffered by TransLink; and
- (e) commence negotiations with another Proponent.

27.0 WAIVER OF CLAIMS

- 27.1 The Proponent hereby waives any claim for damages or costs of any nature against TransLink (including, without limitation, the cost of preparing and submitting the proposal, and any anticipated profits and contributions to overhead) arising out of TransLink's use of its discretion under the RFP. Under no circumstances shall the liability of TransLink, its directors, officers, employees, agents or consultants under or in connection with the RFP or the procurement process to which it pertains or whatever nature howsoever arising, exceed the reasonable actual, direct costs incurred by the Proponent in preparation of its proposal to a maximum of \$10,000.

PART E – ADDITIONAL TERMS AND CONDITIONS

28.0 LIABILITY FOR ERRORS

- 28.0 The Proponent acknowledges it is submitting its proposal at its own risk and the Proponent is required to exercise due diligence and undertake whatever investigations and analysis it deems necessary before submitting its proposal.

CANCELLATION AND OTHER RIGHTS

- 29.1 TransLink reserves the right to, and may, in its discretion:
- (a) issue addenda;
 - (b) cancel this RFP at any time, before or after the Closing Time; or
 - (c) re-advertise for proposals.
- 29.2 TransLink may, in its discretion, elicit offers from other parties (whether or not such parties have responded to this RFP) or engage in another procurement process, including re-issuing a substantially similar RFP or negotiating with any party if:
- (a) only one proposal is received;
 - (b) a suitable Proponent has not been selected; or
 - (c) a contract has not been agreed to by the Acceptance Period.
- 29.3 TransLink reserves the right at any time to enter into a contract for the goods, works and/or services with persons who have not responded to this RFP.
- ### **30.0 OWNERSHIP OF PROPOSALS**
- 30.1 All proposals become the property of TransLink. All writings, programs, plans, drawing and specifications prepared by or on behalf of a Proponent (other than those identified in the proposal as being subject to registered patent or registered trademark protection) may be used by TransLink for any purpose related to the project.
- ### **31.0 PROPONENT'S EXPENSES**
- 31.1 Proponents are solely responsible for their own costs and expenses in connection with this RFP, including preparing and submitting a proposal and any subsequent interviews, discussions and negotiations with TransLink.

32.0 DEBRIEFING

- 32.1 At the conclusion of the RFP process, the Proponent may request a debriefing but TransLink is under no obligation to provide such. If TransLink agrees to provide a debriefing:
- (a) TransLink may, in its discretion, require such debriefing to occur on certain terms and conditions specified by TransLink;
 - (b) any information provided by TransLink during the debriefing is provided on a “without prejudice” basis, cannot be relied on by the Proponent for any purpose, and may not represent TransLink’s official position with respect to any matter.

33.0 LOBBYING AND INDIRECT COMMUNICATION

- 33.1 Proponents shall not attempt to communicate directly or indirectly with any employee, contractor, officer, director or representative of TransLink or its subsidiaries, including the evaluation committee, about this RFP other than as expressly permitted in this RFP, and shall not discuss this RFP or the RFP process at any TransLink Board of Directors’ meeting or with the media at any time prior to TransLink awarding a contract. Any such lobbying or communication will constitute sufficient grounds for disqualification.
- 33.2 Without limiting the generality of the foregoing, Proponents are advised TransLink’s conflict of interest policies impose restrictions on employees, officers and directors with respect to accepting gifts or receiving any personal benefit other than what they are entitled to as employees, officers or directors.

34.0 GOVERNING LAW

- 34.1 This RFP will be governed by and construed in accordance with the laws of the Province of British Columbia and within the jurisdiction of the courts of the Province of British Columbia.

35.0 CONFIDENTIALITY

- 35.1 The contents of this RFP and any information pertaining to TransLink, its customers, or individuals, which is obtained by the Proponent as a result of participation in this RFP is confidential and must not be disclosed without the prior written authorization of TransLink.

36.0 FREEDOM OF INFORMATION / PROTECTION OF PRIVACY

- 36.1 All proposal information supplied to TransLink by Proponents is understood to be supplied explicitly in confidence. However, Proponents should be aware the BC *Freedom of Information and Protection of Privacy Act* applies to all proposal submissions and other records, and TransLink will comply fully with all provisions of that Act.

37.0 NATURE OF RELATIONSHIP

- 37.1 The successful Proponent will be an independent contractor, not a worker, employee, partner or agent of TransLink. No such relationship or joint venture will be created upon execution of a contract with the successful Proponent or by virtue of any portion of the contract having been performed by the successful Proponent.

APPENDIX 1
SCOPE OF WORK/SPECIFICATIONS
(Detailed Design and Engineering Services)

Through this RFP, TransLink seeks proposals from potential contractors to provide detailed design and construction engineering services for the proposed Brighthouse Bus Mall as more particularly described below.

1.0 BACKGROUND

- 1.1 Richmond - Brighthouse is a terminus station of Canada Line and a bus exchange is a key transfer location for the bus passengers. The design, materials and amenities are critical from a functional, accessible, high quality, and aesthetically pleasing stand point. The Bus Exchange at Richmond Brighthouse is currently located adjacent to the station. This on street exchange serves both routes that terminate at the station and route which flow through. The existing bus exchange needs to be relocated into a Bus Mall proposed to be located on a street perpendicular to No. 3 Road. The new Bus Mall will be partly located on the site of the existing Scotia Bank building and the construction of this new facility will commence after demolition of the existing bank building.
- 1.2 Fairborne Homes Limited is the Developer of the condo tower (Mandarin Residences) which is coming up adjacent and on the east of the Richmond - Brighthouse Station. This will include space for a new Scotia bank. This bank space will be adjacent to the new bus mall. The Developer has agreed to construct the bus mall related area located adjacent to the bank area. The purpose of commencing the bus mall design at the current stage is to ensure that the information on bus mall design elements could be provided to the Developer in time for these to be incorporated in the overall Fairborne Development's design.
- 1.3 There is a lot located on the east end of the proposed bus mall on which the construction will be ongoing for a few years and hence, an interim bus mall will have to be constructed before the final bus mall is in place. The bus mall layouts for Phase 1 (Interim) and Phase 2 (Final) are attached. The design will have to be prepared for interim and final bus mall that will consist of passenger unloading bays at the south sidewalk, idle bus zone and passenger loading bays at the north sidewalk. The new bus mall will be designed to accommodate 10 bus routes with both regular and articulated buses. A total of six (6) bays will be provided for loading and unloading along with the layover space for seven (7) buses.

2.0 GENERAL

- 2.1 The Scope of Work is generally described as providing multi-disciplined detailed design services, contract document preparation and site review services to enable timely and efficient project delivery. In addition to the work and services detailed below, the Proponent should rely on its own expertise and review of the site to prepare detailed designs and perform the services and should not rely solely on the information provided by TransLink as may be contained in the RFP or otherwise.
- 2.2 It is intended that construction, installation and other work required for this project will be procured through a tender or other competitive process undertaken by TransLink.
- 2.3 The successful Proponent's (the "Contractor") services shall be performed in discussion with TransLink, including its subsidiaries.

3.0 SCOPE OF WORK - DETAILED DESIGN SERVICES

3.1 The Contractor shall be responsible for advancing the design for the Richmond Brighthouse Bus Mall from the conceptual design developed by TransLink Planning and Real Estate in 2011 to Issued for Tender/Construction Drawings and Specifications.

3.2 The Contractor's work shall consist of, but not be limited to, the following:

(a) Site Layout

1. Provide Survey layout of preliminary geometric design at an offsite CMBC transit depot location for field testing and approval by CMBC. Detailed design to be based on CMBC-approved layout;
2. Review the extent and placement of concrete bus pads to optimize functional, maintenance and life cycle cost considerations;
3. Finalize site grading design;
4. Any additional geotechnical work that may be required to prepare detailed pavement design and specifications; and
5. Coordinate with the City of Richmond for intersection configuration on No. 3 Road to include median curb, cross walk, traffic signal and such related items.

(b) Landscape Architecture and Building Design

1. The Contractor's team shall include a Landscape Architect registered with the BC Society of Landscape Architects to design the following:
 - a. Bus shelters/Canopy and weather protection system at the North side for loading bays adjacent to bank building;
 - b. Benches, garbage cans and other furniture;
 - c. Concrete bus pads at loading and layover areas with asphaltic pavement structure in the adjacent driveway;
 - d. Sidewalk for unloading bays at the South side;
 - e. Concrete platform surface treatment;
 - f. Placement of standard bike lockers;
 - g. Tactile pads accessibility features and passengers guidance; and
 - h. Railing and fencing.

(c) Fairborne Homes Limited will provide the following items under their development project scope:

1. A washroom facility and a crew room within the building development; and
2. Landscaping and lighting on the North sidewalk.

(d) The design and details of each of these items shall be coordinated with the City of Richmond, TransLink and CMBC. A conceptual design developed by TransLink Planning & Real Estate in 2011 will provide the basis for the detail design.

(e) The form, finish and materials used for bus loop shall complement the Canada Line Station architecture and adjacent development.

- (f) To minimize ongoing maintenance requirements, it is anticipated that there will be limited or no “Soft” landscaping / planted areas within the bus loop.
- (g) The bus shelter design shall maximize the weather protection for queuing passengers while minimizing the ground support foot print.

3.3 Utilities

- (a) The detailed design of the on-site storm sewer system and catch basins;
- (b) Coordinate with BC Hydro and Telus for servicing requirements of Bus Loop;
- (c) Coordinate with the City of Richmond for approval of site servicing connections
- (d) Electrical design to include:
 - 1. Lighting within bus loop including supplementary lighting incorporated into the passenger weather protection systems;
 - 2. Pre-ducting for power and communications for security cameras and emergency assistance call stations;
 - 3. Pre-ducting for real time passenger information displays;
 - 4. Ducting and power service to proposed pay phone locations; and
 - 5. Relocation of existing Transformer kiosk including cables.

3.4 Permits

- (a) The permitting requirements include obtaining Development permit and Building permit from the City of Richmond. All work associated for obtaining these permits shall be coordinated by the Contractor.

3.5 The Contractor, as part of design service shall perform the following:

- (a) define any other requirements necessary to provide all services, support and functionality to the Works;
- (b) prepare Class "A" construction cost estimates and quantify pay items for tendering;
- (c) define construction requirements, including access, work periods (after hours, if necessary) and security;
- (d) define operations, maintenance and warranty requirements; and
- (e) prepare drawing and specifications suitable for tendering.

4.0 DETAILED DESIGN AND TENDER DOCUMENT PREPARATION

4.1 The Contractor shall:

- (a) prepare a detailed set of design and contract drawings and specifications for the Work for tendering and construction purposes (including as may be required for any applicable building permit and other approvals) with complete details to enable the Work to be constructed;
- (b) prepare supply and installation technical specifications to incorporate into the tender documents for a single or two-stage supply and install contract package in accordance with TransLink's Standard Specifications for Capital Projects as required;
- (c) assist in the procurement process and the preparation of tender documents, including:

1. assembling and providing original drawings and specifications for the procurement a minimum of two (2) weeks prior to posting of procurement documents by TransLink. The tender package will be assembled and printed by TransLink; and
 2. providing TransLink answers to questions arising during the procurement process when requested by TransLink.
- 4.2 TransLink will review the drawings and specifications only with regard to general requirements and interpretation. Acceptance of drawings and specifications prepared by the Contractor does not relieve the Contractor of the responsibility for the design.
- 4.3 TransLink's Standard Specifications for Capital Projects (the "Standard Specifications") will be used for tender and contract documents. The Contractor shall prepare the construction specifications in the same format and style as is used in the Standard Specifications, a set of which are available for viewing at the TransLink's offices. Any modifications and additional specifications required for the Work shall be prepared by the Contractor. TransLink will prepare the remainder of the tender documents and the Contractor shall review and confirm all aspects that could impact on the work of the Contractor.
- 4.4 The above services shall include preparation of detailed cost estimates for the Works, including installation, utility revisions as necessary.

5.0 CONSTRUCTION ENGINEERING AND REVIEW SERVICES

- 5.1 Construction engineering services include responding to contractor queries during the tender process, reviewing the preferred tenderer's tender and reviewing the work as necessary to provide letters of assurance.
- 5.2 Review services include responding to contractor questions, attending weekly site meetings and preparation of preliminary minutes, making recommendations with respect to contract change requests, reviewing progress payments during construction and preparing record drawings.

6.0 DRAWINGS AND SPECIFICATIONS REQUIREMENTS

- 6.1 The Contractor shall prepare all drawings for design, approvals, tendering, and construction purposes. TransLink has adopted a standard AutoCAD procedure, and the Contractor's CADD drawings shall be prepared using AutoCAD (for details of CADD standards, refer to TransLink's "Design Manual Standards").
- 6.2 All drawings and specifications prepared by the Contractor shall be signed, sealed and dated by the responsible Contractor's design professional engineer or architect, as applicable, and approved by the Contractor's supervising engineer, architect or head of the design team. To the extent a professional seal is necessary for any documents; such seal shall be affixed prior to delivery of the document to TransLink, to a contractor for construction or for any other purpose.
- 6.3 On completion of the Project, the Contractor shall provide TransLink:
- (a) all construction drawings on CD. To standardize drawing format, TransLink will provide a CD containing prototype drawings of A, B, C, and D sizes, complete with border, logo and all dimensional parameters;
 - (b) all written specifications electronically using Microsoft Word) and in printed form.

7.0 REPORTING

7.1 The Contractor shall provide regular progress reports of its work through an assigned TransLink Project Manager who will act as technical coordinator with the Contractor. In the absence of other directive from TransLink, the reporting shall include:

- (a) regular liaison meetings, as required; and
- (b) monthly status meetings for informative, negotiative, or presentative purposes;
- (c) monthly progress report, to include:
 - (i) updated schedule;
 - (ii) actual person-hours expended to date and percent completed by activity for each package, and forecast the remaining person-hours and duration to complete activities in progress.

8.0 BUDGET CONTROL

8.1 The Contractor shall submit, within seven (7) days of Notice to Proceed, a detailed schedule broken into logical packages similar to the task breakdown of the Work Program provided as part of the Contractor's proposal. The activities required to complete each package must be further divided into durations not to exceed ten (10) working days. The schedule shall be updated on a monthly basis to determine progress against schedule.

8.2 A person-hour budget must be developed for all time required to complete the work included in each package. Additionally, a detailed breakdown of activities and associated person-hour requirements for the activities within the package shall be provided.

9.0 PERFORMANCE SCHEDULE

9.1 The estimated schedule milestones are:

Milestone Event	Estimated Date
Development permit application	March 18, 2013
Detailed Design Completion – Ph 1 & 2	July 19, 2013
Building permit application	July 26, 2013
Post RFP for Construction	August 23, 2013
Existing Bank Building demolition (By Fairborne)	August 30, 2013*
Award Construction contract – Ph 1	September 13, 2013
Substantial completion – Ph 1	February 13, 2014 *
Construction - Ph 2	September 2014 – April 2016**
Acceptance of Final Product	April 30, 2016**

**Note – Schedule for demolition of existing bank building and construction schedule for Phase 1 bus loop will have to be coordinated with Fairborne Homes Ltd's construction schedule.*

*** Note – Schedule for construction of Phase 2 work is tentative and will be coordinated with the schedule of construction of the development in the lot close to Buswell Street.*

**APPENDIX 2
SUBMISSION GUIDELINES**

This Appendix consists of:

Form of Cover Letter
Part A – Proponent Profile
Part B – Qualifications and Work Program
Part C – Costs and Pricing

[Form of Cover Letter]

TO: SOUTH COAST BRITISH COLUMBIA TRANSPORTATION AUTHORITY (“TransLink”)

RE: REQUEST FOR PROPOSALS #Q13-003

I/We, _____ (the “Proponent”),
(Name of Proponent)

of _____
(Address of Proponent)

in furtherance of the above-noted Request for Proposals, including all addenda and clarifications thereto, (collectively the “RFP”), hereby submit four (4) complete sets (the original and three (3) copies) of my/our proposal, which includes:

- (a) This Cover Letter
- (b) Part A – Proponent Profile
- (c) Part B – Qualifications and Work Program
- (d) Part C – Costs and Pricing

This Proposal is open for acceptance by TransLink for the Acceptance Period as set out in the RFP, and will be irrevocable until then, even if the Proposal is non-compliant.

I/We hereby acknowledge and declare all of the terms and conditions set out in the RFP (including all addenda and clarifications) and the contracts terms attached thereto are hereby accepted and incorporated as part of this Proposal.

I/We confirm I/we are submitting this Proposal at my/our own risk and have carefully read and examined the RFP and conducted such investigations, analysis and other due diligence as I/we determined were necessary or desirable before submitting the Proposal. I/We acknowledge and agree TransLink is not liable or accountable for any error or omission in any part of the RFP or the Proposal.

**PART A
PROPONENT PROFILE**

1. General

Name: _____

Address: _____

2. Contact Information

Name and title of representative: _____

Telephone: _____ Fax No.: _____

E-mail: _____

3. Form of Business Organization

CRA No. _____

Sole Proprietorship _____

Partnership - date of establishment: _____

Corporation - date of incorporation**: _____

4. Jurisdiction of Incorporation (or of any Partnership filing)**

Federal British Columbia Other - specify: _____

**Please provide copy of Certificate of Incorporation and most recently filed Annual Report

5. WorkSafeBC / Insurance

Provide evidence of the following:

Registration and Good Standing with the Worker's Compensation Board (WorkSafeBC); and

Ability to meet the insurance requirements set out in Appendix 3 (Contract Terms).

6. Financial Information

In addition to any information you may consider relevant, the following financial information should be provided:

(a) Banking or lender reference(s), including the name(s) of financial institution(s), address(es) and contact person(s);

(b) Audited financial statements for the past 3 fiscal years (if the organization is multi-national, provide statement for Canadian operations and consolidated statements for the parent corporation), accompanied by a Management Discussion and Analysis that includes key facts, the organization's strategy, accounting disclosures, an analysis of historical results, a discussion of financing, key performance drivers, risks and a prospective analysis for the organization as a whole and for each core business segment. Include a minimum of 1 year *pro forma* financial statements;

(c) A description and analysis of the organization's growth over the last 3 years (revenue, sales, before tax profit);

(d) A summary of the organization's business plan for the next 3 years, specifically highlighting how this project would fit into the business plan.

7. Proponent Identification

(a) Provide general background information about your organization, including:

i. a brief history;

ii. locations of head office and regional offices;

iii. size of permanent staff by categories: professional, technical and support;

PART B
QUALIFICATIONS AND WORK PROGRAM

1. **Experience**- Identify your professional knowledge and experience (and that of any proposes sub-contractors), including:
- (a) summary of 5 most recent or relevant projects (completed and ongoing) during the past 5 years including:
 - project name;
 - capital cost;
 - owner (including owner name, telephone number and primary contact person);
 - architect/engineer (including name, telephone number and primary contact person);
 - dates of assignment (commencement date and completion date);
 - description of your role in each project;
 - description of role of key personnel;
 - identification of key personnel from that project that will be assigned to this project.
 - (b) compliance with qualification requirements, if any, identified in the evaluation criteria set out in Appendix 4 of the RFP;

2. **Personnel:**

- a. Attach a listing of key members of the proposed project team and the following information for each listed person:
 - i. each member’s responsibility on the project;
 - ii. qualifications, including the relevant qualifications, if any, identified in the evaluation criteria set out in Appendix 4;
 - iii. education levels and dates;
 - iv. chronological employment history including member’s role in any previous project relevant to proposed assignment;
 - v. if key members are not to be assigned to the project on a full-time basis, the percentage of their time that will be assigned;

<p>Note to Proponents: Proponents are responsible for compliance with laws applicable to collection, use and disclosure of personal information. If providing personal information (including resumes) of persons who have been included as resources in response to this RFP, Proponents will ensure they have obtained written consent from each such person before forwarding such information to TransLink, specifying the personal information may be forwarded to TransLink for the purposes of responding to this RFP and used by TransLink for the purposes set out in this RFP. Proponents will be required to provide proof of consent upon request being made by TransLink.</p>

- b. Identify whether key members of the proposed project team, other employees, or persons who may be involved in this project on your behalf, are “Associates”¹ of TransLink employees, officers or directors. If so, provide the following additional information:
 - i. identify the persons and confirm their relationship based on the definition of “Associate”;
 - ii. confirm the involvement, role, function and responsibilities of each identified “Associate” on the project, including their ability to access files, documents and records pertaining to the project and TransLink;
 - iii. confirm that other than annual salary, no “Associate” will receive or be entitled to any bonus, benefits or additional compensation as a result of this contract or the work performed thereunder and that this contract and the work performed thereunder will be specifically excluded from the calculation of any bonus, benefits or additional compensation;
 - iv. Identify proposed safeguards, screens and other restrictions that will limit or prevent an “Associate” from accessing TransLink information or otherwise minimize or eliminate any perceived or actual conflict of interest.

¹ "Associate" means (a) a spouse, (b) a parent, sibling, son or daughter, or the spouse of any one of them, (c) a relative who lives in the person's home, (d) a company in which a person owns shares carrying more than 10% of the voting rights attached to all shares of the corporation, (e) a person's business partner, or (f) a trust or estate of which a person is one of the main beneficiaries or for which the person serves as a trustee.

3. **Project Office** - Identify the location of the project office and what percentage of the work will be carried out from the project office. If not 100%, specify where the balance of the work will be done (note: the cost of the project office is to be included in the proposed charge-out rates).
4. **Sub-contractors** - Identify and provide general background information about any sub-contractors who will be providing a portion of the work, including a brief history and the nature and extent of their involvement.
5. **Scheduling** – provide a proposed schedule for the work in the form of a time-scaled barchart showing the required activities, including the milestones listed in the scope/requirements attached to the RFP. The schedule should include the estimated time (in days) for each of the activities on the barchart.
6. **Scope/ Specifications Deviations** - Identify and describe any proposed deviations from the scope / specifications identified in Appendix 1 of the RFP.
7. **Innovation** – TransLink is interested in ideas, mechanisms or processes that may reduce the project cost. Identify any such ideas, mechanisms or processes you may recommend or consider.
8. **Other Information** - Provide any other details and information you consider relevant or applicable to this procurement and your proposal that have not been identified elsewhere.

**PART C
COSTS AND PRICING**

1. Charge-out Rates

Charge-out rates for each member of the project team (including any proposed sub-contractors and sub-consultants) are as follows.

- (a) **Employee rates** - Fees will be based on the following hourly charge-out rates (excluding Federal Goods and Services Tax (GST), Harmonized Sales Tax (HST) and any other applicable tax):

<u>Name/Position</u>	<u>Hourly Rate</u>
	\$

The charge-out rates apply to all hours worked, including overtime hours. Executive staff and principals shall charge only for design tasks and not for administration and contract negotiations. Stenographer and typing time required for the preparation of project documents such as reports and specifications is the only clerical time that may be charged to TransLink.

- (b) **Consultant fee rates** - Sub-consultants and sub-contractors fees, if any, shall be paid as disbursements at the following hourly charge-out rates (excluding GST, HST and any other applicable tax):

<u>Sub-consultant/sub-contractor</u>	<u>Hourly Rate</u>
	\$

2. Expenses

The successful Proponent will be required to provide all equipment, material, supplies and facilities necessary to perform the work. Expenses reasonable incurred in performing the work will be reimbursed, at cost (no mark-up). Identify expenses for which reimbursement will be sought. Reimbursable expenses do not include:

- (a) vehicle or transportation expenses for travel to and from a person's normal place of work (other vehicle/transportation expenses when required to perform the work will be reimbursed at rates not to exceed prevailing BC Government rates unless otherwise negotiated and approved);
- (b) use of computer equipment;
- (c) use of cell phone;
- (d) project office costs;
- (e)

3. Proposal Price

Total amount of billings (the "Proposal **Price**") based on the above charge-out rates and expenses and identifying the estimated number of person days/hours to perform the work are estimated as follows (excluding GST and HST) based on the following breakdown of tasks necessary to complete the scope / specifications described in the RFP (*provide a schedule similar to this format, maintaining headings as presented*):

Scope/Specifications	Person-Hours <i>(Estimated)</i>	Cost(\$) <i>(Estimated)</i>
1.0 <u>Project Tasks</u> <i>(List Activities)</i>		
_____	_____	\$ _____
_____	_____	\$ _____
_____	_____	\$ _____
2.0 <u>Liaison with TransLink</u> (including meetings, presentations, preparation of minutes)	_____	\$ _____
3.0 <u>Project Progress Monitoring</u>		
3.1 Monthly Progress Review Meeting	_____	\$ _____
3.2 Monthly Progress Reports	_____	\$ _____
4.0 <u>Disbursements</u>		
4.1 Sub-Consultant Fees <i>(itemized)</i>		\$ _____
4.2 <i>(list other)</i>		\$ _____
4.3 <i>(list other)</i>		\$ _____
<u>TOTAL PROPOSAL PRICE</u>		\$ _____

4. Services rendered outside of Canada or by non-residents of Canada

Note to Proponents: If the successful Proponent is not a resident of Canada for income tax purposes, TransLink is required to holdback a percentage of fees (currently assessed at 15%) and remit this amount to Canada Customs and Revenue Agency (CRA) in accordance with CRA regulations, unless a CRA waiver has been provided to TransLink within the time limits required under the CRA administrative guidelines in effect from time to time, and in any event, prior to payment of an invoiced amount. Refer to <http://www.cra-arc.gc.ca>.

- a. Clearly and separately identify all work proposed to be provided outside of Canada, if any;
- b. Provide an estimate and state the amount of billings, if any, to be spent outside Canada or as fees to non-residents of Canada;

APPENDIX 3
CONTRACT TERMS AND CONDITIONS

(attached)



SERVICES CONTRACT

Contract No.: 0620-10
 Reference No.: Q13-003

Between:

<p>South Coast British Columbia Transportation Authority 1600 – 4720 Kingsway Burnaby, BC V5H 4N2</p> <p>("TransLink") Contact: [Name, title] Phone: ◆ Fax: ◆</p>
--

and

<p>[Contractor's Legal Name] [Address]</p> <p>(the "Contractor")</p> <p>Contact: [Name, title] Phone: ◆ Fax: ◆</p> <p>Canadian Resident for income tax purposes? (<i>check one</i>) <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>----- CRA Business Number: ◆</p>

1. **Definitions** - In this contract, the following terms have the meanings expressed below:
 - (a) **"Expenses"** means the reimbursable expenses, if any, set out in Schedule B.
 - (b) **"Fees"** means fees for providing the Services, calculated and payable as set out in Schedule B.
 - (c) **"FOIPP Act"** means the *Freedom of Information and Protection of Privacy Act (British Columbia)*.
 - (d) **"Personal Information"** has the meaning ascribed to that term in the FOIPP Act.
 - (e) **"Services"** means [short description of services] as more particularly identified in Schedule A and any incidental duties and requirements reasonably inferred from those services.
 - (f) **"Start Date"** means [Start Date].
 - (g) **"Term"** means the period commencing on the Start Date and ending [End Date] unless terminated earlier ◆in accordance with this contract.
 - (h) **"TransLink Representative"** means the TransLink contact person identified above or such other person designated by TransLink from time to time.
 - (i) **"Work Product"** means all inventions, discoveries, concepts, designs, drawings, improvements to existing technology, processes, procedures, computer programs and techniques, models, plans, specifications, data, tapes, programs, documents, memoranda, reports, work-in-progress and other records, in any form whatsoever created, reduced to practice or fixed in a tangible medium of expression by or on behalf of the Contractor, whether alone or with others, as part of or ancillary to the performance of the Services.

2. **Engagement** - TransLink hereby retains the Contractor to perform the Services during the Term in accordance with the terms and conditions of this contract, including any schedules attached to this contract. The Contractor agrees to perform the Services in a competent, diligent and efficient manner to the full satisfaction of TransLink and within the timelines and by the due dates set out in Schedule A; provided that where there are no specified timelines or dates, the Contractor will provide the Services with due expediency as determined by TransLink, acting reasonably. The Contractor will perform the Services using only the services of the Contractor, the representatives/employees identified in Schedule A, if any, or sub-contractors approved by TransLink. The Contractor will be responsible for the professional quality, technical accuracy, timely completion and coordination of all reports and other services furnished by the Contractor. The Contractor will report to the TransLink Representative. All communication between the Contractor and TransLink regarding this contract, including the performance of the Services, shall be directed to the TransLink Representative.

3. **Expertise** – The Contractor warrants it has the skills, expertise and experience necessary to perform the Services in a competent and professional manner to the standard of care, skill and diligence normally provided in performing similar services by experienced, reputable and professional contractors/consultants. The Contractor

further warrants that any other persons providing the Services also have the requisite skills, technical expertise, experience and qualifications. To the extent the Services are of a professional nature, the Services will be performed by a fully qualified member in good standing of the appropriate professional body who is registered to practise in British Columbia.

4. **Compliance** - The Contractor covenants, as a material provision of this contract, it will comply, at its own expense, with all codes, statutes, by-laws, regulations or other laws in force in British Columbia during the Term and, for the purposes of privacy protection, despite any conflicting provision of the law of any jurisdiction outside of Canada. The Contractor will obtain, and, as required, advise and assist TransLink in obtaining, any permits, licenses or other authorizations necessary for or related to the Services. The Contractor will further comply with policies, procedures and instructions, if any, provided by TransLink.

5. **Safety and Workers' Compensation** – The Contractor will use best efforts to ensure and is responsible for ensuring the safety of persons providing, or affected by the provision of, the Services. The Contractor will perform the Services in accordance with the representations made in any proposal or safety plan submitted to TransLink. The Contractor must, throughout the Term (i) if an employer, be registered and in good standing with the Workers' Compensation Board (WorkSafeBC) or, if not an employer, obtain and maintain Personal Optional Protection coverage available through WorkSafeBC, (ii) ensure persons providing the Services are covered by the *Workers' Compensation Act* or through Personal Optional Protection coverage through WorkSafeBC; and (iii) upon request, provide a statement from WorkSafeBC demonstrating evidence of compliance with this provision.

6. **Independent contractor** – The Contractor confirms it is an independent contractor and not an employee or agent or partner of TransLink, and will not in any manner commit or purport to commit TransLink to any obligation or undertaking, except with express written authorization of TransLink. The Contractor will not assert or do anything that would result in the Contractor being considered an employee of TransLink. If, despite the foregoing, any person, governmental authority or agency characterizes or deems the Contractor to be a worker or employee of TransLink, which then obligates TransLink to make payments or remittances with respect to or on behalf of the Contractor (including but not limited to income taxes, Canada Pension Plan and employment insurance contributions in addition to the Fees and Expenses set out in this contract, the Contractor hereby covenants and agrees to reimburse TransLink on account of any such payments or remittances, including any penalties assessed thereon, and TransLink shall be entitled to deduct such amounts from any monies due and owing to the Contractor by TransLink.

7. **Payment of Fees and Expenses** – Subject to verification by TransLink of the validity of the Fees and Expenses, TransLink will pay the Fees (less the holdback, if any, identified in Schedule B) and Expenses, in Canadian funds, within 30 days of receipt of invoice. Each invoice shall set out the Fees and Expenses in accordance with Schedule B. In no event will the Fees and Expenses claimed exceed any limits set out in Schedule B. The Contractor is not entitled to receive or claim any other remuneration from TransLink. No payment will be made by TransLink in respect of any costs incurred or time expended by the Contractor in remedying errors or omissions of the Contractor. As required by and in accordance with the *Income Tax Act (Canada)*, if the Contractor is a non-resident of Canada, TransLink will withhold the prescribed amount of tax from each payment and remit this amount to the Canada Revenue Agency.

8. **Early Termination** – Prior to completion of the Services, TransLink may terminate this contract: (a) upon 30 days' written notice to the Contractor; or (b) by written notice to take effect immediately upon receipt of such notice by the Contractor if: (i) the Contractor breaches any of its obligations under this contract; (ii) the Contractor becomes insolvent, bankrupt or has a receiver appointed or makes any proposal under the *Bankruptcy and Insolvency Act* (Canada); (iii) the Contractor, for any reason, becomes incapable of providing the Services; (iv) the Contractor comes under the direct or indirect control of any corporation or person who does not control it at the date of execution of this contract, (v) otherwise as permitted by this contract. The Contractor will not be entitled to any compensation other than for Services rendered up to and including the date of termination, and the Contractor hereby agrees, save as hereinbefore provided, the Contractor will not be entitled to claim or receive any other remuneration, compensation or payment whatsoever from TransLink by reason of the termination of this contract.

9. **Inspection and Audit** – The Contractor will preserve all books, payrolls, accounts and other records with respect to any time and expenses which TransLink is or has been required to pay, either directly or indirectly, as a result of performance of the Services and will make the same available for inspection and audit by TransLink's representatives during the Term and for two years thereafter. Any error in a claim for payment or the amount of a payment disclosed on audit will be adjusted between the parties.

10. **Non-Waiver** – Payments made to the Contractor on account of the Services shall not be construed as a waiver of any right of claim TransLink may have against the Contractor arising out of the Contractor's failure to perform the Services in accordance with this contract.

11. **Ownership of Work Product** – All right, title and interest in the Work Product shall be owned by TransLink and the Contractor does hereby assign and transfer the Work Product, including the intellectual property rights therein, vested and contingent, to TransLink. The Contractor hereby waives any moral rights the Contractor may have in the Work Product and shall ensure its employees, contractors and sub-contractors also waive any moral rights they may have in the Work Product. The Contractor agrees to execute any documents or do any acts reasonably required by TransLink to perfect its ownership. TransLink shall have full control over all applications for patents or other legal protection for the Work Product. The Contractor shall provide to TransLink upon request, and otherwise upon completion of the Services or the termination of this contract, the originals and all copies of the Work Product, whether fully or partially completed. Despite the foregoing and provided the Work Product does not contain any Personal Information, the Contractor shall be entitled to retain one copy of the Work Product for its own records for auditing purposes and to meet its professional obligations, subject always to the confidentiality obligations set out in section 15. Nothing herein contained gives the Contractor the authority to use or disclose any information so retained without TransLink's consent, unless required by law.

12. **Insurance** – The Contractor will maintain during the Term the insurance, if any, set out in Schedule C, and such other insurance as may be reasonably required by TransLink. If the Contractor fails to comply with the insurance requirements, TransLink may obtain and maintain the required insurance coverage and deduct the cost thereof from any monies payable to the Contractor. The Contractor shall include the same insurance requirements in any agreement with any sub-contractors.

13. **Liability and Indemnity** - Despite any insurance coverage by TransLink, the Contractor hereby agrees to indemnify and save harmless TransLink, its subsidiaries, and their directors, officers, and employees from and against all claims, loss, damages, demands, complaints (including, without limitation, complaints pursuant to human rights legislation), actions (including, without limitation, wrongful dismissal actions), suits, liabilities and/or costs (including actual legal fees and disbursements), arising from or caused by any breach of contract, errors, omissions or negligent acts or omissions of the Contractor, its directors, officers, employees, agents and/or contractors or sub-contractors in relation to this contract including breach of applicable laws by the Contractor, unless such claim, loss, damage, demand, complaint, action, suit, liability and/or cost is the result of errors, omissions or negligent acts or omissions of TransLink, its subsidiaries, and their directors, officers, and employees.

14. **Freedom of Information** - The Contractor acknowledges TransLink is subject to the *FOIPP Act* and this contract and any records provided to TransLink may be subject to public disclosure under the *FOIPP Act*.

15. **Confidentiality** – The Contractor will treat as confidential and will not divulge any data or information not already in the public domain, or any Personal Information (collectively, "Confidential Information") communicated to or acquired by the Contractor (whether by or from TransLink or otherwise) or prepared by the Contractor (or any contractor or sub-contractor) in the course of carrying out the Services. Confidential Information, including any records containing the same, will be and remain the property of TransLink and will be returned to TransLink upon request and otherwise upon completion of the Services or the termination of this contract. The Contractor acknowledges and agrees unauthorised use or disclosure of Confidential Information may cause irreparable harm to TransLink and others and in the event of such unauthorised disclosure or use, TransLink will be entitled to obtain injunctive relief against the Contractor without prejudice to any other rights it may have in respect of this contract or at law or in equity.

16. **Access to Personal Information**– In no way limiting the generality of section 15, if, for the purposes of performing the Services, the Contractor receives or has access to Personal Information in TransLink's custody or control or collects Personal Information on behalf of TransLink, the Contractor:

- (a) will only access or use the Personal Information if, and to the extent, necessary to perform the Services;
- (b) will protect the Personal Information from unauthorized access, collection, use, disclosure or disposal;
- (c) will not store, access or permit access from, or disclose Personal Information outside of Canada;
- (d) will permit TransLink to enter on the Contractor's premises and will provide reasonable assistance to enable TransLink to inspect the security of Personal Information and compliance with this contract;
- (e) will comply with the *FOIPP Act* and any applicable order of the commissioner under the *FOIPP Act*;
- (f) warrants and represents the Contractor, if an individual, is a Canadian citizen or if a corporation, is and will remain, at all times during the Term, a Canadian entity; and

- (g) will ensure the employees, contractors and sub-contractors performing the Services are Canadian citizens or Canadian entities, and will further ensure their compliance with sections 15 and 16 of this contract.

If the Contractor accesses or has the ability to access Personal Information and such access is not required to perform the Services, the Contractor will immediately notify TransLink of such accessibility, the extent of such access, and any unauthorized access, whether inadvertent or otherwise. The Contractor will further advise TransLink of the steps it has taken or will take to address, or prevent recurrence of, the non-compliance or anticipated non-compliance.

17. **Intellectual Property Rights** – The Contractor warrants and represents the Work Product developed and provided under this contract will not infringe any copyright, trademark, trade secret and other intellectual property rights of any third party.

18. **Conflict of Interest**

(a) During the Term, the Contractor will not perform a service for or provide advice to any person where the performance of the service or the provision of the advice may or does give rise to a conflict of interest between the obligations of the Contractor to TransLink under this contract and the obligations of the Contractor to such other person.

(b) The Contractor will not offer or provide any gifts or personal benefit of a value greater than \$50.00 to any director, officer, or employee of TransLink. Except as disclosed in writing to TransLink prior to the signing of this contract, the Contractor does not have any knowledge that any director, officer or employee of TransLink or an Associate of them (a) has more than a 10% ownership interest in the Contractor, or (b) has or is entitled to have any interest in this contract or any benefit arising therefrom. "Associate" means (a) a spouse, (b) a parent, sibling, son or daughter, or the spouse of any one of them, (c) a relative who lives in the person's home, (d) a company in which a person owns shares carrying more than 10% of the voting rights attached to all shares of the corporation, (e) a person's business partner, or (f) a trust or estate of which a person is one of the main beneficiaries or for which the person serves as a trustee.

19. **Disputes** – If a dispute arises under this contract, either party may request the other party to appoint representatives to meet and attempt to resolve the dispute either by direct negotiations or mediation. Unresolved disputes shall be settled by arbitration under the *Commercial Arbitration Act of British Columbia*.

20. **Notice** – Any notice required to be given may be well and sufficiently given by personal delivery, regular mail or fax addressed to and sent to the party at the address and fax numbers set out on page 1 or such other address or fax number as either party may in writing specify. In the event of a postal strike, notice must be given by personal delivery or fax. Any notice given will be deemed to be received if delivered, when delivered, if mailed by regular mail, seven (7) business days after the time of mailing at any Canada Post Office, British Columbia and if sent by fax, the next business day following the date of confirmed transmission.

21. **Governing Law**– This contract will be governed by and construed in accordance with the laws of British Columbia and of Canada. The parties consent to the jurisdiction of the courts of the Province of British Columbia.

22. **Assignment** – The Contractor shall not assign, sub-contract or transfer this contract in whole or in part without the written consent of TransLink. In order to protect Personal Information and comply with the spirit and intent of the *FOIPPA Act*, TransLink may refuse to any assignment, sub-contract or transfer to a non-Canadian entity and such refusal shall not be construed as unreasonable. TransLink may at any time assign, transfer or sub-contract this contract in whole or in part to any person, firm or corporation.

23. **Survival on Termination** – Sections 9 (*Inspection and Audit*), 11 (*Ownership of Work Product*), 13 (*Liability and Indemnity*), 14 (*Freedom of Information*), 15 (*Confidentiality*) and 16 (*Access to Personal Information*) will survive the expiration or termination of this contract.

24. **Time** – Time is of the essence of this contract.

25. **Entire Agreement** – This contract constitutes the entire agreement between the parties with respect to the Services and supersedes all earlier understandings, communications, representations and agreements, whether oral or in writing. No modification of this contract will have any effect unless in writing and signed by the parties. Any

term or condition contained in any report, invoice, claim, statement or other record submitted by the Contractor and in conflict with the terms of this contract shall be rejected automatically by TransLink without notice.

26. **Schedules** - The attached schedules are an integral part of this contract and are hereby incorporated into this contract as a part thereof. The parties may from time to time by agreement amend any of the schedules and such amended schedule when signed by both parties shall be substituted for the previous schedule effective from the date set out in such amended schedule.

27. **Enurement** – This contract will be binding upon and will enure to the benefit of the parties hereto, their respective heirs, executors, administrators, successors and permitted assigns.

28. **Validity of Provisions** – If any provision in this contract is found to be invalid or unenforceable, that provision shall be severed from the contract and the remainder of the contract shall remain in full force and effect.

29. **Waiver** – Failure to enforce a provision of this contract is not a waiver of that provision nor does it affect any right a party may have to enforce the provision or to consider the failure a breach of this contract. A waiver must be express and in writing before it has legal effect.

WHEREAS the parties have executed this contract on the date set out below.

**SOUTH COAST BRITISH COLUMBIA
TRANSPORTATION AUTHORITY**

[CONTRACTOR'S LEGAL NAME]

Signature *Date*
Name:
Title:

Signature *Date*
Name:
Title:

Signature *Date*
Name:
Title:

Signature *Date*
Name:
Title:

The following schedules are attached to and form part of this contract:

- Schedule A – Services*
- Schedule B – Fees and Expenses*
- Schedule C – Additional Terms and Conditions*

SCHEDULE A

SERVICES

A. SERVICES TO BE PERFORMED

1. Except as otherwise provided in this Schedule, the Contractor must provide all equipment, supplies and facilities necessary to perform the Services.
2. The Contractor will, to the satisfaction of TransLink, perform the following services:

◆

B. CONTRACTOR'S REPRESENTATIVES AND EMPLOYEES

1. The Services will be performed on behalf of the Contractor by the following persons:

Name

◆

◆

Title

◆

◆

2. Changes to key personnel shall not be made without the prior written consent of TransLink. The Contractor shall submit the resumes of any new personnel to TransLink before these personnel are made part of the Contractor's project team. TransLink shall have the right to refuse any or all of the additional personnel assigned to perform the Services by the Contractor.

SCHEDULE B

FEES AND EXPENSES

A. REIMBURSABLE EXPENSES

1. Except as otherwise provided herein, TransLink will reimburse the Contractor at cost (without “mark-up”) for reasonable out-of-pocket expenses incurred by the Contractor and necessary for the performance of the Services.

B. FEES

1. Fees are based on the charge-out rates set out below, determined on a dollar amount per hour or day, and will be payable to the Contractor for those hours/days during which the Contractor is engaged in the performance of the Services, and in a proportioned amount of the daily rate for part days (7.5 hours being the equivalent of one day).

Name	Charge-Out Rates	
	Hourly Rate	Daily Rate
◆	\$◆	\$◆

2. Travel time, if any, shall be charged at straight time rates and only for travel necessary for performing the Services during regular and normal working hours and excluding travel to and from a person’s normal place of work.
3. In no event will the total amount of Fees payable by TransLink to the Contractor for the Services exceed \$[Maximum Fees].

C. INVOICING AND PAYMENT

1. The Contractor will submit to TransLink, on a monthly basis, a written claim for payment of Fees and Expenses setting out¹:
 - (a) the number of hours the Services were rendered by each person performing the Services, the work performed and each person’s hourly charge-out rate;
 - (b) where the Fees include the cost of sub-contractors, itemization of the work performed on behalf of the Contractor by the sub-contractor with supporting documentation attached;
 - (c) a listing of Expenses incurred during the invoice period, along with receipts or other documents verifying each Expense;
 - (d) any Goods and Services Tax (GST) or Harmonized Sales Tax (HST), and any other similar or replacement tax payable as a separate item and include the Contractor’s GST registration number.
2. Invoices should be made out to the South Coast British Columbia Transportation Authority (TransLink), reference PO No. ◆ and be delivered to the contact listed on page 1 of this contract with a copy to: accounting@translink.ca.

¹ Where the Services are performed both inside and outside of Canada, the invoice must separately identify the value of the Services by location.

SCHEDULE C**ADDITIONAL TERMS AND CONDITIONS**

The following terms and conditions apply in addition to, and not in substitution of, any other terms and conditions contained in this contract, unless otherwise expressly stated herein.

A. INSURANCE

1. The Contractor shall, at its sole cost and expense, obtain and keep in force through the Term:
 - (a) *General Liability Insurance*, including, without limitation, contractual liability insurance and non-owned automobile insurance, against claims for person injury, death or property damage or loss howsoever arising out of the operations of the Contractor to be combined limit as may be reasonably required by TransLink from time to time but, in any case, not less than FIVE MILLION DOLLARS with respect to injury or death to a single person or in respect of any one occurrence concerning property. TransLink shall be added to this insurance policy as an Additional Insured;
 - (b) *Professional Liability Insurance* in an amount of not less than TWO MILLION DOLLARS per claim covering the Contractor and any of its sub-contractors from the date of this contract and for five years thereafter;and provide TransLink with evidence of coverage in a form satisfactory to TransLink.
2. Each policy of insurance shall contain a provision requiring the insurer to give 30 days written notice of cancellation. The Contractor will give TransLink notice of any refusal to renew, or reduction or material change in coverage at the time the Contractor has been advised by its insurer or, if such changes have been initiated by the Contractor, at the time the Contractor has requested such changes of its insurer.

**APPENDIX 4
EVALUATION CRITERIA**

TransLink intends to consider the following evaluation criteria when evaluating proposals (not necessarily limited to or in the order given):

- (a) *Submission* - Compliance with RFP requirements and quality of submission including response to information requested;
- (b) *Methodology* – Demonstrated understanding of project scope, key issues. Proposed work plan that includes constructability considerations, level of effort and / or value added suggestions which would potentially result in increased efficiencies and reduced costs without affecting the overall functional plan;
- (c) *Schedule* – Proposed work schedule and sequence of approach;
- (d) *Corporate qualifications* – Business and technical reputation, experience, capabilities, financial stability, track record and references of current and former customers.
- (e) *Working Relationship* – Past experience with the proponent (if any), including TransLink projects;
- (f) *Project Team qualification* – Qualifications of the proponent’s key personnel with the team of professionals including their recent and relevant project experience;
- (g) *Ability* – Flexibility and sufficiency of resources to fulfill the work, including ability to deliver the requirements when and where required. Ability to foresee and resolve design challenges;
- (h) *Experience* – Skills, knowledge and previous experience in delivering a similar scope of work within a specified budget;
- (i) *Cost* – Proponent’s financial offer;
- (j) *Value* - Overall value or best project impact or result to TransLink; and
- (k) *Other* - other information submitted by the Proponent or acquired by TransLink or any other criteria set out in this RFP or otherwise reasonably considered relevant by TransLink.

APPENDIX 5

TRANSLINK DESIGN MANUAL STANDARDS

(attached)



DESIGN MANUAL STANDARDS

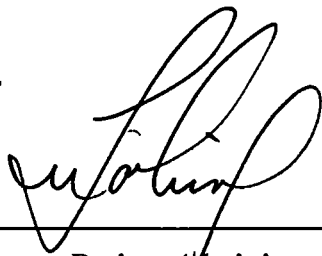
Reference to "the GVTA" in the attached Design Manual Standards shall be read to mean "TransLink"

TRANS LINK
DESIGN MANUAL

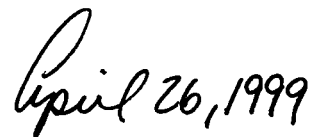
SECTION 5.2

TITLE BLOCK


APPROVED:-



Project Administrator




Date

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5.2 TITLE BLOCK

5.2.1 GENERAL

The layout of the title block, including the reference drawings and revisions columns, shall be as indicated on Figure 1.

5.2.2 DRAWING TITLE

5.2.2.1 Drawing Classification

Line 1 shall indicate the basic contract description as follows:

- ▶ Concourse Station
- ▶ Aerial Guideway Section
- ▶ Utility Standard Drawing

5.2.2.2 Drawing Discipline

Line 2 shall indicate the structure, operation or equipment such as:

- ▶ Structural Unit A445
- ▶ Utilities Relocation
- ▶ Ventilation Fans

5.2.2.3 Development Sequence

Lines 3 and 4 shall indicate in more detail what is indicated on the drawing or where it is located such as:


- ▶ Plan and Sections
- ▶ Details
- ▶ STA 440+00 to 445+50

5.2.3 THE FOUR SEGMENT DRAWING NUMBER

The **drawing** number is the drawing identification used for referencing drawings in a set of contract drawings.

5.2.3.1 First Segment - Drawing Classification

- ▶ SK = Sketch used for development of concepts and 25% Submittals

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- ▶ DC = General plans and/or directive drawings
- ▶ ST = Standard drawing
- ▶ Number = Assigned Contract Number


5.2.3.2 Second Segment - Drawing Discipline

- ▶ G = General
- ▶ C = Civil
- ▶ SP = Survey Plots
- ▶ STD = Standard document
- ▶ PP = Plan & Profile and R.O.W.
- ▶ RW = Right of Way
- ▶ U = Utilities
- ▶ PR = Paving & Restoration
- ▶ SO = Soils & Geological
- ▶ S = Structural
- ▶ A = Architectural
- ▶ M = Mechanical
- ▶ E = Electrical
- ▶ PC = Project Control (Schedules, Networks Bar Charts)
- ▶ F = Furniture
- ▶ GS = Graphics and Signs
- ▶ PRL = Power Rail
- ▶ LIM = LIM Rail
- ▶ ATC = Automatic Train Control
- ▶ GB = Guideway Beam (Precast Beam Designer)

(additional as required - to be approved by the GVTA)

5.2.3.3 Third Segment - Development Sequence

Drawing numbers should be sequential within each discipline.

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5.2.4 SCALE

5.2.4.1 Scales on Subtitles

All scales used on the drawing shall be noted under the subtitle of the particular view. The notation "Not to Scale" shall be noted below the subtitle of views not to scale.

5.2.4.2 Basic Scales

The basic scale used on each drawing shall be noted and shown graphically in the title block. For drawings with two basic space scales, i.e. horizontal and vertical, use "As Shown" in the scaleblock and note scales with graphic on drawing next to provided for half size stamp.

5.2.4.3 Standard Scales

Figure 1 indicates sizes to be used for most standard scales.

5.2.5 REFERENCE DRAWINGS


Reference column should be used for sheets containing general information pertaining to the sheet subject. Specific information should be referenced by notes on the drawing.

5.2.6 REVISIONS

All amendments or revisions to preliminary, contract, standard or directive drawings shall be recorded in the revision column as follows:

5.2.6.1 Contract Drawings

All amendments or revisions to contract drawings shall be recorded, initialed and dated in the revision column. Amendments made during the tender period (by addendum) or revisions made afterward during construction (by design change or change order) shall be numbered sequentially starting with number 1 and shall be clearly marked to identify the change. The revision number shall be placed in a 10mm triangle immediately adjacent to detail modified. An identical triangle shall be placed directly below the revision triangle along the bottom border to highlight the change location. The identical revision number shall be placed in the box at the bottom right-hand corner adjacent to the drawing number. Description of the change shall be brief. When a drawing is issued for construction the description shall read "ISSUED FOR CONSTRUCTION", initialed and dated, but no change is made in the revision number. Amendments made during the tender period need not be described but reference to the "Addenda No. ?" should be indicated. When a drawing is redrawn or a new drawing added the revision column

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should indicate "REDRAWN" or "NEW" respectively. If there are previous revisions on a drawing to be redrawn then the next sequential revision number shall be used on the redrawn drawing.

5.2.6.2 Standard Drawings

All revisions to standard drawings may be made only by the original producer and shall be recorded, initialed and dated in the revision column, numbering sequentially starting with number 1. These revisions shall remain on the drawing when used in a contract. Drawings shall be distributed to holders of standard drawing books for their use in contract revisions.

5.2.7 SIGNATURES

All drawings shall be signed and dated by the designer, drafter, checker and immediate supervisor in the respective signature blocks identified by the words: Designed, Drawn, Checked and Approved. The date shall be shown numerically with the year, month, and day as follows: 81-5-10.


5.2.8 ENGINEER'S OR ARCHITECT'S SEAL

An Engineer's, Architect's or a Professional Engineering Corporation seal shall be stamped on all contract drawings in accordance with the Provincial Law governing the practice of Professional Engineering and Architecture. Each drawing shall bear the signature of the engineer or architect responsible for the proficiency of the work involved. Signed and sealed prints are to be submitted at Issued for Construction and Record Drawing stages.

5.2.9 RECORD DRAWINGS

The category of "Record Drawings" includes all original design drawings and other material submitted from the construction sites, such as construction site drawings, sketches and other associated documentation, which record as-built details which differ from the original designs and specifications.

Record drawings are prepared based on the information provided by the Contractor. As a rule, the information is to be recorded on the original drawings (mylars). If the original drawings cannot be employed, reproducible shop drawings or manufacturers drawings can be used.

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5.2.9.1 Revision Block

Special attention should be given to the revision block, where two different standard descriptions for Record Drawings should be used.

5.2.9.1.1 If the actual structure differs from the design, the revision block should read as follows: "REVISED FOR RECORD DRAWING", dated and initialled, and the revision number shall be the next in sequence (see 5.2.6.1).

5.2.9.1.2 If the construction does not differ from design, then only the date, initial and "RECORD DRAWING" should be in the revision block. The revision number does not change from the previous revision.

All previous revision triangles should be removed from the drawing.

Drawings not revised to show construction changes should be stamped with the following:

This Drawing Has Not Been Revised to Record Changes Made During Construction or to Record Construction Tolerance Measurements, and Should Not Be Used as a Reference for Future Alterations. If Such Alterations are Contemplated a Field Check of Actual Conditions Shall Be Undertaken

5.2.9.1.3 In addition to Record Drawings and Revised for Record Drawings it may be necessary to indicate changes made during Testing and Commissioning as "COMMISSIONING RECORD DRAWING", and changes by Operations & Maintenance as "O & M UPDATE". Each revision is to be accompanied by a date and a signature.

DETAIL
SCALE 1:200

SECTION
(TYPICAL) SCALE 1:20

FOR LATER USE
SEE STANDARD 6.1.3

FOR LATER USE
SEE STANDARD 6.1.3

INDICATED ON
DRAWING OF
(PROJECT OF E.A.)

GENERAL DESIGN
CONSULTANT PROJECT

REVISION NUMBER

SEE 6.3.1

SEE 6.3.3

SEE 6.3.7

DESIGNED		DRAWING		REFERENCE DRAWING		REVISIONS	
DATE	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV

PROJECT NAME

INDICATED ON DRAWING OF (PROJECT OF E.A.)

GENERAL DESIGN CONSULTANT PROJECT

REVISION NUMBER

SEE 6.3.1

SEE 6.3.3

SEE 6.3.7

CONTRACT NO.
GVTA
GENERAL ARRANGEMENT

SCALE

DRAWING No.

REV. No.




ORDER THROUGH TRANSPORTATION AUTHORITY (OTA)

REVISION No. _____

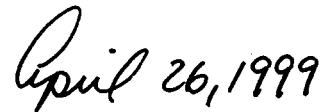
TRANS LINK
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SECTION 5.3
AUTOCAD DRAFTING STANDARDS


APPROVED:-



Project Administrator




Date

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5.3 AUTOCAD DRAFTING STANDARDS

5.3.1 GENERAL

5.3.1.1 Background

5.3.1.1.1 AutoCAD has been established by the engineering industry as a defacto standard for a majority of computerized drafting. The GVTA's Engineering and Project Services has adopted AutoCAD as a preferred choice for its internal use and wishes to preserve the option for implementing a computerized information system in the future to assist in the planning, design, operation and maintenance of all GVTA facilities.


5.3.1.1.2 To this end, a management and database system called "*FACILITIES BUSMAP*" has been implemented and has demonstrated the potential benefits which can be derived from an AutoCAD-based computerized information system, which integrates both Bus Stop Location, Bus Routes and Transit Facilities across a standard transportation centreline network base map. This base map, as provided by the Ministry of Transportation and Highways (MoTH), provides a seamless base map of the entire Lower Mainland (Zone 10) in UTM NAD 83 co-ordinates.

5.3.1.1.3 The major problem identified prior to this project was the difficulty encountered when attempting to merge all of the drawing information into a composite, continuous base map of the facilities in 2D and 3D space. One of the primary reasons for this difficulty is that drawings are traditionally produced to meet their own specific requirements. For example, drawings produced as part of an installation contract may not have to be technically accurate and schematic drawings, in most case, were adequate. These drawings typically originate at a co-ordinate range starting at the lower left corner at 0,0,0. However, if the requirement of these drawings entails the accurate reproduction in 2D or 3D space for other uses, then it is imperative that these drawings be prepared differently.

5.3.1.2 Purpose

5.3.1.2.1 The purpose of this document is to establish guidelines and principles on the use of AutoCAD in the design of GVTA facilities which consultants should adopt to ensure that the long-term objectives of the GVTA can be achieved.

5.3.1.2.2 In order to manage data in this manner, it is important that consultants begin to think of their AutoCAD drawings as a database.

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5.3.1.2.3 The objective is to establish certain basic standards which all consultants can follow while leaving flexibility in the system for individual consultants to prepare their own conventions.

5.3.1.2.4 Guidelines and principles described in this manual are presented under the following categories:

- ▶ General Principles
- ▶ Layering Conventions
- ▶ Scale Drawings
- ▶ Schematic Drawings
- ▶ Detail Drawings
- ▶ the use of Attributes vs. Text
- ▶ the AutoCAD Blocks

5.3.2 AUTOCAD STANDARDS


5.3.2.1 General Principles

5.3.2.1.1 In general, drawings shall be categorized into specific components:

- ▶ AutoCAD Software
- ▶ Sheet Surround
- ▶ Title Block
- ▶ Line Primitives
- ▶ Symbols or Blocks
- ▶ Annotation

5.3.2.1.1.1 *AutoCAD Software*

5.3.2.1.1.1.1 All consultants shall use AutoCAD for all GVTA drafting work. The consultant shall confirm with the GVTA the appropriate version of ACAD14 should be the standard to be used to allow 2-way compatibility between the GVTA and the consultant. The GVTA is currently using AutoCAD MAP (Release 3) and will continue to utilize the benefits of AutoCAD MAP with respect to spatial indexing. To achieve this end, the co-ordinate range as specified in 5.3.2.3.4 must be followed. It is not imperative however that consultants use AutoCAD MAP3.

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5.3.2.1.1.2 *Sheet Surround*

5.3.2.1.1.2.1 The sheet surround is specific to each consultant and is of little interest in a continuous drawing database. To permit the sheet to be turned off easily, it should be placed on a common layer by all consultants named as "*Sheet*". The dimensions of the sheet are shown in Figure 1.

5.3.2.1.1.3 *Title Block*

5.3.2.1.1.3.1 The title block as a whole is a key database object since it provides a one-to-one relationship between the title block information and the drawing file name. This should be defined in a consistent manner by all consultants in terms of content.

5.3.2.1.1.3.2 The title shall be provided by the GVTA as a sample of text height and style and spacing. The title block is an attributed block called "*Titleblk.Dwg*" and is inserted from the lower right hand corner.

5.3.2.1.1.4 *Line Primitives*

5.3.2.1.1.4.1 Line primitives are drawing components which individually have no significance but, when taken as a whole, provide the bulk of the visual components for the drawing, such as legal fabric, structural outlines, etc.

5.3.2.1.1.4.2 In a database context, these line primitives should be separated by layers named in such a manner as to be clearly distinguishable by a knowledgeable user.

5.3.2.1.1.5 *Symbols or Blocks*

5.3.2.1.1.5.1 Extensive use of standard symbols in a drawing file adds clarity, minimizes drafting time and permits direct quantity take-offs. It is recommended that symbology be used extensively for standard items and their records be kept as shown in Figure 3.

5.3.2.1.1.5.2 If the same symbol is used to represent items which will be specified differently depending on conditions, then an AutoCAD attribute block should be used to enter these specific attributes.

5.3.2.1.1.5.3 For example, if a specific symbol is used to specify a column for which three different types may be desired depending on conditions, an attribute block should be employed and the specified column should be entered as an attribute.

5.3.2.1.1.6 *Annotation*

5.3.2.1.1.6.1 Annotation can be used either for clarity purposes, such as street names, or as a specific design parameter, such as the elevation of the top of a column.

5.3.2.1.1.6.2 Annotation used solely for clarity should be inserted as standard AutoCAD text using the font and text height desired by the consultant and consistent with the drafting standards prepared by the GVTA. It should, however, be layered in such a way that like text can be easily turned off or on as required.

5.3.2.1.1.6.3 Design specific annotation such as elevations should be entered as visible AutoCAD attributes tied to individual symbols so that they can easily be extracted to a database.


5.3.2.1.1.6.4 For example, column layouts where the column COLM has a specific design elevation and tolerance, should be specified as an attribute block. The x, y and z location of the COLM can then be extracted and used for layout and acceptance checking during construction.

5.3.2.2 Layering Convention

5.3.2.2.1 A maximum number of 15 layer colours should suffice for most drawing work. If more than 15 are required, the colours must be set to a pen width included in the first 15 and a .PCP file must be included of these pen assignments when file submittals are made to the GVTA. A copy of the GVTA pen assignments is shown in Figure 2.

5.3.2.2.2 Layer names shall be simple and intuitive. For example:

Text 1	Body Text, Notes
Text 2	Section Numbers, Bay Lines, Roads
Text 3	Titles of Sections, Details
Centreline or CentL	
Propline	
Contour 1	For Fraction Elevs.
Contour 2	For Whole Number Elevs.
Tracks	
Station-Plat	
Curbline	

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Use of cryptic layers are discouraged. AutoCAD's ltscale shall be set proportionately with drawing scale.

- 5.3.2.2.3 Text height for all drawings can be calculated for all drawing scales by the following formula:

$$\text{Plot Scale Factor} \times \frac{\text{Plotted Text Height}}{1000}$$

Standard Text Heights:

2.5mm	Body Text, Notes, etc.
3.5mm	Section Letters, Bayline Nos.
4.4mm	Title Names

Boldness (ie. line width) of text should be proportional with height.

5.3.2.3 **Scale Drawings**

- 5.3.2.3.1 Scale drawings are defined as drawings which are prepared in true dimensions and provide an overall layout or scheme for a particular facility. Generally, these would comprise the overall alignment of the facility including right-of-way, alignment, structures and specific details.

- 5.3.2.3.2 In a CAD context, these drawings must be drawn to 1:1 scale (i.e., 1m at ground scale = 1 unit in the CAD drawing). They should be tied to ground monuments wherever possible to provide a 1:1 relationship between the units displayed on the CAD system and true ground units. Where a physical tie to known points cannot be provided, reference points (2 minimum) should be clearly identified on the drawing to permit survey crews to locate these and verify locations and dimensions in the field during construction. As with scale drawings, detail drawings shall be drawn at a 1:1 relationship. The surround sheet shall be inserted proportionately with the drawing plot scale. Only standard scales should be used.


Final Plot Scale

AutoCAD Plot Setting

1:10000	1 = 10
1:2000	1 = 2
1:1000	1 = 1
1:500	1 = .5
1:250	1 = .25
1:200	1 = .2
1:100	1 = .1
1:50	1 = .05
1:25	1 = .025
1.10	1 = .01

To assist in the goal of standardization, the use of paper space is encouraged to keep base information at a 1:1 scale. The consultant can use a single sheet surround, i.e. 22 x 34 (ANSI D), and control the scale of the drawing within the viewports by a zoom scale factor appropriate to the needs the drawing is to deliver. This way, the sheet only need be present when being plotted and hidden by (tilemode = 1) when drawing is being edited.

- 5.3.2.3.3 In practice, particularly with alignment drawings, overall plans must be rotated to be properly presented on design contract drawings and to optimize the drafting process.
- 5.3.2.3.4 To accommodate this practice, it is recommended that an overall location plan be maintained at true UTM NAD 83 co-ordinate range and orientation. All entities drawn shall be oriented geographically on x, y co-ordinates. This is imperative for use of geo-indexing tools included with AutoCAD MAP3. A separate drawing sheet overlay should be maintained as a separate layer or drawing file. The drawing sheet key plan should show the location of specific sheets including the drawing number.
- 5.3.2.3.5 Individual drawings can then be clipped from the overall file and worked on independently. Each drawing sheet should also contain a "hidden" attribute block named "Insertion" with a tag named "rotate" which contains the angular rotation and a tag named "insert" which contains the x, y and z coordinates of an established insertion point which the sheet must be rotated and inserted when placed back into the overall drawing.
- 5.3.2.3.6 For example, a user, knowing the sheet insertion point and rotational angle, should be able to insert the individual drawings using the AutoCAD "Insert" or "ddinsert" command with the rotation angle and reconstruct the overall plan.

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5.3.2.4 Schematic Drawings

5.3.2.4.1 Schematic drawings are often used to convey overall concepts.

5.3.2.4.2 Use of schematic drawings is encouraged where appropriate. These drawings should be clearly identified as schematic drawings to eliminate confusion.

5.3.2.5 Detail Drawings

5.3.2.5.1 Detail drawings may comprise an enlargement of a specific area where more detailed information is required for construction purposes, or they may contain detailed information on specific components.

5.3.2.5.2 Where a detail drawing comprises an enlargement, it must be drawn to scale and follow the same principles as scale drawings.

5.3.2.5.3 Where a detail drawing comprises standard details which may be shown on multiple drawings, it should first be drawn as a standard drawing and maintained independently. The standard drawing can then be inserted into the appropriate design sheets as required.


5.3.2.5.4 Standard Drawings should not be edited on design drawings. Only the master drawing for the standard detail should be edited.

5.3.2.5.5 This approach permits easy database look ups for standard details without requiring users to review multiple drawings.

5.3.2.6 Use of Attributes Versus Text

5.3.2.6.1 The attribute block capability in AutoCAD is one of its most powerful features as it permits both the location and associated information to be extracted from a drawing file and manipulated externally. For example, fasteners of different types can be located on the individual drawing sheets. These can then be extracted from the drawing file and used for quantity take offs and to establish the coordinates for field layout.

5.3.2.6.2 As a general rule, attribute blocks should be used wherever possible for the placement of symbols and key locational information. Stationing along an alignment, for example, should be placed as attribute text. The stationing can then be extracted to a file as station x, y, or z and can then be automatically used for layout and subsequent as-built validation.

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5.3.2.7 AutoCAD Blocks

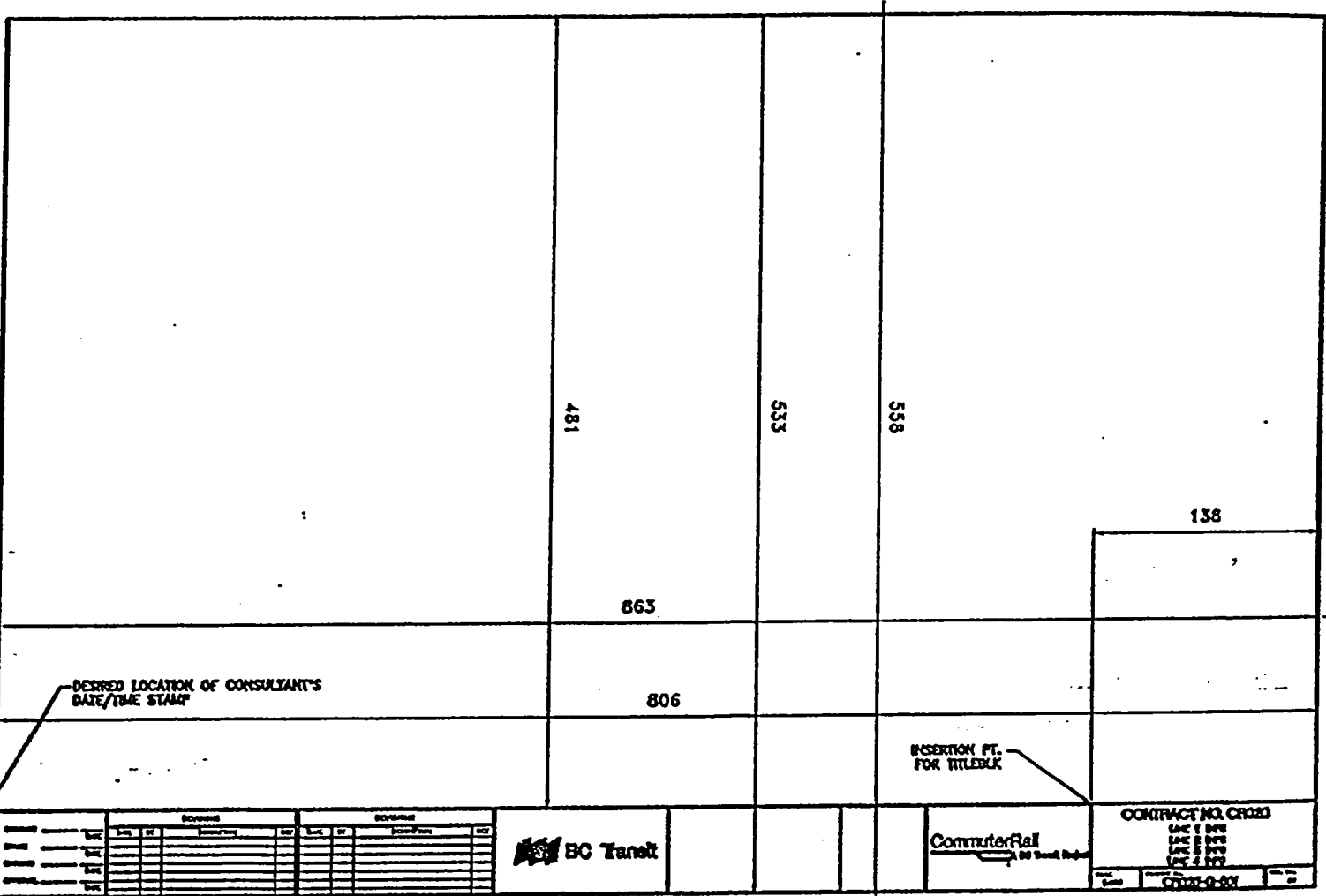
5.3.2.7.1 AutoCAD blocks are commonly used to facilitate and optimize the overall drawing function. Significant information in terms of name and location can be derived from the extensive use of this AutoCAD feature.

5.3.2.7.2 Where an AutoCAD block is used to reference an item contained in the specification, a list of the block name and corresponding specification item must be provided to permit easy cross-reference between the drawing file and the corresponding specification as shown in Figure 5.

5.3.2.7.3 Where an AutoCAD block is presented in a mirrored or unequal x,y insert condition, it must be exploded prior to placement to allow any change in its properties to occur.

5.3.2.8 Pen Sizes

5.3.2.8.1 Since most consultants favour using their own pen and colour conventions in-house, it would save considerable effort if those conventions are followed, providing the consultant submits it for review by the GVTA. If red were used as a fine line (say .13mm) by Consultant A and a heavier line (.35mm) by Consultant B, it would not be of consequence until a digital file were to be plotted by a third party in which case description of pen widths and a .PCP file shall be included with all handover drawings.



- Figure 1 -

<i>AutoCAD LAYER, PEN, COLOUR AND PLOTTER PEN COORDINATION SYSTEM</i>				
	<i>AutoCAD Layer Colour</i>	<i>Pen No. Controls Shade</i>	<i>Line Type (Continuous)</i>	<i>Pen Width Range</i>
1	Red	1	0	.06mm
2	Yellow	1	0	.13mm
3	Green	1	0	.19mm
4	Cyan	1	0	.25mm
5	Blue	1	0	.35mm
6	Magenta	1	0	.50mm
7	White	1	0	.70mm
8	Light Grey	1	0	
9	Dark Grey	1	0	
10	Peach	1	0	
11	Dark Green	1	0	
12	Aquamarine	1	0	
13	Slate Blue	7	0	
14	Purple	10	0	
15	Grey	15	0	

- Figure 2 -

LAYERING CONVENTION

<i>Layer Colour</i>	<i>Layer Name 1</i>	<i>Layer Name 2</i>	<i>Layer Name 3</i>	<i>Description</i>
	0			Co-ordinated Geometry of Alignment and Control
	S	-OutL	-xxxx	Structural Outline of xxxx
	S	-CenL	-xxxx	Structural Centreline of xxxx
	S	-Prof	-xxxx	Structural Profile of xxxx
	S	-HidL	-xxxx	Structural Hidden Lines of xxxx
	S	-Rein	-xxxx	Structural Reinforcement of xxxx
	S	-DimS	-xxxx	Structural Text and Dimensions of xxxx (.25 High)
	S	-DimM	-xxxx	Structural Text and Dimensions of xxxx (.35 High)
	S	-DimL	-xxxx	Structural Text and Dimensions of xxxx (.50 High)
	S	-DimT	-xxxx	Structural Temporary Working Lines and Points
	S	-Bord	-xxxx	Structural Drawing Border and Title Blocks
	S	-Phan	-xxxx	Structural Drawing Phantom Line
	S	-Note	-xxxx	Structural Notes of xxxx
	S	-Dash	-xxxx	Structural Drawing Dashed Line
	S	-Ddot	-xxxx	Structural Drawing Dashdot Line
	S	-Divd	-xxxx	Structural Drawing Divided Line
	S	-DotL	-xxxx	Structural Drawing Dot Line
	S	-Cont	-xxxx	Structural Drawing Contour Line
	S	-Bill	-xxxx	Structural Bill of Material
Notes				
Layer Name	S			Refers to all Structural Drawings
	TR			Refers to all Trackwork Drawings
	PR			Refers to all Power Rail Drawings
	LM			Refers to all LIM Rail Drawings
	ATC			Refers to all ATC Drawings
Layer Name				As noted above. Can be added on by each Consultant.
Layer Name 3			-xxxx	Four character code for more specific references such as Grnd (Grounding), Beam, Colm (Column), ExpJ (Expansion Joint), Insu (Insulator), Ramp, Bolt, Anch (Anchors), etc. This code is an Option and NOT a requirement.
Approval by				Each consultant shall be required to prepare A LAYERING CONVENTION meeting these general guidelines to the GVTA for approval prior to start of production drawings.

