



**CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION**

**ENGINEERING STANDARDS**

**November 20, 2006**

**CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION**

**STANDARDS AND SPECIFICATIONS MANUAL**

**2006**

**Approved by:**

**The Capital Region Northeast Water Services Commission Board  
November 20, 2006**

This manual is to be treated as a guide governing the design, preparation, and submission of drawings, and specifications for the orderly and satisfactory crossing of the CRNWSC line or right-of-way, and service connections.

These Design Standards shall apply to the design and installation of infrastructure for connection to the Commission water supply line. They apply to the design and installation of the necessary materials, equipment, structures, and appurtenances to direct and delivery water from the Commission's water supply line to the Applicant's water storage facility. Water will be delivered to the water storage facility via a piped system having a minimum of 300 mm air gap between the end of the piped system and the high water level of the water storage facility.

These standards are to serve as the "minimum" allowable levels. Where questionable or complicated design situations arise, sound engineering practice shall prevail.

No departure from these design standards shall be permitted without the written approval of the Manager of the Capital Region Northeast Water Services Commission. The Manager may give verbal approval to revisions which he considers sufficiently minor but a Change Order shall be issued to record such revisions. Where Acts, Bylaws, Codes of Standards are noted, there shall refer to the latest revision thereof.

These standards do not cover the design or installation of street lighting, power, gas, and telephone services, but does include coordination with the various utility companies which is the responsibility of the applicant.

This manual will be updated periodically and revisions shall be forwarded to manual holders.

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**SECTION A**

**A.1 DEFINITIONS**

The following words shall have the meaning hereinafter assigned to them:

- “Applicant”** Shall mean a person who has applied for approval of a water service connection, or to cross the Commission’s right-of-way, whether as the owner or the owner’s agent of the land included therein.
- “Consulting Engineer/ Engineer”** Shall mean a professional engineer, or “Consultant” licensed to practice Engineering in Alberta, retained by the applicant, responsible for the design, layout and supervision of installation, recording of as-built information, certifying the installation is in conformity with the design standards, design drawings and specifications, and performing those duties in connection with the provision of a water service connection or crossing of the Commission’s right-of-way.
- “Contractor”** Shall mean any person, persons or corporation, which shall undertake the installation of water service connections and crossings on behalf of either the Applicant or the Commission.
- “Commission Engineer”** Shall mean the person or the authorized representative employed or retained by the Commission at the Commission’s expense who is responsible for the supervision and approval of all duties related to the provision of engineering and other duties for all water service connections and crossings.
- “Commission”** Shall refer to the Capital Region Northeast Water Services Commission.
- “Crossing”** Shall mean any above ground, on ground or below ground installation across the Commission’s right-of-way.
- “Water Service Connection”** Shall mean the connection and all necessary appurtenances for supplying water from the Commission’s water supply line to the Applicant.
- “Water Service Connection - Single”** Shall mean a single individual water service connection is defined as a service to one single family residence and a maximum flow rate of 20 litres per minute.
- “Water Connection - Large Service Connection or Multiple Service Connection”** Shall mean a water service to multiple users with a flow rate exceeding 20 litres/minute or service to a commercial, industrial, agricultural or institutional operations.

## **A – GENERAL CONDITIONS**

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### **A.2 GENERAL CONDITIONS AND PROCEDURES**

1. An applicant contacts its municipality and obtains an Application for Water Service Connection Form – Appendix “A”.
2. The completed application form, along with the applicable fees (as outlined in the Commission’s Fee’s & Charges Bylaw) payable to the Capital Region Northeast Water Services Commission) and drawings is submitted to the municipality for preliminary approval to connect.
3. The application must be accompanied by a detailed plan showing the proposed location, distance from buildings, fences, iron pins, and other details deemed appropriate. If the service line crosses land not owned by this applicant, a copy of a registered easement for a minimum 6 metre service line Right-of-Way must accompany the application.
4. Applications for distribution mains service lines serving more than one (1) user shall be designed by a professional engineer and accompanied by proper plans and specifications.
5. If the municipality is willing to allow the connection, the municipality will then forward the application, drawings, and fees to:

Commission Manager  
Capital Region Northeast Water Services Commission  
9613 – 100 Street  
Morinville, AB T8R 1L9  
Telephone #780-939-8256 Fax #780-939-8274

6. Upon receipt of the complete application, the fees and the drawings, then and only then will the Commission Manager forward it to the Commission’s Engineer and Operator who will prepare an approximate cost estimate to complete the project.
7. The Commission will advise the municipality of the approximate cost to complete the project. In turn, the municipality shall contact the applicant and obtain confirmation whether or not the applicant wishes to proceed with the project based on the cost estimate provided.
8. If the applicant wishes to proceed with the application, the Commission will have its Engineer and Operator prepare the conditions of hook-up, including both minimum standard conditions and special conditions as the case dictates.
9. The Commission Manager has the authority to authorize and approve individual water supply applications meeting the Commission’s engineering.

10. Water Supply Applications for multiple connections must be approved by the Commission's Board of Directors.
11. A "Refused" application is returned to the municipality, complete with a one half of the original application fee. The municipality is responsible for notifying the applicant of the Commission's approvals or rejections.
12. If approved, the applicant can proceed to design the service line which is subject to approval of the municipality and the minimum standards established by the Commission.
13. The municipality, and in turn the applicant, must pay all the Commission's engineering and legal expenses and Operator on-site costs in connection with the service connection as well as a "Connection Fee" in accordance with the Commission's Fees and Charges Bylaw.
14. Scheduling of construction and inspection is to be confirmed by the applicant.
15. The applicant proceeds with installation complete with testing. The municipality provides and installs the meter, complete with remote readout. The technical standards for the meter are established by the Commission's Engineering Standards.
16. Plumbing permits shall be acquired for all work undertaken by the applicant.
17. The municipality advises the Commission when ready for the water to be turned on.
18. The Municipality will read the meter monthly. The Online Operator will perform random meter reads to verify readings.
19. The municipality is responsible for billing the customer(s).
20. Once the connection is approved by the Commission, it is the applicant's responsibility to complete the connection within two years of the approval of the original application date. If the application is not completed within two years of the original application date, the original application is considered null and void and a new application and corresponding fees will be required by the Commission.
21. The Applicant will be responsible for the cost of the water service connection as provided by the Commission, in accordance with the Commission Fees and Charges Bylaw.

## ***B – WATER SERVICE CONNECTION MULTIPLE CONNECTION / PLANT FACILITY***

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### **SECTION B**

#### **B.1 ENGINEERING DESIGN**

1. The Applicant shall retain a Consulting Engineering who shall be responsible for the design and preparation of drawings and specifications for all infrastructure (including lighting, telephone, power and natural gas) as required by the Commission. This infrastructure shall be designed in accordance with the Design Standards that are available from the Commission.
2. The Design Drawings shall show all existing and proposed infrastructure. It shall be the Consulting Engineer responsibility to coordinate with the utilities companies, the location of their existing and proposed services.

#### **B.2 SUBMISSION & REVIEW OF ENGINEERING DESIGN**

1. Upon completion of the Design Drawings, the Consulting Engineer shall submit to the Commission Engineer, together with three (3) complete sets of plans and specifications for the proposed project including the calculations of requested water volumes and flow rates where these services are to be installed.

##### **A. Drawing Size, Material and Basic Layout**

1. The Standard Drawing size of 590 mm x 840 mm will be used.
2. Use plan profile sheets with profile at bottom of sheet.

##### **B. Scales**

When practical, Drawing Scales shall be:

Overall plans	1:1000
Plan/Profiles	Horizontal: 1:500 Vertical: 1:50

2. The Consulting Engineer shall bring to the attention of the Applicant the need for any rights-of-way that the Applicant may have to obtain.
3. The Commission shall review all design drawings, specifications and relevant data. Any revisions discussed with the Consulting Engineering shall be incorporated in the final design drawings. The Commission will review the drawings with respect to adherence to the Design Standards, but will not accept responsibility for engineering omissions and errors on or relating to the design drawings and specifications. Any revisions required by the Commission shall be communicated to the Applicant's Consulting Engineer. Such revisions shall be incorporated into the final design drawings to be resubmitted to the Commission for final review.
4. Upon completion of all revisions, the Consulting Engineer shall submit three sets of Design Drawings to the Commission.



5. When the design is reviewed and determined to be in accordance with Commission standards by Commission Engineer, one signed copy of the design drawings shall be returned to the Consulting Engineer indicating the Commission's review.
6. No work shall be commenced within the Commission's right-of-way or easement on any of the infrastructure to be provided by the Applicant, until the Commission has reviewed, signed and returned the Design Drawings, and all approvals by Alberta Environment or any other outside agencies are obtained.

### **B.3 FACILITIES AND EQUIPMENT**

1. Water will be delivered from the Commission's water supply line via an adequately sized service connection, through water service pipe complete with necessary pressure and flow control equipment to a watertight water storage facility that shall be sized according to the requested water flow.
2. The size and design of the specific water service connection is dependent of Applicant's requested water flow demand and volume. Each water service connection shall include;
  - (a) Water Storage Facility
    - i. Sized to provide a minimum two (2) days storage of average day flow requirements.
    - ii. 300 mm air gap.
    - iii. Watertight and leak proof.
    - iv. CSA/ULC/NSF approved or structure designed by Professional Engineer.
  - (b) Weatherproof/Insulated enclosure of equipment complete with heating and ventilation, if required by Commission Engineer.
  - (c) Pressure Adjustment Equipment (if required by Commission Engineer).
  - (d) Flow Control Valve:
    - i. For low flow rates, less than 100 litres/minute, the valve shall be set at a pre-described flow rate.
    - ii. For all other flow rates, the rate of flow will be remotely adjustable by radio communication.
  - (e) Flow Meter:
    - i) Providing totalized flow volume that will be remotely monitored by radio communication.
    - ii) Providing instantaneous rate of flow that will be remotely monitored by radio communication.
  - (f) Residual Pressure Monitor
    - i. Discharge pressure to water storage facility will be remotely monitored by radio communication.
    - ii. If pressure adjustment equipment is provided then the upstream pressure will be remotely monitored by radio communication.

- (g) Local Alarms:
  - i. Illegal entry.
  - ii. High/low enclosure temperature.
  - iii. Equipment shutdown/failure.
  - iv. Remotely monitored by radio communication.
- (h) "No Return" Valves:
  - i. Installed on service line prior to the flow meter to prevent reverse flow.
  - ii. A reduced pressure backflow preventative device is required.
- (i) Shut-Off Valves
  - i. Adequate means to control water flow of the service connection from the Commission's water supply line.
- (j) Service Connection to Water Supply Line:
  - i. Size and type of service connection to be adequate for required flow rates and volumes.
  - ii. Dielectric bushing for insulation of water supply line which is subject to cathodic protection.
  - iii. Only the Commission shall have the right to tap into the water supply line and undertake work within the line right-of-way. The cost of connecting to the line shall be reimbursed to the Commission by the Applicant.
- (k) Radio Communication to Control Centre:
  - i. Applicant will provide all signals via an acceptable radio to and from the Control Centre.
  - ii. The cost of incorporating the various signals and alarms in the Commission's SCADA system will be reimbursed by the Applicant.

#### **B.4 RIGHT OF WAY DOCUMENTS**

1. Where easement documents and/or right-of-way plans are deemed necessary, they shall be prepared by a registered Land Surveyor at the Applicant's expense and registered against the affected parcel titles.

#### **B.5 CONSTRUCTION APPROVAL**

1. Upon receipt of reviewed Drawings and specifications, the Applicant may proceed to install Municipal infrastructure subject to receiving written approval from the Commission.
2. Infrastructure facilities and services shall not be permitted to operate as part of existing Commission water supply system until the respective infrastructure facilities and services have been inspected, testing and approved by the Commission.
3. The Commission shall install the meters and turn on the water after the Commission has reviewed and accepted the completed installation.
4. The Commission must be notified of the time and date of an infrastructure facilities and services start-up meeting so that a representative may attend.

## **B.6 ENGINEERING SUPERVISION**

1. The Consulting Engineer shall be responsible for the layout, inspection and approval of materials and the supervision of installation of all infrastructures. The Consulting Engineer or authorized representatives provide full time inspection during the installation of infrastructure.
2. In addition to supervision carried out by the Consulting Engineer the Commission will periodically inspect the work and assist in coordinating the works with any related Commission facilities.
3. If the Consulting Engineer wishes to make any changes in design either before or during the execution of the work, she shall first submit a marked print showing proposed revisions to the Commission. If approval is granted for revision, the original drawing shall be immediately revised and new prints issued. These two operations may be carried out simultaneously.

## **B.7 TESTING & INSPECTION**

1. It shall be the responsibility of the Consulting Engineer to ensure that the Contractor disinfects and undertakes all necessary tests of water, equipment and materials prior to the acceptance by the Commission. Disinfection and testing must be in accordance with Alberta Environment Standards. Written certification and test results must be provided by the Consulting Engineer.

## **B.8 RECORD DRAWINGS**

1. The Consulting Engineer shall deliver "as-built" drawings to the Commission within 6 months following the issuance of the Construction Completion Certificate. The Consulting Engineer shall supply:
  - One (1) paper copy of the full set of as-built drawings.
  - One (1) CD with the full set of AutoCAD drawings in NAD83, 10TM Projection, as well as the full set of drawings in .pdf format.
2. Elevations shall be relative to the geodetic datum.
3. A north arrow, adjacent lots and drawing numbers, road and highway names, and the legal description of the location of the facility, shall be shown on the drawing. In general the north arrow should be orientated towards the top of the plan.
4. The number and type of drawings to be provided are dependent on the extent of infrastructure facilities and services required to be provided by the Applicant. The drawings will be adequate to provide the necessary information, as determined by the Commission Engineer, to outline the necessary materials, equipment, structures and appurtenances for the civil, mechanical, electrical, instrumentation, and other work to complete the required infrastructure facilities and appurtenances.

## **B.9 COMMISSION ACCEPTANCE**

1. Upon satisfactory completion of the project and after all the deficiencies have been corrected, the Commission shall issue a Completion Certificate to the Applicant, notifying acceptance of the work by the Commission.

**C – WATER SERVICE CONNECTION  
INDIVIDUAL CONNECTION FOR AN EXISTING FARMSTEAD  
OR EXISTING ACREAGE RESIDENCE**

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**SECTION C**

**C.1 SUBMISSION & REVIEW OF DRAWINGS**

1. The Applicant will provide detailed drawings for the continuation of the water service connection, from the end of the Commission installed 25 mm service pipe to the Applicant's water storage facility. The Applicant's service pipe will be terminated at the water storage facility such that there is a minimum 300 mm air gap between the end of the service pipe and the high level of the water within the water storage facility.

**C.2 FACILITIES AND EQUIPMENT**

1. Water will be delivered from the Commission's water supply line via an adequately sized service connection, through water service pipe complete with necessary pressure and flow control equipment to a watertight water storage facility that shall be sized according to the requested water flow.
2. The service connection will be in accordance with the attached drawing in Appendix "B".
3. The applicant shall use one of the pre-approved contractors to construct the service connection.
4. If approved, the Commission will provide the Applicant with a 25 mm flow controlled water service connection at a location no more than 300 mm outside the Commission's right-of-way at a depth not to exceed 3.0 meters
5. The size and design of the specific water service connection is dependent of Applicant's requested water flow demand and volume. Each water service connection shall include:
  - (a) Water Storage Facility
    - i. sized to provide a minimum two (2) days storage of average day flow requirements
    - ii. 300 mm air gap
    - iii. watertight and leak proof
    - iv. CSA/ULC/NSF approved or structure designed by Professional Engineer.
6. Weatherproof/Insulated enclosure of equipment complete with heating and ventilation, if required by Commission Engineer.
7. The Applicant will utilize water service pipe that is one of the following:
  - (a) Copper type K
  - (b) Kitec
  - (c) Polyethylene Series 160
  - (d) Another type of pipe, provided the Commission Engineer has approved it and .
8. The Applicant will utilize fittings and other devices that are compatible with the type of service pipe utilized and suitable for an operating pressure of 1050 kPa (150 psi).

**C.2 RIGHT OF WAY DOCUMENTS**

1. Where easement documents and/or right-of-way plans are deemed necessary, they shall be prepared by a registered Land Surveyor at the Applicant's expense and registered against the affected parcel titles.

**C.4 COMMISSION ACCEPTANCE**

2. Prior to the applicant commencing use of the completed service, the service must be flushed with water from the Commission's pipeline, with a minimum volume equal to three times the volume of the application's service and chlorine residuals must be a minimum of 0.5 mg/litre.

## **D- CROSSING THE COMMISSION RIGHT OF WAY**

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### **SECTION D**

#### **D.1 GENERAL CONDITIONS & PROCEDURES**

1. The company or authority requesting permission to cross the Commission's pipelines must complete the Application for Crossing Agreement - Appendix "C" and forward it to:

Commission Manager  
Capital Region Northeast Water Services Commission  
9613 – 100 Street  
Morinville, AB T8R 1L9  
Telephone #780-939-8256 Fax #780-939-8274

2. The security deposit or irrevocable letter of credit in the amount of 100% of the construction value shall be submitted to the Commission prior to the crossing taking place and will be held in place until such time as the crossing has been restored to the satisfaction of the Commission Manager.
3. The application must be accompanied by four (4) sets of plans and profile drawings prepared by a professional engineer detailing the nature of the proposed crossing in relation to the Commission's pipeline.
4. Upon receipt of the Application, the Commission will forward it to the Commission's Consulting Engineer for review and recommendation.
5. If approved, the Commission will return the application along with two (2) copies of a Crossing Agreement – Appendix "D" for execution by the applicant and an estimate of the engineering, legal and operator costs.
6. The applicable fees, as specified in the Agreement must be submitted to the Commission along with the two (2) copies of the executed Crossing Agreement.
7. Once the Agreement is executed by the Commission one (1) copy will be returned to the applicant. A copy of the approved Crossing Agreement must be retained on site by the applicant during all construction activities.
8. The applicant must advise the Commission Operator at 780-998-0171 of the pending crossing schedule. The Commission Operator will then arrange for an inspection of the crossing and will provide a report to the Commission Manager.
9. Within 60 days of the completion of the crossing, the applicant must provide the Commission with "as constructed drawings" and the names and telephone numbers of the persons to be contacted should an emergency arise at the crossing in question.

10. The applicant will be responsible for any Commission costs incurred in connection with the crossing and will be invoiced accordingly upon receipt of the "as constructed drawings" and approval of same by the Commission's Consulting Engineer. The invoice is due upon receipt.
11. Failure to remit the executed Crossing Agreements to the Commission within 60 working days will result in the application being considered null and void.
12. If the application becomes null and void, the application will be required to start the process over with the applicable fees.
13. No work may commence prior to the applicant receiving a signed copy of the Crossing Agreement.

## **D.2 SPECIFICATIONS & CONDITIONS**

1. Any above ground, on ground, or below ground installation of any work on the Commission's right-of-way will require a Crossing Agreement to be completed between the Commission and the Applicant.
2. The Commission water supply line will be located by hydro-vac method to confirm vertical and horizontal location prior to any construction in the vicinity of the Commission's right-of-way.
3. Any temporary roadway crossing of the Commission right-of-way will include a temporary 0.5 metre height of fill or rig matting directly over the water supply line.
4. Any temporary crossing of the Commission right-of-way must not cause any rutting nor "pumping" of the ground surface.
5. The Commission's right-of-way must be restored to the conditions which existed prior to construction the temporary crossing.
6. Any permanent roadway crossing of the Commission right-of-way must maintain a minimum of 3.0 of ground cover over the crown of the water supply line.
7. Any underground crossing of the Commission right-of-way must maintain a minimum clearance of 0.6 metres between the Commission water supply line and the proposed underground conduit.
8. Any steel conduit crossing the Commission right-of-way must be cathodically protected.
9. All drawings must be a minimum of 280 mm x 430 mm in size.
10. All drawings must be stamped by a professional Engineering licensed to practice in the Province of Alberta.

**Appendix "A" – Water Service Connection Application**





**CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION  
PROCEDURES FOR WATER SERVICE APPLICATION**

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1. An applicant contacts its municipality and obtains an Application for Water Service Connection Form.
2. The completed application form, along with the applicable fees (as outlined in the Commission's Fee's & Charges Bylaw) payable to the Capital Region Northeast Water Services Commission) and drawings is submitted to the municipality for preliminary approval to connect.
  - The application must be accompanied by a detailed plan showing the proposed location, distance from buildings, fences, iron pins, and other details deemed appropriate. If the service line crosses land not owned by this applicant, a copy of a registered easement for a minimum 6 metre service line Right-of-Way must accompany the application.
  - Applications for distribution mains (service lines serving more than one (1) user shall be designed by a professional engineer and accompanied by proper plans and specifications.
3. If the municipality is willing to allow the connection, the municipality will then forward the application, drawings, and fees to:

**Commission Manager  
Capital Region Northeast Water Services Commission  
9613-100 Street  
Morinville, AB T8R 1L9  
(Telephone #780-939-8256 Fax #780-939-8274)**

4. Upon receipt of the complete application, the fees and the drawings, then and only then will the Commission Manager forward it to the Commission's Engineer and Operator who will prepare an approximate cost estimate to complete the project.
5. The Commission will advise the municipality of the approximate cost to complete the project. In turn, the municipality shall contact the applicant and obtain confirmation whether or not the applicant wishes to proceed with the project based on the cost estimate provided.
6. If the applicant wishes to proceed with the application, the Commission will have its Engineer and Operator prepare the conditions of hook-up, including both minimum standard conditions and special conditions as the case dictates.
7. The Commission Manager has the authority to authorize and approve individual water supply applications meeting the Commission's engineering.
8. Water Supply Applications for multiple connections must be approved by the Commission's Board of Directors.

**Procedures for Water Service Application**  
**Page 2**

9. A "Refused" application is returned to the municipality, complete with a one half of the original application fee. The municipality is responsible for notifying the applicant of the Commission's approvals or rejections.
10. If approved, the applicant can proceed to design the service line which is subject to approval of the municipality and the minimum standards established by the Commission.
11. The municipality, and in turn the applicant, must pay all the Commission's engineering and legal expenses and Operator on-site costs in connection with the service connection as well as a "Connection Fee" in accordance with the Commission's Fees and Charges Bylaw.
- 12.** Scheduling of construction and inspection is to be confirmed by the applicant.
13. The applicant proceeds with installation complete with testing. The municipality provides and installs the meter, complete with remote readout. The technical standards for the meter are established by the Commission's Engineering Standards.
14. Plumbing permits shall be acquired for all work undertaken by the applicant.
15. The municipality advises the Commission when ready for the water to be turned on.
16. The Municipality will read the meter monthly. The Online Operator will perform random meter reads to verify readings.
17. The municipality is responsible for billing the customer(s).
18. Once the connection is approved by the Commission, it is the applicant's responsibility to complete the connection within two years of the approval of the original application date. If the application is not completed within two years of the original application date, the original application is considered null and void and a new application and corresponding fees will be required by the Commission.



**CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION**

**APPLICATION FOR WATER SERVICE CONNECTION**

<b>LOCATION OF PROPERTY</b>	_____
	<b>Legal Description – Lot, Block, Plan Number</b>
	_____
	<b>Civic Address (TWP / Range Road)</b>
	_____

<b>APPLICANT INFORMATION – Must be the registered owner(s) of the property</b>	
<b>Applicant Name:</b>	_____
<b>Address</b>	_____ _____ _____
<b>Telephone:</b>	_____
<b>Fax Number:</b>	_____
<b>Cell Phone:</b>	_____
<b>Other :</b>	_____

<b>AGENT ACTING ON BEHALF OF THE APPLICANT.</b>	
<b>Agent's Name:</b>	_____
<b>Address</b>	_____ _____ _____
<b>Telephone:</b>	_____
<b>Fax Number:</b>	_____
<b>Cell Phone:</b>	_____
<b>Other</b>	_____

I am/we are the registered owner(s) of the above noted property and do hereby apply for water supply and agree to abide by the policies and engineering standards established by the Capital Region Northeast Water Services Commission.

**SIGNATURE OF APPLICANT:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**SIGNATURE OF APPLICANT:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

<b>SUPPLY SPECIFICATIONS</b>	
<b>Pipeline diameter – if applicable</b>	
<b>Diameter of service line</b>	
<b>Pressure rating or wall thickness</b>	
<b>Type of service pipe</b>	
<b>Trench to be excavated by:</b>	
<b>Type of pipe bedding</b>	
<b>Depth of cover</b>	
<b>Type of backfill</b>	
<b>Size of meter requested</b>	
<b>Proposed location of meter</b>	
<b>Rate of water supply requested</b>	

**Other information that may be relevant:**

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**Check List:**

- A plan must be attached showing the proposed location, distance from buildings, fences, or iron pins, and any other details deemed appropriate.
- If the service line crosses land not owned by the applicant, then a copy of a registered easement for a minimum 6 metre service Right-of-Way must accompany the application.
- Applications for distribution mains (service lines serving more than one (1) user) shall be designed by a professional engineer and accompanied by plans and specification as described in the Commission’s Engineering Standards.

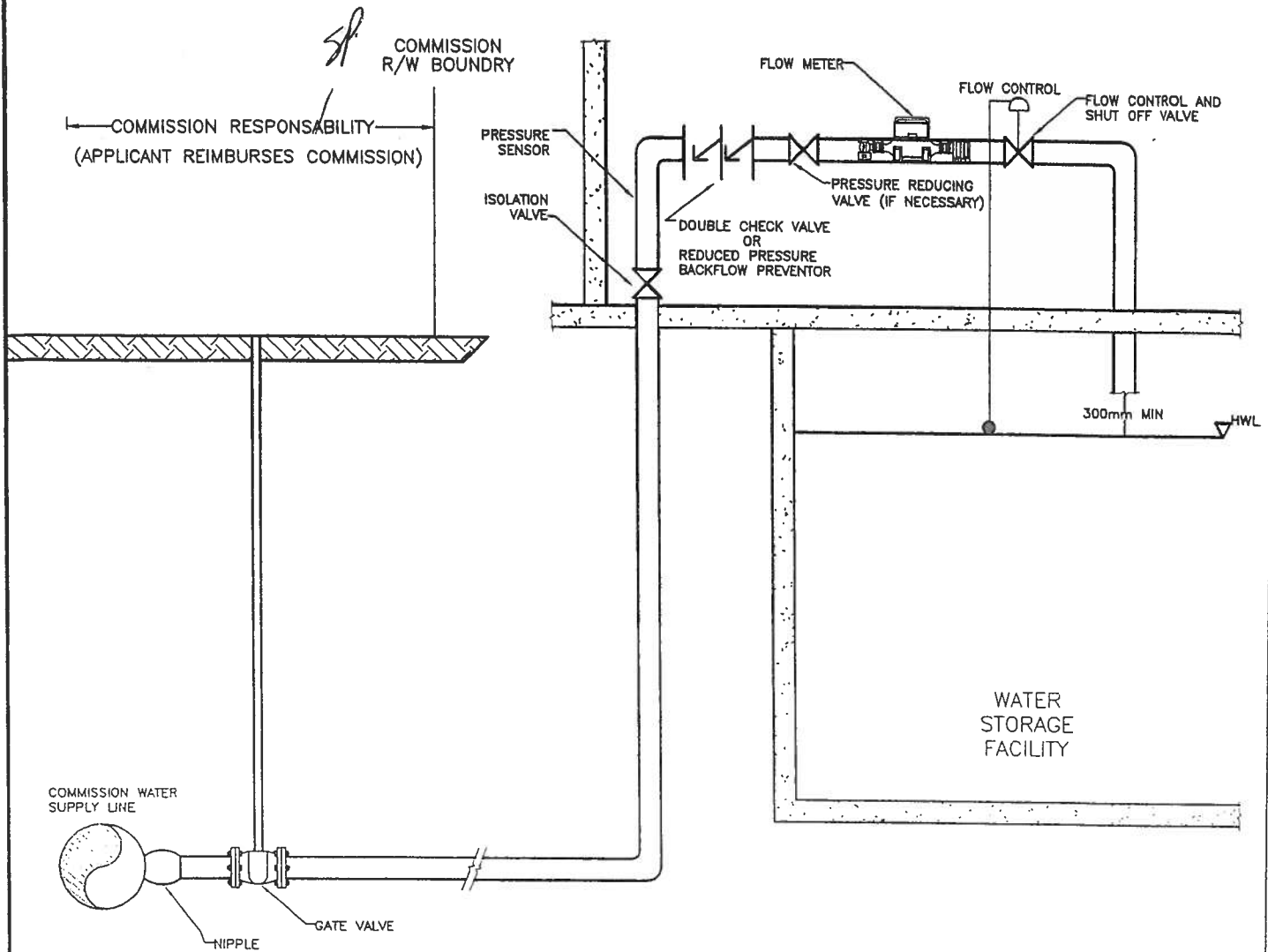
<b>LOCATION OF PROPERTY</b>	
	<b>Legal Description – Lot, Block, Plan Number</b>
	<b>Civic Address (TWP / Range Road)</b>

<b>FOR COMMISSION USE ONLY</b>	
<b>Date Application Received:</b>	
<b>Application Fee Received:</b> <i>Note: Application will not be processed until the application fee is received.</i>	<b>YES</b> <input type="checkbox"/> <b>Amount:</b> _____ <b>Date:</b> _____
<b>4 Sets of Drawings Received:</b> <i>Note: Application will not be processed until the drawings are received.</i>	<b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/>
<b>Name of person processing the application:</b>	
<b>Date Forwarded to Commission Engineer:</b>	
<b>Commission Engineer's Recommendations</b>	<input type="checkbox"/> <b>To Approve Subject to Conditions - Attached</b> <input type="checkbox"/> <b>To Refuse</b>
<b>Commission Engineer's Estimated Cost for consulting.</b>	\$ _____

<b>FOR COMMISSION MANAGER ONLY</b>	
<b>Commission Manager's Signature</b>	<input type="checkbox"/> <b>Approved Subject to Conditions - Attached</b> <input type="checkbox"/> <b>Refused</b>
<b>Date</b>	

**Appendix "B" – Individual Service Connection Drawing**

LIGHTED, INSULATED, HEATED, BUILDING ENCLOSURE TO ALBERTA BUILDING CODE.



TYPICAL MULTI-USER WATER SERVICE CONNECTION  
(SIZE OF CONNECTION & EQUIPMENT VARIES WITH REQUIRED FLOW RATE)

Time: 2:42pm  
Date: Aug 29, 2004  
File: Q:\043531\CIVIL\details\3531-FIG-2.dwg by

PROJECT No.	20043531
DATE:	06/08/23
APPROVED:	--
SCALE:	N.T.S.
DWG. No.	3531-FIG-2



CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION - DESIGN STANDARDS

TYPICAL MULTI-USER WATER SERVICE CONNECTION

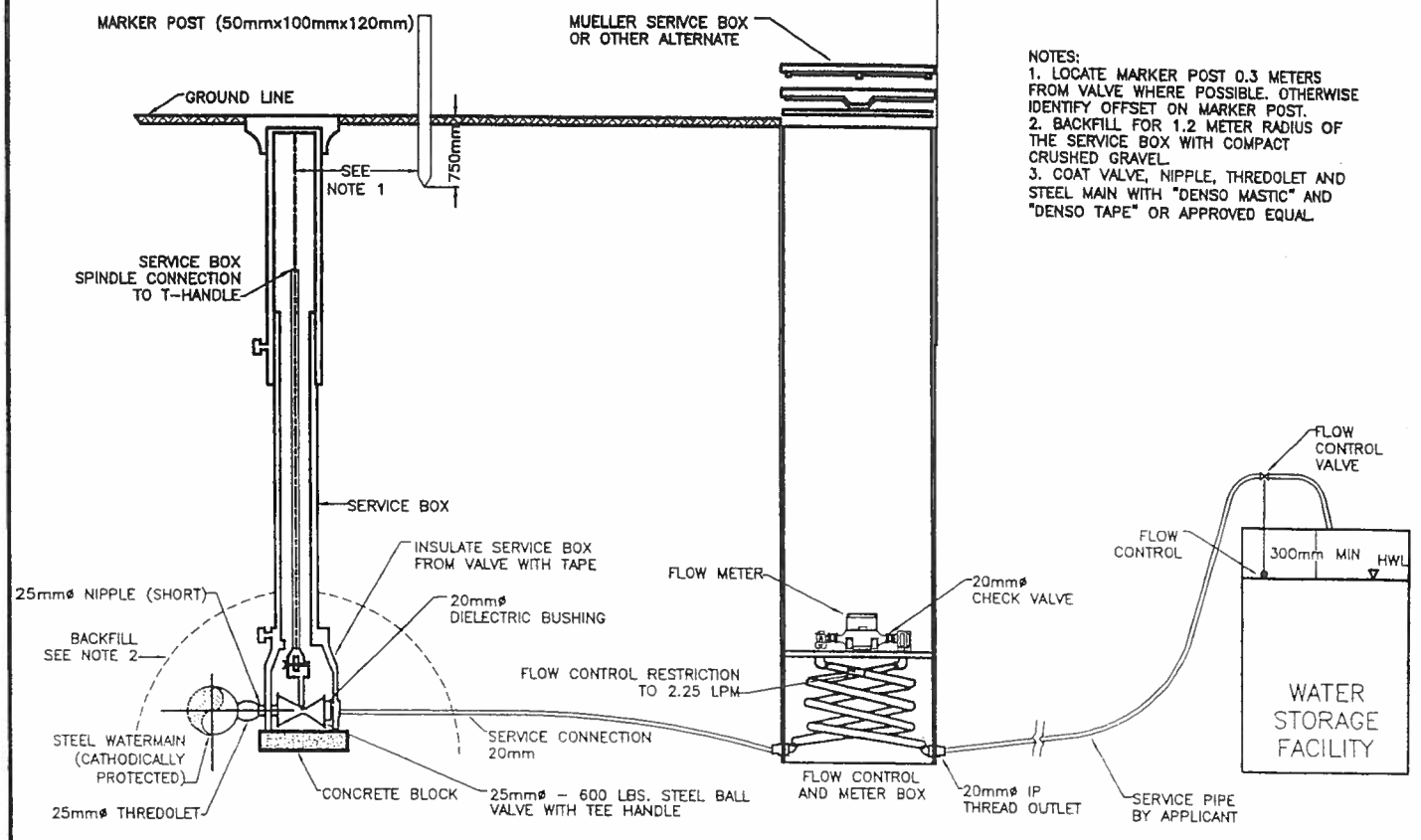
FIGURE 2

SP  
↓

COMMISSION  
R/W BOUNDARY

COMMISSION RESPONSIBILITY  
(APPLICANT REIMBURSES COMMISSION)

- NOTES:
1. LOCATE MARKER POST 0.3 METERS FROM VALVE WHERE POSSIBLE. OTHERWISE IDENTIFY OFFSET ON MARKER POST.
  2. BACKFILL FOR 1.2 METER RADIUS OF THE SERVICE BOX WITH COMPACT CRUSHED GRAVEL.
  3. COAT VALVE, NIPPLE, THREDOLET AND STEEL MAIN WITH "DENSO MASTIC" AND "DENSO TAPE" OR APPROVED EQUAL.



Time: 2:30pm  
Date: Aug 29  
File: Q:\043531\CIVIL\details\3531-FIG-1.dwg by

PROJECT No.	20043531
DATE:	06/08/23
APPROVED:	--
SCALE:	N.T.S.
DWG. No.	3531-FIG-1



CAPITAL REGION NORTHEAST WATER  
SERVICES COMMISSION - DESIGN STANDARDS

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SINGLE INDIVIDUAL WATER SERVICE CONNECTION  
FIGURE 1



**Appendix "C" – Application for Crossing**



## CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION

### PROCEDURES FOR CROSSING AGREEMENT

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1. The company or authority requesting permission to cross the Commission's pipelines must complete the Application for Crossing Agreement and forward it to:

Manager  
Capital Region Northeast Water Services Commission  
9613-100<sup>th</sup> Street  
Morinville, Alberta T8R 1L9  
Telephone #780-939-8256 - FAX# 780-939-8274

2. The application must be accompanied by four (4) sets of plans and profile drawings prepared by a professional engineer detailing the nature of the proposed crossing in relation to the Commission's pipeline.
3. Upon receipt of the Application, the Commission will forward it to the Commission's Consulting Engineer for review and recommendation.
4. If approved, the Commission will return the application along with two (2) copies of a Crossing Agreement for execution by the applicant and an estimate of the engineering, legal and operator costs.
5. The applicable fees, as specified in the Agreement must be submitted to the Commission along with the two (2) copies of the executed Crossing Agreement.
6. Once the Agreement is executed by the Commission one (1) copy will be returned to the applicant. A copy of the approved Crossing Agreement must be retained on site by the applicant during all construction activities.
7. The applicant must advise the Commission Operator at 416-7237 of the pending crossing schedule. The Commission Operator will then arrange for an inspection of the crossing and will provide a report to the Commission Manager.
8. Within 60 days of the completion of the crossing, the applicant must provide the Commission with "as constructed drawings" and the names and telephone numbers of the persons to be contacted should an emergency arise at the crossing in question
9. The applicant will be responsible for any Commission costs incurred in connection with the crossing and will be invoiced accordingly upon receipt of the "as constructed drawings" and approval of same by the Commission's Consulting Engineer. The invoice is due upon receipt.
10. **Failure to remit the executed Crossing Agreements to the Commission within 60 working days will result in the application being considered null and void.**
11. **No work may commence prior to the applicant receiving a signed copy of the Crossing Agreement.**



**CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION**

**APPLICATION FOR CROSSING AGREEMENT**

APPLICANT INFORMATION	
Applicant Name:	_____
Address	_____ _____ _____
Telephone:	_____
Fax Number:	_____
Cell Phone:	_____
Other :	_____

AGENT ACTING ON BEHALF OF THE APPLICANT.	
Agent's Name:	_____
Address	_____ _____ _____
Telephone:	_____
Fax Number:	_____
Cell Phone:	_____
Other	_____

FIELD CONTACT INFORMATION:	
Field Contact Name:	_____
Telephone:	_____
Fax Number:	_____
Cell Phone:	_____
Other	_____

**LOCATION OF CROSSING** \_\_\_\_\_  
Legal Description – Lot, Block, Plan Number

**TYPE OF CROSSING (Check appropriate box) and CONSTRUCTION COSTS:**

- Underground (pipeline, duct, conduit or cable) \$ \_\_\_\_\_
- Overhead (wire or cable) \$ \_\_\_\_\_
- Surface (road, highway, surface modification) \$ \_\_\_\_\_

<b>MATERIAL SPECIFICATION - UNDERGROUND</b>	
Pipeline diameter – if applicable	
Operating pressure	
Material specification	
Wall thickness and or pressure rating	
Angle of crossing	
Burial depth	
Minimum clearance from Commission pipeline	
Backfill material between lines	
Cathodic Protection	YES <input type="checkbox"/> NO <input type="checkbox"/>
Test station at crossing	YES <input type="checkbox"/> NO <input type="checkbox"/>

<b>MATERIAL SPECIFICATION - OVERHEAD</b>	
Overhead cable / wire specification	
Minimum height above ground	
Angle of crossing	
Nearest tower or pole	
Surface treatment and width	
Special protection proposed for Commission Pipeline	

<b>MATERIAL SPECIFICATION - SURFACE</b>	
Minimum height of fill above existing ground (for road)	
Angle of crossing	
Surface treatment and width	
Special protection proposed for Commission Pipeline	

Signature of Applicant/Agent: \_\_\_\_\_

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

<b>LOCATION OF PROPERTY</b>	<b>Legal Description – Lot, Block, Plan Number</b>
-----------------------------	--

<b>FOR COMMISSION USE ONLY</b>	
<b>Date Application Received:</b>	
<b>4 Sets of Drawings Received:</b> <i>Note: Application will not be processed until the drawings are received.</i>	YES <input type="checkbox"/> NO <input type="checkbox"/>
<b>Security Deposit or Irrevocable Letter of Credit received</b> <b>(100% of construction value)</b>	YES <input type="checkbox"/> Security Deposit <input type="checkbox"/> Irrevocable Letter of Credit  Amount Received: \$ _____  Date: _____ NO <input type="checkbox"/> Application may not be approved.
<b>Name of person processing the application:</b>	
<b>Date Forwarded to Commission Engineer:</b>	
<b>Commission Engineer's Recommendations</b>	<input type="checkbox"/> To Approve Subject to Conditions - Attached <input type="checkbox"/> To Refuse

<b>FOR COMMISSION MANAGER ONLY</b>	
<b>Commission Manager's Signature</b>	<input type="checkbox"/> Approved Subject to Conditions - Attached <input type="checkbox"/> Refused
<b>Date</b>	

<b>FOR COMMISSION USE ONLY</b>	
<b>CONFIRMATION OF RETURN OF SECURITY DEPOSIT OR IRREVOCABLE LETTER OF CREDIT</b>	
<b>LOCATION OF PROPERTY</b>	
_____ Legal Description – Lot, Block, Plan Number	
<b>Security Deposit or Irrevocable Letter of Credit</b>	Amount held on file \$ _____
<b>In the opinion of the Commission Engineer, has the crossing or excavation been restored to the satisfaction of the Commission?</b>	YES <input type="checkbox"/> NO <input type="checkbox"/>
<b>Commission Engineer's Recommendations</b>	<input type="checkbox"/> To Approve Releasing the Security Deposit or Irrevocable Letter of Credit. (Commission Engineering letter attached). <input type="checkbox"/> To Draw on the Security Deposit or Irrevocable Letter of Credit to restore the crossing to the satisfaction of the Commission. (Please provide detailed letter).

<b>FOR COMMISSION MANAGER ONLY</b>	
<b>Commission Manager's Signature</b>	<input type="checkbox"/> Approval Release of the Security Deposit or Irrevocable Letter of Credit. <input type="checkbox"/> Approval to draw on the Security Deposit or Irrevocable Letter of Credit to restore the crossing to the satisfaction of the Commission as outlined in the letter attached.
<b>Date</b>	

**SCHEDULE 'A'**  
**(CROSS HATCH DIAGRAM OF RIGHT-OF-WAY)**

**SCHEDULE 'B'**  
**(SPECIFICATIONS & CONDITIONS)**



**SCHEDULE 'C'**  
**THE APPROVED APPLICATION FOR CROSSING**

**Appendix "D" – Crossing Agreement Template**



**CROSSING AGREEMENT**

**THIS AGREEMENT made this \_\_\_\_ date of \_\_\_\_\_ A.D., \_\_\_\_\_ .**

**BETWEEN:**

**CAPITAL REGION NORTHEAST WATER SERVICES COMMISSION  
(hereinafter referred to as "the Grantor"),**

**OF THE FIRST PART**

**and**

**(hereinafter referred to as "the Grantee"),**

**OF THE SECOND PART**

**WHEREAS, the Grantor has acquired a right-of-way in, or adjacent, to the lands legally described as: (insert legal land description) (hereinafter referred to as "the said lands") as shown outlined on Schedule "A", hereunto attached (Right-of-Way); and**

**WHEREAS, the Grantee desires to construct a (what it is) within and across that portion or Right-of-Way shown on Schedule "A" (crossing area).**

**THE GRANTEE HEREBY CONVENANTS AND AGREES WITH THE GRANTOR as follows:**

**PART 1 GRANTS OF RIGHTS**

- 1.1. The Grantor, subject to the terms and conditions hereof (and so far as it has the legal right to do so) hereby grants to the Grantee, the right, privilege and liberty to lay, construct, repair, operate and maintain, or remove the Grantee's (what it is) in the Right-of-Way. The rights, privileges, and liberties granted under this agreement are valid for one year from the date of execution shown above.

## **PART 2 PLAN AND PROFILE**

- 2.1. The Grantee shall not commence any work whatsoever in the crossing area prior to submitting to the Grantor and obtaining the written approval of the Grantor of the plan and profile of the proposed location of the Grantee's **(what it is)** in the crossing area.
- 2.2. The Grantee shall provide as-built information of the **(what it is)** installation to the Grantor within sixty (60) days of construction

## **PART 3 COMMENCEMENT OF WORK**

- 3.1. The Grantee shall not commence or carry out any work whatsoever on the said lands without a representative of the Grantor being present at all times. The cost of having the Grantor's representative present at all times will be the responsibility of the Grantee.

## **PART 4 INSTALLATION**

- 4.1. The Grantee covenants and agrees with the Grantor that, with respect to any work carried out, in or on, the crossing area, the Grantee shall:
  - 4.1.1 provide all the material, equipment and labour;
  - 4.1.2. give the Grantor at least forty-eight (48) hours notice before commencing such work;
  - 4.1.3. construct the **(what it is)** according to specifications and conditions set forth in Schedule "B".
  - 4.1.4. carry out all work in accordance with good engineering and construction practices and in a diligent manner.

## **PART 5 MAINTENANCE OF GRANTEE'S APPROACH AND GRAVEL ACCESS ROAD**

- 5.1. The Grantee covenants and agrees to maintain its' **(what it is)** in good order and carry out all necessary repairs from time-to-time.

## **PART 6 REPAIRS, RENEWALS AND REMOVAL**

- 6.1. The Grantee shall have the right to enter upon the crossing area to carry out repairs on, removal of its **(what it is)** after giving five (5) days written notice to the Grantor, and after receiving a written acknowledgment from the Grantor.

- 6.2. In the case of an emergency, no prior written notice shall be required, but the Grantor shall forthwith be advised of such emergency.
- 6.3. The provisions of clauses 3 and 4, except for sub-clause (4.1.2) of clause 4 thereof, shall apply to any repairs, or removal carried out pursuant to subsections (6.1) or (6.2) of this clause.

## **PART 7 COST**

- 7.1. The cost of laying, constructing, repairing or removing the Grantee's **(what it is)** within the crossing area and of restoring the crossing area, including legal, engineering and operator costs shall be borne by the Grantee.
- 7.2. The cost of repairing any damages caused to any Grantor's pipeline as a result of the Grantee's use of the crossing area or by reason of this Agreement, shall be borne by the Grantee.
- 7.3. If the Grantee fails to restore the crossing to the satisfaction of the Grantor, the Grantor may use the security deposit or irrevocable letter of credit to make such restoration.

## **PART 8 TAXES**

- 8.1. The Grantee shall be liable for, and shall pay, all taxes, rates and assessments of every description and kind whatsoever that may be imposed by any lawful authority by reason of the presence of its **(what it is)** within the crossing area, or by reason of this Agreement, and shall indemnify and save harmless the Grantor from and against all such taxes, rates and assessments.

## **PART 9 WAIVER OF DAMAGES**

- 9.1 The Grantee shall not make any claim against the Grantor for any loss or damage by whomsoever caused to that Grantee's property within the crossing area unless such loss or damage is attributable to the negligence of the Grantor, its servants, employees or contractors. However, with respect to damages and costs incurred by the Grantor, as a result of the Grantee's **(what it is)** within the crossing area, all costs and damages shall be borne by the Grantee.

**PART 10 INDEMNITY**

10.1. Grantee shall indemnify and save harmless the Grantor against all actions, proceedings, claims, demands, and costs which may be brought against or suffered by Grantor or which it may sustain, pay or incur, by reason of any matter or thing arising out of or attributable to any act or omission of Grantee, its servants, agents, contractors or employees in respect to Grantee's use of the crossing area or by reason of this Agreement.

**PART 11 REMEDY ON DEFAULT**

11.1 In the case of default by the Grantee in carrying out any of the provisions of this Agreement, the Grantor may give fifteen (15) days notice thereof to the Grantee to rectify the same, and the Grantee covenants and agrees to proceed with due diligence to carry out the same. If the Grantee fails to proceed to remedy such default within the said fifteen (15) day period, the Grantor may take the necessary steps to remedy such default and the Grantee shall be liable for, and shall pay, all reasonable costs and expenses incurred by the Grantor in so doing including using the security deposit or drawing on the irrevocable letter of credit.

**PART 12 ADDRESS OF PARTIES**

12.1 Every notice provided for in this Agreement shall be in writing and each such notice shall be directed to the party to whom given, made or delivered at such party's address as follows:

**GRANTOR:** *Capital Region Northeast Water Services Commission*  
*9613-100<sup>th</sup> Street*  
*Morinville, Alberta*  
*T8R 1L9*

**GRANTEE:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PART 13 CONFORMANCE WITH REGULATIONS AND CONDITIONS**

13.1 Each of the parties in laying, erecting, constructing, repairing or removing any roadway, structure, work or thing, in, over or under the said lands and in the operation and maintenance of such roadway, structure, work or

thing, shall and will at all times comply fully with all laws, regulations, rules orders, plans and specifications or competent governmental authority from time to time and for the time being in force and effect in respect thereof or relevant thereto.

**PART 14 COMPLETE AGREEMENT**

14.1 This Agreement sets forth the entire Agreement between the parties hereto and shall be deemed to have superseded any and all previous Agreements and understandings whether written or oral between the parties.

**PART 15 ASSIGNMENT**

15.1 The Grantee shall not assign or transfer this Agreement, or the rights and privileges, hereby granted without the written consent of the Grantor first hand and obtained, and such consent shall not be unreasonably withheld. The Grantee shall give to the Grantor notice of its intent to assign or transfer this Agreement by registered mail.

**IN WITNESS WHERE OF** the parties have caused this Agreement to be executed as of the day and year first above written.

**GRANTEE:**

**PER:**

\_\_\_\_\_

**PER:**

\_\_\_\_\_

**GRANTOR:**

**CAPITAL REGION NORTHEAST  
WATER SERVICES COMMISSION**

\_\_\_\_\_

**CHAIRMAN**

\_\_\_\_\_

**MANAGER**

**SCHEDULE 'A'**  
***(DIAGRAM OF RIGHT-OF-WAY)***



**SCHEDULE 'B'**  
**(SPECIFICATIONS & CONDITIONS)**

1. Provide notification to Online Operator 780-998-0171 when the work commences and provide the Online Operator with the name and phone number for the site contact.
2. No vibratory or pneumatic equipment are to encroach on the Commission pipeline/cable/roadway.
3. Equipment crossing the Commission pipeline must not cause any rutting nor "pumping" of the ground surface.
4. All Condition's on the attached Commission Engineer's Approval Letter must be followed.

**SCHEDULE 'C'**  
**THE APPROVED APPLICATION FOR CROSSING**