

STATEMENT OF WORK

Inspections, testing and maintenance of the Québec Field Unit's fire protection systems (FPS)

Québec, Quebec

SCHEDULE A – STATEMENT OF WORK

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1. GENERAL REQUIREMENTS

1.1. PROJECT INFORMATION

Parks Canada Agency (PCA) project title	Inspections, testing and maintenance of the Québec Field Unit's fire protection systems
Project location	Québec Field Unit, Québec, City of Lévis, Grosse Île and the Irish Memorial National Historic Site

1.2. TERMS USED

- 1.2.1. In this Statement of Work, "Agency" and "Parks Canada" refer to Parks Canada Agency, Québec Field Unit.
- 1.2.2. "Project Authority" means the Parks Canada Technical Services Representative or his authorized representative.
- 1.2.3. "Contractor" means the company (including its personnel and agents) chosen to perform the work outlined in these specifications, in accordance with the standards, specifications, work instructions and drawings provided for this purpose.

1.3. REQUIREMENTS

- 1.3.1. The **basic work** described in these specifications must be performed at the flat rate set out in the basis of payment in Annex "B".
- 1.3.2. If **additional work** on fire protection systems is required and authorized by Parks Canada through a task authorization, it will be performed at the hourly rate set out in the basis of payment in Annex "B".
- 1.3.3. The Contractor must provide emergency services at all times to cover possible breakdowns. They must ensure that the required personnel are on site within a maximum of three (3) hours. Service calls and work orders can only be authorized by the building's Project Authority or his representative by means of a task authorization.

1.4. DEFECTS AND ABNORMAL CONDITIONS

- 1.4.1. Defects or abnormal conditions in systems, instruments and equipment discovered during inspection and testing must be promptly reported to the Parks Canada Project Authority. The Project Authority may, at their option, hire the Contractor of this contract through a task authorization, or another Contractor to perform the corrective work. In both cases, the Contractor will provide its technical advice to the Project Authority or his representative to help correct such defects or abnormal conditions. For example, when the services of a licensed electrician are required for the installation of electrical wires or conduits.

- 1.4.2. The Contractor is responsible for the work performed by its subcontractor. Work performed by another Contractor chosen by Parks Canada does not make the Contractor liable, insofar as the Contractor subsequently performs an inspection check of the equipment or systems that were repaired.

1.5. PARTS AND TOOLS

- 1.5.1. Spare parts must be genuine and supplied by the equipment manufacturer. When compatible and approved replacement parts or materials are not available, the Contractor will use equivalents of at least equal or superior quality to the originals; equivalents will be approved by the Project Authority or his representative.
- 1.5.2. Parks Canada reserves the right to decide on the quality of replacement parts; this decision will be final and without appeal.
- 1.5.3. When the Contractor performs repairs on request, it must provide the Parks Canada Project Authority with any defective parts that have been replaced and record this information in the report.
- 1.5.4. The Contractor must be responsible for enforcing the manufacturer's warranty with respect to the replacement of parts and appliances installed by him.
- 1.5.5. Any parts installed without approval or found to be non-compliant by the Project Authority must be replaced within ten (10) days, otherwise the Contractor will be considered in default.
- 1.5.6. Any change of parts must be authorized in advance by the Project Authority. Where applicable, the Contractor must provide the Project Authority with detailed spare parts certificates.
- 1.5.7. The Contractor must supply the tools, equipment, scaffolding or lifting gear and all materials (or parts) required to perform **basic work**.

1.6. LABOUR

- 1.6.1. The Contractor's and subcontractor's workforce must be fully qualified.
- 1.6.2. The Contractor must ensure that all its personnel and subcontracted personnel, if any, have the appropriate qualifications, licences and certifications to perform the work in accordance with the requirements of the province in which the work is undertaken and this Statement of Work (SOW) and in accordance with sections 3, 4, 5 and 6 depending on the type of work to be performed.
- 1.6.3. At the request of the Project Authority, the Contractor must submit valid certificates of competency or licences to practice.
- 1.6.4. The list of subcontractors must be submitted at the request of the Project Authority.
- 1.6.5. The Contractor will supervise its employees and subcontractors to ensure their proper conduct and restrict movement in the buildings to specific requirements. In addition, it must

ensure that the work to be done is performed so as to minimize inconveniences and impact on building operations and occupants.

- 1.6.6. Parks Canada may, at the Contractor's request, provide a person to guide the Contractor during the work period.

1.7. WORK SHIFTS

- 1.7.1. The work shifts and schedule will be established and aligned with the schedule previously agreed between the Contractor and the Parks Canada Project Authority and/or his authorized representative.
- 1.7.2. Annual inspections of all buildings must be scheduled together and fully done during the months **of April and May** of each contract year, unless otherwise specifically requested by the Project Authority. The Contractor must reserve a time slot to complete these inspections on full and consecutive days.
- 1.7.3. Because the first contract year starts in May 2024, inspections must be conducted in June 2024 instead of April and May.
- 1.7.4. A technical representative is available on site.
 - 1.7.4.1. Day shifts in Québec and Lévis are from 7:30 a.m. to 3:30 p.m.
 - 1.7.4.2. Grosse-Île's working hours are from 7:00 a.m. to 6:00 p.m. As described in section 18, only one round trip flight will be provided by Parks Canada. Workers will be provided with free accommodation.
- 1.7.5. It is the Contractor's responsibility to follow all procedures in the event of system failure or deactivation in accordance with the requirements of paragraph 6.1.1 of the National Fire Code of Canada 2015, section 4 of CAN/ULC-S536-13 "Standard for Inspection and Testing of Fire Alarm Systems" and Chapter 15 of NFPA 25 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems" (2014 edition) respectively. Procedures must include provisions for informing the owner, occupant, fire department and "monitoring agency" fire alarm receiving centre. Mitigation measures and the deactivation plan must be reviewed and approved by the responsible local authority before work begins.
- 1.7.6. The Contractor must submit reports, certificates and recommendations, including tenders, within a maximum of three (3) weeks following inspections, for each building.
- 1.7.7. Subsequent work considered mandatory for compliance must be completed within a maximum of thirty (30) days following Parks Canada's acceptance of the work confirmed by sending a task authorization.
- 1.7.8. The Contractor will efficiently organize **additional work** of tasks authorizations. All work performed in the same location must be planned to minimize the number of visits and ensure that the call-in is optimized.

1.8. PARKS CANADA REQUIREMENTS

- 1.8.1. The Contractor must have sufficient personnel and demonstrate, at the request of the Project Authority, that each person, apprentices excepted, has a minimum of three (3) years of experience in their respective discipline(s).
- 1.8.2. Only qualified personnel with appropriate certificates will be allowed to perform the work.
- 1.8.3. The Contractor remains fully liable for any omissions, breakages, incompetence, shortcomings and implications of its personnel and subcontractors.

1.9. KNOWLEDGE OF SITES AND SYSTEMS

- 1.9.1. Parks Canada will provide system inventories to the best of its knowledge. The Contractor must be familiar with systems, existing site conditions and working conditions in the building where he is to perform work.
 - 1.9.1.1. Inventories are not routinely updated, and components may differ slightly from reality.
- 1.9.2. No additional claims for special equipment will be considered by Parks Canada if there is any lack of information.
- 1.9.3. All technical information required by the Contractor before starting work can be obtained from the Project Authority.

1.10. ADDITIONS / AMENDMENTS

- 1.10.1. Parks Canada reserves the right to make minor adjustments to the number and model of certain pieces of equipment. The Contractor must maintain this equipment at no additional cost.

1.11. SAFETY MEASURES AND CURRENT SITUATION

- 1.11.1. The Contractor and its firm's representatives must comply with building safety regulations.
- 1.11.2. The Contractor must notify the Project Authority and building occupants of work in progress.
- 1.11.3. The Contractor will take all necessary safety measures and precautions to protect persons and property from accident or damage during performance of the work.
- 1.11.4. Part of the inspections and interventions required at the 1st Class Hotel (#14) building on Grosse-Île are performed under stable, controlled asbestos conditions. Persons accessing asbestos-contaminated sections of the building must wear safety equipment that complies with current standards.
- 1.11.5. It is the Contractor's responsibility to take all necessary safety measures to gain access to all components and perform all inspections required under this contract.
- 1.11.6. The Contractor will be explicitly and fully liable for any accidents or damage to persons or property caused by its activities on the premises.

- 1.11.7. Particular care must be taken to avoid soiling, scratching, damaging or striking the siding of finished surfaces by contact with equipment, ladders, scaffolding or any other parts that may be used while performing the work.

1.12. SITE CLEANLINESS

- 1.12.1. Parks Canada will not allow debris to accumulate. After each work shift, the Contractor will remove from the premises any waste or refuse resulting from the work. The Contractor will leave the site in a clean condition satisfactory to the Parks Canada Project Authority.

1.13. COMMUNICATIONS

- 1.13.1. Telephone numbers where the Contractor, its superintendent or manager may be contacted or reached at any time of the day or night, will be entered on a list prepared and updated as required by the Contractor and given to the building administrator upon signature of the contract.

1.14. TEST AND CALIBRATION INSTRUMENTS

- 1.14.1. If measuring instruments are used to verify the correct operation of any equipment, instrument or system, the Contractor must, where applicable, provide a valid calibration certificate for the instrument.

1.15. ISOLATION AND ELECTRICAL TRANSFER REQUEST

- 1.15.1. The Contractor must notify the building's technical supervisor in all cases of electrical breakdown or isolation described below, in accordance with Chapter V of the Quebec Construction Code.
- 1.15.1.1. Main building power feeders.
 - 1.15.1.2. Feeder supply panels and sub-panels.
 - 1.15.1.3. Busbars.
 - 1.15.1.4. Motor control centres.
 - 1.15.1.5. Emergency power circuits.
 - 1.15.1.6. Fire alarm system and fire protection equipment.
 - 1.15.1.7. Mechanical protection equipment (sump pump, etc.)
 - 1.15.1.8. Alarm circuit for building services, including heating, ventilation and air-conditioning equipment.
 - 1.15.1.9. Circuits supplying more than one piece of equipment.
 - 1.15.1.10. Circuits connected to a single piece of equipment used in a cooling or heating system.
- 1.15.2. The Contractor must obtain written approval from the technical supervisor before performing the work and, after approval, must notify building occupants of the electrical cut-off or isolation.

1.16. LOCATION OF THE WORK

- 1.16.1. Installations for all fire protection systems are located in several Parks Canada buildings managed by the Québec Field Unit. These buildings are located mainly in Québec, one (1) in the city of Lévis, and a few at the Grosse Île and the Irish Memorial National Historic Site in Montmagny county.

1.17. WORKING CONDITIONS ON GROSSE-ÎLE

- 1.17.1. The following working conditions specific to work at Grosse-Île will apply for the duration of the contract.

- 1.17.2. Parks Canada will provide the following items during the Grosse-Île work period:

1.17.2.1. One (1) round-trip flight from Montmagny to Grosse-Île for Contractor's employees per week. This travel must occur during regular flight times, i.e. at 7:30 a.m. and 4:00 p.m. This schedule may vary slightly according to the operational needs of Parks Canada, the airline and weather conditions. The Parks Canada Project Authority will provide the Contractor with a precise schedule as soon as possible.

1.17.2.2. One room per Contractor employee in one of Grosse-Île's historic buildings if employee is required to sleep on site

1.17.2.3. Shared dining facilities (dishes, fridge, stove, microwave)

1.17.2.4. Round-trip flight from Montmagny to Grosse-Île for tools and equipment

- 1.17.3. The Contractor must ensure and supply the following:

1.17.3.1. Food for Contractor employees while on Grosse-Île (no food available on site);

1.17.3.2. Personnel and materials for packing/loading/unloading tools and equipment on the aircraft;

1.17.3.3. The Contractor must contact the Parks Canada representative in advance to coordinate maximum load dimensions and weights;

1.17.3.4. The Contractor must notify Parks Canada at least two days in advance and provide;

1.17.3.4.1. Airline booking schedule

1.17.3.4.2. Full names of airline reservation staff. **Park Canada will take care of airline reservations.**

1.17.3.4.3. The volume and weight of equipment to be transported by air.

- 1.17.4. Whenever possible, the Contractor must schedule work together to minimize travel to Grosse-Île.

- 1.17.5. For **additional work**, only one round trip to Grosse-île per week can be charged. Contractor employees are asked to stay on site throughout the work, and sleep on the island. If the Contractor decides to have its employees return each evening, transportation costs (including labour time, airfare and any other costs incurred by this decision) will be borne by the Contractor.

1.18. CONDITIONS FOR ADDITIONAL WORK AT HOURLY RATES (TASK AUTHORIZATIONS)

- 1.18.1. At all times, **additional work** must be authorized in writing by the Parks Canada Project Authority confirmed by sending a task authorization. The Agency cannot be billed for expenses incurred prior to receipt of task authorization signatures.
- 1.18.2. Hourly rates for **additional work** will be valid for the duration of the contract.
- 1.18.3. The provisions of current collective agreements apply (time and a half, double time, etc.) to work outside normal working hours (evenings, nights, weekends, public holidays) or overtime. No work involving extra costs will be approved unless requested in writing by the Parks Canada Project Authority, or in the event of an emergency call-in.
- 1.18.4. The Contractor must provide a work sheet (work order) after each intervention.
 - 1.18.4.1. The work sheet must identify the task performed, the parts changed and/or repaired, with their respective numbers and inventory information, as well as the number of hours worked by each person assigned to the job.
 - 1.18.4.2. In the case of emergency calls, work sheets must also indicate the specific date and time of the emergency call, the identity of the person who requested the service and their telephone number, and the times at which the Contractor arrives at and leaves the site.
- 1.18.5. For each intervention, the Contractor must provide a signed copy of the worksheets to the building's technical manager or their authorized representative AND, by electronic means, a signed copy of the worksheets, reports and any other communication relevant to the performance of its contract to the Agency's Project Authority.
- 1.18.6. The Contractor must obtain prior authorization from the Project Authority for all **additional work** performed by subcontractors.
 - 1.18.6.1. A subcontractor's bid must be submitted before work begins. The costs associated with such tasks will be those indicated on the subcontractor's final invoice with the established mark-up for parts and labour, in accordance with Schedule B.
- 1.18.7. The following additional working conditions will apply for the duration of the contract:
 - 1.18.7.1. **Additional work** resulting from inspection should be scheduled together to minimize travel costs.
 - 1.18.7.2. The Contractor will prioritize the performance of **additional work** at the same time as **basic work**, whenever possible.
 - 1.18.7.2.1. If certain **additional work** is performed at the same time as **basic work**, no transportation costs will be charged.
- 1.18.8. Billable hours for work performed on Grosse-Île will be those worked at the site itself only.
- 1.18.9. No minimum number of working hours per intervention will be applicable, except for emergency calls outside normal working hours, for which a minimum of two working hours excluding transportation may be invoiced.

1.19. TRANSPORTATION CHARGES

- 1.19.1. Transportation costs are fixed per site, and must include all related expenses (vehicle, man-hours, fuel, etc.).

- 1.19.1.1. No hourly rate can be charged for travel between sites or travel between several locations on the same site.
- 1.19.2. **Basic work** must include all transportation costs for each location, in accordance with Annex B.
 - 1.19.2.1. No transportation costs can be invoiced for **basic work**.
- 1.19.3. Travel expenses for **additional work (Task Authorization)** are lump-sum per site and must be invoiced in accordance with Annex B.
 - 1.19.3.1. Travel expenses per sector must be invoiced only once per day, even if several interventions are required in several locations in the same sector.
 - 1.19.3.2. Only one transportation fee may be charged per work week (round trip Québec-Grosse-Île including airfare) for work performed on Grosse-Île.

2. SCOPE OF WORK

2.1. GENERAL

- 2.1.1. The aim of the specifications is to meet regulatory requirements and maintain the equipment in excellent working order. These specifications are to be regarded as a minimum standard according to which the Contractor must work and in no way constitute the limit of its responsibilities and obligations.
- 2.1.2. All work must be performed in compliance with the most recent version of the National Building Code (NBC), the National Fire Code of Canada (NFC) and all other applicable standards (NFPA, ULC, CSA, etc.), including NFPA-25 and CAN/ULC-S536.
- 2.1.3. The Contractor must coordinate the work of all specialties in the various modules so that the elements are maintained at the same time, in accordance with the frequencies and requirements of the standards and manufacturers.

2.2. REPORTS AND CERTIFICATES

- 2.2.1. The Contractor has a maximum of 30 days after the building inspection visit to submit the service reports to the Parks Canada Project Authority.
- 2.2.2. Service reports must include proposals for inspections, maintenance and repairs not covered by the contract.
- 2.2.3. Reports must be clear, detailed and separate for each building (one report per building);
 - 2.2.3.1. Mandatory and recommended proposals should be separated into categories and clearly identified in two sections, called mandatory and recommended;
 - 2.2.3.2. The Contractor must provide the reference to the standard or code for each mandatory proposal.
- 2.2.4. At the end of each annual verification of each system, the Contractor must submit an inspection certificate attesting to the proper operation of the systems in accordance with applicable standards. This certificate must be issued even if recommendations to modify, add or replace equipment are proposed, and if these do not affect the proper operation of the systems.
- 2.2.5. Reports on fire alarm systems must meet, as a minimum, the CAN/ULC-S536-13 "Standard for Inspection and Testing of Fire Alarm Systems for Required Activities" requirement.
- 2.2.6. Reports submitted for fire protection systems must include, as a minimum, the recommended requirements for each inspection, testing, and maintenance activity outlined in the NFPA 25 standard. Acceptable report formats include NFPA 25_2014 e-Forms (.doc) or equivalent.
- 2.2.7. Prior to the performance of the contract, the Contractor will submit a draft report outlining the form and information to be included for acceptance by the Parks Canada Project Authority.

- 2.2.8. Reports must be supplied as Microsoft Office electronic files (PDFs not acceptable), unlocked and emailed to the technical manager. The technical manager reserves the right to request modifications to these reports or require additional reports.
- 2.2.9. Where applicable, the data must be printed on the labels attached to each fire protection system, in accordance with applicable standards.

2.3. BASIC WORK

- 2.3.1. The Contractor will perform the inspections, testing and annual maintenance work described in the respective sections of the installations below:
 - 2.3.1.1. Wet or dry sprinkler system (SS) as described in subsection 3.3 *Basic work* of this document.
 - 2.3.1.2. Private fire service main and fire hydrants (PFS and FH) as described in subsection 4.3 *Basic work* of this document.
 - 2.3.1.3. Fire pump and pressure relief valve (FP) as described in subsection 5.3 *Basic work* of this document.
 - 2.3.1.4. Fire alarm system (FAS) as described in subsection 6.3 *Basic work* of this document.
- 2.3.2. The Contractor must take the necessary steps to access all components targeted by the work for each network or system included in its contract.

2.4. LIST OF BASIC WORK OVER 5 YEARS

2.4.1. For purposes of inspection, follow-up, communication and deliverables planning, the Contractor must understand that the service year attributable to the contract year will be named according to its start year. In other words, “2024”; means the first contract year as defined in Schedule B, etc.

INSPECTIONS, TESTING AND MAINTENANCE BASIC WORK REQUIRED						
Buildings / Systems	Type of work	2024	2025	2026	2027	2028
Garrison Club and Messenger House	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	N/A	N/A	X	N/A	N/A
	Work every 5 years (SS)	N/A	X	N/A	N/A	N/A
Arsenal Foundry and administrative offices	Annual work (FAS)	X	X	X	X	X
	Annual work (SS)	X	X	X	X	X
	Work every 5 years (SS)	X	N/A	N/A	N/A	N/A
Gun Carriage Store	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	N/A	X	N/A	N/A	X
	Work every 5 years (SS)	X	N/A	N/A	N/A	X
Dauphine Redoubt and Officers' Quarters	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	N/A	X	N/A	N/A	X
	Work every 5 years (SS)	N/A	X	N/A	N/A	N/A
Maillou House	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	N/A	N/A	X	N/A	N/A
	Work every 5 years (SS)	N/A	N/A	X	N/A	N/A
L'Estoc	Annual Work (FAS)	X	X	X	X	X
Esplanade Powder Magazine	Annual Work (FAS)	X	X	X	X	X
Saint-Louis Forts and Châteaux	Annual Work (FAS)	X	X	X	X	X

INSPECTIONS, TESTING AND MAINTENANCE BASIC WORK REQUIRED						
Buildings / Systems	Type of work	2024	2025	2026	2027	2028
Cartier-Brébeuf National Historic Site	Annual Work (FAS)	X	X	X	X	X
Lévis Forts	Annual Work (FAS)	X	X	X	X	X
1st Class Hotel (building #14)	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	N/A	X	N/A	N/A	X
	Work every 5 years (SS)	N/A	N/A	N/A	X	N/A
3rd Class Hotel (building #19)	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	X	N/A	N/A	X	N/A
	Work every 5 years (SS)	N/A	N/A	N/A	N/A	X
Disinfection Building and Carpentry and Plumbing Workshops (Buildings 29 and 32)	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	X	N/A	N/A	X	N/A
	Work every 5 years (SS)	N/A	N/A	N/A	N/A	X
Roman Catholic Chapel (Building 48)	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	N/A	X	N/A	N/A	X
	Work every 5 years (SS)	N/A	N/A	N/A	X	N/A
Lazaretto (Building 100)	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 3 years (SS)	X	N/A	N/A	X	N/A
	Work every 5 years (SS)	N/A	N/A	N/A	N/A	X
Water treatment plant (Building 402)	Annual Work (FAS)	X	X	X	X	X
	Annual Work (SS)	X	X	X	X	X
	Work every 5 years (SS)	N/A	N/A	N/A	N/A	X

INSPECTIONS, TESTING AND MAINTENANCE BASIC WORK REQUIRED						
Buildings / Systems	Type of work	2024	2025	2026	2027	2028
Physician's Residence (Building 67)	Annual Work (FAS)	X	X	X	X	X
Physician's Residence (Building 77)	Annual Work (FAS)	X	X	X	X	X
Thermal Power Plant (Building 86)	Annual Work (FAS)	X	X	X	X	X
Workshops (Building 96)	Annual Work (FAS)	X	X	X	X	X
Fire pumps, private fire service main and fire hydrants	Annual Work (PFS)	X	X	X	X	X
	Annual Work (FH)	X	X	X	X	X
	Annual Work (FP)	X	X	X	X	X
	Work every 2 years (FP)	X	N/A	X	N/A	X
	Grosse-Île – Work every 5 years (PFS)	X	N/A	N/A	N/A	N/A

2.5. ADDITIONAL WORK AT UNIT PRICES (TASK AUTHORIZATIONS)

2.5.1. At the Parks Canada Project Authority's request and upon his approval, the Contractor will:

- 2.5.1.1. Perform out repairs, modifications, additions or other work;
- 2.5.1.2. Conduct additional inspections, including systems not in the inventory of this specification, and issue certificates;
- 2.5.1.3. Respond to emergency calls.

3. TECHNICAL SECTION - SPRINKLER SYSTEMS (SS)

3.1. GENERAL

- 3.1.1. The sprinkler system includes all equipment from the water inlet to each sprinkler head, including everything required to maintain pressure in the systems, and excluding backflow preventers, if any.
- 3.1.2. The Contractor is responsible for ensuring that all equipment has been included and that all steps required to ensure compliance have been taken or mentioned to the Parks Canada Project Authority in the report to determine that the sprinkler system has been fully inspected.
- 3.1.3. Testing of sprinkler heads is excluded from **basic work**. However, if such tests are required, they must be stated in the report as indicated above.
- 3.1.4. During the work, the Contractor must keep a permanent visual watch on the fire alarm system. Should an actual fire detection be reported on the panel, the Contractor is obligated to notify the building's security officials and alert the fire department.
- 3.1.5. After each verification, ensure that the systems are reactivated and that the areas around the building are well protected.

3.2. QUALIFICATIONS

- 3.2.1. Prior to commencing work, any person undertaking inspections, testing, maintenance or minor repairs relating to water-based fire protection systems (sprinklers, fire pumps, hydrants, etc.) must possess the following qualifications:
- 3.2.2. Red Seal certification as a fire protection mechanic or equivalent in the jurisdiction where the work is to be performed (NOC: 7252); and
- 3.2.3. Work for a company duly certified and registered in subclass 13.3 Contractor – Fire extinguishing systems.

3.3. BASIC WORK

- 3.3.1. Perform annual sprinkler system inspections, testing and maintenance.
- 3.3.2. Grosse-Île systems (#14, #19, #29-32, #48 and #100) each include a South-Tek N2Blast nitrogen generator, which must be serviced annually in accordance with the manufacturer's recommendations (change all filters on generators annually).
- 3.3.3. Inspect, test and maintain sprinkler systems every three years in accordance with the schedule in the table below.
- 3.3.4. Inspect, test and maintain sprinkler systems every five years in accordance with the schedule in the table below.

3.4. LIST OF BUILDINGS WITH SPRINKLER SYSTEMS

Building	Address	Type	Work Schedule	
			Every 3 Years	Every 5 Years
Garrison Club	97, rue St-Louis, Québec	Wet and dry systems	2026	2025
Arsenal Foundry and administrative offices	2, rue D'Auteuil, Québec	Wet system	–	2024
Gun Carriage Warehouse	2, rue D'Auteuil, Québec	Dry system	2025 2028	2024
Officers' Quarters	2, rue D'Auteuil, Québec	Dry system	2025 2028	2025
Dauphine Redoubt	2, rue D'Auteuil, Québec	Dry system	2025 2028	2025
Maillou House	17, rue St-Louis, Québec	Wet and dry systems	2026	2026
1st Class Hotel (#14)	Grosse-Île, Montmagny County	Nitrogen	2025 2028	2027
3rd Class Hotel (#19)	Grosse-Île, Montmagny County	Nitrogen	2024 2027	2028
Disinfection Building (#29) and Carpentry and Plumbing Workshops (#32)	Grosse-Île, Montmagny County	Nitrogen	2024 2027	2028
Roman Catholic Chapel (#48)	Grosse-Île, Montmagny County	Nitrogen	2025 2028	2027
Lazaretto (#100)	Grosse-Île, Montmagny County	Nitrogen	2024 2027	2028
Water Treatment Plant (#402)	Grosse-Île, Montmagny County	Wet system	–	2028

3.4.1. The Contractor must consider the following factors:

- 3.4.1.1. The Garrison Club has two antifreeze sprinkler heads in a cold room.
- 3.4.1.2. No system is used to protect commercial kitchen equipment.
- 3.4.1.3. Maillou House has two sprinkler systems, one for Maillou House and one for L'Estoc.
- 3.4.1.4. The dust collector in the Grosse-Île workshop (Building #96) is equipped with a sprinkler head that should be part of the inspection. This sprinkler head is connected to the building's domestic water supply.
- 3.4.1.5. Sprinkler systems on Grosse-Île (Buildings #14, #19, #29-32, #48 and #100) are equipped with South-Tek N2Blast nitrogen generators installed in 2018.
- 3.4.1.6. The sprinkler system in the 1st Class Hotel has three distinct zones (only one nitrogen system, but three main dry pipe valves)

- 3.4.1.7. The sprinkler system in building #32 is connected underground to the sprinkler system in building #29. (Only one nitrogen system and one pre-action and deluge system, but two main dry pipe valves). See Appendix for details.
- 3.4.1.8. The sprinkler systems in buildings #29-32 and #19 are preaction and deluge systems.

4. TECHNICAL SECTION – PRIVATE FIRE SERVICE MAINS AND FIRE HYDRANTS (PFS AND FH)

4.1. GENERAL

- 4.1.1. Our private fire service mains are located on Grosse-Île. It is separate from the island's water supply system. It runs approximately 2.5 kilometres underground, supplying 17 hydrants and six sprinkler systems. To our knowledge, there are no mainline strainers in the system.
 - 4.1.1.1. Only six of the 17 hydrants are part of the contractor's **basic work**.
 - 4.1.1.2. Inspection and maintenance of other hydrants may be requested as part of a task authorization.
- 4.1.2. Parks Canada owns two fire hydrants in Lévis and one in Québec, all directly connected to the city's water supply system.
- 4.1.3. The Contractor is responsible for ensuring that all equipment has been included and that all steps required to ensure compliance have been taken.

4.2. QUALIFICATIONS

- 4.2.1. Prior to commencing work, any person undertaking inspection, testing, maintenance or minor repairs relating to water-based fire protection systems (sprinklers, fire pumps, hydrants, etc.) must possess the following qualifications:
 - 4.2.1.1. Red Seal certification as a fire protection mechanic or equivalent in the jurisdiction where the work is to be performed (NOC: 7252); and
 - 4.2.1.2. Work for a company duly certified and registered in subclass 13.3 Contractor – Fire extinguishing systems.

4.3. ENVIRONMENTAL PROTECTION

- 4.3.1. Releases of chlorinated water required by the work must be kept to a minimum so as not to produce any unnecessary impact on the environment, fauna, flora and fresh or estuarine water. Any release of chlorinated water must be directed more than 30 m away from the St. Lawrence River shoreline, and from any bank or watercourse. A discharge hose may be required for some hydrants.
- 4.3.2. In the event of an anticipated release of more than 500 m³ of water, special arrangements must be made with Parks Canada staff regarding the conditions of release. Use of a temporary pond and aeration may be required to minimize harmful impacts.

4.4. BASIC WORK

- 4.4.1. Perform annual inspections, testing and maintenance of the Grosse-Île private fire service mains.
- 4.4.2. Perform inspections, testing and maintenance every five years on the Grosse-Île private fire service mains. (2024)
- 4.4.3. Annual inspection, testing and maintenance of fire hydrants in Québec and Lévis.

4.5. LIST OF HYDRANTS

Lévis Forts		
Hydrant no.	Area	Make and Model
1	West side (lawn)	Canron CT
2	East side (lawn)	Canron CT
Artillery Park		
Hydrant no.	Area	Make and Model
1	Dauphine Redoubt	Daigle D 67 M
Grosse Île and the Irish Memorial		
Hydrant no.	Area	Make and Model
1*	1st Class Hotel (No. 14)	Ludlow 4 inch
2	Kitchen (No. 17)	Ludlow 4 inch
3	Bakery (No. 18)	Ludlow 4 inch
4*	3rd Class Hotel (No. 19)	Ludlow 4 inch
5*	Disinfection Building (No. 29)	Ludlow 4 inch
6	In front of the Electrician's House (No. 11)	Brigadier M-67
7	Physician's Assistant's House (No. 38)	Ludlow 4 inch
8	Sailers quarters (No. 39)	Ludlow 4 inch
9	Anglican Chapel (No. 42)	Brigadier M-67
10	Superintendent's Shed (No. 47)	Ludlow 4 inch
11*	Power Plant (No. 59)	McAvity 5 inch Brigadier
12	School (No. 71)	McAvity 5 inch Brigadier
13	To the Lower Wharf (No. 74)	McAvity 5 inch Brigadier
14*	In front of the Carter's Residence (No. 79)	McAvity 5 inch Brigadier
15	Hospital Superintendent's House – Shed (No. 89)	McAvity 5 inch Brigadier
16	Hospital Laundry (No. 98)	McAvity 5 inch Brigadier
17*	Lazaretto (No. 100)	Ludlow 4 inch

* Only the six hydrants marked with an asterisk are part of the contractor's **basic work**.

5. TECHNICAL SECTION – FIRE PUMPS AND PRESSURE RELIEF VALVES (FP)

5.1. GENERAL

- 5.1.1. The Contractor is responsible for ensuring that all equipment has been included and that all steps required to ensure compliance have been taken or mentioned to the Parks Canada Project Authority in the report to be produced by the Contractor.

5.2. QUALIFICATIONS

- 5.2.1. Prior to commencing work, any person undertaking inspections, testing, maintenance or minor repairs relating to water-based fire protection systems (sprinklers, fire pumps, hydrants, etc.) must possess the following qualifications:
- 5.2.2. Red Seal certification as a fire protection mechanic or equivalent in the jurisdiction where the work is to be performed (NOC: 7252); and
- 5.2.3. Work for a company duly certified and registered in subclass 13.3 Contractor – Fire extinguishing systems.

5.3. BASIC WORK

- 5.3.1. Perform annual and biannual inspections, testing and maintenance of fire pumps and pressure relief valve.
- 5.3.2. Parks Canada does not have the manufacturer's recommendations for fire pumps. The Contractor must follow the alternative requirements of Table 8.1.2 of NFPA-25 and do all that is required on an annual and biannual basis.

5.4. EQUIPMENT LIST

- 5.4.1. Two (2) diesel-powered fire pumps are located at the water treatment plant (building 402). Both pumps have the following components:
- 5.4.2. Cummins diesel engine, 62HP, 2100 RPM MOD. NDC-BF4M1011F;
- 5.4.3. Aurora/Layne 4-stage vertical turbine pump, 150mm ø, MOD. 11FGM-4.
- 5.4.4. Cutler-Hammer control panel, MOD. FD100-12L-N-A-L2-C4-F-E1.

6. TECHNICAL SECTION – FIRE ALARM SYSTEM (FAS)

6.1. GENERAL

- 6.1.1. All equipment included in a fire alarm system (NBC, NFC and ULC-S536) must be inspected and tested annually. The Contractor is responsible for ensuring that they have all been inventoried and inspected.
- 6.1.2. During testing, the Contractor must keep a permanent visual watch on the fire alarm system. If the panel indicates that a fire has actually been detected, the Contractor will be obliged to notify the building's security officials and/or alert the fire department.
- 6.1.3. During building occupancy hours, the Contractor must not set off any bells without the authorization of a representative of the Project Authority. In addition, any maintenance, testing or verification procedure that could accidentally trigger bells during these hours is prohibited without authorization from the Project Authority.
- 6.1.4. After each verification, the Contractor must ensure that systems are back in operation and that the building areas are properly protected.

6.2. QUALIFICATIONS

- 6.2.1. Any person undertaking inspections, testing, maintenance, or minor repairs relating to fire alarm systems must have the following qualifications:
 - 6.2.1.1. Currently registered by the Canadian Fire Alarm Association (CFAA) as having successfully completed the Fire Alarm Technology Program and a minimum one-year apprenticeship with a CFAA Registered Technician;
 - 6.2.1.2. Certified and registered electrician having completed a post-secondary program or fire alarm system maintenance course approved by the provincial or territorial Authority Having Jurisdiction; or
 - 6.2.1.3. Work for a fire alarm company listed under the Fire Alarm Certificate Service of Underwriters Laboratories of Canada (ULC) and hold a certificate qualifying the bearer to deal with the degree of complexity of the alarm system to be inspected, tested and maintained.

Qualification certificates must be provided to the Project Authority upon request.

6.3. BASIC WORK

- 6.3.1. Perform all annual fire alarm system inspections and testing.

6.4. NON-EXHAUSTIVE LIST OF EQUIPMENT INCLUDED IN A FIRE ALARM SYSTEM

- 6.4.1. Annunciator
- 6.4.2. Audible alarm devices
- 6.4.3. Visual signal devices
- 6.4.4. Manual stations
- 6.4.5. Flowmeters
- 6.4.6. Fire detectors
 - 6.4.6.1. Smoke detector
 - 6.4.6.2. Heat detector
 - 6.4.6.3. Combination detector
- 6.4.7. Electrical supervision
 - 6.4.7.1. (All valves controlling water supplies in a standpipe system shall be equipped with an) electrically supervised switch
 - 6.4.7.2. Water pressure in wet pipe systems
 - 6.4.7.3. Air pressure in dry pipe systems
 - 6.4.7.4. Power to a fire pump
- 6.4.8. A temperature approaching the freezing point in any dry pipe valve enclosure
- 6.4.9. Elevator Emergency Return
- 6.4.10. Stop fans
- 6.4.11. Voice communication
- 6.4.12. End of line device
- 6.4.13. Firestop connected to fire alarm system

6.5. LIST OF BUILDINGS WITH FIRE ALARM SYSTEMS

Building	Address	Addressable (A) Conventional (C)
Garrison Club, Messenger House	97, rue St-Louis, Québec	A, Attic C
Cartier-Brébeuf	175, rue de l'Espinay, Québec	C
Arsenal Foundry and administrative offices	2, rue D'Auteuil, Québec	A
Gun Carriage Warehouse	2, rue D'Auteuil, Québec	C

Building	Address	Addressable (A) Conventional (C)
Dauphine Redoubt Officers' Quarters	2, rue D'Auteuil, Québec	A
Maillou House	17, rue St-Louis, Québec	C, basement A
L'Estoc	5, rue St-Louis, Québec	C
Esplanade Powder Magazine	100, rue St-Louis, Québec	C
Saint-Louis Forts and Châteaux	17, rue du Fort, Québec	A
Lévis Forts	41, Ch. Du Gouvernement, Lévis	A
#67 Physician's Residence	Grosse-Île, Montmagny County	C
#77 Physician's Residence	Grosse-Île, Montmagny County	C
#86 Thermal Power Plant	Grosse-Île, Montmagny County	C
#96 Workshops	Grosse-Île, Montmagny County	C
#14 1st Class Hotel	Grosse-Île, Montmagny County	A
#19 3rd Class Hotel	Grosse-Île, Montmagny County	A
#29/32 Disinfection Building and Carpentry and Plumbing Workshops	Grosse-Île, Montmagny County	A
#48 Roman Catholic Chapel	Grosse-Île, Montmagny County	A
#100 Lazaretto	Grosse-Île, Montmagny County	A
#402 Water treatment plant	Grosse-Île, Montmagny County	A

APPENDIX 1 TO SCHEDULE A

Schedule items

The following annexes are enclosed as separate attachments.

- APPENDICE I
- APPENDICE II
- APPENDICE III
- APPENDICE IV