

**Invitation to Tender  
General Service**

NCC FILE NO. **NG262**  
NO DE DOSSIER DE LA CCN:

|  |  |
|--|--|
| <p>ADDRESS ENQUIRIES TO:<br/>ADRESSER LES DEMANDES DE RENSEIGNEMENTS À:</p> <p><b>Nicole Galipeau</b><br/>TEL - TÉL: 613-239-5678 ext. 5191<br/>Email : nicole.galipeau@ncc-ccn.ca</p>                 | <p><b>NCC CONTRACT NO.:</b></p> <p><b>BID CLOSING/CLÔTURE DE L'OFFRE:</b><br/><b>May 27, 2014 at 3:00 p.m. Ottawa time</b></p>   |
| <p><b>RETURN ORIGINAL</b><br/>Submit tender on this form and return it to:<br/><b>RENOYER L'ORIGINAL</b><br/>Veuillez soumissionner en vous servant de la présente<br/>formule et la retourner au:</p> | <p><b>Senior Contract Officer – Nicole Galipeau</b><br/><b>National Capital Commission</b><br/><b>202-40 Elgin St.</b><br/><b>Ottawa, ON K1P 1C7</b></p> <p><b>Reference no. NG262</b></p> |
| <p><b>DESCRIPTION OF SERVICES:</b><br/>Comprehensive Fire Protection Systems Maintenance<br/>for the official residences</p>   | <p><b>DELIVERY LOCATION:</b><br/>National Capital Region</p>   |

**There is a public opening scheduled for May 27, 2014 in room 306 at 40 Elgin Street in Ottawa shortly after 3 p.m.**

**1. OFFER**

1.1. The undersigned tenderer (hereinafter called the "Contractor" hereby offers to the National Capital Commission to furnish all necessary tools, plant services, materials and labour to execute and complete in a careful and workmanlike manner the work as set out under the "Description of Works" hereon, which is more particularly described in the Plans and Specifications attached for the **all-inclusive unit prices** as set out in clause 3 of this document t.

**2. GENERAL AGREEMENT** The Contractor agrees:

2.1. To commence work upon notification to commence work and complete the work **no later than March 31, 2017.**

2.2. to provide at his own cost the following securities:

- (a) with tender to ensure entry into contract a bid bond from an acceptable company, a certified cheque made payable to the National Capital Commission or "Cash" in the amount of **10%**;
- (b) upon notification of acceptance of tender if requested to do so, a Performance Bond for **50%** of the value of the contract and a Payment of Labour and Material Bond for **0%** of the value of the contract or "Cash" in the amount of **20%**.

2.3. that this Offer and Agreement, the Plans and Specifications referred to in Clause 1 above, the instructions to bidders, the general conditions, occupational health and safety requirements, fair wages and hours of labour conditions ([http://www.hrsdc.gc.ca/eng/labour/employment\\_standards/contracts/schedule/index.shtml](http://www.hrsdc.gc.ca/eng/labour/employment_standards/contracts/schedule/index.shtml)), and all Addenda shall be and are the complete tender and this offer is made subject to the provisions contained therein.

2.4. that this offer supersedes and cancels all communications, negotiations and agreements relating to the work other than contained in the complete tender and is irrevocable for 60 days from the Tender Closing Time shown hereon, and in the event that security is provided with this tender, it will be forfeited if the Contractor refuses a contract if this tender is accepted and executed on behalf of the NCC

- 2.5. that the complete tender together with and subject to all the provisions contained therein shall, when accepted and executed on behalf of the NCC, constitute a binding contract between the Contractor and the NCC.
- 2.6. Bonds shall be in an approved form, properly completed, with original signature(s) and issued by an approved company whose bonds are acceptable to the NCC either at the time of solicitation closing or as identified on the list displayed at the following Website: <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12027&section=text#L>

**3. TENDER**

- 3.1. The Contractor agrees that the following is (are) the **all-inclusive unit prices excluding taxes** referred to in clause above.

|   |    |
|---|----|
| <b>3-Year total (part 1)</b>            | \$ |
| <b>Total of all unit rates (part 2)</b> | \$ |
| <b>TOTAL Bid (Part 1 + Part 2)</b>      | \$ |

- 3.2. Basis of award will be the bidder who meets all terms and conditions and provides the lowest total amount for the 3-Years (Part 1) plus all unit rates in Part 2 excluding taxes. Lowest or any tender NOT necessarily accepted. The NCC reserves the right to cancel this tender and/or re-issue the tender in its original or revised form. The Commission also reserves the right to negotiate with the successful tenderer and/or all tenderers.
- 3.3. Enquiries regarding this tender must be submitted in writing as early as possible within the solicitation period to the Senior Contract Officer, Nicole Galipeau by email at [nicole.galipeau@ncc-ccn.ca](mailto:nicole.galipeau@ncc-ccn.ca) or by facsimile at 613-239-5007, and the telephone number is 613-239-5678 ext. 5191. Enquiries should be received no later than seven (7) calendar days prior to the date set for solicitation closing to allow sufficient time to provide a response. Enquiries received after that time may result in an answer not being provided. To ensure consistency and quality of the information provided to Bidders, the Senior Contract Officer shall examine the content of the enquiry and shall decide whether or not to issue an amendment. All enquiries and other communications related to this tender sent throughout the solicitation period are to be directed **ONLY** to the Senior Contract Officer named above. Non-compliance with this requirement during the solicitation period can, for that reason alone, result in disqualification of a tender.
4. The attached the General Conditions (9 pages), the Occupational Health and Safety Requirements (5 pages), Security Requirements (2 pages) and the Direct Payment and Tax Information Form (2 pages) will form part of the resulting contract.

**5. SECURITY REQUIREMENTS**

Since the National Capital Commission (NCC) complies with the provisions of the Policy on Government Security, the Contractor shall ensure that none of the Employees of the Contractor and others for whom the Contractor is responsible and who are to perform the Contractor's obligations under this Contract constitute a security risk and shall, at the request of the NCC, ensure that all Employees of the Contractor and others for whom the Contractor is responsible who are to perform the Contractor's obligations under this Contract complete the NCC's security screening process in order that the NCC may obtain a security assessment of that person before accessing any site included in this Contract.

For this contract, it was determined that the NCC shall require **Site Access status**. A credit check can be performed when the duties or task to be performed require it or in the event of a criminal record based on this type of offence. Refer to the attached 2 page Security Requirement document.

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NCC FILE NO. **NG262**  
NO DE DOSSIER DE LA CCN:

I/We acknowledge receipt of the following addenda and have included for the requirement of it/them in my/our tendered price:  
\_\_\_\_\_ (Bidder to enter number of addenda issued, if any)

|  |  |
|--|--|
| We hereby OFFER to sell and/or supply to the National Capital Commission upon the terms and conditions set out herein, the supplies and/or services listed above and on any attached sheets at the submitted price(s). |  |
| <b>Contractor's Name and Address – Nom et adresse de l'entrepreneur</b>  | _____                                      |
|  | Print Name - Nom en caractère d'imprimerie |
|  | _____                                      |
|  | Signature _____ Date _____                 |
| Telephone no. /No. de téléphone : _____  | _____                                      |
| Fax no. / No. de télécopieur : _____   | _____                                      |
| Email / Courriel : _____   | _____                                      |
|  | Witness Signature – Signature du témoin    |

Accepted & executed on behalf of the NCC this \_\_\_\_\_ day of \_\_\_\_\_, 2014 in the presence of \_\_\_\_\_

|   |  |
|---|--|
| <b>NCC CONTRACT OFFICER SIGNATURE / SIGNATURE<br/>DE L'AGENT AUX CONTRATS DE LA CCN</b> | <b>WITNESS SIGNATURE /<br/>SIGNATURE DU TÉMOIN</b> |
|---|--|

**INVOICING:**

Send the original invoice and 1 copy to:  
**Accounts Payable  
National Capital Commission  
202-40 Elgin Street  
Ottawa, ON K1P 1C7**

Or by email at the following address: [payables@ncc-ccn.ca](mailto:payables@ncc-ccn.ca)

**FACTURATION :**

Envoyer la facture originale et 1 copie par la poste à :  
**Comptes Payables  
Commission de la capitale nationale  
40 rue Elgin, pièce 202  
Ottawa, ON K1P 1C7**

Ou par courriel à l'adresse suivante: [payables@ncc-ccn.ca](mailto:payables@ncc-ccn.ca) .

**To ensure prompt payment, please prepare your invoice in accordance with the prices quoted. Errors in invoicing can cause delay of payment. Submit your invoice to the address shown above and clearly indicate the Purchase Order number.**

**Afin de vous assurer d'un règlement rapide, veuillez préparer votre facture selon les prix cotés. Des erreurs dans la facturation peuvent causer des retards de paiement. Nous vous prions de soumettre votre facture à l'adresse mentionnée ci-dessus et indiquer clairement le numéro de bon de commande.**

## **TERMS OF REFERENCE**

### **Comprehensive Fire Protection Systems Maintenance for the Official Residences in the National Capital Region**

The National Capital Commission (NCC) is seeking the services of an experienced contractor for the provision of the required maintenance of fire protection systems located in the official residences of Canada in the National Capital Region, through March 31, 2017.

The successful contractor shall have the minimum qualifications described herein and be able to provide all services including responding to service calls on an as and when requested basis.

Bidders shall use the 3-page quotation form (part 1 and part 2) to submit their bid. Lump sum prices and unit rates shall be provided for all requested items. Part 2 unit rates shall be valid for the duration of the contract.

An upset limit PO of \$25,000 will form part of the resulting contract for services not included in the maintenance services such as service calls.

# QUALIFICATIONS AND REPORTING

## PART 1 - QUALIFICATIONS

### 1.1. Sprinkler, Standpipe, Hydrants and Fire Pump Systems

- .1 The contractor must have the following minimum qualifications:
  - .1 Member in good standing, Canadian Automatic Sprinkler Association (CASA);
  - .2 CASA Testing certificate for water based fire protection systems as issued and approved by CASA;
  - .3 A comprehensive understanding of the National Fire Code of Canada 2010 (NFC)
  - .4 A comprehensive understanding of CAN/ULC-S1001-11 Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems
  - .5 A comprehensive understanding of ANSI/NFPA 13-2010, Standard for the Installation of Sprinkler Systems.
  - .6 A comprehensive understanding of ANSI/NFPA 14-2010, Standard for the Installation of Standpipe and Hose Systems;
  - .7 A comprehensive understanding of ANSI/NFPA 20-2010, Standard for the Installation of Stationary Pumps for Fire Protection;
  - .8 A comprehensive understanding of ANSI/NFPA 24-2010, Standard for the Installation of Private Fire Mains and Their Appurtenances;
  - .9 A comprehensive understanding of ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.
  - .10 A comprehensive understanding of ANSI/NFPA 96-2011, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
  - .11 A copy of each of the aforementioned documents/standards.
  - .12 A minimum of 5 years experience directly related to the testing/maintenance of water based extinguishing systems.

### 1.2. Fire Alarm System

- .1 The contractor must have the following minimum qualifications:
  - .1 Member in good standing with the Canadian Fire Alarm Association (CFAA);
  - .2 Technicians to be fully CFAA certified;

## QUALIFICATIONS AND REPORTING

- .3 A comprehensive understanding of the National Fire Code of Canada 2010 (NFC);
- .4 A comprehensive understanding of ULC-S536-M04, Inspection and Testing of Fire Alarm Systems;
- .5 A comprehensive understanding of ULC-S524-M06, Standard for the Installation of Fire Alarms;
- .6 A copy of each of the aforementioned documents and standards;
- .7 A minimum of 5 years experience directly related to testing and maintenance of fire alarm systems.

### 1.3. Fire Extinguishers

- .1 The contractor must have the following minimum qualifications:
  - .1 Maintenance (and recharging) must be performed by trained persons having available the proper type of tools, recharge materials, lubricants and manufacturers' recommended replacement parts;
  - .2 A comprehensive understanding of the National Fire Code of Canada 2010 (NFC);
  - .3 A comprehensive understanding of NFPA 10, 2010 Portable Fire Extinguishers;
  - .4 A copy of each of the aforementioned documents and standards;
  - .5 A minimum of 5 years experience directly related to testing and maintenance of fire extinguishers.

### 1.7 Commercial Cooking Systems

- .1 The contractor must have the following minimum qualifications:
  - .1 Properly trained and qualified personnel. Training and qualification of personnel to have been completed by the manufacturer of the equipment being inspected.
  - .2 A comprehensive understanding of the National Fire Code of Canada 2010 (NFC);
  - .3 A comprehensive understanding of NFPA 96, 2011 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations;
  - .4 A copy of each of the aforementioned documents and standards;
  - .5 A minimum of 5 years experience directly related to testing and maintenance of clean agent fire extinguishing Systems.

## QUALIFICATIONS AND REPORTING

### 1.8 Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.9 Test Reports

- .1 Following life safety system testing, the contractor is to provide the owner or the owner's representative with a test report indicating all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 days after testing is completed.
- .3 See Part 4 for minimum test report requirements and examples of submittal formats.

### 1.10 Service Calls

- .1 The maintenance contractor must, at all times, have a minimum of two (2) qualified persons on call to respond to service calls on any fire protection system forming part of this contract.
- .2 The maintenance contractor must carry a 1-hour site call back.

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).

## QUALIFICATIONS AND REPORTING

- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing.

### PART 3 – EXECUTION

#### 3.1. Cost Breakdown

- .1 The maintenance contractor shall carry the cost for site operator's training; two site visits per 12 month period of contract at 4-hours each, in both official languages for the sprinkler and fire alarm systems.

### PART 4 – REPORT FORMATS

#### 4.1 Minimum Requirements for All Report Formats

- .1 All reports must include, as a minimum, the following:
  - .1 Date and time of inspection;
  - .2 Building name and location;
  - .3 Mechanics/technicians name (clearly printed) and signature; and certification number where applicable;
  - .4 Equipment identification (make, model, serial number etc);
  - .5 Detailed list of actual work performed;
  - .6 Any equipment or parts replaced;
  - .7 Condition of the equipment/parts;
  - .8 A list of required repairs/maintenance. Required means required to return the equipment to operating condition or to meet required standards/codes;
  - .9 A list of recommended maintenance/work. Recommend means items recommended to improve upon equipment/parts performance of to increase life expectancy over and above the legally mandated requirements.
  - .10 "Recommendations" and "requirements" are to be clearly distinguished with all "requirements" to have a reference back to the code/standard mandating the identified remedial work;
  - .11 The owner or the owner's representative reference and contract numbers;
  - .12 Period covered by the work/invoice.



# QUALIFICATIONS AND REPORTING

## 4.2 Minimum Fire Alarm Report Format

### CONTROL UNIT TEST RECORD

YES \_\_\_\_\_  
TESTED CORRECTLY

NO \_\_\_\_\_  
DID NOT TEST CORRECTLY  
(SEE REMARKS. E3.11)

N/A - NOT APPLICABLE  
FUNCTION OR FEATURE NOT  
PROVIDED ON THIS FIRE ALARM SYSTEM

### CONTROL UNIT TEST

|   |           |          |           |
|---|-----------|----------|-----------|
| <u>A.</u> POWER 'ON' VISUAL INDICATOR.  | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> COMMON VISUAL TROUBLE SIGNAL.   | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> COMMON AUDIBLE TROUBLE SIGNAL.  | YES _____ | NO _____ | N/A _____ |
| <u>D.</u> TROUBLE SIGNAL SILENCE SWITCH.  | YES _____ | NO _____ | N/A _____ |
| <u>E.</u> MAIN POWER SUPPLY FAILURE TROUBLE SIGNAL.   | YES _____ | NO _____ | N/A _____ |
| <u>F.</u> GROUND FAULT TESTED ON POSITIVE AND NEGATIVE TROUBLE SIGNAL.  | YES _____ | NO _____ | N/A _____ |
| <u>G.</u> ALERT SIGNAL OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>H.</u> ALARM SIGNAL OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>I.</u> AUTOMATIC TRANSFER FROM ALERT SIGNAL TO ALARM SIGNAL.   | YES _____ | NO _____ | N/A _____ |
| <u>J.</u> ACKNOWLEDGE SWITCH OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>K.</u> ALARM SIGNAL SILENCE INHIBIT.   | YES _____ | NO _____ | N/A _____ |
| <u>L.</u> ALARM SIGNAL SILENCE OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>M.</u> ALARM SIGNAL SILENCE VISUAL INDICATION.   | YES _____ | NO _____ | N/A _____ |
| <u>N.</u> ALARM SIGNAL, WHEN SILENCED, AUTOMATICALLY REINITIATE UPON SUBSEQUENT ALARM.  | YES _____ | NO _____ | N/A _____ |
| <u>O.</u> ALARM SIGNAL SILENCE AUTOMATIC CUTOUT TIMER.  | YES _____ | NO _____ | N/A _____ |
| <u>P.</u> INPUT CIRCUIT, ALARM AND SUPERVISORY OPERATION INCLUDING VISUAL INDICATOR.  | YES _____ | NO _____ | N/A _____ |
| <u>Q.</u> INPUT CIRCUIT TROUBLE OPERATION.  | YES _____ | NO _____ | N/A _____ |
| <u>R.</u> OUTPUT CIRCUIT ALARM OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>S.</u> OUTPUT CIRCUIT TROUBLE OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>T.</u> VISUAL INDICATOR TEST (LAMP TEST).  | YES _____ | NO _____ | N/A _____ |
| <u>U.</u> CODED SIGNAL SEQUENCES OPERATE NOT LESS THAN THE REQUIRED NUMBER OF TIMES AND THE CORRECT ALARM SIGNAL OPERATES THEREAFTER. | YES _____ | NO _____ | N/A _____ |
| <u>V.</u> CODED SIGNAL SEQUENCES ARE NOT INTERRUPTED BY SUBSEQUENT ALARM.   | YES _____ | NO _____ | N/A _____ |

## QUALIFICATIONS AND REPORTING

|            |  |           |          |           |
|------------|--|-----------|----------|-----------|
| <u>W.</u>  | INPUT CIRCUIT TO OUTPUT CIRCUIT OPERATION, INCLUDING ANCILLARY DEVICE CIRCUITS, FOR CORRECT MATRIX OPERATION, AS PER DESIGN AND SPECIFICATION. | YES _____ | NO _____ | N/A _____ |
| <u>X.</u>  | RESET OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>Y.</u>  | MAIN POWER SUPPLY TO EMERGENCY POWER SUPPLY TRANSFER.  | YES _____ | NO _____ | N/A _____ |
| <u>Z.</u>  | DATA COMMUNICATION LINK (DCL) SUPERVISION AND OPERATION.   | YES _____ | NO _____ | N/A _____ |
| <u>AA.</u> | CONTROL UNIT INTERCONNECTION TO MONITORING STATION.  | YES _____ | NO _____ | N/A _____ |

### VOICE COMMUNICATION TEST

|           |  |           |          |           |
|-----------|--|-----------|----------|-----------|
| <u>A.</u> | POWER 'ON' INDICATOR.  | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> | COMMON VISUAL TROUBLE SIGNAL.  | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> | COMMON AUDIBLE TROUBLE SIGNAL.   | YES _____ | NO _____ | N/A _____ |
| <u>D.</u> | TROUBLE SIGNAL SILENCE SWITCH.   | YES _____ | NO _____ | N/A _____ |
| <u>E.</u> | ALL-CALL VOICE PAGING INCLUDING VISUAL INDICATOR.  | YES _____ | NO _____ | N/A _____ |
| <u>F.</u> | OUTPUT CIRCUITS FOR SELECTIVE VOICE PAGING, INCLUDING VISUAL INDICATION.                                 | YES _____ | NO _____ | N/A _____ |
| <u>G.</u> | OUTPUT CIRCUITS FOR SELECTIVE VOICE PAGING TROUBLE OPERATION, INCLUDING VISUAL INDICATION.               | YES _____ | NO _____ | N/A _____ |
| <u>H.</u> | MICROPHONE INCLUDING PRESS TO TALK SWITCH.   | YES _____ | NO _____ | N/A _____ |
| <u>I.</u> | OPERATION OF VOICE PAGING DOES NOT INTERFERE WITH INITIAL INHIBIT TIME OF ALERT SIGNAL AND ALARM SIGNAL. | YES _____ | NO _____ | N/A _____ |
| <u>J.</u> | ALL-CALL VOICE PAGING OPERATES (ON EMERGENCY POWER SUPPLY).  | YES _____ | NO _____ | N/A _____ |
| <u>K.</u> | UPON FAILURE OF ONE AMPLIFIER, SYSTEM AUTOMATICALLY TRANSFERS TO BACK-UP AMPLIFIER(S).                   | YES _____ | NO _____ | N/A _____ |
| <u>L.</u> | CIRCUITS FOR EMERGENCY TELEPHONE CALL-IN OPERATION, INCLUDING AUDIBLE AND VISUAL INDICATION.             | YES _____ | NO _____ | N/A _____ |
| <u>M.</u> | CIRCUITS FOR EMERGENCY TELEPHONES FOR OPERATION INCLUDING TWO-WAY VOICE COMMUNICATION.                   | YES _____ | NO _____ | N/A _____ |

## QUALIFICATIONS AND REPORTING

- |   |           |          |           |
|---|-----------|----------|-----------|
| <u>N.</u> CIRCUITS FOR EMERGENCY TELEPHONE TROUBLE OPERATION INCLUDING VISUAL INDICATION. | YES _____ | NO _____ | N/A _____ |
| <u>O.</u> EMERGENCY TELEPHONE VERBAL COMMUNICATION.                                       | YES _____ | NO _____ | N/A _____ |
| <u>P.</u> EMERGENCY TELEPHONE OPERABLE OR IN-USE TONE AT HANDSET.                         | YES _____ | NO _____ | N/A _____ |

### CONTROL UNIT INSPECTION

- |   |           |          |           |
|---|-----------|----------|-----------|
| <u>A.</u> INPUT CIRCUIT DESIGNATIONS, CORRECTLY IDENTIFIED IN RELATION TO CONNECTED FIELD -DEVICES. | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> OUTPUT CIRCUIT DESIGNATIONS, CORRECTLY IDENTIFIED IN RELATION TO CONNECTED FIELD DEVICES. | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> DESIGNATIONS FOR COMMON CONTROL FUNCTIONS AND INDICATORS.                                 | YES _____ | NO _____ | N/A _____ |
| <u>D.</u> CABINET, PLUG-IN COMPONENTS AND MODULES SECURELY IN PLACE.                                | YES _____ | NO _____ | N/A _____ |
| <u>E.</u> PLUG-IN CABLES SECURELY IN PLACE.   | YES _____ | NO _____ | N/A _____ |
| <u>F.</u> RECORD THE DATE, REVISION AND VERSION OF FIRMWARE AND SOFTWARE.                           | YES _____ | NO _____ | N/A _____ |
| <u>G.</u> CLEANLINESS.  | YES _____ | NO _____ | N/A _____ |
| <u>H.</u> FUSES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.                                    | YES _____ | NO _____ | N/A _____ |
| <u>I.</u> CONTROL UNIT LOCK.  | YES _____ | NO _____ | N/A _____ |
| <u>J.</u> TERMINATION POINTS FROM WIRING TO FIELD DEVICES SECURE.                                   | YES _____ | NO _____ | N/A _____ |

### POWER SUPPLY INSPECTION

- |  |           |          |           |
|--|-----------|----------|-----------|
| <u>A.</u> FUSED IN ACCORDANCE WITH MANUFACTURER'S MARKED RATING OF THE SYSTEM. | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> ADEQUATE TO MEET THE REQUIREMENTS OF THE SYSTEM.                     | YES _____ | NO _____ | N/A _____ |

## QUALIFICATIONS AND REPORTING

### BATTERY TEST AND INSPECTION

|  |           |          |           |
|--|-----------|----------|-----------|
| <u>A.</u> CORRECT BATTERY TYPE AS RECOMMENDED BY MANUFACTURER.   | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> CORRECT RATING AS DETERMINED BY BATTERY CALCULATIONS BASED ON FULL SYSTEM LOAD.                          | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> BATTERY VOLTAGE MAIN POWER 'ON' IS:  | YES _____ | NO _____ | N/A _____ |
| <u>D.</u> BATTERY VOLTAGE AND CURRENT WITH MAIN POWER SUPPLY 'OFF' AND FIRE ALARM SYSTEM IN SUPERVISORY CONDITION. | YES _____ | NO _____ | N/A _____ |
| <u>E.</u> BATTERY VOLTAGE AND CURRENT WITH MAIN POWER SUPPLY 'OFF' AND FIRE ALARM SYSTEM IN FULL LOAD CONDITION    | YES _____ | NO _____ | N/A _____ |
| <u>F.</u> CHARGING CURRENT IS:   | YES _____ | NO _____ | N/A _____ |
| <u>G.</u> INSPECTED FOR PHYSICAL DAMAGE.   | YES _____ | NO _____ | N/A _____ |
| <u>H.</u> TERMINALS CLEANED AND LUBRICATED.  | YES _____ | NO _____ | N/A _____ |
| <u>I.</u> TERMINALS CLAMPED TIGHTLY.   | YES _____ | NO _____ | N/A _____ |
| <u>J.</u> CORRECT ELECTROLYTE LEVEL.   | YES _____ | NO _____ | N/A _____ |
| <u>K.</u> SPECIFIC GRAVITY OF ELECTROLYTE WITHIN MANUFACTURER'S SPECIFICATIONS.                                    | YES _____ | NO _____ | N/A _____ |
| <u>L.</u> ELECTROLYTE LEAKS.   | YES _____ | NO _____ | N/A _____ |
| <u>M.</u> ADEQUATELY VENTILATED.   | YES _____ | NO _____ | N/A _____ |
| <u>N.</u> WITHIN MANUFACTURER'S RATED LIFE DATE CODE   | YES _____ | NO _____ | N/A _____ |
| <u>O.</u> DISCONNECTION CAUSES TROUBLE SIGNAL.   | YES _____ | NO _____ | N/A _____ |

### ANNUNCIATOR TEST AND INSPECTION

|   |           |          |           |
|---|-----------|----------|-----------|
| <u>A.</u> POWER 'ON' INDICATOR.   | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> INDIVIDUAL ALARM AND SUPERVISORY ZONE INDICATION.                                 | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> INDIVIDUAL ALARM AND SUPERVISORY ZONE DESIGNATION LABELS ARE PROPERLY IDENTIFIED. | YES _____ | NO _____ | N/A _____ |
| <u>D.</u> COMMON TROUBLE SIGNAL.  | YES _____ | NO _____ | N/A _____ |
| <u>E.</u> VISUAL INDICATOR TEST (LAMP TEST).  | YES _____ | NO _____ | N/A _____ |
| <u>F.</u> INPUT WIRING FROM CONTROL UNIT IS SUPERVISED.                                     | YES _____ | NO _____ | N/A _____ |

## QUALIFICATIONS AND REPORTING

- |   |           |          |           |
|---|-----------|----------|-----------|
| <u>G.</u> ALARM SIGNAL SILENCE VISUAL INDICATOR.                | YES _____ | NO _____ | N/A _____ |
| <u>H.</u> SWITCHES FOR ANCILLARY FUNCTIONS OPERATE AS INTENDED. | YES _____ | NO _____ | N/A _____ |
| <u>I.</u> OTHER ANCILLARY FUNCTIONS VISUAL INDICATORS.          | YES _____ | NO _____ | N/A _____ |
| <u>J.</u> MANUAL ACTIVATION OF ALARM SIGNAL AND INDICATION.     | YES _____ | NO _____ | N/A _____ |

### REMOTE TROUBLE UNIT TEST AND INSPECTION

- |   |           |          |           |
|---|-----------|----------|-----------|
| <u>A.</u> INPUT WIRING FROM CONTROL UNIT IS SUPERVISED. | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> VISUAL TROUBLE SIGNAL.                        | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> AUDIBLE TROUBLE SIGNAL.                       | YES _____ | NO _____ | N/A _____ |
| <u>D.</u> AUDIBLE TROUBLE SIGNAL SILENCE.               | YES _____ | NO _____ | N/A _____ |

### PRINTER TEST

- |  |           |          |           |
|--|-----------|----------|-----------|
| <u>A.</u> OPERATION AS INTENDED.                                     | YES _____ | NO _____ | N/A _____ |
| <u>B.</u> ZONE OF EACH ALARM INITIATING DEVICE IS CORRECTLY PRINTED. | YES _____ | NO _____ | N/A _____ |
| <u>C.</u> RATED VOLTAGE IS PRESENT.                                  | YES _____ | NO _____ | N/A _____ |

### ANCILLARY DEVICE CIRCUIT TEST

Specific Circuit

- |       |           |          |           |
|-------|-----------|----------|-----------|
| _____ | YES _____ | NO _____ | N/A _____ |
| _____ | YES _____ | NO _____ | N/A _____ |
| _____ | YES _____ | NO _____ | N/A _____ |

**INDIVIDUAL DEVICE TEST SHEETS ARE TO BE CFAA APPROVED TEST RECORDS.**

# QUALIFICATIONS AND REPORTING

## 4.3 Minimum Fire Pump Report Format:

| <b>General Information</b>   |          |                          |             |                      |               |                |  |                      |  |  |
|--|----------|--------------------------|-------------|----------------------|---------------|----------------|--|----------------------|--|--|
| Property Name:   |          |                          |             |                      | Address:      |                |  |                      |  |  |
| Test Point(s):   |          |                          |             |                      | Tested By:    |                |  |                      |  |  |
| Date of Test:  |          |                          |             |                      | Witnessed By: |                |  |                      |  |  |
| Time of Test:  |          |                          |             |                      |               |                |  |                      |  |  |
| Manufacturer certified pump test curves on site?                                       |          |                          |             |                      |               |                | <input type="checkbox"/> – Yes <input type="checkbox"/> – No |                      |  |  |
| Jockey settings:   |          |                          | Stop:       |                      |               | Start:         |  |                      |  |  |
| Pump settings:   |          |                          | Stop:       |                      |               | Start:         |  |                      |  |  |
| <b>Fire Pump Information: Pump, Motor and Controller Information</b>                   |          |                          |             |                      |               |                |  |                      |  |  |
| Pump Type:<br>Horizontal <input type="checkbox"/><br>Vertical <input type="checkbox"/> |          | Manufacturer:            |             | Model:               |               | Serial Number: |  | Impeller Size:       |  | Casing Relief Valve:<br>Working <input type="checkbox"/><br>Not Working <input type="checkbox"/> |
| Rated GPM:   |          | Rated PSI:               |             | Rated PSI @ 150%:    |               | RPM:           |  | Suction Size:        |  | Discharge Size:  |
| PSI @ Shutoff:   |          |                          |             |                      |               |                |  |                      |  |  |
| Driver:<br>Electric <input type="checkbox"/><br>Diesel <input type="checkbox"/>        |          | Manufacturer:            |             | Model:               |               | Serial Number: |  | RPM:                 |  | Temperature:   |
|  |          | Rated Volts:             |             | Rated Amps:          |               | Phase:         |  | Cycle:               |  | Rated Horsepower:  |
| Controller   |          | Manufacturer:            |             | Model:               |               | Serial Number: |  |                      |  |  |
| <b>Fire Pump Test Results</b>  |          |                          |             |                      |               |                |  |                      |  |  |
| Motor rotation (phase reversal):   |          |                          |             |                      | Notes:        |                |  |                      |  |  |
| Motor vibration:   |          |                          |             |                      | Notes:        |                |  |                      |  |  |
| Flow %   | Flow GPM | 5 min.                   | Suction PSI | Disch. PSI           | Boost PSI     | Amps (A/B/C)   | Volts  | RPM                  |  |  |
| 0%   |          | <input type="checkbox"/> |             |                      |               |                |  |                      |  |  |
| Flow %   | Flow GPM | 5 min.                   | Suction PSI | Disch. PSI           | Boost PSI     | Amps (A/B/C)   | Volts  | RPM                  |  |  |
| 50%  |          | <input type="checkbox"/> |             |                      |               |                |  |                      |  |  |
| Test Valves Opened   |          | Outlet 1 Size            |             | Outlet 1 Pitot (PSI) |               | Outlet 2 Size  |  | Outlet 2 Pitot (PSI) |  | Outlet 3 Size  |
| 1 / 2 / 3  |          |                          |             |                      |               |                |  |                      |  |  |
| Flow %   | Flow GPM | 5 min.                   | Suction PSI | Disch. PSI           | Boost PSI     | Amps (A/B/C)   | Volts  | RPM                  |  |  |
| 100%   |          | <input type="checkbox"/> |             |                      |               |                |  |                      |  |  |
| Test Valves Opened   |          | Outlet 1 Size            |             | Outlet 1 Pitot (PSI) |               | Outlet 2 Size  |  | Outlet 2 Pitot (PSI) |  | Outlet 3 Size  |
| 1 / 2 / 3  |          |                          |             |                      |               |                |  |                      |  |  |
| Flow %   | Flow GPM | 5 min.                   | Suction PSI | Disch. PSI           | Boost PSI     | Amps (A/B/C)   | Volts  | RPM                  |  |  |
| 150%   |          | <input type="checkbox"/> |             |                      |               |                |  |                      |  |  |
| Test Valves Opened   |          | Outlet 1 Size            |             | Outlet 1 Pitot (PSI) |               | Outlet 2 Size  |  | Outlet 2 Pitot (PSI) |  | Outlet 3 Size  |
| 1 / 2 / 3  |          |                          |             |                      |               |                |  |                      |  |  |

# QUOTATION

## PART 1 – GENERAL QUOTATION

### 1.1. General Quotation

- .1 Contractor to submit a quotation for a 36 month service contract to provide the required maintenance of building systems as per the maintenance specification forming part of this document.
- .2 Systems include:
  - .1 Wet Sprinkler Systems
  - .2 Dry/Pre-action Sprinkler Systems
  - .3 Standpipe Systems
  - .4 Fire Pumps
  - .5 Fire Alarm Systems (including smoke alarms)
  - .6 VESDA System
  - .7 Backflow Preventers
  - .8 Commercial Cooking Equipment and Operations
  - .9 Fire Extinguishers (not listed below – provided in all buildings)

### 1.2. Affected Buildings:

- .1 Dome Building on Rideau Hall Campus
  - .1 Fire Alarm System:
    - .1 GE iO 500 Intelligent Life Safety System
    - .2 1 heat detector
    - .3 9 smoke detectors
    - .4 1 duct smoke detector
    - .5 5 manual pull stations
    - .6 8 horn/strobes
  - .2 Sprinkler System
    - .1 1 wet pipe alarm valve
    - .2 4 zone control valves
    - .3 3 flow switches
    - .4 1 low water pressure switch
- .2 Rideau Cottage on Rideau Hall Campus:
  - .1 Fire Alarm System
    - .1 Notifier NFS-320C fire alarm panel
    - .2 2 heat detectors
    - .3 36 smoke / carbon monoxide detectors
    - .4 6 manual pull stations
    - .5 21 mini horns
    - .6 2 End of line devices

## QUOTATION

- .2 Sprinkler System
  - .1 7 supervised control valves
  - .2 3 flow switches
- .3 Gate Lodge:
  - .1 Fire Alarm System
    - .1 Siemens MXL-IQ addressable fire alarm panel
    - .2 2 heat detectors
    - .3 8 smoke detectors
    - .4 3 manual pull stations
    - .5 6 mini horns
- .4 Stable Building on Rideau Hall Campus:
  - .1 Fire Alarm System
    - .1 Siemens MXL-IQ addressable fire alarm panel
    - .2 1 heat detectors
    - .3 11 smoke detectors
    - .4 9 manual pull stations
    - .5 37 horn/strobes
    - .6 3 flow switches
    - .7 4 supervised alarm valves
    - .8 1 supervisory low air pressure switch
  - .2 Sprinkler System
    - .1 1 Victaulic wet pipe alarm valve (100 mm)
    - .2 4 butterfly valves
    - .3 3 flow switches
    - .4 1 low water pressure switch
- .5 Rideau Hall:
  - .1 Fire Alarm System
    - .1 Simplex 4100U
    - .2 118 heat detectors
    - .3 177 smoke detectors
    - .4 1 VESDA air aspiration detector
    - .5 5 beam detectors
    - .6 9 duct smoke detectors
    - .7 57 manual pull stations
    - .8 12 relays
    - .9 49 bells
    - .10 1 strobe
    - .11 32 end of line devices
    - .12 2 alarm pressure switches
    - .13 11 supervised alarm valves
    - .14 3 supervisory low air pressure switch
    - .15 3 fire pump supervisory alarms (loss of power, pump running, phase reversal)



## QUOTATION

- .2 Sprinkler System
  - .1 2 Viking dry pipe alarm valve (150 mm)
  - .2 2 butterfly valves
  - .3 2 gate valves
  - .4 8 low point drains
  - .5 2 accelerators
  - .6 2 low air pressure switches
  - .7 2 alarm pressure switches
- .3 Standpipe System
  - .1 1 Wet standpipe system (100 mm)
- .4 Fire Pump
  - .1 1 Plad 946 lpm, 310 kPa, 10 hp electric vertical inline fire pump
  - .2 Fire pump controller
  - .3 Jockey pump
  - .4 Jockey pump controller
  - .5 3 gate valves
- .5 Cooking Equipment Suppression Systems
  - .1 1 Amerex Model KP-600 wet chemical system
  - .2 1 RangeGuard, Model 2.5 G wet chemical system
  - .3 1 Gaylord Model WC-25-R water wash down system
  - .4 1 Gaylord Model HC3-25-S water wash down system
- .6 Fire Hydrants
  - .1 6 Private hydrants for use by the fire department
- .6 Stornoway:
  - .1 Fire Alarm System
    - .1 Edwards 1221T
    - .2 Includes standalone smoke alarms
  - .2 Cooking Equipment Suppression Systems
    - .1 2 kitchen suppression systems
- .7 Harrington Lake:
  - .1 Fire Alarm System
    - .1 Edwards QS4+ QSC
  - .2 Sprinkler System
    - .1 Dry pipe system in attic
    - .2 Wet pipe in other portions of building
  - .3 Fire Pump
    - .1 1 fire pump including all associated equipment such as jockey pump and associated controllers

## QUOTATION

- .4 Backflow preventer
  - .1 1 backflow prevention device
  
- .8 Speakers Farm:
  - .1 Fire Alarm System
    - .1 Edwards 2280
    - .2 Includes standalone smoke alarms
  - .2 Sprinkler System
    - .1 Dry pipe system in attic
    - .2 Wet pipe in other portions of building
  - .3 Fire Pump
    - .1 1 fire pump including all associated equipment such as jockey pump and associated controllers
  
- .9 Prime Minister's Residence:
  - .1 Fire Alarm System
    - .1 Edwards EST-2
  - .2 Cooking Equipment Suppression Systems
    - .1 1 kitchen suppression system
  
- .10 Prime Minister's Residence Security Building:
  - .1 Fire Alarm System
  
- .11 7 Rideau Gate:
  - .1 Fire Alarm System
    - .1 Simplex 4008
    - .2 9 smoke detectors
    - .3 1 duct smoke detector
    - .4 15 audible devices
    - .5 4 heat detectors
    - .6 7 manual pull stations
    - .7 2 ancillary device
    - .8 4 isolators
    - .9 2 end of line devices
    - .10 7 standalone smoke alarms
  - .2 Cooking Equipment Suppression Systems
    - .1 1 kitchen suppression system

### PART 2 – ADDITIONAL COST

#### 2.1. Hourly Costs

- .1 Contractor to submit employee set rates for their applicable trade from the list below:

## QUOTATION

- .1 Hourly rates for sprinkler, standpipe, backflow preventer and fire pump Journeyman and apprentice for:
  - .1 normal working hours;
  - .2 after normal working hours;
  - .3 holiday and weekend working hours;
- .2 Hourly rates for fire alarm CFAA licensed technician and apprentice for:
  - .1 normal working hours;
  - .2 after normal working hours;
  - .3 holiday and weekend working hours;
- .3 Hourly sub-contractor rates for all systems not maintained by bidding contractor for licensed technician and apprentice for:
  - .1 normal working hours;
  - .2 after normal working hours;
  - .3 holiday and weekend working hours;

### 2.2. Service Calls

- .1 Bidding contractor to indicate minimum duration of service call.
- .2 Contractor to submit employee set rates for their applicable trade from the list below:
  - .1 Rates for sprinkler, standpipe, backflow preventer and fire pump Journeyman and apprentice for:
    - .1 normal working hours;
    - .2 after normal working hours; and
    - .3 holiday and weekend working hours.
  - .2 Rates for fire alarm CFAA licensed technician and apprentice for:
    - .1 normal working hours;
    - .2 after normal working hours; and
    - .3 holiday and weekend working hours.
  - .3 Sub-contractor rates for all systems not maintained by bidding contractor for licensed technician and apprentice for:
    - .1 normal working hours;
    - .2 after normal working hours; and
    - .3 holiday and weekend working hours.

## QUOTATION

2.3. Material Cost

.1 Contractor to indicate overhead markup (%) on material.

2.4. Additional Devices

.1 Contractor to account for an additional 10 fire alarm devices per building not shown on the device list in Section 1.

.2 Contractor to provide unit cost per extinguisher for maintenance and testing.

2.5. 5-Year Maintenance

.1 Where required, the requirements for 5-year maintenance shall be performed once as part of the 36 month service contract.

# HYDRANTS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Building hydrant private fire hydrant system:
  - .1 The property at Rideau Hall is protected with 6 private fire hydrants for the use of the fire department.

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 24-2010, Standard for the Installation of Private Service Fire Service Mains and Their Appurtenances.
- .3 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the hydrant system testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is complete.

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.

## HYDRANTS

- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Hoses
  - .2 Gauges
  - .3 All required tools and materials

### PART 3 – EXECUTION

#### 3.1 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 24 and NFPA 25.
- .2 Hydrants shall be inspected at three intervals between November and March (limited to one inspection per month unless requested otherwise) during cold weather to ensure hydrants are not leaking or frozen.

#### 3.2 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 24 and NFPA 25.
- .2 Dry barrel hydrants shall be inspected annually and after each operation with necessary corrective measures taken per Table 7.2.2.4 of NFPA 25.
- .3 Mainline strainers shall be inspected and cleaned after each system flow exceeding that of a nominal 50 mm orifice and shall be removed and inspected for failing, damage and corroded parts with the necessary corrective action take per Table 7.2.2.3 of NFPA 25
- .4 Exposed piping shall be inspected and the necessary corrective action shall be taken per Table 7.2.2.1.2 of NFPA 25.

## HYDRANTS

- .5 Exposed piping installed in areas that are inaccessible for safety concerns due to process operations shall be inspected during each scheduled shutdown.
- .6 Hydrants shall be lubricated to ensure that all stems, caps, plugs and threads are in proper operating conditions.
- .7 Hydrants shall be kept free of snow, ice, or other materials and protected against mechanical damage so that free access is ensured.
- .8 Hydrants shall be test to ensure proper functioning as follows:
  - .1 Fully open and flow water until all foreign material has cleared.
  - .2 Flow shall be maintained for a minimum of 1 minute.
  - .3 After flow, the dry barrel shall be observed for proper drainage from the barrel.
  - .4 Full drainage should not take longer than 60 minutes.
  - .5 Where soil conditions or other factors are such that the hydrant barrel does not drain within 60 minutes, or where the groundwater level is above that of the hydrant drain, the hydrant drain shall be plugged and the water in the barrel pumped out.
  - .6 Dry barrel hydrants in areas subjected to freezing weather and have plugged drains shall be identified clearly as needing pumping after operation.
- .9 Provide the owner or the owner's representative with test records showing date of test, name of technician.

# FIRE EXTINGUISHERS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Fire extinguishers:
  - .1 Numerous fire extinguishers are located at various locations throughout the buildings including in the fire hose cabinets.
  - .2 Various types such as pressurized water, multi-purpose dry chemical and carbon dioxide extinguishers are located in the building.
  - .3 There are approximately 155 extinguishers in the buildings combined.

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 10-2010, Standard for Portable Fire Extinguishers.

### 1.3. Affected Building Systems

- .1 Where an extinguisher is removed for service, the contractor is to supply a temporarily extinguisher in its place. Temporary extinguisher to be same type and rating as extinguisher being removed for service.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the extinguisher verification, the contractor is to provide the owner or the owner's representative with a test report indicating date of test or verification, name of technician, all verified extinguishers, a list of all extinguishers requiring further maintenance, and any deficiencies identified during verification.
- .2 Test records to be provided no later than 5 business days after testing is completed.



# FIRE EXTINGUISHERS

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .3 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Scales
  - .2 Refill and testing equipment
  - .3 All required tools and materials

## PART 3 – EXECUTION

### 3.1. Annual Testing Procedure

- .1 Perform a visual inspection to ensure the installation meets the requirements of NFPA 10.
- .2 Persons performing the annual maintenance shall be certified by a test administered by an organization acceptable by the Authority Having Jurisdiction, and the test shall cover the chapters and annexes of NFPA 10.
- .3 The extinguisher check shall include:
  1. Remove the extinguisher from hanger, bracket, or cabinet and visually examine it for damage.
  2. Verify that the hanger, bracket, or cabinet is the proper one for the extinguisher.
  3. Ensure that the hanger, bracket, or cabinet is secure, undamaged and properly mounted.
  4. Ensure that the nameplate operating instructions are legible and facing outward.
  5. Confirm that the extinguisher model is not subject to recall and is not obsolete.
  6. Check extinguisher records to determine internal examination and hydrostatic test intervals.
  7. Thoroughly examine cylinder for dents, damage, repairs or corrosion.

## FIRE EXTINGUISHERS

8. Remove the pull pin to ensure that it functions properly and is not damaged or corroded.
  9. Examine the handle and levers to ensure that they are undamaged and operable.
  10. Ensure that the valve stem is correctly extended and not corroded or damaged.
  11. Verify that the pressure gauge or indicator is in the operable range.
  12. Examine the pressure gauge to ensure that it is not damaged, bent or cracked.
  13. Verify that the gauge-operation pressure corresponds with the nameplate instructions.
  14. Verify that the gauge face corresponds with the proper agent type.
  15. Verify that the gauge threads are compatible with the valve body material.
  16. Remove the nozzle or hose assembly or both and ensure that they are unobstructed.
  17. Confirm that the nozzle and hose assembly are correct for the model of extinguisher.
  18. Examine exposed thread areas for corrosion, wear, or damage.
  19. Ensure that the hose and couplings are not cut, cracked, damaged or deformed.
  20. Examine internal valve port surfaces and thread for signs of leakage or corrosion.
  21. Reinstall the nozzle and hose assembly securely.
  22. Ensure that the hose retention band is secure and properly adjusted.
  23. Weigh the extinguisher to verify that it corresponds to the weight listed on the nameplate.
  24. Reinstall the ring pin and install a new tamper inspection seal.
  25. Clean exposed extinguisher surfaces to remove any foreign material.
  26. Record the maintenance on the extinguisher tag or label.
  27. Return the extinguisher to the hanger, bracket or cabinet.
- .4 All extinguishers containing a loaded stream agent shall be disassembled and subjected to a complete maintenance with an internal examination of the extinguisher.
- .5 All extinguishers requiring a 6 and 12-year hydrostatic test subjected to temperatures at or above their listed rating for

## FIRE EXTINGUISHERS

stored-pressure extinguishers shall required to be emptied and subject to applicable maintenance and recharge procedures.

- .6 Carbon dioxide hose assemblies shall undergo a conductivity test and be provided with a durable weatherproof label indicating the month and year the test was perform, indicated by perforation. The name or initials of the person performing the test and the name of the agency performing the test is also indicated on the label. Hoses which fail the test must be discarded and replaced.
- .7 Pump-tank water and pump-tank chemical extinguishers shall be recharged with new agent.
- .8 Any extinguisher removed for service shall be replaced with an extinguisher of better or equal rating until the serviced extinguisher is returned.
- .9 Internal examinations during annual maintenance shall not be required for non-rechargeable, carbon dioxide, or store-pressure fire extinguishers; except for those in item 5.

# FIRE ALARM SYSTEMS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Fire alarm system:
  - .1 Dome Building on Rideau Hall Campus- General Electric iO 500 Intelligent Life Safety System
  - .2 Rideau Cottage on Rideau Hall Campus – Notifier NFS-320C fire alarm panel
  - .3 Gate Lodge - Siemens MXL-IQ addressable fire alarm panel
  - .4 Stable Building on Rideau Hall Campus - Siemens MXL-IQ addressable fire alarm panel
  - .5 Rideau Hall - Simplex 4100U
  - .6 Stornoway - Edwards 1221T Fire Alarm Panel
    - .1 Includes standalone smoke detectors.
  - .7 Prime Minister’s Residence - Edwards EST2 Fire Alarm Panel
  - .8 P.M. Residence Security Building
  - .9 Speakers Farm - Edwards 2280 Fire Alarm Panel
    - .1 Includes standalone smoke detectors.
  - .10 Harrington Lake - Edwards QS4+ QSC Fire Alarm Panels
  - .11 7 Rideau Gate – Simplex 4008 Fire Alarm Panel
    - .1 Includes standalone smoke detectors.

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 CAN/ULC-S536-M04 “Standard for the Inspection and Testing of Fire Alarm Systems”
- .3 CAN/ULC-S524-M06 “Standard for the Installation of fire Alarm Systems”
- .4 CAN/ULC-S529-09 “ Standard for Smoke Detectors for Fire Alarm Systems”
- .5 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

## FIRE ALARM SYSTEMS

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the fire alarm system testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is completed.

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 Use ULC listed smoke test gas for testing of smoke detectors.
- .2 Use manufacturer approved meters for smoke detector sensitivity measuring.
- .3 Use calibrated and certified audibility meters to measure fire alarm decibel levels.
- .4 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .5 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Decibel meter,
  - .2 Digital multi-meter,
  - .3 Smoke detector sensitivity meter;

## FIRE ALARM SYSTEMS

- .4 Replaceable glass rods for manual pull stations;
- .5 Load resistors for silent load tests of batteries;
- .6 All required tools and materials

### PART 3 – EXECUTION

#### 3.1. Monthly Testing Procedure

- .1 Conduct all tests per ULC-S536-04 requirements.
- .2 Disconnect the primary AC power to the fire alarm system.
  - .1 The fire department, central monitoring stations, and building occupants shall all be notified prior to conducting any tests. Building occupants shall be told that an alarm will sound.
  - .2 While on emergency power, inspect and test the following to confirm the operability of the fire alarm system:
    - .1 Operate one initiating field device or manual pull station on a rotational basis. Ensure that an alarm or alert is confirmed to a minimum of one zone or as may be required under the building fire safety plan. Ensure that the correct zone is identified on the fire alarm panel, any annunciator, any printer and any computer display unit.
    - .2 Make sure that the operated audible alarms are functioning properly and can be clearly heard.
    - .3 Using the lamp test button, confirm the operation of common audible and visual trouble signals.
    - .4 Inspect the fire alarm batteries to ensure that the terminals are clean and lubricated, the terminal clamps are secure and the electrolyte levels and specific gravity (where applicable) are at the levels specified by the manufacturer.
    - .5 Inspect for sulfation, corrosion and electrolyte leaks. Also check for cracks around the terminal posts.
    - .6 Test one emergency telephone on a rotational basis for two way communication and correct indication at the control unit.
    - .7 Use the master paging microphone and provide a page message to one floor on a rotational basis and confirm speaker operation and intelligibility of the voice message.
    - .8 If there are any deficiencies noted during the tests, take corrective actions to resolve the problems or contact the building management.

## FIRE ALARM SYSTEMS

- .3 Following the fire alarm testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, findings, results and any deficiencies identified during testing.

### 3.2. Annual Testing Procedure

- .1 The fire department, central monitoring stations, and building occupants shall all be notified prior to conducting any tests. Building occupants shall be told that an alarm will sound.
- .2 Conduct tests per ULC-S536-04 and NFC 2005 requirements.
- .3 One conventional field device in each input circuit and one active field device in each software zone shall be tested to confirm appropriate output circuit operation. As well, one conventional field device in each input circuit monitored be a supporting field device shall be operated to activate applicable alarm signal devices.
- .4 Each control unit, and each remote field panel (DGP, transponder) shall be tested to confirm operability, and all functions as applicable. As a minimum, the following must be tested:
  - .1 Power 'On' visual indicator.
  - .2 Common visual trouble signal.
  - .3 Common audible trouble signal.
  - .4 Trouble signal silence switch.
  - .5 Main power supply failure trouble signal.
  - .6 Ground fault tested on positive and negative trouble signal.
  - .7 Alert signal operation.
  - .8 Alarm signal operation.
  - .9 Automatic transfer from alert signal to alarm signal.
  - .10 Manual transfer from alert signal to alarm signal.
  - .11 Automatic transfer from alert signal to alarm signal cancel acknowledgment feature operates on a two-stage system.
  - .12 Alarm signal silence inhibit.
  - .13 Alarm signal manual silence operation.
  - .14 Alarm signal silence visual indication.
  - .15 Alarm signal, when silenced, automatically reinstate upon subsequent alarm.
  - .16 Alarm signal silence automatic cutout timer.
  - .17 Audible and visual alert signals and alarm signals programmed and operate per design and specification.

## FIRE ALARM SYSTEMS

- .18 Input circuit, alarm and supervisory operation including visual indicator.
  - .19 Input circuit supervision fault causes a trouble indication.
  - .20 Output circuit alarm operation.
  - .21 Output circuit supervision fault causes a trouble indication.
  - .22 Visual indicator test (lamp test).
  - .23 Coded signal sequences operate not less than the required number of times and the correct alarm signal operates thereafter.
  - .24 Coded signal sequences are not interrupted by subsequent alarm.
  - .25 Ancillary circuit by-pass will result in a trouble signal.
  - .26 Input circuit to output circuit operation, including ancillary device circuits, for correct matrix operation, as per design and specification.
  - .27 Reset operation.
  - .28 Main power supply to emergency power supply transfer.
  - .29 Status change confirmation (smoke detectors only) verified.
  - .30 Receipt of the alarm transmission to the fire signal receiving centre.
  - .31 Receipt of the supervisory transmission to the fire signal receiving centre.
  - .32 Receipt of the trouble transmission to the fire signal receiving centre.
  - .33 Record the name and telephone number of the fire signal receiving centre.
  - .34 Operation of the fire signal receiving centre disconnect mean results in a specific trouble indication at the control unit or transponder and transmits a trouble signal to the fire signal receiving centre.
- .6 Each control unit, and each remote field panel (DGP, transponder) shall be tested to confirm operability, and all functions as applicable for the voice communication system. As a minimum, the following must be tested:
- .1 Power 'On' indicator.
  - .2 Common visual trouble signal.
  - .3 Common audible trouble signal.
  - .4 Trouble signal silence switch.
  - .5 All-call voice paging including visual indicator.
  - .6 Output circuits for selective voice paging, including visual indication.
  - .7 Output circuits for selective voice paging trouble operation, including visual indication.



## FIRE ALARM SYSTEMS

- .8 Microphone including press to talk switch.
  - .9 Operation of voice paging does not interfere with initial inhibit time of alert signal and alarm signal.
  - .10 All-call voice paging operates (on emergency power supply).
  - .11 Upon failure of one amplifier, system automatically transfers to back-up amplifier(s).
  - .12 Circuits for emergency telephone call-in operation, including audible and visual indication.
  - .13 Circuits for emergency telephones for operation including two-way voice communication.
  - .14 Circuits for emergency telephone trouble operation including visual indication.
  - .15 Emergency telephone verbal communication.
  - .16 Emergency telephone operable or in-use tone at handset.
- .7 Each control unit and each remote field panel (DGP, transponder) shall be inspected to confirm ratings/designations. As a minimum the following must be inspected:
- .1 Input circuit designations, correctly 'identified in relation to connected field -devices.
  - .2 Output circuit designations, correctly identified in relation to connected field devices.
  - .3 Designations for common control functions and indicators.
  - .4 Plug-in components and modules securely in place.
  - .5 Plug-in cables securely in place.
  - .6 Record the date, revision and version of firmware and software.
  - .7 Cleanliness.
  - .8 Fuses in accordance with manufacturer's specification.
  - .9 Control unit lock functional.
  - .10 Termination points from wiring to field devices secure.
- .8 Each control unit or transponder main power supply shall be inspected. As a minimum the following must be inspected:
- 1. Fused in accordance with manufacturer's marked rating of the system.
  - 2. Adequate to meet the requirements of the system.
- .9 Each battery shall be inspected and tested to confirm operability, including the following:
- .1 Correct type as recommended by manufacturer.
  - .2 Correct rating as determined by battery calculations based in full system load.
  - .3 Voltage with main power supply "on".

## FIRE ALARM SYSTEMS

- .4 Voltage and current with main power supply “off” and the fire alarm system in supervisory condition.
  - .5 Voltage and current with main power supply “off” and the fire alarm system in full load alarm condition.
  - .6 Charging current.
  - .7 Physical damage.
  - .8 Terminals cleaned and lubricated.
  - .9 Terminals clamped tightly.
  - .10 Correct electrolyte level.
  - .11 Specific gravity of electrolyte within manufacturer’s specifications.
  - .12 Electrolyte leakage.
  - .13 Adequate ventilation.
  - .14 Record the battery manufacturer’s date code or in-service date.
  - .15 Disconnection causes trouble signal.
  - .16 Perform battery tests demonstration specified battery operation as follows, after which the battery voltage should not be less than 85% of its rating after the test, otherwise replace batteries:
    - .1 Required supervisory load for 24 hours followed by the required full load operation, or
    - .2 A silent test by using the load resistor method may be used for the full duration test, or
    - .3 Silent accelerated test, or
    - .4 A battery capacity metre test, or
    - .5 In lieu of the above battery tests, replace the battery with a new set having a current date code, amp-hour capacity and type as recommended by the manufacturer.
- .11 Annunciator Test and Inspection:
- .1 Check for the following:
    - .1 Power on indicator.
    - .2 Individual alarm and supervisory zones are clearly indicated and separately designated.
    - .3 Individual alarm and supervisory zone designation labels are properly identified.
    - .4 Common trouble signal.
    - .5 Visual indicator test (lamp test).
    - .6 Input wiring from control unit is supervised.
    - .7 Alarm signal silence visual indicator.
    - .8 Switches for ancillary functions operate as intended.
    - .9 Ancillary function visual indicators.
    - .10 Manual activation of alarm signal and indication.

## FIRE ALARM SYSTEMS

- .11 Displays are visible in installed locations.
  - .12 Operates on emergency power.
- .12 Where multiple annunciators are utilized within a building, each additional annunciator shall be inspected and test to confirm:
- 1. Power “on indicator.
  - 2. Individual alarm and supervisory zone indication.
  - 3. Individual alarm and supervisory zone designation labels are properly identified.
  - 4. Visual indicator test (lamp test).
  - 5. Input wiring from control unit or transponder is supervised.
  - 6. Alarm signal silence visual indicators.
  - 7. Switches for ancillary functions operate as per design and specification, or documentation.
  - 8. Ancillary function visual indicators.
  - 9. Manual activation of alarm signal and indication.
  - 10. Displays are visible in installed location.
- .13 Remote Trouble Unit Test And Inspection
- .1 Check for the following:
    - .1 Input wiring from control unit is supervised.
    - .2 Visual trouble signal.
    - .3 Audible trouble signal.
    - .4 Audible trouble signal silence.
- .14 Printer Test
- .1 Check for the following:
    - .1 Operation as intended.
    - .2 Zone of each alarm initiating device is correctly printed.
    - .3 Rated voltage is present.
- .15 Each data communication link shall be tested to confirm:
- 1. A trouble signal is received at the control unit or transponder under an open loop fault.
  - 2. Where fault isolation modules are installed in data communication links serving field devices, wiring shall be shorted on the isolated side, annunciation of the fault confirmed and then a field device on the source side shall be operated and activation confirmed at the control unit or transponder.
  - 3. Where fault isolation in data communication links is provided between control units or transponders and between transponders, introduce a short circuit fault and

## FIRE ALARM SYSTEMS

confirm annunciation of the fault and operation outside the shorted section between each pair of:

1. control unit to control unit,
2. control unit to transponder, and
3. transponder to transponder.

- .16 Each enabled function/feature of field devices shall be tested on a yearly basis to confirm annunciation to the control panel and to confirm the following:
  1. Free of damage.
  2. Free of foreign substance.
  3. Mechanically supported independent of wiring.
  4. Protective dust shields or covers removed.
- .17 Manual Pull Stations:
  - .1 Shall be tested by actuate the device as intended.
  - .2 Two-stage manual pull stations are to be tested by actuating the device as intended so that the first and second stage functions are confirmed.
- .18 Heat Detectors:
  1. Each heat detectors shall be tested to confirm operability.
  2. Each restorable heat detector shall be tested by using a heat source reproducible in its intensity, as recommended by the manufacturer of the device, to initiate al alarm.
  3. Each non-restorable heat detector shall have the circuits test be simulating its electrical operation at the wiring connection.
- .19 Smoke Detectors:
  - .1 Smoke detectors shall be visually inspected for cleanliness. When required, cleaning shall be done by manufacturer's recommendations.
  - .2 Smoke detectors shall be tested to confirm that it is within its rated operating range.
  - .3 Smoke detectors operability is to be tested according to the manufacturer's direction.
  - .4 Test and record the smoke detector's sensitivity to ensure it is within the operating range using the manufacturer's recommended equipment. Acceptable methods of determining sensitivities are:
    1. Manufacturer's recommended test instruments, equipment or method.

## FIRE ALARM SYSTEMS

2. Installed control units or transponders designed to test the sensitivity of individual smoke detectors.
  3. Calibrate instruments that provide the operation as describe in CAN/ULC-S529, Standard for Smoke Detectors for Fire Alarm Systems, for the purpose of testing smoke detector sensitivity.
  - .5 A cleaning schedule for the smoke detectors should be set up and maintained based on the result of the operability and sensitivity tests.
  - .6 Where provided, status change confirmation shall be inspected and tested to make sure and record that only the smoke detectors are affected by the operation of the status change confirmation circuit.
  - .7 Air duct and beam type smoke detectors shall be tested as directed by the manufacturer's instructions for operability.
  - .8 Confirm operation of remote indicator devices that the indication is clearly visible from the direction of travel to the protected area.
- .20 Combination Type Detectors:
1. Each combination type detector shall be tested to the requirements by the manufacturer.
- .21 Automatic Detectors – Other Types:
- .1 All the devices shall be tested using an alarm initiating source recommended by the manufacturer.
  - .2 The sensitivity of such devices shall be tested according to the manufacturer's recommendation.
  - .3 Detector is oriented so as to detect the hazard.
- .22 Sprinkler Waterflow Detection Devices:
- .1 Test each waterflow device by flowing water using the test connection.
  - .2 Time delay setting shall be recorded in the individual device record.
- .23 Sprinkler Supervisory Switches:
- .1 Make sure that all shutoff valves produce an audible (different than the alarm or alert signals) and visual (at the required panel) trouble indication when they are moved more than 20% from a normally opened position. All valves are to be tested.
  - .2 Ensure all low-pressure supervisory switches are tested properly to determine the operation of decrease pressure past the set limits will produce an audible (different than

## FIRE ALARM SYSTEMS

- the alarm or alert signals) and visual (at the required panel) trouble indication. All such switches are to be tested.
- .3 The low pressure (kPa) setting at which the device initiates a trouble signal and the upper pressure setting where the device is no longer activated shall be recorded.
  - .4 Either lowering the water level or initiating the device electronically at the wiring points will test a low water level supervisory device. This should result in an audible and visual trouble indication.
  - .5 All low temperature supervisory devices shall be initiated electrically at the wiring points. The simulation shall be used to record the temperature setting of such devices.
  - .6 The power loss supervisory devices shall be tested by disconnecting the main power supply connected to the equipment to ensure a visual and audible trouble condition is initiated.
  - .7 All other supervisory devices shall be tested for its installation according to the manufacturer's instructions or other appropriate tests to ensure that a trouble condition (both audible and visual) is initiated.
- .24 Other Fixed Type Extinguishing Systems (Cooking Equipment)
- .1 If connected to the fire alarm panel, confirm the correct operation of the output contacts and confirm correct operation of the visual and audible trouble signals
- .25 Signal Appliances – Speakers Included
- .1 Test and inspect the audible and visual devices for the following items:
    - .1 The tightness of the housing or shell.
    - .2 The intelligibility of voice messages shall function as intended throughout the area served by the devices.
    - .3 Audibility of alert and alarm signals throughout the area served by the device and for intelligibility (where applicable) of voice messages.
    - .4 The visibility of the visual alarm signals, such as strobes, throughout the area served by the device
    - .5 Devices using a combination of signaling principles shall be tested to the requirements appropriate to each principle of operation.

## FIRE ALARM SYSTEMS

- .26 Emergency Telephones:
  - .1 Test and inspect all emergency telephones for the following:
    - .1 Intelligible two way voice communication.
    - .2 Ensure there is correct annunciation at the control unit when the handset is lifted.
    - .3 Make sure that the operating instructions are clearly visible and that the lockable release mechanisms are intact.
    - .4 Ensure that the tones for 'system operable' and 'system in use' are received on each handset.
  
- .27 Conventional Circuit End-of-line Device:
  - .1 Each input/output end-of-line device shall be tested for open circuit fault, short circuit fault and ground fault conditions. The results shall be recorded in the inspection report.
  
- .29 Following the fire alarm testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, findings, results and any deficiencies identified during testing.

# DRY SPRINKLER SYSTEMS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Building dry sprinkler systems:
  - .1 The following buildings are protected in whole or partially by dry pipe sprinkler systems:
    - 1. Rideau Hall
    - 2. Speakers Farm
    - 3. Harrington Lake
    - 4. Rideau Cottage on Rideau Hall Campus

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 13-2010, Standard for the Installation of Sprinkler Systems.
- .3 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the sprinkler system testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is completed.



# DRY SPRINKLER SYSTEMS

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Hoses
  - .2 Gauges
  - .3 All required tools and materials

## PART 3 – EXECUTION

### 3.1 Monthly Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 Ensure that all sprinkler control valves are either supervised by the fire alarm system or are locked open. The valves shall be accessible, free from external leaks and provided with proper identification.
- .4 Where air pressure supervision is connected to a constantly location, gauges shall be inspected.
- .5 The exterior of the dry pipe and pre-action valve shall be inspected externally to verify no external damage, all trim valves are in their normal positions and the intermediate chamber is not leaking.

## DRY SPRINKLER SYSTEMS

- .6 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

### 3.2 Quarterly Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly testing requirements are to also be performed as part of the quarterly testing requirements.
- .4 Waterflow alarm and supervisory devices (except valve supervisory switches) shall be inspected to verify that they are free of physical damage.
- .5 The hydraulic design information sign for hydraulically design systems is required to be inspected to verify that they are securely attached and legible.
- .6 The priming water level in supervised preaction and dry systems shall be test for compliance with the manufacturer's instructions.
- .7 Low air pressure alarms for pre-action and dry systems shall be tested in accordance with the manufacturer's instructions.
- .8 Quick opening devices shall be test.
- .9 The fire department connections shall be inspected to verify the following:
  1. connections are visible and accessible,
  2. couplings or swivels are not damage and rotate smoothly,
  3. gaskets, plugs, caps and identification signs are undamaged, in place and in good condition,
  4. the check valve is not leaking, and
  5. the clappers are in place and working properly.

## DRY SPRINKLER SYSTEMS

- .10 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .11 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

### 3.3 Semi-Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly and quarterly testing requirements are to also be performed as part of the semi-annual testing requirements.
- .4 Pressure waterflow alarm devices with valve supervisory switches shall be tested.
- .5 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .6 Provide the owner or the owner's representative with test records showing all test results date of test, name of technician, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

### 3.4 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly, quarterly and semi-annual testing requirements are to also be performed as part of the annual testing requirements.
- .4 Perform a detailed inspection of all visible sprinkler system components (piping, sprinklers, hangers, etc) for signs of wear,

## DRY SPRINKLER SYSTEMS

corrosion or other defects that may result in faulty operation of the sprinkler system. Sprinkler shall be inspected:

- .1 From the ground level for leakage, corrosion, physical damage, loss of fluid in the glass bulb heat response element, loading and paint (unless painted by sprinkler manufacturer). Sprinkler in concealed areas shall not require inspection.
  - .2 In inaccessible areas for safety concerns, sprinklers shall be inspected during each scheduled shutdown.
  - .3 Minimum clearance required by NFPA 13 shall be kept below all sprinkler deflectors. Any stock, furniture or equipment closer to the allowed minimum clearance shall be corrected.
  - .4 Sprinklers piping, fittings, hangers and seismic hangers shall be inspected from the floor level.
  - .5 Stock of spare sprinkler shall have the correct number and type as per 5.4.1.4 and 5.4.1.5 of NFPA 25.
  - .6 A wrench is required for each type of sprinkler as per NFPA 25.
- 
- .5 Each control valve shall be operated through its full range and returned back to its normal position.
  - .6 All outside screw and yoke valves shall be lubricated and completely closed then reopened to test its operation and distribute the lubricant.
  - .7 Each dry pipe and deluge valve shall be trip tested at full flow in warm weather and in accordance with manufacturer's instructions.
  - .8 The interior and the detection devices of the pre-action and dry pipe valves shall be inspected when the trip test is conducted.
  - .9 Low temperature alarms on pre-action systems, if installed, are to be tested at the beginning of the heating season.
  - .10 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
  - .11 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated),

## DRY SPRINKLER SYSTEMS

problems encountered (if any) and any deficiencies identified on the system during testing.

### 3.5 5 Year Testing procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly, quarterly and semi-annual and annual testing requirements are to also be performed as part of the annual testing requirements.
- .4 The internal inspection of the pre-action valves that can be reset without removing the faceplate shall be permitted to be conducted every 5 years.
- .5 An inspection of the piping and branchline conditions shall be completed by:
  1. Opening a flushing connection at the end of one main and removing one sprinkler near the end of the system to inspect the presence of foreign organic and inorganic material.
  2. If tubercles or slim found, it shall be tested for the presence of microbiological corrosion (MIC).
  3. If there is enough foreign material in the piping causing possible clogging, a obstruction investigation must be conducted as describe in 14.3 of NFPA 25.
  4. A cross main does not require inspection should there be no method of inspection such as welded mains.
  5. In buildings with multiple wet systems, every other system shall have an internal inspection of piping every 5 years.
  6. If any presence of foreign organic and/or inorganic material is found in any system during the test, all other dry/pre-action systems shall have an internal inspection.
6. Gauges shall be replaced every 5 years or tested against a calibrated gauge. If the tested gauge is not within a 3% of the calibrated gauge, the gauge shall be recalibrated or replaced.
7. Solder-type extra high temperature rated (325 °C) or greater sprinklers that are exposed to semi-continuous to continuous maximum allowable ambient temperature conditions shall be tested.

## DRY SPRINKLER SYSTEMS

- .6 Pre-action and dry pipe valve strainers, filters, restricted orifices and diaphragms chambers shall be inspected internally unless test indicates a greater frequency is required.
- .7 Check valve shall be inspected internally to ensure all parts are in good condition and performing correctly.
- .8 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .9 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results including time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

# WET SPRINKLER SYSTEMS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Building wet sprinkler systems:
  - .1 The following buildings are protected in whole or in part by wet pipe sprinkler systems:
    - 1. Stable Building on Rideau Hall Campus
    - 2. Dome Building on Rideau Hall Campus
    - 3. Rideau Cottage on Rideau Hall Campus
    - 4. Speakers Farm
    - 5. Harrington Lake

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 13-2010, Standard for the Installation of Sprinkler Systems.
- .3 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the sprinkler system testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is complete.

# WET SPRINKLER SYSTEMS

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Hoses
  - .2 Gauges
  - .3 All required tools and materials

## PART 3 – EXECUTION

### 3.1. Monthly Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 Ensure that all sprinkler control valves are either supervised by the fire alarm system or are locked open. The valves shall be accessible, free from external leaks and provided with proper identification.
- .4 Alarm valves shall be externally inspected and shall verify that the gauges indicate the normal supply water pressure is being maintained.
- .5 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.



## WET SPRINKLER SYSTEMS

- .6 Provide the owner or the owner's representative with test records showing date of test, name of technician.

### 3.2 Quarterly Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to also ensure the installation meets the requirements of NFPA 13.
- .3 All monthly testing requirements are to also be performed as part of the quarterly testing requirements.
- .4 Waterflow alarm and supervisory devices (except valve supervisory switches) shall be inspected to verify that they are free of physical damage.
- .5 The hydraulic design information sign for hydraulically design systems is required to be inspected to verify that they are securely attached and legible.
- .6 Mechanical waterflow alarm devices including water motor gongs shall be tested.
- .7 Pressure relief and reducing devices shall be inspected to verify that they are in the open position, not leaking, maintaining downstream pressures according to the design criteria and in good condition with the handwheels intact and unbroken.
- .8 In systems where the sole water supply is through a backflow preventer and/or pressure reducing valve, the main drain test of at least one system downstream of the device shall be performed.
- .9 The fire department connections shall be inspected to verify the following:
  - .1 connections are visible and accessible,
  - .2 couplings or swivels are not damage and rotate smoothly,
  - .3 gaskets, plugs, caps and identification signs are undamaged, in place and in good condition,
  - .4 the check valve is not leaking, and
  - .5 the clappers are in place and working properly.

## WET SPRINKLER SYSTEMS

- .10 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .11 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results including time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

### 3.3 Semi-Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly and quarterly testing requirements are to also be performed as part of the semi-annual testing requirements.
- .4 Vane-type and pressure waterflow alarm devices with valve supervisory switches shall be tested.
- .5 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .6 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results including time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

### 3.4 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly, quarterly, and semi-annual testing requirements are to also be performed as part of the annual testing requirements.

## WET SPRINKLER SYSTEMS

- .4 Perform a detailed inspection of all visible sprinkler system components (piping, fittings sprinklers, hangers, seismic hangers, etc) for signs of wear, corrosion or other defects that may result in faulty operation of the sprinkler system.  
Sprinklers shall be inspected:
  1. From the ground level for leakage, corrosion, physical damage, loss of fluid in the glass bulb heat response element, loading and paint (unless painted by sprinkler manufacturer). Sprinkler in concealed areas shall not require inspection.
  2. In inaccessible areas for safety concerns, shall be inspected during each scheduled shutdown.
  3. The minimum clearance by NFPA 13 shall be keep below all sprinkler deflectors. Any stock, furniture or equipment closer to the allowed minimum clearance shall be corrected.
  4. Spare sprinkler shall have the correct number and type of sprinklers as per 5.4.1.4 and 5.4.1.5 of NFPA 25.
  5. A wrench is required for each type of sprinkler as per NFPA 25.
- .5 Main drain test shall be conducted at each system riser to verify the condition of the water supply piping and control valves have not changed.
- .6 Each control valve shall be operated through its full range and returned back to its normal position.
- .7 All outside screw and yoke valves shall be lubricated and completely closed then reopened to test its operation and distribute the lubricant.
- .8 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .9 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results including time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

## WET SPRINKLER SYSTEMS

### 3.5 Five year Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 13.
- .3 All monthly, quarterly, semi-annual and annual testing requirements are to be performed as part of the annual testing requirements.
- .4 An inspection of the piping and branchline conditions shall be completed by:
  - .1 Opening a flushing connection at the end of one main and removing one sprinkler near the end of the system to inspect the presence of foreign organic and inorganic material.
  - .2 If tubercles or slim found, it shall be tested for the presence of microbiological corrosion (MIC).
  - .3 If there is enough foreign material in the piping causing possible clogging, a obstruction investigation must be conducted as describe in 14.3 of NFPA 25.
  - .4 A cross main does not require inspection should there be no method of inspection such as a welded main.
  - .5 In buildings with multiple wet systems, every other system shall have an internal inspection of piping.
  - .6 If any presence of foreign organic and/or inorganic material is found in any system during the test, all other wet systems shall have an internal inspection.
- .5 Gauges shall be replaced every 5 years or tested against a calibrated gauge. If the tested gauge is not within a 3% of the calibrated gauge, the gauge shall be recalibrated or replaced.
- .6 Solder-type extra high temperature rated (325 °C) or greater sprinklers that are exposed to semi-continuous to continuous maximum allowable ambient temperature conditions shall be tested.
- .7 Alarm valves and their strainers, filters and restriction orifices shall be inspected unless a greater frequency is necessary.
- .8 Check valve shall be inspected internally to ensure all parts are in good condition and performing correctly.

## WET SPRINKLER SYSTEMS

- .9 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .10 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results including time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

# STANDPIPE SYSTEMS

## PART 1 - GENERAL

### 1.1. References

- .1 Standpipe systems:
  - .1 The following buildings are protected by standpipe systems:
    - 1. Rideau Hall

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 14-2010, Standard for the Installation of Standpipe, Private hydrant and Hose Systems.
- .3 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the standpipe system testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is complete.

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.

## STANDPIPE SYSTEMS

- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Hoses
  - .2 Gauges
  - .3 All required tools and materials

### PART 3 – EXECUTION

#### 3.1 Quarterly Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 14.
- .3 Mechanical waterflow alarm devices including water motor gongs shall be tested.
- .4 The fire department connections shall be inspected to verify the following:
  1. connections are visible and accessible,
  2. couplings or swivels are not damaged and rotate smoothly,
  3. gaskets, plugs, caps and identification signs are undamaged, in place and in good condition,
  4. the check valve is not leaking, and
  5. the clappers are in place and working properly.
- .5 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .6 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, a list of all devices tested or verified, problems encountered (if any) and any deficiencies identified on the system during testing.

# STANDPIPE SYSTEMS

## 3.2 Semi-Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 14.
- .3 All monthly and quarterly testing requirements are to also be performed as part of the semi-annual testing requirements.
- .4 Vane-type and pressure waterflow alarm devices with valve supervisory switches shall be tested.
- .5 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .6 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, time delay between activation of the test valve and activation of the audible signal, a list of all devices tested (including location of the device and fire alarm zone initiated), problems encountered (if any) and any deficiencies identified on the system during testing.

## 3.3 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 14.
- .3 All monthly, quarterly and semi-annual testing requirements are to also be performed as part of the semi-annual testing requirements.
- .4 Main drain test shall be conducted at each system riser to verify the condition of the water supply piping and control valves have not changed.
- .5 Components of standpipe and hose systems shall be visually inspected.
- .6 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, a list of all devices tested or verified, problems



## STANDPIPE SYSTEMS

encountered (if any) and any deficiencies identified on the system during testing.

### 3.4 5 Year Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 14.
- .3 All monthly, quarterly, semi-annual and annual testing requirements are to also be performed as part of the 5 year testing requirements.
- .4 A flow test shall be conducted at the hydraulically most remote hose connections for each zone of an automatic standpipe system to ensure the water supply still provides the design pressure at the required flow.
- .5 All systems shall be flow and pressure tested at the requirements for the design criteria in effect at the time of installation.
- .6 Standpipe, sprinkler connections to standpipes or hose stations equipped with pressure reducing valves or pressure regulating valves shall have these valves inspected, tested and maintained in accordance with the requirements of Chapter 13 of NFPA 25.
- .7 The main drain or low point drain test shall be performed on all standpipe systems with automatic water supplies in accordance with the requirements of Chapter 13 of NFPA 25.
- .8 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician, a list of all devices tested or verified, problems encountered (if any) and any deficiencies identified on the system during testing.

# FIRE PUMP

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Fire pump:
  - .1 The following buildings are provided with a fire pump:
    - .1 Rideau Hall
    - .2 Speakers Farm
    - .3 Harrington Lake

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 20-2010, Standard for the Installation of Stationary Pumps for Fire Protection.
- .3 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the fire pump testing, the contractor is to provide the owner or the owner's representative with a test report no later than 5 business days after testing, indicating date of test, name of technician, the readings recorded at all fire pump test points, and the following fire pump information:
  - .1 Flow
  - .2 Suction pressure
  - .3 Discharge pressure
  - .4 Boost pressure
  - .5 Amperes
  - .6 Voltage
  - .7 Revolution per minute
  - .8 Number and size of nozzles used for testing
  - .9 Pitot readings at nozzles

## FIRE PUMP

- .2 The test report supplied by the contractor is also to include the following information regarding the fire pump:
  - .1 Fire Pump type
  - .2 Manufacturer
  - .3 Model
  - .4 Serial number
  - .5 Impeller size
  - .6 Suction and discharge sizes
  - .7 Rated pressure and flow
  - .8 Rated pressure at shutoff and 150%
  - .9 Rated revolution per minute
  - .10 Casing relief valve status
  
- .3 The test report supplied by the contractor is also to include the following information regarding the driver (motor):
  - .1 Type
  - .2 Manufacturer
  - .3 Model
  - .4 Serial number
  - .5 Rated revolution per minute
  - .6 Rated temperature
  - .7 Rated voltage and amperage
  - .8 Cycle
  - .9 Phase
  - .10 Rated horsepower
  
- .4 The test report supplied by the contractor is also to include the following information regarding the controller:
  - .1 Manufacturer
  - .2 Model
  - .3 Serial number

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
  
- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.

## FIRE PUMP

- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 All fire pump flow tests to be performed using “Hose Monsters”.
- .5 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Hoses and nozzles
  - .2 Pitot tubes
  - .3 “Hose Monsters”
  - .4 Gauges
  - .5 Ammeters and voltmeters
  - .6 RPM meters
  - .7 All required tools and materials

### PART 3 – EXECUTION

#### 3.1 Monthly Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 20.
- .3 Electric fire pumps only shall be started automatically and operated at churn conditions for at least 10 minutes.
- .4 Visual observations or adjustments specified in the following checklist shall be conducted:
  - .1 Fire pump system procedure follows:
    - .1 record the system suction and discharge pressure gauge reading,
    - .2 check the fire pump packing glands for slight discharge,
    - .3 adjust gland nuts if necessary,
    - .4 check for unusual noise,
    - .5 check packing boxes, bearings, or fire pump casing for overheating, and
    - .6 record the fire pump starting pressure.
  - .2 Electrical system procedure follows:
    - .1 observe the time for motor to accelerate to full speed, and

## FIRE PUMP

- .2 record the time controller is on first step (for automatic stop controllers)
- .5 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .6 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results, required fire pump information, problems encountered (if any) and any deficiencies identified during testing.

### 3.2 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 Perform a visual inspection to ensure the installation meets the requirements of NFPA 20.
- .3 All monthly testing requirements are to be performed as part of the semi-annual testing requirements.
- .4 Each fire pump assembly shall be tested under minimum, rated and peak flows by controlling the amount of water that is discharged through "hose monsters".
- .5 The fire pump suction and discharge pressures and the flow measurements of each hose stream shall be determine the total fire pump output meanwhile being careful to prevent water damage by verifying that there is adequate drainage for high pressure water discharge from hoses.
- .6 Pertinent visual observations, measurements and adjustments in the following checklist shall be conducted while the fire pump is running and flowing water under specific output conditions:
  - .1 At no-flow conditions (churn) as follows:
    - .1 check the circulation relief valve for operation to discharge water, and
    - .2 check the pressure relief valve for proper operation.
  - .2 At each flow condition as follows:
    - .1 record the electric motor voltage and current,
    - .2 record the fire pump speed in rpm,
    - .3 record the simultaneous readings of fire pump suction and discharge pressure and fire pump discharge flow.

## FIRE PUMP

- .6 For electric motor-driven fire pumps, the fire pump shall not be shutdown until the fire pump has ran for 10 minutes.
- .7 For fire pumps with a pressure relief valves, the discharge pressure must be observed to ensure that they do not exceed the normal operating pressure of the system components and that the pressure relief valve closes at the proper pressure.
- .8 The pressure relief valve during flow conditions shall be closed to reach minimum rated characteristics for the fire pump and reset to its normal position.
- .9 Fire pumps with transfer switches shall test the following to make sure the over-current protection devices do not open:
  1. Simulate a power failure condition while the fire pump is operating at peak load.
  2. Verify that the transfer switch transfers power to the alternate power source.
  3. Verify that the fire pump continues to perform at peak load.
  4. Remove the power failure condition and verify that, after a time delay, the fire pump is reconnected to the normal power source.
- .10 Alarm conditions shall be simulated by activating alarm circuits at alarm sensor locations, and all such local or remote alarm indication devices shall be observed for operation.
- .11 Once all tests have been completed, reset the fire pump to normal operating status and return the system and ensure that the fire alarm is free of alarm or trouble signals.
- .12 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results, required fire pump information, problems encountered (if any) and any deficiencies identified during testing.

# BACKFLOW PREVENTERS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Building backflow preventers:
  - .1 Backflow preventers are installed between the connection to the domestic water supply and the fire protection systems to prevention contamination of the water supply by water from fire protection systems.
    - .1 Backflow preventer (1) is present at Harrington Lake.
    - .2 Backflow preventer (1) is present at the Rideau Cottage on Rideau Hall Campus.
    - .3 Backflow preventer (1) is present at the Stable Building on Rideau Hall Campus.

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 ANSI/NFPA 25-2011, Standard for the Inspection, Maintenance and Testing of Water-Based Fire Protection Systems.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the testing of the backflow preventer, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is completed.

# BACKFLOW PREVENTERS

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 Any gauges used to be new or recently calibrated liquid filled gauges capable of clearly displaying at least twice the expected maximum pressure.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Hoses
  - .2 Gauges
  - .3 All required tools and materials

## PART 3 – EXECUTION

### 3.1. Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 25.
- .2 A forward flow test of the system at the designed flow rate, including hose stream demand, including hoses stations downstream of the backflow preventer shall be conducted on all fire protection backflow preventers.
- .3 Backflow preventers under 50 mm in size and under the forward flow test shall be acceptable to conduct without flow, where the test outlet is of a size to flow the system demand.
- .4 When water is rationed during water shortages lasting more than 1 year, an internal inspection of the backflow preventer is required to ensure the check valves will fully open and will take the place of the annual forward flow test.
- .5 Where full flow test is not possible, the test shall be done to the maximum flow rate.



## BACKFLOW PREVENTERS

- .6 The forward flow test shall not be require where annual fire pump testing causes the system demand to flow through the backflow preventer device.
- .7 Following the test, return system to normal operating condition and ensure that the fire alarm is free of alarm or trouble signals.
- .8 Provide the owner or the owner's representative with test records showing date of test, name of technician, all test results, problems encountered (if any) and any deficiencies identified on the system during testing.

# COMMERICAL COOKING EQUIPMENT AND OPERATIONS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Commercial cooking operations systems:
  - .1 1 Amerex Model KP-600 wet chemical system.
  - .2 1 RangeGuard, Model 2.5 G wet chemical system.
  - .3 1 Gaylord Model WC-25-R water wash down system.
  - .4 1 Gaylord Model HC3-25-S water wash down system.
  - .5 Kitchen Suppression Systems (2) at Stornoway.
  - .6 Kitchen Suppression System (1) at Prime Minister's Residence.
  - .7 Kitchen Suppression System (1) at 7 Rideau Gate.

### 1.2. References

- .1 NFC 2010, National Fire Code of Canada
- .2 NFPA 96 - 2011, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the testing of the backflow preventer, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is completed.

# COMMERICAL COOKING EQUIPMENT AND OPERATIONS

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .3 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).
- .4 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 Cleaning agents and material
  - .2 All required tools and materials

## PART 3 – EXECUTION

### 3.1. Semi-Annual Testing Procedure

- .1 Inspection and testing shall be performed per the requirements of NFPA 96.
- .2 Only properly trained, qualified and certified person(s) acceptable to the authority having jurisdiction shall inspect, test and/or maintain commercial cooking systems.
- .3 For moderate volume cooking operations:
  - .1 Clean all hoods, fans, ducts, grease removal devices and other apparatus to bare metal to prevent the surfaces from becoming heavily contaminated with grease or oily sludge. Do not use solvents of fusible links or other detection devices on the system.
  - .2 Following the cleaning procedure, do not coat the system with powder or other substances.
  - .3 Lock out electrical switches that could accidentally activate before starting the cleaning process.
  - .4 Fire suppression or extinguishing systems shall not be rendered inoperable unless maintenance is performed by a trained and qualified person in accordance to NFPA 96.
  - .5 Do not use any flammable or combustible cleaning aids.
  - .6 Replace all access panels and cover plates. Position dampers and diffusers for proper airflow.

## COMMERICAL COOKING EQUIPMENT AND OPERATIONS

- .7 Following all cleaning procedures, return all locked out electrical switches and system components to operable state.
  - .8 After cleaning is complete, the vent cleaning contractor shall place or display within the kitchen area a label indicating the date cleaned and the name of the servicing company, and areas not cleaned.
  - .9 Where required, inspection certificates of inspection and cleaning shall be submitted to the authority having jurisdiction.
- 
- .4 Inspect and service fire extinguishing systems and listed exhaust hoods containing a constant or fire-actuated water system that is listed to extinguish a fire in the grease removal devices, hood exhaust plenums, and exhaust ducts.
  - .5 Listed hoods containing mechanical or fire-actuated dampers, internal washing components or other mechanically operated devices shall be inspected and test.
  - .6 Upon inspection, if the exhaust system is found to be contraindicated with deposits from grease-laden vapours, the contaminated portions of the exhaust system shall be cleaned.
  - .7 Fusible links of the metal alloy type and automatic sprinklers of the metal alloy type shall be replaced.
  - .8 Verify all actuation components, including remote manual pull stations, mechanical or electrical devices, detectors, actuators shall be tested for proper operation during the inspection according to the manufacturers listed procedures.
  - .9 The year of manufacturer and the date of installation of the fusible links shall be marked on the system inspection tag. The tag shall be signed or initialled by the installer.
  - .10 Following the testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, equipment tested or serviced, any findings, results and any deficiencies identified during testing.

# VESDA SYSTEMS

## PART 1 - GENERAL

### 1.1. Building Systems

- .1 Very Early Warning Aspirating Smoke Detection (VESDA) system:
  - .1 The Tent Room of Rideau Hall is protected by a VESDA system.
- .2 Perform in conjunction with the fire alarm testing.

### 1.2. References

- .1 As per manufacturers specified recommendations.

### 1.3. Affected Building Systems

- .1 Contractor is responsible for all shutdowns and bypasses required to properly perform testing required.
- .2 Contractor to ensure that all interested parties (fire department, monitoring companies, National Capital Commission, etc) are contacted prior to and immediately following the system testing.

### 1.4. Test Reports

- .1 Following the VESDA system testing, the contractor is to provide the owner or the owner's representative with a test report indicating date of test, name of technician, all tested components of system and any deficiencies identified on the system during test.
- .2 Test records to be provided no later than 5 business days after testing is completed.

## PART 2 - PRODUCTS

### 2.1. Material

- .1 All material used during testing to be in proper operating condition.
- .2 All testing, measuring, and monitoring equipment must be listed for the application and recently calibrated (within six months of test).

## VESDA SYSTEMS

- .3 Contractor is responsible for supplying all required equipment to properly perform the required testing. This equipment may include but is not limited to:
  - .1 All required tools and materials

### PART 3 – EXECUTION

#### 3.1 Semi-Annual Testing Procedure

- .1 Inspection and testing shall be performed per the specified manufacturer recommendations.
- .2 Visually inspect the piping network, filter and raw air flow.
- .3 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician.

#### 3.2 Annual Testing Procedure

- .1 Inspection and testing shall be performed per the specified manufacturer recommendations.
- .2 All semi-annual testing requirements are to also be performed as part of the annual testing requirements.
- .3 Perform a pipe integrity smoke test and check the pipe flow.
- .4 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician.

#### 3.3 Two Year Testing Procedure

- .1 Inspection and testing shall be performed per the specified manufacturer recommendations
- .2 All annual testing requirements are to also be performed as part of the two year testing requirements.
- .3 Perform a cleaning of all sampling points and flush the piping entire piping network.
- .4 Provide the owner or the owner's representative with test records showing all test results including date of test, name of technician.

**General Quotation - Refer to QUOTATION Part 1:**

**All-inclusive lump sum prices – applicable taxes extra**

| LOCATION   | 2014 – 2015<br>June 2014 to March 31, 2015 |               |                   |              |                          | 2015 – 2016<br>April 1, 2015 to March 31, 2016 |               |                   |              |                          | 2016 – 2017<br>April 1, 2016 to March 31, 2017 |               |                   |              |                          |
|--|--|---------------|-------------------|--------------|--------------------------|--|---------------|-------------------|--------------|--------------------------|--|---------------|-------------------|--------------|--------------------------|
|  | Frequency                                  |               |                   |              |                          | Frequency                                      |               |                   |              |                          | Frequency                                      |               |                   |              |                          |
|  | Monthly (8)                                | Quarterly (3) | Semi-Annually (2) | Annually (1) | Annual with 2 or 5 year* | Monthly (12)                                   | Quarterly (4) | Semi-Annually (2) | Annually (1) | Annual with 2 or 5 year* | Monthly (12)                                   | Quarterly (4) | Semi-Annually (2) | Annually (1) | Annual with 2 or 5 year* |
| Dome Building on Rideau Hall Campus<br>- Fire Alarm                    |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Dome Building on Rideau Hall Campus<br>- Water based fire protection   |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Rideau Cottage on Rideau Hall Campus<br>- Fire Alarm                   |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Rideau Cottage on Rideau Hall Campus<br>- Water based fire protection  |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Gate Lodge<br>- Fire Alarm   |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Stable Building on Rideau Hall Campus<br>- Fire Alarm                  |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Stable Building on Rideau Hall Campus<br>- Water based fire protection |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Rideau Hall<br>- Fire Alarm and VESDA                                  |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Rideau Hall<br>- Water based fire protection                           |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Rideau Hall<br>- Fire pump   |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Rideau Hall<br>- Kitchen systems                                       |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Stornoway<br>Fire Alarm  |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| Stornoway<br>Kitchen Systems   |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |
| <b>Total per frequency</b>   |  |               |                   |              |                          |  |               |                   |              |                          |  |               |                   |              |                          |

Company name \_\_\_\_\_ Signature \_\_\_\_\_ Date: \_\_\_\_\_

| LOCATION  | 2014 – 2015<br>June 2014 to March 31, 2015 |                      |                      |                      |                      | 2015 – 2016<br>April 1, 2015 to March 31, 2016 |  |  |  |  | 2016 – 2017<br>April 1, 2016 to March 31, 2017 |  |  |  |  |
|---|--|----------------------|----------------------|----------------------|----------------------|--|--|--|--|--|--|--|--|--|--|
|   |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Harrington Lake<br>Fire Alarm                           |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Harrington Lake<br>Water based fire<br>protection       |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Harrington Lake<br>Fire Pump                            |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Speakers Farm<br>Fire Alarm                             |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Speakers Farm<br>Water Based Fire<br>Protection         |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Speakers Farm<br>Fire Pump                              |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| P. M. Residence<br>Fire Alarm                           |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| P.M. Residence<br>Kitchen Systems                       |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| P.M Residence<br>Security Building<br>Fire Alarm        |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| 7 Rideau Gate<br>Fire Alarm                             | No Quote<br>Required                       | No Quote<br>Required | No Quote<br>Required | No Quote<br>Required | No Quote<br>Required |  |  |  |  |  |  |  |  |  |  |
| 7 Rideau Gate<br>Kitchen Systems                        | No Quote<br>Required                       | No Quote<br>Required | No Quote<br>Required | No Quote<br>Required | No Quote<br>Required |  |  |  |  |  |  |  |  |  |  |
| All buildings / site<br>- Fire extinguishers            |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Rideau Hall Campus<br>- Fire hydrants                   |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Total per frequency                                     |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Total per frequency<br>(previous page)                  |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Total per service<br>contract year<br>(excluding taxes) |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |
| Grand total for 3-year service contract                 |  |                      |                      |                      |                      |  |  |  |  |  |  |  |  |  |  |

\* Alternatively to the standard annual service provided, the annual requirements plus the additional requirements for 2-year(VESDA) and 5-year (Dry Sprinklers, Wet Sprinklers and Standpipe System) shall be provided in one of the three years above. Where the 2-year /5-year will be performed, the fees associated with this annual inspection shall be marked in the "Annual with 2 or 5 year" column; the "Annually" column for that year shall be left blank.

Company name \_\_\_\_\_ Signature \_\_\_\_\_ Date: \_\_\_\_\_



**Additional Cost – Refer to QUOTATION Part 2:  
Hourly Rates – Refer to QUOTATION Item 2.1:**

**All inclusive unit rates for the duration of the contract to March 31, 2017– Applicable taxes extra**

| Hourly Fee                      | Fire Protection Journeyman | Fire Protection Apprentice | CFAA Licensed Technician | Fire Alarm Apprentice | Sub-Contractor Technician | Sub-Contractor Apprentice |
|---------------------------------|----------------------------|----------------------------|--------------------------|-----------------------|---------------------------|---------------------------|
| Normal Working Hours            |                            |                            |                          |                       |                           |                           |
| Outside of Normal Working Hours |                            |                            |                          |                       |                           |                           |
| Holidays and Weekend            |                            |                            |                          |                       |                           |                           |

**Service Calls – Refer to QUOTATION Item 2.2:**

| Set rate per service call based on minimum duration | Fire Protection Journeyman | Fire Protection Apprentice | CFAA Licensed Technician | Fire Alarm Apprentice | Sub-Contractor Technician | Sub-Contractor Apprentice |
|---|----------------------------|----------------------------|--------------------------|-----------------------|---------------------------|---------------------------|
| Minimum duration of service call                    |                            |                            |                          |                       |                           |                           |
| Normal Working Hours                                |                            |                            |                          |                       |                           |                           |
| Outside of Normal Working Hours                     |                            |                            |                          |                       |                           |                           |
| Holidays and Weekend                                |                            |                            |                          |                       |                           |                           |

**Material Cost – Refer to QUOTATION Item 2.3:**

|                               |                          |
|-------------------------------|--------------------------|
| Overhead mark-up on materials | _____ % (maximum of 15%) |
|-------------------------------|--------------------------|

**Additional Devices – Refer to QUOTATION Item 2.4:**

|   |  |
|---|--|
| Unit cost per extinguisher for annual maintenance and testing |  |
|---|--|

|                                       |  |
|---------------------------------------|--|
| <b>Total of ALL part 2 unit rates</b> |  |
|---------------------------------------|--|

Company name \_\_\_\_\_ Signature \_\_\_\_\_ Date: \_\_\_\_\_

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## INSTRUCTIONS TO TENDERERS

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### 1. Address

The tender envelope shall be addressed to Finance and Procurement Services, National Capital Commission, 40 Elgin Street, 3rd floor, Info Centre, Ottawa, Ontario K1P 1C7.

The name and address of the tenderer and the due time and date of the tender shall be clearly shown on the envelope.

### 2. Delivery of Tenders

Tenders must be received by the National Capital Commission on or before the exact time and date set for their reception. Care must be taken to mail or deliver tenders in good time as tenders received after the specified time and date will not be accepted or considered and will be returned unopened.

### 3. Unacceptable Tenders

Tenders not submitted on the accompanying Tender/Contract form.

Faxed tenders unless otherwise stated.

Tenders and amendments received after the tender closing date and time.

Incomplete tenders may be rejected.

Unsigned tenders shall be subject to disqualification.

In the event that security is required under these instructions and is not provided with the tender, the tender is subject to disqualification.

### 4. Revision of Tenders

The tenderer may revise his tender by fax, or letter provided it is received before the tender closing date and time.

Faxes, letters or telegrams must clearly indicate required changes.

### 5. Security Requirements

1. Security with Tender - In the event that security is required as indicated under section 2 of the Tender/Contract, the tender when submitted must be accompanied by the security in the amount as indicated.

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## INSTRUCTIONS TO TENDERERS

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2. Acceptable Security

- i) A bid bond from a company acceptable to the National Capital Commission and in terms satisfactory to the National Capital Commission.

OR

- ii) A certified cheque drawn on a bank to which the Bank Act or the Quebec Savings Bank Act applies, and made payable to the order of the National Capital Commission.

OR

- iii) Bonds of the Government of Canada payable to bearer.

OR

- iv) Cash

3. Upon notification of acceptance of tender:

1. If the tender is valued at less than \$30,000.00 including taxes, the successful tenderer may be called upon by the Finance and Procurement Services to provide the security deposit as described in Clause 2 of the Tender/Contract.
2. If the tender is valued in excess of \$30,000.00 including taxes, the successful tenderer shall be called upon by Procurement Services to provide the security as described in Clause 2 of the Tender/Contract.

**6. Acceptance of Offer**

The lowest or any tender not necessarily accepted.

**7. Completion of Tender/Contract Form**

Insert prices for units of measure and estimated quantities as shown on the Tender/Contract form or insert the lump sum of the tender in Clause 3.

If description, units of measure and estimated quantities are shown on the Tender/Contract form, insert the price per unit against each item, multiply by the respective estimated quantity, extend the answers to the Total column and add the Total column. Calculate the GST and QST (if applicable) on the total amount.

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## INSTRUCTIONS TO TENDERERS

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Type or legibly print the tenderer's full business name, address and telephone number under the spaces provided for the Contractor's Full Business Name and Contractor's Business Address respectively.

Sign the Tender/Contract form in the space provided as indicated below.

The tender must be signed by a duly authorized signing officer of the Company in his/her normal signature designating against his/her signature the official capacity in which the signing officer acts. The corporate seal of the company must also be affixed to the tender.

Do not make any entry in the signature section marked for Commission use only.

Tenders are to be submitted in two copies, duly completed in the envelope provided. The tenderer should retain the third copy of the tender for his record.

### **8. Insurance**

The Contractor shall maintain such insurance or pay such assessments as will protect him and the National Capital Commission from claims under the Worker's Compensation Acts and from any other claims for damages for personal injury including death, and from claims for property damage which may arise from his operations under this contract. Certificates of such insurance shall be filed with the National Capital Commission for protection. Such insurance certificates shall be maintained until the National Capital Commission certifies that the work is complete.

Liability insurance naming the National Capital Commission as co-insured shall be maintained by the Contractor for Public Liability and Property Damage in an amount of not less than \$5,000,000.00. Insurance is to cover damage resulting from accident as well as negligence. A copy of the policy must be given to the National Capital Commission prior to commencing work.

NOTE: These Instructions need not be submitted with your tender.

### **9. Applications for Approval Certificates**

Wherever materials are specified by trade names or by manufacturers' names, the tender shall be based on the use of such materials. During tendering period, alternative materials will be considered if full descriptive data are submitted in writing at least seven days before the tender closing date. Approval of submission will be signified by the issuance of an addendum to the tender documents.

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## GENERAL CONDITIONS

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### 1. Definition of Terms

In the Contract,

1. the "Project Manager/Officer" means such person as may be specifically designated by or on behalf of the Chairman and/or Executive Vice-President and General Manager upon the award of this contract.
2. "work" includes the whole of the works, Labour and materials, matters and things to be done, furnished and performed by the Contractor under the contract.

### 2. Assignment and Subcontracting

This contract may not be assigned without the written consent of the Commission, and neither the whole nor any part of the work may be subcontracted by the Contractor without the consent of the Project Manager/Officer. Every subcontract shall incorporate all the terms and conditions of this contract which can reasonably be applied thereto.

### 3. Members of The House of Commons

No member of the House of Commons shall be admitted to any share or part of the contract or to any benefit arising therefrom.

### 4. Indemnification

The Contractor shall indemnify, and save harmless the National Capital Commission from and against all claims, losses, costs, damages, suits, proceedings, or actions arising out of or related to the Contractor's activities in executing the work, other than those arising from a defect in title to the site of the work or the infringement of a patent arising from a design supplied by the National Capital Commission, but including his omissions improper acts or delays in executing the work under the contract.

### 5. Property of the National Capital Commission

The Contractor shall be responsible for any loss of or damage, excluding reasonable wear and tear, to any property of the National Capital Commission arising out of the performance of the work whether or not such loss arises from causes beyond his control. Such property shall only be used by the Contractor as may be directed by the Project Manager/Officer and the Contractor shall, at any time when requested to do so, account to the Project Manager/Officer for the use of such property.

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## **GENERAL CONDITIONS**

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### **6. Permits and By-Laws**

The Contractor shall comply with all laws and regulations, relating to the work whether federal, provincial or municipal, as if the work was being constructed for a person other than the National Capital Commission and shall pay for all permits and certificates required in respect of the execution of the work.

### **7. Canadian Labour and Materials**

Insofar as is practicable the Contractor shall employ and use Canadian labour and materials in the execution of the work and utilize the services of the Canada Manpower Centre in the recruitment of such labour.

### **8. Publicity**

1. The Contractor will neither permit any public ceremony, nor erect or permit the erection of any sign or advertising, in connection with the work without the approval of the Project Manager/Officer.
2. All exterior signs erected by the contractor will be in both official languages and subject to NCC approval.

### **9. Materials, Equipment, etc. to become Property of the National Capital Commission**

All materials and plants used or provided for the work shall be the property of the National Capital Commission, shall not be removed from the site of the work and shall be used only for the purpose of the work, until the Project Manager/Officer shall certify that they are, if not incorporated in the work, no longer required for the purpose of the work. The Contractor shall be liable for all loss or damage to materials or plants that are the property of the National Capital Commission by virtue of this section.

### **10. Contractor's Superintendent and Workers**

The Contractor will keep a competent superintendent on the site of the work at all times during the progress of the work unless otherwise authorized by the Project Manager/Officer. The superintendent must be acceptable to the Project Manager/Officer and have the authority to receive on behalf of the Contractor any order or communication in respect of the contract. Any superintendent and workers not acceptable to the Project Manager/Officer because of incompetency, improper conduct or security risk will be removed from the site of the work and replaced forthwith.

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## GENERAL CONDITIONS

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### 11. Co-operation with other Contractors

The Contractor will co-operate fully with other contractors or workers sent onto the site of the work by the Project Manager/Officer. If the sending onto the work of other contractors and workers could not have been reasonably foreseen by the Contractor when entering into the contract, and if, in the opinion of the Project Manager/Officer the Contractor has incurred additional expense by such action, and if the Contractor has given written notice of claim within thirty days of such action, the National Capital Commission will pay the cost of such additional expense to the Contractor calculated in accordance with Section 20.

### 12. Claims Against and Obligations of the Contractor or Subcontractor

1. The Contractor shall ensure that all his lawful obligations and lawful claims against him arising out of the execution of the work are discharged and satisfied, at least as often as this contract requires the National Capital Commission to discharge its obligations to the Contractor and shall supply the Project Manager/Officer with a Statutory Declaration deposing to the existence and condition of such claims and obligations when called upon to do so.
2. The National Capital Commission may, in order to discharge lawful obligations and satisfy lawful claims against the Contractor or a subcontractor arising out of the execution of the work, pay any amount, which is due and payable to the Contractor under the contract and from a conversion or a negotiation of the security referred to in Section 18 hereof, if any, directly to the obligees of and the claimants against the Contractor or the subcontractor.

### 13. Project Manager/Officer's Rights and Obligations

The Project Manager/Officer shall:

1. have access to the work at all times during its execution and the Contractor will provide the Project Manager/Officer with full information and assistance in order that he may ensure that the work is executed in accordance with the contract;
2. decide any question as to whether anything has been done as required by the contract or as to what the Contractor is required by the contract to do, including questions as to the acceptability of, the quality or quantity of any labour, plant or material used in the execution of the work, and the timing and scheduling of the various phases of the work;
3. have the right to order additional work, dispense with, or change the whole or any part of the work provided for in the plans and specifications. The Project Manager/Officer shall decide whether anything done or not done as a result of directions given under this subsection has increased or decreased the cost of the work to the Contractor and the amount payable under the contract to the Contractor will be increased or decreased accordingly by an amount calculated in accordance with Section 20 hereof.

The Contractor shall comply with any decision or direction of the Project Manager/Officer given under this section.

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## GENERAL CONDITIONS

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### **14. Delay, Non-compliance, or Default by the Contractor**

If the Contractor delays in the commencement, execution or completion of the work, fails to comply with a direction or decision of the Project Manager/Officer properly given, or is in default in any other manner under the contract, the Project Manager/Officer may do such things as he deems necessary to correct the Contractor's default.

The Contractor will reimburse the National Capital Commission for all costs, expenses and damages incurred or sustained by the National Capital Commission, by reason of the Contractor's default, or in correcting the default. In addition to the aforementioned remedies in this section, the Commission may, if the default continues for 6 days after notice in writing of default has been given to the Contractor by the Project Manager/Officer, terminate the contract in accordance with Section 17.

### **15. Changes in soil conditions, National Capital Commission delays**

1. The Contractor will receive no additional payment for additional costs incurred due to loss, damage or any other reason whatsoever, without the express certification of the Architect/Engineer that the additional cost, loss or damage is directly attributable to:
  - i) in the case of a flat-rate contract, a significant difference between the soil condition information contained in the plans and specifications and actual on-site soil conditions;
  - ii) negligence or delay on the part of the National Capital Commission, following the contract signing date, in providing complete information or in executing its full contract responsibilities or, according to current trade practice, the Contractor has submitted to the Architect/Engineer a written notice of claim for additional costs, loss or damages, not later than thirty (30) days following the date on which the varying soil conditions were noticed, or the date on which said negligence or delay commenced. The amount of any additional payments to be issued under this article will be calculated as per Article 20.
2. If, in the opinion of the Architect/Engineer, the Contractor has ensured a savings due to the differing soil conditions cited above, the amount of this savings will be deducted from the total price of the Contract stated in Article 1 of the Offer and Agreement.

### **16. Protesting Project Manager/Officer's Decision**

If the Contractor, within 10 days of receiving any decision or direction of the Project Manager/Officer, gives written notice to the Project Manager/Officer that the decision or direction is accepted under protest, the National Capital Commission will pay to the Contractor the cost, calculated according to Section 20, of anything that the Contractor was required to do, as a result of the decision or direction, beyond what the contract correctly understood would have required him to do.



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## **GENERAL CONDITIONS**

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### **17. Suspension or Termination of the Contract**

1. The Commission may upon notice in writing to the Contractor suspend or terminate the contract at any time. The Contractor will comply with such notice immediately.
2. If the Commission suspends the work for 30 days or less the Contractor must, subject to his remedy under Section 15 hereof, complete the work when called upon to do so. If the Commission suspends the work for a period in excess of 30 days the Contractor may request the Commission to terminate the work under sub-section 4 hereof.
3. If the Commission terminates the contract because of default by the Contractor, the insolvency of or the commission of an act of bankruptcy by the Contractor, the obligations of the National Capital Commission to make payments to the Contractor shall cease and no further payments shall be made to the Contractor or less the Project Manager/Officer shall certify that no financial prejudice will result to the National Capital Commission from such further payments. Termination under this sub-section shall not relieve the Contractor of any legal or contractual obligations other than the physical completion of the work. In such circumstances the Project Manager/Officer may complete or have the work completed as he sees fit and all costs and damages incurred by the National Capital Commission due to the non-completion of the work by the Contractor shall be payable by the Contractor to the National Capital Commission.
4. If the Commission terminates the work other than in accordance with sub-section 3 hereof, the National Capital Commission will pay to the Contractor an amount calculated in accordance with Section 20 hereof subject to any additions or deductions otherwise provided by the General Conditions or Labour Conditions less any payments made pursuant to Section 25.3, hereof. In no event, however, shall such amount be greater than the amount which would have been payable to the Contractor had the contract been completed.

### **18. Security Deposit**

If any security deposit is provided by the Contractor pursuant to this contract it shall be dealt with in accordance with the Government Contracts Regulations, provided that if the Contractor is in breach or default under the contract the National Capital Commission may convert or negotiate such security to its own use. If a Labour and Material Payment Bond is provided pursuant to the contract the Contractor shall post on the site of the work a notice to that effect which shall include the name and address of the Surety, definition of those persons protected therein and an outline of the procedure for submitting a claim.

### **19. No Additional Payment**

The amount payable to the Contractor under this contract will not be increased or decreased by reason of any increase or decrease in the cost of the work brought about by any increase or decrease in the cost of plant, labour or material, except that, in the event of a change in any tax, that affects the cost of any materials incorporated or to be incorporated in the work, imposed under the Excise Act, the Excise Tax Act, the Old Age Security Act, the Customs Act or Customs Tariff, made public after the date of the submission of the tender, an appropriate adjustment may be made.

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## GENERAL CONDITIONS

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### **20. Determination of Costs**

For the purposes of Section 11, 13.3, 15, 16 and 17.4, the amount payable to the Contractor shall, subject to the provisions of Section 25.2.ii) hereof, be based on the unit prices, if any, set out in Clause 4 of the Offer and Agreement. If such unit prices are not applicable the Project Manager/Officer and the Contractor may mutually agree on the amount payable. Failing such agreement the amount payable shall be the reasonable and proper expenses paid or legally payable by the Contractor directly attributable to the work plus 10% of such expenses to cover overhead, including finance and interest charges, and profit, as certified by the Project Manager/Officer.

### **21. Records to be Kept by Contractor**

1. The Contractor shall maintain full records of his estimates of and actual cost to him of the work together with all proper tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, shall make them available to audit and inspection by the Commission, or by persons acting on its behalf, shall allow them to make copies thereof and to take extracts therefrom, and shall furnish them with any information which they may require from time to time in connection with such records.
2. The records maintained by the Contractor pursuant to this section shall be kept intact until the expiration of two years from the date of issuance of the Final Certificate of Completion under sub-section 24 of the General Conditions or until the expiration of such other period as the Commission may direct.
3. The Contractor shall require all subcontractors and all firms, corporations and persons directly or indirectly having control of the Contractor to comply with Sections 1 and 2 as if they were the Contractor.

### **22. Extension of Time**

The Commission may, on the application of the Contractor, made before the day fixed for the completion of the work, extend the time for completion of the work. The Contractor shall pay to the National Capital Commission an amount equal to the National Capital Commission's expenses and damages incurred or suffered by reason of the delay in completion of the work unless in the opinion of the Commission such delay was due to causes beyond the control of the Contractor.

### **23. Cleaning of Work**

The Contractor will upon completion of the work, clear and clean the work and its site to the satisfaction of and in accordance with any directions of the Project Manager/Officer.

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## GENERAL CONDITIONS

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### 24. Project Manager/Officer's Certificates

On the day that the work has been completed and the Contractor has complied with the contract and all orders and directions pursuant thereto to the satisfaction of the Project Manager/Officer, the Project Manager/Officer will issue to the Contractor a Final Certificate of Completion. In the case of a unit price contract, the Project Manager/Officer will at the same time issue a Final Certificate of Measurement setting out the final quantities used or employed in respect of the classes and units set out in the Unit Price Table, and any subsequent amendments thereto, under Clause 4 of the Offer and Agreement, such certificate to be binding upon the Contractor and the National Capital Commission.

### 25. Payment

1. The National Capital Commission will pay and the Contractor will accept as full consideration for the work performed and executed an amount by which the amount referred to in Clause 1 of the Offer and Agreement together with the aggregate of the amounts payable by the National Capital Commission under Section 11, 13.3, 15.1, 16 and 19 minus the aggregate of any payments by the National Capital Commission under Section 12 and indemnification and amounts payable to or costs and damages incurred by the National Capital Commission under Sections 4, 5, 9, 13.3, 14, 15.2, 17.3, 19 and 22.
2. In the case of a unit price contract:
  - i) The amount referred to in Clause 1 of the Offer and Agreement will be deemed to be the amount computed by totalling the products of the unit prices set out in Clause 4 of the Offer and Agreement, as amended pursuant to sub-paragraph ii) hereof, if applicable, and the actual quantities of such units as set out in the Project Manager/Officer's Final Certificate of Measurement, subject to and, adjustment provided for in sub-paragraph ii) of this sub-section.
  - ii) The Project Manager/Officer and the Contractor may, by agreement in writing, add to the aforesaid Unit Price Table other classes of labour, etc., units of measure, estimated quantities and prices per unit, and may if the actual quantities as set out in the aforesaid Final Certificate of Measurement exceed or fall short of the estimated quantities in respect of any item(s) shown in the aforesaid Unit Price Table by more than 15% amend the unit prices shown in the Unit Price Table for such items, provided that in the event the actual quantities exceed the estimated quantities by more than 15% the aforementioned amendment to the unit prices shall apply only to the actual quantities in excess of 115% of the estimated quantities. Where the Project Manager/Officer and the Contractor fail to agree on the amount of any adjustment as contemplated by this sub-section the revised or new prices per unit shall be determined in accordance with Section 20 hereof.

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## GENERAL CONDITIONS

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3. If the amount of the Contract is in excess of \$5,000 the Contractor shall be entitled to receive progress payments upon submitting Progress Claims which must be approved by Progress Reports issued by the Project Manager/Officer at monthly intervals. The amount to be paid to the Contractor for a progress payment shall be 90% of the value of the work certified by the Project Manager/Officer in the Progress Report as having been completed since the date of the immediately preceding Process Claim, if any, when a Labour and Material Payment Bond has been furnished under the contract the amount to be paid under this sub-section shall be 95% of the value certified by the Project Manager/Officer.
4. Sixty (60) days after the issue by the Project Manager/Officer of the Final Certificate of Completion there shall become due and payable to the Contractor the amount described in sub-section 1 of this section less the aggregate of the amounts, if any, paid pursuant to sub-section 3 of this section.
5. Notwithstanding sub-sections 3 and 4 of this section, no payments shall be due or payable to the Contractor if he has failed to supply any Statutory Declaration pursuant to Section 12, surety bond or security deposit pursuant to Clause 5 of the Offer and Agreement.
6. A payment by the National Capital Commission pursuant to this section shall not be construed as evidence that the work is satisfactory or in accordance with the contract.
7. Delay in making a payment by the National Capital Commission under this section shall not be deemed to be breach of the contract. However, subject to sub-section 5 of this section, if payment of any Progress Claim under sub-section 3 of this section is not made within 60 days of the date of receipt of the Contractor's Progress Claim, such Progress Claim shall be deemed to be overdue and the Contractor shall be entitled to interest at the rate of 5% per annum of the amount overdue for the period commencing at the end of the forty-fourth day after the said date of receipt of the Progress Claim and ending on the date paid.
8. The National Capital Commission may set-off against any amount payable or debt due by the National Capital Commission under this contract the amount of any debt due to the National Capital Commission under this contract or any other contract between the Contractor and the National Capital Commission.

### **26. Correction of defects**

Should the Contractor receive notice from the Architect/Engineer requiring the correction, at the Contractor's expense, of any defect or vice, regardless the cause, the Contractor will complete the necessary corrections on or before the deadline specified in said notice, in the event that the defect or vice becomes evident not later than twelve (12) months following the date of the Final Certificate of Completion.

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## GENERAL CONDITIONS

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**27. Liability Insurance**

The Contractor shall, at its own expense, purchase, provide and maintain in force for the duration of the contract comprehensive general public liability insurance, naming the Commission as co-insured, against claims for personal injury (including death) or property damage or public liability claims due to any accident or occurrence, arising out of or in connection with the execution of the contract, indemnifying and protecting the Commission to a limit of not less than five million (\$5 000 000.00) per occurrence. There shall be no right of subrogation of the Contractor or the insurer and the policy of insurance shall contain a severability of interests clause. The Contractor shall provide the Commission with a copy of the certificate of insurance no less than five (5) days after the award of the contract. The Commission reserves the right to cancel the contract if the Commission does not receive the said certificate in which event the contract shall be null and void.

**28. Workers Compensation**

Successful construction project Contractors shall be required to provide evidence of compliance with workers' compensation legislation applicable to the place of the work including payments due thereunder, prior to award of the contract. Every successful construction project Contractor shall be required to provide evidence of such compliance at the time of submitting its first progress claim, at the time of substantial performance of the Work, and prior to issuance of the Certificate of Completion.

## Occupational Health and Safety Requirements

### 1. General

- 1.1** In this Contract “OHS” means “occupational health and safety”.
- 1.2** With respect to the work to be performed under the Contract, the Contractor covenants and agrees to perform at, and to enforce conformity with, a standard equivalent to or greater than the best practices prevailing in the construction industry at that time.
- 1.3** The Contractor acknowledges that, to the extent that the following matters may be affected by conduct of the work, it is responsible for the:
- 1.3.1 health and safety of persons on site;
  - 1.3.2 safety of property on site;
  - 1.3.3 protection of persons adjacent to the site; and,
  - 1.3.4 protection of the environment.
- 1.4** Without limiting the generality of section 1.3, the Contractor acknowledges that it is required to, and covenants and agrees to, comply and to enforce compliance with all laws or regulations that may be applicable to the conduct of the work including, without limitation:
- (a) the provisions of the *Occupational Health and Safety Act* of Ontario and all regulations, policies or directives issued thereunder for work performed in Ontario;
  - (b) *La Loi sur la santé et la sécurité du travail* of Québec and all regulations, policies or directives issued thereunder for work performed in Québec;
  - (c) Applicable provisions of the *Canada Labour Code, Part II*;
  - (d) Employment standards legislation in the province(s) in which any part of the work is performed; and
  - (e) Any policies or directives issued by the NCC in respect of the subject matter of the contract.
- The NCC will present any such policies or directives referred to in paragraph (e) to the Contractor in written form by not later than the pre-construction meeting. The Contractor is obliged to ensure that the relevant policies and directives have been communicated to and acknowledged by all its employees and that they will be complied with. The NCC reserves the right to require the Contractor to produce evidence satisfactory to the NCC acting reasonably that the Contractor has discharged the foregoing obligations.
- 1.5** By entering into the Contract with the NCC, the Contractor represents and warrants to the NCC that it has informed itself of and is knowledgeable about the obligations imposed by the legislation referred to in 1.4. above.
- 1.6** For purposes of the relevant provincial OHS legislative regime the Contractor acknowledges and agrees that it is the “Constructor” and covenants to discharge and accept all liability for the performance of the obligations of the “Constructor” in respect of the work provided for in the Contract. Notwithstanding a determination by the relevant authority having jurisdiction that the NCC is the “Constructor” in the event of a dispute between the Contractor and the NCC, the

- Contractor acknowledges and agrees that the Contractor shall be financially responsible for the implementation of protective measures necessary to fulfill the obligations of the “Constructor”.
- 1.7** As between the NCC and the Contractor, the NCC’s decision as to whether the Contractor is discharging its obligations in respect of OHS issues shall be definitive. Without limiting the generality of the foregoing, in the event of any dispute with respect to instructions given by the NCC’s designated representative, the Contractor may note such dispute, but must nevertheless forthwith comply with any such instructions.
- 1.8** The Contractor hereby indemnifies and agrees to hold harmless the NCC, its agents and employees, from and against any and all claims, demands, losses, costs (including legal fees on a full indemnity basis), damages, actions, suits or proceedings (hereinafter collectively referred to as “claims”) by third parties that arise out of or are attributable to the Contractor’s errors or omissions in the performance of the Contract. Without limiting the generality of the foregoing, this indemnification extends to any claims related to any violation of any statute or regulation relating to OHS matters.
- 1.9** The NCC shall provide the contractor:
- 1.9.1 a written description of every known and foreseeable health and safety hazard to which persons employed in the performance of the work may be exposed because of the nature of the site;
  - 1.9.2 a list of any prescribed materials, equipment, devices and clothing necessary because of the nature of the site;
  - 1.9.3 with written information indicating the prescribed circumstances and manner to use all prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2; and,
  - 1.9.4 with a copy of any NCC policies and procedures that may be applicable in relation to the work site.
- 1.10** Without limiting the generality of 1.9, prior to the commencement of the work by the contractor, the contractor shall, at the contractor’s expense:
- 1.10.1 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are informed of any health and safety hazard described pursuant to 1.9.1;
  - 1.10.2 provide all persons employed in the performance of the work or granted access to the work or its site with prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2;
  - 1.10.3 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are familiar with the prescribed circumstances and manner all prescribed materials, equipment, devices and clothing listed pursuant to 1.9.2; and
  - 1.10.4 take all reasonable care to ensure that all persons employed in the performance of the work or granted access to the work or its site are familiar with policies and procedures referred to in 1.9.4.

## **2. Qualifications of Personnel**

- 2.1** By entering into this agreement the contractor represents and warrants that it has the requisite experience, training, formal certification and equipment to enable it to discharge the obligations enumerated in sections 1.3, 1.4, 1.5 and 1.6 above.
- 2.2** The Contractor represents and warrants that supervisory personnel employed by the Contractor in respect of performance of any part of the work have the requisite experience, authority, training, formal certification and equipment to ensure that the obligations enumerated in sections 1.3, 1.4, 1.5 and 1.6 above are discharged and agrees to deliver such evidence as may be required by the NCC from time to time to verify same.

## **3. Certification**

- 3.1** After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver a Worker's Compensation Clearance Certificate. Where the duration of the project is greater than sixty days, the Contractor covenants and agrees to deliver up-dated certificates at least every 60 days. In the event of a failure by the Contractor to deliver up-dated certificates, the NCC shall be entitled to immediately terminate the contract without notice and without incurring any liability to the Contractor.
- 3.2** After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver historical information on its injury experience including any pertinent Worker's Compensation Experience Reports. Such historical information shall report data for the previous three years.

## **4. Plans Policies and Procedures**

- 4.1** After receiving notification that its bid has been retained and prior to and as a condition of contract award, the Contractor covenants and agrees to deliver for the review and approval of the NCC:

- (a) A copy of the contractor's OHS policy;
- (b) A safety program and plan specific to the work to be performed pursuant to the Contract which plan shall include a risk assessment and analysis, a description of safe working methods, injury and incident reporting protocols, regular periodic reporting on compliance with OHS obligations including any policies, practices and procedures otherwise provided for herein, and a site-specific contingency and emergency response plan; and
- (c) Health and safety training records of personnel and alternates responsible for OHS issues on site.

The Contractor covenants and agrees to deliver the necessary material safety data sheets for the review and approval of the NCC prior to entering the site to perform work related to the relevant material.

Approval by the NCC does not amend the provisions of the Contract with respect to the allocation of liability for discharging or failing to discharge OHS obligations. Such liability remains with the Contractor notwithstanding the granting of such approval.

- 4.2** The Contractor acknowledges and agrees that prior to commencement of work it must attend a pre-construction briefing at which any special or additional practices and procedures to be followed in completing the work are to be established. Without limiting the provisions of section 1.4(e) above, the representatives of the Contractor attending the briefing will be required to deliver



a signed acknowledgement that the practices and procedures set out in the pre-construction briefing have been understood and will be complied with.

- 4.3** At any time and from time to time during the performance of the work, the NCC shall have the right to audit the manner in which the Contractor is discharging its OHS obligations and to determine whether the project specification and/or OHS policies, practices and procedures are being complied with. In the event that the audit discloses any failure by the Contractor to discharge such OHS obligations, the NCC shall be entitled to forthwith rectify at the Contractor's expense any such deficiency and the NCC shall have the further right to immediately terminate the contract without notice and without incurring any liability to the Contractor.
- 4.4** The Contractor covenants and agrees to conform with all requirements of the Workplace Hazardous Materials Information System.
- 4.5** The Contractor acknowledges and agrees that where required by any law or regulation applicable to the performance of the work it must establish and maintain a project health and safety committee. The contractor further acknowledges and agrees that it must enable staff to attend all relevant safety meetings, and that the cost of same, including costs attributable to standing down equipment is included in its bid price and is not independently recoverable.
- 4.6** Where required by the relevant provincial regulatory regime, the Contractor acknowledges and agrees that it is responsible for delivery of notice of the project to the relevant regulatory authority, and for the performance of any other administrative activity required to meet the obligations imposed in the pertinent provincial regulatory regime.
- 4.7 (Optional depending on hazard or scope of project).** The contractor covenants and agrees that it shall employ and assign to the work, a competent OHS professional as Health and Safety Coordinator that must:
- (a) have a minimum two (2) years' site-related working experience specific to activities associated with.(identify specific subject matter)
  - (b) have basic working knowledge of specified occupational safety and health regulations,
  - (c) be responsible for completing health and safety training session and ensuring that personnel not successfully completing the required training are not permitted to enter the site to perform the Work,
  - (d) be responsible for implementing, enforcing daily and monitoring the site-specific Health and Safety Plan, and
  - (e) be on site during execution of the Work.

The parties acknowledge that in lieu of employing an OHS professional, the Contractor may provide same by sub-contracting for such services.

- 4.8** Upon completion of the work the Contractor covenants and agrees to participate with the NCC in a post performance interview to evaluate the performance of the Contractor in respect of the OHS obligations under the contract. Without limiting the generality of the foregoing, the interview will identify areas of compliance and non-compliance in terms of:
- (a) actual performance of the work;
  - (b) reporting or procedural requirements;

(c) resolution of deficiencies.

The contractor acknowledges and agrees that the results of the post-completion interview may be relied upon by the NCC in evaluating bids subsequently submitted by the Contractor on other NCC projects.

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## SECURITY REQUIREMENTS

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### Security Requirements

The NCC complies with Treasury Board's *Policy on Government Security* and consequently, it will require that the Contractor's employees submit to a personal security screening process (Security Clearance Form TBS/SCT 330-60E). The NCC may also perform a credit check when the duties or tasks to be performed require it or in the event of a criminal record containing a charge/offence of a financial nature.

The NCC reserves the right to not award the Contract until such time as the Contractor's core employees have obtained the required level of security screening as identified by the NCC's Corporate Security. In this case the level of security required will be **Site access**.

The NCC also reserves the right to request that the Contractor submit to a *Designated Organisation Screening* and/or *Facility Security Clearance*— depending on the nature of the information it will be entrusted with. In the event that the Contractor does not meet the requirements to obtain the requested clearance, the Contractor shall take the corrective measures recommended by the Canadian Industrial Security Directorate (of PWGSC) or by the NCC's Corporate Security in order to meet these requirements. If no corrective measures are possible or if the Contractor fails to take the recommended measures, then the Contractor shall be in default of its obligations under this Contract and the NCC shall have the rights and remedies listed in section 2.14, including the right to terminate the Contract without further notice to the Contractor.

### Additional information

As part of their personal screening, individuals may be required to provide evidence of their status as a Canadian citizen or permanent resident as well as any other information/documentation requested by the NCC's Corporate Security in order to complete the screening.

The NCC reserves the right to refuse access to personnel who fail to obtain the required level of security screening.

The NCC reserves the right to impose additional security measures with respect to this Contract as the need arises.

### Company Security Representative

The Contractor shall appoint one Company Security Representative (CSR) as well as one alternate (for companies who have more than five employees).

Selection criteria for the CSR and the alternate are the following:

- They must be employees of the Contractor;

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## SECURITY REQUIREMENTS

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- They must have a security clearance (the NCC will process the clearances once the individuals have been identified).

### **Responsibilities of the Company Security Representative**

The CSR's responsibilities are the following:

- Act as liaison between the NCC's Corporate Security and the Contractor to ensure coordination;
- In collaboration with the NCC's Corporate Security, identify the Contractor's employees who will require access to NCC information/assets/sites **as well as any recurring subcontractors** (and their employees) who will require similar access and may not be supervised by the Contractor at all times during such access. Ensure that accurate and complete Personnel Security Screening documentation is submitted to the NCC's Corporate Security for the employees/subcontractors who have been identified;
- Ensure that employees/subcontractors, upon notification of having been granted a reliability status, sign the *Security Screening Certificate and Briefing Form* and return to the NCC's Corporate Security;
- Ensure that only persons who have been security screened to the appropriate level and who are on a "need-to-know basis" will have access to information and assets;
- Maintain a current list of security screened employees/subcontractors;
- Ensure proper safeguard of all information and assets, including any information/assets entrusted to subcontractors;
- If a Security incident or suspected breach of security occurs, prepare and submit to the NCC an occurrence report as soon as possible.

## SUPPLIER – DIRECT PAYMENT AND TAX INFORMATION FORM FOURNISSEUR – FORMULAIRE DE PAIEMENT DIRECT ET RENSEIGNEMENTS POUR FINS D'IMPÔT

### PART 'A' – IDENTIFICATION / PARTIE 'A' - IDENTIFICATION

|  |  |
|--|--|
| Legal name of entity or individual / Nom légal de l'entité ou du particulier | Operating name of entity or individual (if different from Legal Name) / Nom commercial de l'entité ou du particulier (s'il diffère du nom légal) |
| Address / Adresse _____<br>_____<br>_____<br>Postal code / Code postal _____ | Telephone no. / No de téléphone : _____<br>( )<br>Fax no. / No de télécopieur : _____<br>( )   |

### PART 'B' - STATUS OF SUPPLIER / PARTIE 'B' - STATUT DU FOURNISSEUR

|  |  |   |   |   |
|--|--|---|---|---|
| (1) Sole proprietor / Propriétaire unique <input type="checkbox"/>                   | If sole proprietor, provide / Si propriétaire unique, indiquez : _____ | Last Name / Nom de famille _____  | First name / Prénom _____                         | Initial / Initiale _____  |
| (2) Partnership / Société de personnes <input type="checkbox"/>                      | SIN – mandatory for (1) & (2) / NAS – obligatoire pour (1) & (2)       | Corporation / Société <input type="checkbox"/>  | Business No. (BN) / No de l'entreprise (NE) _____ |   |
| GST/HST / TPS et de TVH  |  | QST / TVQ (Québec)  |   |   |
| Number / Numéro : _____  |  | Number / Numéro : _____   |   |   |
| Not registered / non inscrit <input type="checkbox"/>                                |  | Not registered / non inscrit <input type="checkbox"/>                                       |   |   |
| Type of contract / Genre de contrat  |  |   |   |   |
| Contract for services only / Contrat de services seulement <input type="checkbox"/>  |  | Contract for mixed goods & services / Contrat de biens et services <input type="checkbox"/> |   | Contract for goods only / Contrat de biens seulement <input type="checkbox"/> |
| Type of goods and/or services offered / Genre de biens et/ou services rendus : _____ |  |   |   |   |

### PART 'C' - FINANCIAL INSTITUTION / PARTIE 'C' – RENSEIGNEMENTS SUR L'INSTITUTION FINANCIÈRE

Please send a void cheque with this form / Veuillez, s.v.p., envoyer un spécimen chèque avec ce formulaire

|   |   |                                    |
|---|---|------------------------------------|
| Branch number / No de la succursale _____       | Institution no. / No de l'institution : _____ | Account no. / No de compte : _____ |
| Institution name / Nom de l'institution : _____ |   | Address / Adresse : _____<br>_____ |
| Postal Code / Code postal : _____               |   |                                    |

### PART 'D' – PAYMENT NOTIFICATION / PARTIE 'D' – AVIS DE PAIEMENT

E-mail address / Adresse courriel : \_\_\_\_\_

### PART 'E' – CERTIFICATION / PARTIE 'E' - CERTIFICATION

|   |   |                    |               |
|---|---|--------------------|---------------|
| I certify that I have examined the information provided above and it is correct and complete, and fully discloses the identification of this supplier.<br><br>Where the supplier identified on this form completes part C, he hereby requests and authorizes the National Capital Commission to directly deposit into the bank account identified in part C, all amounts payable to the supplier. | Je déclare avoir examiné les renseignements susmentionnés et j'atteste qu'ils sont exacts et constituent une description complète, claire et véridique de l'identité de ce fournisseur.<br>Lorsque le fournisseur indiqué sur ce formulaire remplit la partie C, par la présente il demande et autorise la Commission de la capitale nationale à déposer directement dans le compte bancaire indiqué à la partie C, tous les montants qui lui sont dus. |                    |               |
| _____<br>Name of authorized person / Nom de la personne autorisée   | _____<br>Title / Titre  | _____<br>Signature | _____<br>Date |
| Telephone number of contact person / Numéro de téléphone de la personne ressource: ( )  |   |                    |               |

### IMPORTANT

**Please fill in and return to the National Capital Commission with one of your business cheque unsigned and marked « VOID » (for verification purposes).**

Mail or fax to : Procurement Assistant  
Procurement Services,  
National Capital Commission,  
202-40 Elgin Street,  
Ottawa, Ontario, K1P 1C7  
Fax (613) 239-5007

**Veillez remplir ce formulaire et le retourner à la Commission de la capitale nationale avec un spécimen de chèque de votre entreprise non signé et portant la mention « ANNULÉ » (à des fins de vérification).**

Poster ou télécopier à : Assistant à l'approvisionnement  
Services d'approvisionnement  
Commission de la capitale nationale  
40 rue Elgin, pièce 202  
Ottawa, (Ontario) K1P 1C7  
Télécopieur (613) 239-5007

**SUPPLIER – DIRECT PAYMENT AND TAX  
INFORMATION FORM**

**FOURNISSEUR – FORMULAIRE DE PAIEMENT DIRECT  
ET RENSEIGNEMENTS AUX FINS D'IMPÔT**

**Supplier Tax Information**

Pursuant to paragraph 221(1) (d) of the Income Tax Act, NCC must declare form T-1204, contractual payments of government for services, all payments made to suppliers during the calendar year in accordance to related service contracts (including contracts for mixed goods and services).

The paragraph 237(1) of the Income Tax Act and the article 235 of the Income Tax Regulations require the supplier to provide all necessary information below to the organization who prepare the fiscal information forms.

Question: Marcel Sanscartier, Manager, Accounts Payable and Receivable– (613) 239-5241.

**Direct payment information**

All amounts payable by NCC to the supplier will be deposited directly into the account you identified in part C. A NCC payment advice notice will also be sent to you by e-mail detailing the particularities of the payment.

Until we process your completed form, we will still pay you by check.

You must notify the NCC of any changes to your financial institution, branch or account number. You will then have to complete a new form.

The account you identified has to hold Canadian funds at a financial institution in Canada.

**The advantages of direct payment**

Direct payment is a convenient, dependable and timesaving way to receive your invoice payment. Direct payment is completely confidential.

There is less risk of direct payment being lost, stolen, or damaged as may happen with cheques.

Funds made by direct payment will be available in your bank account on the same day that we would have mailed your cheque.

**Renseignements sur les fournisseurs aux fins d'impôt**

En vertu de l'alinéa 221(1) (d) de la Loi de l'impôt sur le revenu, la CCN est tenu de déclarer, à l'aide du formulaire T-1204, Paiements contractuels de services du gouvernement, tous paiements versés aux fournisseurs pendant une année civile en vertu de marchés de services pertinents (y compris les marchés composés à la fois de biens et de services).

Le paragraphe 237 (1) de la Loi de l'impôt sur le revenu et l'article 235 du Règlement de l'impôt sur le revenu obligent les fournisseurs à fournir toutes les informations demandées ci-dessous à l'organisme qui prépare les formulaires de renseignements fiscaux.

Question : Marcel Sanscartier, Gestionnaire, comptes fournisseurs et comptes clients – (613) 239-5241.

**Renseignements sur le paiement direct**

Tous les montants versés par la CCN au fournisseur seront déposés directement dans le compte identifié à la partie C. Un avis de paiement de la CCN détaillant les particularités du paiement vous sera envoyé par courriel.

Nous continuerons à vous payer par chèque jusqu'à ce que nous ayons traité votre formulaire.

Vous devez aviser la CCN de tout changement d'institution financière, de succursale ou de numéro de compte. Vous devrez donc remplir un nouveau formulaire.

Le compte que vous désignez doit être un compte en monnaie canadienne, détenu dans une institution financière au Canada.

**Avantages du paiement direct**

Le paiement direct est une méthode pratique, fiable, qui permet de gagner du temps dans la réception de vos paiements de factures. Le paiement direct est entièrement confidentiel.

Avec les paiements direct, il y a moins de risques de perte, de vol ou de dommage, comme cela peut se produire dans le cas des chèques.

Les paiements effectués par paiement direct sont versés dans votre compte le jour même où nous aurions posté votre chèque.