# GENERAL

## [Work of the Project]

### Work of the Project, of which Work of this Contract is a part, comprises the following:

#### [ ].

### Work of the Project is being carried out utilizing multiple contracts.

### Work of the Project has been divided into the following major contract packages:

#### Contract [Name] for [ ]. [Anticipated construction: to ].

#### Contract [Name] for [ ] comprises the Work of this Contract. Contract Time is specified in clause 1.3.

#### Contract [Name] for [ ]. [Anticipated construction: to ].

#### [ ].

### The Minister may subdivide, consolidate, add to, or otherwise modify the above contract packages.

### Allow Other Contractors every opportunity to introduce and store their materials or products. The following materials or products will be stored by Other Contractors at the following locations:

#### [ ] [ ]

#### [ ] [ ]

### Co-ordinate and connect the Work of this Contract to accommodate the work of Other Contractors.

## Work Of This Contract

### The main items of Work of this Contract include the following:

#### [ ].

#### [ ].

### The Site of the Work of this Contract is located in Sections [ ], [ ], and [ ], Township [ ], Range [ ], West of [ ]th Meridian, approximately [ ] kilometres [ ] of [ ], Alberta in the [County, M.D.] of [ ].

### The municipal address is: [ ].

## Contract Time

### The Contract will commence on the date on which the contract has been signed by both parties.

### Upon receipt of the Letter of Acceptance, promptly, and without undue delay, commence work at the Site.

### Attain Substantial Performance of the Work by [ ] [except for the following:]

#### [Seeding as specified in Section [ ]]

#### [Final Commissioning as specified in Section [ ]]

### [.4] Attain Substantial Performance of the following parts of the Permanent Work to permit possession and utilization by the Minister prior to Substantial Performance of the Work as a whole:

#### [ ] [Date: ]

#### [ ] [Date: ]

### Pay liquidated damages to the Minister in the amount of [$ ] per day for the purpose of clause 6.13.1 .1 of Section 00725 – General Conditions.

### Refer to the contract documents of the Assignable Contract for contract time provisions specified for the Assignable Contract.

## [Work Restriction/Milestone Dates]

### Restrict work at the Site to the following times: [Monday to Friday between the hours of [ ], Saturday and Sunday between the hours of [ ], and statutory holidays between the hours of [ ].

### Do not perform instream work activities between [ ].

### Do not divert the [ River] until [ ].

### Do not demolish existing structures until [the new structures are completed].

### Do not perform any work that will affect the operation of the [canal]. The [canal] is operated between [month (name of), date – month (name of), date of each year, maximum \_\_\_\_\_\_ m3/s].

### Complete leakage testing of [ ] by [ ] [consider water availability to test off-line facilities].

### Complete [drill seeding] [hydroseeding] by [ ].

### Perform the Work in the following stages:

#### Stage 1: [Work] [Date]

#### Stage 2: [ ] [ ]

### Perform the work to meet the following Milestone Dates:

#### [Work, Date, Liquidated Damage]

### Incorporate work restriction and milestone dates for the Assignable Contracts as specified in Section 01118 – Assignable Contracts.

### Attain Total Performance of the Work by [ ].

## [Reservoir Water Levels]

### The Minister will be responsible to draw down the reservoir to the elevation specified and by the date specified in the Contract Documents. After the aforementioned date, the Minister will not maintain, nor be responsible for water level fluctuations in the reservoir. Perform care of water work as specified in the Contract Documents.

## [Reference Standard Documents]

### The following standard specifications, including associated drawings and schedules; prepared for roads and bridges work “reference standard documents” may be included or named in this Contract.

#### Standard Specifications for Highway Construction.

#### Specifications for Bridge Construction.

### The agreement and definitions, the payment, insurance, general, and supplementary conditions, associated with these reference standard documents, do not apply to this Contract.

### In the reference standard documents, replace the word “engineer” with the word “Minister”.

## [Assignable Contracts] [Contract Assignment]

### The Minister has entered into a contract for certain work, which will be assigned to this Contract. Refer to Section 01118 – Assignable Contracts for details.

OR

### The Minister intends to assign this Contract to another contractor. Refer to Section 01116 – Contract Assignment for details.

## [Permanent Service Lines and Connections]

### The following permanent service lines and connections will be installed under separate contract(s):

#### Natural Gas [anticipated installation: to ].

#### Electrical Power [anticipated installation: to ].

#### Telephone [anticipated installation: to ].

#### [Others] [anticipated installation: to ].

### Install the permanent service lines and connections specified in Section 01114 – Permanent Service Lines and Connections.

## [Related Work By Minister]

### The following work will be performed by the Minister utilizing his own forces:

#### [ ]. [anticipated time to ].

#### [ ]. [anticipated time to ].

### Allow the Minister every opportunity to introduce and store Minister’s materials or products.

### Co-ordinate and connect the Work of this Contract to accommodate the Minister’s work.

## [Materials Supplied By The Minister]

### The Minister will supply the following materials to the Contractor for incorporation into the Work:

#### [ ] [as specified in Section ].

#### [ ] [as specified in Section ].

### The Minister will:

#### Arrange for and deliver material data and samples to the Contractor.

#### Arrange [and pay] for delivery of the materials to the Site [on or before ].

#### Inspect material deliveries jointly with the Contractor.

#### Arrange for replacement of materials not meeting the specified requirements.

### The Contractor shall:

#### Incorporate the delivery date for each material in the Contractor’s construction schedule

#### Review material data and samples and submit to the Minister notification of any discrepancies or problems anticipated in the use of the materials.

#### Arrange [and pay] for delivery to the Site. Receive, unload, handle and store the materials at the Site.

#### Promptly inspect the materials jointly with the Minister and record shortages and materials not meeting the specified requirements.

#### Incorporate the materials into the Work.

#### Replace materials damaged by the Contractor.

## [Products Supplied By The Minister]

### The Minister will supply the following products to the Contractor for incorporation into the Work:

#### [ ] [as specified in Section ].

#### [ ] [as specified in Section ].

### The Minister will:

#### Arrange for and deliver shop drawings, product data, and samples to the Contractor.

#### Arrange [and pay] for delivery of the products to the Site [on or before].

#### Deliver the supplier’s bill of products to the Contractor.

#### Inspect deliveries jointly with the Contractor.

#### Submit claims for transportation damage.

#### Arrange for replacement of damaged, defective, and missing items.

### The Contractor shall:

#### Incorporate the delivery date for each product in the Contractor’s construction schedule.

#### Review shop drawings, product data, and samples, and submit to the Minister notification of any discrepancies or problems anticipated in the use of the products.

#### Arrange [and pay] for delivery to the Site. Receive, unload, handle and store the materials at the Site.

#### Promptly inspect the products jointly with the Minister and record shortages, damaged, or defective items.

#### Protect the products from exposure to the elements and from damage.

#### Assemble, install, connect, adjust, and finish the products.

#### Repair or replace items damaged by the Contractor.

## [Borrow Areas] [And Granular And Riprap Sources]

### [The Contractor may use] [Use] the designated [borrow areas] [granular sources] [riprap sources] specified in the Contract Documents for supply of [ ].

### Use of the designated [borrow areas] [granular sources] [riprap sources] is subject to the following [restrictions and conditions]:

#### Refer to Section 02333 – Designated [ ] [Granular] Sources

#### [ ]

### For Contractor supplied [topsoil, earthwork materials, and concrete aggregates] from non-designated sources, locate the source, obtain access rights, pay royalties, and fulfil any other conditions.

## Use Of The Site

### The Site Limits are specified in the Contract Documents.

### Approximate locations of existing utility lines within the Site that are known to the Minister are specified in the Contract Documents.

### Construction easements to allow for [ ] are specified in the Contract Documents. These easements are subject to the following conditions:

#### [ ]

#### [ ]

### Use of the areas within the Site described below are subject to the following conditions:

#### Area [ ] [condition – joint use, public use, Minister’s use, time of availability]

### Assume responsibility for the care and protection of the existing work within the Site.

## Public Roads

### Determine the condition and availability of public roads, clearances, restrictions, bridge load limits, bond requirements, conditions of use, and other limitations that may affect ingress to and egress from the Site.

# PRODUCTS NOT USED

# EXECUTION NOT USED

**END OF SECTION**

# General

## Definitions

### “Utility” means a public or private utility company, or a municipality.

## Contractor’s Responsibilities

### Arrange for the provision and connection of permanent Project service lines to the Utility’s lines, regardless of whether the required work is performed by the Contractor or by the Utility.

### Co-ordinate service connections work. Comply with the requirements of, and co-operate fully with, each Utility.

### Cut, fit, and re-instate work of this Contract as required to accommodate the work of each Utility.

## Contract Price and Cost

### Pay the service line and connection charges levied by each Utility and recover these charges from the allowance for permanent service lines and connections specified in Section 01210 – Allowances.

### Include in the Contract Price, separate from the allowance for utility charges, all other costs associated with provision of the permanent project service lines and connections.

## Service Lines and Connections

### Natural gas:

#### The Utility will

[ ]

#### The Contractor shall

[ ]

### Electrical power:

#### The Utility will

[ ]

#### The Contractor shall

[ ]

### Telephone:

#### The Utility will

[ ]

#### The Contractor shall

[ ]

### [ ]:

#### The Utility will

[ ]

#### The Contractor shall

[ ]

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Definitions

### “Prime Contract” means a contract entered into by the Minister with a contractor other than this Contractor, the terms and conditions of which provide for the assignment of this Contract to the other contractor.

### “Prime Contractor” means the contractor awarded the Prime Contract who, upon assignment of this Contract, will be the Assignee for the purposes hereof.

## Prime Contract

### Prime Contract:

[                                ]

[                                ]

### The Prime Contractor will be determined, upon award of the Prime Contract.

## Contractual Relationships

### Enter into a formal contract with the Minister for performance of this Contract.

### At a later date, the Prime Contractor shall enter into a formal contract with the Minister for performance of the Prime Contract.

### Upon assignment of this Contract, contractual relationships will be as specified in Document 00535 – Assignment and Novation Agreement and this Contractor shall become a subcontractor to the Prime Contractor.

## Assignment of Contract

### The Project schedule calls for the Prime Contract to be awarded by [             ]. This schedule is subject to change.

### This Contractor will be named as a “Nominated Subcontractor” and this Contract will be referred to as an “Assignable Contract” in the bid documents for the Prime Contract and in the Assignment and Novation Agreement.

### The cost of this Contract will be included in the Prime Contract under an allowance. Contractors bidding for the Prime Contract shall be required by the terms of the bid documents to accept an assignment of, and assume complete responsibility for this Contract.

### Upon award of the Prime Contract, or as soon thereafter as the Minister considers practicable, the Minister will assign this Contract to the Prime Contractor.

### Assignment will be effected by means of an Assignment and Novation Agreement, between the Minister, the Prime Contractor, and this Contractor.

### The Minister will give this Contractor at least [5] days notice in advance of the proposed effective date of the assignment.

### Upon assignment, all payments payable to the Contractor in accordance with Section 00630 – Payment Conditions and all of the other Minister’s obligations under this Contract, shall become the obligations of the Prime Contractor.

# Products – not used

# Execution – not used

**END OF SECTION**

# GENERAL

## Definitions

### “Assignable Contract” means a contract entered into by the Minister with a contractor other than this Contractor, the terms and conditions of which provide for the assignment of the contract to this Contractor.

### “Nominated Subcontractor” means the contractor under the Assignable Contract who, upon assignment, will be a Subcontractor under this Contract.

## Assignable Contracts and Nominated Subcontractors

### Accept the following Assignable Contracts:

#### Assignable Contract:  [Project Name, Contract No. and Name]

Nominated Subcontractor:

[name ]

[address ]

[ ]

[ ]

Telephone:  [ ]

#### Assignable Contract:  [Project Name, Contract No. and Name]

Nominated Subcontractor:

[name ]

[address ]

[ ]

[ ]

Telephone:  [ ]

## Contractual Relationships

### The Nominated Subcontractor has entered into a contract with the Minister for performance of an Assignable Contract.

### This Contract includes the work of each Assignable Contract outlined in clause 1.2.

### Contractual relationships will be as specified in Document 00535 – Assignment and Novation Agreement. The Nominated Subcontractor will become a Subcontractor to this Contractor.

## Assignment of Contract

### Assignment will be effected by means of an Assignment and Novation Agreement between the Minister, the Contractor, and the Nominated Subcontractor.

### Assignment will take place upon execution of the Assignment and Novation Agreement.

### The Minister will give this Contractor and the Nominated Subcontractor at least 5 days notice in advance of the proposed effective date of assignment.

## Documents

### The contract documents for the Assignable Contract are issued as Bid Documents for this Contract. Refer to Section 00200 - Instructions to Bidders.

### Upon assignment, the contract documents for the Assignable Contract will become Contract Documents for this Contract.

## Subcontract Security

### Each Nominated Subcontractor is required by the terms of the Assignable Contract to provide this Contractor, upon assignment, with security for performance of the Assignable Contract (the subcontract) and security for payment of claims.

## Contract Time and Scheduling

### Refer to the contract documents for the Assignable Contract for contract time [work restriction and milestone date] provisions specified for the Assignable Contract.

**OR**

### Incorporate the work of the Assignable Contract into the construction schedule for this Contract to achieve Substantial Performance of the Work within the Contract Time specified in Section 01110 – Summary of Work.

### [                         ]

## Contract Price and Costs

### The cost of the Assignable Contract shall be paid by the Contractor and will be reimbursed from the allowance for Assignable Contracts, as specified in Section 01210 – Allowances.

### Include in the Contract Price, separate from the allowance, such sums, including overhead and profit, necessary to cover other costs in connection with the Assignable Contract.

# Products – not used

# Execution – not used

**END OF SECTION**

# GENERAL

## References

### Refer to the latest edition of the “Partnering Guidelines Manual for Alberta Transportation Projects” for the assessment of the partnering level, and coordinate activities with the Minister’s representative and the Minister to implement Partnering on this project.

## [Team Partnering Discussion level 1 and 2]

### This Project will require a [one (1) day formal] Partnering Session located in [Edmonton, AB] prior to the Pre-Construction Meeting, all parties working together to develop an Issue Resolution Ladder and the development of a Project Scorecard Program.

### The Issue Resolution Ladder and Project Scorecard Program will be developed at the Partnering Session and be followed when dealing with issues that arise during this project.

### The Minister will arrange for a qualified Facilitator and the meeting facility for the formal Partnering Session as well as arrange for the Project Scorecard Program

### The formal one (1) day Partnering Session shall be attended by the Contractor and shall include, at a minimum, one (1) field, one (1) office staff and one (1) corporate level project sponsor who will be directly involved in the management of the project

### Any sub-contractors with a major role in the project shall also attend.

### The Project Scorecards will be compiled and maintained by the qualified Facilitator, and will require regular input by the Contractor, the Minister’s Representative and the Minister, for the purposes of monitoring Partnering throughout the Project.

## [Formal Partnering Sessions level 3]

### This Project will require a [one (1) day formal] Partnering Session located in [Edmonton, AB] prior to the Pre-Construction Meeting, all parties working together to develop an Issue Resolution Ladder and the development of a Project Scorecard Program.

### The Issue Resolution Ladder and Project Scorecard Program will be developed at the Partnering Session and be followed when dealing with issues that arise during this project.

### The Minister will arrange for a qualified Facilitator and the meeting facility for the formal Partnering Session as well as arrange for the Project Scorecard Program

### The formal one (1) day Partnering Session shall be attended by the Contractor and shall include, at a minimum, one (1) field, one (1) office staff and one (1) corporate level project sponsor who will be directly involved in the management of the project

### Any sub-contractors with a major role in the project shall also attend.

### The Project Scorecards will be compiled and maintained by the qualified Facilitator, and will require regular input by the Contractor, the Minister’s Representative and the Minister, for the purposes of monitoring Partnering throughout the Project.

## Partnering meeting

### The Minister will chair a partnering meeting every [four (4) weeks, typically after a regular site meeting,] to discuss the Project and review Project Scorecards, as required.

### The Minister’s Representative will set the agenda for the site meetings with input from the Contractor and the Minister.

### The Minister’s Representative will record the minutes of the meetings.

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## Performance of Work Covered by Allowances

### The Minister will determine who will perform the Work covered by the allowances.

### If not specified, the Minister will determine the manner in which prices are obtained for Work covered by the allowances.

### When requested or specified, assist the Minister by identifying potential Suppliers and Subcontractors and obtaining prices for Work covered by the allowances.

### Work and expenditures from the allowances will only be made when authorized in writing by the Minister.

## Contractor’s Responsibilities

### The Contractor’s responsibilities for Work covered by the allowances shall be the same as for other Work of this Contract.

### On notification in writing of the selection of a Supplier or Subcontractor by the Minister, execute a contract for the Products or Work with the designated Supplier or Subcontractor.

## Scheduling Work Covered by Allowances

### For Work covered by the allowances, including the allowance[s] for unforeseen work:

#### perform the Work within the Contract Time; and

#### include the Work in the construction schedule.

### The Minister will supply the Contractor with required documentation or information within the time specified or, where such time is not specified, in sufficient time to permit the construction schedule to be maintained.

## Allowances: Unforeseen Work

### The amount of the allowance includes all costs. Do not include in the Contract Price any separate costs in excess of the allowance amount.

### Work performed under the allowance will be authorized by Change Order and valued in accordance with Section 00725 – General Conditions, clause 8.3 - Valuation of Changes in the Work, or by Section [ ].

### Allow the amount specified in the Schedule of Prices for unforeseen work.

## [Allowances: Permanent Service Lines and Connections]

### The amount of the allowance includes the actual amount charged by the Utility for permanent service lines and connections.

### Include in the Contract Price, separate from the allowance, the cost for Work to accommodate the work of the Utility.

### Allow the amount specified in the Schedule of Prices for Utility charges for permanent service lines and connections. Refer to Section 01114 – Permanent Service Lines and Connections.

### The cost of the Work covered by this allowance will be valued in accordance with Section 00630 – Payment Conditions.

## [Allowances: Supply of Products]

### The amount of each allowance for the supply of products includes the cost for the following:

#### Actual cost of the products.

#### Applicable taxes.

#### Delivery to and unloading at the Site.

#### Contractor overhead and profit related to the supply of the products.

### Include in the Contract Price, separate from the allowance for the supply of products, the cost for the following:

#### Handling at the Site, including storing and uncrating.

#### Labour and equipment for installation and finishing.

#### Other expenses required to complete the installation.

#### Overheads and profits related to installation of the products.

### Allow the amount specified in the Schedule of Prices for the supply of the following:

#### [                  ].

### The cost of the Work covered by this allowance will be valued in accordance with Section 00630 – Payment Conditions.

### Installation requirements are specified in Section [          ].

### Obtain [at least 3 competitive] prices from suppliers acceptable to the Minister for the supply of the product. The Minister will provide the Contractor with required documentation within [       ] weeks from the date of commencement of the Contract.

**OR**

### The Minister will obtain prices for the supply of the product. The Minister will inform the Contractor of the successful Supplier and the price of the product within [       ] weeks from the date of commencement of the Contract.

## [Allowances: Installations of Products]

### The amount of each allowance for the installation of products includes the cost for the following:

#### Handling at the Site, including storing and uncrating.

#### Labour and equipment for installation and finishing.

#### Other expenses required to complete the installation, including the Contractor’s overhead and profit related to installation of the products.

### Include in the Contract Price, separate from the allowance for the installation of products, the cost for the following:

#### Actual cost of the products.

#### Applicable taxes.

#### Delivery to and unloading at the Site.

#### Overheads and profits related to supply of the products.

### Allow the amount specified in the Schedule of Prices for the installation of the following:

#### [                  ].

### The cost of the Work covered by this allowance will be valued in accordance with Section 00630 – Payment Conditions.

### Product requirements are specified in Section [          ].

### Obtain [at least 3 competitive] prices from subcontractors acceptable to the Minister for the installation of the product. The Minister will provide the Contractor with required documentation within [          ] weeks from the date of commencement of the Contract.

**OR**

### The Minister will obtain prices for the installation of the product. The Minister will inform the Contractor of the successful Subcontractor and the price within [        ] weeks from the date of commencement of the Contract.

## [Allowances: Supply and Installation of Products]

### The amount of each allowance for the supply and installation of products includes the cost for the following:

#### Actual cost of the products.

#### Applicable taxes.

#### Delivery to and unloading at the Site.

#### Handling at the Site, including storing and uncrating.

#### Labour and equipment for installation and finishing.

#### Where applicable, the Subcontractor’s and the Sub–subcontractor’s overhead and profit.

#### The Contractor’s overhead and profit related to the supply and installation of the products.

### Allow the amount specified in the Schedule of Prices for the supply and installation of the following:

#### [                            ].

### The cost of the Work covered by this allowance will be valued in accordance with Section 00630 – Payment Conditions.

### Obtain [at least 3 competitive] prices from subcontractors acceptable to the Minister for the supply and installation of the product. The Minister will provide the Contractor with required documentation within [          ] weeks from the date of commencement of the Contract.

**OR**

### The Minister will obtain prices for the supply and installation of the product. The Minister will inform the Contractor of the successful Subcontractor and price within [          ] weeks from the date of commencement of the Contract.

## [Allowances: Assignable Contracts]

### The Minister has obtained prices and entered into an Assignable Contract with each Nominated Subcontractor specified in clause 1.9.3. Refer to Section 01118 – Assignable Contracts, for details, including names of Nominated Subcontractors.

### The amount of allowance for each Assignable Contract includes the actual amount payable by the Contractor to the Nominated Subcontractor under the Assignable Contract.

### Allow the amount specified in the Schedule of Prices for the following:

#### [                                 ].

# Products – not used

# Execution – not used

**END OF SECTION**

**CONTRACTOR:**

**ADDRESS:**

**Change Proposal: [ ] Item Name: [ ]**

Please submit to the Minister by: [ ]

1. Requirement for Change in the Contract

.1 The proposed changes to the Contract are:

[ Item No. and Item Name and Scope of The Work]

[.2] The following Specifications and Drawings are appended to and form part of this Change Proposal.

.3 Measurement: [shall be ]

.4 Payment: [shall be (Lump Sum, Unit Price per measure)]

.5 Quantity: [ ]

2. Cost of Change in the Contract

.1 The cost of this proposed Change in the Contract is $ [Lump Sum], [and is included in Allowance [ ] ]

**OR**

.1 The cost of this proposed Change in the Contract is $ [Unit Price] and based on an estimated quantity of [ ] amounts to $[ ].

[The cost of this proposed Change in the Contract is included in Allowance [ ]]

**OR**

.1 The cost of this proposed Change in the Contract shall be based on Cost Plus Work as specified in clause 2. of Section 00630 – Payment Conditions

[and is estimated to cost $[ ].]

.2 The cost of the proposed Change in the Contract is compensation for all costs of supplying labour, supervision, plant, materials, taxes, overhead and profit associated with performing the work of this proposed Change in the Contract.

3. Change in the Contract Time

.1 There is no change to the Contract Time due to this proposed Change in the Contract.

**OR**

.1 The date of Substantial Performance of the Work [part of the work] is changed from

[ ] to [ ].

**OR**

.1 The Milestone Date specified in Section 01110 – Summary of Work, clause 1.4 is changed from [ ] to [ ].

[4.] Contractor’s Attachments

.1 Contractor’s cost breakdown.

.2 [ ].

5. Terms and Conditions

.1 All terms and conditions of the Contract except as specifically modified by this Change Proposal remain in full force and effect.

Contractor Minister

By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

month (name of) date, year month (name of), date, year

**CONTRACTOR:**

**ADDRESS:**

**Change Order No.: [ ] Item Name: [ ]**

1. Requirement for Change in the Contract

.1 The changes to the Contract are: [Item No. and Item Name and Scope of The Work]

[.2] The following Specifications, Drawings are appended to and form part of this Change Order.

.3 Measurement: [shall be ]

.4 Payment: [shall be (Lump Sum, Unit Price per measure)]

.5 Quantity: [ ]

2. Cost of Change in the Contract

.1 The cost of this Change in the Contract is $[ ] [Lump Sum], [and is included in Allowance [ ] ]

**OR**

.1 The cost of this Change in the Contract is $ [Unit Price] and based on an estimated quantity of [ ] amounts to $[ ].

[The cost of this Change in the Contract is included in Allowance [ ]]

**OR**

.1 The cost of this Change in the Contract shall be based on Cost Plus Work as specified in clause 2. of Section 00630 – Payment Conditions [and is estimated to cost $[ ]].

.2 The cost of this Change in the Contract is compensation for all costs of supplying labour, supervision, plant, materials, taxes, overhead and profit associated with performing the work of this proposed Change in the Contract.

3. Change in Contract Time

.1 There is no change to the Contract Time due to this Change in the Contract.

**OR**

.1 The date of Substantial Performance of the Work [part of the work] is changed from

[ ] to [ ].

**OR**

.1 The Milestone Date specified in Section 01110 – Summary of Work, clause 1.4 is changed from [ ] to [ ].

[4.] Contractor’s Attachments

.1 Contractor’s cost breakdown.

.2 [ ].

5. Terms and Conditions

.1 All terms and conditions of the Contract except as specifically modified by this Change Order remain in full force and effect.

Contractor Minister

By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

month (name of) date, year month (name of), date, year

# General

## Measurement System

### This section specifies the measurement rules that will generally be used for payment purposes unless otherwise specified in the Contract Documents. In case of conflict between the method of measurement specified in this section and the requirements specified in Section 01280 – Measurement Schedule, the latter will govern.

### Work will be measured in the International System of Units (SI) in accordance with CAN/CSA–Z234.1–89 Canadian Metric Practice Guide.

### When used in the Contract, the following abbreviations and symbols have the meaning assigned to them.

**Abbreviation/Symbol** **Meaning**

µm micrometre or micron

mm millimetre

m metre

mm2 or mm2 square millimetre

m2 or m2 square metre

ha hectare

kPa kilopascal

MPa megapascal

m3 or m3 cubic metre

l (or where clarity is needed L) litre

L.S. lump sum

g gram

kg kilogram

N newton

kN kilonewton

t tonne

no. number (quantity)

min minute (time)

h hour

d day

wk week

% percent

> greater than

≥ greater than or equal to

< less than

≤ less than or equal to

$ Canadian dollars

° degree (angle)

°C degree Celsius

## Method of Measurement

### Unless otherwise indicated in the Contract Documents:

#### earthwork materials will be measured net in place after compaction, with no allowance for bulking, shrinkage, compression, foundation settlement, or waste;

#### products will be measured net, with no allowance for waste;

#### dimensions used in calculating quantities will be rounded to the nearest unit of dimension as follows:

**Quantity Dimension**

[Volume of earth centimetre

Volume of concrete millimetre

Length of pipe centimetre

Area of land decimetre

[ ] [ ]]

#### the survey [station line] [station grid] system adopted will be at [10] [15] [20] [30] [100] linear metres spacing for measuring [ ], respectively;

#### contours may be based on aerial photograph interpretation and are approximate only. Actual ground elevations and location co-ordinates will be determined in the field during the course of the Work for measurement purposes; and

#### measurement and payment will not be made for work carried out beyond measurement and payment lines and limits specified in the Contract Documents.

### When boundaries between different items of Work are not specified in the Contract Documents, such boundaries will be established by the Minister.

### Mass:

#### Mass will be measured by weigh scale or by estimated or theoretical mass taken from reference documents, as specified.

#### Mass will be measured to 3 decimal places.

### Length:

#### Length will be measured at the item centreline or mean chord.

#### Items to be measured by linear dimension will be measured [parallel] [horizontal] to the base or foundation upon which such items are placed.

#### Items to be measured by station will be measured horizontal to the base or foundation upon which such items are placed.

#### Centre line for pipes, ducts, culverts, and similar items will be the line equidistant between inside faces of pipe walls.

### Area:

#### For rectangular and regular shaped objects, area will be measured using mean length and width or radius.

#### For irregular objects, area will be measured by the sum of squares, triangles, and circles, etc., as selected by the Minister.

### Volume:

#### Unless otherwise indicated, volume will be measured using mean length, width, and height or thickness.

#### Excavation and fill volumes will be computed using [the average end area method] [the prism method] [survey data input to [EMXS] software program].

### Time:

#### Construction Equipment to be paid for on a time basis will be measured in hours of actual working time, and necessary travelling time, when under its own power to the nearest tenth thereof.

#### Hauling equipment to be paid for on a time basis will be measured in hours of actual working time to the nearest tenth thereof.

### Number of items will be measured on a per item basis.

### Lump Sum items will not be measured for payment.

### When standard manufactured items are identified by their physical characteristics, such characteristics will be considered as nominal. Unless more stringently controlled by specified tolerances, manufacturing tolerances established by the industry involved will be accepted.

### Overhaul:

#### Haul Distance will be the shortest distance, calculated as the difference between stations along the design centreline of the canal, between the centre of volume of the material in-place before excavation and the centre of volume of this material at its final point of deposition.

#### Overhaul Distance means the Haul Distance minus the specified Freehaul Distance.

#### The Haul Distance is not the actual distance along the haul route used by the Contractor. The actual haul distance used by the Contractor will not be measured for payment.

### Borrow Overhaul:

#### Borrow Haul Distance will be the calculated by adding the shortest perpendicular distance between the centre of volume of the material in-place before Borrow Excavation and the intersection point with the design centreline of the canal and the shortest distance between the intersection point and the centre of volume of this material at its final point of deposition, calculated as the difference between stations along the design centreline of the canal.

#### Borrow Overhaul Distance means the Borrow Haul Distance minus the specified Freehaul Distance.

#### The Borrow Haul Distance is not the actual distance along the haul route used by the Contractor. The actual haul distance used by the Contractor will not be measured for payment.

## Measurement Computation

### Formulae and computer programs used for measurement computation will be as specified or, when not specified, as selected by the Minister.

## Measurement of Work

### Unless otherwise specified, the Minister will measure the Work for the purpose of determining payment to the Contractor.

### The Minister will request the Contractor to attend with the Minister in making measurements.

### If the Contractor does not attend pursuant to clause 1.4.2, measurements made or approved by the Minister will be considered to be the correct measurement for such part of the Work.

### The Minister will prepare survey records and drawings for payment purposes as the Work progresses. The Minister will request the Contractor to attend, within 14 days, to examine and verify such records and drawings. If the Contractor does not attend to examine and verify such records and drawings, they will be considered to be correct.

### If, after attending pursuant to clause 1.4.2 or 1.4.4, the Contractor disagrees with such measurements or records or drawings, they will nevertheless be considered correct until the Contractor notifies the Minister of the aspects in which they are considered incorrect. On receipt of such notice, the Minister will review the measurements or records or drawings and either confirm or vary them.

## Quantities

### Unless otherwise indicated, quantities specified in the Schedule of Prices for Unit Price Work are estimated quantities and will not be considered as actual quantities of Work to be performed. Subject to the Contract terms, unit prices stated in the Schedule of Prices will be applied to actual quantities of Work performed as measured in accordance with the Contract Documents.

### When it is stated that the Contractor will be paid only for the quantity specified for an item of Work, such quantity will be considered as a fixed quantity and the Contractor will be paid for the quantity specified, regardless of the actual quantity performed. If a change in the Work directed by the Minister results in a change in a fixed quantity, the quantity will be adjusted in accordance with the Contract Documents and payment will be made for the adjusted quantity.

## Scales

### Unless otherwise indicated, provide weigh scales, certified by Industry Canada, for measurement purposes.

### Provide scales that are accurate to within 0.5% of correct mass throughout the range of use. Spring balances will not be permitted.

### Prior to use and at anytime requested by the Minister, provide the services of a qualified independent person, acceptable to the Minister, for the testing and servicing of weigh scales. Perform baseline tests and record results. Service and adjust weigh scales to meet requirements of Industry Canada and the Contract Documents. Submit a final report of weigh scale tests, services, and adjustments.

### Scales indicating more than true mass will not be permitted to operate and material measured subsequent to the last previous correct accuracy test will be reduced by the percentage of error in excess of 0.5%.

### Scales indicating less than true mass will be adjusted and no additional payment will be made for materials previously scaled and recorded.

## Schedule of Prices

### The Schedule of Prices is divided into items for purposes of measurement and payment of Work. Price each item in accordance with the methods of measurement specified in the Contract.

### Item names in the Schedule of Prices identify the work covered by the respective item, but do not define the size or nature of the unit.

### Read item names in the Schedule of Prices as part of the item scope, measurement, and payment requirements to which they apply in the Measurement Schedule.

### For each price specified in the Schedule of Prices include all costs and charges required to perform the Work including overhead charges and profit, and all costs of all related Work for which payment is not specified elsewhere.

### Subject to the provisions of the Contract Documents, the total amount of the Schedule of Prices shall cover all of the Contractor’s obligations under the Contract and all matters and things necessary for performance of the Work in accordance with the Contract Documents.

### Payment will be made only for items specified in the Schedule of Prices. Costs and charges not directly provided for in the Schedule of Prices will be deemed to be included therein.

### Work or material included in any one item will not also be measured for payment under another item. No item will be paid for more than once.

### Omissions or errors in any item including quantities in the Schedule of Prices will not invalidate the Contract nor release the Contractor from any of his obligations or liabilities under the Contract.

## Lump Sum Items

### Breakdown of Lump Sum Items

#### If requested, submit to the Minister a breakdown of each Lump Sum item included in the Schedule of Prices, within 21 days after the commencement date of the Contract.

#### Provide sufficient details as may be required by the Minister to identify the principal components of the Work and to permit ready valuation of Work performed.

### Lump Sum Items Paid in Accordance with a Schedule

#### For [Mobilization and Demobilization, Existing and Temporary Roads, and Care of Water] [ ] where a progress payment of the respective Lump Sum amount will be made in accordance with a schedule as specified in Section 01280 – Measurement Schedule, the measurement of the Work will include the amount of work performed for [Mobilization and Demobilization, Existing and Temporary Roads, and Care of Water] [ ].

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## Measurement Schedule

### Schedule: See next page.

### [Quantity Calculations] – Scheduled Lump Sum items].

#### When an interim payment is to be a specified percentage of a lump sum item, and is calculated based on the ratio of the value of Work completed to the interim date, and the Contract Bid Amount, that specified percentage will be included in the calculation of the value of the Work completed to that interim date.

# Products – not used

# Execution – not used

| **Item No.** | **Item Name** | **Section** | **Scope, Measurement and Payment** |
| --- | --- | --- | --- |
|  | **GENERAL REQUIREMENTS** |  |  |
| 1 | [ ] | [ ] | .1 Scope: Includes [ ] and all related work and materials for which payment is not included elsewhere. |
|  |  |  | .2 Measurement: Shall be [ ]. |
|  |  |  | .3 Payment: [Unit Price per [ ]]  [Lump Sum] [Allowance]. |
|  | **SITE WORK** |  |  |
| 2 | [ ] | [ ] | .1 Scope: [ ] |
|  |  |  | .2 Measurement: [ ] |
|  |  |  | .3 Payment: [ ] |
|  | **CONCRETE** |  |  |
| 3 | [ ] | [ ] | .1 Scope: [ ] |
|  |  |  | .2 Measurement: [ ] |
|  |  |  | .3 Payment: [ ] |
|  | **METALS** |  |  |
| 4 | [ ] | [ ] | .1 Scope: [ ] |
|  |  |  | .2 Measurement: [ ] |
|  |  |  | .3 Payment: [ ] |
|  | **EQUIPMENT** |  |  |
| 5 | [ ] | [ ] | .1 Scope: [ ] |
|  |  |  | .2 Measurement: [ ] |
|  |  |  | .3 Payment: [ ] |
|  | **SPECIAL CONSTRUCTION** |  |  |
| 6 | [ ] | [ ] | .1 Scope: [ ] |
|  |  |  | .2 Measurement: [ ] |
|  |  |  | .3 Payment: [ ] |
|  | **CONTROLS, INSTRUMENTATION, MECHANICAL, AND ELECTRICAL** |  |  |
| 7 | [ ] | [ ] | .1 Scope: [ ] |
|  |  |  | .2 Measurement: [ ] |
|  |  |  | .3 Payment: [ ] |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**END OF SECTION**

# General

## Coordination

### Co-ordinate all construction activities to provide efficient and orderly construction of each and every part of the Work.

### Where construction of one part of the Work is dependent on construction of other parts, schedule and co-ordinate construction activities in the sequence needed to obtain the best results.

### Where availability of space is limited, co-ordinate construction of different parts of the Work to provide maximum accessibility for maintenance, service, and repair.

### Make adequate provisions to accommodate Work scheduled for later construction by Other Contractors or by the Minister’s own forces.

## Communication: Equipment

### Provide suitable telephone and facsimile equipment at the Contractor’s office specified in this section [and the Contractor’s Site office] for receiving communications by voice and facsimile.

### Provide suitable computer equipment and software at the Contractor’s office specified in this section [and the Contractor’s Site office] for exchange of electronic data [by e-mail] of the following types of documents:

#### [Letters and Memos] [Microsoft® Word] [ ]

#### [Document Readers] [Adobe Acrobat®Reader] [ ]

#### [Schedules] [Microsoft® Project] [ ]

#### [Drawings] [AutoCAD®] [ ]

#### [Communication] [Microsoft® Outlook] [ ]

#### [          ] [        ]

## Communication Methods

### Communications will be sufficiently given by any one of the following methods:

#### Delivered personally to the Contractor, the Contractor’s representative, or left at the Contractor’s address as specified in this section.

#### Mailed at any post office to the Contractor’s address as specified in this section.

#### Couriered to the Contractor’s address as specified in this section.

#### Transmitted by facsimile to the Contractor’s facsimile number as specified in this section.

#### Transmitted by Internet to the Contractor’s e-mail address as specified in this section.

## Contract Administration

### Co-ordinate scheduling and timing of administrative procedures with other construction activities to avoid delays and provide orderly progress of the Work. Administrative procedures include the following:

#### Preparation and monitoring of schedules.

#### Co-ordination of construction and removal of temporary facilities.

#### Co-ordination, review, and processing of submittals.

#### Participation in project meetings.

#### Following Contract acceptance procedures.

#### Preparation of change order proposals.

#### [                            ].

## Contractor’s Address for Correspondence

### Submit the name, address, telephone number, facsimile number, and e-mail address to be used for correspondence with the Contractor within 10 days of the date of commencement of the Contract. Update whenever information changes during the Contract.

## Minister’s Address for Correspondence

### The Minister will provide to the Contractor the name, address, telephone number, facsimile number, and e-mail address to be used for correspondence with the Minister within 10 days of the date of commencement of the Contract. This information will be updated as required during the Contract.

## Contractor’s Representatives and Site Management

### Submit an organization chart showing the names, positions, telephone numbers, and responsibilities and levels of authority for the Contractor’s representatives and site management organization, within 10 days of the date of commencement of the Contract, and update whenever information changes during the Contract.

## Minister’s Representatives and Assistants

### The Minister will provide to the Contractor an organization chart showing the names, positions, telephone numbers, and responsibilities and levels of authority for the Minister’s Representative and assistants, within 10 days of the date of commencement of the Contract, and will update whenever information changes during the Contract.

# Products – not used

# Execution – not used

**END OF SECTION**

# GENERAL

## ADMINISTRATIVE RESPONSIBILITIES

### The Minister will be responsible for administrative requirements for the following Contract meetings:

#### Pre-construction

#### Construction Progress

#### [                         ]

### The Contractor shall be responsible for administrative requirements for the following Contract meetings:

#### Workplace Orientation

#### Safety

#### [                         ]

### The Minister or the Contractor may request additional meetings related to [installation of equipment,] [co-ordination of assigned contracts,] [co-ordination of subcontracts,] [co-ordination of multiple contracts,] [commissioning progress,] [warranty,] [dispute resolution,] [environmental issues]. Unless otherwise specifically requested by the Contractor, the Minister will be responsible for administrative duties related to these meetings. The agenda for these meetings may be combined with that of the construction progress meetings.

## ADMINISTRATIVE REQUIREMENTS

### The administrative requirements for Contract meetings include the following:

#### Scheduling and administering the Contract meetings throughout the progress of the Work.

#### Preparing the agenda for the meetings.

#### Distributing to the relevant attendees written notice of each meeting and the proposed agenda at least [4] days in advance of the meeting date.

#### Presiding at the meetings.

#### Recording the minutes including attendance, significant proceedings and decisions, and action required by the parties.

#### Reproducing and distributing copies of the minutes within [7] days after each meeting to the meeting participants and affected parties not in attendance.

### Representatives of the Contractor, Subcontractors, and Suppliers shall attend meetings as necessary and be authorized to act on behalf of the party each represents.

## PRE–CONSTRUCTION MEETING

### Frequency: Within [15] days after award of the Contract and prior to commencement of activities at the Site.

### Purpose: To review personnel assignments, responsibilities, schedules, submissions, and administrative and procedural requirements.

### Attendees:

#### Contractor’s representatives: senior management, site superintendent, major Subcontractors, and others as necessary.

#### Minister’s representatives: as determined by the Minister.

### Agenda may include the following:

#### Appointment of representatives of participants in the Work.

#### Schedule of the Work and progress scheduling.

#### Schedule of submittals.

#### Requirements for temporary facilities, site signage, offices, storage sheds, utilities, and fences.

#### Schedule of equipment delivery.

#### Site safety and security.

#### Change proposals, change orders, approvals required, costing and mark-up percentages permitted, time extensions, overtime, and administrative requirements.

#### Products and materials provided by the Minister.

#### Record documents.

#### Maintenance manuals.

#### Takeover procedures, acceptance, and warranties.

#### Monthly progress claims, administrative procedures, and holdbacks.

#### Inspection and testing.

#### Insurance and transcripts of policies.

#### Environmental management principles.

#### Mobilization to the Site.

## CONSTRUCTION PROGRESS MEETINGS

### Frequency: [Weekly] during the course of the Work.

### Purpose: To monitor construction progress, to identify problems and actions required for their solution, and to expedite the Work.

### Attendees:

#### Contractor’s representatives: site superintendent and, when so requested by the Minister, Subcontractors, Suppliers, and other parties involved in the Work.

#### Minister’s representatives: as determined by the Minister.

### Agenda may include the following:

#### Review and approval of minutes of the previous meeting.

#### Review of the Work progress since the previous meeting.

#### Field observations, problems, and conflicts.

#### Problems that impede the construction schedule.

#### Off-site fabrication delivery schedules.

#### Corrective measures and procedures to regain the Contract schedule.

#### Revisions to the construction schedule.

#### Progress and schedule for the succeeding work period.

#### Submittal schedules.

#### Adherence to quality standards.

#### Change proposal effects on the construction schedule and Contract Time.

#### Contentious items of the Work.

#### Contract closeout issues.

#### Safety and security issues.

#### Environmental issues.

#### Other business.

## WORKPLACE ORIENTATION MEETINGS

### Frequency: As required for all new workers prior to commencement of Work on the Site.

### Purpose: To familiarize new workers with site conditions, rules, regulations, safety, and security requirements.

### Attendees: All new Contractor and Minister personnel scheduled to work on the Site.

### Agenda may include the following:

#### Project description including areas of work and other concurrent construction contracts.

#### Hazardous areas including open excavations, construction equipment traffic, blasting, and chemical or explosive storage, etc.

#### Safety equipment to be worn by workers, including areas with special requirements.

#### Traffic routes on the Site.

#### Evacuation procedures.

#### First aid procedures.

#### Excavation or work permit procedures.

#### WHMIS (Workplace Hazardous Materials Information System) requirements for handling and storage of chemicals.

#### Fire safety rules and regulations.

#### Rules and regulations regarding wildlife, environmental concerns, drugs, alcohol, etc.

## SAFETY MEETINGS

### Frequency: Weekly during the course of the Work for each area of work.

### Purpose: To review safety concerns and implement preventive safety measures.

### Attendees: Contractor’s and Minister’s personnel for each area of work.

### Agenda may include the following:

#### Review and discussion of safety concerns, accidents, and “near misses.”

#### Remedial or preventive actions to be taken.

## [OTHER MEETINGS]

### [ ]

# products – not used

# execution – not used

**END OF SECTION**

# General

## Format of Schedule

### Base the format of the construction schedule on the following:

#### Horizontal bar chart of sufficient size to clearly indicate all required information.

#### Time divided into months, weeks, and days. Identify the first workday of each week.

#### Space for revisions.

## Quality of Schedule

### Provide a separate bar for each activity.

### Indicate the start and completion dates for each activity, and the work restriction and Milestone Dates, and the Contract Time specified in Section 01110 – Summary of Work.

### Indicate the projected percentage of completion for each activity as of the first day of each month.

### Provide a separate bar for each specified allowance [except for unforeseen work]. List each definable activity for each allowance. Include dates for receipt of documentation or information pertaining to work covered by the allowances.

## Submittals

### Provide the following submittals.

### Construction schedule:

#### Within 10 days of receipt, the Minister will either return the submitted construction schedule to the Contractor with no exceptions taken or require revisions to the construction schedule. Provide a revised construction schedule within 5 days of receiving the Minister’s comments, if any.

#### An initial construction schedule for the Minister’s review within 15 days after the date of commencement of the Contract.

#### Updated construction schedule within 5 days after the end of each month.

#### Progress revisions within 15 days after receiving notice to do so from the Minister.

## Use of the Construction Schedule

### Adhere to, and require that all Subcontractors and Suppliers adhere to, the construction schedule.

## Progress Revisions

### Revise the construction schedule upon request by the Minister if, in the Minister’s opinion:

#### the progress of the Work is substantially different from the latest construction schedule and the date of Substantial Performance of the Work appears to be in jeopardy;

#### the Work is being performed in a sequence that is not in keeping with the general work sequence of the latest construction schedule; or

#### a revision is necessary to reflect a required adjustment to the Contract Time that has been authorized by the Minister.

### Outline methods to be used to complete the Work within the Contract Time.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Format of Schedule

### Base the format of the Network Analysis Construction Progress Schedule, hereinafter referred to as the “NACP Schedule,” on one of the following formats:

#### Critical Path Method.

#### Project Evaluation and Review Technique.

### Incorporate legends as required to identify symbols used.

### Incorporate appropriate time scales covering calendar and working days, months, and years.

### As a minimum requirement, indicate the earliest start date, earliest finish date, and total float time for each activity. Indicate work restriction and Milestone Dates, and the Contract Time specified in Section 01110 – Summary of Work. Clearly identify the critical path and first level sub-critical paths broken down by activity.

## Quality of Schedule

### Prepare the NACP Schedule by personnel or organizations specializing in such work.

### Prepare the NACP Schedule using [Microsoft Project].

### Provide a separate activity for each specified allowance [except for unforeseen work]. Define the activity for each allowance. Include dates for receipt of documentation or information pertaining to work covered by the allowances.

### Include concise and appropriate activity descriptions.

### Separate the Contractor’s workforce from the Subcontractors’ workforces.

### Break down activities to provide a level of detail that enables ready interpretation and facilitates performance monitoring.

### Break down long duration activities and sub-activities that are continuous, repetitive, or sequential in nature, representing the actual construction activity planned. Include separate sub-network diagrams as appropriate.

## Submittals

### Provide the following submittals.

### NACP Schedule including sub-network diagrams:

#### Within [10] days of receipt, the Minister will either return the submitted construction schedule to the Contractor with no exceptions taken or require revisions to the construction schedule. Provide a revised construction schedule within [7] days of receiving the Minister’s comments, if any.

#### An initial NACP Schedule, and required sub-network diagrams, for the Minister’s review within [30] days after the date of commencement of the Contract.

#### Progress revisions within [14] days after receiving notice to do so from the Minister.

#### Updated NACP Schedule within [5] days after the end of each month.

## Use of the NACP Schedule

### Adhere to, and require all Subcontractors and Suppliers to adhere to, the NACP Schedule.

## Progress Revisions

### Revise the NACP Schedule upon request by the Minister, if in the Minister’s opinion:

#### the progress of the Work is substantially different from the latest NACP Schedule and the date of Substantial Performance of the Work appears to be in jeopardy;

#### the Work is being performed in a sequence that is not in keeping with the general work sequence of the latest NACP Schedule; or

#### a revision is necessary to reflect a required adjustment to the Contract Time that has been authorized by the Minister.

### Outline methods to be used to complete the Work within the Contract Time.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Definitions

### “Administrative Submittals” means data presented for review to ensure administrative requirements of the Contract are met.

### “Shop Drawings” means technical data specifically prepared for work of this Contract including drawings, diagrams, schedules, templates, patterns, and similar information not in standard printed form.

### “Product Data” means standard printed information describing materials, products, equipment, and systems not specifically prepared for work of this Contract. Product Data consisting of manufacturers’ standard schematic drawings, catalogue sheets, diagrams, schedules, performance charts, illustrations, and descriptive data will be accepted in lieu of Shop Drawings provided that:

#### information not applicable to the work of this Contract is deleted; and

#### standard information is supplemented with information specifically applicable to the Work of this Contract.

### “Samples” means cuts or containers of materials or partial sections of manufactured or fabricated components that are physically identical to products proposed for use.

### “Field Samples” means volumes of materials as specified, which are physically representative of the materials proposed for use.

## Schedule of Submittals

### Submittals required for the Contract are specified in each section of the Contract Documents.

### Additional submittals required but not specified in other sections of the contract are appended to this section. Submit these submittals prior to commencement of Work at the Site.

## Submittal Preparation

### Determine and verify the following:

#### Field measurements.

#### Field construction criteria.

#### Catalogue numbers and similar data.

#### Compliance with the Contract Documents.

### Co-ordinate each submittal with requirements of the Work and the Contract Documents.

### Notify the Minister, in writing, on the submittal and at the time of submission, of any deviations from the requirements of the Contract Documents.

## Submittal Requirements

### Make submittals within the times required by the Contract Documents and sufficiently in advance of the date that reviewed submittals will be required, and in such sequence as to cause no delay in the Work.

### Make submittals in the form specified or in a form considered as an industry standard.

### Provide a transmittal letter with each submittal containing the following:

#### Date.

#### Project Name.

#### Contract Name.

#### Tender Number.

#### Contractor’s name and address.

#### [Number of each Shop Drawing, Product Data, and Sample submitted.]

#### [Other pertinent data.]

### Include in the submittals the following:

#### Date and revision dates.

#### Project Name.

#### Contract Name.

#### Tender Number.

#### Name of:

##### Contractor.

##### Subcontractor.

##### Supplier.

##### Manufacturer.

##### Name of detailer when details are not prepared by the Contractor, Subcontractor, or Supplier.

##### The Contractor’s stamp, signed, certifying its review of the submittal, verification of field measurements, and compliance with the Contract Documents, or that deviations, if incorporated, will be compatible with other elements of the Work.

## Review of Submittals

### The Minister will review each submittal within [10 working days] of receipt of the submittal unless specified otherwise in the Contract Documents.

### Make corrections or changes to reviewed submittals and resubmit as specified for the initial submission.

### Until a reviewed submittal is received, and does not require re-submittal, do not proceed with the Work related to the submittal.

### The Minister’s review of any submittal does not relieve the Contractor from responsibility for errors and omissions, nor deviations from the requirements of the Contract Documents.

## Reproduction of Submittals

### After review of the submittal, the Minister will reproduce the number of copies of the submittal that the Minister requires, and return the reviewed reproducible documents.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

|  |  |  |
| --- | --- | --- |
| **Material/Product** | **Specification Section** | **Supplier** |
| 1. [Gravel] | [02330] | [ Supplier’s Name and Address] |
| 2. [Medium Duty Slide Gates] | [11280] | [ Supplier’s Name and Address] |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**END OF LIST OF SUPPLIERS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Equipment** | **Size or**  **Capacity** | **Model**  **Year** | **Owned/Rented** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**END OF LIST OF CONSTRUCTION EQUIPMENT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** |  | **Month** | **Monthly Total**  **Number of Workers on Site** | **[Monthly Number of Workers in Camp]** |
|  |  |  |  |  |
| **200[ ]** |  | January |  |  |
|  |  | February |  |  |
|  |  | March |  |  |
|  |  | April |  |  |
|  |  | May |  |  |
|  |  | June |  |  |
|  |  | July |  |  |
|  |  | August |  |  |
|  |  | September |  |  |
|  |  | October |  |  |
|  |  | November |  |  |
|  |  | December |  |  |
|  |  |  |  |  |
| **200[ ]** |  | January |  |  |
|  |  | February |  |  |
|  |  | March |  |  |
|  |  | April |  |  |
|  |  | May |  |  |
|  |  | June |  |  |
|  |  | July |  |  |
|  |  | August |  |  |
|  |  | September |  |  |
|  |  | October |  |  |
|  |  | November |  |  |
|  |  | December |  |  |
|  |  |  |  |  |
| **200[ ]** |  | January |  |  |
|  |  | February |  |  |
|  |  | March |  |  |
|  |  | April |  |  |
|  |  | May |  |  |
|  |  | June |  |  |
|  |  | July |  |  |
|  |  | August |  |  |
|  |  | September |  |  |
|  |  | October |  |  |
|  |  | November |  |  |
|  |  | December |  |  |

**END OF SCHEDULE OF WORKERS**

|  |  |
| --- | --- |
|  |  |
| **Operation/Activity** | **Method Statement** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**END OF METHOD STATEMENT**

# General

## Related Specifications

### Section 01391 Environmental Protection.

## Environmental Legislation

### The Minister will obtain the environmental approvals, permits, licences, and authorizations required for the Project.

### The Contractor shall familiarize itself with all applicable federal and provincial legislation and regulations concerning environmental protection and shall conduct its activities in accordance with such legislation and regulations, including, but not necessarily limited to, the provincial Environmental Protection and Enhancement Act and Water Act and the federal Fisheries Act and Navigable Waters Protection Act.

### Comply with the conditions of all environmental approvals, permits, licences and authorizations issued for the Contract. Obtain any further environmental approvals, permits, licences and authorizations for temporary work as may be required for the Contract.

### Provide the Minister with written confirmation of Contractor’s full compliance with all approvals, permits, licences and authorizations before the full amount of holdback will be released.

### The Contractor shall also familiarize itself with all applicable Codes of Practice issued by Alberta Environment and shall conduct its activities in accordance with such Codes of Practice, including, but not necessarily limited to, the Code of Practice for Asphalt Paving Plants and the Code of Practice for Pits, both under the Environmental Protection and Enhancement Act and the Code of Practice for Watercourse Crossings under the Water Act.

### In the event of conflicting statements between the various Acts, Authorizations, Permits, and Codes of Practice, the more stringent requirement shall apply.

### Keep on Site, copies of approvals, permits, licences and authorizations. Make these documents readily available to authorized persons at the Site. Keep documents on Site until the date of Warranty Performance of the Work or at such earlier dates accepted by the Minister.

## ECO Plan

### Prepare and implement an Environmental Construction Operations Plan for each phase of the Contract in accordance with the Alberta Transportation manual entitled "Environmental Construction Operations Plan (ECO Plan) Framework," May 2005 version. Completed ECO Plans consist of written procedures and drawings that address the environmental protection issues relevant to the site specific activity being performed and shall detail temporary environmental control measures that the Contractor undertakes to comply with all applicable legislation, regulations and approvals during the course of construction and during "winter shut down," and other similar “shut down”.

### Prepare the ECO Plan specific to the Work and the Site. Ensure effective implementation of the ECO Plan by assigning responsibility for the implementation, and maintenance of the work prescribed by the ECO Plan, including temporary erosion control measures, to one individual, herein called the work zone representative. The work zone representative shall be identified at the pre-construction meeting.

### The ECO Plan shall not cover any permanent or long term environmental or erosion control devices or work specified in the Contract.

### Submit the ECO Plan to the Minister at least 14 calendar days prior to the pre-construction meeting. The Minister will review the ECO Plan and communicate any concerns to the Contractor at least 7 calendar days prior to the pre-construction meeting. Address any issues or concerns regarding the proposed ECO Plan the satisfaction of the Minister prior to the commencement of the Work.

### Finalized ECO Plans shall be agreed to by all parties and shall be signed by the Contractor’s ‘Principal-In-Charge’ and the Contractor’s work zone representative before the commencement of Work. When the Contractors work zone representative changes, the new work zone representative shall provide a letter of acknowledgment to the Minister indicating that the new work zone representative has reviewed the ECO Plan and will comply with its requirements.

### The finalization of the ECO Plan to the mutual satisfaction of the Minister and the Contractor does not constitute an approval or assurance from the Minister of Alberta Transportation 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 Work, are sufficient to ensure compliance with all applicable authorities. This may mean increasing the number of installations, providing alternate devices or modifying procedures.

### If at any time during the performance of the Work of the Contract, it is determined that the devices or procedures detailed in the ECO Plan (any specific measures, locations or quantities proposed) are inappropriate or insufficient, the Minister will notify the Contractor in writing and the Contractor shall modify the ECO Plan accordingly.

### The Minister may suspend work in cases where in the Minister’s opinion the Contractor fails to comply with procedures stated in the ECO Plan. If the Contractor fails to adhere to finalized ECO Plans, the Minister may make other arrangements to have the Work done, and deduct the cost thereof from any money owing to the Contractor.

### The cost of preparing the ECO Plan and the performance of all Work necessary to ensure compliance with the ECO Plan and applicable legislation, regulations or conditions of approval (with the exception of removing and disposing of material from silt containment ponds and sediment barriers) will be incidental to the Work and will not be paid for separately. For scope measurement and payment refer to Section 1280 Measurement Schedule. Removing and disposing of material from silt containment ponds and sediment barriers will be authorized by Change Order and valued in accordance with Section 00725 General Conditions clause 8.3 Valuation of Changes in the Work.

## General Environmental Protection Requirements

### Advise the Minister as soon as possible of any accidents.

### Conduct accident investigations.

## Disposal of Waste Materials

### Do not release, dump, spill or dispose of any substance into the environment that causes or could cause impairment of or damage to the environment or human health or safety. Mitigate to ensure compliance with all regulatory legislation, any wastes arising from the work and any other substances that causes or could cause impairment of or damage to the environment or human health or safety, and should Contractor fail to do so, the Minister may, without further notice, arrange the clean-up of such wastes and other substance at the expense of the Contractor.

### Remove and dispose of any inert solid waste materials resulting from the work in accordance with Alberta Environment’s Construction, Renovation and Demolition Waste Reduction Guidelines and as determined by the Minister prior to Total Performance of the Work or other time scheduled in the Contract Documents. The Contractor may temporarily store such material in interim stockpiles on the disturbed land.

## Reporting Procedures for Spills of Deleterious or Hazardous Materials

### During the construction, any release of silt or other deleterious substance into a body of water or watercourse Contractor shall immediately report to the Minister, Alberta Environment and the Federal Department of Fisheries and Oceans (1-800-222-6514).

### In the event of the release of silt or other deleterious substance into a body of water or watercourse, the Contractor shall take all reasonable measures to contain the release and repair any damage at its expense.

### Spills or releases of hazardous materials and any other substances that cause or could cause impairment of or damage to the environment or human health or safety shall also be immediately reported to the Minister, Alberta Environment and, if a body of water or watercourse is involved, the Minister, Alberta Environment and the Federal Department of Fisheries and Oceans (1-800-222-6514). Take all reasonable measures to contain the spill and cleanup and any such work shall be performed in accordance with the applicable legislation and regulations at the Contractors’ expense.

**END OF SECTION**

# General

## Surficial Aquatic Resources

### Physical:

#### Unless otherwise provided for in the Contract Documents, do not divert, alter, or disrupt water flows in rivers, streams, and other surface bodies of water.

#### Conform to the Environmental Management Plan as specified in Section 01390 - Environmental Management.

#### Prevent bark, slash, wood chips, sawdust, ashes, organic debris, topsoil, fuel and lubricants, or other substances harmful to aquatic life from entering a river, stream, or other surface bodies of water.

#### Do not perform construction operations within the wetted perimeter of a river, stream, and other surface bodies of water unless such work is part of the Permanent Work or Temporary Work.

#### Do not deepen by excavation or place fill material on the river or stream bed or other surface bodies of water unless such work is part of the Permanent Work or Temporary Work.

#### Manage construction operations to limit equipment crossings of rivers and streams and prevent turbidity and siltation during crossings. Install temporary culverts or bridge structures where frequent crossings are required.

#### Use Construction Equipment with bio-friendly hydraulic fluids, free from external oil and grease when operating in, or within the wetted perimeter, of a river, stream, and other surface bodies of water.

#### Use clean granular fill with less than [5%] [10%] fines passing the 80µm sieve size when exposed to a river or stream for Temporary Work such as cofferdams, causeways, and access ramps. Fine-grained soils may be used, provided only clean granular fill is exposed to the body of water at any time during construction and restoration operations.

#### Remove Temporary Work, including culverts and bridges, and reclaim river and stream banks and beds, and other disturbed areas, prior to attaining Substantial Performance of the Work unless specified otherwise.

#### Silt Fence Management:

##### Be responsible for, and maintain the fabric in silt fences until the date of Warranty Performance of the Work.

##### Inspect the fabric, posts, and pins, in the silt fencing at intervals appropriate to weather events. Based on inspections, maintain the fencing to perform for the purpose intended.

##### Remove silt accumulations and dispose of silt on Site, at locations acceptable to the Minister.

##### Removal and disposal of silt materials collected at silt fabric fencing will be authorized by Change Order and valued in accordance with Section 00725 – General Conditions, clause 8.3 - Valuation of Changes in the Work.

##### Unless otherwise specified in the Contract Documents, or otherwise requested by the Minister, remove temporary silt fencing within 30 days after the date of Warranty Performance of the Work.

### Biological:

#### Protect fish and fish habitat in rivers, streams, and other surface bodies of water located within the Site in accordance with the Contract Documents and Regulatory Requirements.

#### Construction operations in the [river] [stream] [lake] is prohibited between the dates of [                ] and [                           ] of any year.

## [Ground Water Resources]

### Physical:

#### Do not change ground water levels in wells located on adjacent lands.

#### Biological:

### Do not change ground water quality in adjacent landowner wells.

## Terrestrial Resources

### Wildlife:

#### Maintain setback distances between construction operations and the habitat of each of the designated wildlife species and during the critical dates specified below. The Minister may identify additional habitat sites and wildlife species during the Contract Time. Additional work required to protect additional habitat sites and wildlife species will be authorized by Change Order and valued in accordance with Section 00725 – General Conditions, clause 8.3 - Valuation of Changes in the Work.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Species/Period** | | | **Critical Dates** | | **Setback Distance** | |
| [.1 | Mule Deer |  | |  | |
|  | - winter period | January 1 - February 28 | | 100 m | |
|  | - natal period | May 15 - June 30 | | 100 m | |
| .2 | Great Blue Heron |  | |  | |
|  | - nesting period | April 1 - June 30 | | 100 m | |
| .3 | Prairie Falcon |  | |  | |
|  | - nesting period | February 1 - June 30 | | 400 m | |
| .4 | Burrowing Owl |  | |  | |
|  | - nesting period | March 1 - June 30 | | 100 m] | |

#### Do not allow pets on the Site.

#### Do not allow firearms, hunting, or shooting on the Site.

#### Prevent livestock from entering the Site by:

##### installing new fences specified in the Contract Documents; and

##### installing temporary fences as necessary.

#### Do not harass wildlife.

### Vegetation:

#### Remove or control existing and new adverse vegetation that affects adjacent landowners and their croplands, construction operations, or the function of the Permanent Work.

#### Do not import any materials to the Site that are contaminated with weed seeds. Clean dirty construction and reclamation equipment to prevent importing weed seeds.

#### Notify the Minister prior to commencing adverse vegetation control measures.

#### Be responsible for damage to crops, both on and off the Site, resulting from the Contractor’s use of herbicides, or other adverse vegetation control measures.

#### Maintain records of the types and amounts of herbicides purchased, delivered, stored, mixed, and used, and the means of disposal of all excess. Maintain the records current and accurate, and make them available for review by the Minister.

#### Comply with standards and practices of the Industrial Vegetation Management Association of Alberta.

#### [ ]

### Vegetation and Weed Control:

#### Remove or control existing and new adverse vegetation that affects adjacent landowners and their croplands, construction operations, or the function of the Permanent Work.

#### Do not import any materials to the Site that are contaminated with weed seeds. Clean dirty construction and reclamation equipment to prevent importing weed seeds.

#### Notify the Minister prior to commencing adverse vegetation control measures.

#### Be responsible for damage to crops, both on and off the Site, resulting from the Contractor’s use of herbicides, or other adverse vegetation control measures.

#### Maintain records of the types and amounts of herbicides purchased, delivered, stored, mixed, and used, and the means of disposal of all excess. Maintain the records current and accurate, and make them available for review by the Minister.

#### Monitor the site for early detection of weed growth during the growing season.

#### Control weeds once by mechanical equipment before they go to seed, but not before [ ].

OR

### Vegetation and Weed Control:

#### Remove or control existing and new adverse vegetation that affects adjacent landowners and their croplands, construction operations, or the function of the Permanent Work.

#### Do not import any materials to the Site that are contaminated with weed seeds. Clean dirty construction and reclamation equipment to prevent importing weed seeds.

#### Notify the Minister prior to commencing adverse vegetation control measures.

#### Be responsible for damage to crops, both on and off the Site, resulting from the Contractor’s use of herbicides, or other adverse vegetation control measures.

#### Maintain records of the types and amounts of herbicides purchased, delivered, stored, mixed, and used, and the means of disposal of all excess. Maintain the records current and accurate, and make them available for review by the Minister.

#### Comply with the standards and practices of the Industrial Vegetation Management Association of Alberta.

#### Retain a Professional Agrologist to conduct:

##### a pre-disturbance weed assessment on the Site, [[of disturbed areas and areas immediately adjacent to the disturbed areas] [including all easement and borrow land]] [                                     ], and prepare a written report outlining the assessment. Submit the report within 50 days after the commencement date of the Contract.

##### a post-disturbance weed assessment on the Site, [[of disturbed areas and areas immediately adjacent to the disturbed areas] [including all easement and borrow land]] [                                     ], at a time mutually determined between the Minister and the Contractor. After assessment, prepare a written report of new weeds, and make recommendations concerning weed control. Submit the Agrologist’s report to the Minister within a time required by the Minister.

#### Employ a herbicide applicator licenced by Alberta Environment to select and apply herbicides in accordance with recommendations made by the Agrologist.

#### Monitor the Site for early detection of weed growth during the growing season.

#### The term mechanical equipment in this section means equipment used for mowing, discing, harrowing, rod weeding, or other equipment as determined by the Agrologist, in consultation with the Contractor.

#### Control weeds by mechanical equipment before they go to seed, and apply herbicides in accordance with recommendations made by the Agrologist.

#### Meet all the requirements of the Contract Documents for herbicide application, including mixture, method, and application rates.

#### One application of the herbicide mixture is required by the Contract; to be applied in accordance with recommendations made by the Agrologist.

#### Prevent importing weed seeds, and remove existing weeds, listed as “Restricted” or “Noxious” under the Weed Control Act. Consult Alberta Agriculture, Food and Rural Development or Municipal Agricultural Field-men for more information on weed regulations and control.

#### Prevent importing weed seeds, and remove existing weeds, listed as “Nuisance” weeds, where such weeds interfere with the growth of the specified seed. Such weeds to be determined by the Agrologist.

#### Supply of herbicide mixture combination will be authorized by Change Order and valued in accordance with Section 00725 – General Conditions, clause 8.3 - Valuation of Changes in the Work

#### During the calendar year following the year of initial herbicide application, reapply herbicide mixture combination over the defective locations as determined by the Agrologist. Defective locations are areas that show more than 20% weed population in any 100 square meters of the Site, including all easement and borrow land and areas adjacent to the Site. Provide accurate records to the Minister of the defective locations treated and the types and amounts of the herbicide mixture combination used.

#### The Minister will conduct a weed inspection during the month of May of the calendar year following the year of initial seeding. Complete any required re-application of herbicide prior to June 15 of that year. This date will be extended if, in the opinion of the Minister, the weather conditions prior to June 15 are not suitable for reseeding Work.

#### Correct areas outside the specified areas that show chemical damage.

#### For re-application of herbicide meet all the requirements of the initial herbicide application, including mixture combination, method, and application rates, as applicable.

### Waste Management:

#### Remove construction waste, including demolition waste, from the Site unless otherwise specified. Dispose of such waste at the waste disposal facility identified in the Environmental Management Plan.

#### Do not burn, bury, or otherwise discharge construction or demolition waste on the Site unless specified otherwise.

#### When practical, minimize the amount of waste generated from construction operations and demolitions by salvaging materials for recycling. Salvage and segregate metal, plastic, paper, cardboard, and glass and transfer them to the nearest appropriate collection facility.

### Hazardous Materials:

#### Transport hazardous materials to and from the Site in accordance with Regulatory Requirements.

#### Use and store hazardous materials in accordance with Regulatory Requirements.

#### Remove spilled hazardous materials, including hazardous liquid wastes, in accordance with Regulatory Requirements, and reclaim land and other property. Report spills to Alberta Environment and the Minister.

#### Dispose of hazardous waste materials, including hazardous liquid wastes, in accordance with Regulatory Requirements.

### Handling of Construction Equipment Fuels and Lubricants:

#### Employ persons qualified to handle Construction Equipment fuels and lubricants.

#### Carry the following protection materials in all fuel and service vehicles:

##### 10 kg of suitable sorbant material.

##### 30 m2 of 6 mil polyethylene.

##### A shovel.

##### An empty fuel barrel with the lid removed.

#### Prevent handling and fuelling operations from contaminating the ground, surface water, and ground water. Use containment berms and an impermeable base course or other system to contain spilled fuel.

#### Clearly mark and barricade fuel storage areas and non-portable transfer lines. Use markers that are visible under all weather conditions.

#### Store waste Construction Equipment lubricants in a tank or closed container, and dispose of off-Site in accordance with the Regulatory Requirements.

## Historical and Archaeological Resources

### Protect known heritage resources specified in the Contract Documents with the specified fencing and marking devices.

### Protect new heritage resources found during the Contract Time. Flag an area of [15 m] beyond the edge, and surrounding, a new found heritage resource, and report the finding immediately to the Minister.

### Additional work required to protect new found heritage resources will be authorized by Change Order and valued in accordance with Section 00725 – General Conditions, clause 8.3 - Valuation of Changes in the Work.

## Socio-Economic

### Air Pollution:

#### Prevent the discharge of atmospheric contaminants from construction operations in accordance with Regulatory Requirements.

#### Do not operate equipment, including Construction Equipment, that shows excessive emissions of exhaust gases until corrective repairs or adjustments are made.

#### Control dust on the Site, and prevent dust from the Site from damaging crops, orchards, cultivated fields, and dwellings, or causing a nuisance to persons. Be responsible for damages from dust caused by construction operations.

#### [ ]

### Noise:

#### Do not exceed noise levels of [              ] decibels in the daytime and [               ] decibels at night, [on weekdays and weekends]. At the Contractor’s option, provide noise barriers to maintain acceptable noise levels outside the barriers.

#### Perform blasting, drilling, jackhammering, pile driving, and other operations producing high-intensity impact noise between the hours of [             ] pm and [               ] am on [weekdays and weekends except Sundays and Statutory Holidays]. Adhere to other work restrictions specified in the Contract Documents.

### Light:

#### Direct all stationary floodlights to shine downward at an angle less than horizontal. Provide shielding for all floodlights and do not direct at residences.

### [Others]:

# Products - NOT USED

# Execution - NOT USED

**END OF SECTION**

# General

## Regulatory Responsibility

### Conform to Regulatory Requirements and pay all fees and give all notices required by them.

### Obtain approvals necessary for the Work and the Contract from the regulatory agencies having jurisdiction, except those approvals obtained by the Minister as identified in this section.

### The Minister will obtain the approvals necessary for the Project that involve agreement between the Minister and the regulatory agency having jurisdiction.

## Variations Between the Contract Documents and the Regulatory Requirements

### If the Contract Documents are at variance with Regulatory Requirements, notify the Minister in writing, requesting direction, immediately after such variance becomes known.

### The Minister may make Changes in the Work due to Regulatory Requirements, and such changes will be authorized by Change Order and valued in accordance with Section 00725 - General Conditions, clause 8.3 – Valuation of Changes in the Work.

### If the Contractor fails to notify the Minister in writing and obtain the Minister’s direction related to variations in Regulatory Requirements and performs work knowing it to be contrary to Regulatory Requirements, the Contractor accepts responsibility for correcting violations thereof, and bears the costs, expenses, and damages attributable to the Contractor’s failure to comply with the provisions of such Regulatory Requirements.

## Alberta Building Code

### Conform to and perform work in accordance with the Alberta Building Code, except as otherwise indicated in the Contract Documents.

## Minister Obtained Approvals

### The Minister has obtained the approvals listed below.

#### Environmental Protection and Enhancement Act (EPEA)

##### Instrument: Approval.

##### Agency: Alberta Environment.

##### Activity: Environmental Impact Assessment process.

#### Environmental Protection and Enhancement Act (EPEA)

##### Instrument: Conservation and Reclamation Approval

##### Agency: Alberta Environment.

##### Activity: To develop surface excavations and approval of reclamation.

#### Environmental Protection and Enhancement Act (EPEA)

##### Instrument: Regulation.

##### Agency: Alberta Environment.

##### Activity: To reclaim water wells within the Project and other areas.

#### Explosives Act

##### Instrument: Licence.

##### Agency: Natural Resources Canada.

##### Activity: To operate a magazine.

#### Fisheries Act

##### Instrument: Authorization.

##### Agency: Fisheries and Oceans Canada.

##### Activity: To block a stream without fish passage provisions.

##### Activity: To alter, disrupt, or destroy fish habitat including the bed and shore of a waterbody.

#### Historical Resources Act

##### Instrument: Approval.

##### Agency: Alberta Community Development.

##### Activity: To alter historical resources with mitigation.

#### Municipal Government Act

##### Instrument: Approval.

##### Agency: Municipal Authority.

##### Activity: To close roads and road allowances

#### Natural Resources Conservation Board Act

##### Instrument: Approval.

##### Agency: Natural Resources Conservation Board.

##### Activity: To construct a water resources project that is within the jurisdiction of the Natural Resources Conservation Board.

#### Navigable Waters Protection Act

##### Instrument: Navigable Waters Approval.

##### Agency: Fisheries and Oceans Canada, Canadian Coast Guard.

##### Activity: To construct a project that will affect navigation.

#### Planning Act

##### Instrument: Development Permit.

##### Agency: Municipal Authority.

##### Activity: To change use of land or building.

#### Public Lands Act

##### Instrument: “D” Reservation.

##### Agency: Alberta Environment.

##### Activity: To reserve public lands for the development of the Project.

#### Water Act

##### Instrument: Approval.

##### Agency: Alberta Environment.

##### Activity: To construct the Project.

##### Instrument: License.

##### Agency: Alberta Environment.

##### Activity: To divert water for operation of the Project.

# PRODUCTS - NOT USED

# EXECUTION - NOT USED

**END OF SECTION**

# General

## Work Site Safety – This Contractor is “Prime Contractor”

### For the purposes of the Occupational Health and Safety Act (Alberta), and for the duration of the Work of this Contract:

#### be the “prime contractor” for the “work site”; and

#### do everything that is reasonably practicable to establish and maintain a system or process that complies with the Act and its regulations, and as required to provide for the health and safety of all persons at the “work site.”

### Direct all Subcontractors, Sub–subcontractors, Other Contractors, employers, workers, and any other persons at the “work site” on safety related matters, to the extent required to fulfil “prime contractor” responsibilities pursuant to the Act, regardless of:

#### whether or not any contractual relationship exists between the Contractor and any of these entities; and

#### whether or not such entities have been specifically identified in this Contract.

## Certificate of Recognition (COR)

### Maintain a valid COR, Temporary Letter of Certification (TLC) or Certificate of Recognition Equivalency Letter (COREL) for the duration of the Work of this Contract.

## Safety Requirements

### Establish and maintain a system or process to provide for the safety for all persons at the Site during the Contract Time, including:

#### the development and implementation of satisfactory safety plans for all aspects of work and the co‑ordination of all plans;

#### the establishment of a safety committee; and

#### conducting safety meetings and workplace orientation meetings.

### Communicate and co-operate on safety matters with the Minister and Occupational Health and Safety.

### Comply with federal, provincial, and municipal legislation, including the Workplace Hazardous Materials Information System.

### Rectify unsafe conditions, and be responsible for all related costs and delays.

### Advise the Minister as soon as possible of all accidents.

### Investigate any accident that causes injury, and complete accident forms and prepare accident reports.

### Provide and maintain a first aid room and equipment as required by the Occupational Health and Safety Regulations.

### Maintain first aid supplies, space, and trained personnel on Site as required by the Occupational Health and Safety Regulations.

### Have at least one qualified first aider on Site for each work shift.

### [ ]

## Submittals

### Provide the following submittals.

### The Certificate of Recognition (COR), TLC or COREL prior to commencing Work at the Site.

### The Contractor’s safety plan, including the Contractor’s safety policy, safety procedures, and a safety education program, at least 10 days prior to commencing Work at the Site.

### The name of the person responsible for supervision of the Contractor’s safety plan at the Site prior to commencing Work at the Site.

### The names of workers qualified as first aiders prior to commencing Work at the Site including monthly updates

### At the end of each month, a list of accidents including lost time injuries incurred for the month, and a cumulative summary of all accidents and total lost time including a comparison with the total work time since the start of the Contract.

### Completed accident forms and reports as soon as possible.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Quality Control

### Establish and maintain an effective quality control system including quality control procedures and testing to ensure compliance with the requirements of the Contract Documents.

### Conduct tests incorporated in the quality control system and as required in the Specifications.

### Engage qualified personnel, professional engineers, and independent CSA certified materials engineering and testing companies to carry out designs and to perform tests when required by the Specifications.

## Quality Assurance

### The Minister will perform quality assurance testing and inspection as the Minister deems appropriate.

### Co-operate with the Minister and provide assistance required by the Minister for testing, inspection, and sampling; provide access including off-Site locations; and provide equipment and labour to obtain samples.

### If the quality assurance testing identifies quality deficiencies, the extent of removal and replacement of potentially deficient materials will be at the discretion of the Minister and will include, at least, all related materials placed after the Minister’s previous quality assurance testing indicated acceptable quality.

### If the quality assurance testing identifies ongoing quality deficiencies, submit to the Minister in writing, proposed revisions to the quality control procedures and testing that will prevent quality deficiencies. Continue the work only when the proposed quality control revisions have been reviewed with no exceptions taken by the Minister and implemented by the Contractor.

# Products - NOT USED

# Execution - NOT USED

**END OF SECTION**

# General

## Contractor’s General Responsibilities for Existing Utilities

### The approximate existence, [location, and elevation] of service lines known to the Minister are indicated in the Contract Documents. Confirm the number, type, location and elevation of all existing service lines. Contact the appropriate Utility to locate all lines, conduits, and other such structures. Notify the Minister if any service lines have been omitted from or are incorrectly specified in the Contract Documents.

### Identify, stake, and flag all existing service line locations and elevations. Maintain staking and flagging.

### Notify the appropriate Utility prior to carrying out operations in the vicinity of the service lines. Comply with the requirements of, and co-operate fully with, each Utility for the location and protection of the service lines during the Work.

### Be responsible to the Utility for any claims resulting from damage to the service lines as a result of the Contractor’s construction operations.

### Promptly notify the Utility and the Minister in the event of any damage or interruption to any services caused by the Contractor’s construction operations. Co-operate with the Utility in the restoration of service as promptly as possible and bear all costs arising from the damage or interruption.

## Temporary Utilities

### Provide the specified temporary utilities and as otherwise required in order to execute the Work expeditiously. Remove the temporary utilities from the Site upon completion of the Work unless specified otherwise.

### Provide and leave the following temporary utilities for subsequent use by Other Contractors.

#### [                  ]

#### [                  ]

## Temporary Power and Light

### The Minister will provide temporary power for the Contractor’s use during construction to a maximum power supply of [ ] located at [             ].

### Provide power for the [Minister’s Site office] located at [              ].

### [The Minister will arrange] [Arrange] for connection with the appropriate Utility. [The Minister will pay] [Pay] all costs for installation, maintenance, power consumption, and removal.

### Provide and maintain sufficient temporary power for all construction equipment required to carry out the Work.

### Provide and maintain adequate lighting to safely perform the Work. Provide white light for night construction. Avoid light pollution off the Site.

### Where failure of the normal lighting system would endanger workers, provide an emergency lighting system capable of producing sufficient dependable illumination to enable the workers to:

#### leave the worksite;

#### initiate emergency shut-down procedures; or

#### restore normal lighting.

## Temporary Heating, Cooling, and Ventilation

### Provide temporary heating for [the           building] [the Minister’s Site office] [Contractor’s Site office] including maintenance and fuel consumption [during the period of construction up to the date of] [Substantial Performance] [Total Performance]. Design the heating system for a temperature differential of 60°C and to be capable of maintaining a minimum temperature of 16°C.

### Provide temporary air conditioning for [the          building] [the Minister’s Site office] [Contractor’s Site office] [during the period of construction up to the date of] [Substantial Performance of the Work] [Total Performance of the Work]. Design the cooling system for a temperature differential of 15°C.

### Provide temporary heating for construction as specified in the Contract Documents.

## Temporary Telephone/Facsimile/Internet

### [The Minister will provide [       ] telephone lines for the Contractor’s use during the period of the Contract. Pay all service and long distance charges on telephone lines designated for the Contractor’s use.]

### Provide the following temporary telephone/facsimile/Internet system for use by the Minister at the [Minister’s Site office]:

#### A telephone system including [2] telephones and [2] separate telephone lines.

#### One [dedicated] facsimile line.

#### One [dedicated] Internet line.

### Arrange for the installation and connection with the appropriate Utility, and pay all costs for installation, maintenance, use, and removal.

### The Minister will pay for all long distance charges for telephone, facsimile, and Internet lines that are designated for the Minister’s facilities.

## [Temporary Water Supply]

### [The Minister will provide] [Provide] a continuous supply of potable water for [construction use] [the Minister’s Site office] [first aid room].

### [The Minister will pay] [Pay] all costs for providing potable water.

## Temporary Sanitation Facilities

### [The Minister will provide] [Provide] separate sanitation facilities for male and female workers on the Site in accordance with the requirements of the local health authorities. [The Minister will provide the existing sanitation facilities as specified in the Contract Documents. Provide any additional facilities required to suit construction operations or to satisfy the requirements of the local health authorities.]

### [The Minister will provide] [Provide] [sanitation facilities] for [the Minister’s Site office] [Contractor’ Site office] [first aid room].

### [Provide temporary hook-up to existing] [sewer] [septic system] [facilities].]

### [The Minister will provide] [Provide] toiletry consumables and maintain sanitation facilities in a clean condition.

### [The Minister will arrange] [Arrange] for connection [with the appropriate Utility and pay all costs for installation, maintenance, and removal.

### [The Minister will pay] [Pay] for utility charges.

## Temporary [Natural Gas] [Propane] Supply

### [The Minister will provide] [Provide] a continuous supply of [natural gas] [propane] for [construction use] [the Minister’s Site office] [Contractor’s Site office].

### [The Minister will arrange] [Arrange] for connection [with the appropriate Utility] and pay all costs for installation, maintenance, and removal.

### [The Minister will pay] [Pay] for utility charges.

## [Temporary Radio Communications]

### [The Minister will provide] [Provide] temporary radio communications facilities consisting of: [            ].]

### Pay for licensing, installation, maintenance, and removal.

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## General

### Provide and maintain temporary buildings required to perform the Work.

### Locate temporary buildings within the [Site Limits] [specified area].

## Site Office

### Provide a Contractor’s Site office located at [ ]. [Within the office, provide a furnished room for holding Contract meetings.]

### Provide a [separate building(s) for the] Minister’s Site office [and Minister’s Site materials testing laboratory] located at [             ] in accordance with the following:

#### Provide a [ ] m by [ ] m Minister’s Site office consisting of [ ] rooms.

#### Furnish the Minister’s Site office with [ ]

#### Provide a [ ] m by [ ] m Minister’s Site laboratory consisting of [ ] rooms. Provide disposal bins at the Minister’s Site laboratory for collecting waste test materials. Empty the bins as required by the Minister.

#### Furnish the Minister’s Site laboratory with [ ].

#### Provide uniquely keyed locks for each building.

#### Arrange and pay for [daily] janitorial services for each building.

#### Provide temporary utilities as specified in Section 01510 – Existing and Temporary Utilities.

## Fire Protection

### Provide and maintain appropriate temporary fire protection equipment during the performance of the Work as required by Regulatory Requirements.

## [ ]

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Traffic Accommodation Strategy

### Provide a Traffic Accommodation Strategy detailing the measures proposed to safely accommodate the travelling public. The minimum requirements are specified in the Department manual: "Traffic Accommodation in Work Zones” (Latest Edition); Any Contract specific requirements, in excess of the minimum requirements, will be identified in this Section 01552.

### Provide a Traffic Accommodation Strategy consisting of drawings detailing the configuration of temporary construction signs and other traffic control devices at the Site and provide written confirmation of the methods or procedures being used by the Contractor to address specific traffic safety related issues or situations at the Site.

### When detours are required, ensure the Traffic Accommodation Strategy includes detailed drawings identifying the corresponding proposed traffic accommodation measures.

### Ensure any issues or concerns regarding the Contractor's proposed Traffic Accommodation Strategy are addressed to the mutual satisfaction of the Contractor and the Minister prior to the commencement of the Work.

### The Contractor shall have no claim against the Minister resulting from the Minister’s failure to accept the Contractor’s Traffic Accommodation Strategy submission.

### The Contractor is responsible for all costs to address concerns raised by the Minister during the review of the Contractor’s Traffic Accommodation Strategy submission.

## Requirements for Traffic Accommodation

### Unless otherwise specified, accommodate public traffic on a 24-hour per day basis using any means at the Contractor’s discretion, subject to the minimum requirements of the "Traffic Accommodation in Work Zones” (Latest Edition).

### Make suitable provisions, including the use of detours, to accommodate all vehicular and pedestrian traffic safely and with a minimum of inconvenience.

### Provide, install, maintain and protect traffic control devices such as signs, barriers, fences and lights at the Contractor’s expense and in accordance with Section 1.6 “Temporary Construction Signing”.

### Install, maintain and protect at the Contractor’s expense, any additional traffic control devices deemed necessary by the Minister.

### Provide the required number of flagpersons, during all periods of active equipment operations which may affect normal traffic operations.

### Control the Contractor’s operations to ensure normal school bus operations are not interfered with.

### Ensure uninterrupted access is provided to developments along the Site.

### Obtain prior approval from the Minister before changing or disrupting existing accesses and road crossings.

### Carry out construction operations in one continuous operation at road crossings, intersections and entrances for the Site.

### Provide and use such other methods or equipment necessary to accommodate public traffic safely.

### Promptly make any modifications to the traffic accommodation operations deemed necessary by the Minister. The Minister may suspend Work in accordance with Section 00725 – General Conditions, Clause 12.1, Suspension of Work, in cases where the Contractor fails to adequately provide for the safety of the public, for recurring safety issues or when the Contractor fails to comply with orders issued by the Minister regarding traffic accommodation operations.

### Remove or cover all traffic control devices when not essential for the safe accommodation of public traffic, in order to eliminate unnecessary inconvenience to the traffic.

### Coordinate traffic accommodation measures with those of other forces at or adjacent to the Work, as required, to accommodate public traffic safely and conveniently. This shall not relieve the Contractor of his responsibility for the safe accommodation of traffic over the whole of the Site.

## Public Highways and Roads

### Comply with all requirements of the road authority having jurisdiction over public roads used by the Contractor in the execution of the Work.

### Determine the condition and availability of public highways and roads, clearances, restrictions, bridge load limits, bond requirements, and other limitations that may affect ingress to and egress from the Site.

### Comply with applicable load regulations during hauling of materials and equipment over public highways, roads, or bridges. Minimize interference with local traffic.

### Before commencing the Work, conduct a detailed video survey, in the presence of the Minister, of the following facilities that are to be used. This survey establishes the restoration standard for such facilities.

#### Public highways, roads and bridges

#### Existing access roads including local roads and canal bank roads upstream and downstream of the Site.

## Temporary Roads

### Design and construct all temporary roads including access, haul and detour roads, temporary parking areas, access road to Minister’s site office, [ and crossings of an existing canal ], temporary bridges, and drainage structures required for construction operations.

### Provide detours required for the execution of the Work.

### Confine construction traffic to the limits of temporary roads and avoid disturbances to adjacent lands.

### Hauling of [excavated and fill] materials across the existing [on-Site bridges] [Bridge Nos. [ ] is not permitted.

### Contain hauled material in vehicles, and keep routes clear of mud, fallen rock, and debris resulting from construction operations.

### Control dust, remove snow, and maintain road surfaces daily or at frequent intervals depending upon weather or traffic and as required by the Minister.

### Reclaim all temporary roads when they are no longer required. Scarify, grade to original contours, cultivate, replace topsoil, and seed to grass.

## Typical Drawings

### Drawings detailing minimum requirements for temporary signing and other traffic control devices for typical rural highway situations are contained in Section II of the Department manual entitled "Traffic Accommodation in Work Zones” (Latest Edition).

### Develop any drawings necessary to address non-typical rural or urban highway situations and include in the Traffic Accommodation Strategy.

## Temporary Construction Signing

### Materials

#### Supply all signing materials including sign posts, weighted stands, brackets and any required mounting hardware and miscellaneous materials required for the erection of temporary construction signs.

#### Provide signs, barricades and other traffic control devices conforming to the requirements for shape, colour and size specified in the Department manual entitled "Traffic Accommodation in Work Zones” (Latest Edition). Ensure the orange portion of all signs, barricades and other traffic control devices are fully reflectorized using High Brightness, Retroreflective, Non-Metallized, Prismatic Sheeting Material which incorporates durable, transparent, flourescent pigment and meets the brightness requirements as specified in ASTM D4956 Type VIII sheeting. Unless otherwise approved by the Minister, ensure the orange coloured reflective sheeting supplied by the Contractor is one of the Proven Products for “Temporary Orange Work Zone/Construction Signs” listed on the Alberta Transportation Products List on the Department’s web site.

#### Ensure all other colours of sheeting material are Type III or Type IV high intensity retroreflective sheeting meeting or exceeding the minimum requirements as specified in ASTM-D4956.

#### Larger construction signs or oversized signs may be used where conditions require greater visibility in order to be effective. Use larger or oversized signs in special circumstances where more than average attention value is required from the sign.

### Equipment

#### Supply all equipment for Traffic Accommodation.

### Erection of Signs

#### Do not commence work on the Site until all necessary temporary construction signs and all other traffic control devices as proposed in the traffic accommodation strategy are in place.

#### When signs require frequent moves, portable type signs, mounted on weighted stands, may be used. Place portable signs on the shoulder of the road such that the face of the sign is fully visible to oncoming traffic and the bottom of the sign is not less than 300 mm above the road surface. Provide securely weighted stands and erect in a manner to ensure against being blown over by prevailing winds or gusts from passing vehicles.

#### Ensure non-portable signs are conspicuously posted, and erected at right angles to the road, with the bottom of the sign at a height of 1500 mm above the road surface, and not less than 2000 mm or more than 6000 mm from the nearest traffic lane.

#### Erect traffic signs and devices close to the construction work adjacent to the road, or the road work, in progress. Move them to remain close to the work with the progress of the construction.

#### Mark objects within or immediately adjacent to the road which constitute a hazard to traffic with alternating black and orange stripes attached directly to the object or erected immediately in front of it.

#### Ensure the use of signs is held to a minimum to prevent confusion.

#### Install "STOP" signs on all subsidiary roads (local, district, municipal, service or approach) intersecting a primary highway detour route.

#### Post speed zones, where required, as indicated on the applicable drawing contained in the "Traffic Accommodation in Work Zones” (Latest Edition).

### Maintenance and Removal of Signs

#### Replace, repair or clean without delay any poorly maintained, defaced, damaged or dirty construction signs. Take special care to ensure that construction materials and dust are not allowed to obscure the face of a sign.

#### Cover or remove signs not in effect and remove all construction signs after the Work is completed.

### Modifications to Temporary Construction Signing

#### The Contractor is responsible for the supply and proper placement of temporary construction signs. However, in the case of potential danger to the traveling public or other circumstances where the Minister determines that signing is inadequate, the Minister will require changes to the Contractor's operations to remedy the situation. These changes may involve the use of different types and/or sizes of signs, modifying the number or locations of signs, and any other modifications or additions required to protect the safety of the travelling public.

## Removal and Salvage of Existing Signs and Guideposts

### Salvage any existing signs and guideposts which must be removed during the execution of the Work. Maintain critical signs necessary for the protection of traffic such as railroad crossing signs or stop signs.

## Flagpersons

### General

#### Provide flagpersons when construction operations or Site conditions cause interruption, delay or hazard to the traveling public or anyone on the Site. Provide and equip responsible flagpersons as necessary for the direction and control of traffic. Ensure that flagpersons are instructed in and use proper traffic control procedures appropriate for the prevailing conditions.

#### Ensure flagpersons are certified from a recognized training program on traffic control procedures. The Minister will recognize traffic control programs administered by the Alberta Construction Safety Association, however the Minister reserves the right to accept or reject certification from any other institute.

### Safety Apparel

#### Coveralls

##### Ensure flagpersons are dressed in coveralls which meet the Class 3 Level 2 requirements of CSA Z96-02, High Visibility Safety Apparel. Each pair of coveralls shall have a permanent label affixed certifying compliance with Class 3 Level 2 of CSA Z96-02.

##### The colour of the coveralls shall be fluorescent yellow-green with silver retroreflective striping. The retroreflective striping shall be a minimum of 50mm wide, and shall be sewn onto a 100 mm wide fluorescent red-orange background material. Ensure flagperson safety apparel are kept clean and in good condition at all times. Replace faded, torn and/or dirty coveralls, or coveralls without CSA certification labels.

#### Headgear

##### Prior to commencement of the Work, identify and assess existing and potential hazards at the Site. Where there is a foreseeable risk of injury to a worker’s head, flagperson’s shall wear fluorescent orange protective hardhats meeting the requirements of CSA Standard Z94.1‑92.

##### Where no foreseeable risk of head injury exists, flagpersons will be permitted to wear any type of fluorescent orange headgear.

### Night Time Operations

#### During hours of darkness, equip flagpersons with hand held red traffic signal wands of sufficient brightness to be clearly visible to approaching traffic. In addition, illuminate flagging stations by overhead lighting; and mark signs indicating hazardous conditions and signs requiring increased attention with flashers

## Detours

### Design, construct, maintain and remove all detours required for the Work. Where necessary, provide any Environmental Authorizations, temporary relocation of any utilities and reclamation of the disturbed areas to a similar condition as existed prior to the disturbance. Do not construct Detours without the prior authorization of the Minister.

### Design, construction, maintenance, graveling, dust abatement, detour removal, reclamation and utility relocation will be considered incidental to the Work.

## Road Maintenance

### Obtain any necessary approvals from the agency having jurisdiction to haul materials or equipment over the proposed haul routes. Abide by all road restrictions and maintenance requirements established by the road or bridge authority having jurisdiction, including all roads and portions of the highway within the Site.

### When Contract generated Traffic disturbs public highways, roads and bridges, maintain and repair the roads and bridges at the Contractor’s expense. In addition to the requirements of the road agency having jurisdiction, keep the disturbed areas of travelled lanes well graded and free of potholes, maintain surfacing gravel and replace when required, and control dust using water or other dust abatement material approved by the Minister. Following completion of the Work, restore the road to a condition as good as existed prior to the commencement of work.

### Carry out winter snow removal and ice control for traffic accommodation for public highways, roads and bridges within the Site.

### If the Contractor fails to promptly maintain the public highways, roads, and bridges the Minister may make other arrangements to have the Work done and deduct the cost thereof from any money owing to the Contractor.

## Prolonged Shut Down

### Prior to any prolonged shut-down of construction, ensure that any disturbed road surface is restored to a condition suitable for traffic operations and acceptable to the Minister. Carry out winter snow removal and ice control for traffic accommodation for public highways, roads and bridges within the Site during the period of prolonged shut-down.

### Prior to commencing any prolonged shut-down of the Work, host a meeting between the Contractor and the Minister for the purpose of developing a “Shutdown Plan” based on the specific needs and requirements of the Site. The “Shutdown Plan” shall outline the Contractor’s methods and procedures for monitoring and maintaining the Site during the shutdown period, and will outline any responsibilities of the other parties.

### Notwithstanding the above, no component of the shut-down plan will negate the Contractor’s responsibilities for the Contract.

## Monitoring Traffic Accommodation at the Site

### To ensure the traffic accommodation strategy is performing as intended; monitor and maintain traffic accommodation measures at the Site on a regular basis. Designate a specific individual or individuals to perform this function to ensure any issues arising are addressed in a consistent and timely manner.

### The worker(s) carrying out the traffic accommodation monitoring shall be qualified, trained and experienced in traffic control and must be knowledgeable in the operation of the traffic control devices and other related equipment. Provide these workers with vehicles equipped with revolving warning lights and suitable communication devices to contact others for assistance if and when required.

### Monitor all traffic control devices, temporary signing and road conditions during periods of inactivity. Ensure the frequency of inspection is commensurate with the traffic volumes on the highway or road. For all detours, consecutive inspections will not be more than 6 hours apart, unless otherwise agreed by the Minister. Document all site inspections by the Contractor and make this information available for the Minister's review upon request.

### The traffic accommodation measures will be monitored by the Minister. If, in the opinion of the Minister, traffic is being unduly hindered, the Contractor may be required to modify his traffic accommodation measures.

## Compliance

### In cases where the Contractor is not in compliance with the specifications and, in the opinion of the Minister there is imminent danger to the travelling public, the Minister has the authority to order the immediate suspension of Work. Such orders must be made in writing.

### In other cases where the Contractor is not in compliance with the specifications but, in the opinion of the Minister the infraction is not causing imminent danger to the travelling public, the Minister will use the following escalating process to address the situation:

#### Issue verbal instructions requiring the Contractor to correct the infraction

#### Issue a written warning instructing the Contractor to correct the infraction

#### Issue a written order instructing the Contractor to suspend Work until the infraction is corrected to the satisfaction of the Minister.

## Submittals

### Provide the following submittals.

### Submit the Traffic Accommodation Strategy to the Minister 14 days prior to the pre-construction meeting for the Contract or to a schedule as agreed upon by the Minister. The Minister will review the Traffic Accommodation Strategy and communicate any concerns to the Contractor within 7 days of the pre-construction meeting.

### Plans showing the location of temporary access and haul roads and detours, drainage structures, and bridges required for execution of the Work, at least 10 days prior to commencement of the Work at the Site.

### Video Survey at least 14 days prior to commencement of the Work at the Site.

### Daily Records of Temporary Construction Signing

#### Record the location of all temporary construction signs and any other traffic control devices used at the Site on a daily basis and as the Work Area changes. Record this information on a form suitable to the Minister and submit it to the Minister on a weekly basis or when requested.

### Plan showing the location of the proposed haul roads 14 days prior to the pre-construction meeting. The Minister will review the haul routes and communicate any concerns to the Contractor within 7 days of the pre-construction meeting.

### If required for a pro-longed shutdown period, submit a Shutdown Plan at least 14 days prior to the scheduled shutdown.

### Names of those workers who will be responsible for monitoring and maintaining the traffic control devices at the pre-construction meeting.

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## Detail Drawings

### The following detail drawing is appended hereto and forms a part of this section:

**Number** **Title**

01580.01 Contract Identification Sign

01580.02 Contract Identification Sign, Bracing

## Regulatory Requirements

### Comply with applicable Regulatory Requirements relating to signs.

## References

### Provide contract identification signs in accordance with the following standards (latest revision) except where specified otherwise.

### Canadian Standards Association (CSA)

#### 1 CSA-O80 Series Wood Preservation.

#### 2 CSA-O121 Douglas Fir Plywood.

## Submittals

### Provide the following submittals.

### The layout, including all text and graphics of the contract identification signs at least 10 days prior to commencing fabrication.

# Products

## Materials

### Provide [2] contract identification signs in accordance with the following.

### Fabrication and lettering: In accordance with the detail drawing and including the following:

#### Alberta logo and associated wording.

#### [MLA’s name] [Ministers’ names] [Premier’s name]

#### Project Name: [

#### Names of the prime consultant and major subconsultants: [as specified].

#### Names of the Contractor and major Subcontractors.

#### [ ] logo: [as specified.]

### Framing and foundation:  89 mm x 140 mm select structural White Spruce or Douglas Fir dressed 4 sides.

### Wood preservative:  In accordance with CSA-O80 Series using a water‑borne formulation. Apply wood preservative to framing members below or in contact with ground in accordance with the preservative manufacturer’s instructions. Treat field cuts in accordance with CSA-O80 Series.

### Signboard:  19 mm Douglas Fir Plywood in accordance with CSA-O121, medium density overlay one side.

### Fasteners:  Aluminum or hot-dip galvanized steel nails; hot-dip galvanized or cadmium-plated screws.

### Paint:  Three-coat alkyd type without silicone additives. First coat - alkyd primer, 2nd and 3rd coats - alkyd gloss.

### Type Style:  Universal 55, upper and lower case, sizes as indicated on the detail drawing.

### Colours:

#### Framing members and sign borders: Black

#### Signboard background: Glidden Blue #77‑03.

#### Lettering: White.

### Weathertight seal on signboard edges:  Wood filler and paint or aluminum edge moulding cover.

# Execution

## Installation and Maintenance

### Set the signs plumb and level, at locations authorized by the Minister.

### Do not install any signs, other than those specified, without the Minister’s prior authorization.

### Maintain signs for the duration of the Contract.

### Remove signs from the Site prior to the request for inspection for Total Performance of the Work or when otherwise directed by the Minister.

**END OF SECTION**

# General

## References

### References are made to standards as listed in the Specifications.

#### Conform to these standards, in whole or in part, as required in the Specifications.

#### Conform to the latest date of issue of the standards in effect on the date of the submission of bids, except where another date or issue is specified.

## Submittals

### Provide the following submittals.

### When requested by the Minister, a complete description of the procedures for installing the product.

### When requested by the Minister, appropriate design calculations for the products to be installed.

### Products List, complete with the product name, model number, manufacturer’s name, and applicable Specification section for each item listed, within 15 days of the date of commencement of the Contract. A form of Products List is appended to this section.

## Delivery, Storage, and Handling

### Inspect each shipment of products and timely replace any missing or damaged items.

### Handle and store products in a manner to prevent damage, alteration, deterioration, and soiling, and in accordance with the manufacturer’s written instructions when applicable.

### Store packaged or bundled products in original and undamaged condition with the manufacturer’s seal and label intact. Do not remove products from packaging or bundling until required in the Work.

### Store products subject to damage from weather in weatherproof enclosures.

# Products

## Product Quality

### Provide products that conform to the Contract Documents, are new, not damaged or defective, and of the best quality (compatible with the Specifications) for the purpose intended. If requested by the Minister, furnish evidence as to the type, source, and quality of products provided.

### Defective products, whenever identified prior to the completion of the Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility from the Contractor, but provides a precaution against oversight or error.

### Unless otherwise indicated in the Contract Documents, maintain uniformity of manufacture for any particular or like items.

### Do not place permanent labels, trademarks, or nameplates on products in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

# Execution

## Product Control

### Maintain an inventory of all products delivered to the Site and placed in temporary storage.

### Record the use of products during the course of construction.

### When requested by the Minister, provide inventory records for verification of quantities.

## Installations Standards

### Unless otherwise specified in the Contract Documents, install products in accordance with the manufacturer’s instructions. Do not rely on labels or enclosures provided with the products. Obtain written instructions directly from the manufacturers.

### Notify the Minister, in writing, of conflicts between the Contract Documents and the manufacturer’s instruction, so that the Minister may establish a course of action.

## Remedial Work

### Repair or replace the parts or portions of the Work identified by the Minister as defective or unacceptable.

### Retain specialists familiar with the products affected to perform remedial work in a manner that neither damages nor endangers any portion of the Work.

**END OF SECTION**

|  |  |  |  |
| --- | --- | --- | --- |
| **Specification Section Number** | **Product** | **Product Name/Model No.** | **Manufacturer’s Name** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**END OF PRODUCTS LIST**

# General

## Definitions

### “Proprietary Specification” means a specification that lists one or more proprietary names of products or manufacturers and may also include descriptive language, references to standards, or lists performance requirements, or any combination thereof.

### “Non–proprietary Specification” means a specification that uses descriptive language, references to standards, or lists performance requirements, or any combination thereof, but does not include proprietary names of products or manufacturers.

### “Substitute Product” means a product not specified by proprietary name that may be acceptable in place of a product which is specified by proprietary name.

### “Substitute Manufacturer” means a manufacturer not specified by proprietary name that may be acceptable in place of manufacturer which is specified by proprietary name.

### “Substitution” means a Substitute Product or Substitute Manufacturer.

## Product Options

### For products specified by Non–proprietary Specification:

#### select any product by any manufacturer that meets the requirements of the Contract Documents.

### For products specified by Proprietary Specification:

#### select any product or manufacturer named; or

#### select a substitute product or manufacturer in accordance with clause 1.3.

### For products specified by Proprietary Specification and accompanied by words indicating that substitutions will not be accepted:

#### select any product or manufacturer named; Substitutions will not be permitted.

## Substitutions

### Where Substitute Products are permitted, unnamed products will be authorized by the Minister, subject to the following:

#### Substitute Products shall be the same types as, be capable of performing the same functions as, and meet or exceed the standards of quality and performance of the named product(s). Substitute Products shall not require revisions to the Contract Documents nor to work of Other Contractors.

### Where Substitute Manufacturers are permitted, unnamed manufacturers will be authorized by the Minister, subject to the following:

#### Substitute Manufacturers shall have capabilities comparable to those of the named manufacturer(s). Substitute Manufacturers shall not require revisions to the Contract Documents nor to work of Other Contractors.

### Do not order or install Substitutions without the Minister’s authorization.

### If, in the Minister’s opinion, a Substitution does not meet the requirements of the Contract Documents, provide a product that, in the Minister’s opinion, does meet the requirements of the Contract Documents.

## Changes to Authorized Products and Manufacturers

### Do not change products or manufacturers, authorized by the Minister for use in performance of the Work, without the Minister’s written authorization.

### Submit requests to change authorized products and manufacturers to the Minister in writing, including the product data indicated in clause 1.5.

## Product Data

### When requested by the Minister, submit complete data substantiating compliance of a product with the requirements of the Contract Documents. Include the following:

#### Product identification, including the manufacturer’s name and address.

#### Manufacturer’s literature providing product description, applicable reference standards, and performance and test data.

#### Samples, as applicable.

#### Name and address of projects where the product has been used and the date of each installation.

#### For Substitutions and requests for changes to authorized products, include, in addition to the above, the following:

##### Itemized comparison of the substitution with the named product(s). List significant variations.

##### Availability of maintenance services and sources of replacement products and parts.

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## Survey Reference Points

### Primary horizontal and vertical survey reference points have been established by the Minister as specified in the Contract Documents. The Minister is responsible for the accuracy of the primary survey reference points.

### Locate, confirm, and protect primary reference points prior to starting Work on the Site. Preserve permanent reference points during construction.

### Make no changes to or relocations of the primary survey reference points without prior written authorization of the Minister.

### Report to the Minister when a reference point is lost or damaged, or requires relocation because of the Work.

### Replace damaged reference points in accordance with the original survey control.

## Contractor Survey Work

### Employ qualified construction surveyors to perform survey work.

### Record survey data in accordance with standard survey methods in a form acceptable to the Minister.

### Establish secondary survey reference points required for laying out and staking the Work and for checking tolerances. Be solely responsible for the accuracy of the secondary survey reference points and the layout, staking, and checking of the Work.

### Establish lines, grades, and elevations, and locate and lay out the Work.

### Provide final grade staking of each line, grade or elevation required for the Minister’s checking of the work and for measurement for payment purposes, as defined in Section 01280 – Measurement Schedule, for checking by the Minister. Maintain final grade stakes in place until the Minister has authorized their removal.

### Provide such assistance as may be required by the Minister for carrying out surveys in clause 1.3.

### Establish and maintain survey reference points in all work areas, including elevations and locations relative to established stationing and offset systems or otherwise required by the Minister. Provide reference points within [50 m] horizontal distance and [2 m] vertical distance of all locations where testing, observations of conditions, or other similar activities are undertaken by the Minister, such that the Minister can establish the location and elevations at those locations.

## Minister Survey Requirements

### The Minister may carry out surveys, as the Minister deems necessary, to check the accuracy of the Contractor’s layout and stakes.

### The Minister will carry out surveys for the purpose of measuring the Work for payment.

## Submittals

### Provide the following submittals.

### The name and address of the Contractor’s surveyor to the Minister prior to commencing the Work at the Site.

### When requested, submit a copy of reduced notes for surveys or portions of surveys to the Minister.

### A certificate signed by the Contractor’s surveyor confirming that the lines, grades, elevations, and dimensions of the completed Work are in conformance or not in conformance with the Contract Documents. Provide details of all non-conformances.

### Electronic survey data files in a format acceptable to the Minister.

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## General

### Perform final cleaning operations prior to the request for inspection for [Substantial Performance] [ ].

### Remove surplus products, tools, construction machinery, and equipment not required for the performance of the remaining Work prior to the request for inspection for [Substantial Performance] [ ].

### Remove waste products and debris resulting from the Work of the Contractor, and leave the Work clean and suitable for use by the Minister.

### Repair, patch, and touch-up marred surfaces to match adjacent finishes.

### Leave all surfaces in a neat, levelled condition.

### Excavate and dispose of contaminated soils from equipment service and maintenance areas.

### Excavate and dispose of excess soils including impervious, random, granular, and riprap materials.

### Clean up and dispose of all foreign matter including wire, posts, logs, branches, roots, rocks, and construction debris.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Summary of Process

### A Contract acceptance process will be used to facilitate the Minister’s acceptance of the Work. The process can be summarized as follows:

#### Substantial Performance of the Work:

##### Fulfilment of prerequisites to Substantial Performance.

##### Inspection for Substantial Performance.

##### Issuance of a Certificate of Substantial Performance of the Work.

#### Total Performance of the Work:

##### Fulfilment of prerequisites to Total Performance.

##### Inspection for Total Performance.

##### Issuance of a Certificate of Total Performance of the Work.

#### Warranty Performance of the Work:

##### Fulfilment of prerequisites to Warranty Performance.

##### Inspection for Warranty Performance.

##### Issuance of Certificate of Warranty Performance of the Work.

## Substantial Performance of Part of the Permanent Work

### When utilization of part of the Permanent Work is required and Substantial Performance of part of the Permanent Work is a condition of such utilization, the applicable requirements specified in this section will apply to the part of the Permanent Work to be utilized.

## Prerequisites to Substantial Performance

### Prior to requesting the Minister’s inspection for Substantial Performance carry out the following:

#### Perform [Commissioning] [Initial Commissioning].

#### Obtain and submit evidence of compliance with Regulatory Requirements, including:

##### [                      ]

##### [ ]

#### Remove from the Site temporary facilities along with construction tools, equipment, mock-ups, and similar items.

#### Complete final clean-up.

#### Submit Contract Record Documents.

#### Submit Operation and Maintenance Data.

#### Submit product warranties and extended warranties when specified in the Contract Documents.

#### Provide spare parts and maintenance products.

#### Make final change-over of locks and transmit keys to the Minister.

#### Complete installation of architectural finish items, including all mechanical and electrical covers and trims.

#### Correct all Contract Deficiencies that may affect operation of the facility.

#### Complete the Work and have it ready for the purpose intended [except for the parts of the Permanent Work specified in clause [1.3] [1.4] of Section 01110 – Summary of Work].

#### Review the Contract Documents and inspect the Work to confirm that prerequisites to Substantial Performance have been fulfilled and that the Work is ready for inspection for Substantial Performance.

## Inspection for Substantial Performance

### Submit a written request to the Minister for inspection for Substantial Performance, certifying that prerequisites have been fulfilled and specifying known exceptions in the form of a list of items to be completed, corrected, or submitted.

### The Minister will, within a reasonable time after receipt of the Contractor’s request:

#### proceed with the inspection; or

#### advise the Contractor that prerequisites are not adequately fulfilled.

### Results of the Minister’s inspection for Substantial Performance will form the Substantial Performance Contract Deficiency List (SPC Deficiency List).

## Substantial Performance of the Work

### Following the inspection, the Minister will:

#### issue a Certificate of Substantial Performance of the Work stating the effective date of Substantial Performance, with a copy of the SPC Deficiency List attached (A form of a Certificate of Substantial Performance is appended to this section); or

#### advise the Contractor that prerequisites to Substantial Performance are not fulfilled and repeat the inspection for Substantial Performance as necessary.

### Upon issuance of a Certificate of Substantial Performance of the Work, the Minister will assume responsibility for care, custody, and control of the Work, including responsibility for the following:

#### [Canal and structure] [Facility] operation, including all systems and equipment.

#### Maintenance.

#### Security.

#### Property insurance.

#### Utility costs.

#### [               ].

## Prerequisites to Total Performance

### Prior to requesting the Minister’s inspection for Total Performance carry out the following:

#### Perform the entire Work, including the correction of all Contract Deficiencies, except those items arising from the warranty provisions of the Contract Documents.

#### Review the Contract Documents and inspect the Work to confirm that prerequisites to Total Performance have been met and that the Work is ready for inspection for Total Performance.

## Inspection for Total Performance

### Submit a written request to the Minister for inspection for Total Performance, including a copy of the Minister’s most recent SPC Deficiency List, and certify that each Contract Deficiency has been corrected or otherwise resolved in a manner agreed to between the Minister and the Contractor. List known exceptions, if any, in the request.

### The Minister will, within a reasonable time after receipt of the Contractor’s request:

#### proceed with the inspection; or

#### advise the Contractor that prerequisites are not adequately fulfilled.

## Total Performance of the Work

### Following the inspection, the Minister will:

#### issue a Certificate of Total Performance of the Work, stating the effective date of Total Performance (A form of a Certificate of Total Performance is appended to this section); or

#### advise the Contractor of Contract Deficiencies that must be corrected prior to issuance of a Certificate of Total Performance of the Work.

## Prerequisites to Warranty Performance

### The prerequisites to Warranty Performance are:

#### Total Performance of the Work;

#### expiry of the warranty period; and

#### correction of items arising from the warranty period required by the Contract Documents.

## Inspection for Warranty Performance

### Just prior to the end of the warranty period, the Minister will conduct an inspection for Warranty Performance.

## Warranty Performance of the Work

### Following the inspection, the Minister will:

#### issue a Certificate of Warranty Performance of the Work (A form of a Certificate of Warranty is appended to this section); or

#### advise the Contractor of items that must be corrected prior to issuance of the Certificate of Warranty Performance of the Work.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Designation of Contract Record Documents

### At the commencement of the Work, the Minister will provide the following documents to be designated and retained as Contract Record Documents:

#### One copy of the Specifications.

#### Two complete sets of the Drawings.

#### One set of all addenda issued.

### Maintain one record copy of the following:

#### Change Orders and other modifications to the Contract.

#### Reviewed Shop Drawings, Product Data, and Samples.

#### Field–test records.

#### Inspection certificates.

#### Manufacturers’ certificates.

#### Final survey data.

## Maintenance of Contract Record Documents

### Store Contract Record Documents in the Contractor’s Site office apart from documents used for construction. Provide files, racks, and secure storage.

### Label each document “CONTRACT RECORD” in large, neatly printed letters.

### Maintain Contract Record Documents in a clean, dry, and legible condition. Do not use these documents for construction purposes.

### Keep Contract Record Documents available for inspection by the Minister. Revise the content of the documents as required prior to final submittal.

### Maintain Contract Record Documents as work progresses. Record information for each area of work within 14 days after completion.

## Recording Information on Contract Record Documents

### Record information on the Contract Record Documents provided by the Minister.

### Use coloured erasable pencils to record information.

### Use a different colour to record information pertaining to each major system.

### Record changes and variations from the Drawings concurrently with construction progress. Do not cover any work until the required information is recorded.

### Legibly mark Contract Record Drawings to record actual construction, including the following:

#### Measured dimensions, depths, elevations, and horizontal co-ordinates of foundation excavations and fill surfaces, including the interfaces of fill zones.

#### Measured dimensions, elevations, and horizontal co-ordinates of structure components and foundations.

#### Measured depths, elevations, and horizontal co-ordinates of underground utilities and appurtenances. Reference locations to permanent surface improvements.

#### Measured depths, elevations, and horizontal co-ordinates of internal utilities and appurtenances covered in construction. Reference to visible and accessible features of construction.

#### Measured depths, elevations, and horizontal co-ordinates of instrumentation installed in foundations and structures.

#### Field changes of dimensions and details.

#### Changes to equipment layout and services.

#### Details not on the original Drawings.

#### References to related Shop Drawings and modifications.

### Legibly mark the Specifications to record actual construction including the following:

#### Manufacturer trade name and catalogue number of each product actually installed, particularly optional and substitute items.

#### Changes made by addenda and Change Orders.

### Maintain other documents including manufacturer’s certifications, inspection certifications, field test records required by individual Specification sections.

## Submittals

### Provide the following submittals.

### Contract Record Drawings at least monthly throughout the course of the Work as the information becomes available or the information is received. The Minister’s representative will check the Contract Record Drawings and confirm the accuracy of the information by field notes, surveys, photographs, or other field observation methods and return the Contract Record Drawings to the Contractor after review for ongoing revisions.

### Completed Contract Record Documents before or with the request for inspection for Substantial Performance.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Description of Types of Operation and Maintenance Data

### The following documents are designated as Operation and Maintenance Data.

### For systems designed by the Contractor, Contractor Designed System Data includes the following:

#### System Design and Performance Criteria.

#### System and Controls Descriptions.

#### System and Controls Schematics.

#### Operating Instructions.

#### Equipment Data.

#### Other data as required by the Minister.

### Installation Instructions includes the manufacturer’s printed instructions describing the recommended installation procedures, and photographs, video footage, and computer software.

### Operating Instructions includes the manufacturer’s printed instructions describing proper operation, and photographs, video footage, and computer software.

### Equipment Identification includes the nameplate information for each piece of equipment, in a form, and with content acceptable to the Minister.

### Maintenance Instructions includes the manufacturer’s printed instructions describing the manufacturer’s recommended maintenance and photographs, video footage, and computer software.

### Spare Parts Lists includes parts lists and the manufacturer’s recommended maintenance products and spare parts.

### Suppliers and Contractors List includes a list of Contractor, Subcontractors, and Suppliers who supplied and installed equipment, systems, materials, or finishes, organized by the Division of Specifications and system, and company names, addresses, and telephone numbers.

### Tag Directory includes a directory identifying tag number and equipment description and location.

### Drawings List includes a list of Drawings.

### Shop Drawings includes the final reviewed Shop Drawings.

### Product Data includes the manufacturer’s product data for equipment, systems, materials, and finishes, and photographs, video footage, and computer software.

### Material Safety Data Sheets (MSDS) includes the MSDS for all relevant products.

### Certifications includes the following:

#### Copies of inspection reports prepared by authorities having jurisdiction.

#### Certified copies of test reports prepared by independent testing agencies.

#### Any other certificates required by the Contract Documents.

### Warranties and Bonds include the Minister’s copy of manufacturer’s warranties, maintenance bonds, and service contracts.

### Reports includes the following:

#### Documentation certifying the performance of tests required by the Contract Documents and the results of those tests.

#### Documentation of other material, equipment, or system related information required by the Contract Documents.

## [Operation and Maintenance Manual by the Contractor]

### Prepare the operation and maintenance manual as follows:

### General organization of each volume:

#### Title page including Project name, Contract name, and Tender number.

#### Table of contents. Identify the volume number where the listed information is located.

#### Sheets: 75g/m2, white bond paper. In general, use 216 mm by 279 mm standard sheet size. Limit sheet size to a maximum of 279 mm by 415 mm, wherever possible.

#### Divider tabs:

##### Heavy-weight coloured paper, mylar laminated with tab number and title printed on tab as follows.

##### Main divisions: white tabs, labelled with division name, 2 bank tab length.

##### Sections of a main division: colour coded tabs, labelled with section name, 4 bank tab length.

##### Subsections: same colour tabs as the section, printed label, 8 bank tab length.

##### Co-ordinate tab colour codes and labelling format with the Minister.

#### Binders:

##### Commercial quality, fabric coated, hard covers attached to spine with metal piano hinges, three posts, designed to accommodate 216 mm by 279 mm standard sheets. Maximum 100 mm thick binders.

##### Punch and, if required, fold sheets to allow use without having to remove the sheets from the binder.

##### For drawings that are larger than 279 mm by 415 mm, insert drawings in heavy duty vinyl envelopes with reinforced binding holes, open on 1 side. Fold drawing to a maximum size of 216 mm by 279 mm. Do not punch holes in the drawings.

### Contents organization:

#### Organize Operation and Maintenance Data for each system, controls, equipment, materials and finishes into the following main divisions

##### Operation Division that includes the following sections and data, as applicable.

- System Design and Performance Criteria.

- System and Controls Descriptions.

- System and Controls Schematics.

- Operating Instructions.

- Equipment Identification.

- Samples.

##### Maintenance Division that includes the following sections and data, as applicable.

- Maintenance Instructions and Schedules.

- Spare Parts List.

- Suppliers and Contractors List.

- Tag Directory.

- MSDS.

##### Contract Document Division that includes the following sections and data, as applicable.

- Drawings List.

- Shop Drawings.

- Product Data.

- Certifications.

- Warranties and Bonds.

- Maintenance Brochures.

- Reports.

## Submittals

### Provide the following submittals.

### 4 copies of the following Operation and Maintenance Data prior to requesting the inspection for Substantial Performance:

#### Contractor Designed System Data.

#### Installation Instructions.

#### Operating Instructions.

#### Equipment Identification.

#### Maintenance Instructions including schedules.

#### Spare Parts Lists.

#### Suppliers and Contractors Lists.

#### Tag Directory.

#### Drawings List.

#### Shop Drawings.

#### Product Data.

#### MSDS.

#### Certifications.

#### Warranties and Bonds.

#### Reports.

### 1 draft copy of the operation and maintenance manual prior to requesting inspection for Substantial Performance.

### 3 copies and 1 digital copy of the completed operation and maintenance manual prior to requesting inspection for Total Performance.

# Products – not used

# Execution – not used

**END OF SECTION**

# General

## Source of Supply

### Provide spare parts manufactured by the original equipment manufacturer.

### Provide maintenance products identical to those installed.

### Provide special tools as required by the equipment manufacturer.

### Provide Material Safety Data Sheets (MSDS) for all relevant products.

## Delivery, Storage, and Handling

### Deliver the required items to the [Site] [location as directed] and store in [temporary locations determined by the Contractor] [long-term storage locations designated by the Minister].

### Deliver and store items in original factory packaging with the manufacturer’s seal and labels, complete with tags identifying their function and associated equipment.

### Identify, on the carton or package, the name of the item, colour, or part number, as applicable. Identify the equipment, the system, and the location and area for which each item is intended.

### Maintain an inventory list of all items delivered. For each item, record the name of the item, quantity, location where stored, and include all relevant MSDS.

### Be responsible for stored items until Substantial Performance of the Work is attained.

#### Protect stored items against theft or damage.

#### Store products that would be damaged by freezing, in heated and ventilated rooms.

#### Store items subject to damage from the weather in weatherproof enclosures.

#### Provide the manufacturer’s instructions for long-term storage and shelf life.

### Handle items as necessary, until stored in the long-term storage locations designated by the Minister.

## Inspection

### Prior to requesting the Minister’s inspection for Substantial Performance:

#### Verify that the inventory list includes all items required by the Contract Documents.

#### Verify that items on the inventory list are in their designated storage locations.

#### Inspect all the items to verify that specified requirements are met and that they are in serviceable condition.

#### Arrange for delivery of all missing items.

#### Arrange for replacement of items not meeting the specified requirements or not in appropriate condition.

#### Provide the Minister with a copy of the inventory list indicating the status of all required items. Include relevant MSDS.

### Review the inventory list with the Minister during the Minister’s inspection for Substantial Performance.

### For items not delivered prior to attaining Substantial Performance of the Work, submit a duplicate copy of the delivery slip and obtain the Minister’s signature upon delivery. The Minister will only accept responsibility for care, custody, and control of items properly received, stored in the designated long-term storage locations, and signed for.

# Products – NOT USED

# Execution – NOT USED

**END OF SECTION**

# General

## Definitions

### “Commissioning” means a series of activities including start-up and testing of equipment and systems, and instructing the Minister on operation and maintenance that bring the [Work] [facility] [systems and equipment] to a fully operational state. [Completion of Commissioning is a prerequisite to Substantial Performance of the Work.]

### “Initial Commissioning” means the partial commissioning of the [facility] [systems and equipment] under the specified conditions except as indicated in Final Commissioning. Completion of Initial Commissioning is a prerequisite to Substantial Performance of the Work.

### “Final Commissioning” means the completion of the commissioning of the [facility] [systems and equipment] under the specified conditions once available, and providing a completed installation that meets the operational requirements specified in the Contract Documents. Completion of Final Commissioning is a prerequisite to Total Performance of the Work.

## General Commissioning Requirements

### Perform the following services during Commissioning:

#### Develop a Commissioning plan outlining the activities to be conducted and the schedule for their completion.

#### Provide a qualified supervisor to oversee all work.

#### Comply with standards set out by the certifying association under whose standard services will be provided.

#### Provide access to all equipment and services. Co-operate with the [Minister] [Commissioning Agency] [Trainees].

#### Provide all instrumentation, equipment, and materials required for Commissioning.

#### Undertake all pre-start inspections, preparations, checks, and tests.

#### Advise the Minister in writing, at least [5] days prior to performing the specified operational testing. Perform testing in the presence of the Minister [, and where required, in the presence of the manufacturer’s representative].

#### Conduct operational tests, record results, and note all deficiencies.

#### Diagnose deficiencies, determine causes, and take corrective actions. Document each deficiency, cause, and corrective action taken.

#### Repeat Commissioning activities as required to verify that deficiencies have been corrected.

#### Demonstrate the operation of the [facility] [systems and equipment] to the Minister’s personnel.

#### Provide training for the Minister’s personnel.

#### Complete Commissioning records.

## Commissioning Records

### Provide Commissioning reports including [facility] [systems and equipment] checklists for all commissioning activities.

### Provide equipment checklists to facilitate installation and servicing of equipment. Prepare equipment checklists in a form acceptable to the Minister, and include the following:

#### Name of the company and the personnel performing the inspection, including the date and time.

#### Equipment manufacturer and model number.

#### Equipment capacity.

#### Operating voltage and grounding requirements.

#### Operating amperage.

#### Safety devices.

#### Operating characteristics.

#### Equipment operating fluids and fuel requirements.

#### [ ]

### Complete the checklist for each piece of equipment as it is inspected and checked for proper installation and servicing prior to start-up.

### Provide Commissioning reports in a form acceptable to the Minister, and include the following:

#### Completed equipment checklists.

#### Name, address, and telephone number of the company and the names of the personnel performing the Commissioning, and the date, time, and site conditions during Commissioning.

#### Equipment start-up tests and records performed by the manufacturer and the Contractor.

#### Operational testing and adjusting records.

#### Deficiency records including diagnosis, causes, and corrective actions taken.

#### [              ]

## [Constraints]

### Additional separate cycles of commissioning by the Contractor may be necessitated at a later time on equipment and systems where Commissioning is dependent on operational or seasonal conditions.

### Perform Initial and Final Commissioning for the following Work:

#### [                ]

## [Trainings]

### Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, and maintenance of each item of equipment.

### Train the Minister’s personnel at the established times and location on all phases of the operation and maintenance.

### Provide all instruction aids.

### The Minister will provide a list of personnel to receive training, and will schedule and co-ordinate their attendance with the Contractor.

## Submittals

### Provide the following submittals.

### A Commissioning plan at least [30] days prior to starting the [Initial] [Final] Commissioning.

### Commissioning reports no later than [10] days after the [Initial] [Final] Commissioning is completed.

# Products – not used

# Execution – not used

**END OF SECTION**