BRITISH COLUMBIA
The Best Place on Earth

Ministry of Transportation
Major Works
TENDER DOCUMENT PACKAGE

PROJECT No. 11897-8002
HIGHWAY NO. 10-192ND STREET TO SPRINGBROOK ROAD-3 SECTIONS
COLD MILLING AND ASPHALT RESURFACING SS 502-EPS
(30.2 LANE KMS)

This Tender Closes At:
Ministry of Transportation
South Coast Regional Office
Contract Administration – 3rd floor
7818 – 6th Street
BURNABY, BC V3N 4N8

MAJOR WORKS

ORDER OF CONTENTS
TENDER DOCUMENT PACKAGE

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The Tender: Cover Page - Tender Document Package

Order of Contents – Tender Document Package

Notice to Bidders

Invitation to Tender – Supplemental Conditions of Tender

Tender Form

Schedule T1 – Conditions of Tender

Schedule T2 – Tender Securities

INS0264 Tender Securities Requirements and Bond Specimens

Specimen Bid Bond

Schedule T3 – Contract Specific Reference Documents

Tender Envelope

Attachments, only to hard copies of the Tender Document Package purchased through the Queen's Printer, are:

Tender Envelope

Tender Form

Schedule 7 - Approximate Quantities and Unit Prices

The Contract: Cover Page - Contract Document Package

Order of Contents – Contract Document Package

Contract Cover Page

Major Works General Conditions

Schedule 1 – Supplemental General Conditions/Glossary of Terms

Glossary of Terms

Supplemental General Conditions

Schedule 2 – Contract Securities

INS0265 Contract Securities Requirements and Bond Specimens

Specimen Performance Bond

Specimen Labour and Material Payment Bond

Schedule 3 – Special Provisions and Appendices

Schedule 4 – Drawings

Schedule 5 – Time Schedule

Schedule 6 – Insurance

INS-NOTICE - Notice to Contractors

INS-152 – Insurance Specifications Major Works

H0111 - Certificate of Insurance

Schedule 7 – Approximate Quantities and Unit Prices

Schedule 8 – Contract Addenda

NOTE

It is the Planholder's responsibility to ensure that the Tender Document Package is complete in accordance with the above Order of Contents – Tender Document Package, including any and all Addenda issued prior to Closing Time.

NOTICE TO BIDDERS

In Tenders issued after July 18, 2005, there have been a number of small but potentially significant changes to the Glossary of Terms, the Minor Works General Conditions and the Major Works General Conditions.

Recent changes to the statutes of British Columbia have been reflected in all three documents.

Minor Works has two new articles, GC 25.00 and GC 26, dealing respectively with co-operation with other contractors on the Site and with confidentiality and the *Protection of Privacy and Freedom of Information Act*.

Major Works has significant changes to GC 20.04, GC 29.06, GC 38.09 and GC 67.04, dealing with Stop Work Orders, Changes to Work and Confidentiality. A number of other changes of less significance have been made at a number of locations in the document, including without limitation GC 3.03 and 3.04, GC 10.05, GC 13.02, GC 38.07, GC 41.01 and GC 74.01.

Lastly, the documents have had hyperlinks inserted to allow users quick access to reference copies of the statutes and rules of arbitration. These links are for reference purposes only and are covered by a disclaimer clause.

Bidders are advised to read the entire Tender Document Package and all associated documents carefully to ensure they have a full understanding of the current conditions.

TENDER ADVERTISING INSERTION ORDER

Project No.: 11897-8002

Do Not publish before: May 29, 2008

1. **Internet site - http: //www.bcbid.ca**

Please invoice with the Tear Sheet to:

Ministry of Transportation - Construction
South Coast Region
7818 6th Street
Burnaby,British Columbia
V3N 4N8
Canada

Invitation to Tender - Supplemental Conditions of Tender
Ministry of Transportation - Construction
Roads and Bridges
Construction

SCT1. ELIGIBILITY TO SUBMIT TENDER **2.2**

1.1 This Tender call is open to all Bidders capable of performing the Work and the Contract, and if a mandatory pre-Tender meeting is specified in these Invitation to Tender - Supplemental Conditions of Tender then this Tender Call is open to all Bidders capable of performing the Work and the Contract who have attended the mandatory pre-Tender meeting as indicated in the Ministry pre-Tender meeting attendance record.

Solicitation Number
11897MJ8002

Close Date & Time
2008/06/12 14:00

Time Zone
Pacific Time

Open Date & Time
2008/06/12 14:30

Time Zone
Pacific Time

SCT2. KEY TENDER INFORMATION

2.1 Project No: 11897-8002

Project Name: Highway No. 10 - 192nd Street to Springbrook Road, 3 Sections, Cold Milling and Asphalt Resurfacing SS 502 - EPS (30.2 Lane Kms)

SCT3. GENERAL

3.1 The following summary information designated "Location" and "Description"are provided for convenience only and do not form a part of these Invitation to Tender - Supplemental Conditions of Tender or the Contract, and in no way define limit, alter or enlarge the scope or meaning of any provision of these Invitation to Tender - Supplemental Conditions of Tender or the Contract.

Location: Highway 10 - 192nd Street to Springbrook Road, Surrey and Langley.

Description: Highway 10-192nd Street to Springbrook Road - 3 Sections, Cold Milling and Asphalt Resurfacing SS 502 EPS, (30.2 Lane Kms)

SCT4. INVITATION TO TENDER - SUPPLEMENTAL CONDITIONS OF TENDER

4.1 These Invitation to Tender - Supplemental Conditions of Tender are incorporated into and form a part of the Conditions of Tender contained in the Tender Document Package, which package may be obtained by:

(a) **click on the Attachments link below for a no charge download of the Tender Document Package:**

(b) **For Hardcopy Tender Document Packages:**

(i) **click here to order online** http://www.publications.gov.bc.ca

(ii) **click here for a Tender Document Package requisition form to order the Tender Document Package** http://www.publications.gov.bc.ca/bcbid/orderform.pdf

(iii) **Tender Document Packages are priced as follows:**

1) Book $55.00 plus GST of 5.0% and PST of 7.0% for total of $61.60
plus shipping costs.

4.2 In these Invitation to Tender - Supplemental Conditions of Tender, unless otherwise expressly set out, a capitalized word shall have the meaning given to it in the Glossary of Terms which is incorporated by reference into and forms a part of these Supplemental Conditions of Tender.

SCT5. HARD COPY DELIVERY METHOD

5.1 Closing Location: Ministry of Transportation
South Coast Region
7818 6th Street
Burnaby,British Columbia
V3N 4N8
Canada

Ministry Fax Number for Revisions and Withdrawals (604) 660-8034

SCT6. CONTACT PERSON AND ADMINISTRATIVE CONTACT PERSON

6.1 Contact Person:

John McKenzie
7818 6th Street
Burnaby, BC V3N 4N8
Fax: (604) 660-1826

6.2 Admin Contact Address:

Ministry of Transportation - Construction
South Coast Region
7818 6th Street
Burnaby,British Columbia
V3N 4N8
Canada

Admin Contact Phone: (604) 660-0328

Admin Contact Fax: (604) 660-8034

SCT7. CONTRACT SPECIFIC REFERENCE DOCUMENTS

7.1 Contract Specific Reference Documents are:
available at:http://www.th.gov.bc.ca/bchighways/contracts/suppdoc.htm

SCT8. PRE-TENDER MEETING AND SITE INVESTIGATIONS

8.1 A Pre-Tender Meeting: will not be held.

8.2 Where a Pre-Tender meeting is scheduled, each Bidder should confirm its intention to attend the Pre-Tender meeting in writing to the Contact Person not less than 48 hours in advance of the scheduled Pre-Tender meeting time.

8.3 Subject to the express terms of the Special Provisions, all persons, including prospective Bidders, must obtain the consent of the Contact Person specified in SCT6.1 before carrying out any investigations on the Site.

BRITISH COLUMBIA | Ministry of Transportation

TENDER FORM

PROJECT NUMBER: 11897- 8002

TENDER FOR PROJECT: Highway No. 10-192nd Street to Springbrook Road-3 Sections Cold Milling and Asphalt Resurfacing SS 502 EPS (30.2 Lane Kms)

The Bidder hereby represents and warrants to the Ministry, with the knowledge that the Ministry will rely upon these representations and warranties in regard to the Bidder's Tender, that:

(a) the Bidder has received, ensured the completeness of, read, understood and accepted the Tender Document Package, including for greater clarity, the Conditions of Tender, the Invitation to Tender - Supplemental Conditions of Tender, any and all Addenda, and any documents incorporated by reference into the Tender Document Package; and

(b) the Bidder's Tender is made and delivered without collusion or fraud.

The Bidder hereby agrees that:

(a) the e-Bidding Key the Bidder submits is the Bidder's authorized signature;

(b) the Bidder is bound by all statements and representations in its Tender, including, without limitation, this Tender Form, the Unit Prices, Lump Sum Prices and Extended Amounts for each Tender Item stated on the Bidder's Schedule of Approximate Quantities and Unit Prices, as may be adjusted by Revision, and as calculated by the Ministry, in accordance with the Conditions of Tender;

(c) the Bidder is bound by the terms of the Conditions of Tender, including for greater clarity, the Invitation to Tender - Supplemental Conditions of Tender and any and all Addenda, and the terms set out in the Tender Document Package;

(d) the Bid Security shall be forfeited in whole or in part to the Ministry, in the sole discretion of the Ministry, if the Bidder fails to comply with the Conditions of Tender or with the agreements set out in this Tender Form, and

(e) the Bidder's Tender is irrevocable for sixty (60) days from the Closing Time.

The Bidder hereby offers to the Ministry that if the Ministry Awards the Contract to the Bidder, the Bidder shall:

(a) execute the Contract in the form specified in the Tender Document Package and deliver the Contract, executed by an Authorized Representative of the Bidder, to the Ministry on the earlier of, 14 days from the date shown on the Ministry cover letter delivering the Contract to the Bidder, and 3 days before commencement of Work on the Site;

(b) supply all labour, tools, equipment, materials, and other resources necessary to complete and perform the Work and the Contract;

(c) complete all Work in strict accordance with the Drawings, specifications, standards, terms and conditions contained in the Contract to the satisfaction of the Ministry;

(d) if the Bidder is not registered and in good standing with the Workers' Compensation Board ("WCB"), register with the WCB in regard to the Contract, and advise the Ministry Representative of the WCB registration number allotted to the Bidder in regard to the Contract on the earlier of, 14 days from the date shown on the Ministry Award letter to the Bidder, and 3 days before commencement of Work on the Site; and

(e) obtain, and deliver to the Ministry the Performance Security and insurance coverage required by the Contract, on the earlier of, 14 days from the date shown on the Ministry Award letter to the Bidder, and 3 days before commencement of Work on the Site,

for the Total Tender Cost (as defined below), as calculated by the Ministry in accordance with the Conditions of Tender on the basis of the Schedule of Approximate Quantities and Unit Prices, after making adjustments for any valid Revisions.

TOTAL TENDER COST $_____, as this amount may be adjusted by the Ministry pursuant to the Conditions of Tender.

Unless otherwise expressly set out, the capitalized terms in this Tender Form have the meaning given to them in the Glossary of Terms that form part of the Conditions of Tender.

DATE: _____

This Tender Form was signed in the presence of:

_____
Witness Signature

_____
Witness Name (*please print*)

_____
Mandatory - Name of Bidder (*the registered corporate name of the legal entity that is submitting the bid – please print*)

_____
Optional – Doing Business As Name *(please print)*

_____
Signature of Authorized Representative of the Bidder

_____
Name and Title of Authorized Representative of the Bidder (*please print*)

Bidder Business Address: _____

Bidder Phone Number: _____ Bidder Fax Number: _____

SCHEDULE T1

CONDITIONS OF TENDER

Conditions of Tender

TABLE OF CONTENTS

CT1. INTERPRETATION AND INVITATION TO TENDER – SUPPLEMENTAL CONDITIONS OF TENDER 2
CT2. USE OF BC BID eSERVICE 2
CT3. BASIS OF TENDERS 4
CT4. CLARIFICATION 6
CT5 ADDENDA 7
CT6 BID SECURITY 7
CT7 COMPLETION OF TENDERS 8
Use of Forms Provided by the Ministry *8*
Tender Form 8
Schedule of Approximate Quantities and Unit Prices 8
Tender Envelope 9
CT8 DELIVERY OF TENDERS 10
CT9 REVISION TO TENDER 11
Form and Content (Hard Copy Delivery Method) *11*
Revisions by Letter (Hard Copy Delivery Method) *12*
Revisions by Facsimile (Hard Copy Delivery Method) *12*
Form and Content (BC Bid eService Delivery Method) *13*
Multiple Revisions *13*
Amount of Bid Security *13*
CT10 WITHDRAWAL OF TENDERS 14
Form and Content (Hard Copy Delivery Method) *14*
Withdrawals by Letter (Hard Copy Delivery Method) *15*
Withdrawals by Facsimile (Hard Copy Delivery Method) *15*
Form and Content (BC Bid eService Delivery Method) *15*
CT11 DELIVERY AND RECEIPT 16
CT12 OPENING OF TENDERS 16
CT13 EVALUATION OF TENDERS 17
Disqualification *17*
Bid Security *18*
Determination of Tender Price *18*
CT14 BIDDER'S CAPACITY TO PERFORM 19
CT15 RIGHT NOT TO AWARD 19
CT16 ACCEPTANCE 19
CT17 PRIOR TO COMMENCEMENT OF WORK 19
CT18 DEFAULT 20
Event of Default *20*
Demand on Bid Security *20*
CT19 DISPUTE RESOLUTION 20
CT20 TIME LIMITATION ON CLAIMS 20
CT21 LIMITATION OF DAMAGES 21
CT22 INTERPRETATION AND DISCRETION 21
CT23 APPROPRIATION 21
CT24 CONFIDENTIALITY 21
CT25 GENERAL 22

CT1. INTERPRETATION AND INVITATION TO TENDER – SUPPLEMENTAL CONDITIONS OF TENDER

1.1 In these Conditions of Tender, unless otherwise expressly set out, a capitalized word shall have the meaning given to it in the Glossary of Terms.

1.2 The Glossary of Terms is hereby incorporated by reference into and forms a part of these Conditions of Tender.

1.3 The Invitation to Tender - Supplemental Conditions of Tender contained in the Tender Document Package are hereby incorporated by reference into and form a part of these Conditions of Tender and where any term set out in the Invitation to Tender - Supplemental Conditions of Tender conflicts with any term set out in these Conditions of Tender, the term set out in these Conditions of Tender shall prevail.

CT2. USE OF BC BID ESERVICE

2.1 The BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions are hereby incorporated by reference into and form a part of these Conditions of Tender, and

(a) these Conditions of Tender are not in any way intended to, and do not in any way, limit or narrow the application, interpretation or operation of the BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions, and

(b) the BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions are not in any way intended to, and do not in any way, limit or narrow the application, interpretation or operation of these Conditions of Tender.

2.2 The Bidder must deliver its Tender, including for greater clarity, any and all Revisions, and any notice of withdrawal, by using one of the following two delivery methods, which the Bidder may, at its option, choose:

(a) the BC Bid eService Delivery Method; or

(b) the Hard Copy Delivery Method, and

except as expressly set out in these Conditions of Tender, the Bidder shall not combine aspects of the BC Bid eService Delivery Method with the Hard Copy Delivery Method.

2.3 **(a)** If the Bidder chooses the BC Bid eService Delivery Method, then the Bidder

(i) must deliver the Tender, including for greater clarity, and, subject to CT2.3(b), any and all Revisions, and any notice of withdrawal, using the BC Bid eService Delivery Method, and

(ii) must deliver the Bid Security using the Hard Copy Delivery Method.

(b) If the Bidder chooses the BC Bid eService Delivery Method, the Bidder may elect to deliver Revisions and any notice of withdrawal using the Hard Copy Delivery Method by

(i) delivering a Revision using such method, and if the Bidder makes such election then

(i) any and all subsequent Revisions, including any replacement Schedule of Approximate Quantities and Unit Prices, must be delivered using the Hard Copy Delivery Method, and

(ii) any subsequent Revisions submitted using the BC Bid eService Delivery Method will not be considered or evaluated, or

(ii) delivering a notice of withdrawal using such method.

(c) Determinations as to whether any Revision or notice of withdrawal submitted using BC Bid eService Delivery Method was delivered subsequent to delivery of a Revision using the Hard Copy Delivery Method will be governed by the calendar and clock at the Closing Location whether such calendar or clock, as the case may be, is accurate or not.

(d) If the Bidder chooses the Hard Copy Delivery Method, then the Bidder must deliver the Tender, including for greater clarity, any and all Revisions and the Bid Security, and any notice of withdrawal using the Hard Copy Delivery Method.

2.4 The Bidder must not deliver the Bid Security using the BC Bid eService Delivery Method. The Bidder must deliver the Bid Security, including any part of the Bid Security, in accordance with CT6, using only the Hard Copy Delivery Method.

2.5 If the Bidder chooses the BC Bid eService Delivery Method, then the Bidder must have an "e-Bidding Key" as defined in the BC Bid eService Terms and Conditions.

2.6 Without in any way whatsoever limiting the BC Bid Supplier Terms and Conditions, including without limitation, sections 8 and 9 set out therein, or the BC Bid eService Terms and Conditions, including without limitation, sections 13, 14, and 15 set out therein,

(a) the Bidder is solely responsible for reviewing any guidelines, the BC Bid Supplier Terms and Conditions and the BC Bid eService Terms and Conditions applying to and governing the use of the BC Bid eService; and

(b) the Ministry shall in no way whatsoever be responsible or liable, including in contract or tort, for any mistakes, errors, omissions, oversights, statements, representations, or warranties in any guideline, guidance or information, written or oral, given to Bidders by or on behalf of the Ministry regarding or in connection with the BC Bid eService, including without limitation, the use of the BC Bid eService or the BC Bid eService Delivery Method, further including without limitation, where such mistakes, errors, omissions, oversights, statements, representations, or warranties, lead or contribute, directly or indirectly, to a Bidder making mistakes, errors, omissions or oversights, or the Bidder's Tender being disqualified.

2.7 Without in any way whatsoever limiting the BC Bid eService Terms and Conditions or the BC Bid Supplier Terms and Conditions, or the responsibility of the Bidder to read and comply with the terms set out therein,

(a) the Bidder must take note of section 5 of the BC Bid eService Terms and Conditions that reads as follows:

"5. The Bidder agrees that if its e-Bidding Key is entered incorrectly, or is invalid at any applicable closing times or dates regardless of when received by Us, then any bids, proposals or other communications that the e-Bidding Key is associated with will not be considered or evaluated.", and

(b) the Bidder must take note of section 6 of the BC Bid Supplier Terms and Conditions that reads as follows:

"6. If you have a valid BC Bid® electronic signature key ("e-Bidding Key") and you are creating an electronic response to a posted opportunity, you will be given three attempts to enter the correct e-Bidding Key sequence. You agree that, if, on the third attempt, the e-Bidding Key is incorrectly entered, the BC Bid system will prohibit you from electronic bidding until such time that your account has been re-activated by the Service. You agree that your organization's primary contact will be

Part 2 of 2 Page 13
TRA-2011-00229

responsible for contacting the Service to reinstate a user account that has been suspended for whatever reason.".

CT3. BASIS OF TENDERS

3.1 The Bidder, by delivering a Tender, irrevocably agrees that,

(a) the Bidder has received, read, examined and understood the entire Tender Document Package, including without limitation, all the terms of these Conditions of Tender and any and all Addenda,

(b) the Unit Prices, Lump Sum Prices and Extended Amounts for each Tender Item, and the Tendered Site Occupancy Days and the Tendered Site Occupancy Cost if any, stated on the Bidder's Schedule of Approximate Quantities and Unit Prices, as may be adjusted by Revision, and as calculated by the Ministry, in accordance with these Conditions of Tender, shall be binding on the Bidder,

(c) the Bidder is bound by the terms of these Conditions of Tender and any and all Addenda, and

(d) the Bidder waives any right to clarification of any aspect of any information in the Tender Document Package, including without limitation, these Conditions of Tender and any and all Addenda.

3.2 The Bidder, by delivering a Tender, represents and warrants that:

(a) the Bidder has received, ensured the completeness of, read, understood and accepted the Tender Document Package, including for greater clarity, any documents incorporated by reference into the Tender Document Package, and any and all Addenda;

(b) except as set out in CT3.5 and CT3.6 and only to the extent expressly set out therein, the Bidder has not relied upon any representation or warranty by the Ministry with respect to the completeness, reliability, sufficiency, accuracy or relevance of any information, or any interpretation derived from any such information, set out in or otherwise provided in the Tender Document Package, or the General Reference Documents, or any analysis or interpretation thereof, and any reliance thereon or use made thereof by the Bidder shall be at the sole risk of the Bidder;

(c) the Bidder has had sufficient opportunity to investigate, has made all such investigations as the Bidder, in its sole discretion, has determined are necessary, and has fully investigated and satisfied itself of every condition relating to or affecting the Work, including but not limited to any design requirements, the Site conditions, or the labour, equipment, material and any other resources to be provided to perform the Work and the Contract, and the Bidder assumes any and all risks relating to or regarding all such conditions, whether or not any such conditions are revealed by any information available to, or investigations undertaken by, the Bidder;

(d) save and except for the specific information provided by the Ministry as set out in CT3.5 and CT3.6, the Bidder's investigations have been based on its independent examination, experience, knowledge, information, and judgment, and not upon any statement, representation, or information made or given by or on behalf of the Ministry;

(e) the Tender, including for greater clarity, any part of the Tender Price, the Tendered Site Occupancy Cost, and the Total Tender Cost, is not based upon the anticipated approval of any Value Engineering Proposal; and

(f) the Bidder has the experience, knowledge, equipment, skills and resources necessary to perform and complete the Work and the Contract.

3.3 Any and all investigations shall be made at the Bidder's own risk and the Bidder shall indemnify

and save harmless the Ministry, its officers, employees and agents, even where the Ministry or its officers, employees and agents are negligent, for any loss, damage, cost, expense (including without limitation, legal defence costs and expenses), claim, liability, demand, fine, penalty, assessment, or levy suffered or incurred by the Bidder, the Ministry, or any third party arising, either directly or indirectly, from the Bidder's investigation, including from any acts or omissions, negligent or otherwise, of the Ministry, its officers, employees and agents, which indemnity shall survive subsequent to any Award of the Contract, or any cancellation or termination of this Tender Call.

3.4 The Bidder shall be responsible for examining and inspecting the General Reference Documents and the Contract Specific Reference Documents, and for ensuring that all documents and materials listed are complete, available and present at the location or locations specified in the Invitation to Tender - Supplemental Conditions of Tender.

3.5 Any geotechnical investigation datum and test results provided in the borehole and test pit logs contained within the Tender Document Package and the Contract Specific Reference Documents are a reasonable representation of the conditions encountered at the specific locations investigated on the dates of the investigations, and may be relied upon by the Bidder solely to that extent and solely in that manner.

3.6 Any survey point datum, but not interpolated digital terrain models, contours and cross-sections derived therefrom, contained within the Tender Document Package and the Contract Specific Reference Documents are a reasonable representation of the individual points surveyed at the time of such survey, and may be relied upon by the Bidder solely to that extent and solely in that manner.

3.7 Except as set out in CT3.5 and CT3.6 and only to the extent expressly set out therein, the Ministry makes no representation or warranty and has no responsibility or liability, with respect to the completeness, reliability, sufficiency, accuracy or relevance of any information, or any interpretation derived from any such information, set out or otherwise provided in, including by accessing the URL's or the Web sites set out in, the Tender Document Package, the Contract Specific Reference Documents or the General Reference Documents, or any analysis or interpretation thereof, and any reliance thereon or use made thereof by the Bidder shall be at the sole risk of the Bidder.

3.8 Unless otherwise specified in the Tender Document Package, the General Reference Documents and the Contract Specific Reference Documents are available in the manner and at the locations described in the definitions of General Reference Documents and the Contract Specific Reference Documents set out in the Glossary of Terms. The Ministry will not provide copies of any General Reference Documents. The Ministry will provide copies for viewing by Bidders, of only those Contract Specific Reference Documents that the Tender Document Package expressly states will be provided by the Ministry.

3.9 Subject to the express terms of the Special Provisions, the Standard Specifications shall apply to the performance of the Contract, including without limitation, to the performance of and the measurement of the Work.

3.10 The Contract shall include the General Conditions set out in the Tender Document Package.

3.11 The Approximate Quantities stated in the Schedule of Approximate Quantities and Unit Prices, save and except for the Tendered Site Occupancy Days and the Daily Site Occupancy Cost if any, are estimates only and are prepared exclusively for use by the Ministry to establish the Tender Price for the purpose of comparing Tenders. The actual quantities may increase or decrease. The elimination of Tender Items, or an increase or decrease in quantities shall not invalidate the Tender, the Contract, or any Unit Price.

3.12 (a) If specified in the Invitation to Tender - Supplemental Conditions of Tender, a pre-Tender meeting shall be held.

(b) If the pre-Tender meeting is specified to be mandatory,

(i) a representative of the Bidder must attend the pre-Tender meeting and the Bidder must ensure that its full legal name, as it will appear on the face of the Tender Envelope, is listed on the Ministry pre-Tender meeting attendance record, and

(ii) any Tender, including any Revision, delivered by a Bidder whose name, as it appears on the face of the Tender Envelope, is not listed on the Ministry pre-Tender meeting attendance record, shall not be opened and shall be returned, or if opened, shall not be considered or evaluated but shall be disqualified.

(c) Any information, statements, representations, data or conclusions, verbal or otherwise, obtained from the Ministry or any other party, or made available, at any pre-Tender meeting is not stated, represented or warranted to be accurate, complete, relevant, or reliable by the Ministry and shall not be considered or treated as such, or relied upon by the Bidder. The Ministry may take notes at any such pre-Tender meeting for its sole use, and the Ministry shall be under no obligation whatsoever to make minutes or copies of such notes available to any Bidder and, may, in its sole discretion refuse to make minutes or copies of such notes available to any Bidder.

CT4. CLARIFICATION

4.1 Requests for clarification of any part of the Tender Document Package by the Bidder shall be delivered in writing by courier, fax, or electronic mail, not less than seven (7) days before the Closing Time, in accordance with the following:

(a) with respect to the Work, to the Contact Person identified in the Invitation to Tender - Supplemental Conditions of Tender; and

(b) with respect to the Tender Call, to the Administrative Contact Person identified in the Invitation to Tender - Supplemental Conditions of Tender.

4.2 The Ministry may in its sole discretion respond to any such requests for clarification. If the Ministry elects to respond to any such requests for clarification, it will do so in accordance with CT5.3, by Addenda which set out the request for clarification and the response to such requests in a "Question and Answer" format without setting out the name of the person who delivered the request.

4.3 Responses to requests for clarification made in any manner other than as described in CT4.2, including without limitation, verbal, in person, via mail, via fax, or electronic mail, by any employees, agents or representatives of the Ministry including without limitation, the Contact Person or the Administrative Contact Person, shall not constitute an official response by the Ministry and shall not be relied on in any way by any person for any purpose whatsoever and shall not be binding upon the Ministry in any way whatsoever.

4.4 It is the sole responsibility of the Bidder to monitor the BC Bid eService email notifications referenced in CT5.3(b), the BC Bid eService, and the BC Bid Website on an ongoing basis to keep itself informed of any such clarifications.

4.5 The Ministry shall have no responsibility or liability whatsoever, including in contract or in tort, in regard to or in connection with any decision to respond or not to respond to requests for

clarification, the timing of issuing any Addenda setting out the responses to any such requests, the quality or content of any such responses or the failure of a Bidder to keep itself informed of any such responses.

CT5 ADDENDA

5.1 The Ministry may, in its sole discretion, at any time and from time to time, amend any part or parts of the Tender Document Package by means of Addenda. If issued through the BC Bid eService, Addenda shall be identified as "Amendments". Other than by Addenda, including for greater clarity, BC Bid eService Amendments, no part of the Tender Document Package may be amended in any other way by any person.

5.2 Other than as set out in an Addendum, any information pertaining to the Tender Document Package, or this Tender Call, including without limitation, to the Work, or to the Contract, that is offered or obtained from any source, including from the Contact Person or from the Administrative Contact Person, is not official and shall not be relied on in any way by any person for any purpose whatsoever and shall not be binding upon the Ministry in any way whatsoever.

5.3 Subject to these Conditions of Tender,

(a) any and all Addenda shall be delivered to each Planholder, and

(b) if the Bidder has registered with the BC Bid eService to receive email notifications in accordance with the BC Bid eService requirements, or if the Bidder has confirmed that it wishes to be notified of Addenda by clicking on the "Send Me Amendments" option in the Invitation to Tender – Supplemental Conditions of Tender, then the BC Bid eService shall send the Bidder notifications of such Addenda, via e-mail containing a referring web-link to such Addenda.

5.4 Notwithstanding any other term of these Conditions of Tender, the Bidder shall be solely responsible to continually monitor the BC Bid eService email notifications referenced in CT5.3(b), the BC Bid eService, and the BC Bid Website on an ongoing basis to keep itself informed of any and all Addenda, and the Ministry shall be neither responsible nor liable in any way whatsoever, including in contract or in tort, for the failure of the Bidder to receive or to keep itself informed of any such Addenda, at all or in a timely manner.

CT6 BID SECURITY

6.1 The Bidder must deliver, as part of its Tender, Bid Security having a value and in a form that complies with the terms of the Schedule entitled "Tender Securities" as set out in the Tender Document Package.

6.2 If the Bidder delivers its Tender using, either, the BC Bid eService Delivery Method or the Hard Copy Delivery Method, the originals of the Bid Security must be delivered to the Closing Location before the Closing Time by hand or by courier, and

(a) if the Bidder delivers its Tender using the BC Bid eService Delivery Method, the Bid Security must be delivered in a sealed envelope that clearly and legibly has identified on its face:

(i) the heading "Tender Bid Security";

(ii) the full legal name of the Bidder; and

(iii) the Project Name and, or the Project Number, as specified in SCT2, and

(b) if the Bidder delivers its Tender using the Hard Copy Delivery Method, the Bid Security must be delivered in the sealed Tender Envelope.

CT7 COMPLETION OF TENDERS

Use of Forms Provided by the Ministry

7.1 The Bidder must deliver its Tender on original or unaltered copies of the forms specified by the Ministry. Any information provided by the Ministry on any form must not be altered by the Bidder, or any person, except the Ministry. If the Ministry amends the Tender Document Package by replacing any form or forms, the Bidder must deliver the replacement form or forms, as the case may be, as part of its Tender.

7.2 Unless otherwise expressly set out, the Bidder must complete all forms in full and,

(a) if the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder must complete all forms in full by typing or printing legibly in ink on all such forms, and any adjustments, changes, or corrections to information provided by the Bidder on any such form must be initialed by an Authorized Representative of the Bidder; or

(b) if the Bidder delivers its Tender using the BC Bid eService Delivery Method, then the Bidder must complete all forms in full by entering the required information.

Tender Form

7.3 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then

(a) the Bidder must set out on the Tender Form,

(i) its full legal name,

(ii) the date of the Tender Form

(iii) the name of the Authorized Representative of the Bidder, and

(iv) the Total Tender Cost, and

the Tender Form must be signed by an Authorized Representative of the Bidder, and

(b) the Bidder should include the complete mailing address, phone number and fax number of the Bidder, on the Tender Form.

7.4 If the Bidder delivers its Tender using the BC Bid eService Delivery Method, then the use of the e-Bidding Key is the legal equivalent to its authorized signature and constitutes the Bidder's authorized signature confirming the Bidder's agreement to be bound by the terms and conditions of this Tender Call, including for greater clarity, these Conditions of Tender, and by the statements and representations to which the e-Bidding Key is affixed, including for greater clarity, the Bidder's Tender.

Schedule of Approximate Quantities and Unit Prices

7.5 All prices, including Unit Prices, Provisional Sums, and Lump Sum Prices shall be deemed to be inclusive of all applicable costs, including any and all license costs, fees, taxes or duties in effect at the Closing Time, cash allowances, and contingencies. All prices, including Unit Prices, Provisional Sums, and Lump Sum Prices must be stated in the lawful money of Canada. Conversion of Quantities is not permitted (e.g., conversion of "price per litre" to "price per kilolitre" is not permitted). Conversion of metric units to imperial units or vice versa is not permitted.

7.6 In the Schedule of Approximate Quantities and Unit Prices,

(a) the Bidder must complete,

(i) all blank spaces in the column under the heading "Unit Price" and all blank spaces in the column under the heading "Extended Amount" for each Unit Price Item; and

(ii) all blank spaces in the column under the heading "Extended Amount" for each Lump Sum Item; and

(iii) in a Tender Call in which the Schedule of Approximate Quantities and Unit Prices contains a Part B for Site Occupancy and the Ministry requires the submission of Tendered Site Occupancy Days and has provided a Daily Site Occupancy Cost, all blank spaces in the column entitled "Approximate Quantities" in Part B for the Tendered Site Occupancy Days and all blank spaces in the column entitled "Extended Amount" for the Tendered Site Occupancy Cost, and

(b) the Bidder should include the full legal name and complete mailing address, phone number and fax number of the Bidder, on the Schedule of Approximate Quantities and Unit Prices.

7.7 (a) If the Ministry amends the Tender Document Package by replacing the Schedule of Approximate Quantities and Unit Prices, the Bidder must deliver the replacement Schedule of Approximate Quantities and Unit Prices completed in accordance with these Conditions of Tender.

(b) If the Bidder delivers its Tender using the Hard Copy Delivery Method, the Bidder shall not deliver any replacement Schedule of Approximate Quantities and Unit Prices by facsimile transmission but may deliver the replacement Schedule of Approximate Quantities and Unit Prices, by hand or courier,

(i) enclosed in an envelope, that clearly and legibly has identified on its face,

(A) the heading "Schedule of Approximate Quantities and Unit Prices",

(B) the full legal name of the Bidder, and

(C) the Project Name and, or the Project Number, as specified in SCT2, and

that must be delivered to and received at the Closing Location before the Closing Time, or

(ii) as part of a replacement Tender in accordance with CT8.6,

Tender Envelope

7.8 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder must clearly and legibly print or type on the face of the Tender Envelope

(a) the full legal name of the Bidder; and

(b) the Project Name and, or the Project Number, as specified in SCT2, and

the Bidder must deliver its Tender in the Tender Envelope provided in the Tender Document Package.

7.9 If the Bidder delivers its Tender using the BC Bid eService Delivery Method, then the Bidder must ensure that the Tender Envelope contains a fully completed Schedule of Approximate Quantities and Unit Prices.

CT8 DELIVERY OF TENDERS

8.1 The Ministry may in its sole discretion, from time to time and at any time on or before the Closing Date and before the Closing Time, extend the Closing Date and Closing Time.

8.2 **(a)** Unless the Bidder has elected pursuant to CT2.3(b) to submit Revisions or any notice of withdrawal using the Hard Copy Delivery Method, the calendar and clock showing on the BC Bid Website whether accurate or not, shall govern the delivery of Tenders using the BC Bid eService Delivery Method with respect to whether the Bidder's Tender, including for greater clarity, any and all Revisions, has been delivered and received on or before the Closing Date and before the Closing Time, and the BC Bid Website clock shall be set as specified in the Invitation to Tender – Supplemental Conditions of Tender.

(b) The calendar and clock at the Closing Location whether accurate or not, shall govern the delivery of Tenders using the Hard Copy Delivery Method, and the delivery of the Bid Security in connection with a Tender that has been delivered using the BC Bid eService Delivery Method, with respect to whether the Bidder's Tender, including for greater clarity, any and all Revisions, or the Bidder's Bid Security in the case of a Tender delivered using the BC Bid eService Delivery Method, has been delivered and received before the Closing Time.

(c) If the Bidder has elected pursuant to CT2.3(b) to submit Revisions or any notice of withdrawal using the Hard Copy Delivery Method, then the calendar and clock at the Closing Location whether accurate or not, shall govern the delivery of any and all Revisions or any notice of withdrawal using the Hard Copy Delivery Method and relating to a Tender or to any previous Revisions submitted using BC Bid eService Delivery Method, with respect to whether the Bidder's Revisions or notice of withdrawal, as the case may be, were delivered and received before the Closing Time.

8.3 If the Bidder delivers its Tender using the Hard Copy Delivery Method, then the Bidder must ensure that,

(a) the Tender Form with the original execution by an Authorized Representative on behalf of the Bidder, and fully completed as required by these Conditions of Tender,

(b) the original of the Schedule of Approximate Quantities and Unit Prices, or, if the Ministry has amended the Tender Document Package by replacing the Schedule of Approximate Quantities and Unit Prices, the original of the replacement Schedule of Approximate Quantities and Unit Prices, completed as required on the form and by these Conditions of Tender, and

(c) the original of the Bid Security, and if the Bid Security is a Bid Bond, then the original of the Bid Bond duly executed on behalf of the Surety,

are included in the Tender Envelope prior to sealing and are delivered to and received at the Closing Location before the Closing Time.

8.4 If the Bidder delivers its Tender using the BC Bid eService Delivery Method, then the Bidder must ensure that,

(a) the Tender Form is fully completed as required on the form and by these Conditions of Tender,

(b) the Tender Envelope is fully completed as required on the form and by these Conditions of Tender,

(c) the Schedule of Approximate Quantities and Unit Prices, or if the Ministry has amended the Tender Document Package by replacing the Schedule of Approximate Quantities and Unit Prices, then the replacement Schedule of Approximate Quantities and Unit Prices, is fully

completed as required on the form and by these Conditions of Tender, unless the Bidder elects or has, prior to such Ministry amendment, elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method, and if the Bidder so elects or has made such election, then the original of the replacement Schedule of Approximate Quantities and Unit Prices is completed and delivered as required on the form and by these Conditions of Tender, including without limitation, CT7.7(b),

(c) such Tender Form and Tender Envelope are delivered to and received by the BC Bid eService in accordance with these Conditions of Tender, including for greater clarity, the BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions, before the Closing Time, and

(d) the original Bid Security duly executed on behalf of the Surety, is enclosed in a sealed envelope that clearly and legibly has identified on its face:

(i) the heading "Tender Bid Security";

(ii) the full legal name of the Bidder; and

(iii) the Project Name and, or the Project Number, as specified in SCT2 and

such sealed envelope containing the original Bid Security is delivered to and received at the Closing Location before the Closing Time.

8.5 The Bidder's Tender shall be considered to have been delivered on or after the Closing Time and shall not be considered or evaluated but shall be disqualified, if the transmission of the Tender using the BC Bid eService Delivery Method begins before the Closing Time and is completed on or after the Closing Time.

8.6 If the Bidder delivers more than one Tender, each Tender delivered in accordance with these Conditions of Tender and received by the BC Bid eService or at the Closing Location, as the case may be, before the Closing Time shall be deemed to have been delivered in the chronological order received, and each such Tender delivered by the same Bidder shall be considered to supercede and replace in its entirety any and all prior Tenders delivered by the same Bidder.

CT9 REVISION TO TENDER

9.1 The Bidder shall only amend its Tender by delivering a Revision in compliance with these Conditions of Tender.

Form and Content (Hard Copy Delivery Method)

9.2 If the Bidder delivers its Tender using the Hard Copy Delivery Method or if the Bidder elects pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method, then Revisions must:

(a) be in writing;

(b) be clearly identified with,

(i) the heading "Revision to Tender",

(ii) the Bidder's full legal name, and

(iii) the Project Name and, or Project Number specified in SCT2;

(c) clearly identify each form that the Bidder desires to amend,

(d) clearly identify each Tender Item that the Bidder desires to amend, and

(i) if the Tender Item is a Unit Price Item, then describe the amendment as the amount by which the Unit Price, as it may have been revised by a preceding Revision, should be increased or decreased,

(ii) if the Tender Item is a Lump Sum Item, then describe the amendment as the amount by which the corresponding Extended Amount, as it may have been revised by a preceding Revision, should be increased or decreased, and

(iii) if the amendment is to the Tendered Site Occupancy Days, then describe the amendment as the number of days by which the Tendered Site Occupancy Days, as it may have been revised by a preceding Revision, should be increased or decreased;

(e) be signed by an Authorized Representative on behalf of the Bidder, and

(f) be delivered to and received at the Closing Location before the Closing Time using the Hard Copy Delivery Method, and

Revisions should also state the total amount by which the Tender Price, the Tendered Site Occupancy Cost if any, or the Total Tender Cost, as the case may be, should be increased or decreased by each Revision, but the Ministry shall determine the actual increase or decrease to the Tender Price, the Tendered Site Occupancy Cost, if any, and the Total Tender Cost, in accordance with these Conditions of Tender, including by applying the information provided by the Bidder pursuant to CT9.2(c) and (d).

Revisions by Letter (Hard Copy Delivery Method)

9.3 If the Bidder delivers its Tender using the Hard Copy Delivery Method, or if the Bidder elects pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method, then Revisions may be delivered by hand or courier, in which case, each such Revision must be in the form set out in CT 9.2 and must be delivered to and received at the Closing Location before the Closing Time enclosed in an envelope, that clearly and legibly has identified on its face,

(a) the heading "Revision to Tender",

(b) the full legal name of the Bidder, and

(c) the Project Name and, or the Project Number, as specified in SCT2.

Revisions by Facsimile (Hard Copy Delivery Method)

9.4 If the Bidder delivers its Tender using the Hard Copy Delivery Method, or if the Bidder elects pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method, then Revisions may be delivered by facsimile, in which case, each such Revision must be in the form set out in CT 9.2 and must be delivered to the facsimile number specified in the Invitation to Tender - Supplemental Conditions of Tender as the facsimile number for Revisions, before the Closing Time, and each such Revision must have clearly and legibly identified on the first page of the facsimile,

(a) the heading "Revision to Tender",

(b) the full legal name of the Bidder, and

(c) the Project Name and, or the Project Number, as specified in SCT2.

9.5 **(a)** The Bidder's Revision shall be considered to have been delivered on or after the Closing Time, and shall not be considered or evaluated, but shall be disqualified, if the transmission of the Revision by facsimile begins before the Closing Time and is completed on or after the Closing Time.

(b) The Ministry does not in any way whatsoever guarantee, and makes no representation or warranty whatsoever, as to the confidentiality of any Revision delivered by facsimile.

Form and Content (BC Bid eService Delivery Method)

9.6 If the Bidder delivers its Tender using the BC Bid eService Delivery Method then, unless the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method,

(a) any and all Revisions must be in writing, in the form of replacement amended Tender Forms and replacement amended Tender Envelopes provided for by clicking on the "Amendments" option in the Tender Envelope; and

(b) the Bidder must ensure that

(i) each such replacement amended Tender Form is fully completed, and

(ii) each such replacement amended Tender Envelope, including the Schedule of Approximate Quantities and Unit Prices, is fully completed, and

are delivered to and received by the BC Bid eService in accordance with these Conditions of Tender, including for greater clarity, the BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions, before the Closing Time.

(c) If the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method then CT9.6(a) and CT9.6(b) do not apply and CT9.2 to and including CT9.5 will apply to any and all Revisions delivered subsequent to such election and to the Tender, and the Bidder must ensure that the requirements set out in CT9.2 to and including CT9.5 are satisfied.

9.7 The Bidder's Revision shall be considered to have been delivered on or after the Closing Time and shall not be considered or evaluated but shall be disqualified, if the transmission of the Revision using the BC Bid eService Delivery Method begins before the Closing Time and is completed on or after the Closing Time.

Multiple Revisions

9.8 **(a)** Each Revision delivered using the Hard Copy Delivery Method, should be numbered sequentially.

(b) Unless the Bidder clearly and legibly specifies to the contrary on the face of each Revision each Revision shall be deemed to have been delivered by the Bidder in the chronological order received.

Amount of Bid Security

9.9 The Bidder must ensure that the total value of the Bid Security complies with the requirements of the Schedule entitled "Tender Securities" as set out in the Tender Document Package, and that the total value of the Bid Security reflects any change to the Tender Price as a result of any and all Revisions, including as a result of the delivery of any and all replacement forms, including any replacement Schedule of Approximate Quantities and Unit Prices.

9.10 If the terms of the Schedule entitled "Tender Securities" as set out in the Tender Document Package, permit the delivery of a bank draft, certified cheque or money order in connection with this Tender Call, then the Bidder may deliver additional bank drafts, certified cheques or money orders, as the case may be, in accordance with these Conditions of Tender, including for greater clarity CT6, to ensure that the total value of the Bid Security reflects any change to the Tender Price as a result of any and all Revisions, including any and all replacement Schedules of Approximate Quantities and Unit Prices.

9.11 If as a result of any Revisions, including any and all replacement Schedules of Approximate Quantities and Unit Prices, the total value of the Bid Security delivered by the Bidder exceeds the value required in the Schedule entitled "Tender Securities" as set out in the Tender Document Package, the Bidder shall not be permitted to withdraw any part of the Bid Security delivered.

CT10 WITHDRAWAL OF TENDERS

10.1 The Bidder shall only withdraw its Tender by delivering a notice of withdrawal in compliance with these Conditions of Tender on or before the Closing Date and before the Closing Time, and in such case, the Ministry shall return the withdrawn Tender, including any Bid Security, to the Bidder after the Closing Time.

10.2 Any Tender not withdrawn by the Bidder in accordance with these Conditions of Tender before the Closing Time, shall become irrevocable at the Closing Time, and shall remain irrevocable for the period of time specified on the Tender Form.

Form and Content (Hard Copy Delivery Method)

10.3 If the Bidder has delivered its Tender using the Hard Copy Delivery Method or if the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method or elects pursuant to CT2.3(b) to submit the notice of withdrawal using the Hard Copy Delivery Method, then any notice of withdrawal must:

(a) be in writing;

(b) be clearly identified with

(i) the heading "Withdrawal of Tender",

(ii) the full legal name of the Bidder,

(iii) and the Project Name and, or Project Number as specified in SCT2;

(c) contain a clear statement that the Tender is withdrawn, and

(d) be signed by an Authorized Representative on behalf of the Bidder, and delivered to and received at the Closing Location before the Closing Time using the Hard Copy Delivery Method.

Withdrawals by Letter (Hard Copy Delivery Method)

10.4 If the Bidder has delivered its Tender using the Hard Copy Delivery Method or if the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method or elects pursuant to CT2.3(b) to submit the notice of withdrawal using the Hard Copy Delivery Method, then the notice of withdrawal may be delivered by hand or courier, in which case, such notice of withdrawal must be delivered to and received at the Closing Location before Closing Time enclosed in an envelope, that has clearly and legibly identified on its face,

(a) the heading "Withdrawal of Tender",

(b) the full legal name of the Bidder, and

(c) the Project Name and, or the Project Number, as specified in SCT2.

Withdrawals by Facsimile (Hard Copy Delivery Method)

10.5 If the Bidder has delivered its Tender using the Hard Copy Delivery Method or if the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method or elects pursuant to CT2.3(b) to submit the notice of withdrawal using the Hard Copy Delivery Method, then the notice of withdrawal may be delivered by facsimile, in which case, such notice of withdrawal must be delivered to the facsimile number specified in the Invitation to Tender - Supplemental Conditions of Tender as the facsimile number for withdrawals, on or before the Closing Date and before Closing Time, and must have clearly and legibly identified on the first page of the facsimile,

(a) the heading "Withdrawal of Tender",

(b) the full legal name of the Bidder, and

(c) the Project Name and, or the Project Number, as specified in SCT2.

10.6 **(a)** The Bidder's notice of withdrawal shall be considered to have been delivered on or after the Closing Time, and shall not be considered in any way whatsoever, if the transmission of the notice of withdrawal by facsimile begins before the Closing Time and is completed on or after the Closing Time.

(b) The Ministry does not in any way whatsoever guarantee, and makes no representation or warranty whatsoever, as to the confidentiality of any notice of withdrawal delivered by facsimile.

Form and Content (BC Bid eService Delivery Method)

10.7 If the Bidder delivers its Tender using the BC Bid eService Delivery Method then unless the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method or elects pursuant to CT2.3(b) to submit the notice of withdrawal using the Hard Copy Delivery Method, any notice of withdrawal must be,

(a) in writing, in accordance with the withdraw option provided by the BC Bid eService, and

(b) delivered to and received by the BC Bid eService in accordance with these Conditions of Tender, including for greater clarity, the BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions, on or before the Closing Date and before the Closing Time.

(c) If the Bidder has elected pursuant to CT2.3(b) to submit Revisions using the Hard Copy Delivery Method or elects pursuant to CT2.3(b) to submit the notice of withdrawal using the Hard Copy Delivery Method, then CT10.7(a) and CT10.7(b) do not apply and CT10.3 to and including CT10.6 will apply to the notice of withdrawal delivered subsequent to such

election and to the Tender and the Bidder must ensure that the requirements set out in CT10.3 to and including CT10.6 are satisfied.

10.8 Any notice of withdrawal shall be considered to have been delivered on or after the Closing Time and shall not be considered, if the transmission of such notice using the BC Bid eService Delivery Method begins before the Closing Time and is completed on or after the Closing Time.

CT11 DELIVERY AND RECEIPT

11.1 The Ministry assumes no risk, makes no guarantee, warranty or representation whatsoever, and shall have no responsibility or liability, including in contract or in tort, whatsoever, for or in connection with,

(a) the timely delivery of any information or documentation, including without limitation, these Conditions of Tender, or any and all Addenda, whether by BC Bid eService, by mail, by courier, by hand, by facsimile, or otherwise, in connection with this Tender Call,

(b) the timely receipt of any Tenders, Revisions, notice of withdrawals, or any other information or documentation from any Bidder or any person, or

(c) the working order, functioning or malfunctioning, of facsimile transmission equipment or electronic information system, including without limitation, BC Bid eService.

11.2 Any and all Addenda, and any other documentation delivered by or on behalf of the Ministry shall be conclusively deemed validly delivered to and received by the intended recipient, including any Bidder, at the time that such Addendum or documentation as the case may be, is issued

(a) by facsimile transmission to the facsimile number designated by the Bidder as the sole facsimile number for receipt of information in connection with this Tender Call, or

(b) in electronic form to the email address designated by the Bidder as the sole email address for receipt of information in connection with this Tender Call.

CT12 OPENING OF TENDERS

12.1 At the Tender Opening, subject to CT3.12,

(a) the Tender Envelopes and the Revisions delivered at the Closing Location before Closing Time using the Hard Copy Delivery Method shall be opened, and

(b) the Tender Forms and Tender Envelopes, or, if the Bidder has delivered replacement amended Tender Forms and replacement amended Tender Envelopes for the purpose of Revision of its Tender, then only such replacement amended Tender Forms and replacement amended Tender Envelopes, delivered to and received by the BC Bid eService before the Closing Time using the BC Bid eService Delivery Method, in accordance with these Conditions of Tender, including for greater clarity, the BC Bid eService Terms and Conditions and the BC Bid Supplier Terms and Conditions, shall be announced, and

the amounts stated on each such Tender Form, or replacement amended Tender Form, and in any and all Revisions delivered using the Hard Copy Delivery Method, as the Total Tender Cost, shall be read out.

12.2 The amount stated in connection with each Tender as the Total Tender Cost and read out at the

Tender Opening is unverified and shall not constitute the Total Tender Cost, but is subject to review, calculation, verification and adjustment, by the Ministry in accordance with these Conditions of Tender.

CT13 EVALUATION OF TENDERS

13.1 Except as expressly set out in these Conditions of Tender, after the Closing Time, no Bidder shall be permitted to supplement or clarify any information provided in or omitted from any Tender.

Disqualification

13.2 Any Tender, including for greater clarity, any and all Revisions, which, in the sole discretion, of the Ministry:

(a) is ambiguous or unclear as to meaning or intent;

(b) is incomplete, conditional, or contains a qualifier;

(c) fails to comply with any of the mandatory requirements of the Conditions of Tender;

(d) contains any alteration to the information provided by the Ministry; or

(e) otherwise fails to comply sufficiently with the Conditions of Tender to be considered a valid Tender

is subject to Disqualification and may be disqualified by the Ministry, in its sole discretion.

If a Tender is subject to Disqualification due to any one or more of the foregoing defects, which, in the sole discretion of the Ministry, is not material, then the Ministry may, in its sole discretion, waive the defect or defects, as the case may be, and not disqualify the Tender.

13.3 Without limiting the generality of CT13.2, any Revision which, in the sole discretion, of the Ministry contains one or more of the defects set out in CT13.2, is subject to Disqualification and may be disqualified by the Ministry, in its sole discretion. If such Revision is disqualified, then the Ministry may, subject to CT 13.2, continue with evaluation of the Tender and any other Revisions, in connection with which the disqualified Revision was delivered.

13.4 If a Revision is subject to Disqualification due to any one or more of the defects referenced in CT13.3, which, in the sole discretion of the Ministry, is not material, then the Ministry may, in its sole discretion waive the defect or defects, as the case may be, and not disqualify the Revision, but include the Revision in connection with the evaluation of the Tender of which such Revision forms a part.

Bid Security

13.5 If a Tender is subject to Disqualification due to the Bid Security containing any one or more of the defects listed in CT13.2, which in the sole discretion of the Ministry, is not material, then the Ministry may, in its sole discretion, deliver written notice to the Bidder requiring the Bidder that delivered the subject Bid Security to remedy the defect or defects, as the case may be, and to deliver to the Closing Location by not later than 2 business days after the date of the Ministry's notification replacement Bid Security with the subject defect or defects remedied. If the Bidder fails to so deliver originals of the replacement Bid Security, the Ministry may, in its sole discretion, disqualify the Bidder's Tender.

Determination of Tender Price

13.6 The Tenders that, in the sole discretion of the Ministry, comply with the Conditions of Tender shall be evaluated on the basis of the Total Tender Costs calculated by the Ministry in accordance with the following:

(a) adjustments to the Unit Prices, if the Schedule of Approximate Quantities and Unit Prices contains a Part B for Site Occupancy, the Tendered Site Occupancy Days, and the Extended Amounts, including Tendered Site Occupancy Cost, if any, shown on the Bidder's Schedule of Approximate Quantities and Unit Prices shall be made by the Ministry in accordance with the Revision(s) that have not been disqualified;

(b) if any Unit Price provided by the Bidder and its corresponding Extended Amount are at variance, the Unit Price shall be considered correct and the Ministry shall recalculate the Extended Amount by multiplying the Approximate Quantity by the Unit Price provided by the Bidder;

(c) if the Schedule of Approximate Quantities and Unit Prices contains a Part B for Site Occupancy, and any Tendered Site Occupancy Days provided by the Bidder and its corresponding Tendered Site Occupancy Cost are at variance, the Tendered Site Occupancy Days shall be considered correct and the Ministry shall recalculate the Tendered Site Occupancy Cost by multiplying the Tendered Site Occupancy Days by the Daily Site Occupancy Cost;

(d) if the sum of all Extended Amounts, including if the Schedule of Approximate Quantities and Unit Prices contains a Part B for Site Occupancy, the Tendered Site Occupancy Cost, and the amount stated as the Total Tender Cost on the Tender Form are at variance, then the amount stated as the Total Tender Cost on the Tender Form shall be deemed to be adjusted to be the sum of the Extended Amounts, including the Tendered Site Occupancy Cost, if any, as calculated by the Ministry; and

(e) if the sum of all Extended Amounts, including if the Schedule of Approximate Quantities and Unit Prices contains a Part B for Site Occupancy, the Tendered Site Occupancy Cost, as calculated by the Ministry, is at variance with the amount stated as the Total Tender Cost on the Tender Form, then the sum of the Extended Amounts, including the Tendered Site Occupancy Cost, if any, as calculated by the Ministry, shall be deemed to be the Total Tender Cost and the amount stated as the Total Tender Cost on the Tender Form shall be deemed to be adjusted to be the sum of the Extended Amounts, including the Tendered Site Occupancy Cost, if any, as calculated by the Ministry;

(f) the sum of all Extended Amounts, including if the Schedule of Approximate Quantities and Unit Prices contains a Part B for Site Occupancy, the Tendered Site Occupancy Cost, as calculated by the Ministry, shall be deemed to be the Bidder's Total Tender Cost.

13.7 If the Total Tender Cost of each of two or more Tenders, as calculated by the Ministry, is the same figure and if the Ministry decides to accept any Tender and award the Contract, then the Ministry shall determine the Bidder to which an Award letter will be delivered by applying a random method

chosen in the Ministry's sole discretion, which may consist of, without limitation, a coin toss or the drawing of one of the Bidder's names out of a box.

CT14 BIDDER'S CAPACITY TO PERFORM

14.1 The Ministry may, at any time and from time to time, after Closing Time, require any Bidder to satisfy the Ministry, in its sole discretion, that the Bidder has the necessary qualifications, equipment, material, and resources available to carry out the Work in a safe, competent manner, within the time limits, and any other requirements specified in the Tender Document Package, including by delivering information to the Ministry in writing which information may include any or all of the following:

(a) evidence that the Bidder is financially, or otherwise capable of performing and completing the Work or the Contract, including without limitation, an agreement to bond, consent of surety, or undertaking to provide requisite insurance;

(b) evidence that the Bidder has successfully carried out and completed works of a similar nature or is otherwise fully capable of performing the Work;

(c) a list of equipment, and its mechanical condition, that the Bidder is prepared to use on the Work;

(d) evidence that the personnel available to the Bidder have professional standing, technical and trade qualifications and licenses necessary to perform the Work;

(e) a detailed Project or Construction Schedule meeting all requirements of the Contract.

14.2 Any Bidder requested to provide such information shall comply with the request by not later than ten (10) days of the date on which the request was made or within such earlier time period, as specified by the Ministry. The Ministry reserves the right to reject the Tender of any Bidder that does not provide information to the satisfaction of the Ministry, in its sole and absolute discretion, in response to any such request.

CT15 RIGHT NOT TO AWARD

15.1 The Ministry reserves the right, in its sole and absolute discretion, to disqualify any or all Tenders, to cancel this Tender Call, to reject any or all Tenders, and to re-tender the same or similar Work at any time. The lowest or any Tender shall not necessarily be accepted.

CT16 ACCEPTANCE

16.1 An Award letter is the only form of acceptance that shall be binding on the Ministry.

CT17 PRIOR TO COMMENCEMENT OF WORK

17.1 If the Ministry delivers an Award letter to the Bidder,

(a) the Bidder shall on the earlier of:

(i) fourteen (14) days from the date shown of the Award letter; and

(ii) three (3) days before commencement of the Work on the Site,

obtain and deliver to the Ministry, the Performance Security, evidence of compliance with the Schedule of the Contract entitled the "Schedule of Insurance", and the Bidder's valid Workers' Compensation Board registration number, and

(b) the Bidder shall on the earlier of:

(i) fourteen (14) days from the date shown on the Ministry cover letter delivering the Contract to the Bidder; and

(ii) three (3) days before commencement of the Work on the Site,

deliver to the Ministry the Contract duly executed by an Authorized Representative, and commence to diligently and promptly fulfill its obligations under the Contract.

CT18 DEFAULT

Event of Default

18.1 Without limiting any and all rights of the Ministry to make demand on the Bid Security, if the Bidder does not comply with the requirements of CT17, then the Ministry may make demand on the Bid Security.

18.2 The rights and remedies of the Ministry under and in connection with this Tender Call are not limited to the Ministry's right to make demand on the Bid Security, and the right to make such demand is cumulative and in addition to every other right and remedy available to the Ministry under and in connection with this Tender Call, at law, and in equity. The exercise by the Ministry of any such right or remedy shall not preclude the simultaneous or later exercise of any other such right or remedy.

Demand on Bid Security

18.3 A demand on the Bid Security shall be the lesser of:

(a) the difference between the Tender Price of the Bidder that has been awarded the Contract by the Ministry, as calculated by the Ministry, and the amount for which the Ministry contracts with another party to perform the Work or substantially the same Work; and

(b) the full amount of the Bid Security.

CT19 DISPUTE RESOLUTION

19.1 In the event of a dispute arising out of this Tender Call:

(a) the Bidder shall, within fourteen (14) days of any issue in dispute first coming to the attention of the Bidder, deliver written notice to the Contact Person of such dispute arising out of this Tender Call; and

(b) all such disputes not resolved through negotiation between the parties within thirty (30) days of the dispute being presented in writing to the Contact Person may by agreement of the Ministry and the Bidder be referred to and finally resolved by binding arbitration in accordance with the *Commercial Arbitration Act*.

19.2 Notwithstanding any notice delivered under CT19.1, the Ministry may, but in no event will be obligated to, proceed with this Tender Call without prejudice to any ongoing dispute resolution proceedings or discussions, including any negotiations or binding arbitration as contemplated in CT19.1

CT20 TIME LIMITATION ON CLAIMS

20.1 Any claim or cause of action a Bidder may have against the Ministry arising out of or in connection with:

(a) the Tender;

(b) the Award; or

(c) this Tender Call

shall be absolutely barred after the expiration of one (1) year commencing from the Closing Time.

CT21 LIMITATION OF DAMAGES

21.1 The Bidder agrees that if the Ministry cancels this Tender Call, disqualifies all Tenders, rejects all Tenders, or does not Award the Contract to any Bidder, then

(a) the Bidder shall not claim against the Ministry, and

(b) the Ministry shall not be liable to the Bidder or to any person,

in contract, in tort, or otherwise, for any losses, costs, damages or expenses or anything whatsoever, including without limitation, for loss of revenue, opportunity, or anticipated profit, or for costs of preparation of the Bidder's Tender.

21.2 The Bidder agrees that in circumstances not described in CT21.1,

(a) the Bidder shall not claim against the Ministry, and

(b) the Ministry shall not be liable to the Bidder or to any person,

in contract, in tort, or otherwise, for any losses, costs, damages or expenses or anything whatsoever, including without limitation, for loss of revenue, opportunity, or anticipated profit, in excess of an amount equivalent to the actual and reasonable costs directly incurred by the Bidder to prepare the Bidder's Tender.

CT22 INTERPRETATION AND DISCRETION

22.1 The Ministry shall not be bound by industry custom and practice in the application or interpretation of these Conditions of Tender, the exercise of its discretion, or in the determination of materiality or compliance.

CT23 APPROPRIATION

23.1 Notwithstanding any other term of these Conditions of Tender, any Award of the Contract, and any financial obligations of the Ministry pursuant to these Conditions of Tender or the Contract shall be subject to:

(a) there being sufficient monies available in an Appropriation to enable the Ministry in any fiscal year or part thereof when any payment of money by the Ministry to the Bidder falls due under the Contract, to make that payment; and

(b) the Treasury Board, as defined in the Financial Administration Act, having not controlled or limited expenditure under any Appropriation contemplated to or referred to in the Contract.

CT24 CONFIDENTIALITY

24.1 All documents and records in the custody or under the control of the Ministry, including, without limitation, the Tender, any Revision, and all other information delivered by the Bidder pursuant to these Conditions of Tender shall become the property of the Ministry, and the Ministry may use any such information, including pricing information provided by the Bidder for the purpose of or in connection with preparing analyses of the Work and for the purpose of or in connection with cost estimating for other projects, and for such purposes, the Ministry may disclose such information to consultants retained by the Ministry.

24.2 Except as otherwise provided or otherwise contemplated in these Conditions of Tender, the Ministry shall treat as confidential and shall not, without the prior written consent of the Bidder, publish, or disclose, or permit to be published or disclosed, the Tender, any Revision, any documents, records or other information delivered by the Bidder pursuant to these Conditions of

Tender, except insofar as such publication or disclosure is required by law, including without limitation the *Freedom of Information and Protection of Privacy Act*, or is necessary to enable the Ministry to fulfill any obligations that the Ministry may have under or in connection with this Tender Call.

CT25 GENERAL

25.1 The headings and captions in these Conditions of Tender are inserted for convenience only and do not form a part of these Conditions of Tender and in no way define, limit, alter or enlarge the scope or meaning of any term of these Conditions of Tender.

25.2 If any provision of these Conditions of Tender or the application thereof to any person or circumstance is invalid or unenforceable to any extent, the remainder of these Conditions of Tender and the application of such provision to any other person or circumstance will not be affected or impaired thereby and shall be valid and enforceable to the extent permitted by law.

25.3 In these Conditions of Tender, the words "including" and "includes", when following any general term or statement, are not to be construed as limiting the general term or statement to the specific items or matters set forth or to similar items or matters, but rather as permitting the general term or statement to refer to all other items or matters that could reasonably fall within the broadest possible scope of the general term or statement.

SCHEDULE T2

TENDER SECURITIES

BRITISH COLUMBIA | Ministry of Transportation

TENDER SECURITIES REQUIREMENTS AND BOND SPECIMENS INS-264

FOR MAJOR WORKS, MINOR WORKS, DESIGN BUILD MINOR AND OPERATIONAL SERVICES CONTRACTS

1. GENERAL INFORMATION ON TENDER SECURITIES

(a) Any and all costs related to or for any and all Bid Securities and Performance Securities must be included in the Tender Price because in no event will the Ministry be responsible for or pay for any such costs, including without limitation as separate or as extra items.

(b) The Ministry will not pay interest on any deposits held by the Ministry.

2. REQUIREMENTS

(a) Bid Security for a value of not less than **ten percent (10%)** of the Tender Price must be delivered with each Tender in accordance with the Conditions of Tender, save and except for Tender Calls in which 2 (d)(ii) applies, in which case the Bid Security must be for a value of not less than **five percent (5%)** of the Tender Price.

(b) **FOR MAJOR WORKS GENERAL CONDITIONS (MAJOR WORKS CONTRACTS) AND DESIGN BUILD GENERAL CONDITIONS (DESIGN BUILD MINOR CONTRACTS)**

Bid Security must be in the form of a Bid Bond in the format and containing the terms and conditions set out in the Specimen form of Bid Bond set out in this Schedule and duly executed on behalf of the Surety and the Bidder.

(c) **FOR OPERATIONAL SERVICES GENERAL CONDITIONS (OPERATIONAL SERVICES CONTRACTS), WHERE THE TENDER PRICE EXCEEDS $200,000**

Bid Security must be in the form of a Bid Bond in the format and containing the terms and conditions set out in the Specimen form of Bid Bond set out in this Schedule and duly executed on behalf of the Surety and the Bidder.

(d) **FOR MINOR WORKS GENERAL CONDITIONS (MINOR WORKS CONTRACTS) OF ANY VALUE OR OPERATIONAL SERVICES GENERAL CONDITIONS (OPERATIONAL SERVICES CONTRACTS) WHERE THE TENDER PRICE IS LESS THAN $200,000** Bid Security may be in one of the following forms.

(i) Bid Security must be in the form of a Bid Bond in the format and containing the terms and conditions set out in the Specimen form of Bid Bond set out in this Schedule and duly executed on behalf of the Surety and the Bidder.

<u>or</u>

(ii) Bid Security must be in the form of a bank draft, certified cheque or money order drawn on a Canadian financial institution payable to the Minister of Finance, and in an amount of not less than **five percent (5%)** of the Tender Price.

(e) If the Bidder is awarded the Contract and if the Bidder delivered a Bid Bond as Bid Security in compliance with the Conditions of Tender and this Schedule, the Bidder will, on the earlier of:

(i) fourteen (14) days from the date shown on the Award letter; and
(ii) three (3) days before commencement of the Work on the Site,

deliver to the Ministry at the address set out in the Award letter a Performance Bond and Labour and Material Payment Bond, each

(iii) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond set out in the Schedule of Contract Securities to the Contract, and
(iv) in the amount of **fifty percent (50%)** of the Tender Price.

(CONTINUED ON PAGE 2)

(f) If the Bidder is awarded the Contract and if the Bidder delivered a bank draft, certified cheque or money order as Bid Security in compliance with the Conditions of Tender and this Schedule, the Bidder may elect to apply one of the following options.

(i) The Bidder may deliver to the Ministry a Performance Bond and a Labour and Material Payment Bond, each

(1) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond set out in the Schedule of Contract Securities to the Contract, and

(2) in the amount of **fifty percent (50%)** of the Tender Price.

Upon receipt of the Performance Bond and the Labour and Material Payment Bond in compliance with this Schedule, the Ministry will, subject to the terms of the Conditions of Tender and the Contract, return the Bid Security to the Contractor.

or

(ii) The Bidder may notify the Ministry in writing before execution of the Contract that the Bid Security may be retained by the Ministry as Performance Security in connection with the Contract. On receipt of such notice, the Ministry will deposit the Bid Security in the amount of **five percent (5%)** of the Contract Price and hold the funds as Performance Security in connection with the Contract.

(g) **For "as and when required" Minor Works or Operational Services Contracts only**

If the Bidder is awarded the Contract and if the Bidder delivered a bank draft, certified cheque or money order as Bid Security in compliance with the Conditions of Tender, subject to the terms of the Conditions of Tender and the Contract, upon execution of the Contract, the Ministry will return the Bid Security to the Contractor.

NOTE:

PLEASE PRINT THE BID BOND SPECIMEN TO ACCOMPANY THE CONTRACT SECURITIES REQUIREMENTS:

bid0404.doc

SPECIMEN

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS THAT _____**(CONTRACTOR NAME)**_____ as Principal, hereinafter called the Principal, and **(SURETY/INSURANCE COMPANY NAME AND ADDRESS)**_____, a corporation created and existing under the laws of Canada and duly authorized to transact the business of Suretyship in Canada as Surety, hereinafter called the Surety, are held and firmly bound unto HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OF TRANSPORTATION, as Obligee, hereinafter called the Obligee, in the amount of ten percent (10%) of tender sum in lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a written tender to the Obligee in response to a tender call issued by the Obligee for _____**(DESCRIBE CONTRACT)** which tender call has a closing date of the _____day of _____ 20___(as this closing date may be amended from time to time by the Obligee by addenda).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall have the tender accepted within sixty (60) days from the closing date of tender and the said Principal will within the time required, enter into a formal contract and give the specified security to secure the performance of the terms and conditions of the contract, then this obligation shall be null and void; otherwise the Principal and the Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former.

The Principal and Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of six months from the date of this Bond.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this Bond this
_____ day of _____ 20____

SIGNED and SEALED
In the presence of:

_____ SEAL
For the Principal

_____ SEAL
For the Surety Attorney-in-fact

SCHEDULE T3

CONTRACT SPECIFIC REFERENCE DOCUMENTS

Schedule T3 – Contract Specific Reference Documents

PROJECT NO. 11897-8002
HIGHWAY NO. 10 – 192ND STREET TO SPRINGBROOK ROAD – 3 SECTIONS
COLD MILLING AND ASPHALT RESURFACING SS 502 – EPS
(30.2 LANE KMS)

The documents described and numbered in the following list comprise the Contract Specific Reference Documents for this Tender Document Package.

Where the list indicates that a document is an electronic copy, the document can be downloaded at:

www.th.gov.bc.ca/bchighways/contracts/suppdoc.htm

Document Number	Document Description	Check (✓) the Appropriate Column(s)	
		Electronic Copy	Hardcopy only
1.	• Strong Pit #0223 – Pit Development Plan.	√	

RETURN ADDRESS:

Bidder's Name: _____

Address: _____

_____

_____

Postage Required

FIRST CLASS MAIL

TENDER DOCUMENTS

TENDER FOR:

Project #: _____

Project Description: _____

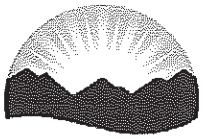
_____

_____

MINISTRY OF TRANSPORTATION

DO NOT OPEN

H0384 (2004/05)



Ministry of Transportation

Major Works

CONTRACT

PROJECT NO. 11897-8002
HIGHWAY NO. 10-192ND STREET TO SPRINGBROOK ROAD-3 SECTIONS
COLD MILLING AND ASPHALT RESURFACING SS 502-EPS
(30.2 LANE KMS)

Date of Contract:
Contractor:

MAJOR WORKS

ORDER OF CONTENTS
CONTRACT DOCUMENT PACKAGE
PROJECT No. 11897-8002
HIGHWAY NO. 10 – 192ND STREET TO SPRINGBROOK ROAD – 3 SECTIONS
COLD MILLING AND ASPHALT RESURFACING SS 502 - EPS
(30.2 LANE KMS)

Cover Page – Contract Document Package

Order of Contents – Contract Document Package

Contract Cover Page

- Major Works General Conditions

Schedule 1 – Supplemental General Conditions and Glossary of Terms

- Glossary of Terms
- Supplemental General

Schedule 2 – Contract Securities

- INS-265 Contract Securities Requirements and Bond Specimens
- Specimen Performance Bond
- Specimen Labour and Material Payment Bond

Schedule 3 – Special Provisions and Appendices

Schedule 4 – Drawings

Schedule 5 – Time Schedule

Schedule 6 – Insurance

- INS-NOTICE - Notice to Contractors
- INS-152 - Insurance Specifications Major Works
- H0111 - Certificate of Insurance

Schedule 7 – Approximate Quantities and Unit Prices

Schedule 8 – Contract Addenda

Contractor	Ministry Official
Initials	Initials

CONTRACT

MAJOR WORKS GENERAL CONDITIONS

Table of Contents

GC 1.00	GLOSSARY OF TERMS	2
GC 2.00	CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND COVENANTS	2
GC 3.00	INFORMATION PROVIDED BY THE MINISTRY	3
GC 4.00	TERM	3
GC 5.00	MINISTRY APPOINTMENTS	3
GC 6.00	EMPLOYEES OF THE CONTRACTOR	4
GC 7.00	LEGAL RELATIONSHIP	4
GC 8.00	ASSIGNMENT AND SUBCONTRACTING	5
GC 9.00	SUBCONTRACTOR AND SUPPLIER DISPUTES	5
GC 10.00	DESIGNATED SUBCONTRACTOR(S) AND DESIGNATED SUPPLIER(S)	6
GC 11.00	CONDITIONS OF EQUIPMENT	7
GC 12.00	BONDS AND INSURANCE	7
GC 13.00	THIRD PARTY CONSENTS TO CHANGES	7
GC 14.00	INDEMNITY	8
GC 15.00	NOTICE OF LIABILITY AND PROPERTY INSURANCE CLAIMS	8
GC 16.00	COMMENCEMENT OF THE WORK	8
GC 17.00	PROSECUTION OF THE WORK	9
GC 18.00	STANDARD OF WORK	9
GC 19.00	ERRORS OR OMISSIONS	9
GC 20.00	INSPECTION OF THE WORK	9
GC 21.00	SAMPLES AND TESTING	10
GC 22.00	CO-OPERATION OF THE CONTRACTOR	10
GC 23.00	UTILITIES	10
GC 24.00	CONTAMINANTS	11
GC 25.00	PROTECTION OF SITE AND WORK DURING CONSTRUCTION	11
GC 26.00	MAINTENANCE OF WORK DURING CONSTRUCTION	11
GC 27.00	EMERGENCY WORK	12
GC 28.00	WORK ORDERS	12
GC 29.00	STOP WORK ORDER	12
GC 30.00	SEASONAL SHUT-DOWN	13
GC 31.00	RESUME WORK ORDERS AND COMPENSATION	14
GC 32.00	PROVISIONAL SUM AND CONDITIONAL ITEMS	14
GC 33.00	COMPLIANCE WITH THE TIME SCHEDULE	14
GC 34.00	SUBSTANTIAL COMPLETION	15
GC 35.00	TOTAL COMPLETION	15
GC 36.00	WARRANTY	16
GC 37.00	NOTICES	16
GC 38.00	CHANGES TO WORK	17
GC 39.00	CHANGES IN QUANTITIES FOR UNIT PRICE ITEMS	19
GC 40.00	ELIMINATED ITEM	20
GC 41.00	CHANGED CONDITIONS	20
GC 42.00	REIMBURSABLE DELAY	21
GC 43.00	CHANGE IN TAXES	22
GC 44.00	EXTENSION OF TIME	22
GC 45.00	CHANGE OF COMPLETION DATE	24
GC 46.00	PAYMENT	24
GC 47.00	PROVISIONAL SUM ITEMS	24
GC 48.00	CONDITIONAL ITEMS	25

GC 49.00	FORCE ACCOUNT	25
GC 50.00	COMPENSATION FOR REIMBURSABLE DELAY	26
GC 51.00	CONSEQUENTIAL LOSSES	28
GC 52.00	PROGRESS PAYMENTS	28
GC 53.00	FINAL PROGRESS PAYMENT	29
GC 54.00	HOLDBACK	29
GC 55.00	INTERIM HOLDBACK RELEASE	30
GC 56.00	FINAL HOLDBACK RELEASE	30
GC 57.00	APPROPRIATION	30
GC 58.00	DISPUTE RESOLUTION	30
GC 59.00	FORMAL CLAIM	32
GC 60.00	APPEAL	33
GC 61.00	ARBITRATION	33
GC 62.00	DEFAULT	33
GC 63.00	TERMINATION FOR REASONS OTHER THAN DEFAULT	35
GC 64.00	RECORDS	35
GC 65.00	REPORTS	36
GC 66.00	AUDIT	36
GC 67.00	CONFIDENTIALITY	36
GC 68.00	ANNOUNCEMENTS	37
GC 69.00	PROVINCIAL PROPERTY	37
GC 70.00	ENTIRE CONTRACT	37
GC 71.00	AMENDMENTS	37
GC 72.00	ADDRESS FOR NOTICES	37
GC 73.00	FURTHER ASSURANCES	38
GC 74.00	DUTY TO MITIGATE	38
GC 75.00	WAIVER	38
GC 76.00	TIME	38
GC 77.00	INTERPRETATION	38
GC 78.00	SURVIVAL OF TERMS	39
GC 79.00	SUCCESSORS AND ASSIGNS	39
GC 80.00	GOVERNING LAW	39
GC 81.00	LIMITATIONS FOR CLAIMS	39

BRITISH COLUMBIA

PROVINCE OF BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION

This Contract

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF
THE PROVINCE OF BRITISH COLUMBIA,
as represented by the Minister of Transportation (the "Ministry")

OF THE FIRST PART

AND:

THE CONTRACTOR as identified on the execution page of this Contract

OF THE SECOND PART

WITNESSES THAT WHEREAS:

A. The Contractor has offered to perform the Work herein described at the price and on the terms herein set out; and

B. The Province has accepted the offer by Contractor to perform the Work at the price and on the terms herein set out;

Now therefore the Ministry and the Contractor agree as follows:

GC 1.00 ***GLOSSARY OF TERMS***

GC 1.01 A capitalized term shall have the meaning as set out in Schedule 1 – Supplemental General Conditions/Glossary of Terms.

GC 2.00 ***CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND COVENANTS***

GC 2.01 The Contractor represents and warrants to the Ministry that, at the time of execution of the Contract and until the expiration of the Term:

(a) in the case of a limited company, it is a corporation within the meaning of the Business Corporations Act, duly organized and validly existing and legally entitled to carry on business in the Province of British Columbia and fully legally authorized, licensed and permitted to perform the Work and all necessary proceedings have been taken to authorize the execution and delivery of the Contract by the Contractor;

(b) the Contractor has no knowledge of any fact that materially and adversely affects or, so far as it can foresee, may materially and adversely affect its financial condition or its ability to fulfill its obligations under the Contract;

(c) the Contractor is not aware of any actual or contingent claims, actions, demands or suits which might adversely affect the Contractor's ability to carry out or complete the Work or any of its obligations under the Contract;

(d) the Contractor has filed all tax, corporate information, and other returns required to be filed by the laws of British Columbia and Canada, has complied with all workers' compensation legislation and other similar legislation to which it is subject, and has paid all taxes, fees, and assessments due by the Contractor under those laws as of the date of the Contract;

(e) the Contractor is not in breach of any law which might disqualify the Contractor from undertaking or completing the Work; and

(f) the Contractor holds all permits, licenses, consents, and authorities issued by any level of government or any agency of government, that are required by law to conduct its business.

GC 2.02 The representations and warranties contained in GC 2.01 are continuing representations or warranties and shall remain in effect until the completion of all of the Contractor's obligations under the Contract.

GC 2.03 The Contractor covenants to the Ministry that:

(a) it shall continue to file all tax, corporate information, and other returns required to be filed by the laws of British Columbia and Canada, and shall comply with all workers' compensation legislation and other similar legislation to which it is subject, and shall pay all taxes, fees, and assessments due by the Contractor under those laws;

(b) it shall pay punctually as they become due, all accounts, expenses, wages, salaries, taxes, rates, fees and assessments required to be paid by it on any of its undertakings;

(c) it shall ensure that the Work is carried out with all reasonable diligence and in particular, without limiting the foregoing, with due regard to public safety, and in accordance with the Contract;

(d) it shall comply with all laws, bylaws and regulations relating to the Work; and

(e) the Contract does not operate as a permit, license, approval or other statutory authority which the Contractor may be required to obtain from any competent government authority, branch or agency thereof, and the Contractor shall obtain, at its own expense, licenses, approvals or other statutory or regulatory authorizations which are applicable to the Work or the Contract, save and except any licenses and permits which are specified within the Contract to be obtained by the Ministry.

GC 2.04 The Contractor agrees that all representations, warranties, covenants, and agreements made in the Contract and all documents delivered by or on behalf of the Contractor to the Ministry are material and the Contractor acknowledges and agrees that the Ministry has relied on them, notwithstanding any prior or subsequent investigation by the Ministry.

GC 3.00 ***INFORMATION PROVIDED BY THE MINISTRY***

GC 3.01 The geotechnical investigation datum and test results, but not the interpretations and analyses thereof, provided in the borehole and test pit logs contained within the Contract Document Package and the Contract Specific Reference Documents are a reasonable representation of the conditions encountered at the specific locations investigated on the dates of the investigations, and to that extent may be relied upon by the Contractor.

GC 3.02 The survey point datum, but not information derived or interpolated therefrom such as digital terrain models, contours and cross-sections, contained within the Contract Document Package and the Contract Specific Reference Documents are a reasonable representation of the individual points surveyed at the time of such survey, and to that extent may be relied upon by the Contractor.

GC 3.03 Except as provided by GC 3.01 and GC 3.02,

(a) the Ministry makes no representation and accepts no responsibility or liability, and

(b) the Contractor acknowledges and agrees that it has not relied upon any representation by the Ministry,

with respect to the completeness, accuracy or relevance of any information provided in, including by accessing the URL's or the Web sites set out in, the Contract Document Package, the Contract Specific Reference Documents or the General Reference Documents or any analysis or interpretation thereof, and any reliance thereon or use made thereof by the Contractor shall be at the sole risk of the Contractor.

GC 3.04 The Ministry does not provide any warranties whatsoever under this Contract.

GC 4.00 ***TERM***

GC 4.01 The Term of the Contract shall commence on the date of the Award and shall end on the date on which all of the Contractor's obligations pursuant to GC 36.00 have been performed, save and except:

(a) provision of the indemnity pursuant to GC 14.00;

(b) maintenance of records pursuant to GC 64.00; and

(c) maintenance of the Bonds and insurance shall continue to remain in effect in accordance with the Contract.

GC 5.00 ***MINISTRY APPOINTMENTS***

GC 5.01 The Ministry shall designate a Ministry Representative and a Ministry Manager and shall provide the Contractor with notice in writing as to such designations. The Ministry may change these designated personnel, and provide written notice of the change to the Contractor. The Ministry at its discretion may appoint one person as Ministry Manager and Ministry Representative.

GC 5.02 Notwithstanding any other provision of the Contract, the Ministry Representative and Ministry Manager, in carrying out their obligations under the Contract, may obtain and rely upon any technical, managerial, and other input and direction from the Ministry or any third party to aid them in carrying out such obligations.

GC 5.03 The Ministry Representative and Ministry Manager may delegate any of their duties and responsibilities under the Contract, and shall notify the Contractor in writing of any such delegation.

GC 6.00 *EMPLOYEES OF THE CONTRACTOR*

GC 6.01 The Contractor shall provide and maintain at all times sufficient personnel, including without limitation, competent supervisory personnel in place and available to it to fully perform and complete the Work in accordance with the Contract.

GC 6.02 Prior to commencing any Work on the Site, the Contractor shall notify the Ministry Representative in writing of the appointment of:

(a) a Contractor Manager with full authority, as agent of the Contractor, to act on behalf of and legally bind the Contractor in connection with the Work and the Contract; and

(b) a Contractor Representative with full authority to supervise the Work, who shall be directly available to the Ministry Representative during all active periods of Work.

GC 6.03 The Contractor may, at its discretion, appoint one person as both Contractor Manager and Contractor Representative.

GC 6.04 In the event of any change(s) to these designated personnel, the Contractor shall promptly provide written notice to the Ministry Representative.

GC 6.05 The Contractor Representative and Contractor Manager may delegate any of their duties and responsibilities under the Contract, and shall notify in writing the Ministry Representative of any such delegation.

GC 6.06 The Contractor shall promptly comply with any written request by the Ministry Representative for full disclosure of the relevant knowledge, skills, prior experience, and professional standing or technical or trade certification of any person appointed, employed, or used by the Contractor in carrying out any part of the Work.

GC 6.07 If, at any time, the Ministry Representative does not consider any person appointed to discharge any of the functions of the Contractor Representative or the Contractor Manager to be acceptable, the Contractor shall forthwith replace such person with a person acceptable to the Ministry and notify the Ministry of the appointment of such replacement.

GC 7.00 *LEGAL RELATIONSHIP*

GC 7.01 The Contractor is an independent contractor and not the servant, employee, partner, or agent of the Ministry.

GC 7.02 The Contractor shall not commit the Ministry to the payment of any money to any person.

GC 7.03 No partnership, joint venture, or agency involving the Ministry is created by the Contract or by any action of the parties under the Contract.

GC 7.04 All personnel employed by the Contractor to carry out the Work are at all times the employees of the Contractor and not of the Ministry. The Contractor is solely responsible for any and all labour relations and employment obligations with respect to the personnel including, without limitation, all matters arising, directly or indirectly from the relationship of employer and employee between the Contractor and the personnel employed by the Contractor.

GC 8.00 *ASSIGNMENT AND SUBCONTRACTING*

GC 8.01 The Contractor shall not, without the prior written consent of the Ministry, assign, either directly or indirectly, any right or obligation of the Contractor under the Contract to any person.

GC 8.02 The Contractor shall not, without the prior written consent of the Ministry, subcontract any obligation of the Contractor under the Contract to any person.

GC 8.03 The total value of subcontracted Work shall not exceed two-thirds (2/3) of the total Tender Price. Work involving off-Site fabrication and off-Site production of materials and trucking necessary to carry out the Work shall not be included in the calculation of the total value of subcontracted Work.

GC 8.04 The Contractor shall use:

(a) a purchase order agreement in form and content acceptable to the Ministry for the purchasing of materials; and

(b) a hired equipment agreement in form and content acceptable to the Ministry for the hiring of equipment.

GC 8.05 The Contractor shall provide a complete copy of every Subcontract having a value of twenty-five thousand dollars ($25,000) or more to the Ministry Representative severing the numeric portion of the pricing information only at the Contractor's option. All Subcontracts shall be substantially in the form of the latest edition of:

(a) the B.C. Road Builders and Heavy Construction Association Standard Form of Construction Contract Between Contractor and Subcontractor; or

(b) the Canadian Standard Construction Subcontract (Long Version) CCA L-1, or (Short Version) CCA S-1; or

(c) the BCCA 200 Construction Subcontract.

GC 8.06 The appointment of any Subcontractors by the Contractor does not relieve the Contractor of its responsibility hereunder or for the quality of work, materials and services provided by it.

GC 8.07 The Contractor is wholly responsible for the acts and omissions of the Subcontractors and persons employed by the Contractor and the Subcontractors. No Subcontract entered into by the Contractor imposes any obligation or liability upon the Ministry to the Subcontractor or any of the Subcontractor's employees.

GC 8.08 The Contractor shall make copies of the Labour and Material Payment Bond available to each Subcontractor and shall post and maintain copies of the Labour and Material Payment Bond at the Site.

GC 8.09 The Contractor shall ensure every Subcontractor observes the terms of the Contract so far as they apply to that portion of the Work to be performed by that Subcontractor.

GC 8.10 Nothing in the Contract creates any contractual relationship between the Ministry and a Subcontractor.

GC 9.00 *SUBCONTRACTOR AND SUPPLIER DISPUTES*

GC 9.01 The Contractor shall ensure every Subcontract, purchase order agreement, and hired equipment agreement contains the following provisions:

(a) the parties to any such Subcontract, purchase order agreement and/or hired equipment agreement shall immediately notify the Contractor in writing of any dispute which remains unresolved for a period of thirty (30) days or more;

(b) the parties to any such Subcontract, purchase order agreement and/or hired equipment agreement shall negotiate in good faith to resolve all disputes by providing frank, candid and timely disclosures of relevant information and documentation in their possession;

(c) all disputes which have not been resolved within forty-five (45) days after the delivery of the notice to the Contractor shall be referred to and finally resolved by a single Arbitrator following the rules of the British Columbia International Commercial Arbitration Centre for the conduct of domestic commercial arbitration; and

(d) the parties to any such Subcontract, purchase order agreement and/or hired equipment agreement agree to conduct the arbitration in an expeditious and efficient manner in accordance with the time lines established in the rules.

GC 10.00 *DESIGNATED SUBCONTRACTOR(S) AND DESIGNATED SUPPLIER(S)*

GC 10.01 Prior to a Designated Subcontractor or Designated Supplier performing any portion of the Work at the Site, the Contractor shall deliver to the Ministry Representative a copy of each Designated Subcontractor's or Designated Supplier's Subcontract showing:

(a) that a written Subcontract as described in GC 8.05 exists;

(b) the total value of the Subcontract; and

(c) the scope of the Work being subcontracted.

GC 10.02 The Contractor shall ensure that each Subcontract with a Designated Subcontractor or Designated Supplier contains a requirement that the Designated Subcontractor or Designated Supplier provide a performance bond and labour and material payment bond each in the amount as specified in GC 10.04 as a part of that Subcontract.

GC 10.03 Prior to the Contractor allowing a Designated Subcontractor or Designated Supplier to perform any Work, the Contractor shall ensure that:

(a) a performance bond and labour and material payment bond which meet the requirements of GC 10.04 are in place;

(b) copies of the bonds referenced in GC 10.03(a) are provided to the Ministry Representative; and

(c) a copy of the performance bond, and the labour and material payment bond is securely and visibly posted at the Site.

GC 10.04 The Contractor shall ensure that the performance bond, and labour and material payment bond referenced in GC 10.03(a) for each Designated Subcontractor or Designated Supplier:

(a) is in the amount not less than fifty percent (50%) of such applicable Subcontract;

(b) is maintained in force during the term of the Subcontract;

(c) is validly executed by both the surety and the Designated Subcontractor or Designated Supplier;

(d) shows the business address of the surety for filing of claims and delivery of notices; and

(e) remains posted at the Site during the term of the Subcontract.

GC 10.05 If the Ministry becomes aware that a Designated Subcontractor or Designated Supplier is performing a Work activity but such Designated Subcontractor or Designated Supplier is not in compliance with GC 10.03 or GC 10.04, the Ministry Representative may issue a Stop Work Order for that Work activity. The Stop Work Order shall remain in effect until the Contractor brings itself into compliance with GC 10.03 and GC 10.04. The Stop Work Order shall not be treated as a Change to Work for the purposes of this Contract.

GC 10.06 The Contractor shall not be entitled to any compensation including without limitation an Extension of Time or compensation for Reimbursable Delay in connection with or as a result of a Stop Work Order under GC 10.05.

GC 10.07 The Contractor shall provide written notice to the Ministry Representative for:

(a) any change to or addition of a Designated Subcontractor or Designated Supplier; or

(b) any change to the scope of work for a Designated Subcontractor or Designated Supplier.

GC 11.00 ***CONDITIONS OF EQUIPMENT***

GC 11.01 All trucks and other equipment rented by the Contractor for use on the Work shall, as far as practicable, be obtained from local residents.

GC 11.02 To qualify under GC 11.01, equipment shall:

(a) where the Contractor has a collective agreement with its employees, have an operator who is a member of or has the permission of the appropriate union bargaining unit;

(b) fulfill, in the opinion of the Ministry Representative, the specialized needs as may be required to reasonably complete the Work of the Contractor; and

(c) be registered on the Ministry's hired equipment list for the geographic area encompassing the Site, or on the Ministry's hired equipment list for an adjacent area.

GC 12.00 ***BONDS AND INSURANCE***

GC 12.01 The Contractor shall comply with the requirements in Schedule 2 – Contract Securities and maintain the Bonds in force and effect until the Actual Completion Date and any longer period specified in Schedule 2 – Contract Securities.

GC 12.02 The Contractor shall comply with the requirements in Schedule 6 – Insurance and maintain the insurance in force and effect until the Actual Completion Date and any longer period specified in Schedule 6 – Insurance.

GC 12.03 If the Surety notifies either party that the Bonds are or are going to be terminated or cancelled for any reason whatsoever, the Contractor shall obtain and deliver to the Ministry forthwith upon receipt of such notification valid Bonds effective from the date of termination or cancellation of the Bonds, which comply with Schedule 2 – Contract Securities .

GC 12.04 The delivery of valid replacement Bonds by the Contractor under GC 12.03 is in addition to and does not preclude the Ministry from exercising any right, power or remedy available to the Ministry under the Contract, at law or in equity in connection with the cancellation or termination of the Bonds.

GC 13.00 ***THIRD PARTY CONSENTS TO CHANGES***

GC 13.01 The Ministry may require the Contractor to obtain the written consent of the Surety to any Work Order or Supplemental Agreement.

GC 13.02 The Contractor shall notify its insurer of any event or circumstances applicable to the insurance coverages stipulated in Schedule 6 - Insurance and of any Change to Work or Stop Work Order that could result in the unavailability or denial of insurance coverage in the absence of such notice. If any additional or amended insurance coverage is required pursuant to the notice then the Contractor shall obtain and maintain any such additional or amended insurance coverage.

GC 13.03 If an insurer or a Surety notifies either party that they decline coverage and consent for any Work Order or Supplemental Agreement, the Contractor shall obtain and provide the Ministry with valid additional Bonds or insurance, covering the Work specified in the Work Order, which comply with the Contract.

GC 14.00 ***INDEMNITY***

GC 14.01 The Contractor shall assume the defence of and shall indemnify and save harmless the Ministry, its agents and employees, from and against all claims, liabilities, demands, losses, damages, costs and expenses, fines, penalties, assessments and levies made against or incurred, suffered or sustained by the Ministry, its agents and employees, or any of them at any time or times before or after the completion of the Term or earlier termination of the Contract where the same or any of them are based upon or arise out of or from anything done or omitted to be done by the Contractor, its employees, agents or Subcontractors, in connection with the Contract or the Work, which indemnity shall survive the completion of the Term or earlier termination of the Contract.

GC 14.02 Notwithstanding the obligation of the Contractor to assume the defence of any claims under GC 14.01, the Ministry may retain its own counsel to represent it and the Contractor shall reimburse the Ministry for the cost of any such counsel.

GC 15.00 ***NOTICE OF LIABILITY AND PROPERTY INSURANCE CLAIMS***

GC 15.01 In addition to any obligation the Contractor may have to notify any insurer or insurers or any regulatory agency, the Contractor shall give written notice to the Ministry at the address provided in GC 15.02 or such other address as the Ministry may from time to time direct in writing:

(a) of any accident or occurrence, enclosing pertinent details of the accident or occurrence; within seven (7) days from the date on which the accident or occurrence arises or occurs; and

(b) within fifteen (15) days following final disposition of any such accident or occurrence, enclosing pertinent details.

GC 15.02 The address for notices required by GC 15.01 is:

The Manager, Claims
Ministry of Transportation
4C - 940 Blanshard Street
PO Box 9850 Stn Prov Govt
Victoria, B.C. V8W 9T5.

GC 16.00 ***COMMENCEMENT OF THE WORK***

GC 16.01 Before commencing the Work the Contractor shall:

(a) purchase and deliver the Bonds to the Ministry in accordance with the requirements in Schedule 2 – Contract Securities;

(b) file with the Ministry originals or certified copies of all insurance policies and necessary endorsements to comply with the requirements contained in Schedule - 6 - Insurance;

(c) submit a preliminary Construction Schedule to the Ministry Representative showing:

(i) compliance with all Milestone Dates and the Completion Date;

(ii) anticipated timing and duration of all major work elements;

(iii) major traffic detours and disruptions;

(iv) submission dates for all quality, traffic, and environmental management plans;

(v) Environmental Windows and approval periods; and

(vi) details of all events anticipated to occur within sixty (60) days of commencing Work on Site; and

(d) provide the Ministry Representative with written confirmation of the names, addresses, and telephone numbers of all persons required to be appointed by the Contractor pursuant to the Contract.

GC 16.02 The Contractor shall not commence work on the Site until it has:

(a) provided not less than three (3) days prior written notice of intention to commence Work to the Ministry Representative; and

(b) obtained written authorization to commence Work on the Site from the Ministry Representative.

GC 17.00 ***PROSECUTION OF THE WORK***

GC 17.01 Unless otherwise specified in the Special Provisions or by a Work Order, the Contractor may prosecute the Work at the times and seasons, in the order of procedure, and in the manner and method the Contractor considers to be most conducive to economy of construction.

GC 18.00 ***STANDARD OF WORK***

GC 18.01 The Standard Specifications form a part of the Contract and the Contractor shall comply with the requirements of the Standard Specifications and all Schedules to the Contract in the performance of the Work.

GC 18.02 The Contractor shall ensure that all finished surfaces conform to the lines, grades, typical cross-sections, and dimensions as specified in the Contract.

GC 19.00 ***ERRORS OR OMISSIONS***

GC 19.01 The Contractor shall not be entitled to any additional compensation or Extension of Time because of any error, inconsistency or omission in the Contract which was, or ought to have been, apparent or known to the Contractor at the time of the Award. The Contractor shall forthwith bring to the attention of the Ministry Representative any such error, inconsistency or omission immediately upon it coming to the Contractor's attention.

GC 19.02 If the Contractor discovers any error, inconsistency or omission in the Contract which shall, or is likely to adversely affect the Work, the Construction Schedule or the Contract Price, the Contractor shall, within three (3) days of detecting the error, inconsistency or omission, report any such error, inconsistency or omission to the Ministry Representative and shall not proceed with any Work affected until the Ministry has determined how the error, inconsistency or omission should be corrected.

GC 20.00 ***INSPECTION OF THE WORK***

GC 20.01 The Contractor shall provide access to the Work and to the Site, to all persons designated by the Ministry Representative.

GC 20.02 The Ministry Representative may at any time or times inspect the Work. The Contractor shall provide the Ministry Representative with access to the Work at all times and shall provide all information and assistance required by the Ministry Representative.

GC 20.03 The Contractor shall comply forthwith, at the Contractor's expense, with any order of the Ministry Representative to remove or replace any Unauthorized Work or Unacceptable Work.

GC 20.04 If the Ministry Representative deems any portion of the Work to be Unauthorized Work or Unacceptable Work, the Ministry Representative may issue a Stop Work Order covering that portion of the Work and any or all similar Work. The Stop Work Order shall not be treated as a Change to Work for the purposes of this Contract.

GC 20.05 An inspection by the Ministry Representative does not relieve the Contractor from any obligation to perform the Work in accordance with the requirements of the Contract.

GC 20.06 The Contractor shall do all things necessary to satisfy the Ministry Representative that the Work is being completed in accordance with the Contract, including, without limitation, removing or uncovering parts of the Work, and restoring those parts to conform to the Contract.

GC 20.07 If the uncovered Work is found acceptable to the Ministry Representative, the Contractor shall be compensated for the removal, uncovering, and restoration of that portion of the Work on a Force Account Basis.

GC 21.00 ***SAMPLES AND TESTING***

GC 21.01 The Contractor shall co-operate with the Ministry Representative in sampling, testing and inspecting materials that are used or are intended to be used in the Work.

GC 21.02 Unless the Contract contains a contrary provision, sampling, testing and inspecting of materials by the Ministry Representative shall be done at the expense of the Ministry.

GC 21.03 If requested, the Contractor shall obtain and provide to the Ministry Representative a complete written statement of the origin, composition, and manufacture of any materials supplied by the Contractor that are used or are intended to be used in the Work.

GC 22.00 ***CO-OPERATION OF THE CONTRACTOR***

GC 22.01 The Ministry may perform, or retain or permit others to perform other work on or near the Site and may permit public utility companies and others to do work on or near the Site during the progress of the Work. The Contractor shall conduct and schedule the Work and co-operate with those other parties so as to cause as little interference as possible with any such other work being carried out.

GC 23.00 ***UTILITIES***

GC 23.01 The Ministry shall be responsible for payment for the relocation of the infrastructure of utility companies or municipalities from their existing locations to their final locations, as well as to any interim locations identified on the Drawings or in the Special Provisions. Such infrastructure includes, without limitation, pole lines, conduits, gas pipes, oil pipes, water pipes, sewers and tile lines.

GC 23.02 Any interim Utility Relocation, where such moves are not indicated on the Drawings or in the Special Provisions, required to suit the design or the Contractor's work plan are to the Contractor's account.

GC 23.03 The Contractor shall schedule and co-ordinate the Work with respect to any Utility Relocation with the utility company or municipality.

GC 23.04 The Contractor shall preserve and protect the infrastructure affected by the Utility Relocation and shall assume full responsibility for all damage caused by the Contractor.

GC 23.05 The Ministry makes no representation or warranty and accepts no responsibility for the completeness, accuracy or relevance of any such information with respect to the infrastructure of the utility companies or municipalities, including without limitation, any underground utility information, or any analysis or interpretation thereof, and any reliance thereon or any use made thereof by the Contractor is at the sole risk of the Contractor.

GC 23.06 The Contractor acknowledges and agrees that it has not relied upon any representation or warranty of the Ministry with respect to the accuracy or completeness of any information with respect to the underground utility information, including, without limitation, the infrastructure of the utility companies, or municipalities.

GC 24.00 ***CONTAMINANTS***

GC 24.01 Before the Contractor commences Work, the Ministry shall:

(a) take all reasonable steps to determine whether any Contaminants are present at the Site;

(b) provide the Contractor with a written list of any such Contaminants which the Ministry determines at that time to be present at the Site; and

(c) be responsible for disposing of, storing, or otherwise remediating or rendering harmless any Contaminants present at the Site as is determined to be necessary by the Ministry, unless such Work is designated in the Contract to be performed by the Contractor.

GC 24.02 The Ministry and the Contractor shall take all reasonable steps, including stopping Work if necessary, to ensure that no person suffers injury, sickness, or death and that no property is injured or destroyed as a result of exposure to, or the presence of Contaminants on the Site.

GC 24.03 If the Contractor after commencing Work:

(a) encounters Contaminants at the Site beyond those designated as part of the Work; or

(b) has reasonable grounds to believe that Contaminants are present at the Site, which were not discovered or disclosed by the Ministry, as required under GC 24.01(b), or which were disclosed but have not been dealt with as required under GC 24.01(c);

the Contractor shall immediately provide Notice to the Ministry Representative.

GC 24.04 If the Contractor is delayed in performing the Work or incurs additional costs as a result of dealing with Contaminants which are not part of the Work, the Contractor may provide a Notice of a Reimbursable Delay, a request for an Extension of Time, and claims for costs in accordance with GC 38.00.

GC 25.00 ***PROTECTION OF SITE AND WORK DURING CONSTRUCTION***

GC 25.01 The Contractor shall protect the Site and the Work from any damage or injury for the period from the Contractor's effective date of occupancy of the Site until the date of Substantial Completion.

GC 25.02 The Contractor shall repair or restore, at its expense, any public or private property which the Contractor, or its employees, Subcontractors, agents, have damaged directly or indirectly in connection with the execution of the Work, to a condition equal to or better than what existed prior to the damage, or it shall compensate the owner in full for the damage caused.

GC 25.03 Where, pursuant to GC 25.02, the repair or restoration of any damage necessitates compliance with current standards, codes or laws, the Contractor shall, at its expense, perform all necessary work inclusive of any betterment necessary to comply with such current standards, codes or laws.

GC 26.00 ***MAINTENANCE OF WORK DURING CONSTRUCTION***

GC 26.01 The Contractor shall maintain all Disturbed Features in accordance with the Maintenance Specifications and to the satisfaction of the Ministry Representative, save and except that for all roadways open to the public, the routine winter maintenance services described in chapter 3 of the Maintenance Standards Manual shall be performed by, and at the cost of the road and bridge maintenance contractor engaged by the Ministry.

GC 26.02 Notwithstanding GC 26.01, where any roadway is a Disturbed Feature and has a surface condition that shall, in the opinion of the Ministry Representative, cost more to maintain than the surface as it existed at the time of the Award, the Contractor shall be responsible for the routine winter maintenance services or, at the option of the Ministry Representative, for any additional cost of maintenance, as determined by the Ministry Representative, resulting from the actual surface conditions.

GC 26.03 The requirements of GC 26.02 shall be met if the Contractor arranges directly with and pays the Ministry road and bridge maintenance contractor to perform all additional maintenance, and provides documentary evidence satisfactory to the Ministry Representative that such an arrangement is in place.

GC 26.04 If the Ministry Representative issues a Stop Work Order or authorizes a State of Suspension, the Contractor shall continue to provide maintenance in accordance with GC 26.00 unless otherwise instructed in the Work Order.

GC 27.00 *EMERGENCY WORK*

GC 27.01 The Ministry Representative may designate Emergency Work.

GC 27.02 Notwithstanding any other provisions in the Contract, the Ministry Representative may direct the Contractor to use its labour and equipment in any manner and to perform any work the Ministry Representative considers to be Emergency Work and the Contractor shall promptly perform any Emergency Work.

GC 27.03 Where in the opinion of the Ministry Representative the Emergency Work falls within the Contractor's responsibilities under the Contract, or where such Emergency Work arose as a result of:

(a) an event within the control of the Contractor; or

(b) any fault, failure, negligence, action or malfeasance on the part of the Contractor,

then the cost of the Emergency Work shall be to the Contractor's account. In all other cases payment for Emergency Work shall be made in accordance with GC 38.00.

GC 28.00 *WORK ORDERS*

GC 28.01 The Ministry may from time to time issue one or more Work Orders to require the Contractor to carry out or refrain from carrying out Work or, without limitation, to add or delete Work, alter the Drawings, Special Provisions or Standard Specifications, accelerate or delay Work, stop or resume Work, and remedy defects or deficiencies in the Work.

GC 28.02 The Contractor shall diligently comply with every Work Order.

GC 29.00 *STOP WORK ORDER*

GC 29.01 A Stop Work Order may be issued to:

(a) require the Contractor to cease work on all or any portion of the Work; or

(b) initiate a State of Suspension.

GC 29.02 The Contractor shall immediately comply with a Stop Work Order, and shall not resume the prohibited Work until:

(a) the Contractor has remedied any non-compliance on its part with respect to the Contract;

(b) the Contractor has removed or repaired any Unauthorized Work and Unacceptable Work and demonstrated to the Ministry Representative's satisfaction that the Contractor's materials and procedures have been modified as necessary to ensure that further Work meets the requirements of the Contract; and

(c) the Ministry Representative has issued a Resume Work Order.

GC 29.03 Notwithstanding a Stop Work Order, the Contractor shall for the duration of any Stop Work Order provide all services necessary to maintain and protect the Site and the Work, and protect the public and any other persons on Site.

GC 29.04 The Contractor shall resume Work on the date specified by the Ministry Representative in a Resume Work Order.

GC 29.05 No Stop Work Order shall relieve the Contractor of any obligation of the Contractor under the Contract.

GC 29.06 A Stop Work Order shall not be treated as a Change to Work for the purposes of this Contract.

GC 30.00 ***SEASONAL SHUT-DOWN***

GC 30.01 If the Work continues into the late fall or winter, or other such period as may be acceptable to the Ministry Representative, and the weather conditions are beginning to deteriorate, or have deteriorated, to the extent that the Contractor's performance of the Work may:

(a) fail to meet the quality requirements and specifications of the Contract; or

(b) pose an unwarranted risk to public safety;

the Contractor may submit a written request to the Ministry Representative for a State of Suspension.

GC 30.02 In response to a request from the Contractor pursuant to GC 30.01, or where the Ministry Representative believes that the anticipated weather conditions shall effectively prevent the Contractor from meeting the quality requirements and specifications of the Contract or believes that continued Work may pose an unwarranted risk to public safety, the Ministry Representative may issue a Stop Work Order to invoke a State of Suspension for such period as the Ministry Representative deems appropriate.

GC 30.03 A State of Suspension shall only be granted pursuant to GC 30.02 where the Ministry Representative anticipates that the weather may be poor for a period of twenty-eight (28) days or longer.

GC 30.04 Where the Ministry Representative issues a Stop Work Order to invoke a State of Suspension pursuant to GC 30.02, the Contractor shall immediately:

(a) suspend Work, except such Work as necessary to protect the Work and the Site for the period of the State of Suspension;

(b) bring the Site, all traffic control and safety measures, and all Disturbed Features to a condition satisfactory to the Ministry Representative;

(c) arrange and pay for monitoring and response to address any routine maintenance services, except routine winter maintenance services, that are required on the Site for the duration of the State of Suspension, all in accordance with the terms of the Maintenance Specifications; and

(d) comply with any additional and/or revised requirements or constraints that the Ministry Representative may deem appropriate under the conditions.

GC 30.05 During a State of Suspension, the Contractor shall not perform any Work other than that:

(a) stated on the Stop Work Order; and

(b) arising during the State of Suspension that is deemed by the Ministry Representative to have resulted from the incomplete Work or any Unacceptable Work.

GC 30.06 Notwithstanding any other provision of the Contract, a State of Suspension shall not entitle the Contractor to an Extension of Time or any other compensation.

GC 30.07 Unless the Ministry Representative deems otherwise, any payment of consideration under GC 33.02 that would otherwise accrue during the State of Suspension shall be waived.

GC 31.00 ***RESUME WORK ORDERS AND COMPENSATION***

GC 31.01 The Contractor shall resume Work and the full responsibilities under the Contract on the date specified by the Ministry Representative in a Resume Work Order.

GC 31.02 The Contractor may claim compensation for impacts where such impacts resulted solely from a Stop Work Order in accordance with and subject to GC 42.00.

GC 32.00 ***PROVISIONAL SUM AND CONDITIONAL ITEMS***

GC 32.01 The Contractor shall not proceed with any Work with respect to a Provisional Sum Item or a Conditional Item, nor be entitled to any payment for such Work, until the Ministry Representative has provided written authorization for the Contractor to proceed with such Work with respect to that Provisional Sum Item or Conditional Item, as the case may be.

GC 33.00 ***COMPLIANCE WITH THE TIME SCHEDULE***

GC 33.01 The Contractor shall complete the Work in accordance with Schedule 5 - Time Schedule and any amendment thereto.

GC 33.02 If the Contractor fails to achieve completion of any specified portion of the Work on or before the corresponding Milestone Date or the Completion Date, then without limiting any other remedy available to the Ministry under the Contract, the Ministry Representative may elect to proceed with one or more of the following:

(a) terminate the Contract;

(b) where the Contractor has failed to achieve completion of the corresponding Work on or before a Milestone Date, require the Contractor to pay consideration in the amount specified in the Supplemental General Conditions as consideration for late completion for each day or part thereof between the specified Milestone Date and the actual date upon which the corresponding portion of the Work is completed;

(c) where the Contractor has failed to complete the Work on or before the Completion Date, require the Contractor to pay consideration in the amount specified in the table below as consideration for late completion for each day or part thereof between the specified Completion Date and the Actual Completion Date;

Tender Price		Amount Payable by the Contractor to the Ministry Per day
Greater than	But equal to or less than	
$0	$1,000,000	$1,000
$1,000,000	$10,000,000	$2,500
$10,000,000	Unlimited	$3,500

and

(d) extend the Completion Date or Milestone Date, as the case may be, for such period as the Ministry Representative determines, without requiring the Contractor to pay any consideration during such extended time.

GC 33.03 Should the consideration periods associated with GC 33.02(b) and GC 33.02(c) overlap, the Ministry shall waive the lesser of the two daily amounts for the overlapping days.

GC 33.04 If the Ministry elects to extend a Milestone Date or the Completion Date pursuant to GC 33.02(d), and the Contractor does not complete the Work on or before such extended Milestone Date or Completion Date then, upon written notice by the Ministry Representative to the Contractor, the Ministry may avail itself of any remedy available to the Ministry under the Contract, including without limitation one or more of the remedies specified in GC 33.02.

GC 33.05 It is a condition of any extension to the Milestone Date or the Completion Date pursuant to GC 33.02(d) that the Contractor shall proceed diligently to complete the Work.

GC 33.06 Any payment to be made by the Contractor pursuant to GC 33.00 relates directly to the performance by the Contractor of a condition, covenant, or promise in the Contract and shall not be construed by the parties as punitive but as importing a reasonable measure by mutual consent of the minimum damages caused to the Ministry by the Contractor's failure or neglect.

GC 34.00 *SUBSTANTIAL COMPLETION*

GC 34.01 The Contractor may submit a written request for a Letter of Substantial Completion to the Ministry Representative.

GC 34.02 Substantial Completion occurs when the Contractor has requested a letter of Substantial Completion pursuant to GC 34.01, and in the opinion of the Ministry Representative, all of the following conditions have been met:

(a) the facility for which the Work is being done is in, or suitable for, full use by the public and is free of any deficiencies affecting the safety of motorists, pedestrians, or workers;

(b) the value of the remaining Work is less than two percent (2%) of the Contract Price; and

(c) the Contractor is not in breach of any provision of the Contract, including the requirement of completion of the Work by the Completion Date.

GC 34.03 If the Contractor requests a Letter of Substantial Completion pursuant to GC 34.01 the Ministry Representative may inspect the Work and, if in the opinion of the Ministry Representative, Substantial Completion has occurred, issue a Letter of Substantial Completion. Only one Letter of Substantial Completion may be issued pursuant to the Contract.

GC 35.00 *TOTAL COMPLETION*

GC 35.01 Total completion occurs when the Ministry Representative issues a Completion Certificate with respect to the Work.

GC 35.02 The Contractor may submit a written request for a Completion Certificate to the Ministry Representative.

GC 35.03 The Contractor shall be entitled to a Completion Certificate when:

(a) the Contractor has completed all Work, including correction of all deficiencies in that Work identified in GC 35.03(b) to (g), but excluding correction of defects in the Work that appear during the warranty period, to the satisfaction of the Ministry Representative;

(b) the Site and any borrow pits, gravel pits, or other property occupied by the Contractor in performing the Work are clean of rubbish, equipment, surplus materials, and temporary structures and the Site is left in a neat, tidy, and presentable condition;

(c) after completion of any gravel, base, or surfacing operations, the roadway, ditches, slopes and culverts are cleaned of accumulations and reconditioned and maintained;

(d) surplus or waste aggregates at gravel deposits are piled or disposed of, as directed by the Ministry Representative;

(e) any areas from which material is removed or where stripping takes place are left in a condition suitable for routine maintenance in accordance with the Maintenance Specifications Manual by the road and bridge maintenance contractor engaged by the Ministry;

(f) waste asphalt oil, crude oil, and any Contaminants deposited or left on, in or underneath the Site by the Contractor, the Subcontractors, or the Contractor or Subcontractor's respective agents or employees, are disposed of in accordance with applicable laws and regulations and with approval of the Ministry Representative; and

(g) the Contractor has, where applicable, submitted to the Ministry Representative such documentation as is required by the Contract including, without limitation, as-built plans and a statistical summary of health and safety records as required by the Standard Specifications.

GC 35.04 If the Contractor requests a Completion Certificate, but the Work is not completely acceptable to the Ministry, the Ministry Representative shall advise the Contractor, in writing, of particular defects in the Work preventing issuance of the Completion Certificate and the Contractor shall forthwith rectify the defects to the satisfaction of the Ministry Representative.

GC 36.00 ***WARRANTY***

GC 36.01 Notwithstanding any other provision of the Contract or the expiry or termination of the Contract, the Contractor warrants to the Ministry, for a period of one (1) year commencing on the earliest of the date of Substantial Completion, the Actual Completion Date, or any earlier termination date, that:

(a) all Work is free from any defect in materials and workmanship; and

(b) the Contractor shall, upon notification by the Ministry, promptly and diligently remedy any defect, to the satisfaction of the Ministry.

GC 36.02 The warranty period for the whole or a portion of the Work may be extended by a Supplemental Agreement when the Ministry approves an amendment or specific change to the requirements set out in the Contract.

GC 36.03 For any Work incomplete on the date of Substantial Completion, upon Notice from the Ministry Representative itemising the portion of incomplete Work and requiring a full warranty, the Contractor warrants to the Ministry for a period of one (1) year, commencing on the Actual Completion Date of the Work, for all such Work identified in the Notice that:

(a) it is free from any defect in materials and workmanship; and

(b) the Contractor shall, upon notification by the Ministry, promptly and diligently remedy any defect to the satisfaction of the Ministry.

GC 36.04 If a significant portion of the Work is complete and in use by the public well before the Completion Date, upon receipt of a written request from the Contractor specifying the portion of the Work which has been completed, the Ministry Representative may, by providing written confirmation to the Contractor, allow the warranty period to commence for the completed portion of the Work on the date that portion is put into use by the public.

GC 36.05 Unless the Special Provisions indicate otherwise, the Ministry shall consider a maximum of one (1) request for an early warranty start date in response to GC 36.04.

GC 37.00 ***NOTICES***

GC 37.01 Except as provided in GC 37.02, any Notice shall be in writing.

GC 37.02 In addition to the Notice required by GC 37.01 and GC 37.03, a verbal Notice shall be given as soon as the party giving the Notice becomes aware of the event or circumstances which give rise to the Notice being given.

GC 37.03 A Notice shall include all of the following information with respect to the event or circumstances giving rise to the Notice being given:

(a) a full and detailed description of the event or circumstances;

(b) the date upon which or the dates during which the event or circumstances is said to have occurred;

(c) the date upon which the event or circumstances first came to the attention of the party giving Notice;

(d) the claimed impact of the event or circumstances on the party giving Notice;

(e) the clauses of the Contract relied upon by the party giving Notice; and

(f) any proposed resolution.

GC 37.04 Compensation for any claim made in a Notice shall be limited to unavoidable costs and time impacts arising directly from the event or circumstances reported.

GC 37.05 In the event of the Contractor's failure to provide Notice within the Notice Period, the Contractor shall not be entitled to any compensation for unavoidable costs or time impacts unless the Ministry determines that it has not been prejudiced in its ability to assess the Contractor's claim by reason of the Contractor's failure.

GC 37.06 Any Notice Period in the Contract commences on the earlier of the date that the Contractor:

(a) first became aware of the event or circumstances giving rise to the Notice; and

(b) ought reasonably to have been aware of the event or circumstances giving rise to the Notice.

GC 37.07 The Notice Period for any Notice for which there is no specific Notice Period, shall be seven (7) days.

GC 37.08 Upon delivery of a Notice the parties shall make reasonable efforts to resolve the issue presented by the Notice in accordance with the terms of GC 58.00.

GC 38.00 ***CHANGES TO WORK***

GC 38.01 All claims for impacts arising from any Change to Work shall be in accordance with GC 38.00.

GC 38.02 If a provision of the Contract assigns the risk of a Change to Work, then all impacts arising from that Change to Work shall be for the account of the party to whom the risk is assigned.

GC 38.03 The Ministry may make a Change to Work by issuing a Work Order.

GC 38.04 The Contractor may request a Change to Work by giving Notice to the Ministry Representative.

GC 38.05 If a Work Order or Change to Work constitutes a Reimbursable Delay the Ministry shall pay the Contractor in accordance with GC 50.00.

GC 38.06 If a Reimbursable Delay results in a change in the quantity or nature of the Work, the Contractor may also request consideration under GC 38.07 or GC 38.08, whichever may be appropriate.

GC 38.07 If a Change to Work or Work Order increases, decreases or eliminates the quantity of Work covered by an Item, or if in the opinion of the Ministry Representative the Work resulting from the change is of similar nature to Work described for another existing Item:

(a) the Contractor shall perform the changed Work in accordance with the Contract; and

(b) the Ministry shall pay the Contractor:

(i) in accordance with the provisions of GC 40.00;

(ii) the Unit Price for the final quantity of Work, subject to the provisions of GC 39.00; or

(iii) in respect of an additional Lump Sum Item, compensation equal to that of the similar Lump Sum Item.

GC 38.08 If a Change to Work or Work Order does not fall under GC 38.07 and is of the nature that the costs and impacts can be assessed by the Contractor:

(a) the Ministry shall provide specifications for the performance of the Work;

(b) the Contractor shall offer a Lump Sum Price or Unit Price for the Work; and

(c) the Ministry Representative shall either:

(i) accept the Contractor's offer under GC 38.08(b) and add the Work to the Contract as a new Item, which shall be subject to all the provisions of the Contract; or

(ii) reject the Contractor's offer.

GC 38.09 If a Change to Work or Work Order does not fall under GC 38.07 and is of the nature that the costs and impacts cannot be assessed by the Contractor, or if the Contractor's offer under GC 38.08(b) is rejected, the Ministry Representative may:

(a) issue a Work Order to the Contractor authorizing the Work to be performed, in which event those components of the Item that in the opinion of the Ministry Representative have been materially impacted by the Change to Work or Work Order will be paid on a Force Account Basis;

(b) retain a third party to perform the Change to Work and, if applicable, eliminate the affected portion of the Work from the Contract; or

(c) terminate the Contract in accordance with GC 63.00, in which case the Ministry may re-tender the Work in whole or in part.

GC 38.10 Subject to GC 49.04, a Change to Work or Work Order that extends the Completion Date or a Milestone Date may give rise to an Extension of Time in accordance with GC 44.00. A Change to Work or Work Order that reduces the time required to carry out the Work or an applicable portion of the Work may give rise to a Reduction of Time in accordance with GC 45.00.

GC 38.11 The Contractor shall not proceed with any Change to Work or Work Order until instructed in writing by the Ministry Representative to do so.

GC 38.12 The Contractor shall not be entitled to payment for any Change to Work or Work Order or an Extension of Time for any Change to Work or Work Order except in accordance with a duly executed Supplemental Agreement.

GC 38.13 The Contractor shall not be entitled to receive compensation or payment for any loss of profits resulting from any Change to Work or Work Order.

GC 38.14 The Contractor shall, in accordance with GC 13.00, provide the Ministry with all third party consents for any Change to Work or Work Order.

GC 39.00 *CHANGES IN QUANTITIES FOR UNIT PRICE ITEMS*

GC 39.01 The provisions of GC 39.03 to GC 39.06 inclusive apply only to Unit Price Items. GC 39.06 shall not apply to Conditional Items.

GC 39.02 An increase or decrease in the quantity of an Item is determined as the difference between the final quantity of the Item, as measured or calculated in accordance with the Contract, and the Approximate Quantity of the Item specified in Schedule 7 - Approximate Quantities and Unit Prices.

GC 39.03 Where an Item is not a Major Item, the Unit Price shall apply to the entire quantity as measured or calculated in accordance with the Contract.

GC 39.04 If the quantity of a Major Item does or is anticipated by either the Ministry or the Contractor to increase by an amount exceeding twenty percent (20%) of the Approximate Quantity, either the Ministry or the Contractor may provide Notice to the other requesting that a new Unit Price be determined for the excess quantity.

GC 39.05 Where Notice has been provided under GC 39.04, the Unit Price for the Major Item may be adjusted, subject to the following:

(a) the unadjusted Unit Price applies on the quantity up to and including one hundred and twenty percent (120%) of the Approximate Quantity;

(b) any adjusted Unit Price applies only to the excess quantity, being that portion beyond one hundred and twenty percent (120%) of the Approximate Quantity;

(c) the Ministry shall not make an allowance for losses sustained or profits accrued on a quantity up to and including one hundred and twenty percent (120%) of the Approximate Quantity;

(d) the adjusted Unit Price for the excess quantity shall be determined as:

(i) negotiated by the Ministry and the Contractor, failing which; then

(ii) the actual cost of the excess Work divided by the excess quantity where the excess quantity can be measured separately, failing which; then

(iii) the same Unit Price for material which is similar in nature to other material being used within the Work being performed that has documented productivity and cost figures, failing which; then

(iv) where none of the above conditions are met, the cost to date divided by the quantity to date as assessed on the date of the first progress estimate in which the quantity to date exceeds one hundred and twenty percent (120%) of the Approximate Quantity;

(e) if the final costs applicable to that Major Item include fixed costs, those fixed costs are excluded from the Unit Price for the excess quantity.

GC 39.06 If the final quantity of a Major Item is less than eighty percent (80%) of the Approximate Quantity, the Contractor may submit a written request for compensation and the Ministry Representative shall consider that request, subject to the following:

(a) the request shall be considered:

(i) only if the total payments to the Contractor under the Contract are less than the Tender Price; and

(ii) only insofar as it compensates the Contractor for unrecovered actual fixed expenses which can be demonstrated to have been included within the original Unit Price of the Major Item by the production of original bid preparation documents and to the satisfaction of the Ministry Representative; and

(b) the compensation granted:

(i) shall not be more than eighty percent (80%) of the actual fixed expenses incurred with respect to the Major Item, less the actual fixed expenses recovered to date for the Major Item;

(ii) shall not, when added to the Unit Price payment for the final quantity, exceed the payment that would be made for eighty percent (80%) of the Approximate Quantity;

(iii) shall not make any allowance for loss of profits; and

(iv) shall not cause the total payments made to the Contractor under the Contract to exceed the Tender Price.

GC 40.00 ***ELIMINATED ITEM***

GC 40.01 The provisions of GC 40.02 to GC 40.05 inclusive do not apply to Conditional Items or to Provisional Sum Items.

GC 40.02 The Ministry, in its sole discretion, may, at any time by Work Order, eliminate one or more Items from the Work.

GC 40.03 In the event that any Item is eliminated from the Work the Contractor shall take all reasonable and necessary steps to mitigate the effect of any such action and to minimize or avoid any costs associated with the elimination of that Item and as such this shall include, without limitation:

(a) making reasonable efforts to immediately cancel all orders for materials, services or supplies in connection with the eliminated Item; and

(b) returning any materials that are returnable to the vendor.

GC 40.04 The Ministry shall pay the Contractor for materials which the Contractor ordered or received for an eliminated Item, which the Contractor cannot cancel or return to the vendor, in accordance with GC 40.05 and the materials shall then become the exclusive property of the Ministry.

GC 40.05 If any Items are eliminated from the Work, then, unless a contrary provision is contained in the Contract or, the Ministry shall pay the Contractor:

(a) the actual direct costs and overhead costs incurred and substantiated by the Contractor in connection with the elimination of the Item; and

(b) on a Force Account Basis for:

(i) materials ordered and received where the order cannot be cancelled and the materials are not returnable to the vendor, and

(ii) any handling costs to return the materials to the vendor or to deliver the materials to the Ministry, as applicable.

GC 40.06 The elimination of one or more Items may result in a Reduction of Time in accordance with GC 45.00.

GC 41.00 ***CHANGED CONDITIONS***

GC 41.01 The Contractor shall give seven (7) days Notice to the Ministry of a Changed Condition.

GC 41.02 If the Ministry determines that a Changed Condition has arisen, and such Changed Condition would cause an increase or decrease in the costs to be incurred by the Contractor or in the time required to perform the Work, the Ministry may enter into a Supplemental Agreement with the Contractor adjusting the payment required for the performance of the Work or adjusting the time required to perform the Work.

GC 41.03 With respect to any Changed Condition claim, the Contractor shall not claim for that portion of costs which could have been avoided by the Contractor.

GC 42.00 *REIMBURSABLE DELAY*

GC 42.01 "Reimbursable Delay" means any material cessation or suspension of the Work or any portion thereof caused by:

(a) the Ministry and includes, without limitation, any of the following:

(i) failure of the Ministry to deliver materials, equipment, or information in the condition or within the time frame specified in the Special Provisions;

(ii) failure by the Ministry to provide a Ministry Representative; or

(iii) failure of the Ministry to provide access to the Site as reasonably contemplated in the Contract; or

(b) third parties, only for the following events:

(i) the establishment of an Environmental Window after the Closing Time;

(ii) failure to perform any Utility Relocation or other public works in a timely fashion that was unforeseeable by the Contractor;

(iii) failure of another Ministry contractor to perform its work in a timely fashion; and

(iv) a material change of any applicable law, code, statute or regulation.

GC 42.02 The following events are specifically excluded from the definition of "Reimbursable Delay":

(a) adverse weather, acts of God, or other natural conditions;

(b) preconsolidation and settlement of embankments, as may be contemplated in the Contract;

(c) failure of the Contractor to comply with a Work Order;

(d) strike (including, without limitation, illegal work stoppage or slow down), lockout, or other labour dispute, regardless of whether it is caused by a third party;

(e) failure of the Contractor to comply with the Contract or any part or provision thereof;

(f) failure of the Contractor to provide for the safety of the public;

(g) failure of the Contractor to protect the property of the Ministry;

(h) defects in connection with the Project which are caused by the Contractor whether or not such defects are being rectified at the time;

(i) quality control or quality assurance testing, inspecting, reviewing, or auditing by any person of components of the Work for compliance with the Contract;

(j) Utility Relocation work, except where a prior Reimbursable Delay has changed the timing of the actual Utility Relocation resulting in a material adverse effect on the Contractor's operations;

(k) failure of the Contractor to discharge any responsibility it may have for protecting the environment; and

(l) road restrictions.

GC 42.03 A Reimbursable Delay ends on the earliest of:

(a) the date on which the Ministry Representative issues a Resume Work Order requiring the Contractor to resume the Work;

(b) the date on which the Contractor becomes aware, or should reasonably have become aware, that the condition or cause of the Reimbursable Delay is corrected; or

(c) the date on which the Contractor resumes the portion of the Work impacted by the Reimbursable Delay.

GC 42.04 The Contractor shall take all reasonable and necessary steps to minimize or avoid the costs and impacts of any Reimbursable Delay, to recover all lost time, and to resume, as soon as possible, performance of its obligations under the Contract, and shall fully document the costs incurred.

GC 42.05 Compensation for the Contractor for a Reimbursable Delay shall be limited solely to an Extension of Time in accordance with GC 44.00 and any approved payments under GC 50.00 and GC 38.06.

GC 43.00 ***CHANGE IN TAXES***

GC 43.01 If prior to Completion Date a change occurs in any Sales Tax then the Contract Price shall be increased or decreased by an amount that is determined in the sole and absolute discretion of the Ministry to represent the amount that is demonstrably and directly attributable to that change in Sales Tax as set out in GC 43.03.

GC 43.02 Where the Contract Price is increased or decreased due to a change in Sales Tax, the costs of calculating the change in the Contract Price shall be borne by:

(a) the Contractor where the Contract Price is increased; or

(b) the Ministry where the Contract Price is decreased.

GC 43.03 Where a Sales Tax increases or decreases, the change in the Contract Price shall be limited to those Sales Taxes accruing on or after the date of such decrease or increase on materials incorporated into the Work and to Sales Taxes on those items totally consumed by the Contractor in the process of and for the sole purpose of carrying out the Work.

GC 43.04 An increase in Sales Tax shall be paid as a separate item to be added by the Ministry Representative to the progress estimate.

GC 43.05 Where a Sales Tax decreases, the Ministry may set-off against progress payments or any other money payable to the Contractor, the amount calculated pursuant to GC 43.01.

GC 43.06 The Contractor shall provide the Ministry with all information and documentation necessary, in the opinion of the Ministry Representative, to determine the amount by which the Contract Price is increased or decreased due to a change in Sales Tax.

GC 44.00 ***EXTENSION OF TIME***

GC 44.01 The Ministry may grant an Extension of Time for the impact on the Completion Date or on any Milestone Date of:

(a) a Change to Work;

(b) Changed Conditions; or

(c) a material delay, cessation or stoppage in the performance of the Work, or any part thereof, caused by any one of the following events:

(i) a Reimbursable Delay;

(ii) a strike (including, without limitation, illegal work stoppage or slow down), lockout, or other labour dispute;

(iii) an event arising in connection with conditions resulting from Abnormal or unexpected patterns of occurrence on the Site, including without limitation:

(A) Abnormal weather conditions,

(B) Abnormal river flow, or

(C) Abnormal road restrictions; or

(iv) any other event beyond the control of the Contractor.

GC 44.02 Notwithstanding GC 44.01, the Ministry shall only grant an Extension of Time where:

(a) the Contractor has diligently proceeded with the Work;

(b) the Contractor has applied all reasonable means to complete the Work by the Completion Date, or the portion thereof corresponding to the applicable Milestone Date; and

(c) the event is not an Event of Default, or in connection with an Event of Default.

GC 44.03 The Contractor may, not later than fourteen (14) days after the occurrence or the detection of any one of the events referenced in GC 44.01, submit to the Ministry Representative a Notice for an Extension of Time, specifying the event, describing how the requirements set out in GC 44.02 are satisfied, and proposing the period of time by which the Completion Date or the applicable Milestone Date, should be extended.

GC 44.04 Not later than fourteen (14) days after receiving the Notice for an Extension of Time, the Ministry Representative shall deliver a written reply to the Contractor:

(a) granting the Extension of Time for the time period proposed by the Contractor pursuant to GC 44.03; or

(b) refusing to grant the Extension of Time and setting out the reasons for such refusal.

GC 44.05 Forthwith upon receipt of any grant of an Extension of Time in writing from the Ministry Representative under GC 44.04(a), the Contractor shall obtain and deliver to the Ministry Representative written confirmation from the Surety that issued the Bonds, of the Surety's consent to the Extension of Time granted under GC 44.04(a), and the Surety's confirmation of the continued force and effect of the Bonds.

GC 44.06 Where a delay occurs because of two or more causes acting concurrently, one of which is the responsibility of the Contractor, and the other or others are the responsibility of the Ministry or a third party, then:

(a) where the delay for which the Contractor is responsible commences first, no Extension of Time shall be granted for the period commencing when such delay first occurred and ending when the said cause of such delay ceases to operate;

(b) where the delay for which the Ministry or a third party is responsible commences first, an Extension of Time shall, subject to GC 44.07 and GC 44.08, be granted for the period commencing when such delay first occurred and ending when the said cause of such delay ceases to operate; and

(c) where the delay commences as a result of concurrent causes, then an Extension of Time shall, subject to GC 44.07 and GC 44.08, be granted in the amount of one-half (1/2) of the duration between the date of commencement of the delay until the time the first of any one of the concurrent causes ceases to operate.

GC 44.07 An Extension of Time shall only be granted for the period of time that exceeds the available float time (the length of time an activity may be delayed without affecting completion by a Milestone Date or the Completion Date).

GC 44.08 Notwithstanding GC 44.07, where, in the opinion of the Ministry Representative, a significant portion of the said float time has been consumed by events for which the Ministry is responsible and the Contractor subsequently suffers a delay which consumes more time than can be accommodated within the remaining float time, the Ministry may give consideration to granting an Extension of Time.

GC 45.00 ***CHANGE OF COMPLETION DATE***

GC 45.01 Where the Ministry grants an Extension of Time pursuant to GC 44.00, any affected Milestone Date and, where affected, the Completion Date, shall be extended by the number of days in the Extension of Time.

GC 45.02 Where a Change to Work reduces the anticipated time required to complete the Work, the Ministry and the Contractor, subject to the written consent of the Surety, may negotiate a Reduction of Time for an earlier Completion Date and/or any affected Milestone Date.

GC 46.00 ***PAYMENT***

GC 46.01 Subject to the terms of the Contract the Ministry shall pay the Contract Price as full payment and reimbursement to the Contractor for all costs incurred for labour, materials, equipment, and overhead required to completely incorporate all the Items into the Work.

GC 46.02 Payment for individual Items shall be made, subject to the terms of the Contract, as follows:

(a) For Unit Price Items, the Ministry shall pay the Contractor only for actual quantities of Work furnished and incorporated into the Work, as measured or calculated in accordance with the Contract. The actual quantities of Work to be furnished and incorporated into the Work may be greater or less than the Approximate Quantities specified in Schedule 7 - Approximate Quantities and Unit Prices;

(b) For Lump Sum Items, the Ministry shall pay the Contractor the Lump Sum Price, regardless of the actual quantities of Work required to complete the Item;

(c) For each Provisional Sum Item, the Ministry shall pay the Contractor in accordance with the express method of payment as contemplated within the Contract, failing which, in accordance with each Work Order authorizing that part of the Work to proceed;

(d) For Conditional Items, the Ministry shall pay the Contractor only for actual quantities of Work furnished, as measured or calculated in accordance with the Contract, and only where the Contractor has been authorized by the Ministry Representative in accordance with the terms of the Contract. The actual quantities of Work to be furnished may be greater or less than the Approximate Quantities specified in Schedule 7 - Approximate Quantities and Unit Prices; and

(e) The Ministry shall pay the Contractor for any Change to Work in accordance with the Supplemental Agreement authorizing such Work.

GC 46.03 The Ministry is not obligated to pay the Contractor for Unauthorized Work or Unacceptable Work.

GC 46.04 The Ministry certifies that the property and/or services ordered and purchased pursuant to the Contract are for the use of, and are being purchased by, the Ministry with Crown funds and therefore are not subject to the Federal Goods and Services Tax (GST).

GC 46.05 The Ministry may set-off any consideration required to be paid by the Contractor from any current or future sums owed by the Ministry to the Contractor.

GC 47.00 ***PROVISIONAL SUM ITEMS***

GC 47.01 The Contractor shall not be entitled to any payment for Work against a Provisional Sum Item until the Ministry Representative has authorized that Work.

GC 47.02 The Ministry shall not pay the Contractor for any portion of a Provisional Sum Item which has not been authorized by the Ministry Representative.

GC 47.03 GC 40.00 does not apply to Provisional Sum Items.

GC 47.04 Any Provisional Sum Item for which no express method of payment is provided in the Contract shall be paid as authorized on the Work Order.

GC 48.00 *CONDITIONAL ITEMS*

GC 48.01 The Contractor shall not be entitled to any payment for Work against a Conditional Item until the Ministry Representative has authorized that Work.

GC 48.02 GC 39.06 and GC 40.05 do not apply to Conditional Items.

GC 49.00 *FORCE ACCOUNT*

GC 49.01 The Contractor shall not be entitled to compensation for any Work performed on a Force Account Basis prior to written authorization of such Work from the Ministry Representative.

GC 49.02 The Contractor shall submit a *"Daily Report for Extra Work"* to the Ministry Representative for any Work performed on a Force Account Basis no later than one day after such Work is performed.

GC 49.03 Payment to the Contractor on a Force Account Basis shall be made subject to the terms of this Contract, and shall be calculated as follows:

(a) for the cost of labour:

(i) an amount equal to the actual wages and salaries, including payroll burden, paid directly by the Contractor in respect of labour and for supervisory personnel actively and necessarily engaged on the particular item of Work on the Site, if supported by recorded time and hourly rates of pay for that labour and supervision, but not including any payment or costs paid for operators of All Found Equipment, the Contractor Manager and Contractor Representative(s) or their delegates under GC 6.05, administration, or management time spent on the Item; and

(ii) an amount for small tool allowance, plus any other similar items which the Ministry Representative considers appropriate;

(iii) plus any amount equal to twenty percent (20%) of the total costs referred to in GC 49.03(a)(i) and GC 49.03(a)(ii) in respect of the related costs and expenses described in GC 49.06;

(b) for food and lodging: an amount equal to the actual reasonable costs paid directly by the Contractor in respect of food and lodging for labour and for supervisory personnel actively and necessarily engaged on the particular Item plus ten percent (10%) in respect of the related costs and expenses described in GC 49.06;

(c) for materials supplied: an amount equal to the actual cost of materials supplied by the Contractor at invoice cost (which includes all freight and express charges, all taxes, and all other costs incurred to supply the materials to the Site) plus ten percent (10%) in respect of the related costs and expenses described in GC 49.06;

(d) Equipment:

(i) for All Found Equipment approved by the Ministry Representative prior to its use: an amount equal to the applicable Equipment Rental Rates as full payment and reimbursement for all fuel; oil; lubrication; repairs; maintenance; approved use of attachments; operator wages and benefits; and other costs incidental to owning and

operating the equipment plus fifteen percent (15%) of that amount to cover all costs related to such equipment and its operator;

(ii) for all other equipment approved by the Ministry Representative prior to its use: an amount equal to the applicable Equipment Rental Rates (less operator) as full payment and reimbursement for all fuel; oil; lubrication; repairs; maintenance; and other costs incidental to owning and operating the equipment plus fifteen percent (15%) of that amount to cover all costs related to such equipment;

(e) for preparatory work, provided the payment is preapproved in writing by the Ministry Representative prior to the preparatory work being performed: an amount equal to the actual costs of preparatory work performed by the Contractor including, without limitation, transportation of tools and equipment and the Contractor's personnel travel time (when personal travel time is included in a collective agreement) plus fifteen percent (15%) in respect of the related costs and expenses described in GC 49.06.

GC 49.04 When the cumulative entitlement to payment for Work performed on a Force Account Basis in accordance with GC 49.03 equals twenty-five percent (25%) of the Tender Price, then payment for all further entitlements for Work performed on a Force Account Basis shall be calculated in accordance with GC 49.05.

GC 49.05 For payment based on a Force Account Basis for Work performed after the day that the cumulative work-to-date value of such entitlements rises to an amount equal to twenty-five percent (25%) of the Tender Price:

(a) the costs claimed shall be limited to those incurred on the Site;

(b) the percentage indicated in GC 49.03(a)(iii) shall be reduced to twelve and one-half (12.5%);

(c) the percentages indicated in GC49.03(d)(i) and GC 49.03(d)(ii) shall be reduced to zero percent (0%); and

(d) the percentage indicated in GC 49.03(e) shall be reduced to ten percent (10%).

GC 49.06 Unless otherwise provided for in the Contract, payment on a Force Account Basis represents complete payment and reimbursement for all impacts, related costs and expenses, including, without limitation: time; labour; materials; equipment; mobilization; subcontracting; overhead; profit; general supervision; occupational tax and any other Federal or Provincial revenue legislation; premiums for public liability and property damage insurance policies; bonding; for the use of all tools and equipment for which no specific rental payment provision exists; and for all costs incurred by the Contractor in supplying the materials.

GC 49.07 Standby and overtime are not compensable for Work paid on a Force Account Basis unless agreed to in advance by the Ministry Representative.

GC 49.08 The Contractor shall not be eligible for payment for any part of Force Account Basis Work that is not recorded in accounting records as to the resources and hours attributable to the specific Work.

GC 49.09 The accounting records shall not establish entitlement to compensation.

GC 50.00 ***COMPENSATION FOR REIMBURSABLE DELAY***

GC 50.01 The Contractor may claim compensation for a Reimbursable Delay by:

(a) not later than seven (7) days following the start of a Reimbursable Delay, giving written Notice to the Ministry Representative of the intention of the Contractor to make a claim together with detailed reasons for the claim;

(b) notifying the Ministry Representative in writing as to its claim for compensation not later than seven (7) days after the Contractor's resumption of Work on the Project; and

(c) not later than thirty (30) days after the resumption of Work, giving the Ministry Representative full written particulars of the nature and magnitude of the claim including, without limitation, the following claim documentation:

(i) a description of the basis for the Reimbursable Delay citing the specific provision of the Contract under which the claim is being brought;

(ii) a list of all equipment on the Site as a result of the Reimbursable Delay;

(iii) a list of any equipment moved to other locations during the Reimbursable Delay;

(iv) a list of the Contractor's supervisory staff at the Site before and after the Reimbursable Delay began and details of applicable pay rates;

(v) a schedule of equipment operator costs;

(vi) the most recent Construction Schedule prior to the Reimbursable Delay and the impact of the Reimbursable Delay thereon; and

(vii) any other documents requested by the Ministry Representative.

GC 50.02 If a Reimbursable Delay occurs and the Contractor complies with GC 50.01, the Ministry shall, subject to the terms of the Contract, pay the Contractor only the following direct costs which in the opinion of the Ministry Representative were necessarily and properly incurred and documented by the Contractor pursuant to GC 42.04:

(a) costs of supervisory staff committed to the Project, excluding costs of time paid for greater than eight (8) hours in any one day and excluding costs for Saturdays, Sundays, and Holidays;

(b) costs of labour (other than supervisory staff), including All Found Equipment operators, approved in writing by the Ministry Representative;

(c) costs of equipment for equipment idled by the Reimbursable Delay determined as:

(i) in the case of equipment owned or leased by the Contractor on a long term basis:

(A) for the first twenty-one (21) contiguous days only the number of work days in which the equipment was idle multiplied by the Bare Equipment Rates for such idle equipment, and

(B) for the twenty-second (22nd) contiguous day and all subsequent work days; the actual loss which the Contractor demonstrates is wholly attributable to the Reimbursable Delay where the Contractor demonstrates that an actual loss was suffered by the Contractor with respect to other work being available to the Contractor which the Contractor was precluded from carrying out as a result of the costs of moving such idled equipment to the site of such other work;

(ii) in the case of rented equipment which is rented on a short term basis, the incremental rental costs that are wholly attributable to the Reimbursable Delay; and

(iii) in the case of hired equipment, the equipment idle time, to a maximum of three (3) days, multiplied by the Bare Equipment Rates;

(d) five percent (5%) of the sum of GC 50.02(a), GC 50.02(b), and GC 50.02(c) as overhead;

(e) reasonable board and lodging costs for supervisory and other staff authorized under GC 50.02(a) and GC 50.02(b) above;

(f) increases in materials costs wholly attributable to the Extension of Time if an Extension of Time has been granted pursuant to GC 44.00; and

(g) the reasonable costs of moving idled equipment off and back to the Site where the anticipated costs of moving the idled equipment would be less than anticipated costs which would be incurred pursuant to GC 50.02(c).

GC 50.03 The Ministry shall not pay the Contractor for equipment that is inoperative due to breakdown or for idled equipment which was not in use when the Reimbursable Delay started.

GC 51.00 ***CONSEQUENTIAL LOSSES***

GC 51.01 Under no circumstances shall the Contractor be entitled to any compensation or payment not specifically provided for in the Contract including, without limitation, any payment for loss of profits or consequential damage or loss.

GC 52.00 ***PROGRESS PAYMENTS***

GC 52.01 The Ministry Representative shall, subject to the terms of the Contract, no later than seven (7) days following the first day of each month or such later date and/or less frequent period as may be agreed to between the Ministry Representative and the Contractor, prepare and endorse a progress estimate of the amount of Work performed by the Contractor.

GC 52.02 Subject to the terms of the Contract, the Ministry shall, not earlier than thirty (30) days after the completion of any progress estimate, make a progress payment to the Contractor.

GC 52.03 The progress payment made under GC 52.02 shall be at the applicable rates set out in Schedule 7 - Approximate Quantities and Unit Prices, and be based upon the estimated amount of the Work performed under GC 52.01, as follows:

(a) the progress payment for any Unit Price Item shall be based on the total quantity of Work performed for the Item, as estimated by the Ministry Representative, less the amount paid for the Item pursuant to any previous progress estimate(s);

(b) the progress payment for any Lump Sum Item shall be based on the percentage complete of the Item, as estimated by the Ministry Representative, less the percentage complete pursuant to any previous progress estimate(s);

(c) the progress payment for any Provisional Sum Item shall be based on the total value of Work, which had been authorized in advance by the Ministry Representative, performed for the Provisional Sum Item less the amount paid for the Provisional Sum Item pursuant to any previous progress estimate(s);

(d) the progress payment for any Work paid on a Force Account Basis will be based on total value of the Work performed as documented by completed *"Daily Report for Extra Work"* forms received and approved by the Ministry Representative during the period covered by the progress estimate; and

(e) each progress payment shall be subject to the Holdback, pursuant to GC 54.00.

GC 52.04 Progress estimates and progress payments do not represent a final determination of quantities of Work or an acceptance of the Work by the Ministry.

GC 52.05 Before the Ministry makes any progress payment, other than the first progress payment, the Contractor shall deliver to the Ministry a statutory declaration in the form as supplied by the Ministry attesting that the Contractor has paid in full on all accounts for labour, subcontracts, products, materials, construction machinery, equipment and all other indebtedness or obligation incurred by the Contractor in the performance of the Work as incurred up to the date of the previous progress payment.

GC 52.06 The Ministry shall accept a facsimile copy of each statutory declaration on condition that the Contractor delivers the original statutory declaration to the Ministry Representative within twenty-eight (28) days. If the Contractor fails to deliver the original statutory declaration within the specified time period, all subsequent progress payments shall be withheld until such time as the original statutory declaration is received by the Ministry Representative.

GC 53.00 ***FINAL PROGRESS PAYMENT***

GC 53.01 The Ministry Representative shall, within ninety (90) days following the Actual Completion Date, prepare the final measurements and calculations of the amount of Work performed by the Contractor and deliver a draft of the final progress estimate for review by the Contractor.

GC 53.02 At the Contractor's request, the Ministry shall provide the Contractor with access to any back-up documentation which, in the Ministry Representative's opinion is applicable and relates to the final quantities of the Work performed.

GC 53.03 The Contractor shall review the draft final progress estimate and shall, within sixty (60) days of the delivery of the draft of the final progress estimate, provide Notice to the Ministry of any claims based upon the quantities or an indication of acceptance of the final quantities.

GC 53.04 During the sixty (60) day period referenced in GC 53.03, the Contractor and the Ministry Representative shall review any discrepancies noted by either party with respect to the draft final progress estimate and shall review the calculations and records, exchange information, and conduct discussions or negotiations in an effort to reach agreement and/or a resolution with respect to the final quantities of Work for any Item in dispute. The Ministry Representative shall revise the draft final progress estimate to reflect any adjustments to the quantities of disputed Items that may be agreed to between the Ministry Representative and the Contractor and shall endorse and issue the final progress estimate.

GC 53.05 The final progress payment pursuant to the Contract shall be made within thirty (30) days of the Ministry receiving the Contractor's acceptance of the final quantities, Notice of outstanding disputed Items and any other documentation required under the Contract.

GC 53.06 Payment for any disputed Items that are resolved after issuance of the final progress estimate shall be paid within thirty (30) days of receipt by the Ministry of a letter from the Contractor, in a form and content acceptable to the Ministry Representative, containing:

(a) a list of each resolved Item and the net amount payable for that Item;

(b) the total net amount owing;

(c) subject to GC 53.06(d), a statement indicating that payment of the agreed-upon amount shall release the Ministry for any and all liability associated with the claim for those items;

(d) any other conditions of the settlement; and

(e) the signature of an authorized signatory of the Contractor.

GC 54.00 ***HOLDBACK***

GC 54.01 Subject to GC 54.02, the Ministry shall retain from each progress payment a holdback equal to five percent (5%) of the amount approved by the Ministry Representative for payment by the Ministry to the Contractor (the "Holdback").

GC 54.02 The Ministry may, in the sole discretion of the Ministry, accept from the Contractor a substitute security, in a form and content satisfactory to the Ministry, in place of the Holdback, in which case the substitute security is deemed to be the Holdback.

GC 54.03 The Ministry shall not pay interest or other charges on any amounts retained pursuant to GC 54.01 or GC 54.02.

GC 55.00 *INTERIM HOLDBACK RELEASE*

GC 55.01 In the sole discretion of the Ministry and subject to the terms and conditions of the Contract, the Ministry may release, one time only, a portion of the Holdback in accordance with GC 55.02, no sooner than the Ministry determines that all of the following conditions have been met:

(a) the Ministry Representative has issued a Letter of Substantial Completion;

(b) the Contractor has provided to the Ministry a clearance letter from the Workers' Compensation Board indicating that all current assessments due from the Contractor have been paid; and

(c) the Contractor has provided to the Ministry the applicable executed statutory declaration in the format set out in the Standard Specifications.

GC 55.02 An interim Holdback release shall be in the amount of the Holdback less two times the cost to complete the Work as estimated by the Ministry Representative. This amount shall be retained until such time as the conditions in GC 56.01 have been satisfied.

GC 55.03 If the Ministry has accepted a substitute form of security pursuant to GC 54.02, no portion of the security shall be released until the satisfaction of all conditions in GC 56.01.

GC 55.04 In the event of an interim Holdback release, the Ministry shall discontinue retaining Holdbacks from all subsequent progress payments.

GC 56.00 *FINAL HOLDBACK RELEASE*

GC 56.01 Subject to the terms and conditions of the Contract, the Ministry shall release the Holdback, or the remaining balance thereof, within sixty (60) days following written acknowledgement by the Ministry that all of the following conditions have been satisfied:

(a) the Ministry Representative has issued a Completion Certificate;

(b) the Contractor has provided to the Ministry a clearance letter from the Workers' Compensation Board indicating that all current assessments due from the Contractor have been paid;

(c) the Contractor has provided to the Ministry the applicable originally executed statutory declaration in the format set out in the Standard Specifications; and

(d) the Contractor has provided to the Ministry:

(i) written confirmation of the final measurement quantities that the Contractor accepts; and

(ii) written confirmation of the final measurement quantities which the Contractor disputes.

GC 57.00 *APPROPRIATION*

GC 57.01 Notwithstanding any other provision of the Contract, the obligation of the Ministry to pay money to the Contractor under the Contract is subject to:

(a) there being sufficient moneys available in an Appropriation to enable the Ministry, in any fiscal year or part thereof when any payment of money by the Ministry to the Contractor falls due under the Contract, to make that payment; and

(b) the Treasury Board as defined in the Financial Administration Act not having controlled or limited expenditure under any appropriation referred to in GC 57.01(a).

GC 58.00 *DISPUTE RESOLUTION*

GC 58.01 A dispute occurs between the Ministry and the Contractor when a difference exists between the parties as to the interpretation, application, or administration of the Contract.

GC 58.02 If a dispute occurs as contemplated in GC 58.01, the Contractor shall abide by the Ministry's decision with respect to the dispute, proceed diligently with the Work without prejudice to the Contractor's right to advance any claim it may wish to assert with respect to the dispute, and closely track all costs and impacts associated therewith.

GC 58.03 The Ministry and the Contractor agree that, both during and after the performance of the Work, each of them shall:

(a) make bona fide efforts to resolve any dispute arising between them by negotiation; and

(b) provide frank, candid, and timely disclosure of all relevant facts, information, and documents to facilitate the resolution of any dispute.

GC 58.04 The Contractor Representative shall give the Ministry Representative Notice of a dispute within seven (7) days of the circumstance which gives rise to the dispute.

GC 58.05 If the Ministry Representative and the Contractor Representative fail to resolve the dispute, the Contractor Representative shall file a statement of dispute with the Ministry Representative no later than fourteen (14) days after the date of the Notice given pursuant to GC 58.04, and which a statement of dispute shall update the information provided in the Notice to reflect any change in the Contractor's position or proposed resolution and provide any additional information that may assist in the resolution of the dispute.

GC 58.06 The Ministry Representative shall provide a written reply to the Contractor's statement of dispute within fourteen (14) days of receiving the information specified in GC 58.05. The Ministry Representative's reply shall provide the Ministry's position in trying to resolve the dispute.

GC 58.07 If the dispute remains unresolved, the Contractor shall give a Written Protest respecting the dispute to the Ministry Representative no later than thirty (30) days following the date of the Ministry Representative's reply pursuant to GC 58.06. The Written Protest shall include, without limitation:

(a) a response to each point raised in the Ministry Representative's reply as provided pursuant to GC 58.06;

(b) relevant provisions of the Contract;

(c) relevant cost estimates; and

(d) estimates of any resulting changes to Schedule 5 – Time Schedule.

GC 58.08 The Ministry Representative shall give a written decision to the Contractor no later than forty-five (45) days following receipt by the Ministry Representative of the Written Protest described in GC 58.07 either:

(a) accepting the position of the Contractor as set out in the Written Protest, in which case the Ministry shall enter into a Supplemental Agreement, as necessary;

(b) making an offer to the Contractor to settle the dispute as set out in the Written Protest by entering into a Supplemental Agreement, as necessary; or

(c) addressing each point in the Contractor's protest and rejecting the position of the Contractor as set out in the Written Protest.

GC 58.09 A Supplemental Agreement entered into pursuant to GC 58.08, constitutes full and final settlement of the dispute.

GC 58.10 If the dispute is not resolved pursuant to GC 58.08, the Contractor shall, within thirty (30) days of the Ministry Representative's written decision, provide the Ministry Representative with Notice of intent to pursue a Formal Claim.

GC 59.00 *FORMAL CLAIM*

GC 59.01 If the dispute is not resolved by the decision of the Ministry Representative, pursuant to GC 58.08, and the Contractor has provided the Notice of intent pursuant to GC 58.10, the Contractor Manager may file a Formal Claim with the Ministry Manager no later than ninety (90) days following the issuance of the Completion Certificate.

GC 59.02 A Formal Claim shall be in writing, and shall set out in sufficient detail the particulars of the dispute so as to reasonably enable the Ministry Manager to ascertain the basis and the amount of the dispute. A Formal Claim shall include the following information:

(a) Project and contract number;

(b) description of the Work;

(c) detailed description of the dispute providing all necessary dates, location, and Items affected by the Formal Claim;

(d) date in which the circumstances which gave rise to the Formal Claim arose;

(e) name of each official or employee of the Ministry involved in or knowledgeable about the Formal Claim;

(f) relevant provisions of the Contract which support the Formal Claim and the reasons therefor;

(g) in the case of a Formal Claim relating to a decision of the Ministry Representative, a detailed description of all of the relevant facts supporting the position of the Contractor in connection with that decision;

(h) identification of any documents and particulars of any oral communications that support the Formal Claim;

(i) copies of any documents identified pursuant to GC 59.02(h), other than documents of the Ministry and documents previously furnished to the Ministry by the Contractor, that support the Formal Claim;

(j) if the Contractor seeks a modification to Schedule 5 - Time Schedule, the Contractor shall provide the particulars of the modification as well as the reasons therefor;

(k) if the Contractor seeks additional compensation, the exact amount and a breakdown of that amount separated into the following categories:

- **(i)** direct labour;
- **(ii)** direct materials;
- **(iii)** direct Contractor and Subcontractor equipment with rates claimed for each described piece of equipment based on hours and dates of use and calculated in accordance with the Equipment Rental Rates (Less Operator);
- **(iv)** direct All Found Equipment with rates claimed for each described piece of equipment based on the hours and dates of use and calculated in accordance with the Equipment Rental Rates;
- **(v)** overhead (general and administrative);
- **(vi)** claims of Subcontractors in detail as described in this paragraph;
- **(vii)** standby; and
- **(viii)** other categories, if specified by the Contractor or the Ministry.

GC 59.03 The Ministry Manager shall give a written decision to the Contractor Manager no later than ninety (90) days after receiving the Formal Claim stating either that:

(a) the Ministry accepts the position of the Contractor as set out in the Formal Claim, in which case the Ministry shall enter into a Supplemental Agreement;

(b) the Ministry makes an offer to the Contractor to settle the Formal Claim by entering into a Supplemental Agreement; or

(c) the Ministry rejects the position of the Contractor as set out in the Formal Claim.

GC 59.04 A Supplemental Agreement entered into pursuant to GC 59.03 constitutes full and final settlement of the Formal Claim.

GC 59.05 If the decision of the Ministry Manager does not resolve the dispute, the Contractor may, not later than thirty (30) days following receipt of the decision, file a written appeal to the Deputy Minister of Transportation (the "Deputy Minister") or refer the dispute directly to arbitration.

GC 60.00 ***APPEAL***

GC 60.01 The Deputy Minister shall give a written decision to the Contractor not later than sixty (60) days following receipt by the Deputy Minister of the appeal described in GC 59.05, stating that:

(a) the decision of the Ministry Manager, pursuant to GC 59.03, is reversed, in which case the Ministry shall enter into a Supplemental Agreement, as necessary; or,

(b) the decision of the Ministry Manager, pursuant to GC 59.03, is affirmed.

GC 60.02 A Supplemental Agreement entered into pursuant to GC 60.01 constitutes a full and final settlement of the Formal Claim.

GC 60.03 If the decision of the Deputy Minister does not resolve the dispute, the Contractor may, not later than thirty (30) days following receipt of the decision, refer the dispute to arbitration.

GC 61.00 ***ARBITRATION***

GC 61.01 If the dispute is not resolved in accordance with GC 60.00 or in lieu of an appeal to the Deputy Minister as described in GC 60.00, the dispute shall be referred to and finally resolved by binding arbitration:

(a) by a single arbitrator appointed by the parties;

(b) at a place agreed to by the parties; and

(c) under the rules of the British Columbia International Commercial Arbitration Centre for the conduct of domestic commercial arbitration.

GC 62.00 ***DEFAULT***

GC 62.01 Any of the following events shall constitute an Event of Default whether any such event is voluntary, involuntary, or results from the operation of law or any judgment or order of any court or administrative or government body:

(a) an order is made, resolution passed, or petition filed, for the liquidation or winding up of the Contractor;

(b) the Contractor becomes insolvent, commits an act of bankruptcy, makes an assignment for the benefit of its creditors, or otherwise acknowledges its insolvency;

(c) a bankruptcy petition is filed against the Contractor, or a proposal under the Bankruptcy and Insolvency Act is made by the Contractor;

(d) a receiver or receiver-manager of any property of the Contractor is appointed;

(e) the Contractor ceases, in the opinion of the Ministry, to carry on business as a going concern;

(f) a floating charge granted by the Contractor crystallizes or becomes enforceable or any other action is taken to enforce any charge granted by the Contractor;

(g) the Contractor fails to perform any of its obligations or breaches any term of the Contract and has not corrected the failure, or is not, in the opinion of the Ministry Representative, diligently proceeding to correct the default, within the time period specified by the Ministry to correct the default, if any;

(h) the Contractor fails to give to the Ministry notice, specifying particulars, that there has occurred or is continuing a default under the Contract;

(i) any representation or warranty made by the Contractor in the Contract is materially incorrect;

(j) any information, or document furnished by or on behalf of the Contractor to the Ministry in connection with the Tender or as a result of the Contract is materially incorrect;

(k) there is any bona fide proceeding, pending or threatened against the Contractor, which would, in the opinion of the Ministry Representative, if successful, materially adversely affect the ability of the Contractor to fulfill its obligations under the Contract;

(l) a change occurs with respect to the property or business of the Contractor which, in the opinion of the Ministry Representative, materially adversely affects the ability of the Contractor to fulfill its obligations under the Contract; and

(m) the Contractor permits any sum pertaining to the Work to remain unpaid, which it does not in good faith dispute to be due from it, after legal proceedings have been commenced to enforce payment thereof.

GC 62.02 On the occurrence of any Event of Default, or at any time thereafter the Ministry may deliver written notice to the Contractor specifying the Event of Default and the Ministry may, at its option, elect to carry out any one or more of the following:

(a) pursue any remedy available to it at law or in equity;

(b) retain as a holdback any payment due to the Contractor under the Contract, including any sums currently being held-back by the Ministry;

(c) notify the Surety that the Contractor is in default under the Contract;

(d) take all actions in its own name or in the name of the Contractor that may reasonably be required to remedy the Event of Default, in which case any payments, costs and expenses incurred by the Ministry in remedying the Event of Default shall be payable by the Contractor to the Ministry on demand, and the Ministry may set off against any sums owing by the Ministry to the Contractor, including any amount retained by the Ministry as a holdback under GC 62.02(b);

(e) by written notice to the Contractor suspend the rights and obligations of the Contractor under the Contract, in whole or in part;

(f) waive the Event of Default in writing and on such conditions as the Ministry Representative may determine;

(g) provide written notice to the Contractor stating that it is in default under the Contract, providing a summary of the Event of Default and the time period in which the Event of Default must be remedied; and

(h) terminate the Contract.

GC 62.03 If any amounts have been retained as a holdback by the Ministry in accordance with GC 62.02(b) or GC 62.02(d), the subject funds shall continue to be held back and shall be dealt with as follows:

(a) where the Event of Default has been cured or remedied by the Contractor to the satisfaction of the Ministry within such time period as may be specified by the Ministry, then the Ministry shall pay the amount previously held back by the Ministry to the Contractor;

(b) where in the Ministry's reasonable opinion, the Event of Default is not curable, or has not been remedied by the Contractor to the satisfaction of the Ministry within such time period as may be specified by the Ministry, then the Ministry may, at its option, keep the amount retained as a holdback in reduction for payment otherwise payable to the Contractor under the Contract; and

(c) no interest shall be calculated or payable by the Ministry with respect to any amount being retained by the Ministry as a holdback in accordance with GC 62.02(b) or GC 62.02(d).

GC 62.04 The rights, powers and remedies conferred upon the Ministry under GC 62.02 and GC 62.03 are not intended to be exclusive and each such right, power and remedy referred to therein shall be cumulative and in addition to and not in substitution for every other right, power or remedy existing or available to the Ministry under the Contract, at law or in equity, and the exercise by the Ministry of any right, power or remedy shall not preclude the simultaneous or later exercise by the Ministry of any other right, power or remedy.

GC 62.05 No failure or delay on the part of the Ministry to complain of or provide notice to the Contractor of any act or failure on the part of the Contractor, or to declare the Contractor in default under GC 62.01, irrespective of how long such act or failure or Event of Default has continued, shall constitute a waiver by the Ministry of its rights hereunder.

GC 63.00 ***TERMINATION FOR REASONS OTHER THAN DEFAULT***

GC 63.01 Notwithstanding any other provision of the Contract, the Ministry may at any time, upon giving thirty (30) days prior written notice to the Contractor, terminate the Contract.

GC 63.02 Subsequent to receipt of Notice from the Ministry pursuant to GC 63.01, the Contractor shall only proceed with those portions of the Work specifically authorized in writing by the Ministry Representative.

GC 63.03 Upon the termination of the Contract in accordance with GC 63.01, the Ministry shall have no further obligation to the Contractor save and except to pay to the Contractor:

(a) the amount the Contractor is entitled to for Work completed satisfactorily on the Project to the date of termination; and

(b) other actual expenses of the Contractor, such as demobilization and compensation for unrecovered actual fixed expenses which are, in the opinion of the Ministry, reasonable in the circumstances.

GC 64.00 ***RECORDS***

GC 64.01 The Contractor shall, in connection with the Contract:

(a) establish and maintain, at a location within British Columbia, accurate books of account and records (including supporting documents) to the satisfaction of the Ministry;

(b) forthwith following the request of the Ministry, give written particulars of the location of the books of account and records; and

(c) permit the Ministry, at any time during normal business hours, to copy and audit any one or more of the books of account or records (including supporting documents),

for three (3) years following the Actual Completion Date or until the date any proceeding, claim, dispute, audit or litigation arising in connection with the Project is resolved or completed, whichever is later.

GC 65.00 ***REPORTS***

GC 65.01 The Contractor shall, upon the request of the Ministry, co-operate with the Ministry to:

(a) fully inform the Ministry of Work done and to be done by the Contractor including information related to the Contractor's performance of its obligations under the Contract and, if requested by the Ministry, submit that information in writing; and

(b) permit the Ministry at all reasonable times to inspect, and copy any findings, data, specifications, drawings, working papers, reports, documents and material whether complete or otherwise that have been produced, received or acquired by the Contractor, or provided by or on behalf of the Ministry to the Contractor as a result of the Contract.

GC 66.00 ***AUDIT***

GC 66.01 The Ministry may, in its sole discretion, conduct an audit of the Contractor and has all powers necessarily incidental to conducting an audit including, without limitation, the right to inspect and take copies of the books and records of the Contractor in connection with the Contract upon reasonable notice and at reasonable times.

GC 66.02 Without limiting the generality of GC 66.01, the Contractor shall make available to any auditors of the Ministry all information requested by them, including without limitation the following:

(a) daily time sheets and supervisors' daily reports and diaries;

(b) insurance, welfare and benefits records;

(c) payroll registers and tax forms;

(d) material invoices and requisitions;

(e) material cost distribution worksheets;

(f) equipment records (including, without limitation, hours of use and distribution);

(g) invoices from vendors, rental agencies, Subcontractors, suppliers of All Found Equipment and agents;

(h) payment certificates of Subcontractors, suppliers of All Found Equipment and agents;

(i) cancelled cheques (payroll and vendors);

(j) all documents relating to every Formal Claim; and

(k) worksheets used to establish the cost components for all items of each Formal Claim.

GC 66.03 The Contractor shall fully co-operate with and assist the Ministry, as necessary, to conduct an audit pursuant to GC 66.01 and GC 66.02.

GC 67.00 ***CONFIDENTIALITY***

GC 67.01 The Contractor shall treat as confidential and shall not, without the prior written consent of the Ministry, publish or disclose or permit to be published or disclosed, any information supplied to, obtained by, or which comes to the knowledge of the Contractor as a result of the Contract except insofar as such publication or disclosure is required by law or is necessary to enable the Contractor to fulfill any obligations that the Contractor may have under the Contract.

GC 67.02 Any documentation related to the Project that is in the custody or under the control of the Ministry is subject to the Freedom of Information and Protection of Privacy Act.

GC 67.03 Unless otherwise stated in the Contract and subject to the Freedom of Information and Protection of Privacy Act, all information submitted by the Contractor to the Ministry shall be considered confidential during the Term and the Ministry shall not, without the prior written consent of the Contractor, publish or disclose the information, except as insofar as such publication or disclosure is required by law.

GC 67.04 Notwithstanding GC 67.03, the Ministry may use any such information for the purposes of administration, analysis of and cost estimation of this and other projects and may disclose such information to its consultants for that purpose.

GC 68.00 ***ANNOUNCEMENTS***

GC 68.01 The Ministry shall arrange any public announcement relating to the Contract in consultation with the Contractor.

GC 69.00 ***PROVINCIAL PROPERTY***

GC 69.01 Any property provided by or on behalf of the Ministry to the Contractor as a result of the Contract is the exclusive property of the Ministry. The Contractor shall deliver the property to the Ministry forthwith following the completion or termination of the Contract.

GC 69.02 The Ministry may, prior to the completion or termination of the Contract, give written notice to the Contractor requiring the Contractor to deliver to the Ministry the property or any part of the property, in which event the Contractor shall forthwith comply with the request.

GC 70.00 ***ENTIRE CONTRACT***

GC 70.01 The Ministry and the Contractor acknowledge and agree that the Contract represents the entire contract and agreement between the Contractor and the Ministry and that the Contractor has not relied upon or been induced by any representation, promise or warranty whatsoever by the Ministry or any officer, employee or agent of the Ministry, in entering into the Contract or with respect to the Work, other than as set out in the Contract.

GC 70.02 Each Schedule, Appendix, Addendum and any Supplemental General Conditions attached to the Contract is an integral part of the Contract as if set out at length in the body of the Contract.

GC 71.00 ***AMENDMENTS***

GC 71.01 The Contract may be amended only by a duly executed Supplemental Agreement.

GC 72.00 ***ADDRESS FOR NOTICES***

GC 72.01 Any written notice, document, or payment desired or required to be given, delivered or made under the Contract will be conclusively deemed validly given, delivered or made to and received by the addressee, for the purposes of any time restrictions of the Contract,

(a) if delivered personally to the addressee, on the date of delivery, or

(b) if mailed in Canada with postage prepaid addressed to the party at the address set out on the execution page of the Contract, on the third day after its mailing, except in the event of disruption of postal services in Canada in which case it is deemed received by the addressee when actually delivered to the address for the addressee or as changed pursuant to GC 72.03.

GC 72.02 Any notice or document desired or required to be given under the Contract may be transmitted by facsimile transmission from either party and will be conclusively deemed validly given to and received by the intended recipient, for the purposes of any time restrictions of the Contract, when so transmitted to the numbers set out on the execution page.

GC 72.03 Either party may from time to time notify the other party in writing of a change in address, for the purposes of GC 72.01, or a change in facsimile number, for the purposes of GC 72.02, and the change in address or facsimile number will be effective upon receipt of the notice.

GC 73.00 ***FURTHER ASSURANCES***

GC 73.01 Each of the parties shall, upon the reasonable request of the other, do or cause to be done all further things for the better performance of the Contract.

GC 74.00 ***DUTY TO MITIGATE***

GC 74.01 The Contractor shall take all reasonable and necessary steps to minimize and avoid all costs and impacts arising out of the Contract.

GC 75.00 ***WAIVER***

GC 75.01 No waiver by either party of a right of that party or any breach by the other party in the performance of any of its obligations under the Contract is effective unless it is in writing.

GC 75.02 No waiver of any right or obligation is a waiver of any other right or obligation under the Contract.

GC 76.00 ***TIME***

GC 76.01 Time is of the essence of the Contract.

GC 77.00 ***INTERPRETATION***

GC 77.01 Where the Contract references a statute such reference is a reference to a statute of the Province of British Columbia unless otherwise stated, and includes every amendment to it, every regulation made under it, and any enactment passed in replacement or substitution for it.

GC 77.02 Unless the context otherwise requires, any reference in the Contract to any Article, Schedule, Section or Subsection, Paragraph or Subparagraph by number is a reference to the appropriate Article, Schedule, Section or Subsection, Paragraph or Subparagraph of the Contract.

GC 77.03 Head notes and indices in these General Conditions or any other part of the Contract are inserted for convenience of reference only, form no part of the Contract, and do not affect the interpretation of the Contract.

GC 77.04 In the Contract, a person includes a corporation, firm, association and other legal entity, and wherever the singular or masculine is used it is as if the plural, the feminine, or the neuter, as the case may be, had been used where the context or the parties requires.

GC 77.05 If any provision of the Contract or the application thereof to any person or circumstance is unenforceable, the remainder of the Contract and the application of that provision to any other person or circumstance are not affected and the Contract is enforceable to the extent permitted by law.

GC 77.06 If any one or more provisions of the Contract are in conflict, then the provisions apply in the following prioritized order:

(a) any Supplemental Agreements, in reverse chronological order;

(b) Schedule 8 – Contract Addenda, in reverse chronological order;

(c) the Supplemental General Conditions;

(d) the Glossary of Terms;

(e) these General Conditions;

(f) Schedule 3 - Special Provisions;

(g) appendices to Schedule 3 – Special Provisions;

(h) Schedule 4 – Drawings;

(i) the Standard Specifications;

(j) the Maintenance Specifications Manual; and

(k) the remaining provisions of the Contract and the remaining Schedules.

GC 77.07 In the Special Provisions and the Drawings, figured dimensions prevail over scaled dimensions.

GC 77.08 In the Contract, the units of measurement are:

(a) determined on the basis of the "International System of Units" established by the "General Conference of Weights and Measures"; and

(b) as defined by the Weights and Measures Act.

GC 77.09 A reference to a "day" or "days" means a calendar day or days, unless a contrary intention is expressed in the Contract.

GC 77.10 Where there is a time limitation under the Contract, and the time in question for performance of an obligation expires on a Saturday, Sunday or a Holiday, the time for performance of the obligation governed by the time limitation is extended to the next day that is not a Saturday, Sunday or Holiday.

GC 77.11 In the calculation of time, the first day shall be excluded and the last day included.

GC 77.12 The rights, powers, and remedies conferred on the Ministry under the Contract are not intended to be exclusive but are cumulative and are in addition to and not in substitution for any other right, power, and remedy existing under the Contract, under any other agreement, at law, or in equity. The exercise by the Ministry of any right, power, or remedy does not preclude the simultaneous or later exercise by the Ministry of any other right, power, or remedy.

GC 77.13 Approval or acceptance by the Ministry of any aspect of the Work does not relieve the Contractor of its obligation to perform all Work in accordance with the Contract.

GC 77.14 Where the Contract anticipates the use of a specific form, an alternative instrument may be used which clearly identifies the instrument as being a substitute for the specified form, and by such use, shall implicitly incorporate any terms and conditions pre-printed on the specified form.

GC 78.00 ***SURVIVAL OF TERMS***

GC 78.01 All terms of the Contract in favour of the Ministry and all rights and remedies of the Ministry, either at law or in equity, survive the termination of the Contract.

GC 79.00 ***SUCCESSORS AND ASSIGNS***

GC 79.01 The Contract continues to the benefit of and binds the Ministry and its assigns and the Contractor and its successors and permitted assigns, and the Ministry may, upon notice to the Contractor, assign any or all of its rights or obligations under the Contract to any third party.

GC 80.00 ***GOVERNING LAW***

GC 80.01 The Contract shall be governed, construed, and interpreted in accordance with the laws of the Province of British Columbia.

GC 80.02 The Contractor hereby irrevocably attorns itself to the jurisdiction of the courts of the Province of British Columbia in all matters related to the Contract.

GC 81.00 ***LIMITATIONS FOR CLAIMS***

GC 81.01 The Contractor's right to commence any legal proceedings or any action against the Ministry for any matter arising directly or indirectly out of the performance or non-performance of the

Contractor's or Ministry's obligations under the Contract, shall be absolutely barred upon the expiration of eighteen (18) months after the Actual Completion Date.

GC 81.02 The Contractor shall not assert any claim, file or commence any legal proceeding or any action of any kind whatsoever, in contract or in tort, or seek any other recourse against the Ministry's officers, employees or agents for any matter whatsoever in connection with this Contract.

IN WITNESS WHEREOF a duly authorized representative of the Minister of Transportation, on behalf of Her Majesty the Queen in Right of the Province of British Columbia, has hereunto set his or her hand and the common seal of the Contractor has been hereunto affixed in the presence of its duly authorized signatories in that behalf on the date set out below:

Project Number: 11897-8002 Contract ID Number: 11897MJ8002

Project Description: Highway No. 10-192nd Street to Springbrook Road - 3 Sections Cold Milling and Asphalt Resurfacing SS 502 - EPS (30.2 Lane Kms)

Date of Contract: _____

SIGNED on behalf of Her Majesty the Queen in Right of the Province of British Columbia

Ministry of Transportation
Gregory Matisz, Manager Financial Services
7818 - 6th Street, Burnaby BC V3N 4N8

Phone: (604) 660-8040 Fax: (604) 660-8034

by a duly authorized representative of the Minister of Transportation, this

_____ day of _____ , 20 _____ ,

in the presence of:

_____
(Witness)

_____
For the Minister of Transportation

G. Matisz, Mgr. Financial Services
(Name and Title)

THE common seal of:

_____
(Name of Contractor)

_____

_____
(Address)

_____
(Telephone)

_____
(Fax)

was hereunto affixed in this _____ day of

C/S

_____ , 20 _____ , in the presence of:

_____
(Witness)

_____
Authorized Signatory for the Contractor

_____
(Name and Title)

INDEX BY ARTICLE
to the Major Works General Conditions

Abnormal 44
acceptance 52, 53, 77
Actual Completion Date ... 12, 33, 36, 53, 64, 81
Addenda 77
Addendum 70
ADDRESS FOR NOTICES 72
All Found Equipment 49, 50, 59, 66
AMENDMENTS 71
ANNOUNCEMENTS 68
APPEAL 60
Appendix 70
Appropriation 57
APPROPRIATION 57
approval 2, 16, 35
Approximate Quantities 39, 46, 52
Approximate Quantity 39
ARBITRATION 61
Arbitrator 9
ASSIGNMENT AND SUBCONTRACTING 8
AUDIT 66
Award 4, 19, 26
Bankruptcy and Insolvency Act 62
Bare Equipment Rates 50
board and lodging 50
Bonds 4, 12, 13, 16, 44
BONDS AND INSURANCE 12
British Columbia International Commercial Arbitration Centre 9, 61
Business Corporations Act 2
CHANGE IN TAXES 43
CHANGE OF COMPLETION DATE 45
Change to Work 10, 13, 20, 29, 38, 44, 45, 46
Changed Condition 41, 44
CHANGED CONDITIONS 41
CHANGES IN QUANTITIES FOR UNIT PRICE ITEMS 39
CHANGES TO WORK 38
Claim 59
Closing Time 42
COMMENCEMENT OF THE WORK 16
COMPENSATION FOR REIMBURSABLE DELAY 50
Completion Certificate 35, 56, 59
Completion Date ...16, 33, 34, 36, 38, 43, 44, 45
COMPLIANCE WITH THE TIME SCHEDULE 33
Conditional Item 32, 39, 40, 46, 48
CONDITIONAL ITEMS 48
CONDITIONS OF EQUIPMENT 11
CONFIDENTIALITY 67
CONSEQUENTIAL LOSSES 51
Construction Schedule 16, 19, 50
Contaminants 24, 35
CONTAMINANTS 24
Contract Document Package 3
Contract Price 19, 34, 43, 46
Contract Specific Reference Documents 3
Contractor Manager 6, 49, 59
Contractor Representative 6, 49, 58
CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND COVENANTS 2
CO-OPERATION OF THE CONTRACTOR ... 22
DEFAULT 62
Designated Subcontractor 10
DESIGNATED SUBCONTRACTOR(S) AND DESIGNATED SUPPLIER(S) 10
Designated Supplier 10
DISPUTE RESOLUTION 58
Disturbed Feature 26, 30
Drawings 23, 28, 77
DUTY TO MITIGATE 74
ELIMINATED ITEM 40
Emergency Work 27
EMERGENCY WORK 27
EMPLOYEES OF THE CONTRACTOR 6
ENTIRE CONTRACT 70
Environmental Window 16, 42
equipment ..8, 11, 27, 35, 42, 46, 49, 50, 52, 59, 66
Equipment Rental Rates 49, 59
Equipment Rental Rates (Less Operator) 59
ERRORS OR OMISSIONS 19
Event of Default 44, 62
Extension of Time 10, 19, 24, 30, 38, 42, 44, 45, 50
EXTENSION OF TIME 44
Extra Work 49, 52
FINAL HOLDBACK RELEASE 56
FINAL PROGRESS PAYMENT 53
Financial Administration Act 57
fixed expenses 39, 63
float 44
food and lodging 49
FORCE ACCOUNT 49
Force Account Basis 20, 38, 40, 49, 52
Formal Claim 58, 59, 60, 66
FORMAL CLAIM 59

Note: CAPITALIZED entries are to Article headings; others are to text within the Article.

Freedom of Information and Protection of Privacy Act 67
FURTHER ASSURANCES 73
General Conditions 77
General Reference Documents 3
Glossary of Terms 1, 77
GLOSSARY OF TERMS 1
GOVERNING LAW 80
hired equipment 8, 9, 11, 50
Holdback 52, 54, 55, 56
HOLDBACK 54
Holiday 77
indemnify 14
INDEMNITY 14
INFORMATION PROVIDED BY THE MINISTRY 3
INSPECTION OF THE WORK 20
INTERIM HOLDBACK RELEASE 55
INTERPRETATION 77
Item 32, 38, 39, 40, 46, 49, 52, 53
labour 7, 10, 27, 42, 44, 46, 49, 50, 52, 59
labour and material payment bond 10
LEGAL RELATIONSHIP 7
Letter of Substantial Completion 34, 55
LIMITATIONS FOR CLAIMS 81
Lump Sum Item 38, 46, 52
Lump Sum Price 38, 46
MAINTENANCE OF WORK DURING CONSTRUCTION 26
Maintenance Specifications 26, 30, 35, 77
Maintenance Specifications Manual 35, 77
Major Item 39
materials 8, 21, 29, 35, 36, 40, 42, 43, 46, 49, 50, 52, 59
Milestone Date 16, 33, 38, 44, 45
MINISTRY APPOINTMENTS 5
Ministry Manager 5, 59, 60
Notice. 24, 36, 37, 38, 39, 41, 44, 50, 53, 58, 59, 63
NOTICE OF LIABILITY AND PROPERTY INSURANCE CLAIMS 15
Notice Period 37
NOTICES 37
overtime 49
PAYMENT 46
performance bond 10
progress estimate 39, 43, 52, 53
PROGRESS PAYMENTS 52
Project 42, 50, 59, 63, 64, 67
PROSECUTION OF THE WORK 17
PROTECTION OF SITE AND WORK DURING CONSTRUCTION 25
PROVINCIAL PROPERTY 69
PROVISIONAL SUM AND CONDITIONAL ITEMS 32
Provisional Sum Item 32, 40, 46, 47, 52
PROVISIONAL SUM ITEMS 47
purchase order 8, 9
RECORDS 64
Reduction of Time 38, 40, 45
Reimbursable Delay 10, 24, 38, 42, 44, 50
REIMBURSABLE DELAY 42
REPORTS 65
Resume Work Order 29, 31, 42
RESUME WORK ORDERS AND COMPENSATION 31
Sales Tax 43
SAMPLES AND TESTING 21
Schedule 1 1
Schedule 2 ..... 12, 16
Schedule 3 77
Schedule 4 77
Schedule 5 ..... 33, 58, 59
Schedule 6 ..... 12, 13
Schedule 7 ..... 39, 46, 52
Schedule 8 77
SEASONAL SHUT-DOWN 30
Site ..6, 8, 10, 11, 16, 20, 22, 24, 25, 29, 30, 35, 42, 44, 49, 50
Special Provisions 17, 23, 28, 36, 42, 77
STANDARD OF WORK 18
Standard Specifications 18, 28, 35, 55, 56, 77
standby 59
State of Suspension 26, 29, 30
statutory declaration 52, 55, 56
Stop Work Order 10, 13, 20, 26, 29, 30, 31
STOP WORK ORDER 29
subcontract 49
Subcontract 8, 9, 10
Subcontractor 8, 10, 35, 59
SUBCONTRACTOR AND SUPPLIER DISPUTES 9
Substantial Completion 25, 34, 36
SUBSTANTIAL COMPLETION 34
SUCCESSORS AND ASSIGNS 79
Supplemental Agreement 13, 36, 38, 41, 46, 58, 59, 60, 71, 77
Supplemental General Conditions ..1, 33, 70, 77
Supplier 10
Surety 12, 13, 44, 45, 62
SURVIVAL OF TERMS 78

Note: CAPITALIZED entries are to Articles headings; others are to text within the Article.

Tender 8, 33, 39, 49, 62
Tender Price 8, 33, 39, 49
Term 2, 4, 14, 67
TERM 4
TERMINATION FOR REASONS OTHER THAN DEFAULT 63
THIRD PARTY CONSENTS TO CHANGES . 13
TIME 76
TOTAL COMPLETION 35
traffic 16, 30
trucks 11
Unacceptable Work 20, 29, 30, 46
Unauthorized Work 20, 29, 46
Unit Price 38, 39, 46, 52
Unit Price Item 39, 46, 52
UTILITIES 23
Utility Relocation 23, 42
WAIVER 75
WARRANTY 36
weather 30, 42, 44
Weights and Measures Act 77
winter maintenance 26, 30
Work Order 10, 13, 17, 20, 26, 28, 29, 38, 40, 42, 46, 47
WORK ORDERS 28
Written Protest 58

Note: CAPITALIZED entries are to Article headings; others are to text within the Article.

SCHEDULE 1

GLOSSARY OF TERMS
&
SUPPLEMENTAL GENERAL CONDITIONS

GLOSSARY OF TERMS

1. Application

Unless otherwise expressly set out, this Glossary of Terms is incorporated into and forms a part of the Contract, the Tender Document Package, and the Contract Document Package, including without limitation, for purposes of greater clarity, the Conditions of Tender, the General Conditions, and the Schedules.

2. Cross References Abbreviations and Inclusions

To facilitate the cross referencing among the components of the Contract Document Package, unless the context by implication otherwise requires, the following is used: a reference to XX#.## means to article, section, subsection, or paragraph #.## of document XX, where "XX" refers to the following, as the case may be:

GC means General Conditions,

CT means Conditions of Tender,

SP means Special Provisions,

SS means Standard Specifications for Highway Construction,

SCT means Invitation to Tender - Supplemental Conditions of Tender,

SGC means Supplemental General Conditions.

A reference to a higher level clause includes a reference to any subclauses (e.g. XX#.00 includes XX#.01, XX#.02 etc.; XX#.01 includes XX#.01(a), XX#.01(b)(i), etc.).

In this Glossary of Terms, a reference to a statute whether or not that statute has been defined, means a statute of the Province of British Columbia unless otherwise stated and includes every amendment to it, every regulation made under it and any enactment passed in substitution therefor or in replacement thereof.

Any information, including statutes and regulations, that may be found by accessing the URL's or Web sites set out in the Contract, the Tender Document Package, and the Contract Document Package, including without limitation, for purposes of greater clarity, this Glossary of Terms, the Conditions of Tender, the General Conditions, and the Schedules, are not the official versions and may not be accurate, complete, current or reliable.

3. Definitions

In the Contract, the Tender Document Package, and the Contract Document Package, including without limitation, for purposes of greater clarity, the Conditions of Tender, the General Conditions, and the Schedules, unless the context otherwise requires including by express definition within any such documents, the following terms shall have the following definitions.

Abnormal means timing of road restrictions, extent of stream flow, or weather which, in any two (2) week period, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on relevant data covering the twenty (20) year period immediately preceding the Award as available from,

(a) with respect to road restrictions, the Ministry,

(b) with respect to stream flow, the Ministry of Water, Land and Air Protection, and

(c) with respect to weather, Environment Canada;

Actual Completion Date means the date specified in the Completion Certificate;

Addenda means the documents described in CT4 and CT5 and includes the documents entitled and designated "Amendments" that may be issued through the BC Bid eService, and **"Addendum"** means any one of such documents;

Administrative Contact Person means the person designated as such in the Invitation to Tender - Supplemental Conditions of Tender;

All Found Equipment Rates means the applicable Equipment Rental Rates including operator and all associated costs for All Found Equipment;

All Found Equipment means any equipment hired on a time basis inclusive of operator, unless such equipment is hired through a Subcontract, approved in advance, by the Ministry;

Appendix or Appendices means any appendix(ces) or supplement(s) to a Schedule of the Contract;
Appropriation means the same as in the *Financial Administration Act*;

Approximate Quantity(ies) means the Ministry's estimate as at Closing Time of the quantity of a Unit Price Item necessary for the Work, as specified in the applicable "Approx. Quantity" column of Schedule of Approximate Quantities and Unit Prices;

Authorized Representative for any Bidder, Contractor or company means the person or persons having the legal authority and agency to legally bind the Bidder, Contractor or company;

Award means the written notice to the Bidder from the Ministry, in the form of an award letter accepting the Bidder's Tender;

Bankruptcy and Insolvency Act means the *Bankruptcy and Insolvency Act*, R.S.C. 1985, c.B-3;

Bare Equipment Rates means the applicable Equipment Rental Rates (Less Operator) multiplied by thirty-five percent (35%);

BC Bid eService means the electronic procurement system defined in the BC Bid eService Terms and Conditions as the "Service";

BC Bid eService Delivery Method means the electronic delivery of a Tender, save and except for the accompanying Bid Security, using the BC Bid eService;

BC Bid eService Terms and Conditions means the Terms and Conditions set out in the BC Bid "e-Bidding Registration and Change of Information Form", as those terms and conditions may be amended, from time to time;

BC Bid Supplier Terms and Conditions means the terms and conditions of use that govern registration to receive electronic notification of information through the BC Bid eService, as those terms and conditions may be amended, from time to time;

BC Bid Website means the website maintained by BC Bid at WWW.BCBID.GOV.BC.CA or any replacement for that website maintained by BC Bid;

Bid Bond means a bond described in the Schedule entitled "Tender Securities" set out in the Tender Document Package, and to be delivered by the Bidder as Bid Security in accordance with the Conditions of Tender;

Bidder means a person (including a partnership, joint venture or company) who submits a Tender to the Ministry in accordance with the Conditions of Tender;

Bid Security means a Bid Bond or other security to be delivered by the Bidder as described in the Conditions of Tender and in the Schedule entitled "Tender Securities" as set out in the Tender Document Package;

Bonds means the Performance Bond and the Labour and Material Payment Bond for the Work, as required by the Contract, each in the form set out in the Schedule to the Contract entitled "Contract Securities";

Builders Lien Act means the *Builders Lien Act*, S.B.C. 1997, c.45;

Business Corporations Act means the *Business Corporations Act*, S.B.C. 2002, c. 57;

Changed Conditions means surficial or subsurface conditions at the Site materially different from those indicated in the Tender Document Package at the Closing Time of Tender which were not foreseen by the Contractor and which would not be reasonably foreseeable by a reasonably experienced contractor who, prior to submitting the Tender, conducted a thorough investigation and inspection of the Site and reviewed all information in the Tender Document Package, General Reference Documents and Contract Specific Reference Documents, but does not include any change in quantities or any change to the surficial or subsurface conditions caused by the weather, excepting Abnormal weather, or any natural event;

Change to Work means the deletion, extension, increase, decrease or alteration of lines, grades, dimensions, methods, drawings, substantial changes in geotechnical, subsurface, surface or other conditions, changes in the character of the Work to be done or material of the Work or part thereof, within the intended scope of the Contract;

Closing Date means the date specified in SCT2.2 of the Invitation to Tender – Supplemental Conditions of Tender, and designated as the "Close Date" on the BC Bid eService and the BC Bid Website, as such date may be extended from time to time and at any time, by the Ministry in its sole discretion;

Closing Location means the location specified in the Invitation to Tender - Supplemental Conditions of Tender as the only acceptable location for delivery of,

(a) Tenders, including for greater clarity, Revisions, and any notice of withdrawal, that are delivered using the Hard Copy Delivery Method, or

(b) the Bid Security required as part of any Tender delivered using the BC Bid eService Delivery Method;

Closing Time means the time, on the Closing Date, specified in SCT2.2 of the Invitation to Tender - Supplemental Conditions of Tender, and designated as the "Close Time" on the BC Bid eService and the BC Bid Website, on and after which no Tender or Revision will be accepted, as such time may be extended from time to time and at any time, by the Ministry in its sole discretion;

Commencement Date is the date on which the Contractor commences the Work pursuant to the Contract;

Completion Certificate means a written certificate issued by the Ministry in the form and subject to the conditions stipulated in the Contract;

Completion Date means the date specified in the Schedule to the Contract entitled "Time Schedule" for the completion of the Work as may be extended from time to time in accordance with the Contract;

Conditional Item means an Item in the description column of the Schedule of Approximate Quantities and Unit Prices with the notation "Conditional Item" for Work that requires approval from the Ministry Representative;

Conditions of Tender means the document of the same name, and includes any and all Addenda, and the Invitation to Tender - Supplemental Conditions of Tender, as set out in the Tender Document Package, and specifying the terms and conditions of the Tender Call;

Construction in relation to a Design Build Minor Project, means all things necessary to complete the Work, including any and all rehabilitation work, but does not include Design;

Construction Schedule means the time schedule provided by the Contractor in accordance with the terms of the Contract and includes any amendments thereto accepted by the Ministry;

Contact Person means the person designated as such in the Invitation to Tender - Supplemental Conditions of Tender;

Contaminants means any materials, substances or special (hazardous) wastes, the storage, manufacture, disposal, treatment, generation, use, transport, remediation, or release into the environment of which is now or hereafter prohibited, controlled, or regulated under the Environmental Management Act S.B.C. 2003, c. 53 and the *Contaminated Sites Regulations Reg. 375/96*;

Contract means,

(a) in regard to the Tender Document Package, the contract to be entered into by the Ministry and by the Bidder who is given the Award to perform the Work, including for greater clarity, the General Conditions, the Special Provisions, all Schedules and Appendices listed in the "Order of Contents" of the Contract, and all Addenda, as at the Closing Time, and

(b) in regard to the Contract Document Package, the contract executed on behalf of the Ministry and the Contractor, including for greater clarity, the General Conditions, the Special Provisions, all Schedules, Appendices and Addenda listed in the "Order of Contents" of the Contract, all as may be amended in accordance with the Contract;

Contract Document Package means the document package of the same name, containing amongst other things the Contract, the Drawings, all Schedules and other information as set out in the "Order of Contents" of the Contract, together with any and all Addenda issued prior to Closing Time;

Contract Price means the Tender Price, as specified in the Contract, as it may be adjusted from time to time pursuant to the Contract;

Contract Specific Reference Documents means the documents, listed in the Schedule entitled "Contract Specific Reference Documents" set out in the Tender Document Package, and provided or otherwise made available by the Ministry for viewing by Bidders, containing specific information related to the Project and the Work, including without limitation, as-built Drawings, geotechnical reports, borehole test logs and geotechnical and survey information relating to the Site;

Contractor means the Bidder with whom the Ministry executes the Contract for the performance of the Work;

Contractor Manager means the person, designated by the Contractor, having the authority specified in Major Works GC 6.02(a) or Design Build Minor GC 6.02(a);

Contractor Representative means the person, designated by the Contractor, having the authority specified in Major Works GC 6.02(b) or Design Build Minor GC 6.02(b);

Daily Site Occupancy Cost means the daily dollar value specified by the Ministry for Site Occupancy in the column entitled "Unit Price" in Part B of the Schedule of Approximate Quantities and Unit Prices;

Design in relation to a Design Build Minor Project, means the compendium of drawings, plans, calculations, specifications and other Project Material produced by the Designer to define the Work to be constructed;

Design Build Minor General Conditions means the General Conditions set out in the document having the title "Design Build Minor General Conditions";

Design Build Minor Specifications means the Standard Specifications as amended to make them suitable for a Design Build Minor Project as published by the Ministry;

Design Build Minor Project means a Project where the General Conditions contained in the Contract are the Design Build Minor General Conditions;

Design/Construct means Design/Build;

Design Schedule in regard to a Design Build Minor Project means the time schedule delivered by the Contractor in accordance with the Contract, detailing the various components of the Design and the anticipated milestone and completion dates and includes any amendments thereto accepted in writing by the Ministry;

Designated Subcontractor means any Subcontractor with one or more Subcontracts having an aggregate value of not less than two hundred thousand dollars ($200,000) but does not include a subcontractor who is solely providing one or more of the following professional services:

(a) engineering,

(b) surveying,

(c) material testing,

(d) geotechnical investigation, or

(e) environmental services;

Designated Supplier means any Supplier with one or more Subcontracts or purchase agreements used in or incorporated into the Work having an aggregate value of not less than two hundred thousand dollars ($200,000) who is not a Supplier of any of the following materials,

(a) liquid asphalt cement products,

(b) electrical materials,

(c) steel other than fabrications,

(d) manufactured Portland cement concrete, where delivered by the Supplier using its own trucks, or

(e) plastic, steel or concrete pipe;

Designer in regard to a Design Build Minor Project means a professional engineer, or other such professional as appropriate to the task, lawfully registered to practice in the Province of British Columbia, who is responsible for any portion of the Design;

Dispute means a difference between the Contractor and Ministry pursuant to Minor Works GC 16.01;

Disqualification means a decision by the Ministry to exclude a Tender, including for clarity, any and all Revisions, or a Revision, as the case may be, from or from continuing in the evaluation and Award process, as the case may be;

Disturbed Feature(s) means any feature, natural or man-made, whether within or outside the Site, which has been, in the opinion of the Ministry,

(a) disturbed, damaged, destroyed, modified, replaced, or constructed by the Contractor, or

(b) deleteriously affected by an action or inaction of the Contractor or by any Subcontractor or an element under the Contractor's control or responsibility,

including but not limited to detours, embankments, excavations, drainage ditches and systems, shoulders, signs, and existing roads to and within the Site;

Drawings means the drawings as set out in the Schedule to the Contract entitled "Drawings";

e-Bidding Key means a valid BC Bid electronic signature key as defined in the BC Bid eService Terms and Conditions;

Emergency Work means work classified by the Ministry Representative as Emergency Work pursuant to Major Works GC 27.00 or Design Build Minor GC 36.00;

Environmental Management Act means the *Environmental Management Act*, S.B.C. 2003, c. 53;

Environmental Window means any period of time during the Term designated as such by the Ministry, or by any competent federal or provincial environmental government authority, branch or agency whose jurisdiction or authority may be applicable to the Contract;

Equipment Rental Rates means the applicable rates, including All Found Equipment Rental Rates and Equipment Rental Rates (Less Operator) for equipment rental established in accordance with the "Equipment Rental Rate Guide" published and distributed by the B.C. Road Builders and Heavy Construction Association in effect at the time the applicable Work is performed; or where the rates are not set out within the Equipment Rental Rate Guide, then through negotiation between the Ministry and the Contractor prior to use of the equipment on the Project;

Equipment Rental Rates (Less Operator) means the applicable Equipment Rental Rates for equipment provided without operators;

Event of Default means an event described as such in Major Works GC 62.01 or Design Build Minor GC 62.01;

Extended Amount means the amount in the "Extended Amount" column of the Schedule of Approximate Quantities and Unit Prices being,

(a) the product of the Unit Price for a Unit Price Item multiplied by the Approximate Quantity of that Item,

(b) the Lump Sum Price for a Lump Sum Item,

(c) the sum for the Provisional Sum Item as the context so requires and as calculated by the Ministry, or

(d) the product of the Tendered Site Occupancy Days multiplied by the Daily Site Occupancy Cost set out in Part B of the Schedule of Approximate Quantities and Unit Prices;

Extension of Time means an extension of time to complete the Work, pursuant to Major Works GC 44.00 or Design Build Minor GC 48.00;

Extra Work means any additional work, beyond the scope of the Work, which is authorized by the execution of a Work Order or a Supplemental Agreement;

Financial Administration Act means the *Financial Administration Act*, R.S.B.C. 1996, c.138;

Force Account Basis means the method of payment to the Contractor for the performance of the Work in the absence of any other stipulated or negotiated method of payment, as described in Major Works GC 49.00 or Design Build Minor GC51.00;

Force Account Rate means the rate calculated on a Force Account Basis, to be applied to the Work performed pursuant to Major Works GC 49.00 or Design Build Minor GC 51.00 for which payment is on a Force Account Basis;

Formal Claim means a claim filed by the Contractor pursuant to Major Works GC 59.00 or Design Build Minor GC 59.00;

Freedom of Information and Protection of Privacy Act means the *Freedom of Information and Protection of Privacy Act*, R.S.B.C. 1996, c.165;

General Conditions means,

(a) in regard to the Tender Document Package, the terms and conditions of the Contract set out in the document having any one of the following titles: "Major Works General Conditions", "Minor Works General Conditions", "Design Build Minor General Conditions", or "Operational Services Contract", that is set out in the Tender Document Package as the applicable General Conditions for the Contract, and

(b) in regard to the Contract Document Package, the terms and conditions set out in the document having any one of the following titles: "Major Works General Conditions", "Minor Works General Conditions", "Design Build Minor General Conditions", or "Operational Services Contract", that is set out in the Contract executed on behalf of the Ministry and the Contractor;

General Reference Documents means the following standard documents, as amended or replaced by the Ministry from time to time, which may relate to this and other Ministry contracts, and which, unless otherwise indicated, may be obtained from the Ministry of Management Services, Queen's Printer, Publications Index at the address shown on http://www.publications.gov.bc.ca and which are available for viewing upon request at the Ministry's Regional offices:

(a) Standard Specifications,

(b) Traffic Control Manual for Work on Roadways,

(c) Maintenance Specifications Manual,

(d) Manual of Standard Traffic Signs and Pavement Markings (September 2000),

(e) Traffic Management Guidelines for Work on Roadways (September 2001),

(f) Manual of Control of Erosion and Shallow Slope Movement (August 1997),

(g) Ministry of Transportation Recognized Products List (current version),

(h) Manual of Test Procedures for Paving Material and Mixes (1993),

(i) Manual of Test Procedures for Soils and Mineral Aggregates (May 2001),

(j) Equipment Rental Rate Guide (current edition, available only from the B.C. Road Builders and Heavy Construction Association);

Hard Copy Delivery Method means in regard the delivery of a Tender, the delivery of a Tender to the Closing Location by hand or courier, and in regard to the delivery of a notice of withdrawal, or a Revision, the delivery of a Revision or a notice of withdrawal to the Closing Location by hand, courier or by facsimile transmission;

Holdback means any or all sums retained by the Ministry from any progress payment pursuant to Major Works GC 54.01 or Design Build Minor GC 54.01;

Holiday has the meaning as set out in the *Interpretation Act*;

Insurance Specifications means the insurance specifications attached to the Contract in the Schedule to the Contract entitled "Insurance";

Interpretation Act means the *Interpretation Act*, R.S.B.C. 1996, c.238;

Item means an item of the Work having both a separate identifier in the "Item #' column and an entry in the 'Unit of Measure' column, in the Schedule of Approximate Quantities and Unit Prices;

Invitation to Tender - Supplemental Conditions of Tender means the document entitled "Invitation to Tender Supplemental Conditions of Tender" as set out in the Tender Document Package and forming a part of the Conditions of Tender;

Letter of Substantial Completion means a letter issued to the Contractor by the Ministry acknowledging the occurrence of Substantial Completion for the Work, as described in Major Works GC 34.00 or Design Build Minor GC 41.00;

Limits of Construction means the geographic limits of the Project, as described in the Special Provisions or the Drawings, or both as the case may be;

Lump Sum Item means an Item identified in the Schedule of Approximate Quantities and Unit Prices by the notation "L.S." in the column entitled "Unit of Measure";

Lump Sum Price means the amount to be paid by the Ministry to the Contractor for the satisfactory completion of a Lump Sum Item;

Maintenance Specifications Manual means the manual published by the Ministry and titled "Maintenance Contracts – Maintenance Specifications (February 2003), or "Maintenance Services

Manual: Standards for Road and Bridge Maintenance Services (June 28, 1996 revision)", as applicable, in effect between the Ministry and the applicable maintenance contractor, as it may be amended or replaced by the Ministry from time to time by written notice to the Contractor;

Maintenance Specifications has the same meaning as ascribed to it in the Maintenance Specifications Manual;

Major Item means an item that,

(a) is not a Provisional Sum Item or Conditional Item, and

(b) is an Item with a total cost exceeding $20,000 determined by multiplying the Unit Price for the Item by the greater of either the final quantity measured by the Ministry Representative or the estimated quantity in the Schedule of Approximate Quantities and Unit Prices;

Major Works General Conditions means the General Conditions set out in the document having the title "Major Works General Conditions";

Milestone Date means any one date, as specified in the Schedule to the Contract entitled "Time Schedule", for completion of the specific portion of the Work that corresponds to that date and that is generally described in such Schedule and more specifically described in the Special Provisions;

Ministry means Her Majesty the Queen in Right of the Province of British Columbia as represented by the Minister of Transportation, and includes without limitation, the Minister of Transportation and the officers, agents and employees of the Ministry of Transportation;

Ministry Manager means the person designated as such by the Ministry;

Ministry Representative means the person designated as such by the Ministry;

Ministry Website means the website maintained by the Province of British Columbia at www.gov.bc.ca/tran;

Minor Works General Conditions means the General Conditions set out in the document having the title "Minor Works General Conditions";

Notice means notification in writing by one party to the Contract to the other party to the Contract, to make the second party aware that an event or circumstances have, or are anticipated to give rise to, cost or time impacts to the other party;

Notice Date means the date on which the Notice was received by the second party;

Notice Period means the time period specified in the Contract, for the appropriate circumstances, within which an aggrieved party to the Contract must provide Notice to the other party to the Contract;

Operational Services Contract means the General Conditions set out in the document having the title "Operation Services Contract";

Opportunity means the Tender Call, the Work and the Contract;

Performance Security means the Bonds and all other securities provided by the Contractor as specified in the Contract, to guarantee the Contractor's performance of its contractual obligations under the Contract;

Planholder means a person who has purchased a Tender Document Package before Closing Time;

Project Material in regard to a Design Build Minor Project means any findings, data, specifications, drawings, working papers, reports, documents and other material, whether complete or otherwise, that have been produced, received or acquired by the Contractor, or provided by or on behalf of the Ministry to the Contractor as a result of the Contract;

Project Schedule in relation to a Design Build Minor Project, means the first overall project time schedule, including the Design Schedule and the Construction Schedule, provided by the Contractor in accordance with the Contract and includes any amendments thereto accepted by the Ministry;

Project means the project being undertaken by the Ministry for which the Work is required;

Provisional Sum Item means an Item identified in the Schedule of Approximate Quantities and Unit Prices by the notation "P.S." in the column entitled "Unit of Measure", for Work or Extra Work that requires approval and further specification from the Ministry Representative;

Quality Assurance in regard to a Design Build Minor Project means the planned and systematic activities implemented in the quality system to provide adequate confidence that an entity will fulfill the requirements for quality;

Quality Control in regard to a Design Build Minor Project means operational techniques and activities that are used to fulfill requirements for quality;

Quality Management Plan in regard to a Design Build Minor Project means the plan of the same name as described in the Contract;

Quality Manager in regard to a Design Build Minor Project means the Contractor's Quality Manager appointed in accordance with the Contract;

Reduction of Time means a reduction of time to complete the Work, pursuant to Major Works GC 45.00;

Reimbursable Delay has the meaning ascribed to it in Major Works GC 42.00 or Design Build Minor GC 46.00;

Resume Work Order means a Work Order issued by the Ministry to the Contractor, requiring the Contractor to resume Work, in whole or in part as described in the Work Order, on the Project;

Revision means,

(a) in the case of a Tender delivered using the Hard Copy Delivery Method, an amendment, which may include one or more changes, made by the Bidder to its Tender in accordance with CT9, and

(b) in the case of a Tender delivered using the BC Bid eService Delivery Method, means an amendment, which may include one or more changes, made by the Bidder to its Tender and delivered in the form of a replacement amended Tender in accordance with CT9, and

delivered by the Bidder in compliance with the Conditions of Tender, as such compliance shall be determined by the Ministry in accordance with the Conditions of Tender;

Sales Tax means any federal or British Columbia tax arising from the provision or sale of either goods or services, or both;

Schedule means any schedule which forms a schedule to the Contract;

Schedule of Approximate Quantities and Unit Prices means,

(a) in regard to the Tender Call,

  (i) under the BC Bid eService Delivery Method, that part of the Tender Envelope, that is entitled "Schedule of Approximate Quantities and Unit Prices", and

  (ii) under the Hard Copy Delivery Method, the document of the same name that is set out in Schedule 7 to the Contract,

(b) in regard to the Contract, the Schedule of Approximate Quantities and Unit Prices set out in Schedule 7 to the Contract;

Site means the areas:

(a) vested as highway, as defined in the *Transportation Act*, and

  (i) on or within the Limits of Construction, and

  (ii) outside the Limits of Construction, where described, referenced or designated in the Traffic Management Plan, the Special Provisions, the Standard Specifications, and the Traffic Control Manual for Work on Roadways, as the case may be,

(b) within the licenses to construct that are indicated or referenced in Drawings or the Special Provisions, and

(c) all additional areas as may, from time to time, be designated in writing or be depicted by Drawings by the Ministry pursuant to the Contract;

Site Occupancy means the same as described in the Special Provisions;

Special Provisions means the terms set out within the Schedule to the Contract entitled "Special Provisions" and, for greater clarity, includes the Appendices to that Schedule;

Standards in regard to a Design Build Minor Project means the compendium of the design requirements, specifications, and other technical reference documents set out in the Tender Document Package, which set out the technical requirements for the Design;

Standard Specifications means the Standard Specifications for Highway Construction so named and published by the Ministry and in effect on the date of first publication of the Tender Call for the Project unless a different version is specified in the Special Provisions or any Addenda, in which case the version so specified will prevail;

State of Suspension means an extended interruption of Work, approved or directed by the Ministry, in a Stop Work Order, but does not include a suspension pursuant to Major Works GC 62.00 or Design Build Minor GC 62.00;

Stop Work Order means a Work Order issued by the Ministry to the Contractor requiring the Contractor to stop Work, in whole or in part, on the Project;

Subcontract means any contract to perform any portion of the Work to which the Ministry is not a party;

Subcontractor means any person having a Subcontract;

Substantial Completion has the meaning as described in Major Works GC 34.00 or Design Build Minor GC 41.00;

Supplemental Agreement means a written agreement entered into by the parties to the Contract for the purpose of modifying the Contract, and in the case of a Major Works or Design Build Minor, means Ministry form H0177 "Work Order/Supplemental Agreement", and in the case of a Minor Works or Operational Services Contract, means Ministry form H0462 "Amending Agreement";

Supplemental General Conditions means the document of the same name as set out in the Tender Document Package and forming a part of the General Conditions and the Contract Document Package;

Supplier means any person supplying materials that are used in or incorporated into the Work;

Surety means a bonding company acceptable to the Ministry, which undertakes the obligations of the Bid Bond or the Bonds;

Tender means the offer to perform the Work delivered by the Bidder in compliance with the Conditions of Tender, and for greater clarity, includes any and all Revisions and other documents, including the Bid Security, delivered in compliance with the Conditions of Tender, as such compliance shall be determined by the Ministry in accordance with the Conditions of Tender;

Tender Call means the call for Tenders issued by the Ministry in connection with the Work and pursuant to the Conditions of Tender;

Tender Document Package means the document package of the same name, containing the Conditions of Tender, Invitation to Tender - Supplemental Conditions of Tender, the Contract Specific Reference Documents, the Contract, including for greater clarity, the General Conditions, Special Provisions, Drawings, and all Schedules, all Addenda and other information as set out in the "Order of Contents", but excluding the General Reference Documents;

Tender Envelope means,

(a) in regard to the BC Bid eService Delivery Method, the response form, entitled "Tender Envelope", or any such replacement amended forms entitled "Tender Envelope" submitted by the Bidder in connection with a Revision in accordance with CT9, as the case may be, and

(b) in regard to the Hard Copy Delivery Method, the envelope of the same name contained in the Tender Document Package;

Tender Form means,

(a) in regard to the BC Bid eService Delivery Method, the 'pop – up' screen form entitled "Tender Form", or any such replacement amended forms entitled "Tender Form" submitted by the Bidder in connection with a Revision in accordance with CT9, as the case may be, and

(b) in regard to the Hard Copy Delivery Method, the form of the same name contained in the Tender Document Package;

Tender Item means a Unit Price Item or a Lump Sum Item as listed in the Schedule of Approximate Quantities and Unit Prices;

Tender Opening means the formal, public event conducted by or on behalf of the Ministry after Closing Time at the time and place specified in the Invitation to Tender - Supplemental Conditions of Tender, during which the unverified Total Tender Cost as stated in each Tender, and any Revisions, received before Closing Time shall be read out;

Tender Price means the total of all Extended Amounts, excluding the Tendered Site Occupancy Cost, if any, as set out in the Schedule of Approximate Quantities and Unit Prices submitted by a Bidder as part of the Bidder's Tender, as calculated by the Ministry pursuant to the Conditions of Tender;

Tendered Site Occupancy Days means the number of days specified by the Bidder for Site Occupancy in the column entitled "Approximate Quantity" in Part B of the Schedule of Approximate Quantities and Unit Prices;

Tendered Site Occupancy Cost means the amount determined by multiplying the Tendered Site Occupancy Days by the Daily Site Occupancy Cost, as set out in the column entitled "Extended Amount" in Part B of the Schedule of Approximate Quantities and Unit Prices, as calculated by the Ministry pursuant to the Conditions of Tender;

Term means the term of the Contract as set out in Major Works GC 4.00, Design Build Minor GC 4.00, or Minor Works GC 3.01;

Total Tender Cost

(a) in a Tender Call in which the Schedule of Approximate Quantities and Unit Prices does not contain a Part B for Site Occupancy, means the Tender Price, and

(b) in a Tender Call in which the Schedule of Approximate Quantities and Unit Prices does contain a Part B for Site Occupancy means the aggregate of the Tendered Site Occupancy Cost and the Tender Price;

Traffic Control Manual for Work on Roadways means the manual published by the Ministry of Transportation and entitled "Traffic Control Manual for Work on Roadways", 1999 update, as it may be amended or replaced by the Ministry from time to time;

Traffic Management Plan means the document of the same name to be delivered by the Contractor to the Minister pursuant to the Contract, as it may be amended from time to time by the Contractor, in accordance with the terms and conditions of the Contract;

Transportation Act means the *Transportation Act*, S.B.C. 2004, c.44;

Unacceptable Work means any work, workmanship, materials, or products produced or supplied by the Contractor or any Subcontractor which, in the opinion of the Ministry, does not conform to the requirements of the Contract;

Unauthorized Work means any work done,

(a) by a Bidder prior to the acceptance of the Tender,

(b) contrary to or regardless of the instructions of the Ministry,

(c) beyond the lines and dimensions shown on the Drawings, notwithstanding due consideration for permissible variations as determined by the Ministry, or

(d) other than the Work, without the approval of the Ministry;

Unit Price means the amount to be paid by the Ministry to the Contractor for the satisfactory completion of a specified unit of Unit Price Item;

Unit Price Item means a Tender Item which is neither a Lump Sum Item nor a Provisional Sum Item;

Utility Relocation means the relocation of the infrastructure of utility companies or municipalities as described in Major Works GC 23.01 or Design Build Minor GC 32.02;

Value Engineering Proposal means a proposal submitted by the Contractor in accordance with SS 125;

Warranty Period means the period defined in the Contract during which the Contractor is required to repair or otherwise remedy any deficiencies that arise in the Construction;

Weights and Measures Act means the *Weights and Measures Act*, R.S.C. 1985, c. W-6;

Work means the provision of all labour, services, material, and equipment as necessary, for the Contractor to complete and perform its obligations in accordance with the terms and conditions of the Contract;

Workers Compensation Act means *Workers Compensation Act*, R.S.B.C. 1996, c. 492;

Work Order means a written order by the Ministry in the form prescribed by the Ministry for the specific situation, requiring the Contractor to do Work or refrain from doing Work, whether covered by the Contract or not, and includes, without limitation, an order to,

(a) add, extend or delete Work,

(b) alter the Drawings and specifications,

(c) speed up or delay Work,

(d) stop or resume Work, and/or

(e) remedy defects or deficiencies in the Work,

and, without limiting the foregoing, includes a Work Order on one of the following forms,

(i) Stop Work Order,
(ii) Resume Work Order,

(iii) Work Order/Supplemental Agreement,
(iv) a Ministry's instruction, or
(v) any other document prepared by the Ministry clearly marked with one of the above titles and indicating the Ministry's intent to use it as a Work Order;

Written Protest has the meaning ascribed to it in Major Works GC 58.07 or Design Build Minor GC 58.07.

MAJOR WORKS

SUPPLEMENTAL GENERAL CONDITIONS

PROJECT NO. 11897-8002

HIGHWAY NO. 10 – 192ND STREET TO SPRINGBROOK ROAD – 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 502 – EPS

(30.2 LANE KMS)

The General Conditions set out in the Contract Document Package, form an integral part of these Supplemental General Conditions and are incorporated herein. Where any condition or provision set out within the General Conditions conflicts with any of the conditions and provisions set out within these Supplemental General Conditions, the condition or provision set out in these Supplemental General Conditions shall govern.

A capitalized term when used herein shall have the meaning set out in the Glossary of Terms.

SGC 1 Inclement Weather

GC 44.01(c)(iv) is amended to read:

"(iv) any other event beyond the control of the Contractor, including, only where specifically laid out in the Special Provisions, inclement weather."

SCHEDULE 2

CONTRACT SECURITIES

BRITISH COLUMBIA | Ministry of Transportation

CONTRACT SECURITIES REQUIREMENTS AND BOND SPECIMENS INS-265

FOR MAJOR WORKS, MINOR WORKS, DESIGN BUILD MINOR AND OPERATIONAL SERVICES CONTRACTS

1. GENERAL INFORMATION ON CONTRACT SECURITIES

(a) Any and all costs related to or for any and all Bid Securities and Performance Securities must be included in the Contract Price because in no event will the Ministry be responsible for or pay for any such costs, including without limitation as separate or as extra items.

(b) The Ministry will not pay interest on any deposits held by the Ministry.

2. REQUIREMENTS

(a) If the Bidder is awarded the Contract and if the Bidder delivered a Bid Bond as Bid Security in compliance with the Conditions of Tender and this Schedule, the Bidder will, on the earlier of:

(i) fourteen (14) days from the date shown on the Ministry cover letter delivering the Contract to the Bidder; and

(ii) three (3) days before commencement of the Work on the Site,

deliver to the Ministry at the address set out in the Award letter or in the letter referenced in clause 2(a)(i) above, a Performance Bond and Labour and Material Payment Bond, each

(iii) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond set out in this Schedule, and

(iv) in the amount of **fifty percent (50%)** of the Tender Price.

(b) If the Bidder is awarded the Contract and if the Bidder delivered a bank draft, certified cheque or money order as Bid Security in compliance with the Conditions of Tender and this Schedule, the Bidder may elect to apply one of the following options.

(i) The Bidder may deliver to the Ministry a Performance Bond and a Labour and Material Payment Bond, each

(1) in the format and containing the terms and conditions set out in the Specimen form of Performance Bond and Labour and Material Payment Bond set out in this Schedule, and

(2) in the amount of **fifty percent (50%)** of the Tender Price.

Upon receipt of the Performance Bond and the Labour and Material Payment Bond in compliance with this Schedule, the Ministry will return the Bid Security to the Contractor.

or

(ii) The Bidder may notify the Ministry in writing before execution of the Contract that the Bid Security may be retained by the Ministry as Performance Security in connection with the Contract. On receipt of such notice, the Ministry will deposit the bid security in the amount of **five percent (5%)** of the Contract Price and hold the funds as Performance Security in connection with the Contract.

(c) All Bonds must show the business address of the Surety for filing claims and delivery of notices by the Ministry.

(d) The Ministry may require the Contractor to obtain the written consent of the Surety to any Work Order or Supplemental Agreement.

(e) The Contractor must maintain the Bonds in force and effect during the Term. If the Surety notifies either party that the Bonds are no longer in force, the Contractor must obtain and deliver to the Ministry, forthwith, valid replacement Bonds that comply with the terms of this Schedule, including the Specimen forms of bonds set out in this Schedule.

SPECIMEN

PERFORMANCE BOND

NO. _____ $_____

KNOW ALL PERSONS BY THESE PRESENTS, that **(CONTRACTOR'S NAME)** as Principal, hereinafter called the Principal, and **(SURETY/INSURANCE COMPANY NAME AND ADDRESS)**, a corporation created and existing under the laws of Canada, and duly authorized to transact the business of Suretyship in Canada, as Surety, hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OF TRANSPORTATION, as Obligee, hereinafter called the Obligee, in the amount of _____ Dollars ($_____), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a contract with the Obligee, dated the_____ day of **(DATE OF AWARD)** 20___ for **(DESCRIBE CONTRACT)** _____which Contract Documents are by reference made a part hereof, and is hereinafter referred to as the contract.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well and faithfully observe and perform all the obligations on the part of the Principal to be observed and performed in connection with the contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

(1) Whenever the Principal shall be, and declared by the Obligee to be, in default under the contract, the Surety shall

(a) if the work is not taken out of the Principal's hands, remedy the default of the Principal,
(b) if the work is taken out of the Principal's hands, and the Obligee directs the Surety to undertake the completion of the work, complete the work in accordance with the contract provided that a contract is entered into for the completion of the work
  (i) it shall be between the Surety and the completing contractor, and
  (ii) the selection of such completing contractor shall be subject to the approval of the Obligee,
(c) if the work is taken out of the Principal's hands and the Obligee, after reasonable notice to the Surety, does not direct the Surety to undertake the completion of the work, assume the financial responsibility for the cost of completion in excess of the moneys available to the Obligee under the contract,
(d) be liable for and pay all the excess costs of completion of the contract, and
(e) not be entitled to any contract moneys earned by the Principal, up to the date of Principal's default on the contract and any holdbacks relating to such earned contract moneys held by the Obligee, and the liability of the Surety under this Bond shall remain unchanged provided, however, and without restricting the generality of the foregoing, upon the completion of the contract to the satisfaction of the Obligee, any contract moneys earned by the Principal or holdbacks related thereto held by the Obligee may be paid to the Surety by the Obligee.

(2) The Surety shall not be liable for a greater sum than the amount specified in this Bond.

(3) No suit or action shall be instituted by the Obligee herein against the Surety pursuant to these presents after the expiration of two (2) years from the date on which final payment under the contract is payable.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this bond this _____ day of _____, 20 ____.

SIGNED and SEALED
In the presence of:

_____ SEAL
For the Principal

_____ SEAL
For the Surety Attorney-in-fact

SPECIMEN

LABOUR AND MATERIAL PAYMENT BOND
(British Columbia Government Form)

No. _____ $_____

Note: This Bond is issued simultaneously with another Bond in favour of the Obligee conditioned for the full and faithful performance of the contract.

KNOW ALL PERSONS BY THESE PRESENTS THAT **(CONTRACTOR NAME)** as Principal, hereinafter called the Principal, and **(SURETY/INSURANCE COMPANY NAME AND ADDRESS)** a corporation created and existing under the laws of Canada, and duly authorized to transact the business of Suretyship in Canada, as Surety, hereinafter called the Surety are, subject to the conditions hereinafter contained, held and firmly bound unto HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA AS REPRESENTED BY THE MINISTER OF TRANSPORTATION, as Obligee, hereinafter called the Obligee, for the use and benefit of the Claimants, their and each of their heirs, executors, administrators, successors and assigns, in the amount of _____ Dollars ($ _____) of lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a written contract with the Obligee, dated the ___day of _____ 20___ for **(DESCRIBE CONTRACT)** which Contract Documents are by reference made a part hereof, and is hereinafter referred to as the contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A Claimant for the purpose of this Bond is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof, shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the contract. The prevailing industrial value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association titled "Rental Rates on Contractors Equipment" published prior to the period during which the equipment was used in the performance of the contract.

2. The Principal and the Surety, hereby jointly and severally agree with the Obligee, that every Claimant who has not been paid as provided for under the terms of their contract with the Principal, before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may sue on this Bond, prosecute the suit to final judgment for such sum or sums as may be justly due to such Claimant under the terms of their contract with the Principal and have execution thereon. Provided that the Obligee is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants, or any of them, to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Obligee or by joining the Obligee as a party to such proceeding, then such act, action or proceeding, shall be taken on the understanding and basis that the Claimants, or any of them, who take such act, action or proceeding shall indemnify and save harmless the Obligee against all costs, charges and expenses or liabilities incurred thereon and any loss or damage resulting to the Obligee by reason thereof. Provided still further that, subject to the foregoing terms and conditions, the Claimants, or any of them, may use the name of the Obligee to sue on and enforce the provisions of this Bond.

3. No suit or action shall be commenced hereunder by any Claimant:

   (a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, the Surety and the Obligee, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, the Surety and the Obligee, at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the contract is located. Such notice shall be given

      (1) in respect of any claim for the amount or any portion thereof, required to be held back from the Claimant by the Principal, under either the terms of the Claimant's contract with the Principal or under the Mechanic's Liens Legislation applicable to the Claimant's contract with the Principal whichever is the greater, within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal.

      (2) in respect of any claim other than for the holdback, or portion thereof, referred to above, within one hundred and twenty (120) days after the date upon which such Claimant did, or performed, the last of the work or labour or furnished the last of the materials for which such claim is made, under the Claimant's contract with the Principal;

   (b) after the expiration of one (1) year following the date on which the Principal ceased work on the contract, including work performed under the guarantees provided in the contract.

   (c) other than in a Court of competent jurisdiction in a Province or Territory of Canada in which the subject matter of the contract, or any part thereof, is situated and not elsewhere, and the parties hereto agree to submit to the jurisdiction of such Court.

4. The Surety agrees not to take advantage of Article 2365 of the Civil Code of the Province of Quebec in the event that, by an act or an omission of a Claimant, the Surety can no longer be subrogated in the rights, hypothecs and privileges of said Claimant.

5. The amount of this Bond shall be reduced by, and to the extent of any payment or payments made in good faith, and in accordance with the provisions hereof, inclusive of the payment by the Surety of Mechanics' Liens which may be filed of record against the subject matter of the contract, whether or not claim for the amount of such lien be presented under and against this Bond.

6. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this Bond this _____ day of _____ 20

SIGNED and SEALED
In the presence of:

_____ SEAL
For the Principal

_____ SEAL
For the Surety Attorney-in-fact

SCHEDULE 3

SPECIAL PROVISIONS
&
APPENDICES

PROJECT NO. 11897-8002

HIGHWAY NO. 10 – 192nd STREET TO SPRINGBROOK ROAD – 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 502 - EPS

(30.2 LANE KMS)

TABLE OF CONTENTS

SECTION 1 - GENERAL

1.01 Interpretation 3
1.02 Standard Specifications 3
1.03 Amendments to the 2006 Standard Specifications for Highway Construction 3
1.04 Availability of Relevant Publications 9
1.05 Limited Fiscal Funds 10
1.06 Insurance 10
1.07 Location of the Site 10
1.08 Scope of Work 11
1.09 Construction Schedule and Cash Flow Projection Schedule 12
1.10 Mobilization 13
1.11 Hours of Work 13
1.12 Availability of Site or Right-of-Way 14
1.13 Prime Contractor 14
1.14 Obscure Hazards 15
1.15 Work by Others in Project Area 15
1.16 List of Subcontractors and Suppliers 15
1.17 Quality Management 15
1.18 Traffic Management 18
1.19 Illumination of the Work 21
1.20 Materials Supplied by the Ministry 21
1.21 Available Ministry Sources 21
1.22 Protection of the Environment 22
1.23 Protection of Railway Property 22
1.24 Accommodation of Railway Traffic 22
1.25 Utilities 23
1.26 Haul and Overhaul 23
1.27 Project Signs 23
1.28 Contractor Survey Layout 24
1.29 Provision of Electronic Information 24
1.30 Acid Rock Drainage or Metal Leaching Potential in Private Quarries 25
1.31 Site Definition and Motor Vehicle Act Hours of Service 25
1.32 Extension of Time for Inclement Weather 25
1.33 Weighing Material 26
1.34 Amendments to SS 502 – EPS Asphalt Pavement Construction - EPS 26

SECTION 2 - COLD MILLING AND PAVING

2.01 Install C-035 Project Signs 28
2.02 Aggregates Produced in Stockpile 28
2.03 Cold Milling 28
2.04 Utilities 29
2.05 Traffic Islands 29
2.06 Shoulder Preparation 29
2.07 Shoulder Build-up 29

2.08 Emulsified Primer 29
2.09 Asphalt Paving – SS 502 – EPS 30
2.10 Finished Granular Shoulders 31

SECTION 3 – PROVISIONAL SUMS
3.01 Site Modifications 31
3.02 Allowance for Payment Adjustments, SS 502 EPS 31

APPENDIX/APPENDICES

Appendix One – Cold Milling

Appendix Two – Adjust Utilities

Appendix Three – Application Rates

Appendix – Survey Layout Services and Products

Appendix – Typical Intersection Pavement Markings

Appendix – List of Subcontractors and Suppliers (Form H 1108)

Appendix - Traffic Island Design

Amendments to the 2006 Standard Specifications for Highway Construction

Section 502 - Asphalt Pavement Construction (EPS)

PROJECT NO. 11897-8002

HIGHWAY NO. 10 – 192nd STREET TO SPRINGBROOK ROAD – 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 502 - EPS

(30.2 LANE KMS)

SCHEDULE 3 - SPECIAL PROVISIONS AND APPENDICES

SECTION 1 - GENERAL

1.01 Interpretation

Contractor is advised that there have been some changes to the Major Works General Conditions.

Cross-reference abbreviations are defined in the Glossary of Terms.

Any reference to the Ministry of Transportation and Highways shall mean the Ministry of Transportation.

Any reference to

- the Ministry of Environment, MELP or MoELP shall mean the Ministry of Environment; and
- The Ministry of Sustainable Resource Management shall mean the Ministry of Agriculture and Lands as appropriate.

The Transportation Act has been passed effective December 31, 2004 as the substantial replacement or consolidation of the following Acts:

Highway Act;

Ministry of Transportation and Highways Act;

Highway Scenic Improvement Act; and

Build BC Act.

Any reference to SS 501 – Hot Mixed Asphalt Pavement in the 2006 Standard Specifications for Highway Construction and these Special Provisions where applicable shall mean the SS 502 – Asphalt Pavement Construction (EPS).

1.02 Standard Specifications

The 2006 Standard Specifications for Highway Construction (SS 2006) applies to this contract.

1.03 Amendments to the 2006 Standard Specifications for Highway Construction

The following Sections of the 2006 Standard Specifications for Highway Construction are amended. All text changed or added since the 2006 edition are underlined.

SECTION 145: GENERAL REQUIREMENTS FOR HIGHWAY, BRIDGE AND MARINE CONSTRUCTION

Issued Date: October 22, 2007

SS 145.15 Materials Supplied by the Contractor is amended in its entirety to read

as:

SS 145.15 – Materials:

SS 145.15.01 - Supply of Materials: The Contractor shall supply all Materials necessary for the completion of the Work with the exception of the Materials supplied by the Ministry as listed in the Special Provisions.

All Materials supplied under the Contract shall be deemed to be the property of the Ministry held by the Contractor for the due completion of the Work.

SS 145.15.02 - Acceptance of Materials: All Materials supplied under the contract:

a) Shall be new,

b) Shall conform to the requirements of the Contract,

c) Shall be inspected by the Ministry

d) Shall be approved by the Ministry for incorporation in the Work.

SS 145.15.03 - Inspection of Materials: includes material certificates review, fabrication inspection, sampling and testing of Materials.

The Contractor shall provide to the Ministry, material or mill certificates two weeks prior to shipping of the Materials supplied by the Contractor. Such material or mill certificates shall include the material properties that demonstrate the Materials compliance with the requirements of the Contract.

The Contractor shall notify the Ministry Representative of the sources of Materials supplied by the Contractor, and obtain the right for the Ministry to enter upon the premises of the material supplier or fabricator and carry out such inspection. Such notification shall be given sufficient far in advance of Materials delivery dates to enable the Ministry Representative to make inspection of the Materials at the source.

The Ministry will not be responsible for any delays to the Contractor's operations where the Contractor fails to give sufficiently advance notification to the Ministry Representative to enable the Ministry to carry out the inspection before the scheduled shipping dates.

The Contractor will be charged for all travel time, board and lodging costs incurred by the Ministry or its designate, required to inspect Materials components if the source of the material is outside the Province.

As requested, the Contractor shall submit representative samples of Materials to the Ministry Representative at no charge to the Ministry.

SS 145.15.04 - Approval of Materials: Any rejected Materials shall be removed from the site and replaced at the Contractor's expense immediately after notification. All costs incurred for inspection, sampling and testing that established Materials rejection shall be charged to the Contractor.

Approval of any Materials shall not preclude later rejection of the same Materials prior to acceptance of the complete work.

SS 145.15.05 - Alternative Materials: Brands, species and manufacturer's names specified are approved for use in the performance of the Work. No alternative Materials will be considered unless approved in advance by the Ministry Representative in writing.

Savings as a result of using alternate Materials will be evaluated using SS 125 Value Engineering.

SS 145.15.06 - Recognized Products List: The Ministry has reviewed a number of products for use in highway applications and publishes a "Recognized Products List", indicating which products are considered generally acceptable for particular purposes. Contractors are encouraged to review the list to aid in determining which products they will supply, but are cautioned that the products listed, although generally acceptable, may not meet Contract-specific specifications.

The Categories "Proven, "Tentative" or "Approved" in the Recognized Products List are an indication of the product's record of use and purpose. Products in any category are "recognized" and may be used as long as the product meets Contract specific specifications.

Unless so specified in the Contract, Materials provided are not required to be amongst those on the Recognized Products List.

The Recognized Products list is available on-line at:
www.th.gov.bc.ca/publications/eng_publications/geotech/Recognized_Products_Book.pdf

SS 145.15.07 - Storage and Use of Materials: The Contractor shall provide a secure storage acceptable to the Ministry Representative for all Materials. The Contractor shall, in advance of receipt of the shipment of the Materials notify the Ministry Representative of the storage facilities locations for their inspection and acceptance.

The Materials shall be kept in the designated storage immediately upon receipt of the Materials. The Contractor shall not remove any Materials from the storage locations, except for incorporation in the Work, without the written authorization from the Ministry Representative.

The Contractor shall be responsible at no cost to the Ministry for:

a) acceptance of all Materials including careful unloading and handling, prompt turn around of tank or shipping cars, trucks or delivery containers, hauling and delivery from delivery point to job site, storage, stockpiling and reloading of Materials;

b) prompt payment of all demurrage or rental charges on cars, (except as provided in SS 501) freight, handling, delivery, storage or any other charges arising after the initial receipt of material at the delivery point;

c) ensuring that proper accounting is kept of all Materials.

The Contractor shall not unload or take delivery of any material without presence of the Ministry Representative. The Contractor shall notify the Ministry Representative of Materials delivery schedule and allow sufficient time for the Ministry Representative to check quantity and quality before any Materials are delivered.

The Contractor shall be solely responsible for recovery of any loss, damage, or improper use (including incorporating in the rejected Work) of any Materials.

Upon completion of the Work, all Materials supplied by the Contractor in excess of the amount used to complete the Work shall become the property of the Contractor and shall be charged to the Contractor at the supplied cost (including

freight and all other costs incurred to supply the Materials) plus applicable overheads.

Empty Materials packaging that are not required for their original purpose shall become the property of the Contractor and shall be disposed of by the Contractor.

SS 145.15.08 - Materials Supplied by the Ministry: are Materials arranged and paid by the Ministry by purchase orders for delivery by the Purchasing Commission on instructions from the Contractor notifying the Ministry Representative.

Separate purchase orders will be issued for each class of material.

Materials ordered for a specific Site shall not be transferred to any other Site without the written consent of the Ministry Representative.

Ministry supplied Materials will be used only for Ministry Work. Further requirements for asphalt Materials supplied by the Ministry are contained in SS 501 and SS 951.

SS 145.15.08.01 - Delivery Points: Each purchase order will specify points of delivery. If the Contractor makes a request for a change of delivery points specified by the Purchasing Commission, the additional cost for this delivery shall be charged to the Contractor.

SS 145.15.08.02 - Delivery of Materials: When the Ministry Representative advises the Contractor of the name of the supplier(s), the Contractor shall be responsible for determining requirements and ordering far enough in advance that work is not delayed.

The Contractor shall report to the Ministry Representative any Materials damage or discrepancies between the quantities received and the quantities shown on the bills of lading immediately upon Materials arrive at the delivery point. If damage or deficiencies are not so reported, it will be assumed that the Materials arrived in good order.

If asphalt materials are hauled directly from the delivery point for immediate application to the roadway, the material will be measured by mass or volumetrically by the Ministry Representative at the time of delivery. The Contractor shall ensure that an acceptable means of measurement is available.

SS 145.15.08.03 - Distribution of Materials: To control distribution of Ministry supplied Materials (except asphalt materials as provided in SS 501 and SS 951) and to facilitate accounting:

a) The Contractor shall arrange for delivery of the Materials only after applying for and receiving authority to do so on "Authority to Arrange for Delivery of Construction Materials" form (H0313). The requirements of the Contractor shall be indicated on Part "A" of the form. Approval from the Ministry Representative shall be indicated on Part "B" of the form. The Contractor may then arrange for delivery from the supplier. As delivery will be made only on receipt of the purchase order number and the serial number of the "Authority" form, the Contractor shall arrange with the Ministry Representative to immediately distribute appropriate copies of the "Authority" form.

Material suppliers will be required to notify both the Ministry Representative

and the Contractor when Materials are shipped, giving sufficient information to identify each and every shipment against an appropriate "Authority" form serial number and purchase order number.

b) The use of "Authority" form shall not in any way relieve the Contractor of any responsibility imposed under SS 145.15.08.02

c) If the Ministry Representative refuses to authorize the delivery of Materials to the job, the Ministry Representative will send the refusal, with reasons in writing, to the Contractor.

Upon completion of the Work, the Contractor will deliver all unused Materials supplied by the Ministry, to a location as specified by the Ministry Representative. No payment will be made for this portion of the Work.

SS 145.15.09 - Payment: The Ministry will offset any material costs charged to the Contractor from any payments made to the Contractor.

SS 145.16 - Not Used

SECTION 202: GRANULAR SURFACING, BASE AND SUB-BASES

Issued Date: December 14, 2006

Table 202-C Aggregate Gradations is amended to read:

TABLE 202-C - AGGREGATE GRADATIONS

SIEVE SIZE	Percent Passing (%) Sieve Size							
	Surfacing Aggregates	25 mm Base Course			Sub-Base Aggregates			Bridge End Fill
(mm)	HFSA	WGB	IGB	OGB	SGSB	IGSB	OGSB	BEF
75	---	---	---	---	100	100	100	100
50	---	---	---	---	---	55 – 100	70 – 100	30 – 100
37.5	---	---	---	---	---	40 – 80	50 – 85	---
25	100	100	100	100	---	---	---	---
19	85 – 100	80 – 100	65 – 100	75 – 100	15 – 100	17 – 40	15 – 55	20 – 100
9.5	60 – 85	50 – 85	30 – 70	30 – 65	0 – 100	---	---	---
6.3	---	---	---	---	---	---	0 – 20	---
4.75	40 – 70	35 - 70	15 - 40	5 – 30	---	---	---	10 – 60
2.36	---	25 - 50	10 - 30	0 – 10	---	10 – 25	0 – 10	---
1.18	20 – 50	15 - 35	---	---	---	---	---	6 – 32
0.600	---	---	---	---	0 - 100	---	---	---
0.300	10 – 30	5 – 20	5 – 15	0 – 8	0 – 15	4 – 15	0 – 8	4 – 15
0.075	5 – 15	0 – 5	0 – 5	0 – 5	0 – 5	0 – 5	0 – 5	0 – 5

SS 202.07 Source of Supply, second paragraph is amended to read:

The Ministry will provide those gravel pits or quarries and the right-of-way to those pits or quarries and will pay the cost of royalties and fencing. The cost of constructing and maintaining access roads shall be considered as part of the cost of producing the construction aggregates and shall be payable by the Contractor. The Ministry will exercise its best judgement in the selection of the pit or quarry sites; however, the failure of the pit or quarry to yield materials of uniform quality shall not constitute grounds for a claim by the Contractor against the Ministry.

SS 202.32.01 is amended to read:

Unless explicitly stated otherwise in the Special Provisions, no separate payment will be made for clearing, grubbing, disposal or relocation of stockpiles, debris or contaminated materials, or for any other costs of site preparation, pit development, or access, or for any delay or other cost arising from the use of Ministry-provided pits or quarries by the Contractor, and all costs thereof shall be covered in the prices for the Items under which payment is provided for the applicable materials.

SS 202.32.02 is deleted.

SECTION 501: HOT MIXED ASPHALT PAVEMENT

Issued Date: December 20, 2007

Section 501 is deleted in its entirety.

SECTION 502: END PRODUCT SPECIFICATION FOR ASPHALT PAVEMENT CONSTRUCTION

Revised Date: January 21, 2008:

Section 502 is renamed to read as **"SECTION 502 - ASPHALT PAVEMENT CONSTRUCTION (EPS)"**. SS 502 is amended in its entirety and is attached to these Special Provisions.

SECTION 635: ELECTRICAL AND SIGNING

Issued Date: February 01, 2007

SS 635.25 Overhead Signs, first paragraph **a)** is amended to read:

a) small overhead sheet aluminium or plywood signs are 1200 mm x 900 mm or smaller;

The sixth paragraph, "All horizontal supports and signs shall be level and vertical supports plumb." is deleted.

SS 635.26 Breakaway Sign Structures, eighth paragraph is amended in its entirety to read:

Plywood signs shall be installed with wood battens on the breakaway sign columns to support the signs. Wood battens shall be 4" x 6" Douglas Fir/Larch, No. 1 Grade, and pressure treated, surfaced four sides, in complete lengths without splices. Battens shall be straight and free of cracks.

The ninth paragraph is amended to read:

All pressure treated wood battens shall be pressure treated in accordance with CSA Standard O80.2 "Preservative Treatment of Lumber, Timber, Bridge Ties, and Mine Ties by Pressure Processes".

The tenth paragraph, "Signs shall not be installed until the paint on the battens has completely dried." is deleted.

SS 635.27 Wood Post Sign Structures, first sentence in the fourth paragraph is amended to read:

Wood posts shall be Douglas Fir/Larch, No. 1 Grade and pressure treated, surfaced four sides, and shall be supplied in complete lengths without splices.

The fifth paragraph is amended to read:

All pressure treated wood posts and battens shall be pressure treated in accordance with CSA Standard O80.2 "Preservative Treatment of Lumber, Timber, Bridge Ties, and Mine Ties by Pressure Processes".

The sixth and tenth paragraphs are deleted.

The third sentence in the thirteenth paragraph is amended to read:

Wood battens shall be Douglas Fir/Larch, No. 1 Grade and pressure treated, surfaced four sides, and shall be supplied in complete lengths without splices.

The fourteenth paragraph is deleted.

SS 635.28 Perforated Square Steel Sign Post Structures, second paragraph is amended to read:

Sign posts shall be perforated square steel tubing. The perforated square steel tubing will be required in different outside dimensions as noted on the drawings. The perforated square steel tubing shall be formed from 12 gauge hot rolled steel, conforming to ASTM Specification A-1011 Grade 50. The tubing shall be hot dipped galvanized conforming to ASTM Specification A-653, Designation G-90, or CSA Specification G164.

SS 635.29 Round Steel Sign Post Structures, first two sentences of the third paragraph are amended to read:

Posts and pipe sleeves shall be round Schedule 40 steel pipe conforming to ASTM Specification A 53, Grade A or B, Type E or S. The pipe shall be hot dipped galvanized in accordance with CSA Specification G164.

1.04 Availability of Relevant Publications

The Equipment Rental Rate Guide is available from:

B.C. Road Builders and Heavy Construction Association
Suite #307 - 8678 Greenall Avenue
Burnaby, British Columbia
V5J 3M6
Phone Number: (604) 436-0220 Fax Number: (604) 436-2627

All other General Reference Documents and other relevant publications can be obtained through Queen's Printer at:

Queen's Printer
Government Publication Services
Box 9452, Stn Prov Govt
Victoria BC V8W 9V7

or

Phone toll free at: 1-800 663-6105

and can be accessed at:

www.publications.gov.bc.ca

If a relevant publication is not available from Queen's Printer, please contact the Ministry Representative.

1.05 Limited Fiscal Funds

The Work on this project is subject to the availability of funds.

1.06 Insurance

The Contractor shall comply with the insurance requirements as described in Insurance Specification - Major works Contract - INS-152, Part 1,

The following and any of their employees, servants or agents shall be added to the liability policy as additional insureds:

- Southern Railway of British Columbia Limited
- British Columbia Railway Company
- BC Hydro
- Telus
- Terasen Gas
- Township of Langley
- City of Langley
- City of Surrey

The Contractor shall obtain, maintain and provide evidence of "ALL RISKS" insurance coverage, satisfactory to the Ministry, covering all equipment owned, rented, or leased, or for which the Contractor may be responsible. The insurance policy shall also include a Waiver of Subrogation against Her Majesty the Queen in Right of the Province of British Columbia as represented by the Minister of Transportation, together with the employees, servants and agents of the Minister.

1.07 Location of the Site

The Site is located on Highway No. 10 in the Langley Area at the following 3 locations:

- Section 1 – Langley Bypass, from 192nd Street to the Railway Tracks before Glover Road (including 200th and Fraser Hwy Intersections) for an approx. distance of 3.52 kms (approx. 7.68 Lane kms).
- Section 2 – Glover Road, from 64th Avenue to Springbrook Road for an approx. distance of 2.24 Kms (4.48 Lane Kms).
- Section 3 – Springbrook Road, from Glover Road continuing north for a distance of 1.2 Kms (2.4 Lane Kms).

The exact start and stop locations will be marked in the field by the Ministry Representative.

The BC Landmark Kilometre Inventory references this Project as follows:

HIGHWAY 10 - SEGMENT 3118, 3119 and 3120

Kms	0.00	176th Street (RTE15) Cloverdale	
Kms	3.21	Langley Bypass and 192nd Street	**Start Section 1**
Kms	4.67	Fraser Hwy	
Kms	5.20	200th Street	
Kms	5.67	202nd Street	
Kms	5.87	204th Street	
Kms	6.73	Railway Tracks	**End Section 1**
Kms	8.30	Glover Road and 64th Ave.	**Start Section 2**
Kms	8.72	Worrell Crescent	
Kms	9.53	Smith Crescent	
Kms	10.51	Glover and Springbrook Road	**End Section 2**
Kms	10.51	Springbrook Road	**Start Section 3**
Kms	12.61	64th Ave	**End Section 3**

1.08 Scope of Work

The general nature of the work to be carried out under the contract consists of pavement repairs; cold milling and inlaying at varied depths, and overlaying with Class 1, Medium Mix in accordance with SS 502 Asphalt Pavement Construction – EPS.

The Works for Section 1, 2, and 3 includes, but is not necessarily limited to the following:

- Quality Control of the Work;
- Traffic Management and communication;
- Survey and layout;
- Signing
- Aggregate Production in Stockpile;
- Temporary and permanent traffic markings; and
- Site Clean-up and restoration of the Site.

Section 1 – Langley By-Pass

- Pavement repairs; cold milling at 50mm and 75mm depths and inlaying with Class 1, Med Mix in accordance with SS 502 - EPS;
- Adjust Utilities (MH's and Valves)
- Supply and apply Emulsified Primer; and
- Resurfacing with Class 1, Medium mix in accordance with SS 502 – EPS.

Section 2 – Glover Road

- Pavement repairs; cold milling at 50mm and 150mm depths and inlaying with Class 1, Med Mix in accordance with SS 502 - EPS;
- Shoulder preparation and shoulder build-up;
- Remove and replace traffic islands;
- Adjust Utilities (CB's, JB's, MH's and Valves);
- Supply and apply Emulsified Primer;
- Overlay with Class 1, Medium mix in accordance with SS 502 – EPS; and
- Construction of granular shoulders;

Section 3 – Springbrook Road

- Pavement repairs; cold milling at 50mm and 150mm depths and inlaying with Class 1, Med Mix in accordance with SS 502 - EPS;
- Shoulder preparation and shoulder build-up;
- Supply and apply Emulsified Primer;
- Overlay with Class 1, Medium mix in accordance with SS 502 – EPS; and
- Construction of granular shoulders.

For additional details regarding the Scope of Work, please refer to Schedule 7, Schedule of Approximately Quantities and Unit Prices, and as described herein.

1.09 Construction Schedule and Cash Flow Projection Schedule

In addition to GC 16.01, the Construction Schedule shall also comply with the following requirements.

The Contractor will submit to the Ministry Representative prior to the pre-construction meeting or within seven (7) days of the award date, whichever is sooner, the construction schedule.

The construction schedule will be consistent in all respects with the requirements of the contract, and will make adequate provision for adverse weather which may be expected from records for the area.

The Construction Schedule will be submitted in one of the following formats:

(i) A network diagram which will, as a minimum, include all the operations listed below, logically linking them to show the manner in which the project will be constructed. These operations will be further divided into locations within the work, as also shown below; or

(ii) A bar chart derived from the network diagram, listing all of the same operations by subsection, and showing graphically the length of time needed for each.

Operation	By Section and Station
Supply Aggregates in stockpiles	
Shoulder Preparation	

Operation	By Section and Station
Section 1 – Langley By-Pass	
Cold Milling	
Resurfacing	
Section 2 - Glover Road	
Cold Milling	
Resurfacing - Overlay	
Section 3 – Springbrook	
Cold Milling	
Resurfacing - Overlay	
Construct Finish Granular Shoulders	
Completion Date	

The Contractor will provide an updated construction schedule to the Ministry on a monthly basis. It will include the progress to date, with comparison to the Contractor's initial construction schedule, and a forecast for completion. The updated construction schedule will also include the Contractor's proposed operations for the next sixty (60) days. This information, in a form satisfactory to the Ministry, will be provided to the Ministry Representative within five (5) working days after the end of each month, and will also be provided at any other time, within ten working days of the Ministry Representative's request.

Where the monthly update shows that the Contractor's execution of the work is falling behind the construction schedule to the extent that in the opinion of the Ministry Representative any one of the milestone dates or the completion date shown in Schedule 5 may not be met, the Contractor will immediately submit to the Ministry Representative details of the action the Contractor proposes to take to bring the work back on schedule.

The Contractor shall also submit, with the construction schedule and monthly updates a cash flow projection schedule based on the construction schedule and following the same format.

1.10 Mobilization

Mobilization will be in accordance with SS 145.08.

1.11 Hours of Work

The Contractor is advised that the hours of work on the Project will be restricted as follows:

Section 1 – Langley Bypass

Nights	Eastbound	Westbound	Eastbound	Westbound
Sunday Night	18:00 – 06:00	18:00 - 05:45	18:00 – 06:00	18:30 - 05:45
Monday Night - Thursday Night	19:00 – 06:00	19:00 - 05:45	19:30 – 06:00	20:00 - 05:45
Friday Night	19:00 – 09:30	19:00 - 10:30	19:30 – 09:00	20:00 - 10:30
Saturday Night	18:00 – 10:00	19:00 - 10:30	18:00 – 10:30	18:00 - 07:00

Section 2 – Glover Road and Section 3 – Springbrook Road

Nights	
Sunday Night – Thursday Night	20:00 to 05:30
Friday Night	20:00 to 07:30
Saturday Night	20:00 to 08:30

The Contractor is further advised that hours of works within 150 meters of an intersection with traffic lights will require a two hour later start time.

No work shall be permitted to take place over a long weekend; therefore, no work shall take place during the following dates and times;

- June 27th @ 06:00 hrs to July 1st @ 21:00 hrs
- Aug. 1st @ 06:00 hrs to Aug. 4th @ 21:00 hrs
- Aug. 29th @ 06:00 hrs to Sept. 1st @ 21:00 hrs

No work will be carried out at times outside of these hours of work without written approval of the Ministry Representative.

1.12 Availability of Site or Right-of-Way

The Site is available immediately for construction.

The Contractor is also advised that the completion date for this project shall be October 3, 2008.

The Contractor will schedule its work accordingly.

1.13 Prime Contractor

Requirements and responsibilities for construction site safety are set out in SS 135 - Construction Site Safety.

Under the requirements of the Workers' Compensation Act and Regulation, the Ministry will be the "Owner" and the Contractor will be the "Prime Contractor" for the Site.

Other parties such as the Ministry's road & bridge maintenance contractor, utilities companies, municipalities, and consultants to the Ministry may be performing work within the site. Should this occur, the Contractor will coordinate the health and safety related activities of all such parties working on the site, and ensure that they follow the Contractor's system or process that ensures compliance to the regulation.

1.14 Obscure Hazards

The Contractor will continually assess, investigate and evaluate the work and site for potential hazards.

The Ministry has recently learned that apparently some older, and at times abandoned, Terasen gas mains covered in what appears as coal tar coatings have been found to contain asbestos. As removal of these old mains may involve cutting of sections where the asbestos may be liberated and become friable, proper asbestos abatement protocols must be followed. Regulatory requirements regarding asbestos and resource information can be found at:

http://www2.worksafebc.com/publications/OHSRegulation/Part6.asp; and
http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/asbestos.pdf respectively.

Should such gas mains be found and require cutting, the Ministry will compensate the Contractor for any additional works required for asbestos abatement in accordance with GC 24.00.

1.15 Work by Others in Project Area

Further to GC 22.01, the following parties are anticipated to be working on or near the Site:

- The Ministry's Road Maintenance Contractor - Mainroad Contracting Limited, 8100 Nordel Way, Delta, BC V4G 8A9 (604.881.4140)

- The Ministry Pavement Marking Contractor – Mainroad Pavement Markings Ltd. 1650 Hartley Avenue, Coquitlam, BC V3K 7A1 (604.881.4109)

- Hwy 10 - 192nd Intersection to Fraser Hwy – reinstallation of the traffic island, line eradication, traffic line painting and median paving in June or July. For further details contract; Gemco Construction Limited – James Wetmore, Estimator (604.857.4953).

- Project No. 11993-0001 – Highway 10 (Glover Road) Smith Crescent Intersection Improvements. Approximate start date – June 2008 with a Completion Date Sept. 30, 2008. For additional information contact Brian Lee, Project Manager (604.660.8078).

1.16 List of Subcontractors and Suppliers

The Contractor must complete the "List of Subcontractors and Suppliers" form H1108 (2004/04/19), in accordance with the instructions on the form, submit this form to the Ministry Representative at the preconstruction meeting, and provide updates of any subsequent changes. A copy of the form is attached herewith as an Appendix or, if not present, is available from the Ministry Representative.

1.17 Quality Management

There have been extensive modifications to the Quality Management provisions in Ministry contracts which incorporate the Standard Specifications, 2006 edition. Users should read the entire document package carefully to ensure an understanding of the current requirements.

As examples, some of the significant changes are:

- The Special Provision used in prior contracts has been modified and transitioned into the Standard Specifications as "SS 101: Quality Management".
- SS 101 now adopts the requirements of ISO 9001:2000 instead of 9001:1994, which will necessitate changing the structure and content of pre-existing QC and QA Plans.
- The QC Manager or a delegate acceptable to the Ministry Representative must be on-site or readily available at all times when work requiring in-process inspection or testing is being performed.
- All submissions to the Ministry (e.g. QM Plan, Traffic Management Plan, shop drawings) must be accompanied by a QC checklist demonstrating the Contractor's compliance with the contractual requirements for that submission.
- Non-Conformance Reports have explicitly recognized the difference between the internal NCRs written by the Contractor and the NCRs written by the Ministry. "Opportunities for Improvement" for non-critical elements have also been introduced.
- "Table 1: Minimum Testing / Inspection Frequencies" no longer lists many elements that are covered within other Special Provisions or Standard Specifications. Each such clause must be reviewed to determine relevant QC/QA frequencies.

(i) QC Plan Contract-Specific Work Submission Requirements

In accordance with SS 101.02.03(i), the Contractor's QC Plan shall provide details of the means, methods, and frequencies of quality control measures for all elements work in the contract.

(ii) Minimum Testing and Inspection Frequencies

Minimum QC testing and inspection frequencies shall meet or exceed those indicated in Table 1 below, elsewhere in these Special Provisions, and/or in the Standard Specifications.

Table 1: Minimum Frequencies of Quality Control Testing / Inspection

Product	Description	Minimum QC Testing / Inspection Frequencies [1, 2, 3]	Acceptance Criteria
Survey/Layout	Staking Accuracy	1 per 20 stakes	SS 145 Benchmark Level loops: 2nd order: ±0.008 m √km Layout level loops: 3rd order: ±0.024 m √km Control Line Traverse: 1:10,000.

[1] QC frequencies may be reduced below this level, subject to the Ministry Representative's approval, should the Contractor's QC Plan be proven very effective.
[2] For all standards based on production, specified frequencies are based on hours of crusher or plant production time.
[3] A *shift* is a production period of up to 10 hours duration.

Product	Description	Minimum QC Testing / Inspection Frequencies [1, 2, 3]	Acceptance Criteria
Traffic Control / Management		On-going monitoring during active work, spot check after hours.	SS 194 & SPs
Roadway Aggregate Quality (other than gradation and fracture)	ASTM D 2419 Sand Equivalent	1 per aggregate source	SS 202
	D 6928 Micro Deval	1 per aggregate source	SS 202
	ASTM C 88 Mg SO_4 Soundness	1 per aggregate source, if Micro Deval fails	SS 202
	SS 202 Appendix 2 - Petrographic Analysis Test	1 per source if the aggregate fails any of the above three tests	To the satisfaction of the Ministry Representative
During all Roadway Aggregate Production	ASTM C 136, Dry Sieve Analysis of Aggregates[2]	1 per hour per 300 t/hr or part thereof of production	SS 202 or SS 531
	ASTM C 117, Sieve Analysis of Aggregates by Washing	1 per shift	SS 202 or SS 531
	SS 202 Appendix 1 - Fracture Count on Coarse Aggregate (BCH 1-13)	1 for every second sample of dry sieve test for base aggregates	SS 202 or SS 531
Compaction:			
• **Top 300 mm of Subgrade**	ASTM D 698 Standard Test Method for Laboratory Compaction	1 per material	
	ASTM D-2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods	3 tests per 20 m per lift, on ℄ and on Lt & Rt fog lines.	SS 201
• **Base and sub-base aggregates**	ASTM D 698 Standard Test Method for Laboratory Compaction	1 per 25,000 m3 of each type of material and whenever the accepted gradation curve is changed.	SS 202
	ASTM D-2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods	3 tests per 50 m per lift, on ℄ and on Lt & Rt fog lines	SS 202

Product	Description	Minimum QC Testing / Inspection Frequencies [1, 2, 3]	Acceptance Criteria
All other Items and Work	Per the Contract.	Per the Contract. Where frequencies are not specified in the Contract, as mutually agreed between the Ministry Representative and the Contractor as necessary to ensure conformance with the specified quality requirements.	Per the Contract.

Ministry QA frequencies will generally be 5 to 10% of the QC frequencies but will vary based on Contractor performance and the Ministry Representative's assessment of the risks. Both QC and QA frequencies may be reduced below this level, subject to the Ministry Representative's approval, should the Contractor's QC Plan be proven very effective.

(a) Payment:

In accordance with SS 101.07, Quality Management will be paid as a lump sum item in Schedule 7. Payment of the lump sum price bid will be made as follows:

- 25% of the lump sum when the Contractor has submitted to, and the Quality Management Plan has been approved by, the Ministry Representative.
- 65% of the lump sum paid prorated on a monthly basis based on the percentage of the contract completed. The Contractor is advised that funds will be held back if the Contractor's Quality Management fails to meet the requirements as specified in these Special Provisions or to the satisfaction of the Ministry Representative.
- 10% of the lump sum when the Contractor has completed all work to the satisfaction of the Ministry Representative and has left the job site and any other Ministry property in a condition satisfactory to the Ministry Representative.

The lump sum paid will be full compensation for all costs resulting from the foregoing requirements for Quality Management and to the satisfaction of the Ministry Representative. No additional payment will be made.

1.18 Traffic Management

Traffic Management will comply with SS 194 except as specified below.

(a) Traffic Management Plan

In accordance with SS194.11, this project is a Category 1 as defined in the Traffic Management Guidelines for Work on Roadways manual. The Traffic Management Plan requires the following documentation:

- Traffic control plan

- Public information plan
- Incident management plan
- Implementation plan

The Contractor will ensure that all relevant factors are addressed prior to implementing each individual traffic control plan.

No work that affects traffic will be permitted until the traffic management plan has been approved by Ministry Representative and the MoT District Office.

(b) Provisions for Traffic

In accordance with SS 194.11, the following traffic engineering requirements must be incorporated into all traffic control plans unless otherwise approved by the Ministry Representative.

General

1. A flashing arrow board is to be used at all lane drop locations.
2. The Contractor will be required to provide two (2) portable changeable message signs (PCMS) to be used at various locations on the project to inform highway traffic of existing and anticipated conditions and comply with SS 194.46. The PCMS locations shall be approved by the Ministry Representative and these locations shall change from time to time to provide up to-date project conditions. The PCMS shall be available and operating 10 days prior to the start of any work within the project limits.

   The Contractor shall at all times have a person on site that has full access to the PCMS controls and is fully capable of operating the PCMS for changing of messages. In addition, the portable changeable message signs shall be precision solar controls, SMC full matrix (solar powered message centre) or equivalent. The Contractor will be required to relocate the PCMS's as necessary tying to the locations of work to ensure proper notification. The Contractor shall include drafts of the proposed language for the PCMS's in the traffic management plan.

   Portable changeable message signs shall be operated in accordance with Technical Circular T-16/06:

   http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2006/t16-06.pdf.
3. In addition to SS 194.22, the Contractor shall supply and install temporary overlay line markers (TOM™) and shall be placed in conjunction with the temporary traffic line marking tape following all paving or milling. The TOM™ line markers shall be placed at minimum 20 m intervals. All temporary marker devices shall be placed at an off-set of 300 mm from the permanent centerline following all top lift paving. The Contractor if asked to remove temporary traffic line markings will be paid under the item for site modifications.
4. Supply, installation, maintenance and removal of the above noted signs shall be considered incidental to the works and shall be included in the appropriate unit prices.

5. Contrary to the Traffic Control for Work on Roadways manual, the Contractor shall supply and use 100cm tubular marker type "D" cones for all lane closures spaced at double the frequency as listed in the Traffic Control for Work on Roadways manual. The Contractor is advised that large reflective barrels shall be used for all lane tapers. The Contractor shall also place two (2) reflective barrels together, at 250 meter intervals, for the full length of the finished mat within the lane closure.

   The Contractor is advised that movement of the Contractor's equipment outside of lane closures will not be permitted unless authorized by the Ministry Representative.

   The Contractor shall ensure a minimum of single lane traffic in each direction at all times on the Langley Bypass.

(c) Speed Limits for Public Traffic and Safe Passage through the Work

Where the Ministry Representative and District Manager, Transportation, consider it appropriate, a construction speed zone giving an overall reduction in speed limit may be granted.

If a constant reduced speed is not appropriate to be applied to the overall project, the Ministry Representative may determine that certain sections within the work area may require a different reduced speed.

Should the Contractor fail to comply with any of the above restrictions, a Stop Work Order may be issued and will be in effect until such time that the Contractor has modified the operation to the satisfaction of the Ministry Representative.

(d) Safety Apparel and Traffic Control Retro-Reflectivity Signs and Devices

The safety apparel and traffic control retro-reflectivity signs and devices referenced in the Traffic Control Manual for Work on Roadways (TCM) are being revised as per Technical Circular T-09/05 http://www.th.gov.bc.ca/publications/Circulars/Current/T_Circ/2005/t09-05.pdf.

(b) Notwithstanding the 3-year phase-in period described in the circular, the new standards shall apply to all work under this contract.

(e) Traffic Delays

The Contractor must ensure that traffic delays do not exceed 10 minutes and that the total delay and travel time does not exceed 20 minutes through all the project operations.

A traffic delay is defined as the time interval from the first vehicle being stopped at a traffic control point, to the resumption of travel. Travel time is defined as the time interval a vehicle or traffic controlled line requires to traverse the project operation(s) site(s) and attain normal highway speeds.

Should either of the above limits be exceeded without prior written authorization from the Ministry Representative the Contractor must immediately cease operations and restore the road conditions for safe passage of traffic. Should excessive delays occur on more than one (1) occasion the Contractor must submit a revised written "Traffic Control Plan" that is acceptable to the Ministry Representative, modifying the hours of work and/or method of operation to avoid future delays.

(f) Payment

Lump Sum

Contrary to SS 194.61, the Contractor will be paid for Traffic Management. The payment of the Lump Sum Price bid will be made as follows:

- 25% of the lump sum when the Contractor has submitted the Traffic Management Plan, as described in paragraph (a) above, to the Ministry Representative.
- 65% of the lump sum paid prorated on a monthly basis based on the percentage of the contract completed. The prorated amount will be adjusted as and when the Contractor revises their construction schedule.
- 10% of the lump sum when the Contractor has completed all work and has left the site in a condition acceptable to the Ministry Representative.

The lump sum paid will be full compensation for all costs resulting from the foregoing requirements for traffic management except that separate payment from the appropriate unit price item or provisional sum will be made for the following when shown on the plans and/or approved for payment by the Ministry Representative.

1.19 Illumination of the Work

The Contractor shall supply, install and maintain adequate lighting so as to fully illuminate the works to the satisfaction of the Ministry Representative. The Contractor is advised that tower lighting may be required. The rolling equipment shall be equipped with adequate individual auxiliary lighting units. The Contractor shall provide auxiliary lighting such that the lamps can be adjusted or tilted so as not to be a safety hazard to traffic to the satisfaction of the Ministry Representative.

The cost of lighting as indicated above will be considered incidental to the work performed and shall be included in the prices bid for the respective items of Schedule 7 and no additional payment will be made.

1.20 Materials Supplied by the Ministry

Notwithstanding any reference to the contrary in the Standard Specifications, the Ministry will supply only the materials as listed below at the location specified:

Material	Location
Twelve C-035 signs and two C-035 EOP signs	MoT – Field Services Yard 17351 104A Avenue Surrey, B.C.

1.21 Available Ministry Sources

Further to SS 145.26.01, the following aggregate source is available:

- Strong Pit No. 0223 located 3.0 kms south of Fraser Highway on Bradner Road in Abbotsford.

The pit development shall be done in accordance with the current Pit Development Plan. No variances shall be permitted.

Further to SS 202.06, use of these pits is optional and they are not "designated pits". Information on these pits may be available in the Contract Specific Reference

Documents. Material is available from these sources for use on this project at no charge to the Contractor.

1.22 Protection of the Environment

(a) General

Protection of the environment will be carried out according to SS 165, and SS 165 will apply to the contract in its entirety unless otherwise specified in these Special Provisions.

(b) Fisheries Sensitive Areas/ Environmentally Sensitive Areas

The Contractor is advised that areas throughout the project are within these 2 categories. The Contractor shall be responsible to identify these areas and to comply fully with all regulations.

(c) Contractor's Environmental Representative

The Contractor shall ensure that at least one on-site supervisor act as an Environmental Representative, and this person shall be:

- suitably experienced in grading and drainage construction, and in the prevention and control of slope erosion and drainage sedimentation; and
- either:
  - registered with the Association of Professional Engineers and Geoscientists of British Columbia as a civil engineer or geoscientist, or
  - registered with the ASTT as an Applied Science Technologist, or
  - a Registered Professional Biologist, or
  - known to the Ministry as an individual having suitable experience.

The Environmental Representative must be available throughout the duration of the work to represent the Contractor in all matters related to the protection of the environment and, in particular, will attend all key meetings at which environmental protection measures are to be discussed.

The Environmental Representative will review and/or prepare , and be a signatory to the initial Sediment and Drainage Management Plan and all subsequent updated plans.

1.23 Protection of Railway Property

The Contractor will be required to submit to the Ministry Representative at the preconstruction meeting the names, addresses, titles and phone numbers of the appropriate railway contacts. The Contractor will give 72 hours advance notice to these railway contacts and to the Ministry Representative prior to doing any work within 10m of railway property detailing times and dates that the work will be done. Approval must be obtained from these railway contacts and the Ministry Representative before work can commence.

1.24 Accommodation of Railway Traffic

The Contractor will ensure the safety of, and minimize interference with traffic on the railway.

The Contractor will submit procedures and schedules for any portion of the work on or within 10m of railway right-of-way, with drawings as necessary. These shall be submitted to the Ministry Representative and appropriate railway representatives for approval a minimum of 5 days prior to performing any work in that area.

No work will be done on or within 10m of the railway right-of-way without approval from the railway and the Ministry Representative.

All equipment within 10 m of the nearest rail will stop working on the approach of a train and remain stopped until the train has passed.

The railway will decide which operations require traffic control persons and which operations require traffic closure.

In general, traffic control persons will be required whenever work is done over the railway track, within 10 m of the railway track or when equipment crosses the railway track. The Contractor will give seventy-two (72) hours notice of the start of such operations. The Contractor will not commence such operations until traffic control persons have been posted. Traffic control persons will be provided by the railway, who may charge their costs to the Ministry. The Contractor will reimburse the Ministry for the costs of such traffic control persons in accordance with SS 145.28.04, except that no surcharge will be applied.

The scheduling of traffic closures is subject to change, dependent on train movements. The Contractor will give seventy-two (72) hours notice of the start of operations requiring a traffic closure. The Contractor will not start such operations until receipt of confirmation from the railway traffic control person that the closure is in effect.

The Contractor will be responsible for the cost of train delays if the operations requiring traffic closure are extended beyond the established time limits.

1.25 Utilities

The Contractor will take the necessary precautions to protect existing utility services during the performance of the work and will be responsible for any losses or damages caused by the Contractor and it's subcontractors.

1.26 Haul and Overhaul

No separate payment will be made for haul or overhaul on this contract and the cost will be considered to be included in the applicable unit prices bid.

1.27 Project Signs

In addition to SS 194.21, the Contractor shall supply and install all signs, including C-018's Construction Ahead and C-210's Traffic Fines Double Signs including all posts and hardware and equipment required for the installation of these signs, with the exception of the C-035 and C-035EOP project signs.

If the C-035 and C-035EOP project signs are not already in place, the Ministry will supply the sign boards for erection and removal by the Contractor. The Contractor is advised that the signs will be removed on November 3, 2008. Maintenance of these signs during the term of the contract shall be incidental.

When directed by the Ministry Representative to remove the C-035 and C-035EOP project signs after completion of the work, the Contractor shall return the signs to the following location:

MoT – Field Services Yard

17351 104A Avenue
Surrey, B.C.

In accordance with Traffic Management Special Provisions sub-clause (c), the reflectivity standards on C- and TW- signs, channelizing devices, and barricades shall meet minimum levels of ASTM Type 6 or 9, as applicable.

All permanent, custom and construction signs shall meet Ministry's specifications in accordance to the Sign Pattern Manual: **http://www.th.gov.bc.ca/publications/eng_publications/geomet/geometsigns.htm** and the Traffic Sign Catalogue: **http://www.th.gov.bc.ca/publications/eng_publications/electrical/Sign_Cat_2003.pdf.**

1.28 Contractor Survey Layout

The Contractor is responsible for all painting of stations at 20 metre intervals and layout required for the completion of all work, all items listed the attached Appendices or Schedule 7 or as directed by the Ministry Representative, including field drainage patterns.

The Ministry will provide the Contractor with the following:

- Start and end locations for cold milling, resurfacing and overlay sections.
- Location Map for C-035 Installations

All calculations necessary shall be performed by the Contractor and provided to the Ministry Representative at any time upon request. The Contractor will give the Ministry Representative a copy of the construction grades prior to the start of earthwork operations.

The Contractor's survey layout shall conform, as a minimum, to the requirements outlined in the **Appendix – Survey Layout Services and Products.**

Prior to remove of traffic islands and cold milling 200th Street and Fraser Hwy Intersections, the Contractor shall provide evidence that their survey layout can re-establish the traffic island at the same location and dimensions, and the lane lines, stop bars and turn slots at the above noted intersections can be re-located in the same spot.

Except as noted below, survey layout is incidental to the work and no separate payment will be made.

The Contractor shall provide any additional or revised survey layout for any design change approved by the Ministry Representative and will be paid for such additional survey layout. Compensation will be determined in accordance with GC 38.00 and any approved payments will be made from the provisional sum for site modifications.

1.29 Provision of Electronic Information

At the Contractor's request and at Ministry Representative's option, the Ministry may provide the Contractor with electronic copies of any drawings, design digital terrain model, or other such information the Ministry may have.

If the Ministry does provide such information, it is provided "as is" and at the Contractor's request, without warranty of any kind, whether express or implied. All implied warranties, including, without limitation, implied warranties of accuracy, completeness, merchantability, fitness for a particular purpose, and non-infringement, are hereby expressly disclaimed.

Under no circumstances will the Ministry be liable to any person or business entity for any direct, indirect, special, incidental, consequential, or other damages based on any use of this information or any information referenced therein, including, without limitation, any lost profits, business interruption, or loss of programs or information, even if the Ministry has been specifically advised of the possibility of such damages.

1.30 Acid Rock Drainage or Metal Leaching Potential in Private Quarries

Where the Contractor elects to obtain any materials from a private quarry, the Contractor or the quarry owner shall engage a professional engineer or geoscientist (P.Eng. or P.Geo.) who shall be responsible for field mapping of the quarry, collecting a minimum of three representative rock samples from the specific areas of the quarry being developed, and completing petrographic / mineralogical assessments of the potential for Acid Rock Drainage (ARD) or Metal Leaching (ML) conditions.

Where the assessment detects the presence of sulphate or acid producing mineralogy within the rock, the professional shall commission the necessary laboratory tests to evaluate the potential for ARD or ML. Testing shall be conducted in accordance with Ministry of Transportation Technical Circular T-10/04 ARD Testing At Quarry And Rock Cut Sites, available on-line at: http://www.th.gov.bc.ca/publications/Circulars/lister.asp?set=Current&circ=T&year=2004

A report summarizing the results of the evaluation is to be certified by the professional and presented to the Ministry. The professional is responsible to ensure that the evaluation reasonably represents the conditions within the proposed quarry development areas.

Where the assessment indicates that sulphate or acid producing materials are not present, no further work is required.

Materials with ARD or ML characteristics exceeding the Canadian Council of Ministers for the Environment (CCME) criteria as specified in the "*Canadian Water Quality Guidelines for the Protection of Aquatic Life*" shall not be used in the work.

1.31 Site Definition and Motor Vehicle Act Hours of Service

In accordance with the Glossary of Terms, the definition of "Site" shall include, solely for the purposes of the Motor Vehicle Act Section 120(b) and subject to the approval in writing of the Ministry Representative, any of the following areas as the Contractor may explicitly request in writing as desired "Extensions to the Site"

(a) any Contractor-provided pits, quarries, crusher or asphalt plant sites, and

(b) such highway rights-of-way for the entire distance from a Limit of Construction to the property boundary of a Ministry- or Contactor-provided pit, quarry, crusher or asphalt plant site, up to a maximum cumulative length of thirty (30) km.

In accordance with SS 145.29, overweight or oversize vehicles are not permitted on highway rights-of-way within any extension to the site unless otherwise approved in writing by the Ministry Representative.

1.32 Extension of Time for Inclement Weather

The Ministry Representative may grant an extension of time under GC 44.01(c)(iv), as amended by Supplemental General Conditions (SGC), on account of inclement weather. Any such extension will be made solely at the Ministry Representative's discretion, and, if made, will reflect the following conditions:

(a) Where there is a delay for reasons of inclement weather, or conditions resulting from inclement weather, such delays will be considered when the Contractor cancels work for the shift based on forecasted inclement weather or when the Contractor works on the roadway surface less than half a normal working day for reasons of inclement weather. A normal working day shall comprise the average duration worked by the Contractor on the preceding five (5) uninterrupted working days or the first five planned days when the Contractor has not been able to achieve five uninterrupted working days where a single shift is observed.

(b) In the case of a Contractor employing multiple shifts, once a total of eight (8) working hours is reached by adding the working hours from each shift, then it will have been deemed the Contractor has worked that day and there is no delay for reasons of inclement weather.

1.33 Weighing Material

Contrary to SS 145.19, the Ministry will not provide a scale person. The Contractor must provide certified automated scales that will generate weigh tickets. The Contractor's scale person will be required to scale and record the weights of the material required for the project.

1.34 Amendments to SS 502 Asphalt Pavement Construction– EPS

In addition to the SP 1.03, Section 502, the Contractor's attention is directed to the following SS 502 – EPS amendments;

- SS 502.56 Surface Segregation

  The following section is added to SS 502.56

  Segregation Assessment within the Warranty Period:

  In addition to the initial segregation assessment, the Ministry Representative shall carry out a second segregation inspection of the pavement surface the following year within the warranty period specified in the contract. The Contractor shall provide qualified personnel to walk the pavement surface, including provisions for traffic control as required. The assessment shall include the identification of any new segregation and any areas of previously repaired segregation that, in the Ministry Representative's opinion, are inadequate or have subsequently failed. It will then be the Contractor's responsibility to repair the newly identified segregated areas in accordance with SS 502.56.05.

  Any segregated areas identified through the second inspection carried out during the warranty period will not be used for payment adjustments for segregation but must be repaired to the satisfaction of the Ministry Representative.

- SS 502 APPENDIX 2 - OBTAINING AND PREPARING LOOSE MIX SAMPLES

  Delete the first paragraph in Item 3 and replace with the following:

  The sample size shall be reduced by the Contractor to required laboratory sample size for Marshall and Superpave gyratory briquettes, asphalt content and hot mix gradation determination.

  Delete the paragraph in Item 5 and replace with the following:

The Contractor shall deliver both of the following to the Ministry Representative for storing.

(a) The reduced to required laboratory sample size QA and appeal samples

(b) The asphalt mix remaining after reducing the QA and appeal samples

- SS 502 APPENDIX 3 – BLANK AGGREGATE SAMPLE PREPARATION

  Delete the paragraph in Item 2 and replace with the following:

  In conjunction with Standard Specifications 502 APPENDIX 3, BLANK AGGREGATE SAMPLE PREPARATION, the contractor will supply to the Ministry (12) 1900 gram aggregate calibration samples and (2) 4 kilogram samples of asphalt cement. The samples will represent the Job Mix formula and be used to calibrate the Ministry's Ignition Oven and in the event of an appeal, for calibration of the Appeals Lab Ignition Oven. One set of calibration samples will be submitted for each Job Mix Formula (7) days prior to production of the associated asphalt mixture.

SECTION 2 – COLD MILLING AND PAVING

2.01 Install C-035 Project Signs

The Contractor shall supply all posts and hardware necessary to install the Ministry supplied C-035 project signs and end of project signs in accordance with SP 635 – 3.5.2, 3.5.3, 3.5.4 and 3.5.5.

Payment for "Install C-035 Project Signs" will be made at the unit price bid in Schedule 7.

2.02 Aggregates Produced in Stockpile

Materials shall be crushed and stockpiled in accordance with SS 202, SS 502.35 and SP 1.03 for the following aggregates:

- Asphalt Mix Aggregate, Class 1, Medium Mix;
- 25mm Well Graded Base Course.

Payment for "Aggregates Produced in stockpiles" will be made at the unit price bid in Schedule 7.

2.03 Cold Milling

Cold Milling shall be done in accordance to SS Section 511 – "Cold Milling" and to the widths and depths as listed in Appendix One – Cold Milling. All material generated from the cold milling and sweeping operation shall become the property of the Contractor and disposed off-site at the Contractor's dump site.

Areas listed in Appendix One for Section Two and Three requiring cold milling to a depth of 150mm shall be milled down to the expose the top of the granular base material. Pavement depth for these section averages between 165mm and 140 mm. The granular base surface after cold milling shall be rolled for additional compaction with a minimum of two passes with a dual steel wheel vibratory roller.

The Contractor is advised that all milled areas shall be repaved by the end of the shift and re-opened to traffic at the end of the each shift.

Milling operations will be restricted to one traveled lane at a time in each direction to accommodate traffic, unless otherwise approved by the Ministry Representative.

Sweeping shall immediately follow milling at any area. Sweeping shall be accomplished using a self-contained mechanical vacuum sweeper truck. No material will be allowed to be placed or swept onto the shoulders or into the ditch and must be picked up and disposed off-site at the Contractor's dump site.

Payment for "Cold Milling Asphalt Pavement" will be made under the appropriate unit price bid in Schedule 7 and shall include all things necessary to complete the work as described herein and to the satisfaction of the Ministry Representative.

2.04 Utilities

The Contractor will be required to adjust, relocate or install the following as listed in Appendix Two – Utilities.

Payment for "Utilities" will be made under the appropriate unit price bid in Schedule 7 and shall include all things necessary to complete the work as described herein and to the satisfaction of the Ministry Representative.

2.05 Traffic Islands

The Contractor shall remove and dispose of the four (4) existing traffic island on Section 2 – Glover Road located within the Glover and Milner Road intersection.

The Contractor shall survey and reference the traffic island prior to removal and be able to re-establish the traffic in the exact locations.

Payment for "Remove and Disposal Existing Traffic Island" will be made under the unit price bid in Schedule 7 and shall include all things necessary to complete the work as described herein and to the satisfaction of the Ministry Representative.

2.06 Shoulder Preparation

Shoulder preparation will be required on Section 2 – Glover Road and Section 3 – Springbrook Road to remove all organic material along the existing granular shoulders in preparation of shoulder build-up, if required, and construction finished shoulders.

All waste organic material shall be disposed off-site at the Contractor's dump site.

Payment for "Shoulder Preparation" will be made under the unit price bid in Schedule 7 and include all things necessary to complete the work as described herein, including increased compaction and watering to aid in compaction.

2.07 Shoulder Build-up

The Contractor shall build-up existing granular shoulders on Section 2 in the North bound lane with 25mm well graded base aggregate.

Payment will be made under the item for "25mm Well Graded Base" in Schedule 7. This shall include all things necessary to complete the work as described herein and to the satisfaction of the Ministry Representative.

2.08 Emulsified Primer

2.08.01 Supply of Tack Coat

The Contractor shall supply one of the emulsified primer products from the Ministry's Approved Products List (including products listed as "Tentative" at the time of ordering).

Payment for supply of tack coat shall be as shown in SS 502.31.01 and paid under the unit price bid under Schedule 7, Supply of Tack Coat.

2.08.02 Application of Prime and Tack Coat

All asphalt surfaces shall be tack coated prior to paving in accordance with SS502 – EPS and SS 952 with asphalt emulsion at an application rate of approximately 0.3 l/m2 for milled surfaces and 0.2 l/m2 for non-milled surfaces, or as otherwise directed by the Ministry Representative.

Payment for the application of tack coat shall be at the unit price bid per litre of emulsified primer actually sprayed onto the roadway and shall be considered full compensation for everything furnished and done including the supply, application, and removal of blinding sand when required.

2.09 Asphalt Paving – SS 502 – EPS

2.09.01 Class 1, Medium Mix – SS 502 – EPS

Asphalt aggregates used for asphalt pavement shall meet all requirements for Class 1, Medium Asphalt Mix, in accordance with SS 502-EPS.

The Contractor shall supply 80-100 Group "A" Asphalt Cement meeting the requirements of SS 952 – Specification for Contractor Supply Asphalt and Paving Materials for Highway Use.

Asphalt Pavement shall be constructed to the width and application rates as shown in Appendix 3 – Application Rates, or as directed by the Ministry Representative.

The following SS 502-EPS acceptance and payment criteria will apply:

- Application Rate
- Density
- Asphalt Content
- Aggregate Gradation
- Smoothness, Table J (Alternate)
- Segregation

Payment for "Asphalt Pavement", Class 1 Medium Mix will be made at the unit price bid per Tonne in accordance with SS 502-EPS, including the supply of 80 -100 asphalt cement.

2.09.02 Level Course - SS 502 – EPS

The following SS 502-EPS acceptance and payment criteria will only apply to placement of levelling course:

- Asphalt Content
- Aggregate Gradation

Payment for "Level Course", Class 1 Medium Mix will be made at the unit price bid per Tonne in accordance with SS 502-EPS, including the supply of 80 -100 asphalt cement.

2.09.03 Upgrade to PG 70-22 Asphalt Cement – Conditional Item

The Contractor shall provide a unit price adjustment to upgrade to PG 70-22 asphalt cement - conditional item instead of 80 – 100 asphalt cement should the Ministry accepts unit price bid.

The unit price bid shall be the difference between supplying 80 – 100 asphalt cement and upgrading to PG 70 – 22 asphalt cement and will be paid in addition to each tonne of asphalt pavement and/or levelling course.

2.10 Finished Granular Shoulders

The Contractor shall constructed granular shoulders on Section 2 - Glover Road and Section 3 – Springbrook Road, in accordance with SS 502.27. Contrary to SS 502.27.01, the Contractor shall use asphalt mix paving aggregate as shoulder aggregate meeting the gradation limits for Medium Mix.

The finished granular shoulders shall be construction to the following width and depths;

- Section 2 – Glove Road to a width of 0.5m and depth of 60mm
- Section 3 – Springbrook Road to a width of 0.5 m and depth of 50mm.

Payment for "Finished Granular Shoulders" will be made at the unit price bid in Schedule 7 and shall include all things necessary to complete the work as described herein and to the satisfaction of the Ministry Representative.

SECTION 3 – PROVISIONAL SUMS

3.01 Site Modifications

The Provisional Sum Item, "Site Modifications" has been included as a source of funds for payments for work as specified below. Payment for such work will be made in accordance with GC 38.00.

a) C-035 and C-035EOP project signs removal;
b) Provision of an additional shadow vehicle for smoothness testing, if deemed necessary by the Ministry Representative;
c) Anti-strip additive if deemed necessary by the Ministry Representative;
d) AC Bump if deemed necessary by the Ministry Representative;
e) Removal of temporary pavement markings;
f) Revised survey layout for any design changes; and
g) Other work that has not been fully defined at the time of tender and for any other work which is not anticipated or covered in the special provisions, but is deemed necessary by the Ministry Representative for the continuity of the project.

3.02 Allowance for Payment Adjustments, SS 502 EPS

Funds are set aside for EPS Payment Adjustments as detailed in SS 502

Notwithstanding any other provision of the contract, including full or partial waivers of EPS payments adjustments for any or all of the six rated characteristics (density, smoothness, AC content, gradation, application rate, and segregation), the rejection limits for each and every characteristic will apply to the Work.

APPENDIX ONE - COLD MILLING

SECTION ONE - LANGLEY BY-PASS, Including 200th and Fraser Hwy						COLD MILLING		
DIR	STA	STA	LENGTH	WIDTH	M2	MILL 50	MILL 75	MILL 150
EBSL	3275	3700	425	3.65	1551.3		1551.3	
	4050	4760	710	3.65	2591.5		2591.5	
	5025	6720	1695	3.65	6186.8		6186.8	
EBFL	3275	3490	215	3.65	784.8	784.8		
	3670	3935	265	3.65	967.3	967.3		
	4140	4160	20	3.65	73.0	73.0		
	4760	4900	140	3.65	511.0	511.0		
	5740	6115	375	3.65	1368.8	1368.8		
WBSL	3648	4750	1102	3.65	4022.3		4022.3	
	4750	4820	70	3.65	255.5	255.5		
	4860	5520	660	3.65	2409.0		2409.0	
	5520	5620	100	3.65	365.0	365.0		
	5700	5835	135	3.65	492.8		492.8	
	5835	6030	195	3.65	711.8	711.8		
	6030	6720	690	3.65	2518.5		2518.5	
WBFL	3320	3445	125	3.65	456.3	456.3		
	3650	3785	135	3.65	492.8	492.8		
	5360	5380	20	3.65	73.0	73.0		
	5727	5965	238	3.65	868.7	868.7		
	6030	6070	40	3.65	146.0	146.0		
	6030	6070	90	3.65	328.5	328.5		
Fraser Hwy EB Lt Turn Lane			80	3.65	292.0		292.0	
Fraser Hwy WB Lt Turn Lane			80	3.65	292.0		292.0	
EB Lt Turn Lane to 200th Street			80	3.65	292.0		292.0	
WB Lt Turn Lane to 200th Street			80	3.65	292.0		292.0	
Fraser Hwy Intersection					254.0		254.0	
Fraser Hwy NW and SE					977.0	977.0		
Fraser Hwy NW and SE					1702.0		1703.0	
200th Intersection					970.0		970.0	
200th Side Street N and S					1203.0	1203.0		
200th Side Street N and S					1684.0		1684.0	
			7355		35132.3	9582.2	25551.1	

SECTION TWO - GLOVER ROAD						COLD MILLING		
DIR	STA	STA	LENGTH	WIDTH	M2	MILL 50	MILL 75	MILL 150
NB	8301	8950	649	3.65	2368.9	2368.9		
NB	9450	9800	350	3.65	1277.5			1277.5
NB	9800	10100	300	3.65	1095.0	1095.0		
NB	10100	10535	435	3.65	1587.8			1587.8
SB	8274	8374	100	3.65	365.0			365.0
SB	8374	9075	701	3.65	2558.7	2558.7		
SB	9075	10535	1460	3.65	5329.0			5329.0
TIE-INS					1884.0	1884.0		
Profile Milling along S/W and curbing			900	3.0	2700.0	2700.0		
			4895		19165.8	10606.5		8559.3

SECTION THREE - SPRINGBROOK ROAD						COLD MILLING		
DIR	STA	STA	LENGTH	WIDTH	M2	MILL 50	MILL 75	MILL 150
WB	130	1165	1035	3.7	3778	3777.8		
WB	0	130	130	3.7	475			474.5
			1165		4252	3778		475

APPENDIX TWO - ADJUST UTILITIES

SECTION ONE - LANGLEY BY-PASS, Including 200th and Fraser Hwy Intersections

STA	Adjust				Relocate		Install	Remarks
	CB	MH	Valves	JB	JB	Flasher	CB	
3313	1							EBFL at Median Curb
3357	1							EBFL at Median Curb
3381	1							EBFL at Median Curb
3463	1							EBFL at Median Curb
		1						WBSL Crosswalk
			2					NBSL 200th Intersection
5517		1						WB Rt Turn Lane
5733	1							WBFL
TOTALS	5	2	2	0	0	0	0	

SECTION TWO - GLOVER ROAD

STA	Adjust				Relocate		Install	Remarks
	CB	MH	Valves	JB	JB	Flasher	CB	
8301			1					SB Shld
8310		1						SB Shld 980mm
8388	1							NB at AC Curb. Rectangular
8481	1							NB at AC Curb. Rectangular
8593	1							NB at AC Curb. Rectangular
8700	1							Probably a CB in puddle. NB at AC Curb. Rectangular
8710		1						SB Shld 980mm
8716			1					SB in Worrell intersection
8787							1	NB at AC Curb. Install CB. Replaces CSP that ties to MH behind SW
8838	1							NB at AC Curb. Rectangular
8845	1							NB at Conc Curb. Rectangular
8889								NB at Conc Curb. Rectangular
8947								NB at Conc Curb. Rectangular
8994								NB at Conc Curb. Rectangular
9005					1	1		At S end of S. median isle (Milner). Round. Extend isle approx 20m S
9052	1							NB at Conc Curb. Rectangular
9071	1							SB at Median Curb. Rectangular
9091	1							NB at Conc Curb. Rectangular
9130		1						NB in Milner intersection. 570mm
9153			1					NB in Milner intersection
9156		1						NB at fog line. 570mm
9158	1							NB at Conc Curb. Rectangular
				1				Milner intersection. NW isle. Round
		1						Milner intersection. SB Side. 3m N of NW isle. 980mm
	1							Milner intersection. SB at S end of N Median isle. Rectangular
				1				Milner intersection. S end of N Median isle. Rectangular
9173			2					NB lane
9213			1					SB Rt turn
9228	1							SB at Median isle
9236		1						NB at fog line. 570mm
9237	1							NB at Conc Curb. Rectangular
					1	1		At E end of N. median isle (Milner). Round. Extend isle approx 20m N
9288	1							NB at Conc Curb. Rectangular
9349	1							NB at Conc Curb. Rectangular
		1	2					Maxwell Cresc. Intersection
9422	1							NB at Conc Curb. Rectangular
9536			1					Smith intersection SB Side
9539			1					In NB Asphalt SW
9544		1						SB Shld 980mm
9551			1					Smith intersection NB Side
9937			1					SB EP
9976		1						SB Shld 980mm
10491			1					SB Shld. Rectangular. Approx. 0.3 X 0.15
10493		1						SB Shld. 570mm
			1					SE Corner Springbrook and Glover
10536		1						SB Shld 980mm
Totals	16	11	14	2	2	2	1	

APPENDIX THREE - APPLICATION RATES

SECTION ONE - LANGLEY BY-PASS, Including 200th and Fraser Hwy						ASPHALT PAVEMENT	
DIR	STA	STA	LENGTH	WIDTH	M2	KG/M2	ACP
EBSL	3275	3700	425	3.65	1551.3	180	279
	4050	4760	710	3.65	2591.5	180	466
	5025	6720	1695	3.65	6186.8	180	1114
EBFL	3275	3490	215	3.65	784.8	120	94
	3670	3935	265	3.65	967.3	120	116
	4140	4160	20	3.65	73.0	120	9
	4760	4900	140	3.65	511.0	120	61
	5740	6115	375	3.65	1368.8	120	164
WBSL	3648	4750	1102	3.65	4022.3	180	724
	4750	4820	70	3.65	255.5	120	31
	4860	5520	660	3.65	2409.0	180	434
	5520	5620	100	3.65	365.0	120	44
	5700	5835	135	3.65	492.8	180	89
	5835	6030	195	3.65	711.8	120	85
	6030	6720	690	3.65	2518.5	180	453
WBFL	3320	3445	125	3.65	456.3	120	55
	3650	3785	135	3.65	492.8	120	59
	5360	5380	20	3.65	73.0	120	9
	5727	5965	238	3.65	868.7	120	104
	6030	6070	40	3.65	146.0	120	18
	6030	6070	90	3.65	328.5	120	39
Fraser Hwy EB Lt Turn Lane			80	3.65	292.0	180	53
Fraser Hwy WB Lt Turn Lane			80	3.65	292.0	180	53
EB Lt Turn Lane to 200th Street			80	3.65	292.0	180	53
WB Lt Turn Lane to 200th Street			80	3.65	292.0	180	53
Fraser Hwy Intersection					254.0	180	46
Fraser Hwy NW and SE					977.0	180	117
Fraser Hwy NW and SE					1702.0	180	306
200th Intersection					970.0	180	175
200th Side Street N and S					1203.0	180	144
200th Side Street N and S					1684.0	180	303
			7355.00		35132.25		5749

SECTION TWO - GLOVER ROAD						ASPHALT PAVEMENT	
DIR	STA	STA	LENGTH	WIDTH	M2	KG/M2	ACP
NB	8301	8950	649	3.65	2368.9	120	284
NB	9450	9800	350	3.65	1277.5	360	460
NB	9800	10100	300	3.65	1095.0	120	131
NB	10100	10535	435	3.65	1587.8	360	572
SB	8274	8374	100	3.65	365.0	360	131
SB	8374	9075	701	3.65	2558.7	120	307
SB	9075	10535	1460	3.65	5329.0	360	1918
NBSB			2220	14.39	31945.8	144	4600
TIE-INS					1884.0	144	226
Gravel D/W					574.0	144	83
			6215.00		48985.55		8713

SECTION THREE - SPRINGBROOK ROAD						ASPHALT PAVEMENT	
DIR	STA	STA	LENGTH	WIDTH	M2	KG/M2	ACP
EB WB	0	1200	1200	12.2	14640	120	1757
WB	130	1165	1035	3.7	3778	120	453
WB	0	130	130	3.7	475	360	171
			2365.00		39430.00		2381

APPENDIX - SURVEY LAYOUT SERVICES AND PRODUCTS ❶

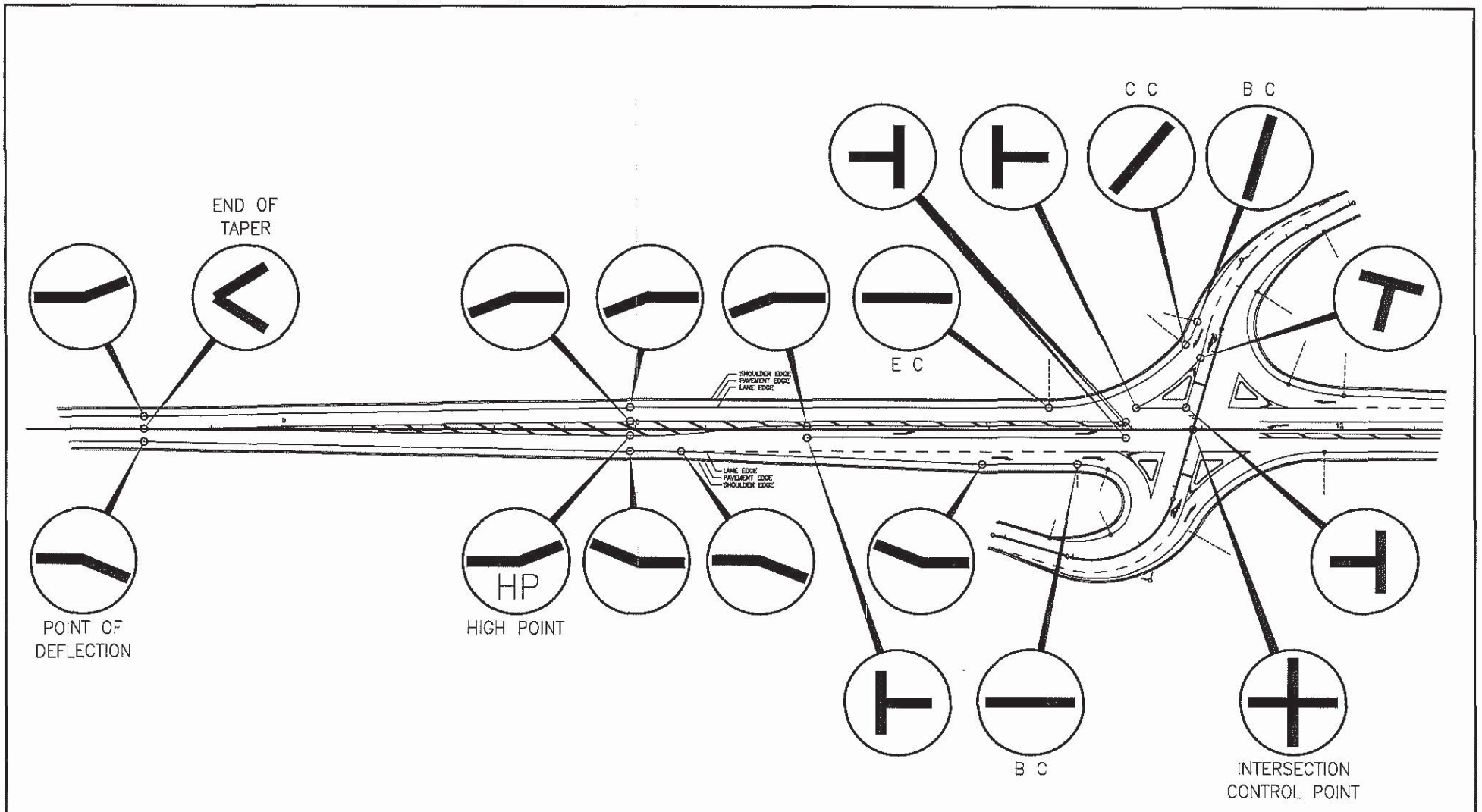
Survey Layout	Maximum Interval	Product
Right-of-way ❷	At each point of deflection and at sufficient points between as to be continuously visible.	Stake showing station and offset, or flagging.
Clearing and Grubbing	Same as Right-of-way.	Same as Right-of-way.
Grading - Slope Stakes	10 m in rock cuts; 20 m in all other cases.	One slope stake each side, at top of cut or bottom of fill, showing station, offset, vertical dimension to subgrade, and slope, plus cut/fill transition stake. Non-standard ditches will be staked separately. An additional slope stake, where applicable, at the top of a rock cut after the removal of overburden.
Grading - Subgrade	20 m.	One stake at each side of the subgrade, showing station, offset and grade at the stake location, one at each break point, and one at centreline.
Top of Sub-base	20 m.	One stake at each side of the sub-base course, showing station, offset and grade at the stake location, one at each break point, and one at centreline.
Each Base Course	20 m.	One stake at each side of the base course, showing station, offset and grade at the stake location, one at each break point, and one at centreline.
Final Base Course only	10 m.	"Blue tops" ❸ at each break point across the base course surface, or final grade stakes.
Culverts	Inlet and outlet.	One stake at each end of the culvert, plus an offset line, showing invert elevation.
Storm Drainage, Subdrain, Watermain or Sanitary Sewer		Stakes showing locations of manholes, catch basins and other structures, and invert locations of pipe inlets and outlets.
Retaining Walls	Not more than 10 m, and at alignment changes.	One stake showing control line location and either the elevation at the top of wall or the elevation at the bottom of footing excavation.
Paving	100 m on tangent, 20 m on curves, and at each deflection point.	Reference points.
Concrete Barriers	Same as paving.	Same as paving.
Signs		Stake at each sign location.
Curb and Gutter	10 m and at alignment changes. Curb returns: 5 m or at quarter points, whichever is less.	Offset hub and nail with cut/fill to gutter grade.
Median/Island Curb	Continuous.	Paint line at face/edge of curb.

APPENDIX - SURVEY LAYOUT SERVICES AND PRODUCTS ❶

Survey Layout	Maximum Interval	Product
Sidewalk or Path	5 m and at alignment changes. No layout required if parallel to curb.	Offset stake or nail with cut/fill to grade.
Electrical Pedestal, Junction Box, Sign Structure	Per installation.	Offset stake or nail with cut/fill to top of pedestal, or junction box; with additional stake to show orientation.
Detection Loops	Per installation.	Survey crew will lay out locations of cross walks, lane lines and stop bars; Contractor to derive location of loop.
Irrigation Preduct	Per installation	One stake at each end of the preduct, and offset line showing lowest elevation.
Pavement Marking (temporary and permanent)	at all alignment break points; 100 m maximum on tangent; 20 m maximum on curves; gores.	Reference points.

Notes:

❶	This table shows layout details for general situations; particular circumstances may require more or less staking.
❷	The right-of-way limit will be laid out only where there is work, including utility relocation, to be performed within three metres of it.
❸	"Blue top" - a stake driven so that its top surface is at the required elevation for the finished surface of the work.



TYPICAL INTERSECTION PAVEMENT MARKING CONTROL POINTS

BRITISH COLUMBIA | Ministry of Transportation

LIST OF SUBCONTRACTORS AND SUPPLIERS
(including Designated Subcontractors and Designated Suppliers)

Project Number 11897-8002 Contract ID 11897MJ8002

Project Description Highway No. 10 – 192nd Street to Springbrook Road – 3 Sections

Cold Milling and Asphalt Resurfacing SS 502 – EPS (30.2 Lane Kms)

1) The Contractor shall complete this list and submit it to the Ministry Representative at the preconstruction meeting.
2) The list shall identify each Subcontractor and Supplier for:
   (a) supply or fabrication of precast or prestressed concrete components (if applicable);
   (b) supply or fabrication of structural steelwork (if applicable); and/or
   (c) any other portion of the Work valued at $25,000 or more.
3) For Major Works contracts, indicate with "Yes" in the last column where the aggregate value of the Subcontractor or Supplier's portion of the Work is $200,000 or more, invoking bonding under Major Works GC 10.00.
4) The Contractor shall promptly notify the Ministry Representative of any change to the information provided herein.

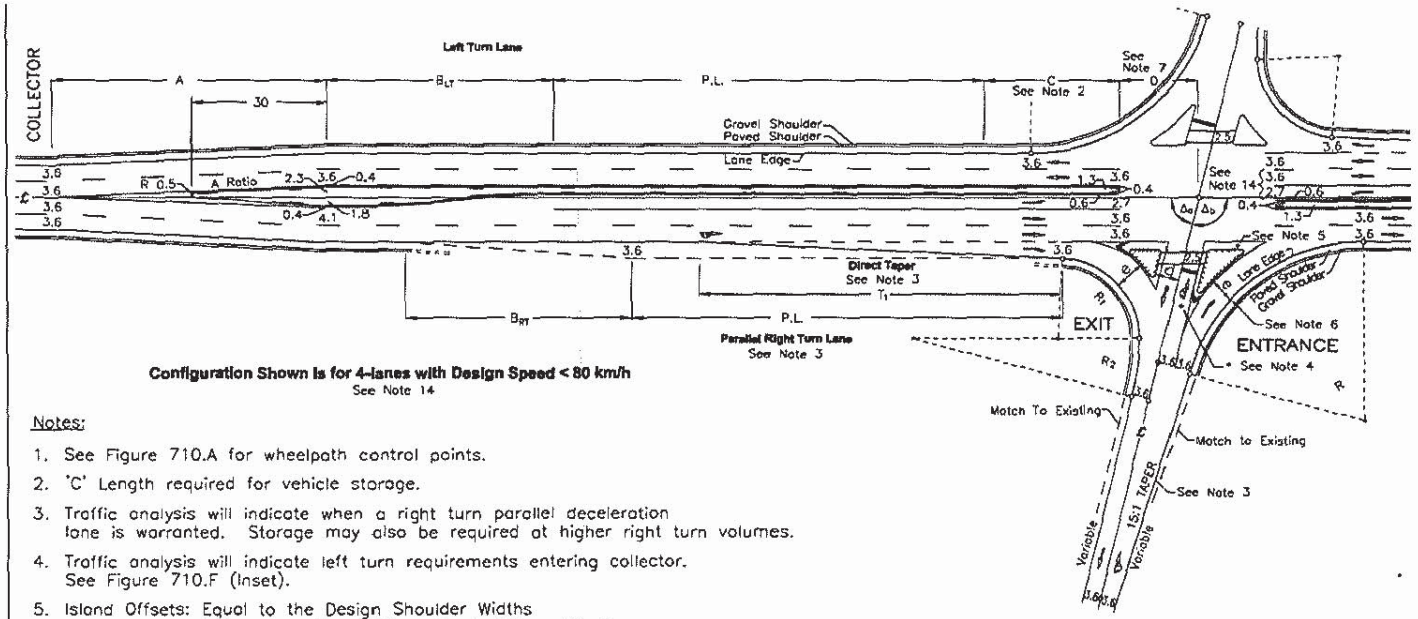
No.	Subcontractor / Supplier Name & Address	Portion of Work	Is the value of this Sub's Work $200,000 or more?
1		Precast / Prestressed Concrete (if applicable)	
2		Structural Steelwork (if applicable)	
3			
4			
5			
6			
7			
8			
9			
10			

Contractor's Name	Phone Number	Fax Number	Date (yyyy/mm/dd)
Address	City		Postal Code

Attach additional copies of this form as necessary.

Figure 710.G.2 Rural Collector Intersection with Raised Median

N.T.S.


COLLECTOR
Left Turn Lane
A
30
B_{LT}
P.L.
C
See Note 2
See Note 7
Gravel Shoulder
Paved Shoulder
Lane Edge
R 0.5
A Ratio
2.3
3.6
0.4
4.1
1.8
3.6
3.6
3.6

SECTION 502

ASPHALT PAVEMENT CONSTRUCTION

(END PRODUCT SPECIFICATION - EPS)

PART A - GENERAL

502.01 Preliminary and General – This Section describes the materials, equipment, professional standards, and end product requirements for the construction of hot mix asphalt pavement and related shouldering operations.

End Product Specifications contain the acceptance and payment criteria based on the results of specified sampling and testing. Payment of the Contract Unit Prices for the asphalt pavement product is contingent on the product meeting the QC Plan, professional standards and quality requirements of this Section and is subject to payment adjustments upward and downward in accordance to the provisions provided in End Product Specifications (EPS).

When used in this Section and subject to the General Conditions:

- "acceptance" means agreement with past actions or decisions made, within the scope of the Contract.
- "authorization" means formal approval for future actions, frequently changing the Contract requirements.

502.02 General Description of the Work – Generally, the work associated with the construction of asphalt pavement and shouldering by EPS consists of the following:

- Preparing a Quality Control Plan for review before commencing the Work and providing at the production site a testing facility to provide the data needed to implement that plan;
- Supplying, screening, crushing, processing and improving aggregate to produce asphalt mix aggregate;
- Supplying and delivering asphalt cement and spray primer meeting the requirements of SS 952;
- Preparing mix designs which, once reviewed and accepted by the Ministry Representative, become the basis for the accepted Job Mix Formula;
- Heating the asphalt mix aggregate and mixing it with asphalt cement to produce asphalt mix that meets the Job Mix Formula;
- Hauling, placing, compacting and finishing the asphalt mix;
- Supplying, hauling, placing and compact shouldering gravels.

The Contractor shall provide an end product conforming in professional standard, quality and accuracy of detail to the QC Plan and the dimensional and tolerance requirements of the contract. Where no tolerances are specified, the standard of workmanship shall be in accordance with normally accepted good practice and the provisions of this Section. Payment is subject to adjustments based on quality acceptance tests performed by the Ministry Representative and calculations performed by the Contractor with respect to application rate.

502.03 Definitions

Actual Asphalt Content – Actual asphalt content is the amount of asphalt cement in the mix as determined by the Ministry's Quality Assurance Program.

Additives – solid or liquid materials to enhance the properties of the liquid asphalt cement or mix.

Aggregate – the crushed or screened gravel.

Asphalt Cement (AC) – a bitumen-based liquid binder used in asphalt pavement.

Asphalt Content – Asphalt Content means the quantity of asphalt cement in the mix expressed as a percentage by weight of the total dry aggregate in the mix.

Levelling Course (LC) – asphalt mix used to improve crossfall, level, and strengthen existing pavements.

Asphalt Mix (AM) – hot plant mixture of asphalt cement and aggregate.

Asphalt Mix Aggregate (AMA) – the processed crushed aggregate just prior to the addition of asphalt cement.

Asphalt Pavement (AP) – compacted asphalt mix.

Cutback Asphalt – asphalt cement which has been blended with light petroleum distillates.

Design Asphalt Content – The asphalt content upon which the Job Mix Formula is initially established.

Driving Lane – A driving lane shall mean a single lane in any area of the pavement other than a shoulder or a barrier flare.

Emulsified Asphalt – asphalt cement that has been blended with water and emulsifying agents to form aqueous emulsions, including anionic type, cationic type and high float type.

End Product Specification (EPS) – A specification whereby the Contractor is responsible for quality control of the construction processes, and whereby the Ministry reviews the workmanship and performs the specified quality assurance sampling and testing of the end product for the purpose of determining acceptance/rejection and payment.

Job Mix Formula (JMF) – The asphalt mix "recipe", proposed by the Contractor in accordance with SS 502.08.04 or an accepted variation in accordance with SS 502.08.12 and accepted by the Ministry, establishing the aggregate proportions, gradation, and the asphalt content to be used for production of asphalt mix.

Lift – A layer of asphalt mix laid in a single application then compacted.

Top Lift – The uppermost Lift, forming the final running surface.

Lower Lift – Any Lift below Top Lift.

Bottom Lift – The lowest Lift (excluding Level Course),

Lot and **Sub-Lot** – A Lot is a portion of the work being considered for acceptance and for the determination of payment adjustments. For density, AC content, gradation and smoothness, each Lot is comprised of a number of Sub-Lots, each of which is sampled, and then aggregated to determine the acceptability of the Lot. Lot and Sub-Lot sizes are defined in the appropriate payment adjustment provisions of this Section.

Reclaimed Asphalt Pavement (RAP) – Asphalt Pavement that has been removed and processed, for the purpose of recycling.

Recycled Asphalt Mix (RAM) – a carefully controlled hot plant mix of asphalt cement, graded high quality aggregate, and reclaimed asphalt pavement.

Reject Mix – asphalt mix that is deemed unacceptable for use in the project

Sample Mean – the arithmetic mean of a set of test results constituting the sample.

Smoothness – a measure of the longitudinal profile of the pavement surface, measured as International Roughness Index (IRI).

Sub-Lot – See Lot.

Surplus Aggregate – aggregate surplus to the works, in split or un-split stockpiles which singly or combined will meet the asphalt mix aggregate gradation.

Random Sample – a set of test measurements taken, one each from a number of separate areas or Sub-Lots within a Lot, in an unbiased way.

502.04 Quality Control

502.04.01 General – Quality Control shall be performed by the Contractor in accordance with SS 101 and the requirements of this Section.

502.04.02 Quality Control Plan – The paving component of the Contractor's Quality Control Plan shall fulfill or exceed the requirements of Appendix 1 and function integrally with any other Quality Management provisions of the Contract.

The QC Plan shall be submitted in accordance with the timelines established in SS 101.02.03(iii).

The Quality Control Plan must include a detailed description of the means by which the Contractor shall use the quality control test results to ensure that the workmanship, asphalt materials, aggregate, mix production, paving and pavement compaction

processes will be controlled to keep the product within the specified limits. The Quality Control Plan must clearly show the flow of information from the quality control laboratory to the individuals who shall make the actual adjustments to the processes and equipment to affect this control. The plan will show time allowance for each step, the names and positions of all the people involved, and a clear description of the responsibilities of each.

502.04.03 Quality Control Testing and Inspection – The Contractor shall provide and maintain equipment and qualified personnel to perform all laboratory testing, field testing and inspection necessary to determine and monitor the characteristics and properties of all the materials produced and incorporated into the work. They shall also monitor the workmanship of the final product in accordance with the Quality Control Plan as most recently submitted.

The Contractor shall provide a testing facility(s) that meets the requirements necessary to carry out all the test procedures listed within this Section. The facility(s) must have the equipment specified under the appropriate test designation to perform the tests. The Ministry shall have access at all times to the quality control facility(s).

502.04.04 Quality Control Records – Quality Control inspections shall be recorded on checksheets and/or diaries at the time of inspection.

The results from Quality Control testing shall be reported on test logs and plotted on charts immediately after each test is completed. The Contractor shall report all test results on Ministry-supplied forms (available from the Ministry Representative) or Contractor-supplied forms acceptable to the Ministry Representative.

For the purposes of confirming delivery of asphalt mix and shouldering aggregate to the road and the calculation of material application rates, the Contractor shall provide to the Ministry Representative a copy of the Road Checker's Summary and the weigh tickets for each load received at the placement operation at the end of each shift. The Road Checker's Summary shall include, but not be limited to, the following information:

- Truck Number.
- Weigh Ticket Number and Net Weight of load.
- Date, time and location by station of delivery.
- Material Application Rate Dimensions and Calculations. Calculation frequency minimally shall be for every 10 loads.
- Notes pertaining to the paving of any appurtenances (letdowns, intersections, tapers, etc.)

In addition to the equipment calibration requirements of SS 101, for the purpose of obtaining accurate and consistent results between the Contractor's Quality Control testing and the Ministry's Quality Acceptance testing, correlation of the Marshall hammer and ignition ovens to be used on the project shall be performed prior to mix production.

502.04.05 Final Quality Control Testing Reports – Prior to the issuance of a Completion Certificate, the Contractor shall provide the Ministry Representative with:

- a summary of all aggregate quality control test results;
- copies of all quality control test results for asphalt mix properties and compaction; and
- copies of all quality control charts.

PART B – MATERIALS

502.05 Materials Testing

502.05.01 Test Procedures – Where a test is specified to conform to an ASTM procedure, the correspondingly listed AASHTO test may be used, or vice versa. See Table 502-A Standard Sampling and Testing Procedures.

TABLE 502-A – STANDARD SAMPLING AND TESTING PROCEDURES

TEST REF. No.		STANDARD TEST METHOD / PRACTICE
AASHTO	ASTM	
AGGREGATES:		
T 11	C 117	Materials Finer than 75 µm (No. 200) Sieve in Mineral Aggregates by Washing
T 85	C 127	Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
T 84	C 128	Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
T 27	C 136	Sieve Analysis of Fine and Coarse Aggregates
T 112	C 142	Clay Lumps and Friable Particles in Aggregates
T 255	C 566	Total Evaporable Moisture Content of Aggregate by Drying
T 2	D 75	Standard Practice for Sampling Aggregates
	D 421	Standard Practice for Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants [aka Atterberg Limit]
T 304	D 1252	Method "A", - Uncompacted Void Content of Fine Aggregate when determining Fine Aggregate Angularity
T 176	D 2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
	D 4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
	D 5821	Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
T 327	D 6928	Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus
ASPHALT CEMENT:		
T 49	D 5	Penetration of Bituminous Materials
T 202	D 2171	Standard Test Method for Viscosity of Asphalts by Vacuum Capillary Viscometer
ASPHALT MIX AND PAVEMENT:		
T 245		Standard Method of Test for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
	D 979	Standard Practice for Sampling Bituminous Paving Mixtures
T 165	D 1075	Standard Test Method for Effect of Water on Compressive Strength of Compacted Bituminous Mixtures
	D 1188	Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin Coated Specimens
	D 2041	Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
	D 2726	Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
T 269	D 3203	Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
	D 4469	Standard Test Method for Calculating Percent Asphalt Absorption by the Aggregate in an Asphalt Pavement Mixture
	D 6307	Standard Test Method for Asphalt Content of Hot-Mix Asphalt by Ignition Method
SHOULDERING:		
	D 698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)) [aka Standard Proctor]
T 310	D 2922	Standard Test Methods for Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth)
	D 3017	Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)

502.05.02 Sieve Sizes – All aggregate gradation tests shall use the following sieve sizes: 37.5 mm, 25 mm, 19 mm, 16 mm, 12.5 mm, 9.5 mm, 4.75 mm, 2.36 mm, 1.18 mm, 0.600 mm, 0.300 mm, 0.150 mm, and 0.075 mm.

502.06 Aggregates

502.06.01 Aggregates – The Contractor shall supply all aggregates for the Work from sources acceptable to the Ministry Representative.

502.06.02 Work in Ministry Pits or Quarries – Ministry of Transportation pits offered in the Special Provisions as available sources may be used without charge provided they are developed and worked in accordance with SS 145.26, SS 202 Part C, and the pit development plan. Deviation from the pit development plan will require the authorization of the Ministry Representative. No guarantee is given or implied that aggregate from Ministry pits will meet the Specification requirements or provide requisite quantities.

Without limitation and unless otherwise specified in the Special Provisions, the following items shall not be left in a Ministry pit:

- surplus milled or rubblized asphalt pavements,
- reject mix,
- fuel contaminated materials, or
- other waste products.

502.06.03 Supply of Aggregates, Aggregate Production and Characteristics – The Contractor shall not produce aggregate until the Contractor has received written notification that their Quality Control Plan is in accordance with SS 502.04.02, and has in place testing facilities for aggregate production that are in accordance with the Quality Control Plan.

For the production of aggregate within Ministry pits, the Contractor shall follow the Ministry's pit development plan, and provide crushing equipment such that all aggregate which will pass through 375 mm x 450 mm slotted openings shall be used for the production of crushed aggregate. Rocks which will not pass through these openings shall be stockpiled as directed by the Ministry Representative. Crushing and screening equipment shall be provided with adequate facilities and capacity to be able to bleed off reject aggregate and remove any excess fine aggregate, dust or objectionable aggregate coatings, to make it generally acceptable for use. No portion of the products from crushing or screening plants that can be used shall be wasted, but shall be stockpiled or used as directed by the Ministry Representative.

Where the Ministry has available any test result information on the properties shown in Table 502-B, for a Ministry pit or other source, the Ministry Representative will upon request, provide that information to the Contractor. Otherwise, sampling and testing to determine and demonstrate the compliance of aggregate with the requirements of this Section shall be the responsibility of the Contractor.

502.06.04 Shouldering Aggregate Shouldering Aggregate shall meet the following:

- All requirements of SS 202.04 and SS 202.05,
- Aggregate Properties and Gradation for 25 mm WGB, per Table 202-B and Table 202-C, or as otherwise specified in the Contract or with the agreement of the Ministry Representative

502.06.05 Paving Aggregates – Paving aggregates shall meet the following requirements:

a) Coarse Aggregates

i) shall be all mineral matter retained on the sieve designated in the test procedures for each individual test.

ii) shall consist of crushed stone, crushed gravel, or combination thereof, or materials naturally occurring in a fractured condition, or materials naturally occurring of highly angular nature or rough texture.

iii) shall be free from coating of clay, silt or other deleterious material.

iv) shall meet the requirements listed in Table 502-B.

RELEASED

TABLE 502-B – REQUIREMENTS FOR COARSE AGGREGATES

TEST REF. #		PROCEDURES	Superpave	Class 1	Class 2
AASHTO	ASTM				
T 85	C 127	Maximum Water Absorption, % by mass	2	2	2
T 112	C 142	Maximum % by mass of clay balls and friable particles	1.0	1.0	1.5
	D 5821	2 Fractured Faces, Minimum % by Mass retained on the 4.75 mm sieve	90	85	70
	D 6928	Maximum Micro-Deval abrasion loss factor, %	18	15	20

b) Fine Aggregate

i) shall be all mineral matter passing the sieve designated in the test procedure for each individual test.

ii) shall be clean, tough, durable, moderately sharp, and free from coatings of clay, silt, or other deleterious material, and shall contain no clay balls or other aggregations of fine material.

iii) shall have a sand equivalent of not less than 40 (not less than 45 for Superpave mixes) when tested in accordance with ASTM Test D 2419.

iv) for Class 1 and Superpave mixes, shall have a minimum value of 45 when tested according the AASHTO Test T 304, Method "A", - Uncompacted Void Content of Fine Aggregate when determining Fine Aggregate Angularity.

c) Mineral Filler and Mineral Dust

i) Mineral filler shall consist of all matter passing the 0.600 mm sieve and mineral dust shall consist of all mineral matter passing the 0.075 mm sieve.

ii) Mineral filler and mineral dust shall be free from organic matter.

iii) Mineral filler shall be non-plastic when tested in accordance with ASTM Test D 4318.

d) Additional requirements for Superpave Aggregates – Aggregates for Superpave mixes shall have properties and the gradation limits as specified below and in accordance with the latest version of the Asphalt Institute's *Superpave Series Publication – Superpave Mix Design (SP-2)*. Changes and/or variations from these limits shall be outlined within the Contract Special Provisions.

i) 90% fractured aggregate with a 12.5 mm nominal maximum size, including sufficient manufactured fines to provide fine aggregate angularity.

ii) The aggregates must meet all the requirements for angularity, toughness deleterious materials, clay content, and flat and elongated particles.

iii) Design ESALs will be 10 – 30 million.

REVISED

TABLE 502-C-1 – ASPHALT MIX AGGREGATE GRADATION LIMITS

SIEVE SIZE (mm)	PERCENTAGE PASSING BY MASS				
	Coarse Mix	Medium Mix		Fine Mix	Superpave
	37.5 mm	19 mm	16 mm	12.5 mm	Nominal 12.5 mm
37.5	100				(see appendix B SP-2)
25.0	80 – 100				
19.0	60 – 92	100			100
16.0	---	---	100		---
12.5	50 – 85	84 – 95	90 – 100	100	90 – 100
9.50	40 – 80	73 – 90	73 – 90	90 – 100	
4.75	30 – 65	50 – 75	50 – 75	55 – 80	---
2.36	20 – 50	35 – 57	35 – 57	32 – 64	28 – 58
1.18	15 – 35	26 – 45	26 – 45	24 – 51	
0.600	8 – 30	18 – 34	18 – 34	17 – 40	
0.300	6 – 22	10 – 26	10 – 26	13 – 29	
0.150	3 – 15	6 – 17	6 – 17	8 – 18	---
0.075	1 – 7	3 – 7	3 – 7	4 – 10	2 – 10

TABLE 502-C-2 – MARSHALL DESIGN CRITERIA

PROPERTY OF LABORATORY COMPACTED PAVING MIXTURE	PAVEMENT CLASS	
	1	2
Number of blows each face of test specimens	75	75
Minimum % Voids in Asphalt Mix Aggregate for 19 mm Medium Asphalt Mix	14	14
Minimum % Voids in Asphalt Mix Aggregate for 16 mm Medium Asphalt Mix	14.5	14
Minimum % Voids in Asphalt Mix Aggregate for 12.5 mm Fine Asphalt Mix	15	15
% air voids in laboratory compacted mixture for 19 mm Medium Asphalt Mix	2.5 to 4.5	2.5 to 4.5
% air voids in laboratory compacted mixture for 16 mm Asphalt Mix	2.5 to 4.5	2.5 to 4.5
% air voids in laboratory compacted mixture for 12.5 mm Fine Asphalt Mix	4 to 6	4 to 6
Minimum Marshall Load, N @ 60°C for 80 – 100 Pen. and 120 – 150 Pen.	9000	7000
Minimum Marshall Load, N @ 60°C for 150 – 200 and 200 – 300 Pen.	7000	6000
Flow index, units of 0.25 mm	8 to 14	8 to 16
Minimum Asphalt Film Thickness, μm (microns)	8.0	8.0
Minimum Index of Retained Stability after immersion in water at 60°C for 24 hours	85%	75%

TABLE 502-C-3 – SUPERPAVE DESIGN CRITERIA

PROPERTY OF LABORATORY COMPACTED PAVING MIXTURE For Design ESALs = 10 - 30 million, at N_{Design} = 100 gyrations	SUPERPAVE
% voids in the Mineral Aggregate , minimum	14
Required density: % of Theoretical Maximum Specific Gravity in a laboratory compacted mix at N_{Design} = 100 gyrations at $N_{Initial}$ = 8 gyrations	 95 – 97 <89
% voids filled with Asphalt Cement	65 – 75
Dust to Binder ratio[2]	0.6 – 1.2

[2] Consideration shall be given to increasing the dust to binder ratio to 0.8 – 1.6

502.07 Supply of Asphalt Cement and Primer – The Contractor shall supply the types and grades of asphalt cement and primers as specified in the Special Provisions and in accordance with SS 952. The supply of these materials includes, but is not limited to, ordering, scheduling delivery of, receiving, handling, storing, sampling, and testing of the materials and other related work.

The Contractor shall supply the Ministry Representative with copies of the asphalt supplier's weigh-bill and records of all asphalt materials received on a daily basis.

502.08 Asphalt Mix

502.08.01 Responsibility for Asphalt Mix Design – Preparation and submission of the project asphalt mix designs for Ministry review is the responsibility of the Contractor. All costs incurred in mix design formulation are the responsibility of the Contractor.

The Contractor shall utilise a qualified registered member of the Association of Professional Engineers and Geoscientists of British Columbia or a qualified, registered member of the Applied Science Technologists and Technicians of British Columbia who shall sign off the asphalt mix design. The Contractor shall also utilise a testing laboratory meeting the requirements of SS 101 and acceptable to the Ministry, to assess the aggregate material proposed for use and to carry out the asphalt mix designs.

502.08.02 Requirements for Asphalt Mix Design

a) ALL MIXES – Asphalt mix designs shall be performed using asphalt cement grade specified in the Special Provisions and which is from the same refinery contracted to supply the asphalt cement for the duration of the project.

Any subsequent change in the asphalt cement supplied by the Contractor will require a new asphalt mix design unless permitted otherwise by the Ministry Representative.

Asphalt mix designs, Job Mix Formulas, and field adjustments made in accordance with SS 502.08.10 must all be based on an aggregate gradation meeting the requirements of Table 502-C-1 and the criteria specified in Table 502-C-2 or Table 502-C-3, as applicable.

b) MARSHALL MIXES – The asphalt mix design for Class 1 and Class 2 pavements shall be carried out under Marshall design criteria using the designated equipment and procedures as contained in the Asphalt Institute's *Mix Design Methods for Asphalt Concrete MS-2*, latest edition.

c) SUPERPAVE MIXES – The Superpave asphalt mix design shall be carried out in accordance with the latest edition of the Asphalt Institute's *Superpave Mix Design, Superpave Series No. 2 (SP-2)* and these Standard Specifications.

The JMF aggregate gradation shall fall under the maximum density gradation line for the 0.300 mm to 2.36 mm sieves inclusive.

502.08.03 Asphalt Mix Antistrip Additives – For Marshall, the Contractor shall determine the Index of Retained Marshall Stability (IRMS) of each asphalt mix in accordance with ASTM D 1075 "Standard Test Method for Effect of Water on Compressive Strength of Compacted Bituminous Mixtures". For Superpave mix designs, the Contractor shall determine the Tensile Strength Ratio (TSR) of each asphalt mix in accordance with AASHTO T 283-7 "Resistance of Compacted Bituminous Mixture to Moisture Induced Damage".

An antistrip additive shall be added to the asphalt mix when:

- the Special Provisions so direct;
- the IRMS is less than 85;
- the TSR is less than 80; or
- the Ministry Representative specifically requests it.

The Contractor shall select the antistrip additive from the Ministry's "Recognized Products List" and add it to all asphalt mix used in the Work, at an application rate of 0.3% additive by weight of asphalt cement. The Recognized Products list is available on-line at: http://www.th.gov.bc.ca/publications/eng_publications/geotech/Recognized_Products_Book.pdf

502.08.04 Asphalt Mix Design Submittals - The Contractor shall submit each asphalt mix design to the Ministry Representative for review that it complies with the requirements of the Contract, and shall not proceed until the review is received in writing from the Ministry Representative. The Contractor's submissions shall include the following information:

Part 2 of 2 Page 163
TRA-2011-00229

- The gradation of each aggregate to be used in each mixture.
- The percentage by mass of each aggregate to be used in each mixture.
- The design gradation of the combined aggregate for each mixture for each of the sieve sizes applicable to the mix, per the first column of Table 502-C-1.
- The estimated dry sieve gradation corresponding to the JMF gradation.
- All asphalt mix design data used in arriving at the final mix designs.
- The Design Asphalt Content expressed as a percentage of the dry weight of the aggregate.
- The Design Mix Temperature, which shall be the temperature at which the kinematic viscosity of the asphalt cement is 0.17 Pa•s (170 centistokes) or as per the Asphalt Cement supplier's recommendations.
- The recommended compaction temperature.

502.08.05 Review of Asphalt Mix Design - The Ministry Representative will require up to five (5) calendar days from the time of receipt of the asphalt mix design for review. The mix design must be reviewed prior to commencement of pavement construction.

When the Ministry Representative has confirmed in writing that the Contractor's asphalt mix design has been accepted, that asphalt mix design becomes the tentative Job Mix Formula for ignition oven correlation and the start of mix verification.

Upon acceptance of the tentative JMF, the Contractor shall prepare the laboratory equipment calibration samples, submit them to the Ministry Representative, and participate in the calibration and correlation process described in Appendix 3 Blank Aggregate sample Preparation and Appendix 4 Ignition Oven Correlation Procedure.

502.08.06 Ignition Oven Correlation – After receiving acceptance of the tentative JMF, the Contractor shall prepare blank aggregate samples (aggregate-only samples prepared to match the tentative JMF) for correlation of the Contractor, Ministry and appeal laboratory ignition ovens. Blanks shall be prepared in accordance with SS 502 Appendix 3 Blank Aggregate Samples.

The Ministry Representative shall randomly select which of the individual blanks will be used by each party.

Within 3 working days, and prior to any mix production, the Contractor and the Ministry shall prepare and test asphalt mix samples in accordance with SS 502 Appendix 4 Ignition Oven Correlation.

502.08.07 Use of Calibration Factors in Reporting Asphalt Cement Content – Results from testing of any asphalt mix shall report the measured AC Content and the corrected AC Content after applying the applicable laboratory calibration factor.

502.08.08 Verification of Job Mix Formula - Verification of the tentative Job Mix formula will be carried out by the Contractor during the course of production of the first 1,000 tonnes of mix. The Contractor will provide a tentative Job Mix Formula a minimum of five (5) days prior to production of any mix with supporting verification data, which shall include all the information, but not limited to, the requirements of SS 502.08.02, through SS 502.08.04 inclusive.

During the first 1,000 tonnes of plant production, the Contractor may make any adjustments it chooses to the tentative JMF, testing the mix, and refining the tentative JMF to a state that fully complies with Table 502-C-1 and 502-C-2 (or 502-C-3 as applicable).

All mix laid must be tracked by the Contractor, and reported to the Ministry Representative, as to lay-down location and the tentative JMF values in effect at the time that mix was produced, to ensure appropriate values are used in comparing design to sampled properties.

After production of the first 1,000 tonnes, the Contractor shall declare their production JMF to the Ministry Representative, and provide volumetric properties on the final mix produced. Any adjustments to the production JMF shall comply with all requirements of SS 502.

Where the production JMF varies from the tentative JMF by an amount greater than any tolerance specified in Table 502-G, the Contractor shall do a confirmatory mix design and report the results to the Ministry Representative.

502.08.09 AC Content Bump – Upon receipt of a production Job Mix Formula meeting all Contract requirements, the Ministry may direct the Contractor to increase the asphalt cement content by a "bump" of up to 0.3% by weight of dry aggregate in the mix.

502.08.10 Field Adjustment of Job Mix Formula - A field adjustment to the production Job Mix Formula is defined as a change in the asphalt cement content of the mix, aggregate gradation and/or proportioning of various aggregate sizes, within the specified limits as shown in Table 502-D without review and acceptance of a new asphalt mix design.

TABLE 502-D – FIELD ADJUSTMENT OF JOB MIX FORMULA

Job Mix Formula Property	Maximum Field Adjustment
Percentage Passing by Sieve Size:	
• 37.5, 25.0, 19.0, and 16.0 mm	±2.0%
• 12.5 and 9.5 mm	±2.0%
• 4.75 and 2.36 mm	±1.5%
• 1.18 and 0.600 mm	±1.5%
• 0.300 and 0.150 mm	±1.5%
• 0.075 mm	±0.5%
Asphalt Cement content	±0.2%

The proposed field adjustment shall be submitted in writing together with supporting documentation to the Ministry Representative. Within four hours of receipt of the proposed field adjustments, the Ministry Representative will review the field adjustment for conformance with the contract requirements and notify the Contractor whether or not it is acceptable.

The Contractor's field adjustment to the production Job Mix Formula must comply with the Asphalt Mix Design requirements of SS 502.08.02 through SS 502.08.04 inclusive. The Contractor shall provide all supporting verification data.

After the production Job Mix Formula has been established in accordance with SS 502.08.10, no field adjustment to that Job Mix Formula will be permitted without prior written authorization by the Ministry Representative. The Ministry Representative will limit the number of field adjustments to the Job Mix Formula originally derived from the laboratory mix design, to two.

No field adjustment will be acceptable if it results in a change from the Job Mix Formula, for any property, in excess of the maximum adjustment for that property permitted in Table 502-G. All production Mix shall meet either Table 502-C-2 or Table 502-C-3.

PART C – EQUIPMENT AND PLANT

All equipment and plant shall be in good mechanical condition and be capable of performing the Work in accordance with this section.

PART D - CONSTRUCTION

502.20 Minimum Acceptable Construction Practices – Professional standards in accordance with the Contractor's QC Plan and construction industry best practices are a core requirement of the Work. Any construction practice or activity that results in an obvious defect must be corrected by the Contractor. Construction practices shall include but are not be limited to the following:

502.21 Prime Coat and Tack Coat

Applications of Prime and Tack is required and shall be applied unless otherwise directed by the Ministry Representative.

502.21.01 Surface and Weather Conditions – The liquid asphalt for prime coat or tack coat shall be applied when surface and weather conditions are favourable. The application of prime and tack shall meet manufacturer's requirements.

502.21.02 Spray Temperature – The liquid asphalt shall be sprayed within the temperature range specified by the supplier.

502.21.03 Prepared Granular Bases and Old Pavements – All prepared granular bases or old pavements which are to be paved shall be prime coated or tack coated at specified rates.

502.21.04 Application – The spray bars shall produce double coverage at one pass, with uniform spray and even pressure with application rates controlled to within ±25% of the specified application rate.

Spray bar nozzles shall be of the same type and size, set to produce uniformly fan-shaped sprays without atomization.

502.21.05 Spraying Faults – Any spraying faults shall be corrected by the Contractor.

502.21.06 Excess Liquid Asphalt – Excess liquid asphalt remaining unabsorbed shall be blinded with sand or fine aggregate at no expense to the Ministry.

502.21.07 Surface Condition – The surface to be tack coated shall be cleaned of dirt or other foreign material.

502.21.08 Application – Tack coat shall not be applied on sections of roadway longer than will be covered by one day of asphalt plant production.

502.21.09 Traffic – Traffic shall not be permitted on tack coat until it has cured and on prime coat until the primer has been absorbed into the granular surfacing.

Where it is not possible to keep the traffic off the treated surface, the surface shall be blinded with sand or fine aggregate, at no expense to the Ministry, prior to allowing traffic on same.

502.21.10 Curing – Normally prime coats shall be allowed to cure for a minimum of 24 hours prior to the placing of asphalt mix and tack coats shall be allowed to cure to a state that minimizes tracking prior to the placing of asphalt mix.

502.21.11 Maintenance - The Contractor shall, at the Contractor's expense, maintain the prime coat and/or tack coat.

502.22 Adjacent Mats, Joints, Edges, and Let-downs

502.22.01 Longitudinal Joints – Longitudinal joints in the Top Lift of asphalt pavement will only be permitted where lane dividing lines are to be painted. Longitudinal joints in a Lift shall be offset within 150 to 300 mm from joints in the underlying Lift. Joints shall be pinched as soon as practicable, using best compaction practices.

502.22.02 Longitudinal Edge – Any longitudinal edge that has been damaged by traffic or equipment shall be trimmed to provide a vertical abutting face. Vertical surfaces of roadway appurtenances shall be tack coated to the top of the new pavement only.

502.22.03 Contact Edge – The contact edge of abutting cooled asphalt pavement shall be thoroughly painted with a uniform coat of emulsified asphalt.

502.22.04 Paving Adjoining Mats – When paving an adjoining parallel mat there shall be at least a 50 mm overlap onto the previously paved surface. This overlap shall be properly constructed to form a homogeneous bond between the two mats.

502.22.05 Disposal of Raking Material – Any raked material from the joint shall not be placed on the new mat or placed in or in front of the paver. The Contractor shall dispose of the material in a manner acceptable to the environmental agencies and the Ministry Representative.

502.22.06 Discontinued Paving – When paving is discontinued in any lane on a traffic bearing roadway, the asphalt pavement shall be tapered down at a minimum slope of 25:1. When paving resumes this letdown shall be cut back so as to form a vertical face that matches the required depth being paved. Material removed from the taper shall be disposed of in a manner acceptable to the environmental agencies and the Ministry Representative.

502.23 Stockpiling Aggregates

502.23.01 Stockpile Construction – Stockpiles shall be constructed as specified in SS 202.21.

502.23.02 Stockpiles for Different Materials – Stockpiles of different types of material shall be located and constructed in such a manner as to prevent intermingling of the types and to prevent segregation.

502.23.03 Stockpile Requirements Prior to Mix Production – Before plant mixing commences, the Contractor shall have in stockpile a minimum of 20,000 tonnes of asphalt mix aggregate or 50% of the total quantity of asphalt aggregate required for the mix, whichever quantity is greater. These quantities shall be maintained throughout the crushing period. These requirements may be waived by the Ministry Representative in circumstances where such stockpiles cannot be accommodated, such as where materials are being barged in or are being hauled to the plant from a remote site.

502.24 Mix Production

502.24.01 Mixing Temperature – The temperature of the asphalt mix measured at the plant discharge chute shall be maintained at ±15°C of the Design Mixing Temperature designated in the accepted Mix Design, with adjustments within that range made at the Contractor's discretion. Where the Contractor plans to adjust the actual mix temperature to 10°C or more above the Design Mixing Temperature, the Contractor shall notify the Ministry Representative prior to making the adjustment. To optimize mix properties during inclement weather or to address other specific circumstances, the Ministry Representative may agree, in advance, to a higher mixing temperature.

Any mix produced at a temperature above the upper tolerance limit may be deemed Reject Mix by the Ministry Representative.

502.24.02 Residual Moisture Content – The residual moisture content of the asphalt mix prior to compaction shall not exceed 1% by mass. Should foaming or bubbling persist, even below the allowed percentage of moisture, the Contractor shall modify operations accordingly.

502.25 Placing the Asphalt Mix

502.25.01 Surface Condition – Asphalt mix shall only be placed on clean dry surfaces free from all foreign materials, and when weather and conditions are suitable. Normally, asphalt mix is only placed when the ambient air temperature is 5°C and rising and for Top Lift when the average surface temperature is also above 5°C.

502.25.02 Asphalt Levelling Course Requirements – Asphalt Levelling Course shall be placed in one or more Lifts, with a maximum thickness of 75 mm per Lift. The amount of Levelling Course placed shall not exceed the quantity listed in Schedule 7 unless otherwise authorized in writing in advance by the Ministry Representative.

All asphalt mix shall be paver laid, unless otherwise authorized by the Ministry Representative.

Any mix laid prior to the establishment of the production Job Mix Formula (per SS 502.08.10) shall normally be placed in a location where performance of the mix is of lower concern, typically as level course, on a low volume side road, and/or in Bottom Lift. The location proposed by the Contractor shall be subject to the authorization of the Ministry Representative.

502.25.03 Lay-Down Operation – Asphalt mix should be delivered to the paver at a constant rate sufficient to allow continuous placement.

502.25.04 Traffic Control Person – A traffic control person shall be provided at each paver during asphalt mix lay-down operations. This individual's sole duty during asphalt mix lay-down operations shall be to ensure safe conditions.

502.25.05 Persons in the Vicinity of the Paver – When in the vicinity of an operating paver and in front of the screed, workers and inspectors shall stand in full view of the paver operator, clear of side arms, wings, and screed, and never directly in front of the machine hopper.

502.25.06 Vibrating Tampers and Hand Rollers – Along curbs, manholes, headers and similar structures which are not accessible to rollers, thorough compaction shall be obtained, by use of vibrating tampers and hand rollers or other suitable methods.

502.25.07 Traffic – Traffic will not be permitted on the finished pavement until it has cooled to such a temperature as to ensure that no deformation or flushing of the surface will occur.

502.25.08 Release Agents – Lubrication of the truck boxes, pavers, rollers or other equipment in contact with asphalt mix with diesel fuel will not be permitted. A list of potential alternative products evaluated by industry is available on the BC Safety network web page, "Resources"- "Diesel Alternative Committee": http://www.safetynetwork.bc.ca/resources/dieselalt.pdf

502.25.09 Ponding
Areas of ponding will be noted as an obvious defect and remedial works will be required.

502.26 Shoulder Build-up – Shoulder build-up is typically required where an existing roadway is being overlaid with wider shoulders. It involves construction of base course aggregate (adjacent to a Lift of pavement) which will be overlaid by one or more Lifts of asphalt. Shoulder build-up shall be constructed:

a) in accordance with the SS 202.26;

b) to the lines and grades indicated in the Contract, generally to a finished compacted level that matches level and grade of the adjacent asphalt level, and

c) with cross-fall that matches that of the finished asphalt surface above the shoulder build-up area.

502.27 Shouldering

502.27.01 Shouldering Aggregate – Shouldering aggregate shall be 25 mm Well Graded Base (WGB), in accordance with SS 202, unless otherwise specified in the Special Provisions or authorized by the Ministry Representative.

502.27.03 Lines and Grades – The finished surface of the granular shoulder shall be true to grade and cross section, and be free from ruts, segregation or other irregularities.

502.27.04 Aggregate Segregation – All granular shoulder materials shall be handled in such a manner that segregation does not occur.

502.27.05 Moisture Adjustment – If necessary for compacting, the moisture content of the shoulder aggregate shall be adjusted either through drying or

applying water.

502.27.06 Compaction – Shoulders shall be thoroughly compacted to a state that will not rut more than 5 mm under a pick-up truck steering axle wheel load.

Where the base under the shoulder has been constructed as part of the Work, the degree of compaction of the granular shoulder measured in accordance with ASTM D 2922 shall be greater than 98% of the maximum dry density determined in accordance with ASTM D 698.

502.27.07 Adjacent Pavement Damage – If the adjacent asphalt pavement is damaged during the shouldering operation, the damage shall be repaired to the satisfaction of the Ministry Representative, at no expense to the Ministry.

502.27.08 Interim Shouldering – For safety reasons, when a roadway with gravel shoulders is used by the travelling public, an intermediate layer of shouldering aggregate shall be placed following final rolling of levelling course or multiple Lifts of asphalt pavement thicker than 50 mm, in advance of the main shouldering operation.

Should the Work extend past the Completion Date and be carried over to the next paving season suitable interim drainage control measures shall be put in place, all at no cost to the Ministry.

PART E – PAYMENT

502.30 General – Payment at the Unit Prices for the supply of primer/tack coat materials, the application of the spray primer/tack coat, the supply of paving aggregates into stockpile, the construction of asphalt pavement including the supply of asphalt cement, and for shouldering shall be full compensation for completing the supply and installation of asphalt pavement and shouldering on prepared surfaces in accordance with the contract requirements. Applicable payment adjustments (Additions or subtractions as applicable) shall be applied in accordance with Part F of this Section.

Compensation for Quality Control shall be at the price bid for Quality Control or, in the absence of such a bid Item in Schedule 7 – Approximate Quantities and Unit Prices, incidental to the Work.

502.31 Acceptance at Adjusted Payment – Acceptance of any Lot at adjusted payment will occur if it complies with the requirements of the QC Plan and Parts C and D of this Section, contains no obvious defects as per SS 502.32, and if:

- the test results for EPS acceptance parameters (density, gradation, asphalt content, smoothness, segregation, and application rate) are such that the Lot meets the requirements for acceptance at a reduced payment;
- the Lot is acceptable in respect of all other requirements; and
- the Contractor has not notified the Ministry Representative in writing that it will exercise its option to either repair or remove and replace the work, at its own cost, with work meeting the requirements for acceptance at full or increased payment.

502.32 Rejection For Workmanship Defects – Work may be rejected if it does not comply with the requirements of the QC Plan and Part D of this Section.

Additionally, the finished surface of any Asphalt Pavement Lift shall have a uniform texture and be free of visible signs of poor workmanship. Any obvious defects as determined by the Ministry Representative such as, but not limited to the following, may be cause for automatic rejection of asphalt pavement regardless of the values of any other acceptance parameter:

- individual bumps and dips that exceed 12 mm over 3 m;
- areas of excess or insufficient asphalt;
- improper matching of longitudinal and transverse joints;
- roller marks or roller pick-ups;
- excess tracking of prime or tack coat;
- areas contaminated by fuel oil or other deleterious materials;
- tire marks; or
- cracking or tearing.

When asphalt pavement is rejected by reason of obvious defects, the minimum area of rejection will be the actual length of the defect for the full width of the driving lane in which the defect exists.

Rejected work shall be promptly repaired, remedied, overlaid, or removed and replaced in a manner acceptable to the Ministry Representative. The Contractor shall be responsible for all costs including materials.

No payment will be made for work in any Lot or Sub-

Lot, which has been rejected, until the defects have been remedied.

502.33 Partial Payment for Rejected Work – In the Ministry Representative's sole discretion and without setting precedence, where any Work is reject but the Ministry Representative determines that it may be left in place, the Ministry Representative may authorize partial payment to the Contractor as full compensation for any residual value the Work may have. Notwithstanding the foregoing, the Ministry is under no obligation to make any payment for such Work.

502.34 Primer and Tack Coat

502.34.01 Supply of Primer and Tack Coat – Payment to Supply Primer and Tack Coat shall be at the Unit Price per litre for the quantity of material actually sprayed onto the roadway measured prior to any additional diluting by the Contractor where applicable. The measured quantity shall not be greater than the total of the bills of lading.

Such payment shall be full compensation for supplying, handling, storing, sampling and testing of the material and all other related work.

502.34.02 Application of Primer and Tack Coat – Payment for the application of Primer and Tack Coat will be at the Unit Price per litre of primer actually sprayed onto the roadway. In the case of an emulsion the payment quantity shall include any water added by the Contractor with the authorization of the Ministry Representative.

Such payment shall be full compensation for diluting the material when required and spraying it on the surfaces to be paved, and for all incidental costs arising from priming and tack coating.

502.35 Paving Aggregate into Stockpile – Payment for Paving Aggregate into Stockpile shall be at the Unit Price per tonne for the quantity of paving aggregate placed into stockpile accordance with the following.

As the aggregate is crushed into stockpile, progress payments will be made against the bid item, up to the quantity shown in the "Approximate Quantity" column of the Schedule of Approximate Quantities and Unit Prices.

The final payment quantity for paving aggregate quantity will be equal to the corresponding asphalt mix quantity actually laid, without any adjustment for AC or moisture content. As a result, the final quantities and payments may vary from those used in prior progress payments; down if the mix quantity underruns and up if it overruns.

Such payment shall be full compensation for all work including but not limited to the production, supply and stockpiling of all paving aggregates.

502.36 Asphalt Pavement – Payment for Asphalt Pavement constructed in place shall be at the Unit Price per tonne for the quantity of mix placed in accordance with the Contract requirements.

Subject to the exception noted below, only acceptable asphalt pavement will be included in the payment quantity.

Where overlays are used as a corrective measure, in accordance with SS 502.58:

- the overlay quantity will not be included in the payment quantity; but
- the quantity of asphalt pavement covered by the overlay will be included in the payment quantity, whether or not it was acceptable.

Such payment shall be compensation in full for all work including but not limited to: loading the aggregate into the feeders; drying the aggregate; supplying, metering, and adding the asphalt cement; mixing, loading, weighing, hauling, dumping, spreading, compacting and finishing the asphalt pavement.

502.37 Asphalt Mix Antistrip Additives

502.37.01 Where Specified in the Special Provisions – Where the Special Provisions direct the addition of an antistrip additive, all costs associated with supplying, storing, and blending the additive into the asphalt mixes shall be incidental to the prices bid for the varying classes of asphalt mix.

502.37.02 Where Not Specified in the Special Provisions – Where the Special Provisions do not direct the addition of an antistrip additive but the need was identified in accordance with SS 502.08.03, compensation for supplying, storing and blending the additive into the asphalt mixes shall be made at a negotiated price or on a Force Account Basis and any authorized payments will be made from the Provisional Sum for Site Modifications.

Part 2 of 3 Page 169
TRA-2011-00229

502.38 Asphalt Cement "Bump" – The Contractor will be compensated for additional oil ordered by the Ministry Representative in accordance with SS 502.08.09 at the AC cost FOB the asphalt plant, demonstrated by the AC supplier's invoice, with mark-up on a Force Account Basis for the material only.

Payment will be calculated in accordance with the formula below, on a Lot-by-Lot basis based on the difference in asphalt cement content determined from Ministry Quality Assurance (QA) samples and that in the Contractor's production Job Mix Formula, to a maximum of the bump and a minimum of the Contractor's proposed Job Mix Formula AC content. No compensation will be made for additional AC in any rejected mix.

$$\$_{Lot\,n} = 110\% \times Cost_{AC} \times t_{Lot\,n} \times \left[\left(\frac{AC_{Burn}}{100 + AC_{Burn}}\right) - \left(\frac{AC_{JMF}}{100 + AC_{JMF}}\right)\right]$$

Where:

$\$_{Lot\,n}$ = Compensation due for additional AC in Lot "n"

$Cost_{AC}$ = Supplier's invoiced cost for AC, dollars per tonne

$t_{Lot\,n}$ = tonnes of asphalt mix laid and accepted in Lot "n", including AC

AC_{Burn} = asphalt cement content (% dry mix) of Lot determined from Ministry QA samples, to a maximum of the bumped AC content and a minimum of AC_{JMF}

AC_{JMF} = asphalt cement content (% dry mix) of Contractor's production Job Mix Formula before the bump

502.39 Payment for Rejected Work Made Acceptable – When defects have been remedied in Lots or Sub-Lots which had been rejected, payment for the original quantity of material in those Lots or Sub-Lots will be made subject to payment adjustments and penalty assessments and subject to SS 502.58.

No payment will be made for any material used to replace, repair or overlay rejected work and all corrective work shall be performed entirely at the Contractor's expense.

502.40 Shouldering – Payment for Shouldering will be at the Unit Price bid per tonne or cubic metre (to the neat lines), whichever is specified in the Schedule of Approximate Quantities and Unit Prices. The price bid shall be full compensation for supplying, hauling, placing, moisture adjustment, and compaction of the aggregate to the required grades and crossfall.

502.41 Surplus Aggregate

502.41.01 Surplus Aggregate in Private Pits – At the discretion of the Ministry Representative, the Ministry may or may not purchase surplus aggregate in stockpile in a private pit. Generally the Ministry will provide payment for the processing costs of surplus aggregate in stockpile in Ministry Pits only, and only to a limited quantity. However, should the Contractor produce surplus aggregate in a private pit, and the Ministry intends to purchase these surplus aggregates, the Contractor shall be required to provide a written agreement with the owner of the property. This document shall indicate that the Ministry will have free access to and use of the surplus aggregate in stockpile for a period of 12 months after the completion of the contract work. If the Contractor undertakes private work from within the private pit, measurements for surplus aggregate in stockpile will not be taken until the completion of the private work, ensuring that the Ministry does not pay for aggregate used on private works. All surplus aggregate shall be properly stockpiled.

502.41.02 Ministry Purchase of Surplus Aggregate - Should the Ministry proceed with the purchase of surplus aggregate, upon completion of the contract, the Ministry will purchase surplus paving mix aggregate as indicated herein. Surplus shouldering, surfacing, base and sub-base aggregates will be paid in accordance with SS 202.

If the quantity of Asphalt Pavement actually incorporated into the works is less than the estimated quantity, as stated in the Schedule of Approximate Quantities and Unit Prices, the Ministry will purchase aggregate up to 100% of the quantity required by the contract, to be paid under the appropriate Unit Price Item for Aggregate in Stockpile. The surplus aggregate must, when singly or combined, meet the gradation requirements set out in the Job Mix Formula.

The portion of material remaining in a stockpile eligible for compensation as surplus aggregate shall the lesser of:

a) the quantity of mix as stated in the Schedule of Approximate Quantities and Unit Prices minus the quantity of aggregate actually incorporated in the works, and

b) the volume of the remaining stockpile as determined under SS 502.41.03

No payment shall be made for any surplus paving aggregate remaining at contract completion in excess of the contract requirement. Material remaining in a Ministry pit is the property of the Ministry.

502.41.03 Measurement of Surplus Aggregate - The Ministry will determine the volume of aggregate by surveying the stockpile(s) using string-line techniques, and determine volume using prismoidal volumes between surfaces. Alternatively, the Ministry Representative may elect to survey using cross-section techniques and/or determine volumes using end-area volumes.

The base of the pile will be determined from a pre-stockpile survey or, where such a survey is not available, from a surface determined by the Ministry Representative as being a reasonable interpolation from the intersection of the pile sides with the adjacent ground level. Where there are two or more stockpiles of aggregate meeting the same gradation classification, the compensation will be based on the cumulative quantity of those stockpiles.

Where necessary, stockpile volume shall be converted to mass using the conversion factor of 2.0 tonnes per cubic metre.

PART F – PAYMENT ADJUSTMENTS

502.50 Payment Adjustment – Payment adjustments resulting from the application of this Section will be effected on each progress payment as follows.

502.50.01 Density, Asphalt Content, and Gradation – For each Lot paid for by the tonne (t), the applicable payment adjustment derived from Tables 502-E-1 or Table 502-E-2 (Density), 502-F (Asphalt Content), and 502-G (Gradation), in dollars per tonne, will be expressed as positive in the case of increases and negative in the case of decreases.

The algebraic sum of these unit adjustments will then be applied to the payment quantity for the Lot. The resulting amount, in dollars, will be the net payment adjustment, positive or negative, for that Lot.

502.50.02 Application Rate – Payment Adjustments from Table 502-H (Application Rate) shall be computed for the Lot.

The algebraic sum of the net payment adjustments for all such Lots for which payment is authorized on the current progress payment, computed in dollars, shall be the total payment adjustment for density, asphalt content, aggregate gradation, and material application rate for the current progress payment.

502.50.03 Segregation and Smoothness – For each Lot with payment adjustments based on kilometer (km), the applicable unit adjustment derived from Table 502-I-2 (Segregation) and Table 502-J (Smoothness), in dollars per Lot ($/lane km), will be expressed as positive in the case of increases and negative in the case of decreases, and will be the payment adjustment, positive or negative, for that Lot.

The algebraic sum of the payment adjustments for all such Lots for which payment is authorized on the current progress payment, computed in dollars, shall be the total payment adjustment for segregation for the current progress payment.

502.50.04 Total Payment Adjustment – The algebraic sum of the total payment adjustments for density, asphalt content, aggregate gradation, material application rate, segregation and smoothness, derived in accordance with SS 502.50.01 through SS 502.50.03 above, shall be the total payment adjustment, positive or negative, in dollars, for all attributes for the current progress payment.

The total payment adjustment will be made by a single entry in computing the current progress payment.

502.50.05 Progress Payments – The process set out in SS 502.50.01 through SS 502.50.04 above will be used in computing each progress payment to which it is applicable.

502.51 Initial 1,000 tonnes of Mix

For the first 1,000 tonnes of asphalt mix produced under a Contract, the following provisions take precedence over all other payment and payment adjustment provisions of SS 502.52 through SS 502.57 inclusive, but do not take precedence over the rejection criteria.

502.51.01 Payment Adjustments – Unless requested otherwise by the Contractor in writing in advance of mix production, the first 1,000 tonnes of asphalt mix production and placement shall not be subject to the bonus/penalty payment adjustments for AC content, density and gradation. Payment adjustments will apply to smoothness, segregation and application rate if the mix is applied in a Top Lift location.

502.51.02 Acceptance Limits – Contrary to any other provision of SS 502, any mix produced during the initial 1,000 tonnes will only be considered acceptable if:

a) the tentative JMF has been accepted by the Ministry Representative in accordance with SS 502.08.05;

b) aggregate gradation per SS 502.08.02 is within the gradation limits specified in Table 502-C-1 or the banana formed by applying the Table 502-G column 3 variation limits to the JMF gradation;

c) all other properties fall inside the allowable limits specified, in SS 502 and the Special Provisions, for the mix, including

- For Marshall mixes, Table 502-C-2,
- For Superpave mixes, Table 502-C-3; and

d) AC content of the sample is within ±0.5% of the design value design value for top lift and is within ±0.55% of the design value for the bottom lift.

All values are measured against the tentative JMF value at the time the sampled mix was produced.

Any mix with any characteristic outside the above limits is Reject Mix.

Additionally, rejection limits for smoothness, segregation, density and application rate shall apply in accordance with SS 502 and the Special Provisions.

TABLE 502-A-4 – TEST SAMPLE SOURCE LOCATIONS

Test	Sample Source:
Density	100 mm dia. road cores; 150 mm dia. road cores for Superpave
AC Content	Loose Mix Samples
Smoothness	Centre of the Lane
Aggregate Gradation	Loose Mix Samples
Segregation	Roadway Pavement

502.52 Density

502.52.01 Lot – A Lot for density shall be one day's scheduled production of at least 7 hours plant production where no changes have occurred to criteria such as but not limited to:

- accepted Job Mix Formula,
- the specific Lift that is being placed,
- the required material application rate.

A change in any above criteria may require a new Lot designation.

Where one day's production is less than 7 hours, the material will be added to the next Lot that has the same criteria, as described above, except that if a test indicates that this production is subject to a payment adjustment or to rejection, or if no further material will be produced with the same criteria, this production will be designated as a separate Lot.

A Lot shall be no more than two days total production even if the above criteria have not changed or been met.

502.52.02 Sub-Lot – For density, a Lot shall be divided into three equal Sub-Lots, defined by lineal metres of production.

502.52.03 Coring – The Contractor shall be responsible for providing all core samples for quality assurance and payment adjustment purposes. The randomly selected locations for the cores shall be supplied by the Ministry Representative to the Contractor. The Contractor shall provide 100 mm diameter cores for these purposes. For projects utilizing a Superpave product, 150 mm diameter cores shall be required. The Contractor shall prepare the cores prior to the submission by removing all material not representative of the pavement Lift to be tested. The Contractor shall deliver these cores to the Ministry Representative on site, within 24 hours of being provided the locations for the coring.

The Contractor shall fill all core holes before the roadway is re-opened to traffic. Core holes shall be filled by the following method:

(a) Empty the hole of water and loose material.

(b) Remove any excess moisture by wiping the inside with a dry towel.

(c) Tack coat the inside surfaces and the outside perimeter with an emulsified asphalt.

(d) Place asphalt mix in loosely, so that the compacted Lifts do not exceed 75 mm.

(e) With a minimum of 20 blows per Lift, compact the loose material using a minimum 2 kg sledge hammer and tamper.

(f) For additional Lifts repeat Steps (a) to (e).

(g) The final Lift shall be a minimum thickness of 25 mm, and finished to a level higher but not

exceeding 6 mm, than the elevation of the surrounding pavement.

The Contractor may use an alternative method if acceptable to the Ministry Representative.

All costs associated with the obtaining the cores, including the filling and compaction of the core holes are considered incidental to the contract and are the responsibility of the Contractor.

502.52.04 Percent Density – The average in-place density will be determined from core samples of the completed Lift of pavement.

One random core sample will be obtained from each Sub-Lot and the test results for the three Sub-Lots will be averaged to determine the percent density for the Lot.

a) Marshall Mixes – For the determination of Marshall Briquette Density, the Contractor shall obtain the samples as outlined in SS 502 Appendix 2 for each Sub-lot. All costs associated with sampling, shall be the Contractor's responsibility.

From each Sub-lot sample, the Contractor will form three briquettes as per the procedure identified in Table 502-A and tested, and the ASTM D 2726 test results will be averaged to obtain the test value for that sample.

The Marshall Briquette Density for a Lot is the average of the test results from the three Sub-lots. The Marshall Briquette Density value for the Lot shall be provided to the Ministry Representative prior to the provision of the coring locations to the Contractor.

$$\text{Marshall Percent Density} = \left(\frac{\text{In-place Density of Sample}}{\text{Marshall Briquette Density}}\right) \times 100$$

At the discretion of the Ministry Representative, the Ministry may at any time, perform and use the Ministry results in accordance with procedures as outlined above, to obtain the value for Marshall Briquette Density which will replace the values achieved under the Quality Control Testing.

Should the initial test results in any Sub-Lot be lower than 97.0%, one additional core will be taken and tested, and that result shall replace and be averaged with the initial result to determine the percent density for the Sub-Lot.

In addition, the Contractor shall determine the individual Maximum Theoretical Densities (MTD) per ASTM D 2041 for each of the Sub-Lot samples and average the results of them to obtain the Lot MTD. The Contractor shall report the Lot MTD to the Ministry Representative prior to the provision of the coring locations to the Contractor.

b) Superpave Mixes – The Contractor shall determine the individual Maximum Theoretical Densities (MTD) per ASTM D 2041 for each of the Sub-Lot samples and average the results of them to obtain the Lot MTD. The Contractor shall report the Lot MTD to the Ministry Representative prior to the provision of the coring locations to the Contractor.

At the discretion of the Ministry Representative, the Ministry may at any time use the same procedures to obtain the values for Maximum Theoretical Density which will replace the values determined by the Contractor.

The average in-place density will be determined from 150 mm diameter core samples of the completed Lift of pavement.

$$\text{Superpave Percent Density} = \left(\frac{\text{In-place Density of Sample}}{\text{Lot MTD (ASTM D 2041)}}\right) \times 100$$

The Maximum Theoretical Density for a Lot is the value calculated defined as the average of the test results from the three Sub-Lots. The Maximum Theoretical Density value for the Lot shall be provided to the Ministry Representative prior to the provision of the coring locations to the Contractor.

Should the initial test results in any Sub-Lot be lower than 92.0%, one additional core will be taken and tested, and that result shall replace and be averaged with the initial result to determine the percent density for the Sub-Lot.

502.52.05 Payment Adjustments – The payment adjustment for percent density will be the amount shown in Table 502-E-1 and 502-E-2 for the Sample Mean of the test results for the Lot.

502.52.06 Rejection Limit – The rejection limit for percent density is the limiting value of the Sample Mean as shown in Table 502-E-1 and 502-E-2. If any Sub-Lot has a value within the reject zone, the Sub-Lot is rejected and not paid for.

Acceptance or rejection will be determined for each Sub-Lot. One opportunity will be provided to the Contractor, using non-destructive test methods, to isolate the area of low density and conduct additional

compaction providing no damage is incurred to the new pavement. The Contractor shall mark out the extents of the area identified using chalk or other temporary marking acceptable to the Ministry Representative. One additional core will be taken randomly in the area of low density and will replace the core with previous low density and a new value will be calculated. The Ministry Representative shall be advised as to the scheduling of the re-compaction effort prior to the work taking place.

Where any Marshall mix core density is less than 96% (91% for Superpave mixes), the Contractor shall either overlay or remove and replace the previously placed area of reject mix. If the test result for density of a Sub-Lot is outside the acceptance limits, the Sub-Lot is rejected automatically regardless of the values of other acceptance parameters. To minimize the cost of rejection to the Contractor, the Contractor will be provided the opportunity to isolate the area of low density within the Sub-lot. The limits of the low density area must be verified and accepted by the Ministry Representative before remedial work proceeds.

502.52.06 Payment Adjustment for Density Rejected Work Made Acceptable – The payment adjustment for density will be based on testing of the replacement or overlay material where applicable. Where replacement or overlay material does not cover the entire Lot or Sub-Lot, prior tests of the uncovered area will be averaged with new tests on the corrective work.

TABLE 502-E-1 – PAYMENT ADJUSTMENTS FOR DENSITY – MARSHALL

Marshall % Density Lot Average	Payment Adjustment ($ per tonne)
≥ 98.5	+$1.00
≥ 98.0 to < 98.5	+$0.75
≥ 97.5 to <98.0	+$0.50
≥ 97.0 to <97.5	+$0.25
≥ 96.5 to <97.0	-$0.50
≥ 96.0 to <96.5	-$1.00
<96.0	REJECT

TABLE 502-E-2 – PAYMENT ADJUSTMENTS FOR DENSITY - SUPERPAVE

SUPERPAVE % Density Lot Average	Payment Adjustment ($ per tonne)
≥ 95.0	+$1.00
≥ 94.0 to <95.0	+$0.75
≥ 93.0 to <94.0	+$0.50
≥ 92.0 to <93.0	+$0.25
≥ 91.6 to <92.0	-$0.50
≥ 91.0 to <91.6	-$1.00
<91.0	REJECT

502.53 Asphalt Content

502.53.01 Lot – A Lot for AC content shall be one day's scheduled production of at least 7 hours plant production where no changes have occurred to criteria such as but not limited to:

- accepted Job Mix Formula,
- the specific Lift that is being placed,
- the required material application rate.

A change in any above criteria may require a new Lot designation.

Where one day's production is less than 7 hours the material will be added to the next Lot that has the same criteria, as described above, except that if a test indicates that this production is subject to a payment adjustment or to rejection, or if no further material will be produced with the same criteria, this production will be designated as a separate Lot.

A Lot shall be no more than two days total production even if the above criteria have not changed or been met.

502.53.02 Sub-Lot – For AC content, a Lot shall be divided into three equal Sub-Lots, defined by lineal metres of production.

502.53.03 Determination of Asphalt Content – The asphalt content of the asphalt mix will be determined from loose mix samples obtained from each Sub-Lot (3 per Lot) and tested in accordance with ASTM D 6307 test procedures listed in Table 502-A.

One random sample will be obtained from each Sub-lot as per SS 502 Appendix 2. The asphalt content of the asphalt mix will be determined using the average of the results obtained from all of the Sub-lot samples. The Actual Asphalt Content of the Lot will be compared to the Job Mix Formula Asphalt Content and the

deviation will be used for payment adjustment purposes.

The ignition oven calibration factor will be applied to the AC Content measured by the ignition oven, and the corrected AC Content used to determine acceptability of the mix and any payment adjustments.

502.53.04 Payment Adjustments – The payment adjustment for asphalt content will be the amount shown in Table 502-F, where deviation in AC Content is determined by the percent difference, based on kg of AC per 100 kg of dry aggregate, between the JMF AC content and the actual AC Content.

502.53.05 Rejection Limit – Rejection limits for asphalt content are the limiting values of the Sample Mean as shown in Table 502-F, beyond which the Lot is rejected and not paid for.

If the asphalt content of a Lot is within the reject zone, the Lot is rejected automatically regardless of the values of other acceptance parameters.

For Top Lift deviations of more than 0.50% the Contractor shall either overlay or remove and replace the Lot.

TABLE 502-F – PAYMENT ADJUSTMENTS FOR DEVIATION OF ASPHALT CONTENT (AC)

Differences of Actual AC Content From Designed AC Content Specified in JMF (AC in %)		
Actual AC Content	Payment Adjustment $ per tonne	
(%) Greater than Specified in JMF	Top Lift	Lower Lifts
≥ 0.00 to ≤ 0.15	$1.00	$1.00
> 0.15 to ≤ 0.30	$0.50	$0.50
> 0.30 to ≤ 0.35	$0.00	$0.00
> 0.35 to ≤ 0.40	-$2.00	-$2.00
> 0.40 to ≤ 0.45	-$3.50	-$3.50
> 0.45 to ≤ 0.50	-$5.00	-$5.00
> 0.50 to ≤ 0.55	REJECT	-$6.50
> 0.55	REJECT	REJECT
(%) Less than Specified in JMF	Top Lift	Lower Lifts
> 0.00 to ≤ 0.15	+$0.50	+$0.50
> 0.15 to ≤ 0.30	$0.00	$0.00
> 0.30 to ≤ 0.35	-$2.00	-$2.00
> 0.35 to ≤ 0.40	-$3.50	-$3.50
> 0.40 to ≤ 0.45	-$5.00	-$5.00
> 0.45 to ≤ 0.50	-$6.50	-$6.50
> 0.50 to ≤ 0.55	REJECT	-$8.00
> 0.55	REJECT	REJECT

For lower Lift deviations of more than 0.55%, no payment will be made and the Ministry Representative will determine whether removal and replacement is necessary.

502.53.06 Payment Adjustment for Asphalt Cement Content Rejected Work Made Acceptable – The payment adjustment for Asphalt Content will be based on testing of the replacement or overlay material where applicable. Where replacement or overlay material does not cover the entire Lot or Sub-Lot, prior tests of the uncovered area will be averaged with new tests on the corrective work.

502.54 Aggregate Gradation

502.54.01 Lot – A Lot for aggregate gradation shall be one day's scheduled production of at least 7 hours plant production where no changes have occurred to criteria such as but not limited to:

- accepted Job Mix Formula,
- the specific Lift that is being placed,
- the required material application rate.

A change in any above criteria may require a new Lot designation.

Where one day's production is less than 7 hours the material will be added to the next Lot that has the same criteria, as described above, except that if a test indicates that this production is subject to a payment adjustment or to rejection, or if no further material will be produced with the same criteria, this production will be designated as a separate Lot.

A Lot shall be no more than two days total production even if the above criteria have not changed or been met.

502.54.02 Sub-Lot – For aggregate gradation, a Lot shall be divided into three equal Sub-Lots, defined by lineal metres of production.

502.54.03 Determination of Aggregate Gradation – Table 502-C-1, Aggregate Gradation Limits, specifies the aggregate gradation limits which asphalt mix design, Job Mix Formulas, and field adjustments made in accordance with SS 502.08.10 must be based.

Table 502-G shows the limiting values for acceptance and for the determination of payment adjustments. These limits are expressed as departures, on each specified sieve size, from the percentage of material passing that sieve according to the Job Mix Formula. Aggregate gradation will be determined for each Lot

from loose mix samples of the completed Lift of pavement. One random sample will be obtained from each Sub-lot, and the aggregate gradation for the Lot will be determined by using the average of the 3 Sub-Lot tests to determine the Sample Mean.

Although the JMF design gradation must at all times be maintained within the limits specified in the Aggregate Table 502-C-1, the gradation of the mix may vary outside those limits, subject to SS 502.54.05.

502.54.04 Payment Adjustments – Where the Sample Mean for every specified sieve size falls within the limiting values prescribed in a particular column of Table 502-G, the Lot will be accepted with a payment adjustment as indicated at the bottom of that column.

TABLE 502-G –PAYMENT ADJUSTMENTS FOR AGGREGATE GRADATION

Sieve Size mm	Divergence from JMF grading curve Percentage passing by mass (ASTM C 117 and C 136)		
	Column 1	Column 2	Column 3
12.5	±3.5	±4.5	±7.0
4.75	±3.0	±4.5	±6.0
0.600	±2.0	±3.5	±4.0
0.075	±0.75	±1.0	±1.5
Payment Adjustment	**+$0.75**	**$0.00**	**-$1.50**

502.54.05 Rejection Limit – Where one or more values of the Sample Mean for the specified sieves falls outside the limiting value specified in Table 502, Column 3, the Lot is reject and the Contractor shall either overlay or, remove and replace the previously placed mix. The Lot will be assessed to determine whether it may remain in place, with payment made in accordance with SS 502.33.

502.55 Material Application Rate

502.55.01 Lot – A Lot for material application rate shall be one day's scheduled production of at least 7 hours plant production where no changes have occurred to criteria such as but not limited to:

- the specific Lift that is being placed,
- the required material application rate.

A change in any above criteria may require a new Lot designation.

One day's production of less than 7 hours will be dealt with as follows:

- the material will be added to the next Lot that has the same criteria, as described above, except that if a test indicates that this production is subject to a payment adjustment or to rejection, or if no further material will be produced with the same criteria, this production will be designated as a separate Lot,

A Lot shall be no more than two days total production even if the above criteria have not changed or been met.

502.55.02 Sub-Lot – Sub-Lots are not used for material application rate.

502.55.03 Determination of Material Application Rate – Asphalt mix shall be applied to the roadway at the rate or rates specified in the Special Provisions, on the Drawings or as otherwise directed by the Ministry Representative. Material Application Rates will be determined by the tonnage delivered to the paver as recorded by weigh tickets generated by automated scales, divided by the area covered by the Lot after allowance has been made for entrance letdowns and/or intersections. The Contractor shall provide the material application rate calculations to the Ministry Representative at the end of each shift.

502.55.04 Payment Adjustments – The payment adjustment for material application rate will be applied as shown in Table 502-H, based on the actual material application rate, expressed as a percentage of the specified material application rate.

502.55.05 Rejection Limits – Where actual application rate for the Lot is within the reject zone as shown in Table 502-H, the Lot is reject.

A Lot rejected for application rate may be corrected by mill-and-fill or rejected with no remedial work required, either subject to the authorization of the Ministry Representative.

TABLE 502-H – PAYMENT ADJUSTMENTS FOR MATERIAL APPLICATION RATE

Actual Application Rate (Percent of specified rate)	Payment Adjustment $ per tonne of material in the Lot (unless otherwise noted)	
	Bottom Lift or Single Lift	Top Lift of Multiple Lifts
≥ 110	-$6.00 for all material in the Lot up to 110% and no payment for product in excess of 110.0%	-$6.00 for all material in the Lot up to 106% and no payment for product in excess of 106.0%
≥ 106.0 to <110.0	-$4.00	
≥ 105.0 to <106.0		-$4.00
≥ 104.0 to <105.0	$0.00	-$2.00
≥ 96.0 to <104.0	+$0.50	+$0.50
≥ 94.0 to <96.0	-$1.00	-$1.00
≥ 92.0 to <94.0	-$2.00	-$2.00
≥ 90.0 to <92.0	-$3.00	-$3.00
≥ 85.0 to <90.0	-$5.00	-$5.00
<85.0	REJECT	REJECT

502.56 Surface Segregation

502.56.01 Lot – A Lot shall be one kilometre length of Top Lift pavement for each driving lane.

502.56.02 Sub-Lot – Sub-Lots are not used for segregation.

502.56.03 Determination of Surface Segregation – The finished pavement shall be homogeneous, free from segregation and shall be uniform with respect to surface texture. A segregated area is defined as an area within the driving lanes of the pavement wherein the texture differs visually from the texture of the surrounding pavement.

Due to the nature of variation in asphalt mixes and their compactive characteristics, the definition of degrees of segregation will be established on a project by project basis. The Contractor and the Ministry Representative shall establish through the use of photographs or other mutually agreed tools, the definition of slight, moderate and severe segregation. The Ministry Representative and the Contractor shall evaluate the first two Lots upon completion of the second Lot, after opening to traffic, to confirm the "agreed to" guidelines. Segregation will then be evaluated only when all paving is complete.

The Ministry Representative, with the Contractor's Representative, will observe the finished pavement to evaluate the existence, severity and extent of segregation and other surface defects. The evaluation will be completed prior to the issuance of the Completion Certificate

The rating system for categorizing the severity of Top Lift surface segregation, and repair methodology is shown in Table 502-I-1.

TABLE 502-I-1 – SEGREGATION – TOP LIFT ONLY – REMEDIATION METHODOLOGY

Segregation Severity	Visual Appearance	Repair Procedures
None	Completely uniform surface texture.	N/A
Slight	Matrix of asphalt binder, coarse and fine aggregate exists; visually increased presence of stone sizes.	Sand cement slurry.
Moderate	Significantly more stone than surrounding pavement; matrix of asphalt binder and coated sand particles is reduced.	Seal coat or sand cement slurry patch or neat hot mix patch or mill and fill patch.
Severe	Appears as an area of very stony mix - stone against stone - little or no matrix.	Remove and replace or overlay to limits authorized by Ministry Representative.

502.56.04 Payment Adjustments – The payment adjustment for Top Lift segregation will be the applicable amount shown in Table 502-I-2.

ISSUED FOR USE

TABLE 502-I-2 – SEGREGATION – TOP LIFT ONLY – PAYMENT ADJUSTMENTS

Payment Adjustment	Number of Segregated Areas, by Category		
	Slight	Moderate	Severe
+$1,000 per lane km. (Applies only if the criteria in all three adjacent columns are achieved)	0 to 3	0	0
+$500 per lane km. (Applies only if the criteria in all three adjacent columns are achieved)	4 to 5	0	0
No payment adjustment	6 to 10	0 to 1	0
-$500 per lane km. (Applies if the criteria in any one or more of the adjacent columns occurs)	11 to 15	2 to 5	0 to 1
-$1,000 per lane km. (Applies if the criteria in any one or more of the adjacent columns occurs)	16 or more	6 or more	2 or more

502.56.05 Repair – On Top Lift all segregation, including any in areas outside the driving lanes assessed for the payment adjustment, shall be repaired according to Table 502-I-1.

Repair shall be to the neat lines and dimensions of the segregated area using a sand cement slurry or other product acceptable to the Ministry Representative.

An acceptable sand cement slurry can be made as follows, with proportions varied as needed for workability:

- 25 litres of SS-1 (or equivalent) emulsion
- 4 – 5 kg (2 shovels) of ≤3 mm sand
- 2 – 3 kg (1 shovel) Type GU (general use) Portland cement
- Additional water, if needed for workability.

After repairs, the Lot will be re-evaluated for acceptance, but not for segregations payment adjustments.

The Contractor shall be responsible for all costs associated with the repair of segregated areas.

502.57 Smoothness

502.57.01 Lot – A Lot for smoothness shall be one kilometre length of Top Lift pavement for each driving lane.

502.57.02 Sub-Lot – A Sub-Lot for smoothness shall be a 100 metre section of a Lot, or for the last Sub-Lot within a Lot, a section of up to 100 metres.

502.57.03 Traffic Control for Pavement Smoothness Testing – The Contractor shall provide traffic control for smoothness testing.

The Ministry Representative will provide sufficient notice to the Contractor regarding when the Ministry will perform smoothness testing. As directed by the Ministry Representative, the Contractor will be responsible to schedule and provide traffic control for the Ministry's smoothness testing, including a shadow vehicle and all signage necessary. The Contractor shall also be responsible for sweeping and any other preparation work required for smoothness testing. No extra payment will be made for sweeping or other preparation work and the provision of traffic control for smoothness testing will also be considered incidental and no extra payment will be made.

The Contractor may also be required to provide an additional Shadow Vehicle or traffic control for smoothness testing as determined by the Ministry Representative. Payment for the provisions of an additional Shadow Vehicle or traffic control, if required, will be made under the Provisional Sum Item for Site Modifications.

502.57.04 Determination of Pavement Smoothness – The finished pavement surface shall be tested by the Ministry using a Class I precision rolling profile measuring instrument, to determine the longitudinal profile and compute the International Roughness Index (IRI) in each driving lane. Profiles shall be measured and the IRI calculated in the centre of the lane for each Sub-Lot.

For any Sub-Lot between 50 m and 100 m in length, the IRI value shall be considered representative of a complete Sub-Lot. For any Sub-Lot less than 50 m in length, the IRI value will be combined with the proceeding Sub-Lot IRI value.

The profile shall be measured over the entire length of the pavement exclusive of structures and shoulder areas. Acceleration, deceleration and turning lanes are considered part of the driving lanes and shall be tested in accordance with this provision. For the measuring process, the Contractor shall provide the Ministry

Representative a chalk guide line in the centre of the lane immediately prior to measurement.

502.57.05 Auxiliary Lanes – For smoothness testing, sections of the driving lanes that do not fall within the continuous through lanes, such as acceleration lanes, deceleration lanes and turning lanes, and lanes which are less than 1 km in length, shall be treated as follows. The ratio of the section length to the standard Lot length of 1 km shall be determined and the payment adjustment shall be pro-rated on this basis as in the following example:

For a segment 565 metres long, the payment adjustment factor is

= Length of segment / Length of standard Lot

= 565 m/1000 m

= 0.565

Hence the applicable payment adjustment is 0.565 times the payment adjustment for a 1 km Lot as determined from Table 502-J.

502.57.06 Sub-Lot and Lot Acceptance Limits – The reject limit and payment adjustments applicable to a road for smoothness are specified in Table 502-J. The default values in the "Standard" column shall apply except where the Special Provisions specify that "Alternate" values apply.

The International Roughness Index (IRI) value, calculated for each Sub-Lot, will be used to determine if the Sub-Lot or Lot will be accepted, and if so, whether it will be subject to any payment adjustment.

The Lot IRI is the average of the individual IRI values for the Sub-Lots within the Lot.

A Sub-Lot is rejected if:

- it has an IRI within the applicable reject zone shown in Table 502-J, subject to SS 502.57.08;
- for Top Lift only, there are obvious defects per SS 502.32 or it has unrepaired smoothness deficiencies which require remediation in accordance with SS 502.57.09.

A Lot is rejected for Smoothness if any Sub-Lot is rejected.

502.57.07 Payment Adjustments – For Top Lift only, the payment adjustments per the applicable column of Table 502-J shall apply to each Lot.

TABLE 502-J – PAYMENT ADJUSTMENTS FOR SMOOTHNESS

Lot IRI (m/km)	Payment Adjustment Per Lot	
	Standard	Alternate
≤ 0.80	+$2,000	+$2,000
> 0.80 to ≤ 0.90	+$1,000	+$2,000
> 0.90 to ≤ 1.00	+$500	+$2,000
> 1.00 to ≤ 1.10	+$200	+$1,000
> 1.10 to ≤ 1.20	0	+$500
> 1.20 to ≤ 1.30	-$100	+$250
> 1.30 to ≤ 1.40	-$250	0
> 1.40 to ≤ 1.50	-$600	-$300
> 1.50 to ≤ 1.60	-$1,400	-$300
> 1.60 to ≤ 1.70	-$2,000	-$750
> 1.70 to ≤ 1.80	-$3,000	-$750
> 1.80 to ≤ 1.90	REJECT	-$1,500
> 1.90 to ≤ 2.00	REJECT	-$2,500
>2.00	REJECT	REJECT

502.57.08 Remedial Work – If the test results on a Sub-Lot of pavement indicate a payment reduction or rejection because of smoothness, the Contractor may propose remedial work to improve the smoothness. Such proposals are subject to the acceptance of the Ministry Representative, but such acceptance does not imply that the proposed remedy will be successful, and does not reduce the Contractor's responsibility for meeting the acceptance requirements. Grinding may be acceptable, but an overlay may be required. Only one attempt may be made to improve smoothness, and this must be completed within ten (10) calendar days from the time the Contractor receives notification from the Ministry Representative of the original smoothness test results for that Sub-Lot.

Following any attempt to improve the smoothness of a Sub-Lot or Sub-Lots, the Ministry Representative will retest the Sub-Lot or Sub-Lots, and the new results will replace the previous data for the purposes of determining acceptance and payment.

No payment will be made for any material, equipment or manpower used to improve, or attempt to improve, smoothness.

502.57.09 Smoothness Deficiencies – Smoothness deficiencies (bumps and dips) less than 12 mm over 3 m will not have remedial work required. Individual deficiencies between 8 mm and 12 mm over 3 m will result in a $200.00 penalty for each occurrence.

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Deficiencies exceeding 12 mm over 3 m will require remedial work.

502.58 Overlays as a Corrective Measure – If an overlay is used as a corrective measure on a defective Lot or Sub-Lot, the overlay thickness will be subject to the acceptance of the Ministry Representative, but shall not be less than 40 mm. In all other respects, the whole overlay will be subject to the same specifications as the pavement being overlaid. Where an overlay is used as a corrective measure in any lane, adjacent lanes shall also be overlaid whether acceptable or not.

Whether the overlay is applied as a corrective measure or is placed over otherwise acceptable pavement in order to match an adjacent lane, acceptability and payment will be determined as follows:

- acceptability, and eligibility for either positive or negative payment adjustment, will be determined entirely on the results of testing and observations conducted on the overlay, regardless of test results that have been obtained on the underlying, overlaid Lift of pavement; but
- the payment quantity, for application of the Unit Prices for asphalt pavement, and the quantity, to which any payment adjustment is to be applied, will be derived from the tonnage of mix in the underlying, overlaid Lift.

PART G – APPEAL TESTING

502.60 Time Limits For Appeal of Test Results – To appeal any test results, the Contractor shall serve written notice of appeal to the Ministry Representative, within the following time period after receipt of the applicable test results:

- For Density, Gradation and Asphalt Content, within two (2) working days; and
- For Segregation, Smoothness and Application Rate, within three (3) working days.

502.61 Appeals of Density, Asphalt Content and Gradation – The Contractor may appeal the results of acceptance testing for density, asphalt content and/or aggregate gradation for any Lot only once. Appeals will only be considered if quality control results support an appeal and can be presented.

Quality control test results for density which are provided to the Ministry Representative subsequent to the Contractor's receipt of the quality assurance test results for that Lot will not be considered (when evaluating evidence) for an appeal. The appeal shall be for all tests within the Lot, and there will be no appeal allowed for single tests within a Lot.

Any attempt to improve density on the appealed Lot after the Ministry Representative has tested the Lot for acceptance shall void the appeal and the original test results will apply.

The Ministry Representative will arrange for an independent testing laboratory to perform the appeal testing. The personnel employed or testing laboratory retained by the Contractor for quality control testing on the project will not be used for appeal testing.

After January 1, 2008 the appeal testing laboratory shall hold current certification from the Canadian Council of Independent Laboratories (CCIL) under both the Asphalt Laboratory and Aggregate Laboratory Certification Programs, and at least one technician in the asphalt laboratory shall hold current certification under the Asphalt Technician Certification Program.

502.61.01 Density Appeals – For density appeals:

- the Contractor shall, within two (2) working days of filing the appeal and in the presence of the Ministry Representative, take five (5) cores samples from random locations
- the Contractor shall then deliver new core samples to the Ministry Representative;
- the Ministry Representative shall deliver the core samples and the companion loose mix samples from the appealed Sub-Lots to the appeal testing laboratory.
- the appeal agency shall determine the MTD from the companion sample and the densities of the cores and report the results to the Ministry Representative and the Contractor.
- the original core test results will be discarded and a new sample mean will be obtained from 5 random cores. The appeal agency shall prepare new briquette densities from the previously taken companion samples as per Appendix 2.

502.61.02 Asphalt Content and Gradation Appeals – For asphalt content and gradation appeals

- the party who has possession of the companion loose mix samples shall deliver them to the appeal testing laboratory.

- the appeal agency shall prepare three new samples from the companion sample and determine the AC contents and gradations, average the results, and report all results to the Ministry Representative and the Contractor.

- the original test results will be discarded. A new sample mean for three new test results will be determined using the companion samples and will be used for acceptance and payment adjustments.

502.62 Smoothness Appeals – The Contractor may appeal acceptance test results of a Lot only once.

The Ministry Representative will perform, and the Contractor will be given the opportunity to witness, the appeal testing and the new results will be binding on the Contractor and the Ministry.

502.63 Segregation Appeals – Appeals of segregation ratings will first be handled by a joint review with the Contractor. If consensus cannot be reached then the Ministry Representative shall engage the Joint Committee, comprised of representatives from the Ministry and B.C. Road Builders, to assess the area(s) in question.

502.64 Application Rate Appeals – Appeals of application rate will be handled by a joint review with the Contractor and Ministry Representative. If the issue cannot be resolved, the issue will be resolved through the dispute resolution provisions of the Contract General Conditions.

502.65 Application of Appeal Testing Results – The appeal test values, thus determined, in all cases, will be binding on the Contractor and the Ministry.

502.66 Payment for Appeal Testing – If the new results indicate a change in the payment adjustment in the Contractor's favour, then sampling and testing costs incurred during the appeal procedures for that Lot will be borne by the Ministry.

If the new results verify that any payment reduction or rejection remains valid for that Lot, then the costs of testing (plus 10% mark-up) incurred during the appeal procedure will be charged to the Contractor.

REVISED SECTION

SS 502 APPENDIX 1

QUALITY CONTROL REQUIREMENTS AND GUIDELINES

1.01 GENERAL

The Contract requirements for preparing, submitting and adhering to the paving components of a Quality Control Plan are specified in SS 502.04. This Appendix titled "Quality Control Requirements and Guidelines" sets out the guidelines for the Contractor's Quality Control Plan, in addition to those set out in SS 502.04 and the Special Provisions.

1.02 QUALITY CONTROL PLAN

The Contractor shall prepare and submit a Quality Control Plan for review. The Plan may be operated wholly or in part by a qualified Subcontractor or an independent organization/agency. However, the Quality Control Plan, including compliance with the Plan and its modifications, must remain the responsibility of the Contractor.

The Plan shall address all elements that affect the quality of the hot mix, hot laid asphalt pavement, including but not limited to the following:

- Purchased Materials (asphalt cement characteristics, additives, purchased aggregates, etc.
- Aggregate production (inc. source quality, gradation, fracture, crushing procedures, stockpiling, etc)
- Calibration and Correlation of Testing Equipment (plant sensors, lab equipment, nuclear moisture/density gauges, etc.)
- Mix Design
- Asphalt Plant Mixing procedures (cold feed sampling, AC flow rate, , temperature control, records, weigh scale, etc)
- Product quality (volumetrics, EPS payment elements, etc.)
- Professional standards (joints, placing temperature, rolling procedures, etc.)

The plan shall also include the following:

- The name of the Quality Control testing agency and its proven capability to provide the specific services required for the project.
- The list of dedicated technical staff, if available, (including names, qualifications and relevant experience) and their proposed roles.
- The list of testing equipment available for project work.

The Quality Control Plan shall include the designation of specific personnel to be responsible for specific quality control duties.

- There shall be a Quality Control Manager (QCM) who will be responsible for the development and management of the Quality Control Plan. This person shall be qualified as per the requirements identified in SS 502.04.03. This individual shall also be responsible for the signing off of Quality Control Testing and Inspection records. This individual shall also be responsible for ensuring the qualifications of quality control staff, implementing and documenting any changes or improvements to the Quality Control Plan.
- There should be a designated Process Control Technician (PCT), with 5 years of related experience, who will ensure that laboratory test results and other quality control practices are used to control the quality of aggregates and other mix components, and to adjust and control mix proportions to meet the mix design(s). The PCT is responsible for ensuring that testing equipment, utilized for proportioning and mixing are calibrated and in good working order. The Plan shall describe how the PCT's duties, including sampling methods and responsibilities are to be accomplished and documented. The Plan should also describe the criteria to be used by the PCT to correct or reject unsatisfactory materials.
- There should also be a Pavement Quality Control

Technician (PQT), with 5 years of related experience, who will ensure that delivered materials meet the requirements of the specifications. In addition, the PQT shall be responsible for periodically inspecting all equipment used in placing, finishing, and compacting to assure its proper operating condition and to assure that placing, application rate, finishing, joint construction, and compaction is in conformance with this specification and the contract requirements.

1.03 CONTRACTOR'S RECORD OF QUALITY CONTROL TESTING

Test results should be made on specified forms or charts immediately after completion of each test. These test results are to be made available to the Ministry Representative upon request.

Records of gradation control, both during aggregate production and also during the asphalt mixing operation, should be kept on the form H-295 - Mechanical Analysis of Aggregates.

1.04 MATERIAL APPLICATION RATE

The Contractor shall control the Material Application Rate by monitoring the amount of asphalt mix delivered to the road against the area covered by checking the application rate minimally every ten loads.

The Contractor shall advise the Ministry Representative in writing on an ongoing basis of the application rate.

1.05 DENSITY

The Contractor should take core samples to determine actual pavement density. At the start of paving, the Contractor should take a minimum of two pavement cores from each Sub-Lot. The Contractor may employ a nuclear densitometer (or moisture/density gauge) to ensure intermediate density control. Two nuclear densities may be determined for each Sub-Lot, based on job mix densities obtained from the most recent plant briquettes.

1.06 OTHER QUALITY CONTROL PROCEDURES

The Contractor may initiate other Quality Control procedures as necessary for ensuring production of a quality product and include them in the Quality Control Plan. Procedures may also be introduced after the start of work as necessary as amendments to the Quality Control Plan.

1.07 QUALITY CONTROL TESTING FREQUENCY

Minimum test frequencies Guidelines for Quality Control are described in the following table:

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TABLE 502 Appendix 1-1 – GUIDELINES FOR MINIMUM TEST FREQUENCIES

	ASTM Test	*Minimum Frequency
Tests During Aggregate Production	C 136, Dry Sieve Analysis of Aggregate or C 117 Sieve Analysis of Aggregates by Washing (Modified for Field Lab with drying done over a hotplate or similar heating element)	- Split Stockpiles: 1 for each stockpile for every 2 hours of production. - One main stockpile: for every 300 tonnes. - Blend Sand: 1 for every 100 tonnes during stockpiling. - Natural filler: 1 for every 50 tonnes during stockpiling.
	D 5821 Determining the Percentage of Fractured Particles in Coarse Aggregate	Every second coarse aggregate sieve test.
	C 117 Sieve Analysis of Aggregates by Washing (Modified for Field Lab)	1/shift on reduced sample obtained from combined samples from the crusher.
Asphalt Products Tests	Tack and Prime	Contractor's option.
Tests During Asphalt Plant Mixing	C 136, Dry Sieve Analysis of Aggregate	1 of combined aggregate (off the belt) every 300 tonnes.
	C 566 & D 2216, Moisture Content	Aggregate: 2 tests/Lot Asphalt mix: 1 on first Sub-Lot and every second day.
	C 117 Sieve Analysis of Aggregates by Washing (Modified for Field Lab)	1/shift on reduced sample obtained from combined samples from the plant cold feed
	D 5581 Resistance to Plastic Flow Using Marshall Apparatus.	One set of three briquettes for 1,200 tonnes or Lot, whichever is less.
	D 6307 Asphalt Extraction, Ignition Method	One/Lot.
	D-5 Penetration of Bituminous Materials	One per Manufacturer's Batch. Samples should be taken for every 3000 tonnes of mix production
	D 2171 Viscosity	Contractor's Option
	Maximum Theoretical Density	
Test During Asphalt Paving for Density Testing	AASHTO T 245-97 Resistance to Plastic Flow Using Marshall Apparatus	One 15 kg sample for every Sub-Lot or minimum 1/day for field testing
	Core Samples	At start, two cores for each Sub-Lot. After rolling pattern established, only one core for each Sub-Lot. All Marshall mix cores to be a minimum of 100 mm diameter; Superpave mixes shall require minimum 150 mm diameter cores

* These are the minimum frequencies and the Contractor is responsible to assess the need to increase testing frequency, where aggregate source is not uniform or any other condition exists that may warrant it. QC frequencies may be reduced below this level, subject to the Ministry Representative's authorization) should the Contractor's QC Plan be proven very effective.

REVISED

SS 502 APPENDIX 2

OBTAINING AND PREPARING LOOSE MIX SAMPLES

1. Three (3) samples per Sub-Lot shall be obtained by the Contractor (generally from the paver augers), at locations and times chosen by the Ministry Representative. The first sample shall be used by the Contractor for Quality Control, the second sample by the Ministry for Quality Assurance, with the third retained by the Ministry for potential appeal testing.

2. The samples taken shall meet the requirements of ASTM D 979 Sampling of Bituminous Mixtures, Table 1, Size of Sample.

3. The sample size shall be reduced to required laboratory sample size for Marshall and Superpave gyratory briquettes, asphalt content and hot mix gradation determination as outlined below:

   a) The sample shall either be reduced using a Riffle splitter or shall be quartered into four approximately equal portions. The two diagonally, opposite quarters shall be combined resulting in two samples. Identify and designate one of the samples as the Quality Companion Sample and set aside. Identify and designate the other resulting sample as the Quality Control Sample. Use the Quality Control Sample for testing.

   b) The Quality Control Sample shall be weighed to ensure that the sample so obtained meets the minimum mass required for the ignition test. If the sample does not meet the minimum mass requirements, then the additional materials will be obtained and added to the Quality Control Sample from the Companion Sample. This will be achieved by quartering the Quality Companion sample and adding one quarter of the Quality Companion Sample to the Quality Control Sample.

   c) This process is to be repeated for each sample to provide the Quality Acceptance and Appeal Samples.

4. The third sample for appeal purposes shall be set aside and retained in a Contractor-supplied, suitable container labeled with sample location, date sampled, and project information.

5. The Contractor shall deliver the QA and appeal samples to the Ministry Representative for storing.

6. If a sample is taken from the mat, The areas sampled shall be filled with mix immediately after sampling, and shall receive the same compactive effort as the rest of the mat.

REVISED

SS 502 APPENDIX 3

BLANK AGGREGATE SAMPLE PREPARATION

1. Blank aggregate samples replicate the Job Mix Formula design aggregate gradation, without asphalt cement and are used to correlate the Ministry, Contractor, and appeal lab ignition ovens.

2. Twenty-four (24) blanks are required, each weighing 1900 ± 1 gram. This size approximates the size of the mix samples, less the asphalt cement, that will be used for the project's daily Quality Assurance testing.

3. The blanks shall be prepared from bulk aggregate samples (i.e. coarse aggregates, fine aggregates, blend sand, etc. samples) that were produced from the same sources and are the same materials as the aggregates that will be used for the project and have been designated in the Mix Design. 50 – 60 kg of material will be required.

4. The bulk aggregate samples shall first be dried, and then thoroughly blended at the design cold feed percentages ±1%.

5. The blended material shall then be sieved into each of the individual sieve sizes designated in the Mix Design.

6. The aggregate blanks will then be made up from the sieved material, adding proportions from each individual sieve to conform to the estimated dry aggregate JMF gradation within the tolerances specified below.

7. Masses of aggregate added shall be within the following tolerances:

Sieve Size	Cumulative Mass Tolerance (g)
Pan	0.1
0.075	0.1
0.15	0.1
0.3	0.1
0.6	0.1
1.18	0.1
2.36	0.1
4.75	0.1
9.5	0.7
12.5	2
16	3
19	6
25	13
37.5	45

8. Samples shall be sealed in cans or bagged in moisture-proof heavy gauge plastic bags, and labeled with the project number, blank number, the preparation date, and a JMF identification number.

RETIRED

SS 502 APPENDIX 4

IGNITION OVEN CORRELATION PROCEDURE

1. Asphalt Mix samples are prepared and burned to determine the effect each oven has on the mix.

2. The Contractor and the Ministry shall each prepare three (3) Asphalt Mix calibration samples by adding AC (provided by the Contractor from the supplier and batch that will be used on the project) to randomly selected aggregate blanks prepared by the Contractor in accordance with SS 502 Appendix 3.

3. AC shall be added to the blanks at the proportion specified in the accepted JMF, within a tolerance of ±0.1 g.

4. Each party shall burn their mix calibration samples in their ignition oven in accordance with ASTM D 6307 to determine their calibration factor.

5. The calibration factors determined above shall be compared and the inter-laboratory correlation determined.

6. Correlation between the Contractor's lab and the Ministry lab shall be completed, reviewed and mutually acceptable to the Contractor and the Ministry Representative a minimum of one (1) working day prior to placement of any mix.

7. In the event of an appeal on AC Content, the appeal laboratory shall also prepare and burn calibration samples to determine their oven calibration factor.

8. Results from testing of any asphalt mix shall report the measured AC Content and the corrected AC Content after applying the laboratory calibration factor.

REVISED SLIP

SCHEDULE 4

DRAWINGS

SCHEDULE 4 - DRAWINGS

PROJECT NO. 11897-8002

HIGHWAY NO. 10 – 192ND STREET TO SPRINGBROOK ROAD – 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 502 – EPS

(30.2 LANE KMS)

The following Drawings form part of the Tender Document Package/Contract Document Package and apply to this Contract:

Drawing Number	Drawing Title
	Project Location Map
	Strip Map - Section 1 – Map 1 of 2
	Strip Map - Section 1 – Map 2 of 2
	Strip Map - Fraser Highway Milling
	Strip Map - 200th Street Milling
	Strip Map - Section 2 – Map 1 of 1
	Strip Map - Section 3 – Map 1 of 1
PLP0223-20k.PDF	Strong Pit #0223 Location Plan
PLP0223.100k.PDF	Strong Pit #0223 Location Plan
File No. 0223	Strong Pit #0223 Pit Development Plan
	Source Details
	Aggregate Test Hole Summary Sheet

PROJECT No. 11897-8002
HIGHWAY No. 10
Section 1
Section 2
Section 3
Springbrook
232nd Street
64th Avenue
Glover Road
Fraser Highway
Langley, BC, Canada
200 Street
Langley Bypass
192nd Street
10
1

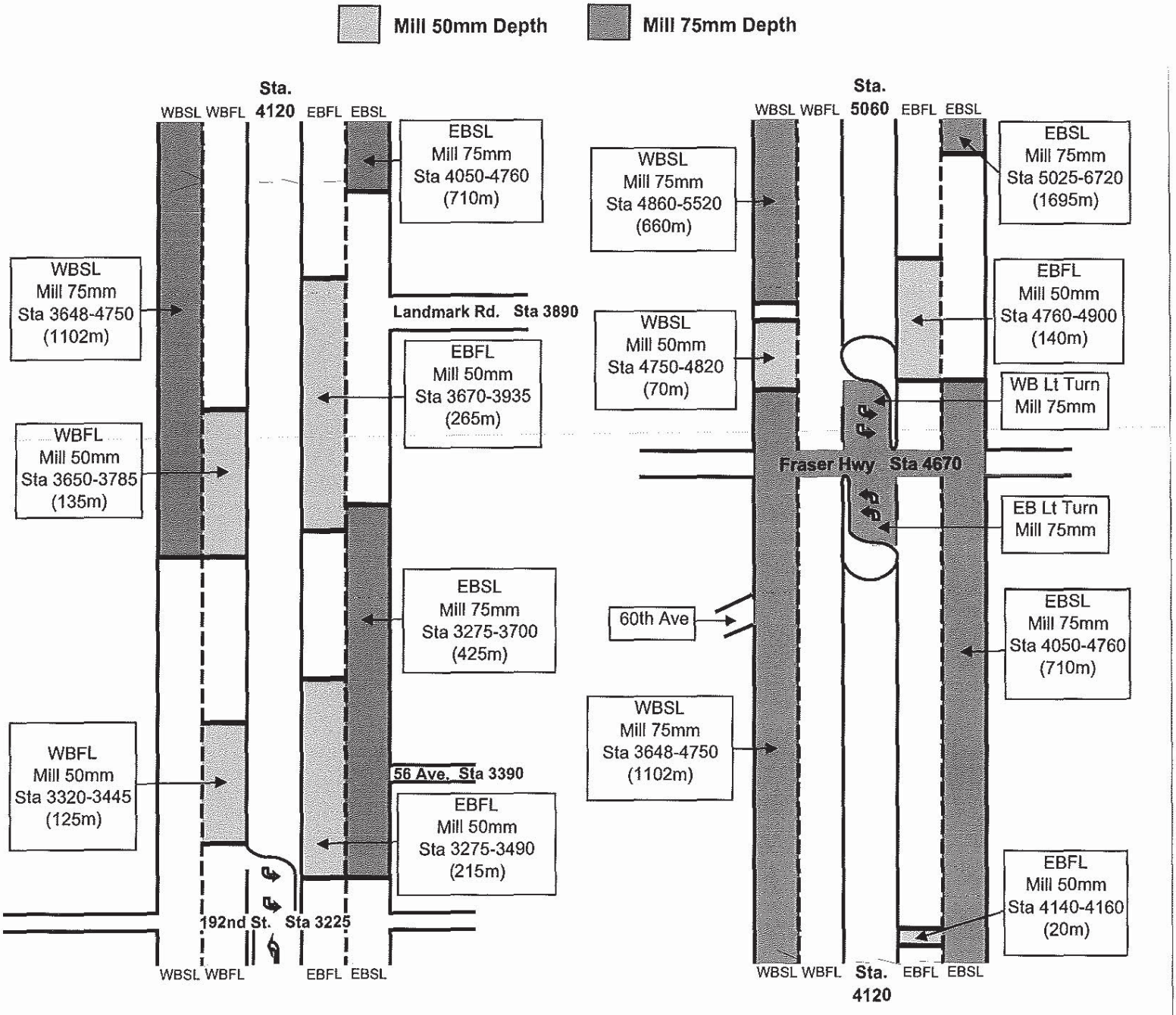
PROJECT NO. 11897 - 8002

HIGHWAY NO. 10 - 192ND STREET TO SPRINGBROOK ROAD - 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 502 - EPS

(30.2 LANE KMS)

Section 1 - Langley Bypass (Strip Map 1 of 2)



PROJECT NO. 11897 - 8002

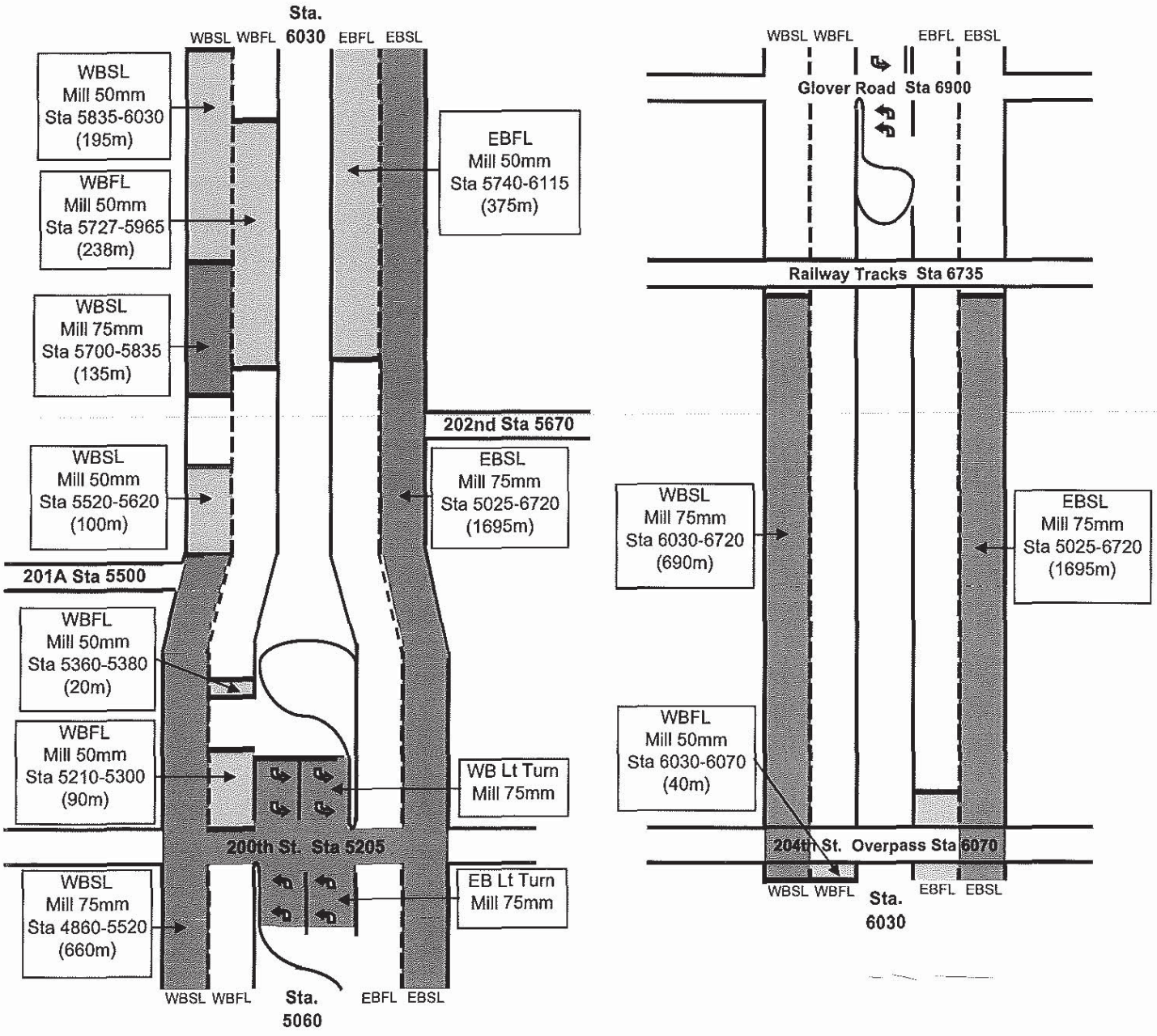
HIGHWAY NO. 10 - 192ND STREET TO SPRINGBROOK ROAD - 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 505 - EPS

(30.2 LANE KMS)

Section 1 - Langley Bypass (Strip Map 2 of 2)

Mill 50mm Depth Mill 75mm Depth



PROJECT NO. 11897 - 8002

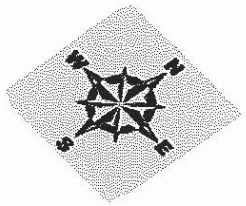
HIGHWAY NO. 10 - 192ND STREET TO SPRINGBROOK ROAD - 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 505 - EPS

(30.2 LANE KMS)

COLD MILLING AND ASPHALT RESURFACING SS 502 - EPS

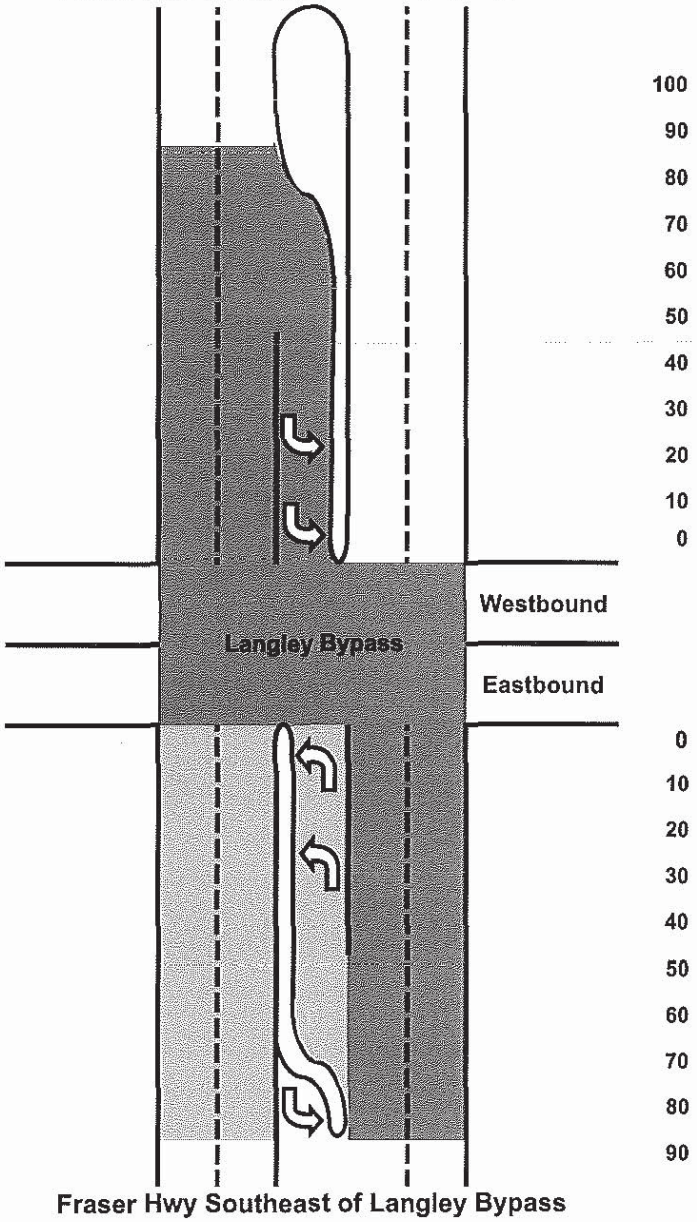
Fraser Highway Milling



Mill 50mm Depth

Mill 75mm Depth

Fraser Hwy Northwest of Langley Bypass



Fraser Hwy Southeast of Langley Bypass

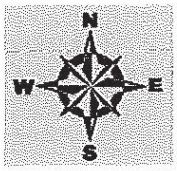
PROJECT NO. 11897 - 8002

HIGHWAY NO. 10 - 192ND STREET TO SPRINGBROOK ROAD - 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 505 - EPS

(30.2 LANE KMS)

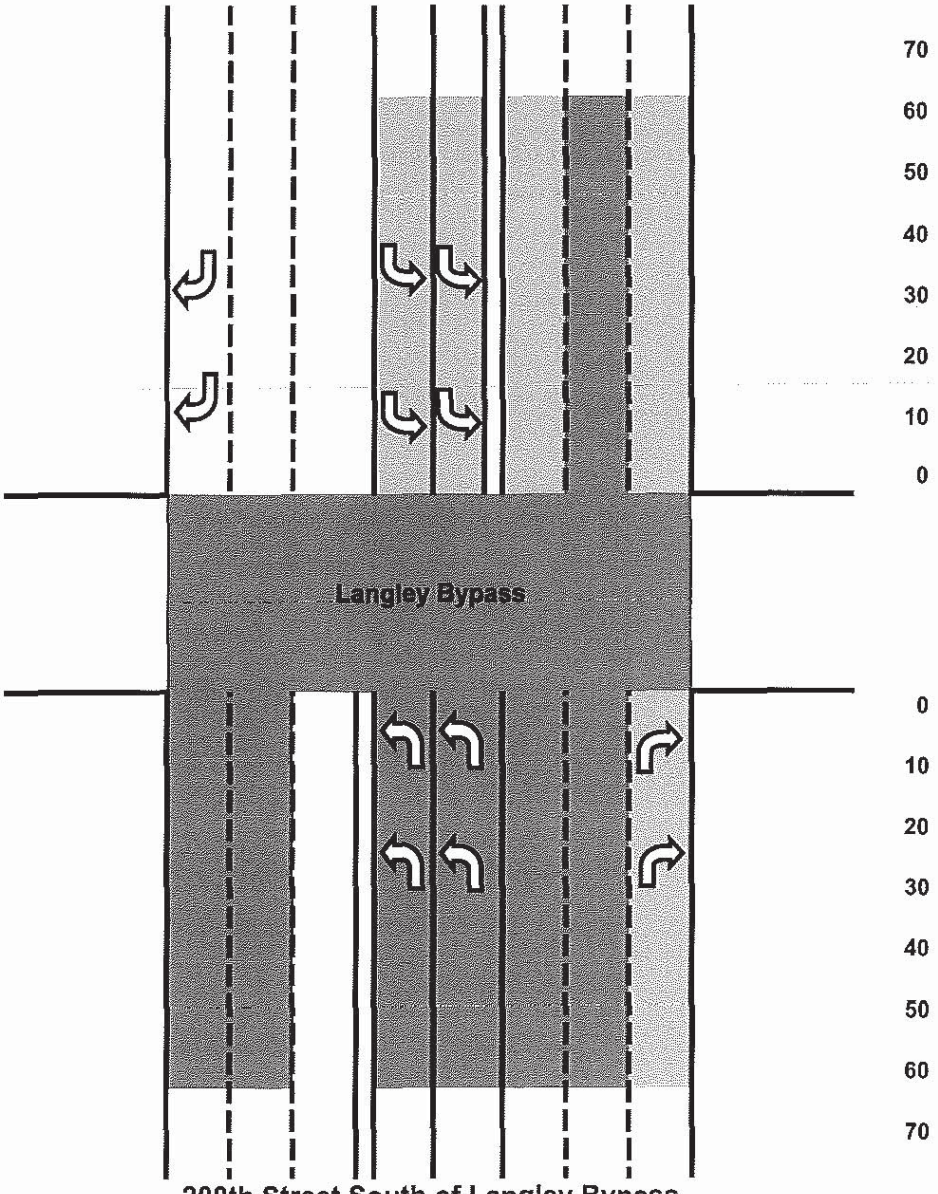
<u>200th Street Milling</u>



Mill 50mm Depth

Mill 75mm Depth

200th Street North of Langley Bypass



200th Street South of Langley Bypass

PROJECT NO. 11897 - 8002

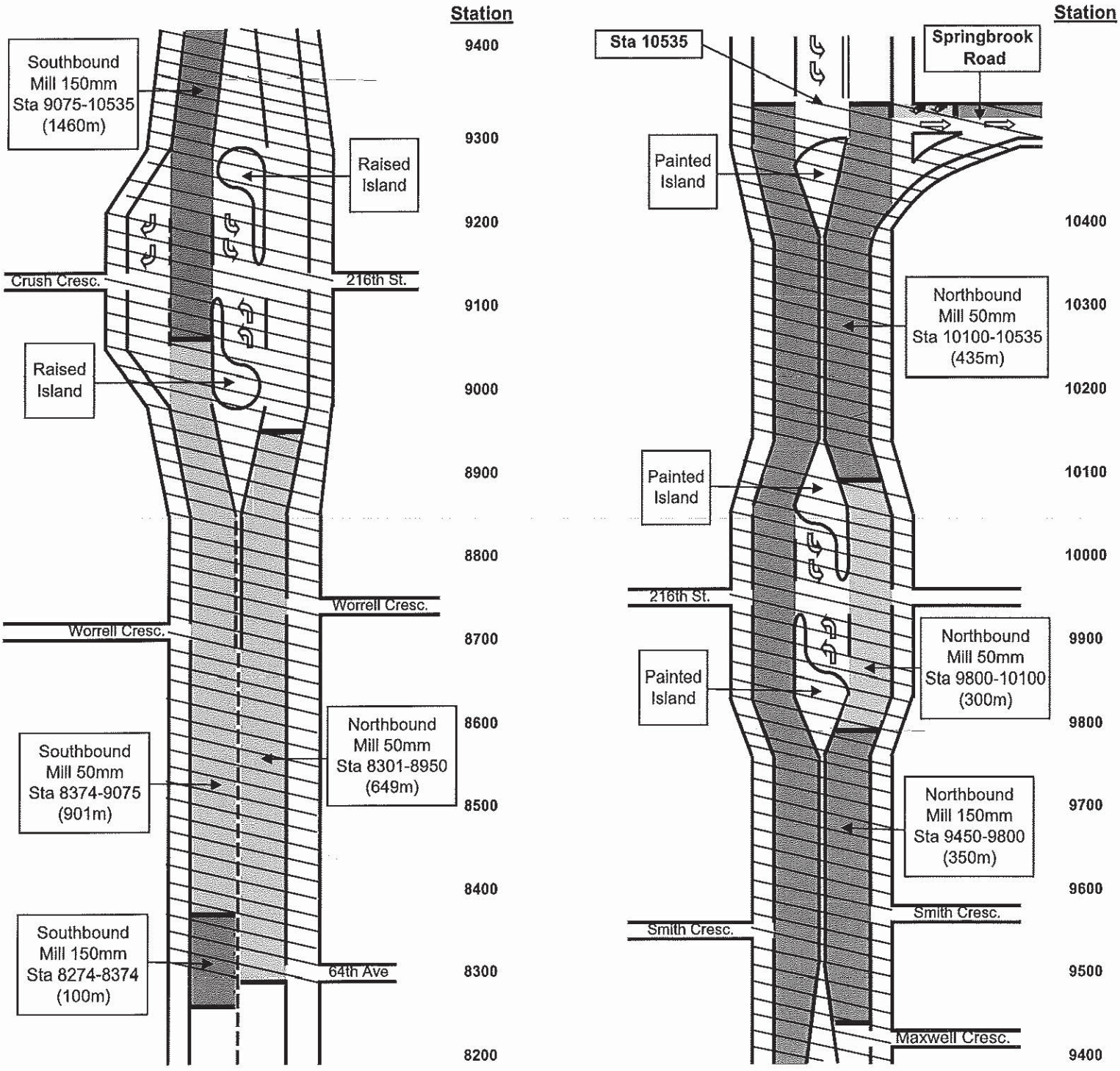
HIGHWAY NO. 10 - 192ND STREET TO SPRINGBROOK ROAD - 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 505 - EPS

(30.2 LANE KMS)

Section 2 - Glover Road, 64th Avenue to Springbrook Road (Strip Map 1 of 1)

Mill 50mm Depth | Mill 150mm Depth | Overlay



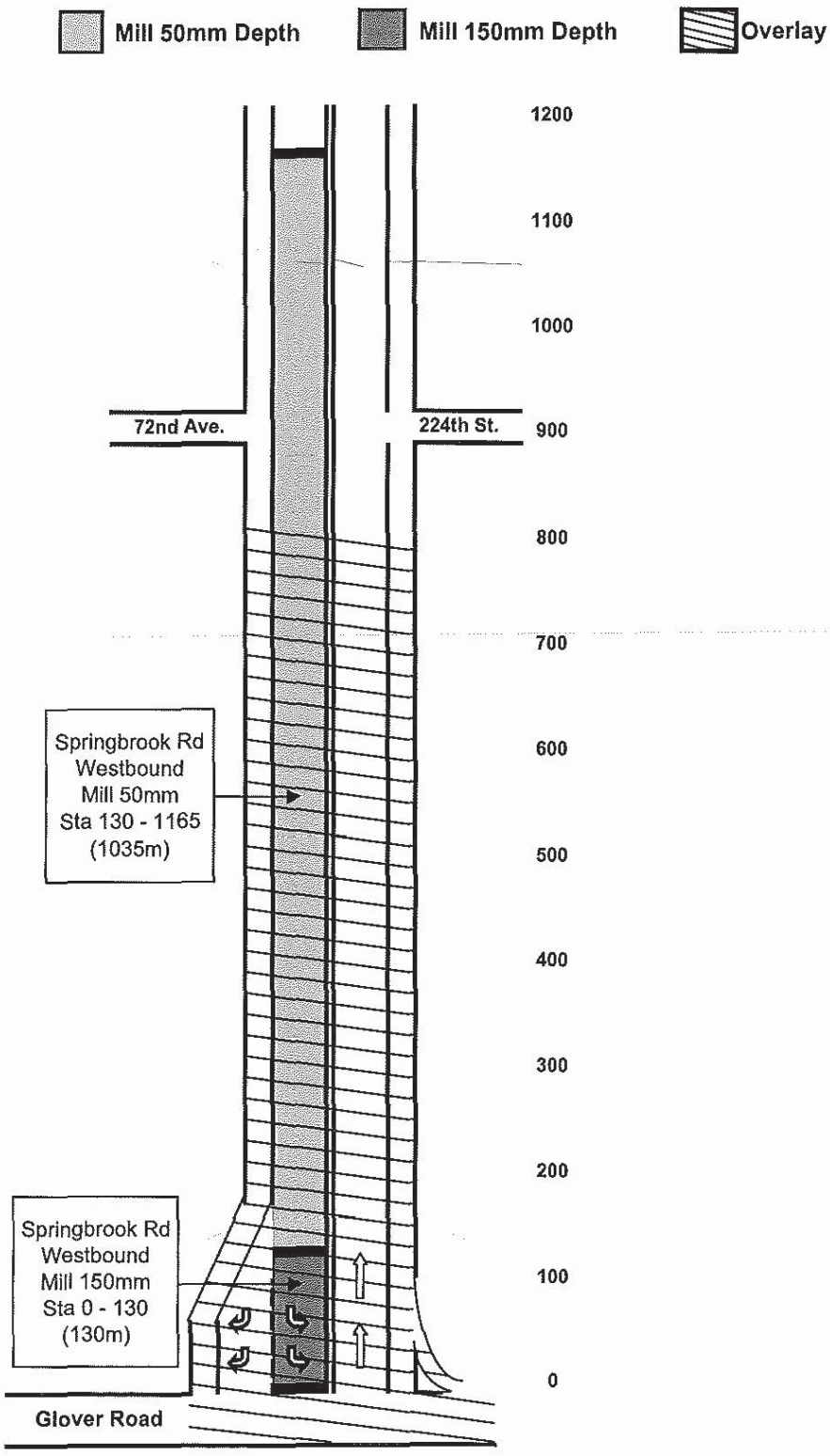
PROJECT NO. 11897 - 8002

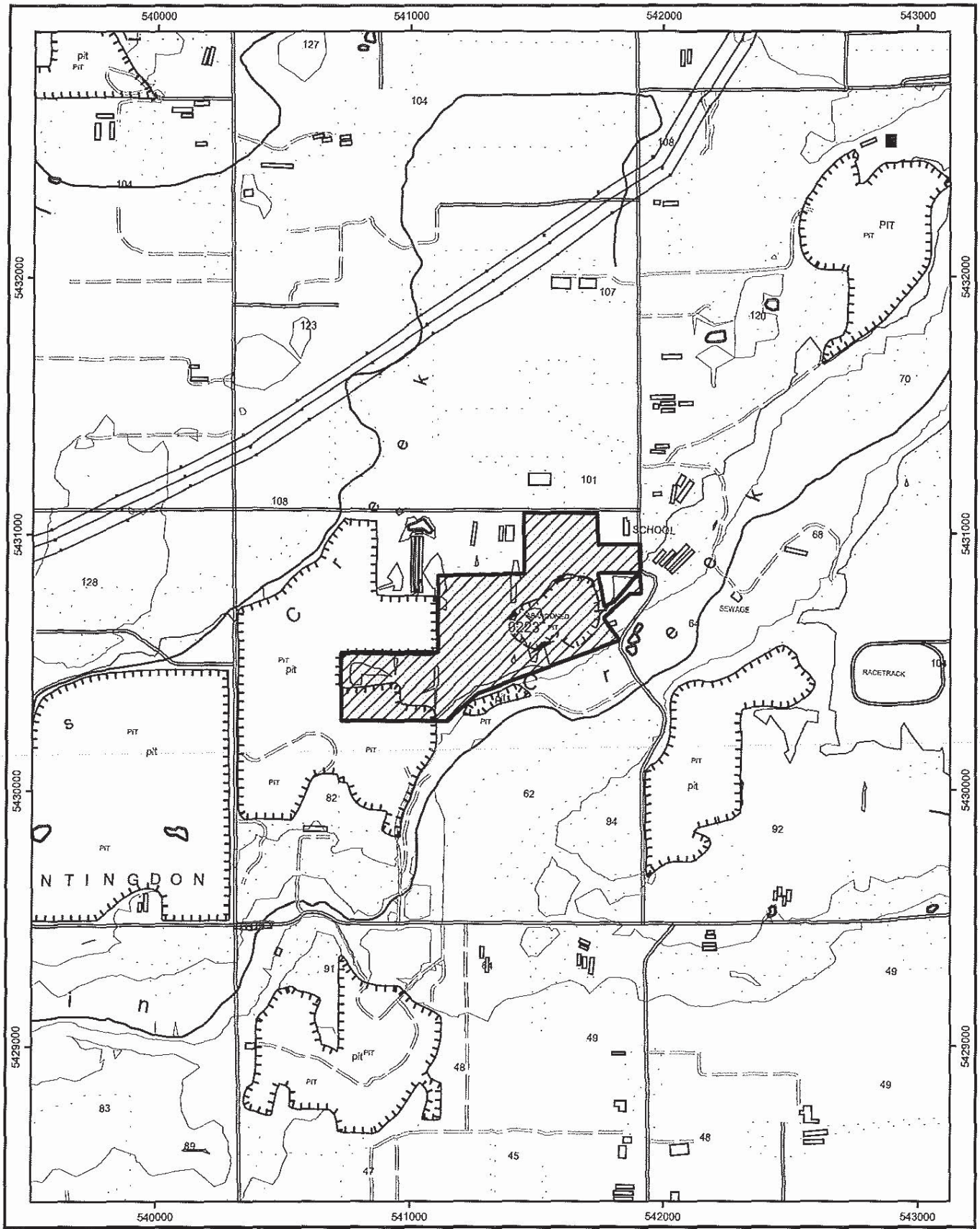
HIGHWAY NO. 10 - 192ND STREET TO SPRINGBROOK ROAD - 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 505 - EPS

(30.2 LANE KMS)

Section 3 - Springbrook Road (Strip Map 1 of 1)



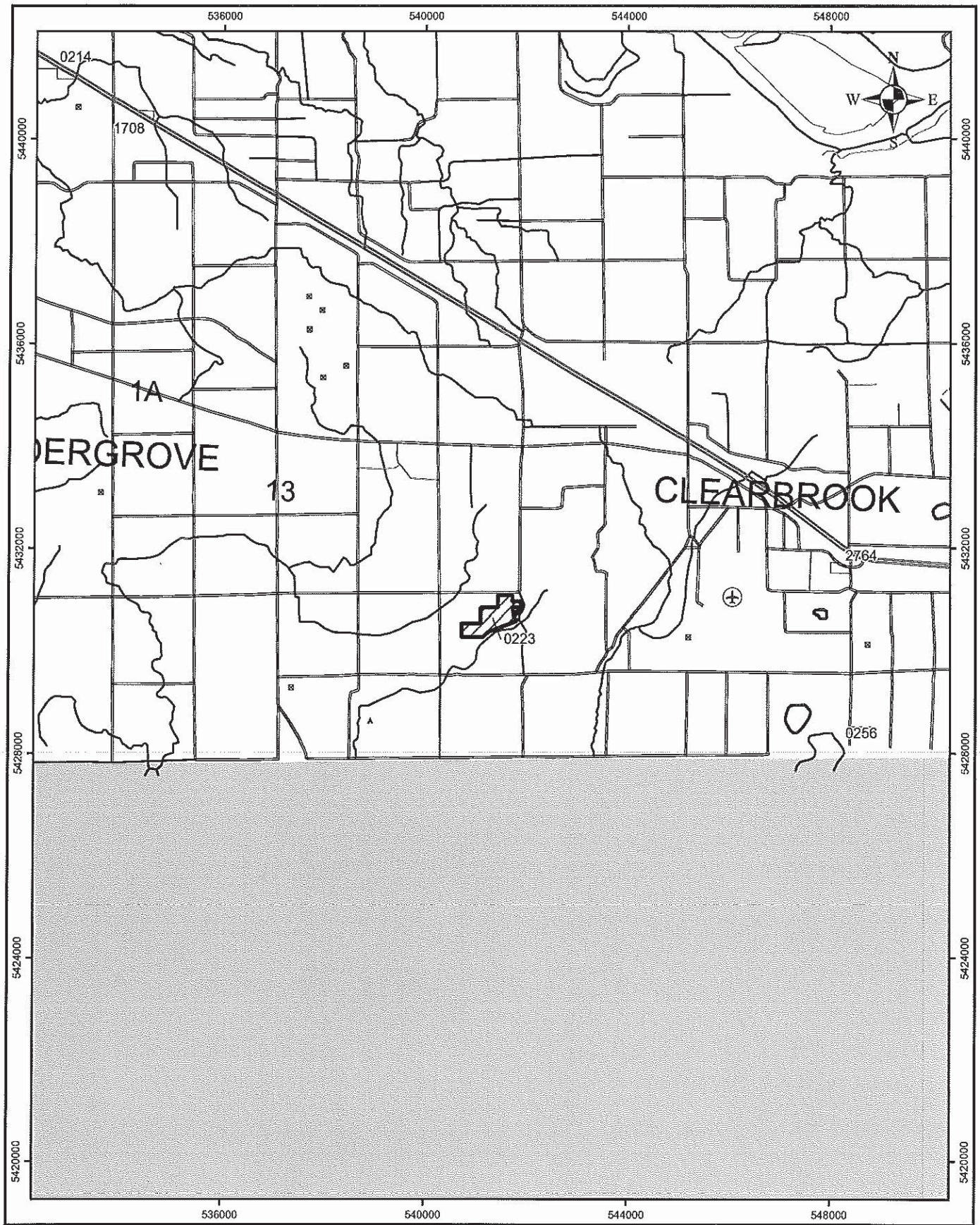


UTM Zone 10
1:20,000
0 90 180 360 540 720
Meters

BRITISH COLUMBIA Ministry of Transportation

Lower Mainland District
STRONG PIT #0223
Location Plan

FILE: -	DRAWN: IWTS DATE: 2006-07-19	FILE No.	PROJECT No.	REG.	FIGURE
PDF: PLP0223-20k.PDF	CHECKED: - DATE:	-	-	1	1



UTM Zone 10

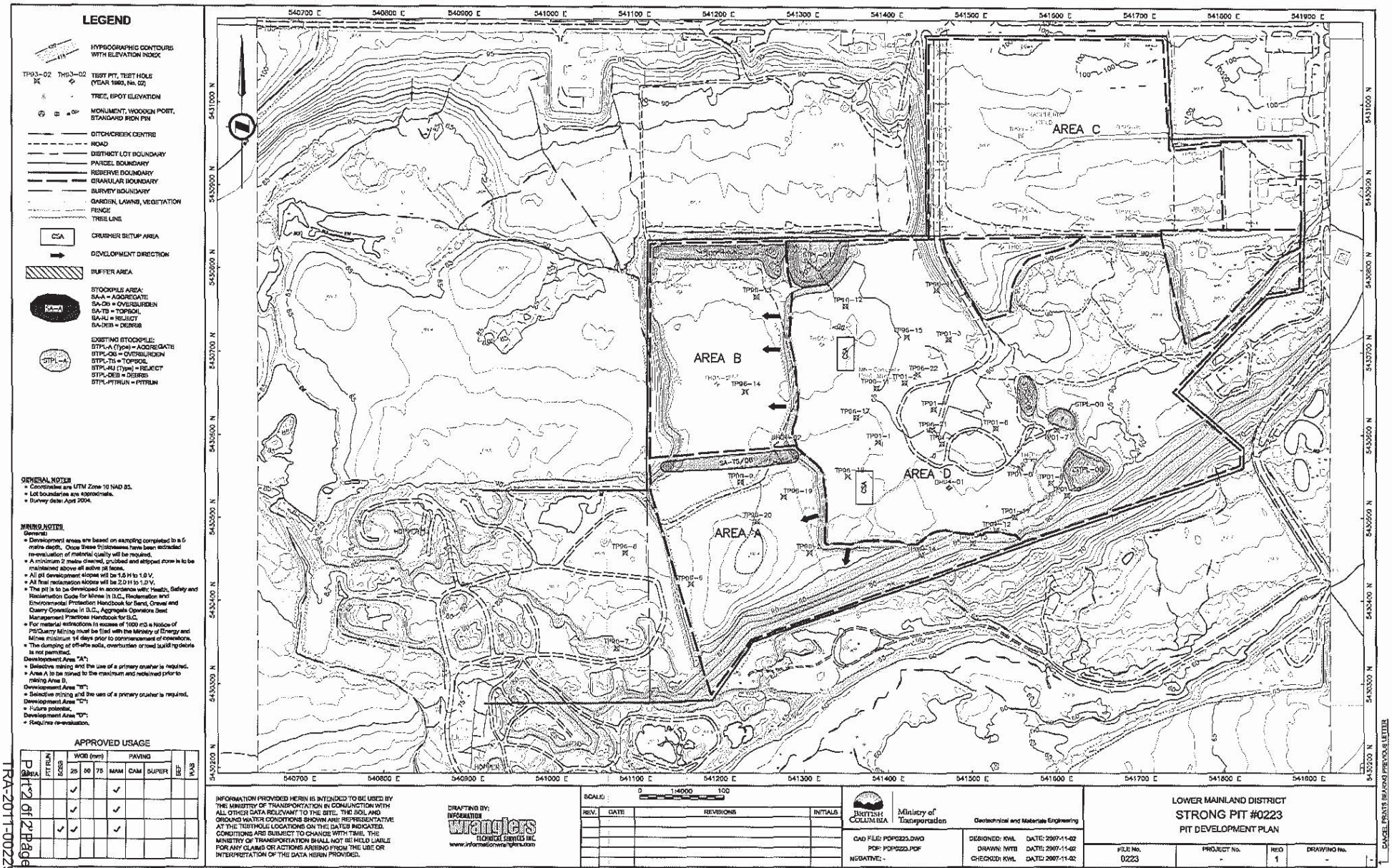
1:100,000

0 445 890 1,780 2,670 3,560 Meters

BRITISH COLUMBIA Ministry of Transportation

Lower Mainland District
STRONG PIT #0223
Location Plan

FILE: -	DRAWN: IWTS DATE: 2006-07-19	FILE No.	PROJECT No.	REG.	FIGURE
PDF: PLP0223-100k.PDF	CHECKED: - DATE:	-	-	-	1



GENERAL NOTES

- Coordinates are UTM Zone 10 NAD 83.
- Lot boundaries are approximate.
- Survey date: April 2004.

MINING NOTES

General:

- Development areas are based on sampling completed to a 5 metre depth. Once these thicknesses have been extracted re-evaluation of material quality will be required.
- A minimum 2 metre cleared, grubbed and stripped zone is to be maintained above all active pit faces.
- All pit development slopes will be 1.5 H to 1.0 V.
- All final reclamation slopes will be 2.0 H to 1.0 V.
- The pit is to be developed in accordance with: Health, Safety and Reclamation Code for Mines in B.C., Reclamation and Environmental Protection Handbook for Sand, Gravel and Quarry Operations in B.C., Aggregate Operators Best Management Practices Handbook for B.C.
- For material extractions in excess of 1000 m3 a Notice of Pit/Quarry Mining must be filed with the Ministry of Energy and Mines minimum 14 days prior to commencement of operations.
- The dumping of off-site soils, overburden or road building debris is not permitted.

Development Area "A":

- Selective mining and the use of a primary crusher is required.
- Area A to be mined to the maximum and reclaimed prior to mining Area B.

Development Area "B":

- Selective mining and the use of a primary crusher is required.

Development Area "C":

- Future potential.

Development Area "D":

- Requires re-evaluation.

APPROVED USAGE

AREA	PIT RUN	ECGS	WOB (mm) 25	50	75	PAVING MAM	CAM	SUPER	BSF	HUB
			✓			✓				
			✓			✓				
	✓		✓			✓				

INFORMATION PROVIDED HEREIN IS INTENDED TO BE USED BY THE MINISTRY OF TRANSPORTATION IN CONJUNCTION WITH ALL OTHER DATA RELEVANT TO THE SITE. THE SOIL AND GROUND WATER CONDITIONS SHOWN ARE REPRESENTATIVE AT THE TESTHOLE LOCATIONS ON THE DATES INDICATED. CONDITIONS ARE SUBJECT TO CHANGE WITH TIME. THE MINISTRY OF TRANSPORTATION SHALL NOT BE HELD LIABLE FOR ANY CLAIMS OR ACTIONS ARISING FROM THE USE OR INTERPRETATION OF THIS DATA HEREIN PROVIDED.

DRAFTING BY: Information Wranglers Technical Services Inc. www.informationwranglers.com

SCALE: 0 1:4000 100

REV.	DATE	REVISIONS	INITIALS

British Columbia Ministry of Transportation — Geotechnical and Materials Engineering

CAD FILE: PDP0223.DWG
PDF: PDP0223.PDF
NEGATIVE: -

DESIGNED: KWL DATE: 2007-11-02
DRAWN: IWTI DATE: 2007-11-02
CHECKED: KWL DATE: 2007-11-02

LOWER MAINLAND DISTRICT

STRONG PIT #0223

PIT DEVELOPMENT PLAN

FILE No.	PROJECT No.	REQ	DRAWING No.
0223	-	1	-

CANCEL PRINTS BEARING PREVIOUS LETTER

TRA-2011-00229 Page 199 of 212

Selection Criteria: Strong (0223)

Strong

Source ID	0223	**File Num**	39100-20-Strong	**UTM Zone**	10
Type	Gravel Pit	**Service Area**	7: Fraser Valley	**UTM Easting**	541700
Licensed	No	**Tenure Status**	Ministry owned	**UTM Northing**	5430700
Hectares	60.76	**Dev Status**	Active	**NTS Map Num**	92G/1
Location	3.0km s of Fraser Hwy on Bradner Rd.				
Comments	PDP updated May 2007 for Gateway Project. Pit last evaluated 2005. There is a Profit a Prendre on the north 12 1/2 chains of the NE1/4 of Sec.9, TP.13, NWD. (NW edge of Pannu prop.) This agreement expires Aug.31, 2005, if the gravel has'nt been removed by this date, then we have to look at renewal.				

Geotech Information (by Source Area)

A	Gravel	61	Degradation	77	Microdev - Coarse		Spec. Gravity - Coarse
	Sand	38	Sand Equiv	74	Microdev - Fine		Spec. Gravity - Fine
	Fines	1	MgSO4 - Coarse	5	Microdev - Avg		Absorption - Coarse
	Oversize	6	MgSO4 - Fine	11	Petrographic Num		Absorption - Fine
B	Gravel	61	Degradation	77	Microdev - Coarse		Spec. Gravity - Coarse
	Sand	39	Sand Equiv	74	Microdev - Fine		Spec. Gravity - Fine
	Fines	1	MgSO4 - Coarse	5	Microdev - Avg		Absorption - Coarse
	Oversize	6	MgSO4 - Fine	11	Petrographic Num		Absorption - Fine
C	Gravel	58	Degradation	66	Microdev - Coarse		Spec. Gravity - Coarse
	Sand	40	Sand Equiv	68	Microdev - Fine		Spec. Gravity - Fine
	Fines	2	MgSO4 - Coarse	0	Microdev - Avg		Absorption - Coarse
	Oversize	9	MgSO4 - Fine	0	Petrographic Num		Absorption - Fine
D	Gravel		Degradation		Microdev - Coarse		Spec. Gravity - Coarse
	Sand		Sand Equiv		Microdev - Fine		Spec. Gravity - Fine
	Fines		MgSO4 - Coarse		Microdev - Avg		Absorption - Coarse
	Oversize		MgSO4 - Fine		Petrographic Num		Absorption - Fine

Legal Land Description

		Description
PIN		LEGAL: Lot F, Sec9, TP13, PL23316, NWD
File Num		
Reserve Num		
Property File	PS-65062	

Selection Criteria: Strong (0223)

Strong

Development Information

Pit Dev Plan Month/Year	May 2007	**Dev Comments**	The pit is progressing well as long as the development plan is followed. Merchantable trees within proposed timber cut area(s) are to be cut in accordance with forestry regulations and cold decked, at a location approved by the Regional Gravel Manager, for sale. For effective use of all materials, selective mining techniques are required to blend the finer sandy areas with the coarser areas. A primary crusher must be used for all crushing contracts.
Update Required	No		
Last Evaluated Month/Year	Jan 2005	**Dev History**	Previous testing and use dates back to 1958 with favourable results for base coarse and surfacing aggregates. 2005 - approximately 300,000m3 was mined for various purposes.
		Constraints	Clay will likely be encountered at a shallower depth in area "B" than in area "A"
		FN Consult	

Material Quantities

Area	Proven	Potential	Approved Usage
A	623,000		25WGB, 50WGB, MAMA, WAB
B	486,200		25WGB, 50WGB, BEF, MAMA, SGSB, WAB
C		700,000	25WGB, MAMA, SGSB
D			

Exploration History

Month/Year	Completed by	Details
Nov 1970	MoT	Geophysical survey
Mar 1976	MoT	7 test holes completed by Ministry diampnd drill, ranging in depth from 9.2m to 15.8m. 84 test holes were completed by auger to depths ranging from 1.0m to 10.0m
Nov 1996	MoT	22 test pits completed to an average depth of 6.0m
Dec 1999	MoT	11 test pits completed to an average depth of 5.0m. These test pits were dug on the leased area to the north. The main purpose of this testing was for an Agrologist report.
May 2001	MoT	14 test pits completed to an average depth of 6.0m. These were to confirm untested areas of the main pit.
Nov 2004	Trow	2 Beckerdrill holes were completed to depths of 29.0m.
Jan 2005	Trow	9 Sonicdrill holes were completed to depths of 30.0m.

Site Surveys

Month/Year	Type
Mar 1976	Sketch
Apr 2004	DEM (ortho)
Feb 1998	DEM (survey)
Nov 1970	Other

Summary Information

Comments	PDP updated May 2007 for Gateway Project. Pit last evaluated 2005. There is a Profit a Prendre on the north 12 1/2 chains of the NE1/4 of Sec.9, TP.13, NWD. (NW edge of Pannu prop.) This agreement expires Aug.31, 2005, if the gravel has'nt been removed by this date, then we have to look at renewal.
Site Reclamation	All topsoil and overburden is to be stockpiled separately at the location(s) shown on the development plan, devia
Geology/ Geomorphology	Part of a large glacial outwash deposit termed the Abbotsford Outwash. The property consists of horizontally stratified layers of clean gravels and sands over 6.0 to 14.0 metres of clay. There is gravel beneath the clay,

SCHEDULE 5

TIME SCHEDULE

Schedule 5 – Time Schedule

PROJECT NO. 11897-8002

HIGHWAY NO. 10 – 192ND STREET TO SPRINGBROOK ROAD – 3 SECTIONS

COLD MILLING AND ASPHALT RESURFACING SS 502 – EPS

(30.2 LANE KMS)

Completion Date:

The Contractor will complete construction of the Work to the satisfaction of the Ministry Representative on or before the Completion Date of **October 3, 2008**, as may be extended from time to time in accordance with the Contract.

SCHEDULE 6

INSURANCE

BRITISH COLUMBIA | Ministry of Transportation

NOTICE TO CONTRACTORS
ENSURING COMPLIANCE WITH INSURANCE, BONDS and WCB REQUIREMENTS

Major Works, Minor Works, Operational Services, Design Build Minor and Consulting Services Contracts General Information:

- The ONLY acceptable Certificate of Insurance is a Ministry of Transportation **Certificate of Insurance (H0111).**
- BOTH pages of the **Ministry Certificate of Insurance** must be submitted and the form conditions on page one and two must **NOT** be altered or added to.
- Ensure that the effective award date of the Certificate of Insurance is the earlier of the date of contract award or contract start date.
- DO NOT add the Ministry of Transportation as an Addition Insured on page 1 of the Certificate of Insurance as the Ministry of Transportation is an Additional Named Insured (as per the insurance specifications and page 2 of the Certificate of Insurance).
- Always examine your Ministry Certificate of Insurance for policy effective dates and expiry dates and renewal dates in relationship to your contract.
- Ensure that the Certificate of Insurance includes all required information (name of Insurer, policy numbers, policy effective dates, expiry dates, policy limits, deductibles and aggregates).
- Double check all documentation to ensure that the project number and description are correct.
- Always give the sample Ministry of Transportation **Certificate of Insurance**—again BOTH pages—**the Insurance Specifications, the Special Provisions and the Bond Specimens** in your tender document to your Insurance Broker as it enables him/her to produce documentation and pricing in accordance with the contract requirements.
- Ensure that Ministry Certificate is duly signed and are originals or certified copies.
- If Automobile Liability insurance is required in the Ministry Agreement one of the following must be provided:
  - duly completed H0111 form (must show the ICBC coverage) AND/OR
  - a completed APV47 (ICBC Form) OR
  - a completed APV250 (ICBC Form)

  *Note: Combination of Primary ICBC insurance and other Excess insurance is acceptable but must be clearly evidenced.

Major Works, Minor Works, Operational Service and Design Build Minor Contracts Only:

- Insurance requirements are found in BOTH Schedule 3- Special Provisions and Schedule 6- Insurance Specifications.
- Specimen Bonds are found in Schedule T2 Tender Securities Document INS0264 and Schedule 2 Contract Securities INS0265. Please ensure the bonds provided match the specimen.

Questions should be directed to the Corporate Insurance and Bonds Manager – (250) 387-7580

WCB

Workers' Compensation Board (WorkSafeBC) coverage is required.

- The general WCB of BC information site is http://www.worksafebc.com/
- Registration and insurance coverage can be completed online with details found at http://www.worksafebc.com/insurance/registering_for_coverage/register_with_worksafebc/default.asp. To report applicable payroll online, use http://www.worksafebc.com/online_services/reporting_and_remitting/default.asp
- Ensure that your premiums are paid so a clearance letter will be obtainable by the Ministry. For estimating your insurance costs, you may wish to consult the rate guide at http://www.worksafebc.com/insurance/premiums/rate_setting/default.asp.

BRITISH COLUMBIA Ministry of Transportation

INSURANCE SPECIFICATIONS
MAJOR WORKS CONTRACTS
INS-152

PART 1

It is a condition of this contract that the Contractor shall, at the Contractor's expense, obtain and maintain insurance coverage in wording and in amounts as hereinafter specified. Such insurance shall remain in full force and effect until all conditions of the contract have been fully complied with and until acceptance by the Ministry of all works and appurtenances pertaining to the contract, of which these insurance specifications are a part.

1. **ISSUANCE OF INSURANCE**
All insurance coverage shall be issued with insurers acceptable to the Ministry, and issued by companies licensed to transact business in the Province of British Columbia.

2. **EVIDENCE OF COVERAGE**
The Contractor shall file evidence of insurance issued to comply with the requirements outlined in these insurance specifications prior to starting work on the contract and before any payments are made under the contract.

Evidence shall be as follows:

a) For all policies, except Automobile Liability, by way of a duly completed Ministry Certificate of Insurance (H0111), which will be considered to be part of this Schedule.

b) For Automobile Liability insurance, either a duly executed I.C.B.C. APV47 or APV250 form, or a Ministry Certificate of Insurance.

The Contractor shall, upon request by the Ministry, file originals or signed, certified copies of all current policies and any endorsements necessary to comply with these insurance specifications and any other requirements outlined elsewhere in the contract. Failure to provide the required insurance may result in payments to the Contractor being withheld.

All documentation shall be filed with:

The Manager, Insurance and Bonds, Ministry of Transportation, PO Box 9850, Stn Prov Govt, 940 Blanshard Street, Victoria, BC V8W 9T5.

NO OTHER CERTIFICATES OF INSURANCE ARE ACCEPTABLE.

Payments to the Contractor may be withheld and/or all work on the site of the contract may be ordered to cease if the Contractor fails to obtain or maintain insurance as required herein, or if the Ministry does not approve any insurance policy or policies submitted to them and the Contractor does not comply with the insurance requirements of the contract and, the Ministry shall also have the right, but not the obligation, to place and maintain such insurance in the name of the Contractor and the Ministry. The cost thereof shall be payable by the Contractor to the Ministry on demand, and the Ministry may deduct the cost thereof from any monies which are due, or may become due to the Contractor.

3. **THIRD PARTY LIABILITY INSURANCE**
Comprehensive (Commercial) General Liability insurance including non-owned automobile and contractual liability insurance shall be arranged with inclusive limits of not less than **TWO MILLION DOLLARS ($2,000,000.00)** for bodily injury, death, and property damage arising from any one accident or occurrence. The insurance policy shall indemnify the named insureds under the policy for any sum or sums which the insured may become liable to pay or shall pay for bodily injury, death or property damage or for loss of use thereof, arising out of or resulting from the work of the Contractor or the Ministry under this contract, anywhere within Canada and the United States of America. In addition to the above limits, such liability insurance shall also pay all costs, charges, and expenses in connection with any claims that may require to be contested by the insureds anywhere within Canada and the United States of America.

EXTENSION OF COVERAGE
Such liability insurance shall also include all liability arising out of completed operations, blanket written contractual, contingent employers liability, non-owned automobile liability and liability assumed by the Contractor in connection with and applicable to the contract.

EXCLUSIONS NOT PERMITTED
Claims arising out of the legal liability imposed upon the insured at common law and extended by Statute for bodily injury or death to employees of the Insured. However, exclusions applicable to liability imposed upon or assumed by the Insured under any Workers' Compensation Statutes of for assessment by any Workers' Compensation Board will be allowed.

Liability assumed by the insured under contract with railroad companies for the use and operation of railway sidings or crossings.

Hazardous operations such as excavation, pile driving, shoring, blasting, under-pinning, or demolition work or any other operation or work to be performed by the Ministry or the Contractor shall not be excluded from insurance coverage, where such type of work or operation is to be performed by either party under the contract.

DEDUCTIBLES
A property damage deductible will be allowed for any one accident or per occurrence for up to **FIVE THOUSAND DOLLARS ($5,000.00)** or **ONE PERCENT (1%)** of the contract amount, whichever is greater. Payment of any deductible shall be the responsibility of the Contractor.

A BODILY INJURY OR DEATH DEDUCTIBLE IS NOT ALLOWED

ADDITIONAL CONDITIONS
Each policy (except Automobile Liability Insurance) shall be endorsed as follows:

Notwithstanding any other terms, conditions, or exclusions elsewhere in this policy, it is understood and agreed that this policy is extended to include insurance coverages and clauses as follows:

Her Majesty the Queen in Right of the Province of British Columbia as represented by the Minister of Transportation, together with the employees, agents, and servants of the Minister, hereinafter referred to as the Additional Named Insured, is added as an Additional Named Insured, in respect of liability arising from the work or operations of the Insured and the Additional Named Insured, in connection with contracts entered into between the Insured and the Additional Named Insured.

The insurance as is afforded by this policy shall apply in the same manner and to the same extent as though a separate policy had been issued to each insured. Any breach of a condition of the policy by any Insured shall not affect the protection given by this policy to any other insured. The inclusion herein of more than one Insured shall not operate to increase the limit of liability under this policy.

Products and Completed Operations Hazard coverage shall be provided and such coverage shall remain in full force and effect for a period of **twelve (12)** months after the work has been completed, irrespective of the expiry date of the policy.

4. **AUTOMOBILE LIABILITY INSURANCE**
IF any licensed vehicles are owned, leased, rented or used in the performance of this contract, then Automobile Liability coverage with inclusive limits of not less than **TWO MILLION DOLLARS ($2,000,000.00)** providing third party liability and accident benefits insurance must be provided for all these vehicles.

5. **PROTECTION AND INDEMNITY INSURANCE**
IF vessels are operated in the course of the contract and are not covered under the general liability policy, then the Contractor shall provide Protection and Indemnity insurance applying to all vessels operated in the course of the contract with limits of not less than **TWO MILLION DOLLARS ($2,000,000.00)** for such vessels. Such Protection and Indemnity insurance shall include four-fourths collision liability insurance.

6. **AIRCRAFT INSURANCE**
IF aircraft (including helicopters) are owned, leased, rented or used in the performance of this contract, then third party liability coverage with inclusive limits of not less than **FIVE MILLION DOLLARS ($5,000,000.00)** must be provided.

7. **EVIDENCE OF RENEWAL**
The Contractor shall furnish evidence of the renewal or extension of the required policy(s) by certified copy of a renewal certificate(s) or by endorsement(s) to the policy(s) which is to be received by The Manager, Insurance and Bonds at least **thirty (30)** days prior to the expiry date of the policy.

8. **NOTICE OF CANCELLATION, ETC.**
The required insurance shall not be cancelled, removed, reduced, materially changed or altered without thirty (30) days prior notice in writing by Registered Mail to:
The Manager, Insurance and Bonds, Ministry of Transportation, PO Box 9850, Stn Prov Govt, 940 Blanshard Street, Victoria, B.C. V8W 9T5.

9. **USE AND OCCUPANCY**
Use and occupancy of the work or any part thereof prior to the date of completion shall not be cause for any termination of insurance coverage shown in the applicable sections.

THE PROVINCE ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OF THE INSURANCE EFFECTED IN FAVOUR OF THE CONTRACTOR OR THE MINISTRY UNDER THIS AGREEMENT.

BRITISH COLUMBIA Ministry of Transportation

CERTIFICATE OF INSURANCE

Contracts/Leases/Agreements/Permits Number, Location and Description:	Brokers' Reference No.
	Award or Effective Date _____ (yyyy/mm/dd)

INSURED Name _____

Business Address _____

BROKER Name _____

Business Address _____

Type of Insurance	Company and Policy Number	Policy Dates yyyy/mm/dd Effective	Expiry	Limits of Liability / Amounts
Comprehensive (or Commercial) General Liability (Including Non-Owned Automobile Liability)				Bodily Injury and Property Damage $ _____ Inclusive $ _____ Aggregate $ _____ Deductible
Additional Insureds:				
Automobile Liability				Bodily Injury and Property Damage $ _____ Inclusive
Umbrella/Excess Liability				$ _____ Limits excess of $ _____ General Liability excess of $ _____ Automobile
☐ Builders Risk ☐ Installation Floater ☐ Other:				$ _____ Site $ _____ Other Location $ _____ Transit
Equipment Insurance				$ _____ Limit
Professional Liability Errors and Omissions				$ _____ Each Claim $ _____ Aggregate $ _____ Deductible
☐ Protection & Indemnity ☐ Hull & Machinery ☐ Builders Risk (Vessels) ☐ Ship Repairers' Liability				$ _____ Limit $ _____ Limit $ _____ Limit $ _____ Limit
Other:				$ _____ Limit

The undersigned certifies the undersigned has reviewed the policies of insurance described above and Page 2 of this certificate and further certify that those policies have been issued to the insured named above and are in full force and effect and comply with the insurance requirements set out in the agreement / contract / lease / permit identified above, including the requirements set out on Page 2 of this certificate.

Signature of person authorized to sign on behalf of insurers certifying Page 1 and Page 2 of this Certificate

Print or Type Name

Date (yyyy/mm/dd)

ADDITIONAL CONDITIONS ARE SHOWN ON PAGE 2 OF THIS CERTIFICATE OF INSURANCE

Notwithstanding any other terms, conditions or exclusions elsewhere in the insurance policy(s), it is understood and agreed that the insurance policy(s) are extended to include insurance conditions as follows:

CONDITIONS APPLICABLE TO:
COMPREHENSIVE OR COMMERCIAL GENERAL LIABILITY

1. Additional Named Insured Clause for Ministry Contracts
Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation, together with the employees, agents, and servants of the Minister, hereinafter referred to as the Additional Named Insured, is added as an Additional Named Insured, in respect of liability arising from the work or operations of the Insured and the Additional Named Insured, in connection with contracts, entered into between the Insured and the Additional Named Insured.

2. Extension of Coverage
Such liability insurance shall also include all liability arising out of completed operations, blanket written contractual, contingent employers liability, non-owned automobile liability, and liability assumed by the Contractor in connection with and applicable to the contract.

3. Cross Liability
The insurance as is afforded by this policy shall apply in the same manner and to the same extent as though a separate policy had been issued to each Insured. Any breach of a condition of the policy by any Insured shall not affect the protection given by this policy to any other Insured. The inclusion herein of more than one Insured shall not operate to increase the limit of liability under this policy.

4. Exclusions Not Permitted
If hazardous operations such as excavation, pile driving, shoring, blasting, underpinning, or demolition work or any other operation or work is to be performed by the Ministry or the Contractor, then this type of work or operation shall not be excluded from insurance coverage where such type of work or operation is to be performed by either party under the contract, subject to prior notification to the insurer by the Contractor.

Claims arising out of the legal liability imposed upon the Insured at common law and extended by Statute for bodily injury or death to employees of the Insured. However, exclusions applicable to liability imposed upon or assumed by the Insured under any Workers' Compensation Statutes or for assessment by any Workers' Compensation Board will be allowed.

Liability assumed by the Insured under contract with railroad companies for the use and operation of railway sidings or crossings.

5. Products and Completed Operations Hazard
Products and Completed Operations Hazard coverage shall be provided and such coverage shall remain in full force and effect for a period of twelve (12) months after the contracted work has been completed (twenty four (24) months for Design Build Minor Contracts), irrespective of the expiry date of the policy.

CONDITIONS APPLICABLE TO:
PROPERTY TYPE OF INSURANCE POLICIES
(WHERE IT IS A REQUIREMENT OF THE CONTRACT, AGREEMENT, LEASE OR PERMIT)

1. Additional Named Insured Clause
Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation, is added as an Additional Named Insured.

2. Loss Payable Clause
Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation.

3. Waiver of Subrogation
In the event of any third party loss or damage or any physical loss or damage to the work or Contractor's equipment, the settlement or payment of the subsequent claim shall be made without the right of subrogation against Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation or any of the employees, servants or agents of the Minister.

CONDITIONS APPLICABLE TO:
ALL POLICIES EXCEPT AUTOMOBILE LIABILITY INSURANCE ISSUED BY I.C.B.C. AND PROFESSIONAL LIABILITY (E&O) INSURANCE

1. Cancellation
This policy shall not be cancelled, removed, reduced, materially changed or altered without thirty (30) days prior notice in writing by Registered Mail to:

CORPORATE INSURANCE AND BONDS MANAGER
MINISTRY OF TRANSPORTATION
PO BOX 9850 STN PROV GOVT
VICTORIA BC V8W 9T5
or
Ministry Representative, as noted in the contract.

CONDITION APPLICABLE TO:
PROFESSIONAL LIABILITY / ERRORS AND OMISSIONS INSURANCE

1. Cancellation
The required insurance shall not be cancelled, or endorsed to reduce limits of liability, without thirty (30) days notice in writing by Registered Mail to: The Corporate Insurance and Bonds Manager, Ministry of Transportation, PO Box 9850, Stn Prov Govt, 940 Blanshard Street, Victoria, B.C. V8W 9T5. Notification of the policy being endorsed to restrict coverage mid-term, must be provided in writing by Registered Mail to the same address, no later than the effective date of such change.

Issuance of this certificate shall not limit or restrict the right of the Ministry of Transportation to request any time certified copies of any insurance policy(s).

SCHEDULE 7

APPROXIMATE QUANTITIES AND UNIT PRICES

Revision: **Revision Date:**

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 11897-8002
Project Name: Highway No. 10 - 192nd Street to Springbrook Road, 3 Sections, Cold Milling and Asphalt Resurfacing SS 502 - EPS (30.2 Lane Kms)

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
01	**SECTION 1 - GENERAL**				
01.01	Mobilization	L.S.	100%	L.S.	$_____
01.02	Traffic Management	L.S.	100%	L.S.	$_____
01.03	Quality Management	L.S.	100%	L.S.	$_____
01.04	Pavement Markings	L.S.	100%	L.S.	$_____
02	**SECTION 2 - COLD MILLING AND PAVING**				
02.01	Install C-035 Project Signs and EOP Signs	Each	14	$_____	$_____
02.02	**Aggregates Produced in Stockpile**				
02.02.01	Class 1, Med Mix Paving Aggregates	Tonne	19,100	$_____	$_____
02.02.02	25mm Well Graded Base Course	Tonne	500	$_____	$_____
02.03	**Cold Milling Asphalt Pavement**				
02.03.01	50mm Depth	Square Metre	25,200	$_____	$_____
02.03.02	75mm Depth	Square Metre	26,850	$_____	$_____
02.03.03	150mm Depth	Square Metre	9,500	$_____	$_____
02.04	**Utilities**				
02.04.01	Adjust Catch Basins	Each	16	$_____	$_____
02.04.02	Adjust Manholes	Each	13	$_____	$_____
02.04.03	Adjust Values	Each	16	$_____	$_____
02.04.04	Adjust Junction Boxes	Each	2	$_____	$_____

Revision: **Revision Date:**

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 11897-8002
Project Name: Highway No. 10 - 192nd Street to Springbrook Road, 3 Sections, Cold Milling and Asphalt Resurfacing SS 502 - EPS (30.2 Lane Kms)

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
02.04.05	Relocate Junction Boxes	Each	2	$	$
02.04.06	Relocate Flashers	Each	2	$	$
02.04.07	Install Catch Basin	Each	1	$	$
02.05	**Remove and Replace Traffic Islands**				
02.05.01	Remove and Disposal of Existing Traffic Islands	Square Metre	1,620	$	$
02.05.02	Supply Extruded Concrete Curb for Traffic Islands	Metre	900	$	$
02.05.03	Supply 25mm Well Graded Base Aggregates	Tonne	500	$	$
02.05.04	Asphalt Island Capping	Square Metre	600	$	$
02.06	**Emulisified Primer**				
02.06.01	Supply of Emulsified Primer	Litre	28,400	$	$
02.06.02	Spray Tack Coat	Litre	28,400	$	$
02.06.03	Supply and Spray Joint Sealant	Square Metre	3,280	$	$
02.07	**Asphalt Pavement**				
02.07.01	Asphalt Pavement, Class 1, Med. Mix, SS 502 - EPS, including the supply of 80/100 asphalt cement	Tonne	18,500	$	$
02.07.02	Levelling Course	Tonne	500	$	$
02.07.03	Upgrade to PG 70-22 Aspalt Cement - (CONDITIONAL ITEM)	Tonne	18,500	$	$
03	**PROVISIONAL SUM**				

Revision: **Revision Date:**

SCHEDULE OF APPROXIMATE QUANTITIES AND UNIT PRICES

Project No: 11897-8002
Project Name: Highway No. 10 - 192nd Street to Springbrook Road, 3 Sections, Cold Milling and Asphalt Resurfacing SS 502 - EPS (30.2 Lane Kms)

Item#	Description of Work	Unit of Measure	Approx Quantity	Unit Price	Extended Amount
03.01	Site Modifcations (See Special Provision 3.01)	P.S.	$75,000.00	P.S.	$75,000.00
03.02	Payment Adjustments, SS502 - EPS (See Special Provision 3.02)	P.S.	$80,000.00	P.S.	$80,000.00
03.03	**Shoulders**				
03.03.01	Shoulder Preparation	Square Metre	600	$_____	$_____
03.03.02	Shoulder Build-up	Tonne	4,500	$_____	$_____
03.03.03	Finished Granular Shoulders	Tonne	100	$_____	$_____
	TENDER PRICE				$_____
	TOTAL TENDER COST (Tender Price plus Site Occupancy (if applicable))				$_____

Contractors

Name: _____

Address: _____

_____

City: _____

Postal Code: _____

Phone: _____

Fax: _____

Date: _____

SCHEDULE 8

CONTRACT ADDENDA