

TOWN OF PEACE RIVER

101 STREET TO 99 STREET - SOUTH OF 109 AVENUE

20GEME6067

August 18, 2023

Grande Prairie

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www.baseng.ca

101 Street Storm Sewer
Siteworks & Underground

Beirsto & Associates | **6** YEARS
ENGINEERING & SURVEY



INVITATION TO TENDER

TOWN OF PEACE RIVER is receiving sealed tenders for the following project:

**101 Street Storm Sewer
Siteworks & Underground
20GEME6067**

The project is located in **Town of Peace River**. Tenders should be addressed to:

**Town of Peace River
9911 – 100 Street
Peace River, Alberta
T8S 1S4**

and submitted on bids&tenders®.

Tenders will be received online (on bids&tenders®) until **September 1, 2023 at 2:00:00 p.m.** It is the responsibility of the Tenderer to ensure that:

- they have received all addenda issued and incorporated the changes into their Tender submission; and
- their Tender has been received prior to the closing date and time;

Openings will occur shortly after the tender closing and results will be emailed out shortly thereafter. Due to the online submission format, this tender will not have an in-person opening.

A notice of the tender is posted on the Alberta Purchasing Connection (APC) website at www.purchasingconnection.ca, and the Tender documents can be downloaded from APC or the bids&tenders® site. Note that in order to obtain documents from bids&tenders® with the watermark removed, and in order to submit your tender you must register for the bid on bids&tenders®.

The Town of Peace River – General Municipal Servicing Standards may be obtained from their website.

Each tender must be accompanied by a certified cheque, Bid Bond, or irrevocable letter of credit in the amount of ten percent (10%) of the tender price payable to The Town of Peace River. Also, to ensure consideration of the tender, each tender must be accompanied by a Consent of Surety as required by the Contract Documents. The lowest or any tender will not necessarily be accepted.

Tender/ Technical Inquiries

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1.1. General

This tender is to be made without any connection, knowledge, comparison of figures or arrangements with any other company, firm or person making a tender for the same Work. No person or firm other than the Tenderer whose signature is associated with this submission has any interest in this tender or in the proposed Contract.

1.2. Tenderer's Investigation

The Tenderer is responsible for examining the Plans, Specifications, Tender and Contract forms and to carefully investigate and satisfy itself of every condition affecting the Project and Site including, but not limited to, the site conditions and the Work to be provided. The Contractor acknowledges and agrees that its submission of a tender is conclusive evidence that the Contractor made such investigation and that, whether or not it has so investigated, it is willing to assume and does assume all risk regarding conditions affecting the Project and the Site.

The Contractor acknowledges and agrees that any information pertaining to subsurface soil, rock and groundwater conditions on the borehole/test pit logs shown on the drawings has been obtained for design purposes and is valid only at the specific locations of the boreholes/test pits and on the date that the subsurface investigations took place. Tenderers may wish to supplement this information, for their purposes, by performing additional investigations.

The Tenderer may not claim, after the submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the Contract. The Tenderer's attention is drawn to the Special Conditions of the Contract Documents that contain any changes or additions to the General Conditions.

The Tenderer's attention is also drawn to any Addendum/Bulletin, which may be issued prior to the time of tender closure. Should a Tenderer find discrepancies in, or omissions from the drawings or other documents, or should the Contractor be in doubt as to their meaning, the Contractor should at once notify the Consultant. No verbal agreement or conversation with any officer, agent, or employee of the Owner shall affect or modify any of the terms or obligations herein stated.

1.3. Form of Submission

The Tenderer is to submit the Tender Form of the tender documents within the bids&tenders[®] online portal. Their submission must be accompanied by the specified Bid Bond and Consent of Surety.

1.4. Tenderer's Questionnaire

The Tenderer may be required to furnish evidence that they have the necessary experience and are prepared to use the necessary personnel and equipment to carry out the Work satisfactorily and within the time stated within the Tender Form.

In such a case where this information is required, the Tenderer will be provided with a "Tenderer's Questionnaire" which shall be completed in order that their capabilities in this regard can be assessed by the Owner. Failure to complete this questionnaire may result in the tender being considered incomplete.

1.5. Materials

The Tenderer must show, where and when requested in the tender, the names of the material suppliers they intend to use, together with the trade or brand name of the material supplied. Material suppliers must not be changed after the closing of tenders unless permission from the Consultant is obtained.

1.6. Signed Tender

The tender must be executed under seal by the Tenderer (Tender Agreement Form fully executed – Section 2.5) and uploaded in the Documents Upload section on bids&tenders®.

If the Tenderer is an individual or partnership, the tender shall be executed by the individual, or in the case of a partnership, a partner in the presence of a witness and the signer must show the capacity in which the Contractor signs, e.g., partner or "proprietor". If a Tenderer is a corporation, the tender shall be executed under the seal of the company, affixed in the presence of the authorized officers or directors.

If the tender is a joint venture, each party to the joint venture shall execute the tender under seal in the manner appropriate to each party.

All tenders must be received by the bids&tenders® portal no later than **September 1, 2023 at 2:00:00 p.m.**

1.7. Tender Price

Unit prices shall be filled in where indicated in the Tender Form on bids&tenders® regardless of whether a quantity is shown. The total tender must be an accurate extension of the unit and lump sum prices submitted and the quantities based on which these prices are obtained.

In the event of a discrepancy between the unit prices and extended totals, the unit prices will govern and the Consultant will correct the extended totals accordingly.

The prices tendered shall include the supply of all materials except those specified to be supplied by others, all supervision, labour, and equipment, and a provision for overhead and profit, and shall represent the entire cost to the Owner for the completed Work shown on the drawings and described in the specifications for the project entitled:

**Town of Peace River
101 Street Storm Sewer**

for which drawings and specifications have been prepared by the Consultant of the Owner, *Beirsto & Associates Engineering Ltd.*, acting as, and referred to herein as the "Consultant".

1.8. Goods and Services Tax

The Tenderer shall make a net tender to the Owner with GST excluded. Comparison of tenders will be made on the basis of the tender price net of the GST applicable. Any amount to be levied in respect of the GST will be identified as a separate item on a request for progress payment by the Contractor. The appropriate GST levy will be paid to the Contractor in addition to the amount recommended for payment by the Consultant for Work performed under the Contract.

1.9. Bid Bond

The tender shall be accompanied by:

- a) either a certified cheque in the amount of ten percent (10%) of the tender price; or
- b) a suitable Bid Bond in the amount of ten percent (10%) of the tender price;

Each of the above must also be accompanied by a letter of consent from a bona fide surety company to the effect that if the Contract is awarded to the Tenderer, they will upon being so awarded, become bound as their securities, for its faithful performance.

The bond or tender cheques deposited by the unsuccessful Tenderers shall be returned to them upon signing of the Contract with the successful Tenderer.

The successful Tenderer's tender cheque or Bid Bond shall be returned upon receipt by the Owner of the Performance Bond and the Materials and Labour Payment Bond. In the case of the Bid Bond only and as an alternate to returning such Bond, the Owner may retain the Bond and allow it to expire.

1.10. Consent of Surety

Consent of Surety is required as part of this tender. The Consent of Surety must be issued by a Surety Company licensed to do business in the Province of Alberta and must have its respective address, or that of the representative agent in this Province, included on that particular document.

In lieu of a Consent of Surety, an irrevocable letter of credit from a financial institution licensed to do business in the Province of Alberta will be accepted. The letter must clearly indicate that if the Contract is awarded to the Tenderer, they will upon being so awarded, provide the Tenderer with an irrevocable letter of credit or certified cheque in the amount of one hundred percent (100%) of the tender price.

1.11. Withdrawal of Tender

A Tenderer may, without prejudice to themselves, withdraw their tender at any time prior to closing of the tenders.

1.12. Tender Rejection

The Owner reserves the right to reject any or all tenders; the lowest will not necessarily be accepted. Without limiting the generality of the foregoing, any tender may be rejected:

- which is incomplete, obscure, or irregular;
- which has erasures or corrections in the Tender Form;
- in which prices are omitted or are unbalanced; and/or
- which has insufficient or irregular Surety;

The Consultant may contact any one or more Tenderers to request clarification without any obligation to contact or inform other Tenderers of said request. The requested clarification information shall be provided to the Consultant by the Tenderer in a timely manner. Any such request for information by the Consultant to the Tenderer shall not be construed as acceptance of a tender.

The Owner may decide, at its sole discretion, that no tender submitted will be accepted and no Contract will be awarded pursuant to this tender process. In that event, all Tenderers will be notified and the Owner will have no liability to any Tenderer.

1.13. Award Considerations

By the act of submitting a tender, the Tenderer waives the right to contest in any legal proceeding or action, the right of the Owner to award the Contract to whomever it chooses, at its sole and unfettered discretion, and for whatever reason the Owner deems appropriate.

If the Owner decides to accept a tender and award a Contract, in addition to price and total acquisition cost, the selection of the successful Tenderer will be based on a number of criteria which shall include, but not necessarily limited to:

- the ability and skill of the Tenderer to provide the goods and services requested;
- the ability of the Tenderer to perform the Contract or provide the services promptly or at the time indicated without delay or interference;
- the character, integrity, reputation, judgement, experience, and efficiency of the Tenderer;
- the quality and performance of previous Contracts, goods or services, provided by the Tenderer;
- the sufficiency of the financial resources and the ability of the Tenderer to perform the Contract or provide the goods or services;
- the quality, availability and adaptability of the goods or Contractual services to the particular use required, and ability to best meet the Owner's operational needs;
- the ability of the Tenderer to provide future maintenance and services for the items acquired;
- the number and scope of conditions attached to the tender;
- any litigation between the Tenderer and the Owner; whether pending, past, threatened or suggested;

Receipt of an invitation to tender or receipt and evaluation by the Consultant of a tender does not imply a Tenderer is qualified.

1.14. Award Notification

The Owner will, following receipt of an acceptable tender, issue a written Notice of Award to the successful Tenderer. This notice will be given as soon as possible following the closing of tenders and unless otherwise agreed to by the Tenderer will not be later than ninety (90) days following the closing of tenders.

1.15. Time Allowed For Signing the Contract

If the successful Tenderer refuses, or neglects, to sign the Contract Agreement within ten (10) days of the Notice of Award for the Contract being presented to them, the amount of the tender cheque or the Bid Bond made by the successful Tenderer shall be forfeited to and retained by the Owner in the amount of the difference in money between the amount of the tender price and the amount from which the Owner may legally Contract with another party to perform the Work, if the latter being in excess of the former.

1.16. Time Under Construction

The Tenderer shall identify in the Tenderer's Construction Schedule the durations they require to complete the Work realizing the Owner's desires to have the Work at the level of Construction Completion by the Completion Date identified within Section 2.7. The Tenderer shall realize that the Consultant may be required to make adjustments to the Start Date due to site availability. In the situations where this does occur the Completion Date will also be adjusted to coincide with the given project duration identified in the Tenderer's Construction Schedule.

The Tenderer is to be aware of the sections within the Contract Documents that make reference to and/or identify specifically project timeline adjustments and expectations. The sections to be referenced include but are not limited to the following:

- a) Section 2.1 – General of the Tender Form
- b) Section 2.8 – Tenderer's Construction Schedule of the Tender Form
- c) Section 3.4 – Construction Commencement and Completion of the Contract Documents
- d) Section 4.1 – Definitions of the General Conditions
- e) Section 4.25 – Construction Schedule of the General Conditions
- f) Section 4.26 – Notice to Proceed of the General Conditions
- g) Section 4.27 – Construction Commencement and Completion of the General Conditions
- h) Section 4.31 – Adjustment of Completion Dates of the General Conditions
- i) Section 4.32 – Failure to Complete on Time of the General Conditions
- j) Section 4.33 – Duration of Work and Site Occupancy of the General Conditions
- k) Section 4.34 – Seasonal or Prolonged Shutdown
- l) Section 4.51 – Changes in the Work of the General Conditions
- m) Section 4.52 – Extra Work of the General Conditions

1.17. Specifications Manuals

Any further reference to the manuals listed below within the proceeding document will be as per their respective acronyms:

- i. Town of Peace River - General Municipal Servicing Standards – GMSS
- ii. Alberta Transportation Standard Specifications for Highway Construction – Edition 16 (AT)

2. TENDER FORM

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2.1. General

Tender is submitted to **TOWN OF PEACE RIVER** for the construction of:

**101 STREET STORM SEWER
SITEWORKS & UNDERGROUND
20GEME6067**

LOCATION:

101 Street to 99 Street - South of 109 Avenue

Tenderer agrees to furnish and deliver all materials, to provide all necessary equipment and to do and perform all Work in accordance with the Contract Documents for the above named Works.

The **TENDERER**, having carefully examined the Contract Documents and the locality of the proposed Work, and having full knowledge of the Work required and of the materials to be furnished and used, hereby agrees to provide all necessary materials, supervision, labour, and equipment and perform and complete all Work and fulfill everything that is set forth in strict accordance with the Contract Documents and Addendums for the prices stated in the Tender Form Schedule of Quantities.

The Tenderer also agrees:

1. That the estimate of quantities of Work itemized in the Tender Form serve only to provide a basis for comparing tenders and that the actual job quantities will not necessarily correspond with the quantities itemized in the Tender Form, and further, that the Owner has the right to increase or decrease the quantities in any or all items and to eliminate items entirely from the Work.
2. That payment for the Work done will be made on the basis of the actual progress measured and assessed by the Consultant and the prices shown on the Tender Form which shall be compensation in full for the Work done under the terms of the Contract.
3. That the Tenderer has familiarized themselves with the project location, scope, site conditions, standards and specifications, detailed design drawings and schedule of quantities. In addition the Tenderer has requested additional information where they felt necessary and have received responses that have satisfied the original inquiry.
4. That this tender is made without any connection, knowledge, comparison of figures or arrangements with any other company, firm or person making a tender for the same Work; and that no person or firm other than the Tenderer whose signature is affixed below has any interest in this tender or in the proposed Contract.
5. That this Tender is irrevocable for ninety (90) days after closing time.

6. That within ten (10) days from the date of “Notice of Award” of this tender, to execute a Contract and upon execution of the Contract, furnish the Owner with a Contract Performance Bond from an acceptable Surety Company in the amount of fifty percent (50%) of the total Contract amount covering the faithful performance of the Contract. The Contractor shall supplement a Performance Bond with a Labour and Material Bond in the amount of fifty percent (50%) of the total Contract amount.
7. Subject to Section 4.26 – Notice to Proceed of the General Conditions, to commence and actively proceed with the Work on or anytime after the date identified within the Notice to Proceed, and to complete all Work under the Contract as specified in the Contract Documents.
8. That should the Contractor fail to performed the Work to the level of Construction Completion by the time specified within 3.4 - Construction Commencement and Completion of the Contract Documents subject to the adjustments identified within Section 4.31 – Adjustment of the Completion Date of the General Conditions, the Contractor shall be required to compensate the Owner in accordance with Section 4.25 – Construction Schedule and 4.32 – Failure to Complete on Time of the General Conditions.
9. That no bonus will be allowed for completion in less time than that stated above.
10. To do all Extra Work not reasonably inferable from the specifications or drawings but called for in writing by the Consultant and to accept as full compensation thereof, payment in accordance with provisions of Section 4.52 – Extra Work of the General Conditions.
11. To guarantee and maintain the Work for a minimum period of **two (2) years or until the issuance of the Final Acceptance Certificate**, whichever is greater. Such guarantee and maintenance to be related only to materials, workmanship, construction practices, and structural integrity under normal winter and summer maintenance activities.

2.2. List of Sub-Contractors

The names of the Sub-Contractors that will be employed on the items of Work listed below. The names must be submitted on bids&tenders®.

SUB-CONTRACTOR	ADDRESS	WORK TO BE DONE
TO BE SUBMITTED ON BIDS&TENDERS®		

No further Sub-Contractors will be employed without the written approval of the Consultant to a request made in writing by the Contractor.

2.3. Extra Work Labour Rates

The labour rates that will be used for all extra Work by the Contractor and all Sub-Contractors. The labour rates must be submitted on bids&tenders®.

The following rates include Workers' Compensation, Unemployment Insurance, Holiday Pay, Statutory Holidays, public liability and public damage insurance, overtime and other payroll costs.

POSITION	RATE / HOUR
TO BE SUBMITTED ON BIDS&TENDERS®	

2.4. Extra Work Equipment Rates

The equipment rates that will be used for all extra Work by the Contractor and all Sub-Contractors. The equipment rates must be submitted on bids&tenders®.

The following rates are inclusive of the equipment operator and the related costs such as Workers' Compensation, Unemployment Insurance, Holiday Pay, Statutory Holidays, public liability and public damage insurance, overtime and other payroll costs.

EQUIPMENT	RATE / HOUR
TO BE SUBMITTED ON BIDS&TENDERS®	

2.5. Tender Agreement

NAME OF TENDERER: _____

DATE: _____

LEGAL STATUS OF TENDERER:

Corporation

Partnership

Sole Ownership

CURRENT ADDRESS OF TENDERER: _____

NAMES AND ADDRESSES OF THE CORPORATE OFFICERS OR MEMBERS OF THE TENDERER ORGANIZATION:	
NAME	POSITION
ADDRESS	
NAME	POSITION
ADDRESS	
NAME	POSITION
ADDRESS	

SIGNATURE OF WITNESS

SIGNATURE OF TENDERER

NAME OF WITNESS

ADDRESS OF WITNESS

ADDRESS OF WITNESS

CORPORATE SEAL

2.6. Affidavit Verifying Corporate Signing Authority

I, _____ of _____ in
the Province of Alberta make oath and say:

1. I am an officer or a director of _____ named in the
within tender submission.
2. I am authorized by the corporation to execute the tender without affixing a corporate
seal.

SWORN before me at the _____ in the Province of Alberta
this
_____ day of _____, _____.

Signature

A Commissioner for Oaths in and for the Province
of Alberta

Print Name: _____

My Commission Expires: _____

2.7. Schedule of Quantities

TO BE SUBMITTED ON BIDS&TENDERS®

2.7 TENDER SUMMARY

2.7.1 Schedule of Quantities Summary

101 Street Storm Sewer

Total Schedule "A" - Removals	\$
Totals Schedule "B" – Storm Sewer System	\$
Total Schedule "C" – Surface Detail	\$
Total Schedule "D" – Site Restoration	\$
Total Schedule "E" – Temporary Repair of Wash Out Area	\$
Tender Total	\$

2.8. Tenderer’s Construction Schedule

The proposed project start date and completion date are as identified below:

<u>Component</u>	<u>Start Date</u>	<u>Completion Date</u>
Removals and Storm Sewer System	September 15 th , 2023	November 30 th , 2023
Surface Details and Site Restoration	September 15 th , 2023	June 30 th , 2024
Temporary Repair of Wash Out Area	September 15 th , 2024	November 30 th , 2023

These dates are the anticipated dates at the time of tender and are subject to adjustment by the Owner as provided for in the Contract Documents. These dates are provided in order to identify the allotted measure of time allocated for the project.

The Tenderer is to provide their proposed construction schedule (with non-specific start date) indicating the timing of the major activities of the Work and must provide sufficient detail of the critical events and their inter-relationship to demonstrate the Work can be performed within the measure of time identified above.

The format of the Construction Schedule is to be a multi-line type graphical chart, preferably formulated using current scheduling software, identifying both concurrent and consecutive construction processes. This schedule is to illustrate the construction process without specific dates identified, but with a specific measure of time that can be applied to a varying start date. The Tenderer is to include their proposed construction schedule after this section, Section 2.7 – Tenderer’s Construction Schedule of the tender documents.

The Tenderer is to provide their proposed project start and completion dates in the spaces allocated below. These dates must coincide with the measure of time illustrated in the Tenderer’s proposed construction schedule and they must also meet the Completion Date identified above. Failure to meet this criteria may result in the tender being rejected.

The Tenderer must be aware that the actual project start date and completion date may differ from those proposed above and they must be able to facilitate changes to these dates within their project schedule.

101 Street Storm Sewer

<u>Component</u>	<u>Contractor Proposed Start Date</u>	<u>Contractor Proposed Completion Date</u>
Removals and Storm Sewer System	TO BE SUBMITTED ON BIDS&TENDERS®	
Surface Details and Site Restoration		
Temporary Repair of Wash Out Area		

3. CONTRACT AGREEMENT

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3.1. Parties

This Agreement made on the _____ day of _____

by and between

TOWN OF PEACE RIVER

PARTY OF THE FIRST PART, hereinafter called the "**Owner**"

And

PARTY OF THE SECOND PART, hereinafter called the "**Contractor**"

The Owner and the Contractor, for the considerations hereinafter named, agree as follows:

3.2. Scope of the Work

The Contractor hereby agrees to furnish all of the materials, except as otherwise specified to be supplied by others, and all of the equipment and labour necessary to perform all of the Work shown on the drawings and described in the specifications for the project entitled:

**101 STREET STORM SEWER
SITEWORKS & UNDERGROUND
20GEME6067**

for which drawings and specifications have been prepared by the Consultant of the Owner, *Beirsto & Associates Engineering Ltd.*, acting as, and referred to herein as the "Consultant".

3.3. Inclusions

The Schedule of Quantities, Special Conditions, General Conditions, Specifications & Drawings are annexed hereto and form part of this Agreement as fully to all intents and purposes as though recited in full herein, and whole shall constitute the Contract between the parties, and it shall endure to the benefit of and be binding upon them and their successors, executors, administrators and assigns.

3.4. Construction Commencement and Completion

The Work to be performed under this Contract can commence immediately upon the date identified within the Notice to Proceed and is to be at the level of Construction Completion by the Completion Date identified below, with adjustments identified in Section 4.31 – Adjustment of the Completion Date of the General Conditions. The dates identified below are the adjusted milestone dates that form the basis for the contracted project construction timeline. These dates are to be identified after closing of the Tender and prior to the signing of the contract by the Owner and the Contractor. These dates are subject to adjustments

as provided for in the Contract Documents, however the given project duration identified in Section 2.7 – Tenderer’s Construction Schedule will not be adjusted.

<u>Component</u>	<u>Start Date</u>	<u>Completion Date</u>
Schedule “A” Phase 1 (100 St. 99 Ave. to 101 Ave.)	_____	_____

3.5. The Contract Sum

The Owner shall pay the Contractor for the performance of the Contract subject to additions, deductions and changes provided herein, in current funds at the prices named in the Tender Form attached to and a part of these Contract Documents.

3.6. Security Deposit

The Contractor hereby and herewith deposits with the Owner approved security deposits as follows:

- a) Performance Bond in the amount of \$ _____
- b) Labour and Material Payment Bond in the amount of \$ _____

It is the expressed understanding that the above security deposits shall be held and retained by the Owner as security for the due and faithful performance, observance and fulfillment by the Contractor of all the covenants, provisions, agreements, conditions and reservations in this Contract contained, on the part of the Contractor to be observed, performed, and complied with.

Upon the due and faithful performance, observances and fulfillment by the Contractor of all and every one of the terms, provisions, covenants, agreements, conditions and reservations herein contained, on the part of the Contractor to be observed and performed and complied with, the Contractor shall be entitled to receive again the said Surety deposited.

In the event of any breach, default or non-performance, being made or suffered by the Contractor, in or in respect of any of the terms of conditions, covenants, provisions, agreements, or restrictions herein contained which on the part of the Contractor should be observed, performed or complied with, the Owner may at their option, if any indemnity bond has been deposited under the terms hereof, enforce said bond.

3.7. Agreement Supersedes

In the absence of any Special Conditions or Addenda, this Agreement shall supersede all communications, negotiations, and agreements, either written or verbal, made between the

parties hereto in respect of matters pertaining to this Agreement prior to the execution and delivery thereof.

3.8. Receipt of and Addresses for Notices in Writing

Notices in Writing will be addressed to the recipient at the address set out below. The delivery of a Notice in Writing will be by hand, by courier, by prepaid first class registered mail, or by facsimile or other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender. A Notice in Writing delivered by one party in accordance with this Contract will be deemed to have been received by the other party on the date of delivery if delivered by hand or courier, or, if sent by prepaid first class registered mail, it shall be deemed to have been received seven (7) Working days after the date on which it was mailed. A Notice in writing sent by facsimile or other form of electronic communication shall be deemed to have been received once a confirmation of receipt is obtained by the sender. The confirmation of receipt can be in the format of either a verbal, written or electronic response. An address for a party may be changed by Notice in Writing to the other party setting out the new address in accordance with this Article.

Owner:

Business Entity

Owner's Representative

Address

Facsimile Number

E-mail Address

Contractor:

Company Name

Contractor's Representative

Address

Facsimile Number

E-Mail Address

Consultant:

Beirsto & Associates Engineering Ltd.

Consulting Firm

Dennis Hussey, P.Eng.

Name of Engineer

10940 – 92 Avenue, Grande Prairie, AB T8V 6B5

Address

780-532-4739

Facsimile Number

dennish@baseng.ca

E-mail Address

Contract Agreement

IN WITNESS WHEREOF the Parties hereto have executed this Agreement, the day and year first above written.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:

Witness to the Signature
of the Owner

Owner

Signature

Signature and Seal

Name

Address

Name

Address

Witness to the Signature
of the Contractor

Contractor

Signature

Signature and Seal

Name

Address

Name

Address

3.9. Affidavit Verifying Corporate Signing Authority

I, _____ of _____ in
the Province of Alberta makes oath and say:

1. I am an officer or a director of _____ named in the
within contract.
2. I am authorized by the corporation to execute the contract without affixing a
corporate seal.

SWORN before me at the _____ in the Province of Alberta
this

_____ day of _____, _____.

Signature

A Commissioner for Oaths in and for the Province
of Alberta

Print Name: _____

My Commission Expires: _____

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4.1. Definitions

ACCEPTANCE CERTIFICATES

“Construction Completion Certificate” (CCC) shall mean a certificate issued by the Municipality upon satisfactory and actual completion of the Work as per the purposes for which the Work was intended and for which it is being used. The issuance of this certificate shall mark the commencement of the Maintenance or Warranty period as defined further in this section. Such certificate may be issued with deficiencies, if such deficiencies are considered by the Consultant to be of a minor nature and do not impede the utilization of the Work. Some deficiencies may require the input of the municipality to determine whether or not they are minor and if the Work can be accepted without their immediate correction.

“Final Acceptance Certificate” (FAC) shall mean a certificate issued by the Consultant and approved by the Owner, within fourteen (14) days of the expiration of the Maintenance or Warranty period provided all conditions of the Contract have been met by the Contractor. Generally, the issuance of this certificate shall relieve the Contractor of all their contractual obligations and the Contract shall be considered as closed.

ADDENDUM

“Addendum” is a written communication issued from the office of the Consultant informing of changes to be made in the Work before the end of the period allowed for receiving tenders.

ADD-DELETE WORK

“Add-Delete Work” shall mean Work within the original scope of the Contract but with increased or decreased quantities and/or modifications to the location, as determined by the Consultant. Generally, advisement is done through an Add-Delete Work Order.

BUILDER’S LIEN ACT

“Builder’s Lien Act” - shall mean the Builder’s Lien Act, R.S.A. 2000, Chapter B-7 and amendments / updates made thereto.

BULLETIN

“Bulletin” is a written communication issued from the office of the Consultant informing of changes to be made in the Work. A Bulletin is issued prior to the end of the period allowed for receiving tenders and such changes do not alter the amount of the Contract sum.

CERTIFICATES OF PAYMENT

“Progress Payment Certificate” (PPC) shall mean a certificate issued periodically by the Consultant to the Owner, based on which payments on account are made to the Contractor.

CERTIFICATE OF SUBSTANTIAL PERFORMANCE

“Certificate of Substantial Performance” shall mean, without limiting the definition in the Builders’ Lien Act, a document issued by a Contractor or Sub-Contractor for purposes of holdback release as per the terms and conditions of such Act. Certificate(s) of Substantial Performance are not applicable to Work carried out under the Public Works Act.

CHANGE ORDER

“Change Order” is a written document issued by the Consultant describing the Work and authorizing an estimated amount by which the Contract sum is to be substantially altered as

a result of changes in quantities, modifications to the Work, or addition of Extra Work. Such statement, including authorization to proceed with the Work, shall be delivered to the Contractor prior to the Work being undertaken.

COMPLETION DATE

“Completion Date” shall be the date by which the Work is required to be at the level of Construction Completion, this being at the level of completion warranting the issuance of a CCC.

COMPLETION LEVELS OF WORK

“Substantial Performance” shall mean a level of completion meeting the terms and conditions stipulated in the current edition of the Builders’ Lien Act, and warranting the issuance of a Certificate of Substantial Performance by the Contractor or Sub-Contractor. Substantial Performance is only applicable to release of holdback, will not necessarily result in the issuance of a CCC, and does not apply in any aspect for Work done under the Public Works Act.

“Construction Completion” shall mean a level of completion warranting the issuance of a CCC with or without deficiencies. If a CCC is issued with deficiencies, the Consultant shall specify a time frame for the total correction of all deficiencies, as solely determined by the Consultant acting reasonably. Failure to meet the specified time frame for correction will result in the revocation of the current CCC in its’ entirety, and will further result in the Maintenance or Warranty period commencing only upon the date of the total correction of all deficiencies and the issuance of a new CCC.

“Final Completion” shall mean a level of completion wherein all the contractual obligations of the Contractor have been fully met. This shall include the successful conclusion of all repairs to the Work under Maintenance or Warranty obligations at time of expiration of the Maintenance or Warranty period; and as officially confirmed by the issuance of a FAC by the Consultant and the approval by the Owner.

CONSULTANT

“Consultant” means the Professional Engineer or Engineering consulting firm that has been retained by the Owner to:

- a) administer the Contract;
- b) be responsible in total or in part for the design, horizontal and vertical layout, testing, and inspection of the Work;
- c) certify the quality of the Work including the preparation of accurate record drawings; and
- d) be applicable to and qualified for the project to be undertaken, and licensed to practice in the Province of Alberta;

CONTRACT

“Contract” shall mean the written agreement between the Owner and the Contractor for the construction of the Project and the provision of the Works and the furnishing of labour, equipment and material in the construction of the Work, and shall include without limiting the generality of the foregoing, the Tender Forms, Contract Forms, Contract Bonds, Plans, Specifications, Special Conditions or Provisions, Notices, Supplemental Specifications, Specification Amendments and all supplemental agreements required to complete the Work.

CONTRACT DOCUMENTS

“Contract Documents” shall mean and include the complete set of documents, Specifications, drawings and Bulletins incorporated therein, as listed in the Table of Contents.

CONTRACTOR

“Contractor” wherever used in these documents shall mean the party of the second part, as named in the Contract Agreement, who has been duly appointed and authorized by the Owner to proceed with the Work as outlined herein.

DEFICIENCY

“Deficiency” shall mean completed Work as determined by the Consultant, which is being used for what it was intended, but does not fully meet the Conditions or Specifications of the Contract.

EQUIPMENT OR PLANT

“Equipment” or “Plant” shall mean anything and everything except persons used by the Contractor in the performance of the Work and except material as defined herein.

EXTRA WORK

“Extra Work” shall mean Work outside the original scope of the Contract, as determined by the Consultant, and generally authorized in writing by a Change Order or Add-Delete Work Order.

FIELD MEMORANDUM

“Field Memorandum” is a written communication from the Consultant and/or the Consulting Consultant, delivered at the site to the Contractor.

HEREIN AND HEREOF

“Herein” and “Hereof” and similar expressions wherever used in the Contract Documents shall relate to the whole of the Contract Documents and not to any one (1) paragraph alone, unless the context specifically requires it.

IMPLIED PROVISIONS

In the Contract:

- a) words importing male persons include female persons and corporations;
- b) words in the singular include the plural and words in the plural include the singular;
- c) the applicable law shall be the law of the Province of Alberta;
- d) time shall be of the essence;
- e) headings and subheadings are not substantive and are inserted for convenience of reference only.

MAINTENANCE OR WARRANTY PERIOD

“Maintenance” or “Warranty Period”, however it is referenced within the Contract Documents, shall be a minimum two (2) year period of time immediately following the date stated in the Construction Completion Certificate or the period of time from the date stated in the Construction Completion Certificate to the date the Final Acceptance Certificate is issued, whichever is greater. During this time the Contractor shall warrant the Work to be free from any defect or failure due to the Contractor’s neglect, faulty workmanship or faulty

material supplied under the Contract and to withstand climatic, maintenance, and normal operational conditions. Routine maintenance of defective Work by the Contractor, solely at the Contractor's cost, may be required if such maintenance is deemed necessary by the Owner to protect the interest or interests of the Public, and shall be so undertaken until such time as the Work is fully corrected.

MATERIAL OR MATERIALS

"Material" or "Materials" shall, unless otherwise specified, mean anything and everything other than persons or the Contractor's equipment which is manufactured, processed, or transported to the site, or existing on the site, and incorporated into the complete Works.

MUNICIPAL AUTHORITY

"Municipal Authority" shall refer to the Approving Authority and/or jurisdiction under which the project is geographically located.

MUNICIPALITY

"Municipality" shall mean the County, City, Town, Village or Territory having jurisdiction over the municipal infrastructure maintenance and improvements in the area the Work is being completed.

OWNER

"Owner" means a person having an estate or interest in land at whose request, express or implied, and

- a) on whose credit;
- b) on whose behalf;
- c) with whose privity and consent; or
- d) for whose direct benefit;

Work is done on or material is furnished for an improvement to the land and includes all persons claiming under them whose rights are acquired after the commencement of the Work or the furnishing of the Material.

OTHER CONTRACTOR

"Other Contractor" wherever used in these documents means any person or firm or corporation employed by or having a Contract directly or indirectly with the Owner other than through the Contractor.

PERSON OR PERSONS

"Person" or "Persons" shall mean individuals, corporations, partnerships and all other legally existing entities.

PROJECT

"Project" shall mean, without restricting the generality of the foregoing, the boundaries of the Work as defined by the Consultant and as limited to that which is contracted herein, subject to extensions or revisions as allowed in this Contract.

PROJECT MANAGER

"Project Manager" shall mean the employee assigned by the Consultant to the Project Work, acting within the scope of particulars entrusted to them. This representative is the direct Consultant's representative and is employed by the Consultant.

PROJECT SPONSOR

“Project Sponsor” shall mean the employee, agent or official assigned by the Owner to the Project Work, acting within the scope of the particular duties entrusted to them. This representative is the direct Owner’s representative but is not employed by the Consultant.

PRIME CONTRACTOR

“Prime Contractor” is the Contractor who is responsible for Work activity and safety on site to establish and maintain a system or process that will ensure compliance with the latest amended Occupational Health and Safety Act.

PROGRESS PAYMENT CERTIFICATE

“Progress Payment Certificate” shall mean a certificate issued periodically by the Consultant, based on which payments on account are required to be made by the Owner to the Contractor for the Work completed.

SPECIFICATIONS

“Specifications” shall include all specifications and the directions, schedules, special conditions/provisions and requirements contained herein, together with all written agreements made or to be made, pertaining to the method and manner of performing the Work, or to the quantities or quality of Material to be furnished under the Contract.

SUB-CONTRACTOR

“Sub-Contractor” wherever used in these documents includes only those having a direct Contract with the Contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this Work but does not include one who merely furnishes material not so worked.

SUBSTANTIAL PERFORMANCE

“Substantial Performance” shall have the same definition as is provided by Sections 2 of the Builders’ Lien Act, current edition.

SURETY

“Surety” shall mean the Company bound with the Contractor to provide security, respectively, for one or more of:

- a) the due performance of the Contract;
- b) the payment in full for all items of labour and materials used or reasonably required for use in the performance of the Contract;
- c) the repair of any damage to or failure in the Work to which the Contract relates and for which the Contractor is responsible under the Contract.

The Company must be licensed to do business in the Province of Alberta.

TENDERER

“Tenderer” or shall mean any individual, partnership, corporation or company who submitted a tender for the Work contemplated, acting directly or through a duly authorized representative.

WORK ORDER

“Work Order” is a written statement issued by the Consultant authorizing an estimated amount by which the Contract sum is to be altered as a result of changes in or additions to

the Work. Such statement, including authorization to proceed with the Work, shall be delivered to the Contractor by either an Addendum or Field Memorandum.

WORK OR WORKS

“Work” or “Works” shall mean, unless the context otherwise requires, all or any part of the Work to be performed under this Contract, whether complete or incomplete, as originally set forth or as revised by the Consultant. These terms shall mean to include any and all labour, materials, equipment tools and incidentals required to be provided by the Contractor to complete and perform their obligations in accordance with the Contract.

WRITTEN NOTICE

“Written Notice” shall be deemed to have been duly served if:

- a) delivered in person or by courier to the individual or to a member of the firm or to the office of the corporation for whom it is intended;
- b) if delivered at or sent by registered mail to the business address identified in the section “Receipt of and Addresses for Notices in Writing”; or
- c) delivered by facsimile, email or other form of electronic communication and a confirmation of receipt is obtained by the sender. The confirmation of receipt can be in the format of either a verbal, written or electronic response.

4.2. Intent of Contract Documents

The Contract Documents shall be signed in quadruplicate by the Owner and the Contractor. The intent of the Contract Documents is that the Contractor shall provide all necessary permits, processes, materials, supervision, labour, equipment, and all else necessary for the proper execution of the Work unless specifically noted otherwise. The Contractor shall do all the Work shown on the drawings and described in the Specifications and all incidental Work necessary to complete the Work outlined in the Contract.

4.3. Drawings and Specifications Furnished

Except as provided for otherwise, a maximum of two (2) copies of drawings and specifications for the execution of the Work shall be furnished to the Contractor without charge.

Additional instructions may be issued by the Consultant during the progress of the Work by means of drawings or otherwise for clarification of the drawings and specifications, or as may be necessary to explain or illustrate changes in the Work to be done. One (1) complete set of drawings and specifications shall be maintained at the job site and shall be available to the Consultant at all times.

4.4. Shop Drawings

The Contractor shall furnish to the Consultant, at proper times, all shop and setting drawings or diagrams which the Consultant considers necessary in order to clarify the Work intended or to show its relation to adjacent Work of other trades. The Contractor shall make any changes in such drawings or diagrams which the Consultant may require consistent with the Contract, and shall submit sufficient copies of the revised prints to the Consultant for

approval, following which three (3) copies shall be returned to the Contractor if approved by the Consultant.

When submitting shop drawings and setting drawings, the Contractor shall notify the Consultant in writing of changes made therein from the Consultant's drawings or specifications.

The Consultant's approval of such drawings, or of the revised drawings shall not relieve the Contractor from responsibility for errors made by the Contractor therein or for changes made from the Consultant's drawings or specifications not covered by the Contractor's written notification to the Consultant.

4.5. Document Conflict

In case of any inconsistency or conflict between the provisions of the Contract Documents, the provision of such documents thereto shall take precedence and govern in the following order:

- a) Change Order
- b) Addenda
- c) Special Conditions
- d) Contract Agreement
- e) General Conditions
- f) Detail Specifications
- g) Drawings
- h) Tender Form
- i) Instructions to Tenderer
- j) Notice to Tenderers
- k) All Other Documents

Figured dimensions on the drawings take precedence over measurement scale from the drawings, and large scale drawings take precedence over those of smaller scale. In case of conflict in materials and methods, the specifications govern. Supplementary drawings and specifications supersede their antecedents. In case of conflict between figured dimensions on a drawing and the dimensions of a specified product, the dimensions of the specified product govern. The drawings and specifications complement each other and anything called for by one shall be as binding as if called for by both.

4.6. Discrepancies

Any discrepancy found between the drawings and specifications or any errors or omissions in the drawings and specifications shall immediately be reported to the Consultant who shall promptly correct such error or omission in writing. Any Work done after discovery of such discrepancy errors or omissions shall be done at the Contractor's risk.

4.7. Material Tests and Mix Designs

The Consultant will inform the Contractor of the Geotechnical Engineering Consulting firm designated for the project materials testing. It is the responsibility of the Contractor to ensure the Geotechnical Engineering Consulting firm's representative is informed of the daily project progress so the required sampling, testing and inspections can be scheduled. The Contractor is responsible to remain in contact with the Geotechnical firm and to ensure the various sampling, testing and inspection results are obtained by the Consultant in a timely manner. The cost of providing the foregoing beyond the extent called for in the specifications shall be charged to the Contractor with the initial costs being the responsibility of the Owner. The Work shall be in accordance with approved material tests and mix designs.

4.8. Survey Markers

The intended locations of the Works shown on the drawings are approximate unless location dimensions are shown. The exact location will be established by the Consultant on the site through the provision of survey markers.

The Contractor must ensure they are satisfied as to the correctness and meaning of the provided survey markers before commencing the Work. No claim will be allowed on account of alleged inaccuracies, unless the Contractor notifies the Consultant thereof in writing in time for the Consultant to verify or check such markers before the Work is commenced.

The Contractor shall provide reasonable and necessary opportunities and facilities to enable the Consultant to complete the surveys. The Contractor shall not proceed until they have made timely demands upon the Consultant for, and has received from the Consultant, such points and instructions as may be necessary for the Work to progress. The Contractor is required to provide upon request an assistant to the Consultant for the purpose of verifying grades, elevations and distances as required and deemed necessary by the consultant.

The Contractor shall assume responsibility for detailed dimensions and elevations measured from the supplied survey markers.

The Consultant shall provide the Contractor with the following survey markers for the indicated project components:

<i>Project Component</i>	<i>Description</i>		<i>Provision</i>
General	Site benchmarks to be provided as dictated by the extents of the project.		~100m separation
Underground	Alignment staking and offset to structures and fittings		1 Set
Siteworks	Stripping Limits		1 Set
	Grading	Initial	1 Set
		Intermediate	1 Set

		Final	1 Set
Concrete Curbs, Gutters, Sidewalks	Baseline for each alignment/profile	Alignment/Profile Examples: Monolithic concrete structures, separate sidewalk, trails/paths (one side only)	1 Set
Project Component	Description		Provision
Roads Asphalt Trails Ditches	Baseline for each alignment/profile	Alignment/Profile Examples: Road Centreline, Trails/paths (one side only), ditches	1 Set
	Roads with ditch	Baseline	1 Set
		Road Centreline	1 Set
		Gravel Staking (where required)	1 Set
		Culvert Staking	1 Set
		Final Grade Stakes	Road Shoulder
Toe of Shoulder	1 Set		
Landscaping	Final Grade Stakes		1 Set

The above is the standard distribution of survey markers that can be expected to be provided on projects. Additional survey may be provided on a case specific basis where the above does not provide adequate coverage. These instances may be identified in the special conditions of the contract and/or will be discussed in detail at the pre-construction meeting.

The Contractor is to make survey requests and direct any survey related questions or comments towards the Inspection Manager, Inspection Supervisor and/or the Project Party Chief. Requests made by the Contractor must take into consideration the following:

- a) 48 hours' notice should be provided to the Consultant for survey required when possible;
- b) The scope of survey work requested by the Contractor must warrant the allocation of survey personnel to the project.
- c) The site must be ready for the survey crew(s) to enter and install survey markers at the time requested by the Contractor.

Beairsto & Associates Engineering Ltd. survey crews will carry out all reasonable survey requests in a timely manner inclusive of general baseline maintenance. The Contractor is requested to carefully preserve all provided survey markers. In the case where wilful or careless destruction or disturbance of survey markers occurs, unreasonable and excessive survey requests occur and/or the Contractor does not provide an effective site grades person the Contractor could be responsible for compensating the Consultant at the going hourly rate for the survey personnel utilized/impacted and disbursements for survey materials (i.e. lathe and hub).

The Contractor is to understand that the above is the normal provision for survey data. Anything differing from the above is considered out of scope for the provision of survey.

If the Contractor requires machine control files and/or surface files it is their responsibility to determine during the tender period the type of file formats and control file information that is available to them through BASE. BASE is able to provide some surface file formats and the associated control information. If the desired file format is not available from BASE to the Contractor, it is the responsibility of the Contractor to determine how to convert the available data to the format they require. Any additional work requested by the Contractor of BASE will be charged directly to the Contractor at BASE's regular rates. Unpaid amounts will be withheld from progress payments to the Contractor until such time as the Contractor provides payment.

In the event the Contractor feels there is a discrepancy between the data they have been provided in regards to control files and surfaces and the actual requirements in the field, it is the Contractor's responsibility to provide BASE with specific and recorded/calculated data identifying the discrepancy prior to BASE providing a field survey for verification.

Regardless of the Contractor's construction methodology, BASE will provide field staking as identified in the table and information above. It is the Contractor's sole responsibility to utilize this data and to carry out various comparative surveys to ensure the survey file data being implemented by their machine control is matching the staking being provided. These surveys must be recorded so the information can be verified by BASE. Failure by the Contractor to do this, regardless of the correctness or accuracy of the data provided to them in file format by BASE, relieves BASE of any wrong doing. BASE is not responsible for the Contractor's use or implementation of data provided.

4.9. Local Conditions

The Contractor shall by personal inspection, examination, calculation, or testing; satisfy themselves with respect to the local conditions to be encountered and the quantity, quality, and practicability of the Work. No verbal agreement or conversation with any officers, agent or employee of the Owner, either before or after the execution of the Contract, shall affect or modify any of the terms or obligations herein contained.

A geo-technical report of the site may be available to the Contractor upon request.

4.10. The Consultant and the Contractor

The Consultant is in the first instance the interpreter of the Contract and judge of its performance. Subject to the following two paragraphs of these General Conditions, the Contractor shall have complete control of their operation or operations at the site.

The Consultant shall have the authority to stop the Work whenever such stoppage may be necessary, in the Consultant's reasonable opinion, to ensure the proper execution of the Contract or that there exists a danger to life or property.

Should the Contractor hold any decision of the Consultant to be at variance with the Contract, or to be in error, the Contractor may refer any dispute to arbitration in accordance with the arbitration section of these General Conditions.

4.11. Supervision

The Contractor shall keep on the Work, during this progress, a competent superintendent and any necessary assistants, all satisfactory to the Consultant. The superintendent shall not be changed without the consent of the Consultant unless the superintendent proves to be unsatisfactory to the Contractor or ceases to be in the Contractor's employ. The superintendent shall represent the Contractor in their absence and directions on minor matters given to them shall be held to be given to the Contractor. Important decisions shall be given in writing to the Contractor. The Contractor shall give efficient supervision to the Work using their best skill and attention.

The successful Contractor must have a representative on call or standby for twenty-four (24) hours a day for the duration of the Contract. The Contractor will supply the Consultant in writing with the name, residing address and telephone number of the standby representative for use in case of emergencies.

4.12. Project Meetings

PRE-CONSTRUCTION MEETING

A mandatory meeting will be held prior to the start of construction. This meeting will be scheduled in a timely manner by the Consultant after the Contract is awarded. This meeting will be held at the Consultant's office or at an alternate location arranged by the Consultant. It is required that the following people be in attendance at the pre-construction meeting:

- a) Consultant as the Owners representative;
- b) Project Manager;
- c) Consultant's Field Inspector;
- d) Project Survey Party Chief;
- e) Contractor's Superintendent;
- f) Sub-Contractor's Superintendent;

Without the above representatives in attendance at the meeting, the pre-construction meeting will not proceed, and therefore construction will not commence.

If it is decided during the pre-construction meeting that a site meeting is required prior to the start of construction, this will be scheduled at the pre-construction meeting and construction will not start until the site meeting has been completed with the same attendees present.

PROGRESS MEETINGS

Progress meetings will be scheduled by the Consultant's Project Manager or Field Inspector as required. Accommodation for progress meetings shall be provided by the Contractor at or near the site. The Consultant shall give to all parties advance notice of the meeting dates, times and locations. The Contractor shall have in attendance the Field Superintendent / Site Foreman and, if requested by the Consultant, representatives of the Sub-Contractors. The Consultant shall also have the Project Manager and/or the Field Manager in attendance. The Owner may have a representative in attendance. Notes of the meeting will be taken by the Consultant and copies will be distributed to attendees.

All cost associated with progress meetings shall be considered incidental to the Work described elsewhere and no extra payment will be made for claims in this regard.

4.13. Sub-Contractors

The Contractor shall, as soon as possible after Notice of Award, notify the Consultant in writing of the names of Sub-Contractors not identified in the Schedule of Quantities, and shall not employ any that the Consultant may, within a reasonable length of time, object to as incompetent or unfit. Nothing in the Contract Documents shall create any contractual relation between the Sub-Contractors and the Owner. The Contractor agrees that they are fully responsible for acts or omissions of their Sub-Contractors, and of a person or persons directly or indirectly employed by them. The Consultant shall upon request furnish to any Sub-Contractor, whenever practical, evidence of the amount certified to their account. None of the Work contemplated under this Contract shall be sublet to other Contractors without the written permission of the Owner.

4.14. Other Contracts

The Owner reserves the right to enter into other contracts that are directly related with this project. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work and shall properly connect and coordinate their Work with that of the other Contractors.

If any part of the Contract Work depends for proper execution and results on the Work of any other Contractor, this Contractor shall inspect and promptly report to the Consultant any defects in such Work that render it unsuitable for the proper execution and results. The Contractor's failure to inspect and report shall constitute an acceptance of the other Contractor's Work as fit and proper for the reception of their Work, except as to defects which may develop in the other Contractor's Work after the execution of the Work.

To ensure the proper execution of the Contractor's Work, they shall measure Work done by others and shall at once report to the Consultant any discrepancy between the executed Work and drawings.

4.15. Material Supplied by the Contractor

The Contractor shall use materials of Canadian manufacture to the fullest extent practical. The Contractor shall supply all materials unless it is especially stipulated to the contrary. Materials used in the Work shall meet the requirements of the specifications, or where not detailed in the specifications, shall be to the Consultant's satisfaction. Unless otherwise specified all materials shall be new.

The Contractor is required to provide the Consultant with a materials list for all materials that are to be used in the proposed Work. In addition, the Contractor is required to provide the Consultant with documentation identifying the quantity of materials being delivered to site for either immediate use in the Work or for storage on the Work site. Failure to provide this information to the Consultant at the time the materials are delivered to site may result in the Consultant rejecting the materials from being permitted on the Work site and/or used in the proposed Work. The Contractor must provide the Consultant with a minimum of twenty-four (24) hours' notice when they are scheduling a component of Work where large quantities of materials are to be delivered to Work site (such as the delivery of base course material and/or asphaltic concrete pavement). The notification is required so the Consultant can

schedule personnel to be present on site to receive the material information for each delivery unit to the Work site.

Schedules of piping, fittings, reinforcing, or other materials indicating quality and/or dimension, which are shown on the drawings or in the applicable section of the specifications, are intended only to assist the Contractor in their quantity takeoff. Quantities and dimensions shown therein are not guaranteed to be accurate and shall be checked by the Contractor prior to placing an order for such material.

Any requests the Contractor may have regarding materials equal to those specified, or any substitutions of materials, shall be brought to the Consultant's attention prior to the date of tender closing. Sufficient time shall be allowed for the Consultant to evaluate whether the proposed materials or changes are acceptable within the required specifications of the Contract.

Should the Contractor or supplier wish to use another product prior to tender or during construction that is not specified, the Contractor shall provide to the Consultant and the Municipality, upon request, a portion or all of the following information:

- a) sample of the product if logistically possible;
- b) documentation showing CSA and ASTM and/or AWWA certification;
- c) Three letters of recommendations from previous nonpartisan users of the product;
- d) Ten (10) individuals, companies or institutions who have used the product including phone numbers and addresses;
- e) a field of history of over three (3) years of successful implementation.

The product information so submitted by the Contractor will be jointly reviewed by the Consultant and the Municipality. A decision will be made as to the suitability of this product. Providing information alone does not guarantee use of that product for construction.

Unless otherwise stipulated, the Contractor shall provide all water, light and power, and gas necessary for the execution of the Work.

4.16. Materials by Owner

The Owner will provide only such materials as are specifically listed as being supplied by the Owner.

Immediately after Contract execution, materials supplied and delivered by the Owner to the site prior to Contract execution, or stockpiled at another designated location but dedicated to this site, the Contractor shall be required to examine such materials for quality and defects. The same shall apply to materials delivered following execution of the Contract. The Contractor shall sign a statement of materials' acceptance specifically listing materials and quality thereto, and noting all defective material. In so accepting these materials, the Contractor shall assume responsibility for their protection and, except for latent defects not reasonably noticed at the time of examination, for their quality.

Unless otherwise specified, the Contractor shall take delivery of materials supplied by the Owner at the point of delivery nearest to the Works. The Contractor shall, at their own cost, pay all demurrage, insurance, standby charges, and other unloading costs, and costs of transporting such material from the point of delivery to the site. The Contractor shall verify the delivery dates of materials provided by the Owner and shall arrange Work Schedules to comply therewith.

4.17. Material Storage

The Contractor at their own cost shall store all materials provided for the Work either by themselves or the Owner, until they have been incorporated into the completed Works. Storage of materials shall be confined to the immediate Work area and no stockpiling of materials in advance of this area is allowed unless otherwise provided in the Contract. Materials shall be stored in such a manner so that pedestrian and property safety is not compromised. The storage of materials shall not obstruct normal pedestrian flows and shall not interfere with traffic movement adjacent to the Work area.

Material shall be so stored as to ensure the preservation of their quality and fitness for the Work, and shall be protected from vandalism and theft. Storage material shall be located so as to facilitate prompt inspection. Faulty materials shall not be stored on the site.

4.18. Rejected Work and Materials

All materials which do not conform to the requirements of the Contract Documents, are not approved by the Consultant, or are in any way unsatisfactory or unsuited for the purpose for which they are intended, will be rejected. Any defective Work, which shall include materials, whatever the cause thereof, and without limiting the generality of the foregoing, whether the result of poor workmanship or use of defective material, shall be removed within ten (10) days after written notice is given by the Consultant, and the Work shall be re-executed by the Contractor. The removal of Work and the re-execution thereof shall be at the expense of the Contractor, and the Contractor shall pay the cost of replacing the Work which shall include materials of other Contractors destroyed or damaged by the removal of the rejected Work or materials and the subsequent replacement with acceptable Work. The fact that the Consultant may have previously overlooked such defective Work shall not constitute an acceptance.

Repeat or corrective Work made necessary by adverse weather, or failure of the Contractor to adequately protect the Work during the prosecution of the Work, shall be at the Contractor's expense.

If, in the opinion of the Consultant, it is not expedient to re-excavate defective Work, the Owner may deduct from the Contract price the difference in value between the Work done and that called for by the Contract, the amount of which shall be determined by the Consultant.

4.19. Owner's Right to Correct Deficiencies

Upon failure of the Contractor to perform the Work in accordance with the Contract Documents, and ten (10) days after written notice to the Contractor, or without notice if an

emergency or danger to the Work or public exist; the Owner may, without prejudice to any other remedy the Contractor may have, take action to have such deficiencies corrected. The cost of Work performed by the Owner in correcting deficiencies shall be paid by the Contractor.

4.20. Protection of Work and Property

The Contractor shall verify limits of construction with the Consultant prior to commencement of construction.

The Contractor shall continuously maintain adequate protection of all their Work from damage and shall protect the Municipality's and/or Owner's property from injury or loss arising in connection with this Contract.

It is the intention of the Contract to minimize the extent of damage to areas surrounding the immediate Work sites. The Contractor shall take whatever means are necessary to minimize this damage at no extra cost to the Owner. The Contractor shall make good any such damages, injury or loss and shall be responsible for any costs incurred to rectify such damages.

The Contractor shall provide and maintain at their cost all passage ways, detours, guard fences, lights and other facilities for protection required by public authority and local conditions.

In an emergency affecting the safety of life or of the Work or of adjoining property, the Contractor, without special instructions or authorizations from the Consultant, shall act, at their discretion, to prevent such threat, loss or injury, and the Contractor shall so act, without appeal if so instructed or authorized.

4.20.1. Non-Municipality Utilities and Structures

At a minimum of one week prior to commencing any excavation, the Contractor will notify the utility companies of the location and the nature of the Work to be undertaken. The Contractor will investigate and determine the location of all applicable overhead and buried utilities including, but not limited to, the following:

- a) Telephone Lines
- b) Power Lines
- c) Gas Lines
- d) Telegraph and Signal Lines
- e) Cablevision Lines
- f) Pipelines

The Contractor at their expense is to conduct their operations in accordance with the requirements of the utility authorities having jurisdiction.

4.20.2. **Traffic Accommodation – Motor Vehicular**

- a) Minor Interruption - Barricade Permits shall not be required for minor traffic interruptions although the Contractor must comply with traffic signing, control, and safety processes as required by the Municipality. Generally this shall apply to local roads and short term delays.
- b) Moderate Interruption - Barricade Permits may be required. The Contractor shall consult with the Consultant to determine the need for a permit application. Generally this shall apply to minor collector roads and intermediate term delays.
- c) Major Interruption - Barricade Permits shall be required. The Contractor shall complete and provide to the Consultant an application 48 hours in advance of the Work. Under no circumstances are detour signs to be installed, removed, or relocated by the Contractor unless specifically approved to do so by the Consultant. Generally this shall apply to roads designated as major collectors or higher, and the disruption is expected to be long term.

Unless special permission is obtained from the Municipality through the Consultant, traffic shall not be completely blocked off for more than three (3) blocks at any one time. Necessary signs, barricades and signal men shall be provided by the Contractor in order to direct and protect the public. Service stations, garages and businesses of such nature that depend on vehicle trade, must be given special consideration in order to prevent excessive or unnecessary financial loss due to blocked traffic.

4.20.3. **Municipality Utilities and Structures**

Prior to commencement of any Work in a construction area, it is the Contractor's responsibility to inspect and check the condition of all affected valves, manholes, catchbasins, or any other Municipality appurtenances including legal iron posts, lot pins and Survey Control Monuments. Deficiencies or damages are to be noted and such documentation to be forwarded to the Consultant three (3) work days prior to the start of Work in the area. Failure to complete such an inspection, or failure to provide the Consultant with deficiency or damage documentation, shall constitute acceptance by the Contractor. The Contractor, having accepted such items, shall be required to restore such items to a condition satisfactory to the Consultant at the Contractor's own expense.

4.21. Workers' Compensation Regulations

The Contractor shall ensure compliance, including payments due thereunder, on their part and on the part of all their Sub-Contractors, with the Workers' Compensation Act and Regulations thereunder, especially provisions having to do with the prevention of accidents and disease and the provision of safe working conditions.

At any time during the term of the Contract, when requested by the Consultant, the Contractor shall provide such evidence of compliance by themselves and their Sub-Contractors. In any case where pursuant to the provisions of the Workers' Compensation Act, the Workers' Compensation Board orders the Contractor, or one of their Sub-Contractors in respect to their operations under this Agreement to cease operations because of failure to install or adapt safety devices or appliances or methods directed by order of the Board, or

required by the Act or Regulations thereunder, or because the Board is of the opinion that conditions or immediate danger exists that would be likely to result in injury or to any person, the Consultant shall have the authority to stop the Work under the section pertaining to the Consultant and the Contractor.

4.22. Lands by Owner

The Owner shall provide lands upon which the Work is to be performed. Where Work is to be performed on lands owned by others, the Owner shall obtain the necessary easements or right-of-ways.

4.23. Lands by Contractor

Any lands other than those which the Work is to be performed which may be required for temporary facilities, storage purposes or access to the Work site, other than those provided by the Owner, shall be provided by the Contractor with no liability to the Owner.

4.24. Permits and Regulations

The Contractor shall, at their own expense, procure all permits, certificates and licenses required by law for the execution of the Work and shall comply with all federal, provincial, and local laws, regulations and ordinances affecting the execution of the Work.

The Contractor shall make all arrangements with the local authorities, Alberta Infrastructure / Transportation, and the operating department of the railways for detours, traffic signs, traffic lights and/or signals, as required, prior to and during construction of the Works under or across highways and railway right-of-ways and shall be responsible for all operations and maintenance and costs of same.

4.25. Construction Schedule

The Contractor shall:

- a) Revise and resubmit to the Consultant the detailed Construction Schedule submitted as part of the tender documents (Section 2.8 – Tenderer’s Construction Schedule) one week prior to the Pre-Construction meeting. This schedule, once revised and deemed acceptable by the Consultant will be the Contractor’s proposed construction schedule and will form part of the Contract Documents.
- b) Monitor the progress of the Work relative to the construction schedule and update the schedule on a weekly basis or as requested by the Consultant; and
- c) Advise the Consultant of any revisions required to the schedule as a result of inclement weather and/or addition of Work to the contract through a Change Order.

The construction schedule referred to above must satisfy the requirements identified in Section 2.8 - Tenderer’s Construction Schedule and demonstrates the Work will be performed in conformity with the dates and subject adjustments identified within Section 3.4 – Construction Commencement and Completion.

Should the Contractor fail to complete the Work under this Contract by the date specified in Section 3.4 - Construction Commencement and Completion subject to the adjustments identified within Section 4.31 – Adjustment of Completion Dates, the Owner shall be entitled to make deductions as described in Section 4.32 - Failure to Complete on Time and Section 4.33 – Duration of Work and Site Occupancy each of the General Conditions.

4.26. Notice to Proceed

Following the execution of the Contract Agreement by the Contractor, written Notice to Proceed with the Work shall be given to the Contractor by the Owner. The Contractor is allowed to commence Work on or any time after the date identified within the Notice to Proceed and shall prosecute the Work regularly and without interruption thereafter, unless otherwise directed in writing by the Consultant, in such manner as to secure the completion of the Work contracted for within the time stated in the Contract Agreement. Time shall be the essence of the Contract.

4.27. Construction Commencement and Completion

The Work to be performed under this Contract is to be commenced as indicated within Section 4.26 – Notice to Proceed. The Work must be to the point of Construction Completion by the Completion Date identified within Section 3.4 – Construction Commencement and Completion of the Contract Documents subject to the adjustments identified within Section 4.31 – Adjustment of Completion Dates of the General Conditions.

4.28. No Compensation

Except as expressly provided in the following Sections, Section 4.29 - Differing Conditions, Section 4.30.1.3 - Compensation for Standby, Section 4.31 - Adjustment of Completion Dates and Section 4.33 - Duration of Work and Site Occupancy, the Contractor does not have any claim for compensation, delay, inconvenience, completion date adjustments, additional site occupancy or lane closure days, or damages, including indirect, special, incidental, punitive, exemplary, or consequential damages or damages for loss of profits, against the Owner or Consultant for any suspension, stoppage, hindrance or delay from any cause whatsoever.

4.29. Differing Conditions

If, during the execution of the Work, the Contractor encounters surface or sub-surface conditions, not resulting from inclement weather, which meet all the following requirements:

- differ substantially from those indicated in the Contract documents;
- differ materially from those ordinarily found and generally recognized as inherent in construction activities of the character provided in the contract documents
- could not have been reasonably discovered during the Tenderer's investigation of the Site in accordance with Section 1.2 - Tenderer's Investigation;
- were not foreseeable by a reasonably experienced contractor; and
- are not expressly dealt with elsewhere in the Contract

then the Contractor must notify the Consultant and Owner promptly, before such conditions are disturbed if possible. In any event the Contractor must give written notice to the Consultant and Owner within seven (7) calendar days after first observance of the conditions. On receipt of such notice from the Contractor, the Consultant will promptly investigate such conditions. Failure to provide written notice within the prescribed time period will preclude the Contractor from proceeding under this section.

If the Consultant or Owner notice potential differing conditions, the Consultant will give notice to the Contractor that the Consultant will investigate such conditions.

If as a result of the Consultant's investigation, the Consultant determines that a differing condition exists, which would cause or result in an increase or decrease to the scope of the Work, the cost to be incurred by the Contractor, or in the time required to perform the Work, then the Consultant may recommend to the Owner for the Owner's consideration, one or more of the following:

- provide instruction to the Contractor on how to proceed including, but not limited to, removing all or a portion of the Work, revising all or a portion of the Work, or continuing the Work as set out in the Contract.
- adjust one or more of the following:
 - Construction Completion date(s);
 - Site Occupancy days; or
 - Lane Closure days; or
- adjust the amount of payment for the Work in accordance with the Contract including, if applicable, Section 4.52 - Extra Work, or reduce the amount to be paid under the Contract. Additional costs will be based on unit rates as set out in the Contract, or as negotiated as appropriate.

The Contractor may pursue the matter further through the process detailed in Section 4.63 - Claims and Dispute Resolution if:

the Consultant determines that a differing condition does not exist, or the Consultant determines that a differing condition exists but the Contractor believes the Consultant's instructions or adjustments are inconsistent with the intent or scope of the Contract, or are given in error. Then the Contractor must give notice to the Consultant and proceed to carry out the instructions.

Upon encountering differing surface or sub-surface conditions, the Contractor is responsible for implementing measures to reduce impacts related to these conditions. The Contractor is not entitled to payment for that portion of costs incurred which could have been reasonably avoided by the Contractor.

4.30. Temporary Suspension of Work

4.30.1. Authority to Suspend Work

4.30.1.1 Consultant Authority

The Consultant and the Consultant's Representative have the authority to suspend the Work, in whole or in part, for such a period as he may deem necessary:

- due to conditions that he considers unfavourable for the prosecution of the Work;
- due to the failure of the Contractor to comply with any provision of the Contract;
- if in the Consultant's opinion, the Contractor fails to adequately provide for or there is imminent danger to workers, utilities or the safety of the public;
- if in the Consultant's opinion there are re-occurring safety issues; or
- when the Contractor fails to comply with orders or directions issued by the Consultant regarding traffic accommodation operations, permit condition non-compliances or failure to safeguard the environment, utilities or the public.

In situations where the Consultant is not on site, the Owner will have the authority to suspend the Work.

Upon receipt of a notice to suspend the Work, the Contractor must immediately suspend the specified operations. Suspensions do not vitiate or void all or any part of the Contract, or any security or obligation for the performance thereof, or relieve the Contractor of any other responsibility under the terms of the Contract including the preservation and care of the Site and material and equipment on the Site.

During a period of suspension, the Contractor must not remove from the Site without the consent of the Consultant any part of the material or equipment previously provided for the Contract.

4.30.1.2 Contractor Authority

Consent of the Consultant is required before the Contractor is authorized to suspend Work.

4.30.2. **Compensation for Standby**

Subject to the other provisions in this section, when the Project or any part of it is suspended by order of the Consultant for a reason which is not related to the Contractor's performance of the Work, the Owner may consider compensation for payment of standby costs incurred by the Contractor and an extension to the Construction Completion date in accordance with Section 4.31 - Adjustment of Completion Dates, General. When such compensation is requested, the costs must be, in the opinion of the Owner, legitimate, reasonable, and supported by proper documentation.

If the Contractor and Owner cannot agree that the requested compensation is legitimate, reasonable and supported by proper documentation, the Contractor may submit a claim in accordance with Section 4.63 - Claims and Dispute Resolution.

When the Owner fails to provide right-of-way necessary for access to the Site, and has not so notified the Contractor in the special provisions of the Contract, and in the Consultant's opinion alternate work areas are not available or practical to allow continued prosecution of the Work, the Owner may consider compensation for standby, for up to a maximum of ten days.

The Owner will not pay for standby costs related to any of the following:

- Weather or other natural conditions
- Suspension, stoppage, hindrance or delay for all or any part of the Project due to an act or omission by the Contractor that is not in compliance with the Contract or is the fault of the Contractor including, without limiting the generality of the foregoing, delays by strikes of the employees of the Contractor or sub-contractors;
- Failure by the Contractor to carry out orders given by the Consultant;
- Any failure by the Contractor to comply with a requirement or provision of the Contract;
- Any failure by the Contractor to provide for the safety of the public or the Contractor's, Owner's or Consultant's work force;
- Any failure by the Contractor to protect the property of the Owner or others;
- Any delay occurring while Defective Work is being remedied;
- Any change in the quantity of any item of Work from the estimated quantity shown in the Contract Unit Price Schedule;
- Any equipment or workers which were not actually present and actively working on the Project immediately prior to the suspension of the Work;
- Any haul trucks or their drivers used on the Project;
- Any suspension of the Work that is less than four (4) hours in duration; and
- Testing of material or Work for compliance with Specifications and Plans.

When a request for compensation for standby is considered by the Owner, costs which in the opinion of the Owner could not have been avoided by the judicious handling of workers and supervisors, equipment, and plant, will be paid to the Contractor in an amount that the Owner believes to be fair and reasonable. For the purposes of this section, compensable costs are only the idle time rate of equipment or plant and the idle time of workers and supervisors including any applicable accommodation costs.

Compensation for standby time of supervisory staff, labour, equipment and plant will be determined by the Owner, and in accordance with the following:

- i. The time paid for will not exceed eight hours in any one calendar day;
- ii. Saturdays, Sundays and statutory holidays will be excluded;
- iii. Overhead costs and loss of profit will be excluded; and
- iv. The idle time equipment rates will be determined by the Owner.

Upon termination of the suspension by the Consultant or the Owner, the Contractor is required to resume operations at once.

4.31. Adjustment of Completion Dates

4.31.1. General

If the Contractor has mobilized to Site and is diligently proceeding with the Work, then the Owner may adjust the specified Construction Completion date, interim completion date, and/or previously adjusted completion date, as applicable, when all the following conditions apply:

- a) The Contractor must submit a written completion date adjustment request to the Consultant as soon as possible after the occurrence of the circumstance giving rise

to the request and not later than fourteen (14) calendar days after the occurrence of the circumstance. Failure to submit a request within this time period will prejudice the Contractor's opportunity to receive an adjustment to the completion date, unless the Contractor can demonstrate to the satisfaction of the Owner that such delay did not prejudice the ability of the Owner to validate the request;

- b) The written request must include a revised detailed schedule of the Contractor's Work to enable completion on or before the requested adjusted completion date;
- c) The circumstances precipitating the request occurred prior to the interim completion or Construction Completion date, as applicable, and the Contractor demonstrates to the satisfaction of the Consultant that the circumstance impacted the overall project schedule, preventing completion of the applicable Work by the specified interim completion or Construction Completion date; and
- d) The reason for the request, stated in the request, is one or more of the following:
 - i. Completion of the applicable Work requires significantly greater amounts or quantities than those estimated amounts or quantities shown in the Contract;
 - ii. The Site was not available to the Contractor through no fault of the Contractor;
 - iii. There was a delay in the availability of materials which are to be supplied by the Owner;
 - iv. The Consultant suspended the Work and standby payments are payable in accordance with Section 4.30 - Temporary Suspension of Work;
 - v. Despite the Contractor's diligence and best efforts, a third party fails to:
 - a. Provide permission to the Contractor to work in the proximity or to cross Utility installations or railways; or
 - b. Provide access to or relocate any Utility installations or railways within a reasonable time

and this was unforeseeable by the Contractor and the Contractor cannot rearrange its Work to accommodate the delay;

- vi. There is a delay resulting from an order of a court, or from strikes or lock-outs;
- vii. A differing condition is determined to exist in accordance with Section 4.29 - Differing Conditions; or
- viii. Contractor works on the Site less than half a Normal Working Day for reasons of inclement weather, or conditions resulting from inclement weather, as determined by the Consultant.

Time spent during or immediately after inclement weather on rectifying conditions resulting from inclement weather will be excluded when calculating a Normal Working Day.

This exclusion applies to time spent on:

- Towing traffic or blading the road surface to facilitate the passage of traffic;
- Ripping, drying and/or re-laying material to restore the material to the condition it was prior to the occurrence of inclement weather; or

- Any other required activities that rectify or restore the Site and the Consultant believes are necessary before any Work on the Site can continue.

Inclement weather occurring after the Construction Completion date, interim completion date, and/or previously adjusted completion date, will not be considered as a reason for delay for the applicable completion date.

4.31.2. **Force Majeure Delay**

Neither party will be considered in default in performance of its obligations hereunder to the extent that performance of such obligations is delayed, hindered, or prevented by a Force Majeure Event.

If the Contractor claims that he has been or will be delayed by reason of a Force Majeure Event in the progress of the Work, the Contractor must, as soon as possible after the Force Majeure Event and not later than fourteen (14) calendar days after becoming aware of the Force Majeure Event, make a written request to the Owner for an extension of time within which to complete the Work or any portion of it. The request must state the reasons for the delay and the amount of additional time the Contractor considers necessary. The applicable scheduled completion date or other time for performing the Work will be extended by an equitable period of time to allow for the delay resulting from the Force Majeure Event. No extension of time will be granted unless the Contractor makes a written request within fourteen (14) calendar days. No additional compensation other than extension of time will be considered against any delays due to Force Majeure.

The Contractor does not have any further recourse or claim against the Owner, nor does the Contractor have any right of action or claim against the Owner, for loss or damage suffered by reason of such delay.

Both the Owner and the Contractor must be prompt and diligent to remove all causes of interruption or delay in the Work, insofar as each is able to do so.

4.32. Failure to Complete on Time

Without limiting any other rights or remedies the Owner has under this Contract, in equity or at law, if any Work required to be completed by the applicable completion date remains incomplete after that date the Owner will deduct from money due the Contractor, Damages for Delay, actual loss or damages, or both.

If there are insufficient funds to cover these amounts, the Owner may invoice the Contractor. The Contractor must promptly pay the amounts invoiced within 60 days.

Damages for delay and actual loss or damages are set out below:

a) Damages for Delay

The Contractor agrees to provide to the Owner, in accordance with the Public Works Act, Chapter P-46, Section 11 (2)(b), a stipulated sum per calendar day for each and every calendar day or part thereof beyond the applicable completion date(s) that the

Work remains uncompleted, regardless of actual loss or damages, and in accordance with the following terms:

- i. The sum of \$1,500.00 per calendar day. This sum will be applied daily for every completion date missed and may result in multiple sums being charged per calendar day. For example, if Work required for two or more completion dates remains incomplete this sum will be applied to each missed completion date until the Work associated with the applicable completion date is complete. The Contractor will notify the Consultant when the applicable work is complete and the Consultant will confirm that all applicable Work is completed and the assessment of damages for delay for the applicable Work will cease.

The Contractor will not be assessed damages for delay for the time spent correcting any Defects identified during the Construction Completion Inspection.

This daily rate will be reduced to \$500.00 per calendar day if all Work has been completed, except for minor cleanup.

- ii. For all Contracts other than bridge only or seal coat Contracts, regardless of the daily rate charged, there will be no Damages for Delay assessed during the time period between December 1 and April 30 of the following year.

For the purposes of this section, seal coat contracts will be considered micro-surfacing, slurry seal, double seal coat, graded aggregate seal coat and chip seal coat.

On chip seal coat Contracts there will be no Damages for Delay assessed during the time period between September 16 and April 30 of the following year.

- iii. There will be no Damages for Delay assessed during the period of a seasonal or prolonged shutdown agreed to by the Owner provided the Contractor has and continues to comply with all the requirements of Section 4.34 - Seasonal or Prolonged Shutdown.
- iv. There will be no Damages for Delay assessed for calendar days lost due to inclement weather or conditions resulting from inclement weather, that occur after the specified or adjusted completion date.

The Contractor is advised that some specifications, manuals, guidelines, and/or other documents may make reference to "Liquidated Damages". All such references mean "Damages for Delay" as described in this section.

b) Actual Loss or Damages

In addition to the daily stipulated sum for Damages for Delay, as set out in Clause (i), the Contractor agrees to provide to the Owner in accordance with the Public Works Act, Chapter P-46, Section 11 Completion of Work (2) (a), the actual loss or

damages suffered by the Owner for each and every calendar day beyond the specified or adjusted completion date that the Work remains uncompleted for one or more of the following items:

- i. The additional cost of maintenance and repair necessary to safely operate or protect the highway infrastructure including, but not limited to, line painting, pavement irregularities including pot hole repair, guardrail and other safety or protection items;
- ii. The cost of accommodating traffic over, through or around portions of the Project; or
- iii. Related claims from third parties against the Owner for damages.

4.33. Duration of Work and Site Occupancy

4.33.1. General

For Contracts containing a bid item for "Site Occupancy" the Contractor will have indicated the number of Site Occupancy Days it requires to complete the Work.

Where Contracts contain multiple Site Occupancy bid items for separate components of the Project, each Site Occupancy bid item will be administered separately for the applicable Work as outlined in the Unit Price Schedule, Special Provisions or both.

4.33.2. Calculation of Site Occupancy Days

Site Occupancy Days will be calculated as whole days. The assessment of Site Occupancy Days will commence on the day of the first disturbance within the Project. Thereafter, every day will be counted as a Site Occupancy Day except if:

- The Contractor is prohibited from working due to restrictions imposed by local bylaws after the Contract has been awarded or as a result of directives from the Consultant or the Owner.
- The Contractor schedules employee time off subject to the conditions in Section 4.33.3 - Employee Time Off.
- The Contractor pre-schedules interruptions to continuous prosecution of the Work for distinct phases of the Work at different times, approved by the Consultant.
 - Distinct phases of Work generally include the larger work groups such as grading, base, paving, pile driving, girder erection, or concrete deck pour, which require different types of equipment and can be completed as a single phase. The Consultant may approve scheduled interruptions for other components of the Work at its discretion. Any such interruptions must be clearly identified in the Contractor's construction schedule. For clarity, pavement markings and guardrail/barrier construction are not considered distinct phases of work.
- The Project is delayed due to inclement weather subject to Section 4.33.4 - Inclement Weather.

- The Project is under an approved seasonal shutdown in accordance with Section 4.34 - Seasonal or Prolonged Shutdown.
- The Contractor is working exclusively on:
 - The development or reclamation of borrow areas or gravel sources;
 - The production of aggregates;
 - The maintenance or restoration of haul roads;
 - The preparation and installation of temporary silt fencing or erosion/sediment control measures; or
 - The construction of milled rumble strips.

regardless of when these are completed.

4.33.3. **Employee Time Off**

The Contractor is allowed a maximum of eight non-charged Site Occupancy days per thirty calendar day period for the purpose of allowing employee time off, providing:

- the Consultant is given at least seven calendar days' notice;
- there is no ongoing Work which requires the Consultant's presence; and no more than five consecutive calendar days are taken at one time.

The first thirty calendar day period begins on and includes the first Site Occupancy day. Any employee time-off days not taken within the specified thirty calendar day period will not be carried forward into the subsequent periods. When the number of calendar days for a period is less than thirty, the allowable employee time off days will be prorated.

4.33.4. **Inclement Weather**

A day on which the Contractor works on the Site less than half a Normal Working Day for reasons of inclement weather, or rectifying conditions resulting from inclement weather, as determined by the Consultant, will not be counted as a Site Occupancy day.

Rectifying conditions resulting from inclement weather includes:

- Towing traffic or blading the road surface to facilitate the passage of traffic;
- Ripping, drying and/or re-laying material to restore the material to the condition it was prior to the occurrence of inclement weather; or
- Any other required activities that rectify or restore the Site and the Consultant believes are necessary before any Work on the Site can continue.

4.33.5. **Working During Periods of Inclement Weather or Pre-scheduled Interruptions**

If, in the opinion of the Consultant, the Contractor is only able to perform minor Work including, but not limited to, clearing, seeding, guardrail/barrier, permanent highway signing, highway lighting, pavement marking, temporary and permanent environmental protection, fencing, culvert rip-rap and trimming backslopes:

- during periods of inclement weather subject to Section 4.33.4 - Inclement Weather;
or

- during pre-scheduled interruptions between phases of the Work such as earthwork, granular base course and asphalt concrete paving and prior to the completion of these phases of the Work;

then Site Occupancy Days will not be counted.

The performance of such Work at any other time prior to the Project being ready for the Construction Completion inspection as detailed in Section 4.33.7 - Conclusion of Site Occupancy will result in the assessment of Site Occupancy days.

4.33.6. **Completion of Pavement Markings**

When the Contract includes a pavement markings component, the Owner will determine the priority of expeditious completion of pavement markings based on traffic volumes and other safety considerations; and will identify the project in the Special Provisions as either a Priority or Non-Priority Line Painting project.

Subject to the exceptions detailed in Section 4.33.2 - Calculation of Site Occupancy Days:

For Priority Line Painting projects Site Occupancy days will to be counted until all Work including all pavement markings are complete and the Project is ready for the Construction Completion inspection as detailed in Section 4.33.7 - Conclusion of Site Occupancy.

For Non-Priority Painting projects all pavement markings must be completed within 5 calendar days of the completion of surfacing work. During this five day period, Site Occupancy Days will only be counted for those days on which the Contractor is performing pavement markings or other Work necessary to prepare the Project for Construction Completion inspection. If, after this five calendar day period, the pavement markings have not been completed, Site Occupancy days will be counted until all pavement markings are complete and the Project is ready for the Construction Completion inspection as detailed in Section 4.33.7 - Conclusion of Site Occupancy.

4.33.7. **Conclusion of Site Occupancy**

Subject to the exceptions specified in Section 4.33 - Duration of Work and Site Occupancy, assessment of Site Occupancy Days will cease entirely when, in the opinion of the Consultant, the Project is ready for the Construction Completion inspection as detailed in Section 4.60 - Construction Completion Certificate and Acceptance. Site Occupancy Days will not be assessed during the period from the date of completion of the entire Work to the actual date of the Construction Completion inspection.

4.33.8. **Site Occupancy Reporting and Adjustments**

The Consultant will, on a weekly basis, summarize for the Contractor on the weekly report, the number of Site Occupancy Days counted on the Contract during that week. In the event that the Contractor disagrees with the number of Site Occupancy Days counted, the Contractor must within one week of the date of the weekly report, notify the Consultant in writing of reasons for the disagreement, otherwise the number of Site Occupancy Days shown on the weekly report are final.

The number of Site Occupancy Days may be adjusted if there was:

- a significant increase or decrease in the estimated quantities;
- late delivery of Owner supplied materials;
- design changes to the Project; or
- any other reason which in the opinion of the Consultant is outside the control of the Contractor, or could not have been reasonably foreseen by the Contractor.

If the Contractor believes he is entitled to an increase in the number of Site Occupancy Days then the Contractor must submit a written request to the Consultant as soon as practicable, but in any event no later than prior to the completion of the Work. The Contractor must set out the reasons for the request, and include reasons justifying the number of additional Site Occupancy days required.

4.33.9. **Payment**

Payment for "Site Occupancy" will be made as follows:

If the Contractor completes the Work in the exact number of Site Occupancy days bid by the Contractor plus any additional days approved under Section 4.33.8 - Site Occupancy Reporting and Adjustments (collectively " Contractor Site Occupancy Days") no payment will be made.

If the Contractor completes the Work in fewer Site Occupancy Days than the Contractor Site Occupancy Days, a payment equal to the unit price per day as shown in the unit price schedule, multiplied by the difference between the Contractor Site Occupancy Days and actual number of Site Occupancy Days will be made.

If the Contractor completes the Work in more Site Occupancy days than the number of Contractor Site Occupancy, an assessment equal to the unit price per day as shown in the unit price schedule, multiplied by the difference between the Contractor Site Occupancy Days and actual number of Site Occupancy Days will be made and charged to the Contractor. Without limiting any other rights or remedies the Owner has under this Contract, in equity or at law, this assessment may be deducted from any monies due the Contractor.

Those provisions for Site Occupancy in no way negates or mitigates the conditions of Section 4.31 - Adjustment of Completion Dates, Section 4.32 - Failure to Complete on Time, or Section 4.27 – Construction Commencement and Completion.

4.34. Seasonal or Prolonged Shutdown

The Contractor may request a seasonal or prolonged shutdown if the contract is a:

Roadway Contract or a Combined Contract and it is on or after November 1 or Work cannot or should not progress due to anticipated prolonged inclement weather, specification requirements, safety or environmental reasons; or
Bridge Only Contract and in the Department and the Consultant's opinion, Work cannot or should not progress due to inclement weather, specification requirements, safety or environmental reasons.

If the Department is considering the Contractor's request for the shutdown the Contractor must attend a joint meeting and the Contractor is responsible for developing a shutdown plan outlining the Contractor's methods and procedures for monitoring and maintaining the Project during the shutdown period. The shutdown plan will also outline any responsibilities of the other parties. The Contractor is responsible for implementing the shutdown plan developed in accordance with the requirements of Specification 7.1, Traffic Accommodation and Temporary Signing of Alberta Transportation's Standard Specifications for Highway Construction.

The Contractor may only shutdown if the shutdown is agreed to by the Department. The Contractor is responsible for monitoring and maintaining the Site in accordance with the shutdown plan including, but not limited to, temporary works or additional traffic control measures, or both. Notwithstanding the preceding, on Combined Contracts, the Contractor is to continue working on the Bridge(s) unless in the Department and the Consultant's opinion, Work cannot or should not progress due to inclement weather, specification requirements, safety or environmental reasons.

If the Department grants a shutdown, the Contractor acknowledges and agrees that the Contractor is responsible, at its own expense, to comply with the requirements and provide all items in the shutdown plan including, but not limited to, temporary works or additional traffic control measures, or both; and the Contractor will promptly remove these items when they are no longer required. The Department will not make any separate or additional payment for costs associated with implementing the shutdown plan.

Until the Shutdown Notification is issued in accordance with Section 7.1.10, Specification 7.1, Traffic Accommodation and Temporary Signing of Alberta Transportation's Standard Specifications for Highway Construction and subject to the terms of the shutdown plan, if it snows or rains, then snow removal and ice control are the responsibility of the Contractor. The Contractor must remove snow and control ice in accordance with the Owner's Maintenance Standards or enters into an agreement with the maintenance contractor, including identifying any potential hazards (e.g milled surfaces) to the maintenance contractor.

4.35. Owner's Right to Terminate Contract

Should the Contractor fail to begin Work under the Contract within the period of time specified, or fails to prosecute the Work with sufficient workmen and equipment, or with sufficient materials to ensure the prompt completion of the Work, or shall perform the Work unsuitably, or shall neglect or refuse to remove materials, or perform anew such Work as shall be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work, or shall fail or refuse to place additional equipment on the Work when so ordered by the Consultant, in order to complete the Work within the time specified; the Owner shall give notice to the Contractor and their Surety of such delay, neglect or default, specifying the same.

If the Contractor, within a period of six (6) days after such notice, shall not proceed in accordance therewith, then the Owner shall have full power and authority, without violating the Contract, to take the prosecution of the Work out of the hands of the Contractor, to

appropriate or use any or all materials and equipment on the ground that may be suitable and acceptable, and may enter into an agreement for the completion of the Contract, according to the terms and provisions thereof, or use such other methods as in its opinion may be required for the completion of the said Contract in an acceptable manner.

All costs of completing the Work shall be deducted from any monies due, or which may become due, to the Contractor. In the case the expense so occurred by the Owner shall be less than the sum which would have been payable under the Contractor, if it had been completed by the said Contractor, then the Contractor shall be entitled to receive the difference, and in case such expense shall exceed the sum which would have been payable under the Contract, then the Contractor shall be liable and pay to the Owner the amount of the excess.

4.36. Contractor's Right to Terminate Contract

The Contractor shall have the right to terminate the Contract, subject to the section pertaining to payment withholding, if at any time:

- a) The Work is stopped for three (3) months, under an order of any Court, or other public authority through no act or fault of the Contractor, or anyone employed by them.
- b) The Owner fails to pay the Contractor any sum certified by the Consultant or Arbitrator, provided that written notice of intention to terminate the Contract is given to the Owner after twenty (20) days have elapsed since certification, and payment is not made within ten (10) days of receipt of said notice.

4.37. Use of Completed Portions

The Owner shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding that the time for completion of the entire Works or such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of any Work not completed in accordance with the Contract Documents. If such prior use increases the cost of, or delays the completion of, uncompleted Work or causes refinishing of completed Work, the Contractor shall be entitled to extra compensation or extension of time, or both as the Consultant may determine. If a plan for taking possession and use of portions of the Work has been stipulated in the Contract Documents, then the Contractor shall have no claim for compensation or extension of time on that account.

4.38. Clean-up

Clean-up during construction shall be an ongoing process and areas becoming available at the site or providing access to the site, such access being utilized by the Contractor and / or public vehicular traffic or pedestrians; shall be kept in a clean state as determined by the Consultant and upon request, cleaned by the Contractor without cost to the Owner. Furthermore the area shall not be encumbered with products which are unnecessary and have no further use in that immediate area.

On or before the completion of the Work the Contractor shall, without extra charge therefore, carefully clean out all structures and shall tear down or remove or otherwise dispose of all temporary structures they built and shall remove all rubbish from the grounds which the Contractor has occupied or utilized as access along the line of Work.

Clean-up during construction shall be an ongoing process and areas becoming available to vehicular traffic or pedestrians shall not be encumbered with products which are unnecessary and have no further use in that immediate area.

4.39. Disposal of Excavated or Otherwise Removed Materials

Large sections of unmanageable curb and gutter or sidewalk containing reinforcing, must be hauled away to an alternative disposal sites as selected by the Contractor, or shall be subject to the Municipality Landfill fee schedule when hauled there, if no alternative site is available.

Removed sections of brick, in good condition, shall be hauled to a location selected by the Town of Peace River for storing purposes. Damaged, unsuitable brick shall be hauled away to the landfill or a site selected by the Contractor.

Clean fill will be accepted at the Landfill Site at no charge and loads will be directed to the stockpile area within the Landfill Site.

The Contractor shall be responsible for the maintenance of disposal sites and access roads when necessary. All associated Work is to be carried out at no additional cost to the Owner.

4.40. Project Record Drawings

The Consultant will provide the Contractor with two (2) project drawings sets of either 22" x 34" or 24" x 36" in size for record drawing purposes. One set is to be used as a working copy to record the infrastructure installation information on a daily basis by the Contractor. The second set is to be used as a clean record drawing set on which the information from the working copy is to be transferred once the project is completed.

The Contractor will maintain project record drawings and accurately record deviations from Contract documents caused by site conditions and changes ordered by the Consultant. The working copy of the project record drawings are to be updated on a daily basis by the Contractor with changes recorded in red on the drawing set. Failure to do so will result in a 5% deficiency holdback, at the discretion of the Consultant, from the current amount due to the Contractor on the progress payment certificate for the affected time period.

Upon project completion, the Consultant may withhold 5% of the entire contract cost from the final progress payment certificate (prior to the release of the lien holdback) until the Contractor provides the Consultant with a clean set of accurate and complete project record drawings.

In each of the instances above the Contractor has fifteen (15) working days to produce the required record drawing information to the Consultant. If this does not occur the Consultant may, without notice to the Contractor, generate the required record drawings and all of the

associated costs to obtain the record drawing data will be the responsibility of the Contractor and the 5% deficiency holdback will be retained until such time as the Consultant is compensated for their work.

4.41. Assignment

Neither party to the Contract shall assign the Contract nor any monies due there under without the written consent of the other.

4.42. Water Used By Contractor

No persons other than the employees of the Municipality are to operate the Municipality's fire hydrant valves or other appurtenances for any reason. Failure to comply with this order will result in prosecution.

The Contractor must contact the utility company for information on obtaining water, current rates and related information.

The cost of water is to be included in the Contract cost and will not be paid as a separate item.

4.43. Indemnity

Except as provided in the Section 4.41 - Assignment, the Contractor shall indemnify and hold harmless the Owner, their agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or attributable to the Contractor's performance of the Contract, providing that such claims, damages, losses or expenses are:

- a) attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, and
- b) caused by a negligent act or omission of the Contractor or anyone for whose acts the Contractor may be liable.

The obligation of the Contractor under this General Specification shall apply only to the extent that such claim, demands, losses, expenses, costs, damages, actions, suits, or proceedings do not arise out of a negligent act or omission of the Owner, the Consultant, their agents or employees.

4.44. Royalties and Patents

The Contractor shall pay all royalties and license fees and shall save the Owner harmless from loss of account of suits or claims for infringements of patents in the doing of the Work.

4.45. Insurance

The Contractor shall maintain and keep in force Insurance during the term of this Contract until all Work required to be performed under the terms of this Contract is satisfactorily completed as evidenced by formal acceptance of the Owner through the issuance of a FAC. Insurance must including coverage for the making good of faulty Work and materials, in an insurance Company or Companies and under policies of insurance acceptable to and approved by the Owner.

Only policies issued by companies authorized to do business under the laws of the Province of Alberta shall be deemed acceptable under this Contract.

The Contractor shall maintain and keep in force the following:

a) Comprehensive General Liability Insurance

Comprehensive General Liability Insurance protecting the Owner, the Owner's representative and/or the Consultant, the Contractor and their respective servants, agents or employees against damages arising from personal injury (including death) and claims for property damage which may arise out of the operations and completed operations of the Contractor, its Sub-Contractors, and their respective servants, agents or employees under the Contract.

This insurance shall be for an amount of not less than FIVE MILLION DOLLARS (\$5,000,000.00) inclusive per occurrence and shall include a standard form of cross liability clause.

b) Automobile and Mobile Equipment Insurance

Automobile Liability Insurance on all licensed vehicles owned by or leased to the Contractor, protecting against damages arising from bodily injury (including death) and from claims for property damage arising from the operations of the Contractor, its servants, agents or employees. This insurance shall be for an amount of FIVE MILLION DOLLARS (\$5,000,000.00) inclusive per accident.

Contractor's Equipment Insurance covering all equipment owned or rented by the Contractor and its servants, agents or employees against all risks of loss or damage with coverage sufficient to allow for immediate replacement, and shall contain a waiver of subrogation against the Owner.

"Certified True" Certificates of Insurance reflecting evidence of the required insurance shall be filed with the Owner prior to the commencement of the Work.

Certificates shall contain a provision that coverage afforded under these policies will not be cancelled until at least thirty (30) days prior written notice has been given to the Owner.

In the event the Insurance Certificate provided indicates that the insurance shall terminate and lapse during the period of this Contract, the Contractor shall furnish, at least thirty (30) days prior to the expiration of the date of such insurance, a renewed Certificate of Insurance

as proof that equal and like coverage for the balance of the period of the Contract and extension there under is in effect.

The Contractor shall not continue to Work pursuant to this Agreement unless all required insurance remains in full force and effect. When changes in the Contract are material to the risk, the Contractor shall notify the Insurance Companies and have the insurance coverage adjusted. In the event that the Owner uses completed portions of the Works prior to the date of completion, any increase in cost of insurance arising out of this use shall not be at the Owner's expense.

4.46. Fire Insurance

The Contractor shall maintain fire insurance acceptable to the Owner, with standard extended coverage endorsement, in the joint names of the Owner and the Contractor to a total no less than eighty percent (80%) of the total value of the Work done and material delivered to the site, payable to the Owner and Contractor as their respective interests may appear, and protecting each in such terms as will preclude subrogation claims by the insurer against anyone of the insured there under.

In the event of a loss, the Contractor shall act on behalf of the Owner and themselves for the purpose of adjusting the amount of such loss with the insurer. On completion of such an adjustment, the Contractor shall repair the damage and complete the Work, and shall be entitled to receive from the Owner, in addition to any sum due under the Contract, the amount at which the Owner's interest has been appraised in the adjustment, to be paid as the Work of restoration proceeds and in accordance with the Consultant's certificates. Damage shall not affect the right and obligations of either party under the Contract except as aforesaid, and except that the Contractor shall be entitled to such reasonable extension of time for the completion of the Work as the Consultant may decide.

4.47. Occupational Health and Safety

The Contractor shall comply with the provisions of the Occupational Health and Safety Act, Statutes of Alberta, 1980, Chapter 0-2, and amendments thereto and regulations there under, and shall at all times ensure that all equipment and manpower at the worksite shall comply with the requirements of the said Act and regulations there under. The Contractor shall be the Prime Contractor, general representative and agent of the Owner for the purposes of insuring compliance with safety regulations for themselves. In the event that the worksite of two or more prime Contractors coincides, it shall be the responsibility of the prime Contractor of this Contract to liaise with all other prime Contractors and jointly develop a health and safety system or process for the affected worksite.

The Contractor shall at all times during the continuation of this Contract with the Owner observe all the provisions of the Labour Relations Act, Workers' Compensation Act, Employment Standards Act and the Occupational Health and Safety Act as well as rules and regulations pursuant thereto. In the event the Contractor fails to comply with the said Acts and any regulations there under, and the Owner is required to do anything or take any step or pay any sums to rectify such non-compliance, the Owner may subtract the costs of such rectification from any monies owing to the Contractor. In situations where two Contractors are on site during portions of the Work the Underground Contractor will be

deemed the Prime Contractor. Once the Underground Contractor has Substantially Performed their Work, notified the Consultant of their position and vacated the site, the Prime Contractor will revert to the Road Contractor.

4.48. Bond

The Contractor, prior to the signing of the Contract, shall furnish a Contract Performance Bond from an acceptable Surety company in the amount of fifty percent (50%) of the total Contract amount covering the faithful performance of a Contract.

The Contractor shall supplement the Performance Bond with a Labour and Material Payment Bond in the amount of fifty percent (50%) of the total Contract price.

Both Bonds shall include the value of the Goods and Services Tax. The Bond shall remain in force after completion of construction for a minimum of two (2) years.

When the Contract sum is increased, the Contractor shall advise the Surety to have the Bonds amended to cover this additional amount.

4.49. Maintenance or Warranty Period

If at any time after the date of the Construction Completion Certificate, and prior to the granting of the Final Acceptance Certificate, any portion of the Work requiring repair by reason of faulty material, or workmanship, or failure of backfill material(s) by means of settlement, or failure to meet specifications, the Owner shall notify the Contractor that such repairs are necessary and shall define the amount and nature of Work to be done in order to make repairs. This shall include any Work identified prior to Final Acceptance Certificate and not yet repaired.

If the Contractor does not make repairs within ten (10) days after such notice, delivered either in person or by mail, the Owner shall have the right to purchase materials and employ men and equipment necessary to execute such repairs. All invoices that are reflective of the Work undertaken will be forwarded to the Contractor. The Contractor will be required to pay all invoices within thirty (30) days or have the amount reduced from the Contract, Surety or any other monies owed. In the case where immediate restoration of services are required, then the Owner may arrange for the immediate restoration of services and charge to the Contractor or their Surety the cost of such repair.

Should the Contractor fail to complete all Maintenance or Warranty repairs, whether or not notice is served by the Owner, before the expiry of the Maintenance or Warranty Period, and should the Owner elect not to undertake the repairs themselves, the Maintenance or Warranty Period shall automatically be extended an additional one (1) year from the original CCC date with all terms and conditions of the Maintenance or Warranty obligation remaining in effect, and shall be inclusive of additional failures that may develop in the additional period.

4.50. Contingencies

When called for in the Contract Documents, the Contractor shall include contingencies in the calculation of the tender sum as required in the Schedule of Quantities. Expenditures from these allowances shall be made only upon the written authority of the Consultant. The unexpended balance shall be deducted from the final Contract amount.

4.51. Changes in the Work

The Owner may as the need arises, order changes in the Work by additions, deletions, modifications or variations without invalidating the Contract and without notice to the Contractor's Surety. The value, if any, of such changes shall be taken into account in ascertaining the amounts of the Contract sum. Notification and authorization of such changes shall be by Owner approved Change Orders or Add-Delete Work Orders.

All such Work shall be executed under the conditions of the Contract supplemented where necessary for varying conditions.

Add-Delete Work shall be at the tendered unit prices as directed by the Consultant. Extra Work authorization may be supplemented by a Field Memorandum. The Value of any Extra Work shall be determined as per Section 4.52 – Extra Work. Advisement of the Bonding Company, for significant increases in value of the Contract Sum due to changes in Work, shall be the responsibility of the Contractor as per Section 4.48 - Bond.

4.52. Extra Work

Extra work includes Work not specified in the Contract or of a class not included in the Contract but Work that is required to achieve the intent or scope of the Contract.

The Contractor must carry out extra work ordered by the Consultant in writing. Only extra work as ordered in writing by the Consultant will be paid for. The Extra Work can be ordered by the Consultant in the form of an Add/Delete Work Order, Change Order or similar.

Payment will be made at the unit prices in the Contract, or if, in the opinion of the Consultant, there is no applicable Contract unit price, at the new unit prices or lump sums agreed to by both the Owner and the Contractor. If there are no applicable or new unit prices or lump sums then payment will be made as detailed in the remainder of this section. Prior to any extra work being done all costs and quantities for labour, equipment and materials must be approved by the Consultant in writing.

4.52.1. Labour

For all labour directly involved in the extra work, the Contractor will be paid:

- i) As per the rates provided by the Contractor as part of their tender submission in Section 2.3 – Extra Work Labour Rates; or
- ii) where not provided in the previous, the actual cost of labour including the wages at the scale being paid on the Contract Work, and including payments made to,

or on behalf of the workers, for holiday pay, Workers' Compensation Board assessment, insurance and pension payments, plus 20 % of this total.

4.52.2. **Equipment**

For each piece of equipment used directly in the extra work, including trucks, but excluding small tools, the Contractor will be paid:

- i) the rates provided during the tender in Section 2.4 – Extra Work Equipment Rates;
- ii) the rates shown in the Equipment Rental Rates Guide and Membership Roster as issued by the Alberta Roadbuilders and Heavy Construction Association;
- iii) for third party equipment rental accounts, the rates invoiced by the third party, provided these rates were approved by the Consultant prior to the commencement of the Extra Work; or
- iv) at the agreed price or rates as stated in the Consultant's extra work order.

4.52.2.3 Equipment Rental Rates Guide and Membership Roster

The applicable Equipment Rental Rates Guide and Membership Roster is the latest version in effect at the time of tendering identified as "Equipment Rental Rates Guide and Membership Roster, an Alberta Roadbuilders and Heavy Construction Association Publication."

If the Alberta Roadbuilders and Heavy Construction Association (ARHCA) revises its "Equipment Rental Rates Guide and Membership Roster" before the extra work on the Contract is commenced, the schedule containing the higher rates for a particular piece of equipment will apply.

4.52.2.4 Purchased Material

For all material purchased by the Contractor, solely to perform or to be incorporated into the extra work the Contractor will receive payment:

- i) at the agreed price as stated in the Consultant's extra work order to which no allowance will be added; or
- ii) if there is no agreed price, at the amount shown on the supplier's invoices to which 15% will be added.

4.52.2.5 Supervision

For supervision required directly for the extra work operation, the Contractor will be paid the actual cost of superintendent's or foreman's wages at the scale being paid on the Work, including statutory payments made to them or on their behalf for holiday pay, Workers' Compensation Board assessment, insurance and pension payments, plus 20 % of this total.

If the supervisory personnel is also engaged on Work other than the extra work, only that portion attributable to the extra work will be paid for by the Owner.

4.52.2.6 Transportation of Workers and Equipment

The vehicles used in the transportation of the workers required exclusively for the extra work are considered equipment and will be paid for as provided in Section 4.51.2 – Equipment for the period for which the vehicles are required. The transportation of heavy construction equipment hauled or otherwise moved to the project exclusively for the extra work, or when necessary from separated points on the Site to the location of the extra work, will be paid for at the applicable rates in accordance with Section 4.51.2 – Equipment, provided that the means of transporting the equipment has been previously authorized by the Consultant.

4.52.2.7 Payment for Extra Work

The compensation provided in this section is payment in full for all charges including any and all indirect costs, overhead and profit, and for the use of small tools for which no rental is allowed.

The Contractor is required to submit its request for payment for extra work before the fifteenth calendar day of the month following that in which such extra work was performed. The Contractor must provide supporting documentation acceptable to the Consultant, giving details as to dates, quantities, rates, third party invoices and any other information as necessary.

Each day, on which Extra Work is being done, where the Work being performed is hourly based and not quantity based, the Contractor shall submit to the Consultant a statement in triplicate of the man-hours, equipment rental hours and materials used. Each copy shall be signed by the Consultant; one copy shall be returned to the Contractor, the second copy being the Consultant's field copy and the third copy used in calculating the actual costs of the Extra Work.

When the Extra Work being performed is done so concurrently with the previously contracted Work and the Contractor indicates that the Extra Work not impact their construction schedule, there will not be an allowance for an adjustment to the Completion Date for the Extra Work.

When the alternative occurs, the Extra Work is performed consecutively and the Contractor indicates that adjustments to the construction schedule are required, there will be an allowance for an adjustment to the Completion Date for the Extra Work. The Completion Date will be extended an additional day for each full work day the Contractor's forces are performing the Extra Work to the satisfaction of the Consultant. The Contractor must ensure that the forces allocated to perform the Extra Work are representative of the Work required to be performed.

The Performance Bond shall be extended to cover Extra Work and the Maintenance or Warranty period shall apply to this Work.

4.52.2.8 Unauthorized Work

Any Work done by the Contractor on its own initiative, which is beyond the lines, grades, or descriptions shown on the Plans and Specifications or established by the Consultant, or without required notification, will be considered as unauthorized and will not be paid for.

Upon order of the Consultant, unauthorized Work must be remedied, removed or replaced by the Contractor at its expense, in a manner acceptable to the Consultant.

Should the Contractor fail to comply promptly with any order made under this section, the Owner may in addition to its other rights and remedies under the Contract, cause unauthorized Work to be remedied, removed or replaced, and deduct the costs incurred from any money due or to become due to the Contractor.

4.53. Inspection of Work

The Contractor shall allow the Consultant, and Owner representatives access and provide adequate facilities for access to any part of the Works at all times.

If the specifications, Consultant's instructions, laws, ordinances, or any public authority requires any Work to be specially tested or approved, the Contractor shall give the Consultant, and Owner advance notice of their preparedness for such inspections, and if the inspection is by an authority other than the Consultant, of the date fixed for such inspection.

The Consultant shall inspect the Work promptly and without causing unreasonable delay to the Contractor. Extra payment will not be made to Contractor for delay occasion by any inspection, and extension of completion time will not be allowed for delay resulting there from.

On request by the Consultant, or Owner, the Contractor shall open for inspection any part of the Work that has been covered up. If the Contractor refuses to comply with such a request, the Owner may employ other persons to uncover the Work.

If the Work is found to be in accordance with the Contract requirements, then the cost of uncovering and recovering the Work shall be borne by the Owner. If any of the Work was uncovered by the Contractor in contravention of the Consultant's instructions, or if the uncovered Work is found not to be in accordance with the Contract requirements, then the cost of uncovering the Work shall be charged to the Contractor.

The acceptance or the lack of comment on the part of the Consultant, of methods of construction employed by the Contractor shall not relieve the Contractor of any responsibility of any errors therein and shall not be regarded as an acceptance of responsibility for the Work done by the Contractor.

4.54. Progress Payment and Certificates

The Contractor will provide the Consultant with an Application for Progress Payment on the 25th day of each month in which the Contractor has a progress claim. The application must be clear and concise with:

- a) all reference items in agreement with the contracted Schedule of Quantities; and
- b) all quantities and amounts in agreement with previous Progress Payment Certificates;

Within five (5) business days of receipt of the Application for Progress Payment, the Consultant will review the application and provide the Contractor with their recommended Progress Payment Certificate. The Contractor must either provide the Consultant with a corresponding invoice in the amount identified within the Progress Payment Certificate or contact the Consultant directly to discuss any perceived discrepancies. The Contractor is to note that interim Progress Payments are estimates of the Work completed for the time period identified upon the certificate. The Consultant will not release a Progress Payment Certificate to the Owner without being provided with an Application for Progress Payment and a supportive invoice from the Contractor in agreement with the recommended amount.

Where unit prices apply, payment will be calculated on the basis of the tendered prices and the units of Work completed as determined by the Consultant. Where a lump sum price applies, payment will be calculated on the basis of the Consultant's estimated percentage of Work completed.

Ninety percent (90%) as per the Builders' Lien Act or ninety percent (90%) as per the Public Works Act of the value of Work, including Extra Work and less deductions up to and including the last day of the preceding month, less the aggregate of previous payments, will, with the exception of the final progress payment which will be paid in accordance with the section pertaining to final progress claims of the General Conditions, become due and be payable by the Owner to the Contractor on or about the thirtieth (30th) day of each month. The Owner will retain the balance of the value of the Work done in compliance with the requirements of the Builders' Lien Act or the Public Works Act, depending upon which Act is stipulated in the Special Conditions.

The monthly estimates shall not bind the Owner in any manner in the preparation of the final estimate of the Work done, but shall be construed and held to be approximate only, and shall in no case be taken as an acceptance of the Work or as a release of the Contractor from their responsibility therefore.

4.55. Payment Withheld

The Owner may withhold or nullify the whole or part of any progress payment to the extent necessary to protect itself from loss on account of one (1) or more of the following:

- a) That the Contractor is not making satisfactory progress in the opinion of the Consultant;
- b) That defective Work is not being remedied at all, or in the alternative, in a manner satisfactory to the Consultant. The Owner shall be entitled to retain from the payment a sum equal to two (2) times the value of any defective Work, which value shall be determined by the Consultant;
- c) That the Contractor has only partially completed the work associated to an item or items in the contract, the Owner shall be entitled to retain from the payment a sum equal to the percentage of total contract cost identified below for the components/aspects listed:
 - a. Lot Grading – 2%
 - b. Sanitary Sewer System Video Inspection – 1%
 - c. Service Connection System Video Inspection – 1%

- d. Storm Sewer System Video Inspection – 1%
 - e. Pressure Testing of the Water Distribution System – 1%
 - f. Turbidity, Chlorination and Bacteriological Testing of the Water Distribution System – 1%
 - g. Infrastructure Installation – Grade and Build – 1%
 - h. Project Record drawing set – 2%
 - i. Materials Testing – 2%
- d) That there exists unsatisfied claims for damages caused by the Contractor to anyone employed on the site or in connection with the Work;
 - e) That lawful affidavit(s) of claim of lien exist as per current Builders' Lien Act of Alberta, if applicable;
 - f) That lawful letter(s) of claim exist as per the current Public Works Act of Alberta, if applicable;

Funds used for payment withheld are to be from those owed to the Contractor for work completed and allocated for progress. Upon release of the Lien Holdback (described below), the previously allocated Lien Holdback funds become part of the general progress payment and may be withheld for known deficient work.

4.56. Payment on Substantial Performance

Pursuant to the provisions of the Builders' Lien Act, if the Contractor or a Sub-Contractor issues a Certificate of Substantial Performance relating to their Contract or sub-contract a major lien fund shall thereby be created as of the date of such certificate.

Upon the issuance of a Certificate of Substantial Performance the Consultant shall within ten (10) days of receipt of such certificate, determine whether the Work of the Contractor or Sub-Contractor has in fact been Substantially Performed.

If the Consultant determines that the Work of the Contractor or Sub-Contractor has in fact been Substantially Performed to their satisfaction, the Consultant shall recommend that the Owner make payment of the holdback existing as at the date of the issuance of the Certificate of Substantial Performance, in so far as that holdback relates to the Work done by the Contractor or Sub-Contractor as the case may be.

Forty-six (46) days after the date of the issuance of the Certificate of Substantial Performance the Owner will pay the holdback existing as at the date of the issuance of the Certificate of Substantial Performance that relates to the Work of the Contractor or Sub-Contractor as the case may be. Such payment should be made only if:

- a) the Consultant has recommended such payment in accordance with paragraph c) of this paragraph; and
- b) no liens or claims of lien are filed or registered against the lands or premises on which the Works are being done; and
- c) the Contractor or Sub-Contractor as the case may be has filed with the Consultant a certificate from Workers' Compensation Board certifying that all assessments due

from the Contractor or Sub-Contractor as at the date of the Certificate of Substantial Performance have been paid; and

- d) The Contractor or Sub-Contractor as the case may be has filed a statutory declaration with the Consultant declaring that all claims for the supply of materials and labour or other claims arising directly or indirectly on account of the Works have been fully paid. Such declaration shall be made after issuance of the Certificate of Substantial Performance and prior to payment; and
- e) Any payment made by the Owner pursuant to this paragraph shall be received by the Contractor or Sub-Contractor as the case may be in trust for the Persons who provided Work or furnished materials to the Contractor or Sub-Contractor, to the extent that the Contractor or Sub-Contractor owes money to such Persons, all in accordance with Section 16.1 of the Builders' Lien Act.

4.57. Release of Deficiency Holdback

The Contractor must provide the Consultant with the required documentation and/or arrange for an inspection of the corrected deficient work. Release of the Deficiency Holdback shall occur once the associated deficiency work has been deemed completed by the Consultant and/or the respective governing municipality/utility. The deficiency holdback can be released in whole or in part, depending upon the status of the work.

4.58. Release of Lien Holdback

Release of Holdback shall be as per the following Acts, which so ever is specified in the Special Conditions as applicable to the Contract. For Work completed under either Act, release of holdback payment will be made only if:

- a) the Consultant has recommended such payment; and
- b) no liens, claims of lien, or claims as applicable to the Public Works Act or the Builders' Lien Act, are filed or registered against the lands or premises on which the Works are being done; and
- c) the Contractor or Sub-Contractor as the case may be has filed with the Consultant a certificate from Workers' Compensation Board certifying that all assessments due from the Contractor or Sub-Contractor as at the date of the Substantial Performance Certificate or the CCC, as per the applicable Act, have been paid; and
- d) The Contractor or Sub-Contractor as the case may be has filed a Statutory Declaration with the Consultant declaring that all claims for the supply of materials and labour or other claims arising directly or indirectly on account of the Works have been fully paid. In the case of the Builders Lien Act, such declaration shall be made after issuance of the Substantial Performance Certificate but prior to request for payment.

Any payment made by the Owner pursuant to this section shall be received by the Contractor or Sub-Contractor as the case may be in trust for the persons who provided Work or furnished materials to the Contractor or Sub-Contractor, to the extent that the Contractor or Sub-Contractor owes money to such persons, all in accordance with Section 16.1 of the

Builders' Lien Act and the applicable section(s) in the Public Works Act, whichever is applicable.

4.58.1. **Builders' Lien Act**

- a) Pursuant to the provisions of the Builders' Lien Act, if the Contractor or a Sub-Contractor issues a Certificate of Substantial Performance relating to their Contract or sub-contract, a major lien fund shall be thereby created as at the date of such certificate.
- b) Upon the issuance of a Certificate of Substantial Performance the Consultant shall within ten (10) days of receipt of such certificate, determine whether the Work of the Contractor or Sub-Contractor has in fact been Substantially Performed.
- c) If the Consultant determines that the Work of the Contractor or Sub-Contractor has in fact been Substantially Performed to their satisfaction, the Consultant shall recommend that the Owner make payment of the holdback existing as at the date of the issuance of the Certificate of Substantial Performance, in so far as that holdback relates to the Work done by the Contractor or Sub-Contractor as the case may be.
- d) Forty-six (46) days after the date of the issuance of the Certificate of Substantial Performance, the Owner will pay the holdback existing as at the date of the issuance of the Certificate of Substantial Performance as that relates to the Work of the Contractor or Sub-Contractor as the case may be.

4.58.2. **Public Works Act**

Ninety one (91) days after the date of the issuance of the CCC, the Owner will pay the holdback existing as at the date of the issuance of the CCC that relates to the Work of the Contractor.

4.59. Removal of Liens and/or Claims

The Contractor shall:

- a) prior to requesting release of holdback, remove at their own expense all affidavits of claim of lien, or letters of claim filed or registered against the lands, premises, or project upon which the Work is done or is being done, or reasonable evidence of the probable filing of such affidavits (or an affidavit) of claim of lien or of filing or registration of liens (or a lien); and
- b) indemnify and save harmless the Owner from liability arising out of any such actions.

4.60. Construction Completion Certificate and Acceptance

Upon completion of construction, all portions of the Work shall be pre-inspected carefully by the Contractor who shall satisfy themselves that every item has been completed, and that the whole Works are in a clean and tidy condition, and ready in all respects for Acceptance by the Owner and/or the Municipality. The Contractor shall then, by writing to the Consultant and completing a Construction Completion Inspection Request form, request a Construction

Completion Inspection of the Works. At this point the Consultant will schedule the Construction Completion Inspection requiring the following parties' attendance:

- a) Consultant as the Owner's representative;
- b) Project Manager;
- c) Consultant's Field Inspector; and
- d) Contractor's Superintendent;
- e) Municipality's Representative;

If the Work being inspected was that completed by the Sub-Contractor then the Sub-Contractor's superintendent must also be in attendance.

On receipt of a written recommendation from the Consultant, the Municipality, subject to its acceptance of this recommendation and provided the Contractor has complied with all the provisions of the Contract, shall issue the CCC. Such recommendation will only be made by the Consultant following:

- a) A full and detailed inspection of the Work has been undertaken and documented by the Consultant.
- b) A written statement from the Contractor has been received by the Consultant, detailing the nature and estimating the dollar value of any and all claims and demands of the Contractor for Extra Work, quantity adjustment, unit rate application, or otherwise in connection with payments to be received from the Owner. Should the Contractor determine that no such claims or demands exist; the Contractor is nonetheless obligated to so advise the Consultant by a written statement stating the same. Failure to submit either statement will suspend the issuance of the CCC.

If the Contractor considers that all the deficiencies are minor, and the Contractor believes that they cannot rectify all the deficiencies promptly for reasons beyond their control other than for reasons of inclement weather and / or season shutdown, the Contractor may in writing request a conditional acceptance of the Works at the Construction Completion level. Such a request must state a time frame / date by which deficiencies shall be totally completed and such request shall be submitted to the Consultant, but shall not be considered by the Consultant until the statement referred to in b) above has been submitted. Subject thereto, the Consultant will consider the request, and will make such recommendation thereon to the Owner as the Consultant shall in their absolute discretion think fit.

The Owner will consider the Consultant's recommendation and will decide in its absolute discretion how far, if at all, and on what terms to accede to the Contractor's request. Without limiting the generality of the foregoing, the Owner will require assurance that acceding to such request will not prejudice its rights under any applicable lien legislation or bonds.

4.61. Final Progress Payment

The final progress payment will represent the total payment due to the Contractor for the completed Work. The final Progress Payment Certificate will be prepared and recommended for payment by the Consultant following a written statement from the Contractor to the Consultant stipulating their agreement to all quantities and all claims or

demands for Extra Work, quantity adjustment, unit rate application, or otherwise in connection with payments to be received from the Owner.

The final progress payment will be made by the Owner within thirty (30) days following the date of receipt of the written statement by the Consultant. No holdback will be retained if the holdback retention period has expired and the required holdback release documentation has been received.

The Final Progress Payment Certificate may be suspended for the following reasons:

- a) Failure of the Contractor to submit such statement as required in the first paragraph in this section within sixty (60) calendar days of the CCC will be deemed as acceptance of the authenticity and correctness of all payments and all payments shall be deemed as final. However, the final progress payment will be suspended until the Contractor intentions are known as per b).
- b) In the event the Contractor fails to appropriately communicate with the Consultant in writing, or still disagrees with the payment or payments after due negotiation with the Consultant, and upon expiration of the sixty (60) day period as per a), the Contractor must state their intentions in writing within seven (7) calendar days and by registered mail. Failure to do so will result in revocation of the CCC. Pending the Contractor's disclosure, the Owner may continue to suspend the payment.

4.62. Final Acceptance of the Work

Sufficiently prior to expiration of the Maintenance or Warranty period, all portions of the Work shall be pre-inspected carefully by the Contractor who shall satisfy themselves that the whole Works are in a clean and tidy condition, and ready in all respects for Acceptance by the Owner and/or the Municipality. The Contractor shall then, by writing to the Consultant and completing a Final Acceptance Inspection Request form, request a Final Acceptance Inspection of the Works.

If deficiencies are identified during the Contractor pre-inspection of the Work, the Contractor must inform the Consultant and the Consultant will then accompany the Contractor on an Initial Final Acceptance Inspection of the Works. The Initial Final Acceptance Inspection must occur prior to the Contractor commencing repairs on the site deficiencies. During the inspection the Consultant will compile a list of the deficiencies and indicate the party responsible for the remediation. The Consultant will provide the Contractor with an Initial Final Acceptance Inspection Form within two (2) days of said inspection, listing the deficiencies and the party responsible for each of the deficiencies remediation. The Contractor will then have ten (10) days to repair all deficiencies listed on the form. Deficiencies listed that indicate the remediation as a third party responsibility must be repaired by the Contractor but the Contractor will be compensated for the repairs as per contracted unit rates.

If the Contractor does not make repairs within ten (10) days after such notice, delivered either in person or by mail, the Owner shall have the right to purchase materials and employ men and equipment necessary to execute such repairs. In the case where immediate restoration of services is required, then the Owner may arrange for the immediate

restoration of services. The cost of the deficiency repairs will be charged to the Contractor or the Contractor's Surety.

Once all deficiencies are remediated the Consultant will schedule the Final Acceptance Inspection requiring the following parties' attendance:

- a) Consultant as the Owner's representative;
- b) Project Manager;
- c) Consultant's Field Inspector; and
- d) Contractor's Superintendent;
- e) Municipality's Representative;

On receipt of a written recommendation from the Consultant, the Municipality, subject to its acceptance of this recommendation and provided the Contractor has complied with all the provisions of the Contract, will issue the FAC fourteen (14) days after expiration of the Maintenance or Warranty period.

Such recommendation will only be made by the Consultant following the complete inspection of the Works.

Record drawings, if applicable, must be provided prior to the issuance of the FAC.

No Certificate other than the Final Acceptance Certificate shall be deemed to constitute acceptance of any Work or any other matter in respect of which it is issued or be taken as an acceptance of the due performance of the Contract or of any part thereof, or the accuracy of any claim or demand by the Contractor or of additional or varied Work having been ordered by the Owner nor shall any other Certificate conclude or prejudice any of the powers of the Consultant.

4.63. Claims and Dispute Resolution

In the case of any dispute between the Owner and the Contractor or any questionable decision of the Consultant subject to Arbitration, during the progress of the Work or in no event after final payment has been made and accepted, either party hereto shall be entitled to give to the other notice of such dispute and to demand Arbitration thereof. Such notice shall be in writing and shall specify the matter to be submitted to Arbitration, and in it said party shall name a person to act as Arbitrator; thereupon within ten (10) days after receipt of such notice, the other party by written notice shall choose a name of second Arbitrator; the two (2) Arbitrators so chosen shall forthwith jointly select a third Arbitrator, giving Written Notice to both parties of the choice so made, and fixing a place and time for meeting not later than thirty (30) days thereof, at which both parties may appear and be heard, touching such controversy relating to the matters aforesaid. In the case the two (2) Arbitrators shall fail to agree upon a third Arbitrator, or in case the party notified of the demand for Arbitration shall fail to name the second Arbitrator within the time stipulated, such third Arbitrator, or such second and third Arbitrators as the case may be, upon application of either party, of which the other shall be given notice shall be named pursuant to the statutes of the Province of Alberta. The parties may agree to submit the matter to one (1) Arbitrator, whose award shall be as binding as that of the three (3) Arbitrators.

The submission and arbitration proceedings shall be under the provisions of the Arbitration Act of the Province of Alberta. The decision of the said Arbitrator(s) shall be made in writing

within thirty (30) days after the completion of hearings thereon, and signed by a majority of them.

Arbitration proceedings shall not take place until after the completion or alleged completion of the Work except:

- a) on a question of Certificate for Payment; or
- b) In the case where either party claims that the matter in dispute is of such nature as to make immediate Arbitration proceedings necessary while the evidence is available.

The Arbitrator(s) in their decisions shall determine which party shall bear all or a portion of the cost and expenses of the Arbitration including the fees of the Arbitrator(s) and the said Arbitrator(s) may in such decision allocate such costs and expenses between the parties in such amounts as they deem fair and equitable by reason of such decision.

4.64. Certificate of Recognition (C.O.R.)

The Consultant is encouraged to register in a Certificate of Recognition (C.O.R.) Program under the Alberta Construction Safety Association appropriate to their industry as an Active member or an Associate member.

The Prime Contractor, to qualify for Work values of \$ 50,000.00 or more, shall provide a Certificate of Recognition identifying them as an active member of the Alberta Construction Safety Association.

A Sub-Contractor, to qualify for Work values of \$ 25,000.00 or more, shall provide a Certificate of Recognition identifying them as an active member of the Alberta Construction Safety Association.

Contractors and/or Sub-Contractors not complying with this section, will not be accepted as qualified to compete on Municipality Work or Work on Municipality projects.

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5.1. Work Site

The work site for this project is located at 100 Street from 99 Avenue to 101 Avenue and its in the Town of Peace River.

The pertinent drawings for this project are entitled:

**Town of Peace River
101 Street Storm Sewer**

5.2. Scope of Work

The Work for 101 Street Storm Sewer is to upgrade a portion of the existing infrastructure. Clean and inspect the remaining infrastructure to the outfall location. Repair and upgrade slope failures and repair the asphalt road damaged by the slope failure.

5.3. Work In the Vicinity of Utilities

"Utilities" shall mean:

Utilities and facilities which are located on, in or near the right-of-way and/or Work area which may be affected by the construction, and shall include but not be limited to pipelines, drainage works, irrigation works, water works, sewage works, power facilities, telephone facilities, cable facilities and related appurtenances.

It is the Contractor's responsibility to locate all underground and above ground utilities and pipelines. The Contractor is responsible for the cost of repairing any gas lines, telephone cables, utilities, pipelines or any infrastructure damaged as a result of the construction.

It is the Contractors responsibility to acquire all permits or crossing agreements. The Contractor shall record depths of existing infrastructure and immediately report any conflicts to the Consultant and the Utility company.

The known utility companies, owners, and operators and their representatives are as follows:

TELUS Communications Co.

Phone: (780) 310-CUTS
Hit TELUS Line: (780) 310-2887
AB One Call: 1-800-272-3447

EASTLINK

Phone :1-888-345-1111

ATCO Electric

Peace River Office: 1-800-662-2248
Emergency: (800) 668-5506

Town of Peace River

Devin Braun
Phone: (780) 624 - 3085
Email: dbraun@peacriver.ca

ATCO Gas

Peace River Office:(780) 624-4602
Toll Free: 1-888-420-3464

Emergency: 1-877-496-9380

The companies named within these Special Conditions have advised that they potentially have utilities located within the limits of this project. Any adjustment Work may be carried out concurrently with the construction operations.

Dependent upon the magnitude and degree of complexity of the adjustments required, the Work may not be completed until the latter stage of their operations. In that event, the Contractor shall be required to arrange their operations clear of those utilities until the required adjustments are completed and permission to construct in their vicinity is received. The Contractor shall not have any claim for compensation or damages against the Owner for any stoppage, delays, inconvenience or damage sustained by them due to any interference from the utilities or infrastructure, or the operation of moving them.

The Contractor, in undertaking any Work near existing power lines shall comply with the Regulations under the Electrical Protection Act.

In addition to the above, the Town of Peace River has storm sewer, as well as water and sanitary facilities within the project area and both shall be contacted by the Contractor for locates and a site walkthrough for inspection of infrastructure prior to the commencement of any Work.

5.4. Standards, Specifications and Guidelines

The Contractor will install all materials and equipment to the manufacturer's specifications must adhere to the Standards, Specifications and Guidelines outline in the tender/Contract documents. Additionally, they will adhere to the latest version of all pertinent sections of the following specification manuals:

- i. Town of Peace River - General Municipal Servicing Standards – GMSS
- ii. Alberta Transportation Standard Specifications for Highway Construction – Edition 16 (AT)

Additional clarification, specification omissions, adjustments, modifications and changes can be found in within this section of the tender/Contract documents. Note that items not addressed in the Special Conditions are to be considered as regular line items that follow the standards, specifications and guidelines contained within the manuals listed above.

All construction activities shall conform to the identified pertinent sections of the Town's General Municipal Servicing Standards unless otherwise noted, all designs shall conform to the Town's Standards, Transportation Association of Canada (TAC) Guidelines and good engineering practice.

The Contractor shall make all of the above-mentioned documents available at site at all times.

5.5. Traffic Accommodation

The Contractor shall submit a Traffic Accommodation Strategy (TAS) to the Consultant for review at least seven (7) calendar days prior to the pre-construction meeting, in accordance with Alberta Transportation manual "Traffic Accommodation in Work Zones and its Urban Supplement" – current edition.

Failure to meet the approved traffic accommodation plan will result in a Work Stoppage Order in accordance with Section 4.10 – The Consultant and the Contractor of the General Conditions if, in the opinion of the Consultant, there exists a danger to life or property.

Public traffic and access to businesses shall be accommodated, without interruption, on a 24 hour per day basis. The Contractor shall provide the Consultant detailed plans and drawings of the proposed traffic accommodation measures at least one (1) weeks prior to the pre-construction meeting. Stage construction may be incorporated.

The Contractor must assign a capable individual(s) that will be on duty 24hrs a day to perform maintenance and regular inspection of the Traffic Accommodation signage and features during both working and non-working hours.

Traffic Accommodation shall include the submission of a TAS, supply and erection of all necessary signs, sign inspection, preparation and submission of daily sign log sheets, notification and media advertising, flag persons and detours required or as specified by the Consultant to provide safe, efficient traffic control during the construction period in accordance with these specifications: Alberta Transportation Specifications and the Transportation Association of Canada Uniform Traffic Control Devices Standards. The Consultant may recommend partial, or if necessary, negative payment if traffic control or maintenance is not completed satisfactorily, or if the Contractor fails to conform to the specification.

It is the Contractor's responsibility to inform the Police Department, Fire Department, Ambulance Services and Transit Department of the proposed Work schedule and changes to the schedule, including times of Work and activities required on the various street locations within the Municipality.

The Contractor shall provide and maintain flag persons, traffic signals, barricades, and lights/lanterns, as may be required, to direct the flow of equipment used in performance of Work and protect public traffic. Make arrangements with local governing authorities when these facilities will disrupt the normal flow of public traffic.

5.5.1. Traffic Accommodation During Construction

The Contractor shall make suitable provisions, including the use of detours, to accommodate all vehicular and pedestrian traffic safely and with a minimum of inconvenience through or around the Work. Road closures will not be permitted as part of the construction methods.

The Contractor shall provide, install, maintain and protect traffic control devices, such as signs, barriers, fences and lights, at his own expense. No changes to signal operation will

be permitted. If temporary signals are utilized as part of Work sequencing, signal timings and sequencing must be similar to existing until new signals are operational.

The Contractor shall provide the required number of Alberta Infrastructure & Transportation certified flag persons, attired in current standard clothing, during all periods of active equipment operations that may affect normal traffic operations.

The Contractor shall control his operations to ensure emergency vehicle operations and normal school bus operations are not interfered with, and shall ensure that there is uninterrupted access to developments along the project(s).

The Contractor shall ensure temporary walkways are provided for access to residents during curing times for any concrete that may disrupt access to driveway or sidewalk access.

5.5.2. **Parking**

Parking will not be permitted on site; with the exception of construction vehicles properly equipped with flashing beacons and appropriate insurance as stated in General Specification Section 4.40. – Insurance. The Contractor shall not allow workers to park on streets and roads if disruptive to public traffic flow or access to site.

Preparation and implementation of an acceptable TAS will be considered incidental to the work performed and no additional payment will be provided. This will include all materials, labour, equipment, supervision and any other incidentals necessary to complete the Work.

5.6. Environmental Construction Operations Plan (ECO Plan)

The Contractor shall prepare and implement an ECO Plan for each phase of the project, in accordance with Alberta Infrastructure & Transportation's manual entitled "ECO Plan Framework," latest version. The Plan shall detail temporary environmental control measures that the Contractor shall undertake to comply with all applicable legislation, regulations and approvals during the course of construction and during "winter shut down". The ECO Plan shall not cover any permanent or long term environmental, or erosion control devices or Work specified in the Contract.

The Contractor shall submit the ECO Plan to the Consultant at least seven (7) calendar days prior to the pre-construction meeting. The Consultant will review the ECO Plan and communicate any concerns to the Contractor at least three (3) calendar days prior to the pre-construction meeting. The Contractor shall address any issues or concerns regarding the proposed the ECO Plan to the satisfaction of the Consultant prior to the commencement of the Work.

The finalization of the Plan, to the mutual satisfaction of the Consultant and the Contractor, does not constitute an approval or assurance from the Consultant or the Owner that the temporary environmental control measures detailed in the ECO Plan are sufficient to ensure compliance with all applicable legislation, regulations or conditions of approval. The Contractor is ultimately responsible to ensure all measures used on the project are sufficient to ensure compliance with all applicable authorities. This may mean increasing the number of installations, providing alternate devices or modifying procedures.

Preparation and implementation of an acceptable Environmental Construction Operations Plan (ECO Plan) will be considered incidental to the work performed and no additional payment will be provided. This will include all materials, labour, equipment, supervision and any other incidentals necessary to complete the Work.

5.7. Right-of-Way Restrictions

The Contractor shall ensure that his forces and those of all subcontractors shall be under a duty to use due care to ensure no private property is entered on or damaged in the prosecution of the work. Without restricting the generality of the foregoing, the Contractor shall, at his own expense, make provisions as necessary to avoid any such damage. The Contractor agrees to hold harmless the Municipality, its Consulting Engineer, their employees, and agents from any and all third party claims, demands, or actions which may result from damages caused on private lands due to entrance by the Contractor, negligence, wilful harm, or crimes by the Contractor or the Contractor's employees or agents.

5.8. Hours of Work

Hours of Work conform to the local municipality noise bylaws. Any work outside of these hours will need prior approval.

5.9. Quality Control

5.9.1. General

This Section includes and clarifies the administrative and financial requirements for testing, inspection, and report writing requested in the Specifications in order to reduce the need to repeat these requirements in applicable Specification Sections.

5.9.2. General Testing Requirements

1. During the progress of the Work, a sufficient quantity of tests will be performed to determine that materials and installation meet the specified requirements.
2. Testing will be in accordance with pertinent codes and regulations.
3. General requirements for inspection and testing are specified in this Section. Requirements for tests are also described under various sections of the Specifications.
4. Product testing, mill tests, and laboratory reports to demonstrate that materials supplied meet the Specifications are specified under various sections of the Specifications.

5.9.3. Access to Work

1. The Owner and the Engineer shall have access to the Work. If part of the Work is in preparation at locations other than the place of the Work, access shall be given to such work whenever it is in progress.
2. Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Engineer instructions, or the law of the place of the Work.

3. If the Contractor covers or permits to be covered Work that has been designated for special tests, inspections, or approvals before such is made, uncover such Work, have the inspections or tests satisfactorily completed and make good such Work.
4. The Engineer may order any part of the Work to be examined if the Work is suspected to be not in accordance with the Contract Documents. If, upon examination, such Work is found not in accordance with the Contract Documents, correct such Work and pay the cost of examination and correction. If such Work is found in accordance with the Contract Documents, the Owner shall pay the cost of examination and replacement.

5.9.4. **Testing Services by the Contractor**

1. The Contractor shall retain the services of an approved independent testing agency and pay the costs of testing services as follows:
 - a. Standard Proctor Density tests for borrow materials.
 - b. Sieve Analysis of sands, and aggregates supplied.
 - c. Product testing that is required and is specified under various sections of the Specifications.
 - d. Quality control tests for precast concrete.
 - e. Quality control test for hot-mix asphaltic concrete pavement.
 - f. Mix Designs as required in other sections of the Specifications.
2. The testing agency shall supply copies of all test results related to this Contract directly to the Engineer.
3. The Contractor shall supply all labour, materials, and equipment, and shall perform tests for linings, coatings, pressure tests, leakage tests, infiltration tests, and all other tests specified under various sections of these Specifications. The Contractor shall provide all labour, materials, and equipment necessary to assist the Owner in conducting camera tests.

5.9.5. **Testing Services by the Owner**

1. The Owner will retain and pay for the services of an independent testing agency for sample testing during construction to check quality of the Work. This may include the following and other tests:
 - a. Standard Proctor, sample density, and moisture content tests for trench backfill, fill, embankment, road subgrade, and granular materials.
 - b. Quality assurance testing for concrete pursuant to Section 4 of AT and Section G.12 of GMSS.
 - c. Quality assurance testing for asphaltic concrete pursuant to Section 5.15 of the tender form.
2. The Owner may order and pay for testing of any material or installation in addition to the tests by the Contractor. The Owner's testing will be performed by an independent testing agency.
3. The Owner may provide the results of testing to the Contractor. However, the Contractor should not rely on testing undertaken by the Owner to control operations.

4. Tests conducted by the Owner or their agent are based on random sampling and shall not be deemed to relieve the Contractor of the responsibility for the quality and maintenance of the Work.

5.9.6. **Contractor's Responsibility for Testing**

1. The Contractor shall provide facilities for access to the Work in order that testing laboratories may properly perform tests in laboratory and in on site the field.
2. Coordinate with the Engineer, the scheduling of the testing laboratory to enable testing to be carried out as necessary, without undue delays.
3. The testing laboratory will take all samples and specimens and will provide the necessary equipment and personnel to deliver specimens and samples to the laboratory.
4. The Contractor shall repair, to appropriate standards, any area that is disturbed by inspection and/or testing.
5. Pay costs for uncovering and making good Work that is covered before the required inspection or testing is completed and approved by the Engineer.

5.9.7. **Code Compliance Testing**

1. Inspections and tests required by codes or ordinances, or by a plan approval authority, shall be the responsibility of, and shall be paid for by the Contractor.

5.9.8. **Contractor's Convenience Testing**

1. Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

5.9.9. **Retesting**

1. When initial tests indicate non-compliance with the Contract Documents, all subsequent retesting because of the non-compliance shall be performed by the same testing laboratory and the costs will be deducted from the Contractor's payments

5.10. Engineer

The field layout and contract administration will be done by an Engineer selected by the Owner.

The Engineer will provide one set of initial grades and reference marks of type and in a location requested by the Contractor for any operation. The Contractor will be responsible

to maintain these marks and provide any subsequent layout required. The Engineer will provide one final verification of grade or layout prior to the next operation or placement of concrete provided adequate notice is given to the Engineer (minimum 8 hours). The Contractor is responsible to verify all marks provided by the Engineer and bring to the Engineer's attention any errors that occur prior to construction related to those marks. Any replacement of survey marks, or additional grades, staking or checks that the Contractor requires may be provided by the Engineer at the hourly rates provided to the Owner for this project upon agreement by the Contractor and issuance of a purchase order.

The Contractor should be aware of the testing requirements for the project as stipulated in 5.9 Quality Control, GMSS and AT. The Contractor is responsible for contacting The Engineers geotechnical division or subcontractor directly when a test is required. The Engineer will provide one test for any installation. Failed areas will receive one re-test to confirm adherence to specifications once the Contractor has reworked the material. Any additional testing requested by the Contractor, or subsequent re-tests may be provided by the Engineer at the rates provided to the Owner for this project upon agreement by the Contractor and issuance of a purchase order. Requests for all testing are to include the time required. Any stand-by time in excess of one hour will be at the Contractor's cost as noted above.

5.11. Contractor's Work And Storage Area

The Contractor shall identify the area which they wish to utilize as storage within the work area. All materials stored on site shall be stored in a manner deemed safe. All costs associated for remediation of the site to its original state shall be paid by the Contractor and the Contractor shall hold the Owner and the Consultant harmless for all resulting claims.

5.12. Removals

5.12.1. Asphalt Concrete Pavement 0-350mm

Existing Asphalt Pavement shall be removed and disposed of to an approved location procured by the Contractor unless otherwise indicated by the Consultant or Municipality at the time of Construction. Payment for Removal of Asphalt Concrete pavement will be made in square meters with a varying depth of 0mm to 350mm. All equipment, tools, milling, saw-cutting, loading, hauling, labour, permits and supervision required to complete the work shall be considered incidental to complete the work.

5.12.2. Curb & Gutter

Existing Curb & Gutter of all sizes and types shall be removed and disposed of to an approved location procured by the Contractor unless otherwise indicated by the Consultant or Municipality at the time of Construction. Payment for Removal of Curb & Gutters will be made in linear meters. All equipment, tools, milling, saw-cutting, loading, hauling, labour, permits and supervision required to complete the work shall be considered incidental to complete the work.

5.12.3. **Existing Manhole or Catchbasin – Remove & Dispose**

Existing Manholes of all sizes and material shall be removed and disposed of to an approved location procured by the Contractor unless otherwise indicated by the Consultant or Municipality at the time of Construction. Payment for Removal of Manholes or Catchbasins will be made in vertical meters from the top of the frame to the lowest pipe invert. All equipment, tools, milling, saw-cutting, loading, hauling, labour, permits and supervision required to complete the work shall be considered incidental to complete the work.

5.12.4. **Existing Storm Pipes – Remove & Dispose**

Existing Storm Pipes of all sizes and material shall be removed and disposed of to an approved location procured by the Contractor unless otherwise indicated by the Consultant or Municipality at the time of Construction. Payment for Removal of Storm Pipes will be made in linear meters from the pipe invert to pipe invert. All equipment, tools, milling, saw-cutting, loading, hauling, labour, permits and supervision required to complete the work shall be considered incidental to complete the work.

5.12.5. **Salvage Existing Frame for Recycling**

Salvage Existing Frame for Recycling will be measured in each frame and cover salvaged. Frames and Covers Salvaged during construction may be re-used at the discretion of the Consultant. No additional payment will be made for the supply and Install of new Frame and Covers should a salvaged Frame and Cover be used.

5.12.6. **Clearing**

Payment for clearing will be meters squared to clear the areas marked on the drawing set or as required and approved to complete the work. Trees brushed, cleared or mulched for clearing shall be removed and disposed of to an approved location procured by the Contractor unless otherwise indicated by the Consultant or Municipality at the time of Construction. All equipment, tools, milling, saw-cutting, loading, hauling, labour, permits and supervision required to complete the work shall be considered incidental to complete the work.

5.12.7. **Shoring and Bracing**

The contractor will be required to install shoring and bracing to complete work on STMH#4. It is the Contractor's responsibility to prepare a plan and supply and install shoring and bracing materials to ensure existing roadways, utilities and infrastructure is not at risk and the work can be completed in a safe manner.

5.13. Earthwork

5.13.1. Site Grading

5.13.1.1 Topsoil Stripping

Payment will be made at the unit price bid per square metre (m²) for "Topsoil Stripping" as indicated in the Tender Form. This payment will be full compensation for all movement of this material exclusive of topsoil placement and all labour, equipment, tools and incidentals necessary to complete the Work to the satisfaction of the Consultant.

Any material not utilized on site for the remediation process upon the completion of the work is to be removed from site to a location procured by the Contractor which is suitable for the disposal or use of the material. This excess material will not be paid under this line item – it will be compensated through "Waste Excavation".

5.13.1.2 Hillside Benching & Common Excavation

It is expected that benching will be required to repair the slope. Any suitable Common material derived from benching will be considered incidental to the installation of the Borrow Excavation. There will be no separate payment for common excavation, hillside benching, scarifying or preparing material, all work to complete the slope repair will be considered incidental to Borrow Excavation.

5.13.1.3 Borrow Excavation – Contractor Supplied

"Borrow Excavation – Contractor Supplied" material consists of the excavation, hauling and placing of suitable construction material obtained from locations outside of the project limits that has been procured for use by the Contractor. Prior to "Borrow Excavation – Contractor Supplied" material being incorporated into the project Works, all Common Excavation material must be utilized.

Payment will be made at the unit price bid per cubic metre (m³) for "Borrow Excavation – Contractor Supplied" as indicated in the Tender Form. This payment will be full compensation for the excavating, loading, hauling, placing, compacting, all applicable specification contained within the pertinent sections of the documents referenced in 5.4 – Standards, Specifications and Guidelines, and all labour, equipment, tools and incidentals necessary to complete the work to the satisfaction of the Consultant.

5.13.1.4 Waste Excavation

"Waste Excavation" material is considered as any excavated material that cannot be re-used and incorporated into the Works. All excess Waste materials are to be loaded, hauled and disposed of to a suitable disposal site procured by the Contractor.

Payment will be made at the unit price bid per cubic metre (m³) for "Waste Excavation" as indicated in the Tender Form. This payment will be full compensation for the loading, hauling, unloading, placement, permits, agreements, compensation, haul road maintenance, disposal site procurement, remediation, all applicable specification contained within the within the pertinent sections of the documents referenced in 5.4 – Standards, Specifications and Guidelines, and all labour, equipment, tools and incidentals necessary to complete the work to the satisfaction of the Consultant.

5.14. Underground Utilities

5.14.1. Storm Sewer Systems

5.14.1.1 Stormwater Management System – Minor System

All reference to the compaction of any material under section F.1, F.2 or F.3 in the GMSS shall replace 95% compaction with a minimum 98% compaction.

5.14.1.2 Trenching and Backfilling

Payment for trenching and backfilling will be measured in linear meters measured along the pipe invert. Trench excavation depth will be measured from stripped or prepared ground to invert of pipe. Payment for this line item includes trenching, approved bedding materials and, backfilling in 150mm lifts. All necessary equipment, tools, materials, labour, supervision, hauling and disposal of excess material caused by trenching and pipe installation shall be considered incidental to the work.

5.14.1.3 Storm Sewer Pipe

Payment for storm sewer pipe will be measured in linear meters measured along the pipe invert. Payment for this line item includes supply and installation of all pipe sizes as specified in the tender form. All necessary equipment, tools, materials, labour, supervision, and connections to existing systems shall be considered incidental to the work.

5.14.1.4 Manholes and Catchbasins – Supply & Install

Payment for Manholes and Catchbasins shall be measured in vertical meters from the final rim design grade elevation to the lowest invert in the manhole or catch basin. Payment for this line item includes trenching and backfilling, supply and installation of all barrels, sumps, slabtops, conical tops, grade rings, rubbernecking, mortar gaskets and sealant required to complete the work to GMSS standards and Specifications. All necessary equipment, tools, materials, labour, supervision, shall be considered incidental to the work.

5.14.1.5 Inlet/Outfall Structures – Supply & Install

Payment for Inlet/Outfall Structures installed in culverts or storm sewer systems shall be measured for each assembly installed. Payment includes the supply and installation of the structure and all necessary equipment, tools, fittings, materials, labour, and supervision, shall be considered incidental to the work.

5.14.1.6 CCTV Inspection

Payment for CCTV Inspection will be in linear meters to require CCTV video inspection of the new installed infrastructure. Payment for this item includes all materials, equipment, labour, permits and supervision to complete the work.

5.14.1.7 Flushing & CCTV Inspection

Payment for Flushing & CCTV Inspection will be in linear meters to clean the existing storm line and acquiring CCTV video inspection of the existing infrastructure. Payment for this item includes all materials, equipment, labour, permits and supervision to complete the work.

5.15. Asphalt Concrete Pavement (EPS)

5.15.1. Sampling and Testing

Section 3.50.4 – Sampling and Testing, 3.50.5 – Construction, 3.50.6 – End Product Acceptance and, 3.50.7 – Measurement and Payment of the Alberta Transportation shall be omitted and replaced with the following;

5.15.1.1 Field Quality Testing

- 1) The Owner may retain the services of a materials testing firm to carry out field quality tests as follows:
 - a) Aggregate Gradation: One aggregate gradation test for each 500 tonnes of production, or at least one per day (ASTM C136).
 - b) Mix Quality: At least one test of three briquettes for each 500 tonnes of production or fraction thereof, and at least one test per day for each of:
 - i) Marshall Stability ASTM D 1559
 - ii) Specific Gravity ASTM D 2726
 - iii) Air Voids and VMA ASTM D 3203
 - iv) Flow Index ASTM D 1559, C29
 - v) Asphaltic Content Extraction ASTM D 2172 and Sieve Analysis ASTM C117 and C136
 - vi) Moisture Content (%)
 - vii) Film Thickness

Testing reports to include mix temperature and time of sampling. This quantity is deemed to be a Lot for Quality Assurance and Quality Control purposes.

- c) Field Density, Asphalt Thickness, and Asphalt Content: After asphaltic concrete has been laid and compacted, one 150mm diameter pavement core from approximately each 1000 sq. m of pavement will be obtained at random locations determined by Engineer but at least 500mm from curbs and mat edges. Cross sectional depth of core will be measured to determine asphalt thickness. Density of core will be measured and compared with the Marshall density taken from field samples of the asphalt mix placed in the area of the core. Asphalt content will be determined from the Marshall samples and compared to the recommended asphalt content determined in the asphalt mix design.
- 2) If core test results fail to satisfy thickness, density, or asphalt content requirements as specified, Contractor shall immediately modify construction procedures to produce a

uniformly compacted surface which will satisfy density and thickness requirements. Sections with inadequate compaction or thickness shall be subject to a payment reduction as defined under Clauses 2.7, 2.8, and 2.9 in this Section, as directed by Engineer.

- 3) The core test result will be deemed to represent the approximate 1000 m² area from which it was taken depending on location of other cores taken. Boundaries of area represented by the core test results will be determined by the Engineer.
- 4) Appeal Cores - If initial core is found to be deficient in density, thickness or asphalt content, three additional cores within each deficient area may be taken by an independent qualified testing firm at Contractor's expense, in locations approved by Engineer. Appeal cores shall be taken within 60 days of asphalt concrete placement. In the case of an appeal the test results will be averaged using the three appeal cores only to represent area in question. If the initial core thickness is deficient at the completion of the final lift of paving, that initial thickness is discarded, and 3 new cores will be taken within 10 m of the original core location at a minimum spacing of 2.5 m between cores. The average thickness of the 3 new cores represents that area. If the Contractor elects to take additional cores in the density deficient area the density testing may be carried out in the Contractors Quality Control testing laboratory only if the tests are supervised and witnessed by the Engineers representative or the Independent Testing Laboratory's testing representative. If the area is found to be density deficient the costs for the additional coring and testing will be borne by the Contractor.
- 5) Contractor shall give written notice to Engineer 24 hours in advance of any paving operations to make arrangements for testing.
- 6) If test results indicate non-compliance with Specifications, pavement may be rejected by Engineer. Pavement thus rejected shall be removed and replaced at Contractor's expense.
- 7) Cost of additional testing made necessary by Contractor's unsatisfactory workmanship or materials will be charged to Contractor.
- 8) The Contractor shall perform all tests necessary to control the quality of materials and workmanship, and ensure that the work complies with the Specifications, as specified in Section 5.5.
- 9) Upon completion of any test, the testing results shall be provided within five (5) business days to the Municipality, the Engineer, the Supplier and the Contractor.

5.15.1.2 Asphalt Concrete Thickness Tolerances

- 1) For areas deficient in total pavement thickness, the contract unit price to be adjusted as follows:
 - a) No payment for areas deficient in thickness by more than 19%.
 - b) No adjustment in unit price for areas thicker than required.

- c) For areas deficient in thickness by more than 9% and less than 19%, of the designed structural thickness, the unit price is to be reduced as per Table G appended to this Section.
 - d) These pay factors will not apply to asphalt tendered on a per tonne basis.
- 2) A thickness deficiency at the completion of the first stage of paving may be accepted by the Municipality provided the deficiency is less than 12mm and the deficient thickness can be included in the subsequent stage of paving.

5.15.1.3 Asphalt Density Tolerances

- 1) Each mat of hot-mix asphalt placed shall be compacted to minimum density (percentage of Marshall Density) specified for type of pavement as per Table F appended to this Section. If asphalt density is found to be deficient according to core tests described under Clause 5.15.1.1 of this Section, payment for asphaltic concrete surface course within area represented by core(s) will be reduced. Payment reduction will be equal to unit rate tendered for asphaltic concrete surface course in question, multiplied by payment reduction factor derived from the appropriate payment reduction factor as shown in Table H appended to this Section for the pavement density specified in Table I. In multi-lift pavements, payment reduction may be applied to individual lifts of pavement; in which case unit price used to calculate payment reduction would be determined by the Engineer based on depth of asphaltic lift in proportion to depth of full asphaltic concrete portion of pavement.
- 2) No adjustment to the unit price to be made for areas with a density higher than that specified.

5.15.1.4 Asphalt Content

- 1. If asphalt content is found to be deficient according to core tests described under Clause 5.15.1.1 of this Section, payment for asphalt content within area represented by core(s) will be reduced. Payment reduction will be equal to unit rate tendered for asphaltic concrete surface course in question, multiplied by payment reduction factor derived from the appropriate payment reduction factor as shown in Table J appended to this Section.

In multi-lift pavements, payment reduction may be applied to individual lifts of pavement; in which case unit price used to calculate payment reduction would be determined by the Engineer based on depth of asphaltic lift in proportion to depth of full asphaltic concrete portion of pavement.

5.15.1.5 Application of Reduced Unit Price

- 1) The application of a reduced unit price pursuant to Clauses 5.15.1.2, 5.15.1.3, and 5.15.1.4 does not relieve the Contractor of the Contract Maintenance requirements.

5.15.2. **Construction**

Section 3.50.5 – Construction, of the Alberta Transportation shall be omitted and replaced with the following;

5.15.2.1 Weather Limitations

- 1) No paving is permitted when rain or snow is imminent, or when the surface to be paved is wet, icy, snow-covered or frozen at any point within 150 mm of the surface, unless waived by the Municipality.
- 2) No paving will be allowed when air temperature and wind speed conditions in Figure 1 below are not met, unless waived by the Engineer.

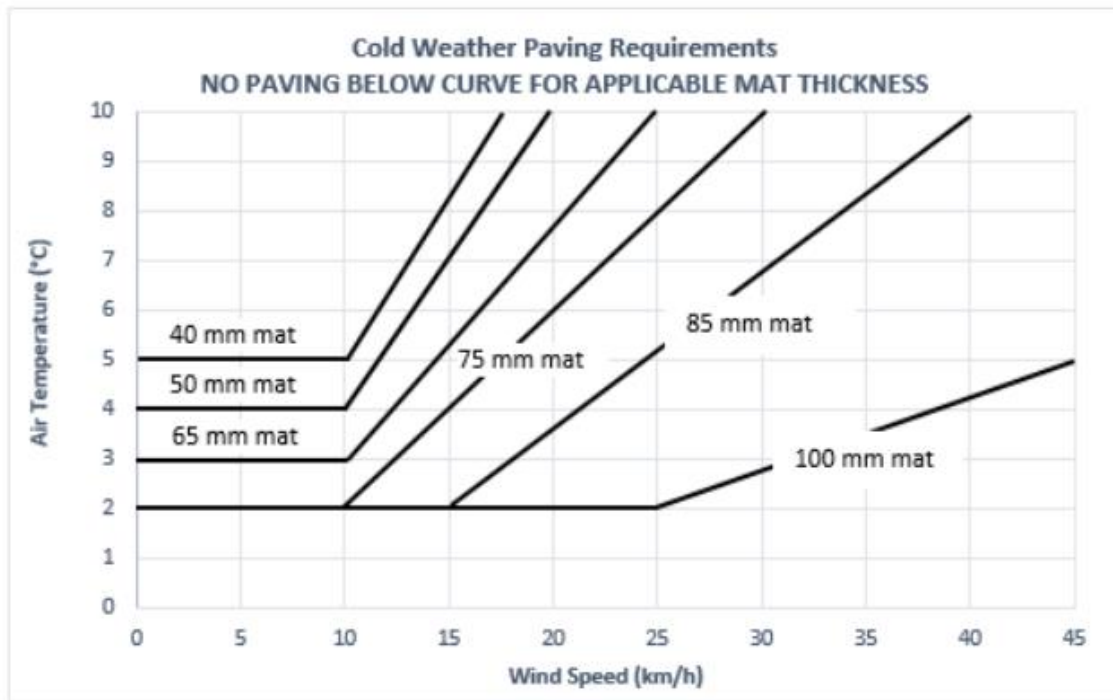


Figure 1. Cold Weather Paving Requirements

5.15.2.2 Plant and Mixing Requirements

- 1) Batch and continuous mixing plants to ASTM D995 and Asphalt Institute Manuals.

5.15.2.3 Equipment

- 1) Pavers: mechanical self-powered pavers with automatic screed controls, capable of spreading mix within specified tolerances, true to line, grade, and crown indicated

- 2) Rollers: sufficient number of self-propelled rollers of type and weight to obtain specified density of compacted mix.
- 3) Haul trucks: of adequate size, speed, and condition to ensure orderly and continuous operation and as follows:
 - a) Boxes with tight metal bottoms.
 - b) Covers of sufficient size and weight to completely cover and protect asphalt mix when truck fully loaded.
 - c) In cool weather or for long hauls, insulate entire contact area of each truck box.
- 4) Hand tools:
 - a) Lutes or rakes with covered teeth during spreading and finishing operations.
 - b) Tamping irons having mass not less than 12 kg and a bearing area not exceeding 310 cm² for compacting material along curbs and other areas inaccessible to roller. Mechanical compaction equipment, when approved by Engineer, may be used instead of tamping irons.
 - c) Straight edge, 3.0 m in length, to test finished surface.

5.15.2.4 Preparation

- 1) Written notice of intention to begin paving operations to be given to Engineer 24 hours in advance.
- 2) Pavement Surface Cleaning
 - a) Remove all pavement repair sealing compound to be level with the pavement surface as directed by Engineer.
 - b) Remove the following substances from pavement surface by methods approved by the Engineer. Substances including but not limited to: Dust, dirt, sediment, paint, loose material, oil, grease and animal feces.
 - c) Sweeping and Cleaning: Sweep the existing pavement surface with an approved mechanical sweeper. Remove all residual debris and accumulations of deleterious material.
 - d) Dispose of all deleterious material and debris as directed by the Engineer.
- 3) When levelling course is not required, patch and correct depressions and other irregularities to approval of Engineer before beginning paving operations.
- 4) Apply prime coat or tack coat where directed in accordance with Section 3.19 of the Alberta Transportation specifications prior to paving.
- 5) Prior to laying mix, clean surfaces of loose and foreign material.
- 6) Paint contact surfaces of existing structures such as manholes, curbs, or gutters with bituminous material prior to placing adjacent pavement.
- 7) Traffic shall not be permitted to travel on tack or prime coat until it has cured. Provide flagmen, if required, to control traffic.

5.15.2.5 Transportation of Mix

- 1) Transport mix to job site in vehicles cleaned of foreign material.

- 2) Paint or spray truck beds with light oil, limewater, or detergent solution, at least once a day or as required. Elevate truck bed and thoroughly drain. No excess solution or use of gasoline, kerosene, or similar product will be permitted.
- 3) Schedule delivery of material for placing in daylight, unless Engineer approves artificial light.
- 4) Deliver material to paver at a uniform rate and in an amount within capacity of paving and compacting equipment.
- 5) Deliver loads continuously in covered vehicles and immediately spread and compact. Deliver and place mixes at required temperature.

5.15.2.6 Placing

- 1) Place asphalt concrete to thickness, grades, and lines indicated on Drawings or directed by Engineer
- 2) Placing conditions:
 - a) Place asphalt mixtures only when air temperature is above 5°C.
 - b) When temperature of surface on which material is to be placed falls below 10°C, provide extra rollers as necessary to obtain required compaction before cooling.
 - c) Do not place hot-mix asphalt when pools of standing water exist on surface to be paved, during rain, or when surface is damp.
- 3) Place asphalt concrete in compacted lift thicknesses as per Table F.
- 4) Spread and strike off mixture with self-propelled mechanical finisher as follows:
 - a) Construct longitudinal joints and edges parallel to line markings. Lines for paver to follow parallel to centre line of proposed pavement. Position and operate paver to follow established line closely.
 - b) When using pavers in echelon, have first paver follow marks or lines, and second paver follow edge of material placed by first paver. Work pavers as close together as possible and in no case permit them to be more than 30 m apart.
 - c) If segregation occurs, immediately suspend spreading operation until cause is determined and corrected.
 - d) Correct irregularities in alignment left by paver by trimming directly behind machine.
 - e) Correct irregularities in surface of pavement course directly behind paver. Remove by shovel or lute excess material forming high spots. Fill and smooth indented areas with hot-mix. Do not broadcast material over such areas.
 - f) Do not throw surplus material on freshly screeded surfaces.
- 5) When hand spreading is used:
 - a) Wood or steel forms, approved and rigidly supported to assure correct grade and cross section, may be used. Use measuring blocks and intermediate strips to aid in obtaining required cross section.
 - b) Distribute material uniformly. Do not broadcast material.

- c) During spreading operation, thoroughly loosen and uniformly distribute material by lutes or covered rakes. Reject material that has formed into lumps and does not break down readily.
- d) Following placing and before rolling, check surface with templates and straightedges and correct irregularities.
- e) Provide heating equipment to keep hand tools free from asphalt. Temperature of tools is not to be higher than temperature of mix being placed.

5.15.2.7 Compacting

- 1) Roll asphalt continuously to specified density.
- 2) Provide as many rollers as necessary to achieve specified pavement density.
- 3) Start rolling operations as soon as placed mixture can bear weight of roller without undue displacement of material or cracking of surface.
- 4) Operate roller slowly on first pass to avoid displacement of material. For subsequent rolling do not exceed 5 km/h for steel-wheeled rollers and 8 km/h for pneumatic-tired rollers.
- 5) Overlap successive trips of roller by at least one-half width of roller and vary trip lengths.
- 6) Keep wheels of roller slightly moistened with water to prevent pick-up of material but do not over-water.
- 7) After longitudinal joints and edges have been compacted, start rolling longitudinally at low side and progress to high side.
- 8) Where rolling causes displacement of material, loosen affected areas at once with lutes or shovels and restore to original grade of loose material before re-rolling.
- 9) Do not permit heavy equipment or rollers to stand on finished surface before it has been compacted and has thoroughly cooled.
- 10) When paving in echelon, leave unrolled 50 to 75 mm along edge which second paver is following and roll after second paver has passed when joint between lanes is rolled.

5.15.2.8 Joints

1) General

- 1) Trim to vertical face to provide true surface and cross section against which new pavement may be laid. Remove loose particles.
- 2) Paint joint face with thin coat of hot asphalt cement or preheat joint face with approved heater, prior to placing of fresh mixture.
- 3) Overlap previously laid strip with spreader by 100 mm.
- 4) Remove surplus material from surface of previously laid strip. Do not dispose on surface of freshly laid strip.

2) Transverse Joints

- 1) Transverse joints between existing pavement and asphaltic concrete pavement placed under this Contract shall be of a vertical butt type, well bonded, sealed, and finished to provide a continuous, smooth profile across the joint. Joint construction is to be as follows:

- a. The existing pavement shall be cold milled to expose a vertical surface, of a depth equal to the final lift, against which new pavement may be placed.
 - b. In longitudinal section, the minimum slope of the milled area shall be 100 horizontal to 1 vertical.
 - c. In plan, the Contractor shall stagger joints by at least 2 m in adjacent mats and offset at least 2 m from the underlying lift.
- 2) When the existing pavement has been removed in advance of paving the joint area, the Contractor shall construct a smooth taper at the joint area to a slope of at least 20 horizontal to 1 vertical. The taper may be placed on tar paper and shall be removed when paving is resumed. The transverse joint shall be straight and have a vertical face when the taper is removed.
- 3) Longitudinal Joints
- 1) Before rolling, carefully remove and discard coarse aggregate in material overlapping joint with a lute or rake. Do not rake or discard aggregate material onto freshly screed surfaces.
 - 2) Roll longitudinal joints directly behind paving operation.
 - 3) On initial pass, operate roller on previously placed lane such that not more than 150 mm of roller rides on edge of newly laid lane, then operate roller to pinch and press fines gradually across joint. Continue rolling until a thoroughly compacted neat joint is obtained.
 - 4) Offset longitudinal joints in succeeding lifts by at least 150 mm.
 - 5) On final lift offset longitudinal joints by at least 150 mm from intended lane markings. No longitudinal joint to be in wheel path in final lift.
 - 6) On final lift the longitudinal joint may be constructed by either saw cutting back the cold mat at least 75mm from the free edge, tack coating the exposed vertical face and placing the subsequent hot mat up to the saw cut edge or by hot joint matching using two pavers en-echelon. If echelon paving is specified it will be instructed by the Engineer in the Special Provisions of the Contract.
 - 7) Proprietary engineered joint makers are acceptable on lower lifts of ACP provided that they are used in accordance with the manufacturer's instructions.

4) Gutter Edge

At the gutter edge an average 10mm (minimum 5mm) lip should vertically protrude at the edge of gutter. All gutter edges must be coated with tack coat.

5) Vertical Joints

When roadway widening occurs adjacent to an existing asphalt surface, the resulting vertical joint shall be staggered by at least 150mm for each

layer prior to application of the final lift. The cold joint shall be coated with tack coat. Care must be taken during the forming of the joints so that there will be a continuum of surface planes devoid of ridges, depressions or irregularities at the joints. Any joint which is not straight or is hollow, segregated, raised or in any way shall be deemed by the Engineer as being unsatisfactory shall be rejected and the material replaced at the Contractors expense. Joints shall be constructed in such a manner as to provide proper bonding between the two mats for the full depth of the joint

6) Narrow Width

All areas of roadway widening requiring base construction of less than 2 metres in width from new curb to existing pavement shall consist of a 50 mm asphalt surface course over 200 mm concrete base over prepared subgrade.

Construct feather joints so that thinner portion of joint contains fine graded material obtained by changed mix design or by raking out coarse aggregate in mix. Place and compact joint so that joint is smooth and without visible breaks in grade.

5.15.2.9 Finish Tolerances

- 1) Finished asphalt surface to be within 5 mm of design elevation but not uniformly high or low.
- 2) Finished asphalt surface not to have irregularities exceeding 5 mm when checked with a 3.0 m straight edge placed in any direction.

5.15.2.10 Surface Irregularities and Defects

- 1) Correct irregularities which develop before completion of rolling by loosening surface mix and removing or adding material as required. If irregularities or defects remain after final compaction, remove surface course promptly and lay new material to form a true and even surface and compact immediately to the specified density.
- 2) The finished surface of any lift shall have a uniform close texture and be free of visible signs of poor workmanship. Any obvious defects identified by the Consultant such as, but not limited to the following will require repair or replacement prior to acceptance (CCC or FAC).
 - a) Areas of excess or insufficient asphalt
 - b) Improper matching of longitudinal and transverse joints
 - c) Roller marks
 - d) Tire marks
 - e) Cracking or tearing

- f) Sampling locations not properly reinstated
- g) Improperly constructed patches
- h) Top lift surfaces, which are torn due to the dragging of the screed
- i) Individual bumps and dips of 12 mm or greater
- j) Any final lift surface with a variation greater than 6 mm from the edge of a 3 m straightedge placed in any direction on the surface.

Deficient work shall be promptly repaired, remedied, overlaid, or removed and replaced using approved methods. Any crack sealing is to be completed as directed by the Consultant in accordance with the Alberta Transportation Standard Specifications where applicable.

5.15.2.11 Segregation

1) General

1. The finished surface of the top lift of the Asphalt Concrete Pavement (ACP) shall have a uniform texture and be free of segregated areas.

2) Classifying Pavement Segregation

1. A segregated area is defined as an area of the pavement where the texture differs visually from the texture of the surrounding pavement. For the purposes of classifying pavement segregation, only segregated areas greater than 0.1m² and centre-of-paver streaks greater than 1.0m in length will be considered. Moderate or severe segregated areas which do not meet these size parameters will be considered obvious defects. Pavement segregation will be classified as follows:
 - a) Slight The matrix, asphalt cement and fine aggregate is in place between the coarse aggregate. However, there is more stone in comparison to the surrounding acceptable mix.
 - b) Moderate Significantly more stone than the surrounding mix; moderately segregated areas usually exhibit a lack of surrounding mix.
 - c) Severe Appears as an area of very stony mix, stone against stone, with very little or no matrix.
 - d) Centre-of-Paver Streak Appears as a continuous or semicontinuous longitudinal “streak” typically located in the centre of the paver mat at the paver screed extensions.

3) Inspections During Construction

1. The Engineer will inspect the top lift of ACP. Typically, each day’s pavement placed would be inspected, as soon as possible after the days production is placed. During the inspection(s) of the top lift, the Engineer will identify and record any areas of slight, moderate and severe segregation and any areas of centre-of-paver streak. Any areas requiring repair will be marked by the Engineer. The Engineer will provide the Contractor with a written assessment indicating the location and severity of the segregated areas as soon as practical following each inspection.

4) Inspections Following Construction

1. An inspection following construction will not normally be conducted unless the Municipality has concerns that additional segregation, not identified during construction, may be present. If deemed necessary by the Municipality, this inspection will be conducted up to 1 month after completion of all paving work.

5) Repairing Pavement Segregation

1. Pavement segregation identified in the inspections performed during construction will be repaired by the Contractor at their expense and in accordance with the following:
 - a. Moderate and Severe segregation in the top lift of pavement and on entrances and intersections shall require repair.
 - b. Slight segregation on any lift of pavements will not require repair.
 - c. Moderate segregation on lower lifts of pavement will not require repair.
 - d. Severe segregation on lower lifts of pavement will only require repair in instances where, in the opinion of the Engineer, the segregated area will affect the long term structural integrity of the pavement structure. Such repair will not be required where the Engineer determines that the paver screed is “dragging” due to distortion of the existing surface
 - e. Only moderate and severely segregated centre-of paver streaks on the top lift of pavement will require repair.
2. The following methods of repair are approved:
 - a. Moderate segregation: Slurry patch or hot mix patch
 - b. Severe Segregation: Removal and replacement, overlay (if practical) and re-heating with non-contact pavement heater to re-heat the pavement to at least 120 °C and addition of hot asphalt cement and fines added and re-compacted.
3. Repairs for segregation using removal and replacement shall be for the full lane width or curb to curb only as applicable, depending on the extent of the segregated area. The full depth of the asphalt lift will be removed and replaced with new ACP using an appropriate paver and cold milling equipment. All ACP material used for repair shall have tack coat applied prior to placement.
4. The Engineer will mark out the area of repair. The “marked area” shall extend a minimum of 0.5m beyond the segregated area. For centre-of-paver streak the “marked area” shall extend a minimum of 100mm laterally and 0.5m longitudinally beyond the streak.

5. All repairs shall be regular in shape and finished using good workmanship practices to provide an appearance suitable to the Engineer. Traffic shall be kept off repairs for a sufficient time to ensure that tracking does not occur.
6. In the event repairs cover existing lines of pavement markings the Contractor shall reinstate the lines and markings at their expense and to the satisfaction of the Engineer.
7. Repairs shall be completed during the construction season except where prevented by inclement weather or seasonal shutdown. In these cases, the Contractor shall complete the repairs prior to June 15 of the following year.

TABLE F MAXIMUM AND MINIMUM LIFT THICKNESS		
NOMINAL MAXIMUM AGGREGATE SIZE	MAXIMUM, mm	MINIMUM, mm
20 mm	100	60
16 mm	100	50
12.5 mm	75	40
10 mm	60	35

TABLE G ASPHALTIC CONCRETE PAVEMENT UNIT PRICE REDUCTION FOR PAVEMENT THICKNESS	
Thickness Deficiency (%)	Payment Reduction Factor
0 to 9	0%
> 9 – 15	25%
>15 – 19	50%
Over 19	Remove and Replace

TABLE H ASPHALT CONCRETE PAVEMENT DENSITY		
Type of Pavement	Degree of Compaction	Payment Reduction Factor
New construction (including structural top lifts), first lift stage paving, and single stage paving	98%	A
Non-structural final lift paving, levelling course, and non-structural overlay	97%	B
Lanes, parking lots, trails, trench repairs	96%	C

TABLE I ASPHALTIC CONCRETE PAVEMENT UNIT PRICE ADJUSTMENT FOR DENSITY					
A		B		C	
Specific Density = 98%		Specific Density = 97%		Specific Density = 96%	
Field Density	Payment Reduction Factor (%)	Field Density	Payment Reduction Factor (%)	Field Density	Payment Reduction Factor (%)
100.0 to 98.00	0	100.0 to 98.00	0	100.0 to 98.00	0
97.99 to 97.50	1	97.99 to 97.50	0	97.99 to 97.50	0
97.49 to 97.00	2	97.49 to 97.00	0	97.49 to 97.00	0
96.99 to 96.50	5	96.99 to 96.50	1	96.99 to 96.50	0
96.49 to 96.00	10	96.49 to 96.00	2	96.49 to 96.00	0
95.99 to 95.50	15	95.99 to 95.50	5	95.99 to 95.50	1
95.49 to 95.00	30	95.49 to 95.00	10	95.49 to 95.00	2
94.99 to 94.50	40	94.99 to 94.50	15	94.99 to 94.50	5
94.49 to 94.00	50	94.49 to 94.00	30	94.49 to 94.00	10
93.99 to 93.50	Remove and Replace	93.99 to 93.50	40	93.99 to 93.50	15
93.49 to 93.00	Remove and Replace	93.49 to 93.00	Remove and Replace	93.49 to 93.00	30
≤ 93.00	Remove and Replace	≤ 93.00	Remove and Replace	≤ 93.00	Remove and Replace

**TABLE J
ASPHALTIC CONCRETE PAVEMENT
UNIT PRICE ADJUSTMENT FOR ASPHALT CONTENT**

A. Adjustment for Unit Price per Tonne

Deviation of the Actual Asphalt Content from the Approved Design Asphalt Content (%)	Unit Price Adjustment for Asphalt Content (\$ per tonne)			
	Top Lift		Bottom Lift(s)	
	Below	Above	Below	Above
4. FROM 0 TO 0.30	\$0.00	\$0.00	\$0.00	\$0.00
From 0.31 to 0.40	-\$2.00	-\$1.75	-\$2.00	-\$1.75
From 0.41 to 0.50	-\$4.00	-\$3.50	-\$4.00	-\$3.50
From 0.51 to 0.60			-\$6.00	-\$5.25
From 0.61 to 0.70			-\$8.00	-\$7.00

B. Adjustment for Unit Price per Square Metre

Deviation of the Actual Asphalt Content from the Approved Design Asphalt Content (%)	Unit Price Adjustment for Asphalt Content (%)			
	Top Lift		Bottom Lift(s)	
	Below	Above	Below	Above
5. FROM 0 TO 0.30	0.00%	0.00%	0.00%	0.00%
From 0.31 to 0.40	-4.00%	-3.50%	-4.00%	-3.50%
From 0.41 to 0.50	-8.00%	-7.00%	-8.00%	-7.00%
From 0.51 to 0.60			-12.00%	-10.50%
From 0.61 to 0.70			-16.00%	-14.00%

Notes:

1. For top lift and asphaltic concrete overlay paving deviations of more than 0.60%, the Contractor shall remove and replace the previously laid mix.
2. For bottom lift(s) deviations of more than 0.70%, no payment will be made, and the Engineer will determine whether removal and replacement are necessary.

5.15.3. Measurement and Payment

1. Asphalt concrete paving to be measured in tonnes or square metres where indicated in the tender form. Unit price bid shall be full compensation for all work involved in supplying asphaltic concrete and installing as described in 5.15.2 - Construction of this Section.
2. Payment will be subject to the Unit Price Adjustments for density and thickness as defined in 5.15.1 – Sampling and Testing.
3. All costs associated with the supply, application and maintenance of Prime Coat shall be included in the unit price bid indicated in the tender form for “Granular Base Course”. No separate or additional payment will be made.

4. All costs associated with the supply, application and maintenance of Tack Coat shall be included in the unit price bid indicated in the tender form for “Asphalt Concrete Pavement – EPS”. No separate or additional payment will be made.

5.16. Woven Geotextile Fabric

Payment for Woven Geotextile Fabric – Supply & Install will be at the unit price bid per square meter (m²) of subgrade covered for all labour, material and equipment required to install Woven Geotextile Fabric, or another geogrid approved by the project Geotechnical Engineer. Installation of Woven Geotextile must be to manufacturer’s specifications. Payment will be full compensation for all labour, equipment, tools and incidentals necessary to complete the Work.

5.17. Biaxial Geogrid Granular Base Reinforcement

Payment for Biaxial Geogrid Granular Base Reinforcement– Supply & Install will be at the unit price bid per square meter (m²) of subgrade covered for all labour, material and equipment required to install Biaxial Geogrid, or another geogrid approved by the project Geotechnical Engineer. Installation of Biaxial Geogrid Granular Base Reinforcement must be to manufacturer’s specifications. Payment will be full compensation for all labour, equipment, tools and incidentals necessary to complete the Work.

5.18. Cutting of Pavement

The Contractor shall cut straight lines in the concrete removals, asphalt removals and tie in purposes. Uneven cuts or broken asphalt edges may require asphalt cutting if deemed necessary by the Consultant or Municipality. Unless otherwise indicated in the Tender Form, Cutting of Pavement, asphalt and concrete is considered incidental to adjacent work and will not receive separate payment.

5.19. Contractor Documents

5.19.1. Asphalt Mix Design (HMA)

Upon award of the Contract and prior to the preconstruction meeting the Contractor shall submit for review, to the Engineer an asphalt mix design that will be used for the various phases of the project. Failure to do so may result in a delay to the start of his work and will not alter the completion date. The asphalt mix design shall be a confirmed mix, no older than four (4) months and not dating back to the previous calendar year, meeting the AT and GMSS specifications.

All cost associated preparation of the mix design shall be considered incidental to the work described elsewhere and no extra payment will be made for claims in this regard.

5.19.2. Hand Delivered Notices

Residences and businesses affected by the Contractor’s work shall be advised by way of hand delivered notices, delivered three (3) calendar days or 72 hours in advance, of any

construction activities, including but not limited to road closures that will affect access to their properties or work areas.

All such notices must be submitted to the Engineer for his approval at least three (3) working days before the delivery to the residents and businesses.

5.20. Contractor To Protect Manholes And Catchbasins From Construction Debris

The Contractor shall ensure that during any repairs or while working in the vicinity of Catch Basin or Manholes (Sanitary or Storm) that the catch basin or manhole remain free of debris. The Contractor shall supply and place some form of protection within or around manholes, catch basins, or water valve stands to protect from construction debris. The type of protection shall be identified within the ECO plan and shall be "industry standard". Construction debris includes, but not limited to, soil (silt, sediment, clay, etc.), gravel, asphalt, concrete, concrete washout, topsoil, garbage, etc. The Contractor shall not proceed with any work until such protection is in place and accepted by the Engineer. The protection shall be maintained by the Contractor at all times and inspected at a minimum weekly, especially after any rainfall event and provide documentation of the inspection to the Engineer on a weekly basis. Any sediment and debris collected around the protection device shall be cleaned and disposed of in accordance with the manufacture's specifications.

If debris gets into a sanitary or storm manhole the contractor must notify the Engineer. The Owner will then be notified of the incident (in the case of debris in sanitary manhole) to determine the means by which the manhole shall be cleaned. All cost associated with the cleaning of the manhole will be charged to the Contractor. If debris get into a storm manhole or catch basin the Contractor will be responsible to have the manhole cleaned to the satisfaction of the Engineer.

5.21. Granular Base Course

Payment of Granular Base Course material will be in meters squared at the depths identified in the drawings or schedule of quantities and will be inclusive for the supply and placement of the material. Granular Base Course material utilized under the concrete curb, gutters and sidewalks will be inclusive of those bid items.

5.22. Plant-Mix Asphaltic Concrete Pavement

When constructing the joint on the top lift of asphalt, the existing/new mat shall have a minimum temperature of 100°C. Optionally the existing/new mat can be saw cut and milled to match the thickness of the new. The costs for the sawcut and removal of the trimmed asphalt is considered incidental to the work. Incidental to the top lift of ACP will be the addition of an anti-stripping agent.

If paving in colder temperature, the plant mix asphalt will need to be adjust for cold weather paving. A mix design is to be submitted to the Engineer for review and approval prior to paving.

5.23. Concrete

The contractor shall submit concrete mix designs to the Engineer at least three (3) working days prior to placement of concrete. The contractor shall submit concrete tickets to the Engineer for all concrete work completed for this project as a record of the type of concrete used and the ambient conditions during placement of concrete. The Engineer shall be present during all concrete pours. The Contractor shall provide notice of intent to complete placement of concrete to the Engineer at least three (3) working days prior to placement of concrete.

For this contract, the Town of Peace River GMSS Section G.13.8 Sidewalks and Paved Structures, sulphate Resistant cement shall be used. Other cement types identified shall only be used if approved by the Engineer.

Concrete cylinders shall be taken for compressive strength testing purposes. Air entrainment test and slump test shall be taken while the concrete truck is on site. The Contractor is responsible for quality control (QC) testing and concrete failing the tests shall be rejected.

5.24. Restorations

5.24.1. Guard Railing – Remove & Replace

Payment for Guard Rail – Remove and Replace shall be made in Linear Meters and include remove and disposal of existing guard rail and posts, and the supply and install of new guard rail and posts. All equipment, tools, materials, milling, saw-cutting, loading, hauling, labour, permits and supervision required to complete the work shall be considered incidental to complete the work.

5.24.2. Topsoil and Hydroseed

Topsoil meeting the GMSS requirements shall be placed in 100mm depth. A natural vegetation seed mix shall be placed and hydroseeded onto the slope failure areas. Measurement and payment will be meters squared and be inclusive of all material, labour and equipment to complete the work.

5.24.3. Erosion Control Matting

Payment for erosion control matting shall be made in square meters for the supply and install of all materials, labour, tools, equipment and supervision to complete the work.

5.24.4. Erosion and Sediment Controls – 9” Straw Wattles

Payment for erosion and sediment controls shall be made in linear meters for the supply and install of all materials, labour, tools, equipment and supervision to complete the work.

5.25. Appeal Cores for Concrete

If the 28 day lab cure cylinders fail to meet the requirements of CSA A23.1-17.6.7.1, appeal cores may be collected using an approved testing agency at the contractor's expense. The contractor has a maximum of thirty (30) days from the date of the 28 day compressive strength test, to take appeal cores from the failed section. One set of three (3) cores may be taken within three (3) meters of the failed test location. The cores will be taken in accordance with CSA A23.2-14C, and conditioned using the dry conditioning method. The average strength of the three (3) cores shall equal 100% of the specified strength. If the cores do not meet 100% of the specified strength then the unit price reduction will be calculated using the original lab cured cylinders for the representative section of concrete. The area may be delineated with a maximum of one set of three (3) cores obtained in each direction of the failed concrete section. Appeal core holes are to be filled with concrete within five (5) working days. Contractor is responsible for filing, arranging, and costs associated with appeal core process.

No additional payment will be made for core hole filling, it will be considered incidental to the project. No additional payment will be made for core hole rehabilitation.

5.26. Contractor Filling of Core Holes

It shall be the Contractors responsibility to fill all contractors' core holes with hot mix ACP and compact. All core holes on the project shall be filled within five (5) calendar days of cores being taken.

Contractor will also be responsible to supply the hot mix ACP to the Consultant for the Engineer's quality assurance core holes. Consultant will be responsible to fill and compact these core holes.

No additional payment will be made for core hole filling, or for supplying of ACP for core hole filling, it will be considered incidental to the project.

5.27. SCC, CCC and FAC Inspection

The Contractor will be responsible for booking SCC, CCC, and FAC inspections when the site is substantially complete and ready for inspection, and will provide all traffic control, equipment and labour necessary to complete all inspections. All contractor costs associated with inspections shall be accommodated within the Traffic Accommodation bid item. All costs will be borne by the contractor and no additional payments will be made. At the discretion of the Engineer, if adequate resources are not provided to perform the inspection, it will be terminated and rescheduled for a time when adequate resources are made available.

5.28. Failure to Complete on Time Competition Date and Penalty

With respect to 4.32 Failure to Complete on Time; The Town of Peace River will be implementing the following completion dates:

Removals and Storm Sewer System – November 30th, 2023

Surface Details and Site Restoration – June 30th, 2024

Temporary Repair of Wash Out Area (If Required) – November 30th, 2023

Any associated work completed after these date will receive a penalty of \$1,500.00 a day which will continue until work is completed or is shut down for winter shutdown. Should the job be shut down for winter then the damages for delay will start the following year when work resumes or June 1st, 2024, whichever comes first and will run until the job is complete.

The November 30th, 2023 completion day will not be adjusted because of weather and the contractors schedule should ensure that all scheduling considerations are made to complete the project before this date.

A seasonal shutdown may be granted provided that the Removals and Storm Sewer System are completed, and the area is protected for the winter. A final completion date of June 30th, 2024 will be expected should a seasonal shutdown occur.

Seasonal shutdown requirements will require a Temporary Repair of the Wash Out Area on the 101st Street and adjacent shoulder area to ensure no further damage or hazards persist. The below are the minimum expectations of a repair prior to seasonal shutdown.

- Saw cut the asphalt in the area surrounding the washout. If voids beneath the asphalt are encountered, continue saw cutting the asphalt until undisturbed road base is encountered.
- Subcut the washout material and replace with granular base course gravel.
- Place and compact the gravel to 98 percent of the Standard Proctor Maximum Dry Density.
- Place 75 mm of asphalt to seal the pavement until the long term repair can be constructed.
- If possible, increase the grade of the roadway in this area such that water is not allowed to pond at the top of the slope. It is important that drainage in this area is improved to prevent overtopping of the curb and draining onto the slope.
- Close the affected lane of traffic at the wash out area and at least 10 m on either side of the washout. Weekly visual inspections should be conducted of the road/slope to assess if any other areas of road along the slope are at risk of a washout.
- If a gap is present between the curb and asphalt at any other areas along the road, they should be sealed to prevent water seepage onto the slope.

Payment for this work will be as per the unit rates bid in the Tender Form for Schedule E – Temporary Repair of Wash Out Area.

6. SPECIFICATIONS & DRAWINGS

6.1. Engineering Drawings 105

6.1. Engineering Drawings

The drawing sets that accompany these documents:

**Town of Peace River
101 Street Storm Sewer**

are part of the Contract documents.