



**CORRECTIONAL SERVICES CANADA
TECHNICAL SERVICES BRANCH
ELECTRONIC SECURITY SYSTEMS**



ES/STR
Revision 1
2017 May

**STATEMENT
OF
TECHNICAL REQUIREMENTS**

KEY MANAGEMENT SYSTEM

for

LA MACAZA INSTITUTION

AUTHORITY

Recommended corrections, additions or deletions should be addressed to the Design Authority at the following address:

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TABLE OF ABBREVIATIONS

Abbreviation	Expansion
ATP	Acceptance Test Plan
CER	Common Equipment Room
CESM	Chief Electronic System Maintenance
CFM	Chief Facility Management
CIPC	Canadian Police Information Centre
CSC	Correctional Service Canada
DA	Design Authority
EIA	Electronic Industry Alliance
GUI	Graphic User Interface
IEEE	Institute of Electrical and Electronics Engineers
IP	Internet Protocol
SOW	Statement Of Work
STR	Statement of Technical Requirements
TA	Technical Authority, from Electronic Security Systems department
TER	Telecommunication or Electrical Room
UPS	Uninterruptible Power Supply
UTP	Unshielded Twisted Pair

TABLE OF DEFINITIONS

Term	Definition
Design Authority	Director, Electronic Security Systems
Contract Authority	Public Works & Government Services Canada
Contractor	The Company selected as the successful bidder on the contract

1 INTRODUCTION

1.1 General

- .1 CSC has a requirement to have installed a key management system for La Macaza institution. That institution is a medium level security facility.
- .2 The selected contractor must install the required equipments for the system, power and signal cables and necessary conduits for cables. During the install phase, the contractor must adhere to the Building Code, the Construction Security Code and the National Electrical Code.
- .3 The existing key management system and the related cables must be removed by the contractor. Refer to sections 4.1 and 5.15 for the removal and disposal of old equipments.
- .4 This Statement of Technical Requirements (STR) covers the technical requirements for the required work, which will have to be accomplished with minimum disruption to the daily operation and security of the facility.
- .5 The objective of this project is the installation of new equipments including any related construction element.

1.2 Scope

- .1 The contractor must supply, install and test equipments, and train operators and maintenance personnel on the installed equipment, as described in this STR.
- .2 The contractor must provide acceptable documentation for the operation and maintenance of this equipment.
- .3 The contractor must carefully review the nature and current indoor and outdoor conditions of the institution for a final evaluation of the work to be performed on site since no extra payment may be claimed in this respect.

1.3 Purposes

- .1 The purpose of this STR is to define the technical aspects for the installation of new equipment.
- .2 This STR will indicate the extent to which both general and particular CSC specifications are applicable to the implementation of this requirement.

1.4 Tour of the facilities

- .1 CSC coordinates site visit at La Macaza for bidders to understand the exact location of various existing equipments.
- .2 During this visit, additional information of the facility will be distributed to bidders.
- .3 These will be strictly for information only and must be used only for the identification of various locations considered in the context of this project.
- .4 This will allow participants to take notes on the scene to gather information necessary to the exercise of drafting proposals to be submitted to PWGSC.
- .5 All pertinent questions must be submitted to PWGSC in writing and answers will be provided as an amendment (refer to PWGSC bidding procedures).
- .6 The visits are necessary and useful to determine:
 1. Reuse of ducts, when specified in this STR, the addition thereof to the feed and the interconnection of the system;
 2. The general layout and operating conditions of the facility.

1.5 Technical acceptability

- .1 The CSC operational environment is unique for its diversity of locations, its climate exposures and the physically restrictive construction techniques in penal institutions. Maintaining national security and the safety of both staff and offenders are CSC's commitment to the government and to the public. Electronic security systems operating in this unique environment shall maintain very high standards of dependability and reliability.
- .2 The CSC Engineering Services Division has established Statements of Work (SOW), technical specifications and standards for security electronic systems, which are based on very specific, and restrictive operational performance criteria. Technical acceptability of these systems means that system equipment and components comply with the pertinent CSC SOWs, specifications and standards. Any technical specifications not appearing on the list in paragraph 2.2 may appear in this STR to supplement certain minimum acceptable criteria that have not yet been included in a formal document drafted by the CSC Engineering Services Division.

2 APPLICABLE DOCUMENTS

2.1 Applicability

- .1 The provisions contained in the documents listed in the following paragraphs shall apply to all aspects of this requirement, unless these provisions have been exempted or modified by this STR.

2.2 Applicable Standards, Specifications, and Statements of Work

- .1 Access to non-government specifications is the responsibility of the contractor.

Number	Title
ES/SOW-0101	Electronics Engineering Statement of Work, Procurement and Installation of Electronic Security Systems
ES/SOW-0102	Electronics Engineering Statement of Work, Quality Control for Procurement and Installation of Electronic Security Systems
ES/SPEC-0006	Electronics Engineering Specification, Conduit, Space and Power Requirements for Security Systems for use in Federal Correctional Institutions
ES/STD-0227	Electronics Engineering Standard, LCD Colour Computer Monitor,
ES/SOW-0110	Electronics Engineering Statement of Work, Structured Cable Systems For Electronic Security Systems
ES/SOW-0502	Electronics Engineering Standards Test and Evaluation Guidelines

3 OPERATING CRITERIA

3.1 General

- .1 The operational parameters of the installed equipment shall meet the performance and operational requirements in accordance with the Specifications and Standards listed in paragraph 2.2.

3.2 Existing key management and access control system

- .1 The contractor must test the operational characteristics of all existing equipment and systems in place. The contractor must also submit a written report of these tests to the Crown and submit them to the CESM.
- .2 The Contractor must identify any operational equipment failure, failing to do so, he could be held liable for system failures during the commissioning.

3.3 Concept of operation

- .1 The system must consist of multiple key cabinets and proximity card readers networked to a single server operating a key management and access control software. The network must be hardwired, wireless operation is not acceptable.
- .2 Each key cabinet must be opened using an HID 1000 compatible proximity card reader. A capacitive type keyboard mounted on the cabinet must also provide access to the cabinet. Keyboard operation must be activated or disabled by the key system manager.
- .3 Manual override function is required.
- .4 Fail safe latch in case of a power failure is required.
- .5 Key rings with unique serial number must be used to keep together the operational key, the shoplifting tag and a trapped key entering a key core inside the key cabinet.
- .6 Inside the key cabinets, interchangeable cores must be used with a single identification tag. Each core must be different and made of high quality components.
- .7 A shoplifting tag detector must be installed at the main entrance in order to detect a key ring passing beyond that point. This event must be logged by the key management software. The detector must provide visual and audible alarms which can be configured by the key system manager.
- .8 The key management software must provide the following features:
 1. keep a 30 day log of all events
 2. provide a log of all key movements
 3. generate an alarm when a key ring is returned late, a door is left opened
 4. allow to program a single use access
 5. log must include key ring ID, user name, date, hour, event
- .9 A list of minimum required equipment is available in Annex C.

4 TECHNICAL REQUIREMENTS

4.1 Removal of existing equipment and cables

- .1 The contractor must remove all redundant cables, conduits and equipment located in and on various buildings (take into account the specific details set out in the Annex C of this STR).
- .2 All electronic equipment must be handed over to CSC in good condition.
- .3 The contractor must dispose of all removed cables and conduits in accordance with the directives and practices implemented at the institution.
- .4 The contractor and his sub-contractor are responsible of following any institutional instructions provided by the Chief of Facilities Management.

4.2 System Installation

- .1 The new systems must meet or exceed all of the performance and operational requirements contained in the SOW, specifications and standards listed in Section 2.2.
- .2 The integrator has to handle a cut over plan in order to keep downtime to a minimum for the two systems. The cut over plan must be approved by the CESM prior to beginning of works.
- .3 The limited space in the cabinets must be taken into account in the planning phase.

4.3 Equipment cabinet

- .1 Cable ties must not be used to mount equipment or hardware.
- .2 Equipment must be mounted in cabinets.
- .3 Where the scope of work requires the provision/installation of an equipment cabinet in the CER, the following specifications must be met:
 1. All rack power must be supplied through industrial grade power bars designed specifically for electronic equipment rack cabinets. The power bars must connect to dedicated circuits using twist-lock plugs.
 2. Approval must be received from the TA before installation of new equipment into existing racks.
 3. Raised ceiling for ventilation;
 4. Front and rear metal doors, all with louvers and locks that are keyed alike;
 5. Removable side panels with louvers;
 6. Four articulated adjustable feet;
 7. All new equipment in equipment rooms must be installed in existing or new EIA-310 compliant 19" racks. The racks must be fully enclosed and mounted to the floor. All rack doors must have locking front and back doors and be keyed alike. Side panels may be omitted between adjacent, connected racks;
 8. Approval must be received from the TA before installation of new equipment into existing racks;
 9. 83% Airflow;
 10. At least 32" useable depth, 42u useable height, able to supports 3000lbs.

4.4 AC Circuits

- .1 The contractor must reuse or supply and install sufficient 120 VAC circuits to power all of the new equipment.
- .2 The contractor must use circuits being part of the institution's emergency power system to power all of the new equipment.
- .3 Home and office type power bars must not be used.

- .4 All receptacles must be labeled on the receptacle cover.
- .5 The labels must include the system identifier, panel number and the breaker number.
- .6 All circuit breakers must be identified on the breaker panel identification sheet with the same designation as the labels on the receptacles and the boxes.
- .7 The contractor must co-ordinate any down time of electrical power circuits with the site authority.
- .8 The contractor must follow all lock-out safety procedures.
- .9 The complete installation must be done in accordance with the latest edition of CSA C22.1, Canadian Electrical Code Part 1 and ULC Standard ULC-S524-90. All electrical work must be carried out by a qualified electrician.
- .10 The contractor must follow recommendations adopted by CSC in accordance with the edition of CSA Z462-12. All electrical work must be done at zero energy.

4.5 Structured Cabling

- .1 All cabling must be installed in accordance with the latest issue of TIA/EIA-568 with modifications as listed in the following paragraphs.
- .2 All cable installation personnel must be certified in structured cabling installation to a standard compliant with the latest issue of TIA/EIA-568.
- .3 All existing cable being reused must be tested in accordance with TIA/EIA-568 and repaired or replaced if not compliant.
- .4 All cable installation must be performed in accordance with the latest issue of TIA/EIA-569.
- .5 All cables, connectors, pull boxes and conduits must be labelled in accordance with the latest issue of TIA/EIA-606.
- .6 The contractor must install cables in the walls and avoid, as much as possible, the use of conduit in common accessible areas.
- .7 The contractor must utilize existing pipe chases, existing conduit in the walls, etc. In areas where this is not possible a cable strap must be installed to cover the exposed cables at all time during the process of construction.

4.6 Cabling

- .1 All cabling must be run without splices and terminated with a connector whether in use or spare. Cables must not be terminated on an exterior wall that is not totally part of CSC space.
- .2 All cabling must be enclosed in rigid conduit in exposed inmate accessible areas, enclosed in EMT conduit in exposed non-inmate accessible areas, and enclosed in plastic PVC conduit for underground installations. Low voltage and fiber optic cables must be run in conduits separate from high voltage cables (e.g. 110 VAC nominal).
- .3 Cabling may use existing cable trays, last only as potential alternative, with written approval of the Technical Authority (TA).
- .4 Cables must be bundled in logical bundles using Velcro tie wraps; plastic zip-tie tie wraps must not be used.

4.7 LAN Cabling

- .1 All LAN cables including patch cables must have a bright green sheath.
- .2 All LAN cabling, connectors patch panels and other cabling components must be rated Category 6 (Cat6) with a recognized testing body certification on the sheath.
- .3 All LAN premises cables must be terminated at patch panels in equipment rooms or at a faceplate.
- .4 All faceplates and patch panel connectors must be identified with unique numbers.

- .5 All RJ45 connectors from LAN cables must have “no-snag” boots over the connectors.

4.8 Fibre Optic Cabling

- .1 All fiber optic cables must be OM-3 50/125 micron laser rated optimized fiber and use SC connectors. Each fiber optic bundle must be a minimum of 12 strands (6 pairs) within each cable and be dedicated to only electronic security systems use. Labeling of fiber optic cables must include cable destination and strand count on labels.
- .2 Optical Time Domain Reflectometer testing must be performed on all installed fiber optic cables and an electronic copy in .pdf format must be provided after installation.

4.9 Conduit

- .1 All newly installed conduits carrying video for this project must be identified, except in common accessible areas, by prominent labels with BRIGHT GREEN wording. These labels must be located at each end of the conduit run, on both sides of any penetration of a wall, and at 3.5 metre points along its length.
- .2 All conduit installations must have a pull string and have end bushings on all conduit entrances and exits. Conduit containing copper backbone cable must be labeled “CAUTION SECURITY SYSTEM CABLE”. Conduit containing fiber optic backbone cable must be labeled “CAUTION FIBRE OPTIC SECURITY SYSTEM CABLE”.
- .3 Liquid-tight flexible metal conduits may be used where required. The flexible conduit length must not exceed one meter.
- .4 Conduits must not be overfilled; the latest issue of TIA-569 (Commercial Building Standard for Telecommunications Pathways and Spaces) will apply.
- .5 All patch cables are to be stranded cable with RJ45 connectors. RJ45 connectors are not to be attached to solid conductor cable.
- .6 All installed runs of CAT6 cable are to be solid conductor cable and terminated into patch panels in equipment racks or faceplates in other locations. An installed cable is any cable that is run through a conduit, run from one area in a building to another area, any cable that travels farther than the adjacent equipment cabinet in a series of cabinets.
- .7 All fibre optic strands shall be terminated with ST connectors and housed on a patch panel.
- .8 Here is a description of the characteristics of the protective covering required for the fibre optic cables used in underground and outdoor conduits. Lightning protection and adherence to the Lightning Rod Code: the contractor must provide fibre optic cable with an insulating sleeve, free of aluminum shielding, to protect the network from any electrostatic propagation caused by ground discharge.
- .9 In locations subject to extreme temperature changes, and/or where conduit lengths are of non-standard size, the contractor must make provisions for the inclusion of conduit expansion joints.
- .10 Rigid conduit with threaded connections and double strapping using screws on both sides of each strap must be used for surface installation where the conduit is less than 12 feet above the floor in inmate areas.
- .11 If a pull box is required, the box model shall comply with electrical installation standards in accordance with the usage reserved for the cable type (fibre optic or CAT6). The cover shall be sealed with anti-tampering screws at all sites and in all installation conditions to preserve the integrity of the security system.
- .12 Conduit must not be damaged by combinations of direct exposure to the sun, wind, rain, lightning, hail, snow and ice as may be expected to occur at each institution location.

- .13 In addition to these requirements, the latest issue of applicable industrial standards applies, Including;
1. CSA Standard C22.2 - Rigid Metal Conduit
 2. CSA Standard C22.2 - Flexible Metal Conduit

4.10 Patch Panels

- .1 All patch panels must provide integral strain relief for all cables and have at least 15% of ports unused. The 15% spare capacity in the same rack cabinet may be aggregated to one or more patch panels.
- .2 All patch panel fiber optic ports must be labeled with backbone destinations.

4.11 Pull Boxes

- .1 All pull boxes containing fiber optic cables must be labeled "CAUTION FIBRE OPTIC SECURITY SYSTEM CABLE".

4.12 Conduit check for reuse

- .1 This section specifies the reuse of existing pipe chases and conduit in the institutions.
- .2 Where present in an institution, certain cable trays and racks may be reused if the space is available, subject to approval by the CFM. Reuse of these cable trays must respect the electrical nature for which they were intended (electrical, data/communication, computer services IT, fibre optics, etc.). For example: in general, existing conduits for cameras to be replaced may be reused.
- .3 It is unacceptable for cable copper runs to use the same conduit infrastructures dedicated to CCTV fibre optics.
- .4 Any network cabling dedicated to the CCTV system may not borrow or share the infrastructures of other services, except for a short run that does not exceed 10 m, with the authorization of the CFM and the CESM. A run may borrow outdoor-to-indoor access conduits for a building.
- .5 The conduit must not be employed beyond 60% of its capacity. The cables used for this access conduit must be for the same type of service, i.e. telecommunication cables.
- .6 All conduits, cables and pull boxes that were used in the existing system and that are no longer useful must be removed and disposed of in accordance with the institution's environmental practices.
- .7 The contractor must provide a written record of the inspections for CSC.
- .8 All non-reusable conduits must be replaced according to the change request procedures of the contract.
- .9 The contractor must supply an estimate of the completion costs and the evaluations of the inspections required to support the change request in order to make a change to the scope of the work.

4.13 Patch & Paint

- .1 The contractor must patch and re-paint walls to match the existing walls where the walls have been damaged by their installation activities.

4.14 Monitor

- .1 This section refers to CSC standard ES/STD-0227.

4.15 Uninterruptible power supply (UPS)

- .1 Every piece of equipment must be protected by an uninterruptible power supply (UPS).
- .2 The UPS must provide a normal operation of both systems for a minimum period of sixty (60) minutes.

4.16 Maintenance and certification

- .1 In the event of any failure of equipment, the contractor is responsible for immediate resolution for resumption of full system operation. This will include provision of a two-year (2) warranty including a service call response time of 4 hours or less.
- .2 In order to facilitate this, the contractor will be required to ensure appropriate maintenance support agreements are in place to provide immediate support in the event of equipment failure. The contractor will provide proof of the availability of certified maintenance support.

4.17 Expandability and installation method

- .1 It must be possible to expand the system beyond the originally installed capacity through the installation of additional hardware. The system expandability must not be limited in his regard.
- .2 Past experience shows examples of inadequate hardware installations, such as disorganized, poorly connected and poorly identified wiring, devices piled one on top of the other, identification methods that did not match the reality of the physical system and as-built documents (standard ES/STD-0101 & ES/STD-0102). Evaluation of this call for proposals will focus on solutions demonstrating strict organization associated with:
 1. Optimal arrangement of hardware in the cabinets for preventive maintenance of equipment;
 2. Effective identification of wires/communication ports/circuits/outlets;
 3. Quality of documentation/training manual/maintenance manual/circuit diagram/ single-line diagram;

and any other integration method that demonstrates that the contractor has produced a solution that focuses on efficiency and ease of preventive maintenance operations and debugging in the event of a breakdown (software tools, mounts, step-by-step, etc.).

5 ADDITIONAL REQUIREMENTS

5.1 Language

- .1 The language at all Quebec Region Institutions is French; all display and control information shall be in French.
- .2 The operator manual shall be provided in French.
- .3 The maintenance manuals and as-built drawings must be provided in English.
- .4 Training and documentation must be provided as to counter requirements specified in sections 5.2 through 5.5.
- .5 The contractor must ensure that least one member of its staff retained for the mandate to be able to communicate in writing and orally in French. Writing skill using “GOOGLE Translate” will not be acceptable.

5.2 Operator Training

- .1 The contractor must prepare and present a one-day training course, in French, to a group no more than five Operator/Trainers in the group, responsible for the operation of the equipment in accordance with the specification ES/SOW-0101 Statement of Work.
- .2 The course must concentrate on the features, the configuration and proper operation of the installed system with hands on experience.
- .3 The course must be presented on the site at least one week prior to the system installation.

5.3 Maintenance Training

- .1 The contractor must prepare and present one course of one-day training, in English, to up to five persons responsible for the maintenance of the equipment.
- .2 The course must concentrate on the material contained in the technical manual and site specific manual.
- .3 The course must be presented on the site within one week of the successful acceptance testing of the system.

5.4 Manuals

- .1 The contractor must provide the operator and technical manuals in accordance with the specification ES/SOW-0101 Statement of Work.
- .2 Catastrophic failure recovery manual
- .3 The contractor must provide ten paper copies of the operator manual in French and English to the site + one electronic format CD or DVD. The contractor must provide one electronic format CD or DVD copy of the operator manual in French and English to each of the Design Authority, the CESM, and ADGA Headquarters (attn: Project Manager, CSC National Maintenance Program).
- .4 Maintenance manuals must all include completed ATP forms.
- .5 The contractor must provide copies of the completed Maintenance Handover Report Form contained in Annex B.
- .6 The contractor must provide maintenance manuals and as-built drawings that include all of the information and drawings pertaining to the new installed system.
- .7 The contractor must provide all copies of the maintenance manuals in English.
- .8 The contractor must provide two (2) paper copies on the maintenance manual to ADGA Headquarters (attn: Project Manager, CSC National Maintenance Program). Also, he must provide an electronic version of the maintenance manual to the site, one copy to the Design Authority, one copy to the CESM and one copy to ADGA Headquarters (attn: Project Manager, CSC National Maintenance Program).

- .9 All manuals are to be delivered in electronic format CD or DVD. All manuals are to have an interactive index that will link the table of contents to documents within the manual. All documents within the manual are to be presented in Adobe Acrobat PDF format.

5.5 As-Built Drawings

- .1 The contractor must provide electronic and paper copies as-built drawings of the site installation in a format and in accordance with specification ES/SOW Statement of Work.
- .2 The as-built drawings must at least include : functional description, block diagram, wiring diagram, IP table, configuration files ...
- .3 The contractor must provide one electronic format CD or DVD copies of the as-built drawings to the site, one to the Design Authority, one to the CESM and one to ADGA Headquarters (attn: Project Manager, CSC National Maintenance Program) within 30 days of an accepted ATP.

5.6 Software

- .1 The contractor must provide CD or DVD copies of any system software in accordance with specification ES/SOW-0101 Statement of Work.
- .2 The contractor must provide two copies of the software to the site, one to the Design Authority and one to the CESM.

5.7 Testing

- .1 The contractor must provide a detailed ATP to the CESM and Design Authority (DA), or his designated representative, electronic format CD or DVD, for approval at least two weeks prior to the start of installation of the system.
- .2 The contractor must complete one hundred percent of the tests outlined in the ATP prior to the ATP testing being carried out by the CESM.
- .3 The contractor must provide a fully completed and signed copy of the ATP to the DA, or his designated representative, at least five working days prior to the start of the final ATP testing.
- .4 In the case where subcontractors have been used, the contractor must provide written confirmation that the work of their subcontractor has been inspected and verified. This verification must be sent to the CESM and DA or his designated representative, by email, at least five days prior to the start of the ATP.
- .5 Testing may be carried out by the CESM or DA or both, a designated representative or a third party contractor.
- .6 The CESM or DA or both may repeat all of the ATP tests done by the contractor or a percentage of them. If there is an unacceptable level of failed tests during the ATP testing by the CSC; the ATP testing will be halted until the contractor has corrected these failures.
- .7 If the CESM or DA or both during the ATP testing finds a minor deficiency that does not affect the operational effectiveness of the CCTV equipment or system, the ATP testing may continue. Any minor deficiency should be rectified within 30 days; an extension may be approved by the DA and or the CESM. If a major deficiency is found during the ATP testing that does affect the operational effectiveness of the CCTV equipment or system; the testing must cease until the deficiency has been corrected.
- .8 ATP testing must be done during normal working hours, 08:00 to 16:00, Monday to Friday. ATP testing at other times will only be done in an emergency situation.
- .9 The CESM or DA or both or designated representative will sign-off on the ATP, upon the successful conclusion of the testing. Any minor deficiencies noted during the testing will be

indicated on the ATP form. This signature indicates the Conditional Acceptance of the system.

- .10 The system will be subjected to operational testing for a period of two (2) weeks following the Conditional Acceptance of the system. CSC will formally accept the system from the Contractor at the end of this two (2) week period, but only if ALL deficiencies have been corrected.
- .11 Any deficiencies noted by CSC during this two (2) week operational testing period will be communicated to the Contractor, who will then be required to correct the deficiencies. The two (2) week operational testing period will begin again after all deficiencies have been cleared.
- .12 The equipment warranty period will start on the date the system is formally accepted.

5.8 Operational Down-Time

- .1 Equipment and systems operational down time must be kept to a minimum. All down time will be coordinated with the Coordinator of Correctional Operations (CCO) on site or designate. The contractor's staff may be required to work during evenings, nights and/or weekends to reduce the amount of down time and to meet operational requirements.

5.9 Institutional Operations

- .1 The contractor must take every precaution to minimize any disturbance to institutional operations. The contractor and his staff on site shall cooperate fully with operational staff and conform to all security requirements.

5.10 Institution Address

- .1 **Établissement La Macaza**, 321 Chemin de L'Aéroport, La Macaza (Québec), J0T 1R0

5.11 Security

- .1 The Contractor must submit completed CPIC forms for all staff who will be working at the Institutions. The CPIC forms must be submitted to the CESM, or his designate, ten (10) working days prior to the start-up date.

5.12 Safety

- .1 The Contractor must comply with the document titled "Safety Regulations for Security Electronics Contractors Working at CSC Institutions" attached as Annex A.

5.13 Drawings

- .1 Site plan floor plan drawings of have been provided as a guide only. Correctional Service Canada will not be responsible for any errors or omissions in the drawings. It is the contractor's responsibility to take all of the measurements required to prepare his bid and to carry out the work.

5.14 Communication Responsibility

- .1 The contractor is responsible for briefing institution staff prior to leaving the work site for the day (see section 5.1 for language concern). The briefing shall be given to the Chief of Work, and shall include, as a minimum:
 - 1. Work performed that day
 - 2. Operation status of the system, including any limitations in functionality or peculiarities
 - 3. Contact name and number in the event of a system failure

5.15 Procedure for the disposal of old equipment

- .1 The proper disposal of electrical and electronic waste.

Note

The current document is based on the "Guidelines for the disposal of surplus electronic and electrical equipment from the federal government" which refers to the "Treasury Board Directive on Disposal of Surplus Materiel" and to the "Policy on Government Security". It is equally based on "Directive on internal services 318-7".

Scope

The contractor proceeds with the replacement of equipment and systems related to this statement of requirement for the institution(s). The old equipment will be managed in a responsible way in order to reduce the negative environmental impact. These include various types of materials that must be processed separately in order to maximize the reuse or recycling.

The partners for this procedure are;

- The project contractor
- GEEP : Designated recycler for the treatment of electrical and electronic waste (address is available below)
- CFM : Chief, Facilities Management. One contact per Institution
- ADGA : Maintenance services for the Institutions security systems. two contacts per Institution
- IT Manager per Institution

Here is the list of the estimated remaining equipment, procedures and requested destinations;

- **Key cabinets:** *No cash value. The contractor is responsible to pack the units so as to make an inventory before shipping. The non-sealed packaging will subsequently inventoried by the CFM or his representative before shipping. Shipping to GEEP will be made by the contractor.*
- **Monitors:** The Contractor must deliver the units to the facility for future use. Check with the CFM of the institution.
- **Cables:** *They must be tied in rolls and packaged together by the contractor. Shipping to GEEP will be made by the contractor.*
- **Hardware metal conduits, cabinet metal components:** *The contractor may use the facilities of recycling containers. Check with the Chief, Facilities Management of local installations (CFM). The conduits must be reduced to lengths less than 1.5 meters.*
- **Computers and servers:** *These elements must be delivered to the IT personnel within the institution responsible for erasing data and / or remove from the inventory system. ADGA will subsequently offer both solutions.*

In Quebec, the disposal of surplus IT equipment goes through the organization "Ordinateurs pour les écoles du Québec" or OPEQ. The following information is taken from

their website.

The OPEQ picks up for free from the federal Department contributor quantities above 15 items (screens, PC, printers, etc). The contractor must use the Giving/procedure section for the federal Government on the online form provided.

For more information or to arrange a donation collection, you must contact the OPEQ:

Centre d'appels d'OPEQ

1, Alexander G. Bell, Tour E, 2e étage
Verdun (Québec) H3E 3B3

Contacts: Isabelle Robitaille / Sandrine Cuccé

Phone: 514 391-0861

Phone (toll free): 1 877 350-3244

Email: don@opeq.qc.ca

Business Hours:

Mon to Fri: 8 am – 4 pm

The contractor is responsible to conduct this process and provide proof of receipt to the donation to the CESM.

- **Cardboard and packaging of the new equipment:** *The contractor may use the recycling containers from local facilities for the cardboard and plastic of the new products. But the reuse of new packaging for shipping the old equipment is recommended. The contractor must produce the least possible waste.*

Additional information

It is recommended that the CFM gets the recycling containers on their property emptied before the replacement to accommodate the additional volume or make more frequent monitoring during the project to prevent overflows.

As mentioned above, each shipment towards GEEP should be verified by the CFM to ensure the accuracy of the inventory.

The contractor must provide packaging or containers for shipment to GEEP. The contractor may use the packaging of new equipment.

Here is the address of the recycler for electrical and electronic waste:

GEEP

Global Electric Electronic Processing.

2995 Boulevard le Corbusier

Laval, QC

H7L 3M3

Tel. : 1 866-288-8016

5.16 Furnishing material requirement

- .1 All materials must be new, of the quality specified and carrying the appropriate seal of approval (CSA, etc.).

ANNEX A

1	Purpose	.1	To ensure that construction project and institution activities occur without undue interruption or hindrance and that the institution security is maintained at all times.
2	Definitions	.1	“Contraband” means: a) Intoxicants, including alcoholic beverages, drugs or narcotics; b) Firearms or firearms parts, ammunition or any other object designed to kill, injure or neutralize an individual, or any object that has been modified or assembled for this purpose, and possession of which has not been authorized in advance; c) Explosives or bombs, or their components; d) Money exceeding the regulatory maximums [\$25.00]; and e) Any other item not described in paragraphs a) to d) in an individual’s possession without prior authorization that could endanger the safety of individuals or security of the penitentiary.
		.2	“Unauthorized smoking items” means tobacco products including, but not limited to, cigarettes, cigars, tobacco, chewing and snuffing tobacco, cigarette making machines, matches and lighters that are considered to be unauthorized items.
		.3	“Commercial vehicle” means any motorized vehicle intended to carry the materials, equipment or tools required for the construction project.
		.4	“CSC” means Correctional Service Canada.
		.5	“Warden” means the head of the institution or his or her designated representative.
		.6	“Construction employees” means the employees of the prime contractor, its subcontractors, equipment operators, equipment suppliers, expertise and inspection laboratories, and regulatory agencies.
		.7	“Departmental representative” means the project manager for Public Works and Government Services Canada (PWGSC) or Correctional Service Canada (CSC), according to the project.
		.8	“Perimeter” means the area of the institution enclosed by secure fences or walls restricting the movement of inmates.
		.9	“Construction zone” means the area, as indicated in the contract documents, where the contractor is authorized to work. It may or may not be isolated from the institution’s secure grounds.
3	Preliminary Measures	.1	Prior to commencing any work, the contractor shall meet with the warden to: .1 Discuss the nature and scope of all activities related to the project; .2 Establish the acceptable security measures for both parties, in accordance with this directive and the specific requirements of the institution.

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- .2 The contractor shall:
- .a Ensure that all construction employees know the CSC security requirements;
 - .b Ensure that CSC security requirements are always posted in plain view on the site;
 - .c Collaborate with institution staff to ensure that construction employees comply with all security requirements.
- 4 Construction Employees
- .1 The contractor shall give the warden a list of the names and birth dates of all employees who will be working on the construction site, and a duly completed personnel screening form for each employee.
- .2 Anticipate two (2) weeks for the processing of security clearance applications. No employee shall be allowed to enter the institution without a duly approved security clearance or recent photo ID card, such as a provincial driver's licence. Security clearance is specific to each CSC institution and any clearance obtained for another institution is not valid for the institution where this project will be completed.
- .3 The warden may require that the faces of construction employees be photographed and displayed at certain relevant locations in the institution or transferred to a database for identification needs. The warden may require that photo ID cards be produced for all construction employees. These cards shall be left at the designated entrance where they shall be given to holders upon their arrival at the institution. They shall be worn in plain sight on clothing at all times when employees are at the institution.
- .4 Access to institution property is prohibited for individuals who are believed to present a security risk.
- .5 Any individuals employed on the construction site shall be immediately expelled from institution property if:
- .1 they appear to be under the influence of alcohol, drugs or narcotics;
 - .2 they are behaving unusually or recklessly;
 - .3 they are in possession of contraband.
- 5 Vehicles
- .1 Any individuals leaving an unsupervised vehicle on CSC property shall close the windows, lock the doors and trunk, and remove the keys. Owners of vehicles or employees of the companies that own the vehicles shall ensure that they keep the keys securely on their person.
- .2 At any time, the warden may limit the number and type of vehicles permitted onto institution grounds.
- .3 Persons delivering equipment needed for the project shall not be required to apply for security clearance, but they shall not leave their vehicles unattended while they are on institution grounds. The warden may require that they be accompanied by an institution employee or a commissionaire.

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- .4 If the warden permits trailers to be left inside the security perimeter of the institution, trailer doors and windows shall remain securely locked at all times when trailers are left unattended. Windows shall be protected by expanded metal mesh. All trailers used for storage by the contractor, both inside and outside the perimeter, shall remain securely locked when they are not in use.
- 6 Parking .1 The warden shall identify the authorized parking areas for construction employee vehicles. Parking in other locations shall be prohibited and vehicles in violation may be towed.
- 7 Deliveries .1 All material, equipment or tools delivered for the project shall be addressed to the contractor to distinguish them clearly from shipments intended for the institution. The contractor shall ensure that its employees are on site to receive shipments; CSC personnel will accept **no** deliveries of material, equipment or tools intended for the contractor.
- 8 Telephones .1 No telephone, fax, photocopier or computer connected to the Internet shall be permitted to be installed inside the institution's security perimeter without the warden's prior authorization.
- .2 The warden shall ensure that telephones, photocopiers and computers with an Internet connection are not installed in inmates' accessible locations. Access to each computer shall be password protected to prevent any Internet connection by unauthorized personnel.
- .3 Unless specifically authorized by the warden, cell phones or digital cordless phones, including but not limited to messaging devices, pagers, BlackBerries or telephones used as two-way radios are prohibited in the institution. If cell phones are permitted, users may not allow them to be used by inmates.
- .4 The warden may authorize but limit the use of two-way radios.
- 9 Working Hours .1 The work week at the institution is Monday to Friday, from (7:00 am) (11:30 am) to (1:00 pm) (5:00 pm).
- .2 Work is not permitted on weekends or statutory holidays without specific authorization from the warden; requests shall be made at least seven days in advance. Should an emergency arise, or under any other circumstances, this time period may be cancelled by the warden.
- 10 Work Outside Normal Working Hours .1 The warden's permission is required for any work performed outside normal working hours. The contractor shall give at least 48 hours advance notice when it is necessary to perform approved work outside normal working hours. If overtime is required to complete an urgent task, such as to pour concrete or ensure the safety of construction, the contractor shall inform the warden accordingly as soon as the contractor learns that such work is necessary, and then comply with the instructions issued by the warden. The costs incurred by Canada as a result of this situation may be charged to the contractor.
- .3 When work must be performed outside normal working hours, on weekends or on statutory holidays, and the overtime is authorized by the

warden, the warden or designated individual may assign additional personnel to security. The costs related to this assignment may be charged to the contractor.

11 Tools and
Equipment

.1 Maintain on site a complete list of tools and equipment that will be used during the construction project. Present the list for inspection when required.

.2 Keep the list of tools and equipment specified above up to date throughout the construction project.

.3 Never leave tools unsupervised, especially tools with motors, explosive actuated tools, cartridges, files, saw blades, carbide saws, wires, rope, ladders or any type of lifting device.

.4 Store tools and equipment in secure approved locations.

.5 Lock all tool boxes after use. The contractor's employees shall keep the keys with them at all times.

.6 Fasten and lock unerected scaffolding; once erected, scaffolding shall be securely fastened to the warden's satisfaction.

.7 Immediately notify the warden of any loss or disappearance of tools or equipment.

.8 The warden shall ensure that security personnel check the contractor's tools and equipment, based on the list supplied by the contractor:

- .1 at the start and end of each construction project;
- .2 every week, if the project lasts more than one week.

.9 Some tools/equipment, such as cartridges and hacksaw blades, are very strictly controlled. At the beginning of the day, the contractor shall be given a sufficient quantity of these items for a days' work. Used blades/cartridges shall be returned to the representative at the end of each work day.

.10 When propane or natural gas is used as a heat source for the project, the institution requires that an employee of the contractor supervise the construction site outside working hours.

12 Keys

Detention hardware keys

.1 The contractor shall make arrangements with the detention hardware supplier/installer to have keys for the detention hardware delivered directly to the institution, to the attention of the Security Maintenance Officer.

.2 This officer shall give the contractor a receipt for the detention hardware keys.

.3 The contractor shall give a copy to the Departmental Representative.

Other keys

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- .1 During the construction project, the contractor shall use construction barrels in the finishing locks.
- .2 The contractor shall give its employees, and subcontractors if necessary, instructions on the secure storage of construction keys.
- .3 At the end of each phase of the construction project, the CSC representative, in collaboration with the lock manufacturer, shall:
- .a establish an operational set of keys;
 - .b receive the keys and operational barrels for the locks directly from the manufacturer;
 - .c remove and return the construction barrels, and have the final barrels installed.
- .4 Once the permanent detention locks are in place, CSC officers who escort construction employees shall obtain the keys from the Security Maintenance Officer in order to open the doors for the contractor's needs. The contractor shall inform its employees that only escorting CSC officers shall be authorized to use these keys.
- 13 Detention Hardware .1 Return all existing detention hardware that has been removed to the warden of the institution so that it can be disposed of or stored securely for later reuse.
- 14 Prescription Medication .1 Contractor employees who must take prescription drugs during the work day shall be required to obtain authorization from the warden to be permitted to bring a day's dose with them to the institution.
- 15 Smoking Restrictions .1 Contractors and construction employees are not authorized to smoke inside correctional institutions or outside within the perimeter of a correctional institution. Inside the perimeter, they shall not have unauthorized tobacco products in their possession.
- .2 Contractors and construction employees who violate this policy will be asked to stop smoking immediately or to dispose of all unauthorized tobacco products. If they refuse to comply, they will be asked to leave the institution.
- .3 Smoking shall be permitted only outside the perimeter of the correctional institution, in a location designated by the warden.
- 16 Contraband .1 Firearms, ammunition, explosives, alcoholic beverages, drugs and narcotics are prohibited on institution premises.
- .2 The discovery of contraband on the construction site and identification of the individual(s) responsible for the presence of these items shall be reported immediately to the warden.
- .3 Contractors shall closely supervise their employees or their subcontractors' employees, since the discovery of any contraband can lead to cancellation of the security clearance of the employee involved. A serious violation can result in expulsion of the company involved from the site for the duration of the construction project.
- .4 If firearms or ammunition are found in the vehicle of a contractor,

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- subcontractor, supplier or their employee, the security clearance of the driver of the vehicle will be revoked immediately.
- 17 Searches
- .1 Any individual or vehicle entering the institution's premises may be searched.
- .2 When the warden has reasonable grounds to believe that a contractor employee is carrying contraband, the warden can require that the individual be searched.
- .3 The personal effects of any employee arriving at the institution may be subject to checks intended to detect the presence of residues of prohibited drugs.
- 18 Access to the Institution
- .1 Unless specifically authorized by the warden, construction employees and commercial vehicles will not be allowed to enter the institution outside normal working hours.
- 19 Vehicular Traffic
- .1 Vehicles may enter and leave the institution, under escort, by way of the vehicle access barrier, during the periods below:
- .1 from 7:45 am to 11:00 am
- .2 from 1:00 pm to 3:30 pm.
- Construction vehicles may not leave the institution until an inmate count has been completed.
- .2 The contractor shall inform the warden 24 hours in advance of the arrival of heavy equipment such as concrete mixers, cranes, etc.
- .3 Vehicles loaded with dirt or debris, or any other vehicle considered impossible to search, shall be monitored constantly by CSC employees or commissionaires reporting to the warden.
- .4 Before a commercial vehicle is admitted onto institution grounds, the contractor or its representative shall certify that the contents of the vehicle are absolutely necessary for the construction project.
- .5 Access to CSC property shall be refused to any vehicle whose contents, in the warden's opinion, represent a security risk for the institution.
- .6 The private vehicles of construction employees shall not be admitted into the security perimeter of medium or maximum security institutions without the warden's specific authorization.
- .7 Subject to prior authorization of the warden, a vehicle can be used to bring a group of employees to the site in the morning and to take them out in the evening. This vehicle may not remain on the premises during the day.
- .8 With the warden's authorization, certain equipment may be left on site overnight or over the weekend. This equipment shall be locked and batteries removed. The warden may require that equipment be chained and locked to another fixed object.
- 20 Construction
- .1 Subject to the need to maintain adequate security, the warden

Employee Movement on Institution Property	<p>will allow the contractor and its employees as much freedom of action and movement as possible.</p> <p>.2 Nevertheless, notwithstanding the previous paragraph, the warden may:</p> <p>.1 prohibit or restrict access to any part of the institution;</p> <p>.2 during the construction project or certain periods, require that construction employees be accompanied by a CSC security officer or commissioner in some sectors of the institution.</p> <p>.3 All construction employees shall remain on site during breaks and lunch. They shall not be authorized to eat in the lounge for correctional officers nor in the institution's dining room.</p>
21 Monitoring and Inspection	<p>.1 Construction activities and personnel and vehicle movement will be monitored and inspected by CSC security personnel to ensure compliance with established security standards.</p> <p>.2 CSC personnel will ensure that construction workers clearly understand the need for monitoring and inspections, and that this understanding is maintained throughout the project.</p>
22 Work Stoppage	<p>.1 The warden may at any time order the contractor, its employees, subcontractors or their employees, to refrain from entering the site or to leave it immediately due to a security incident occurring at the institution. The contractor's foreman responsible for the site shall write down the name of the CSC employee giving the order, the time of the order, and comply with the order received as quickly as possible.</p> <p>The contractor shall inform the departmental representative of the situation within 24 hours following the work stoppage.</p>
23 Contact with Inmates	<p>.1 It is prohibited, without specific authorization, to enter into contact with inmates, speak to them, give them items or receive items from them. Failure to comply with this instruction shall result in expulsion of the employee responsible from the site and removal of the employee's security clearance.</p> <p>.2 Note that cameras are prohibited on CSC property.</p> <p>.3 Notwithstanding the above, if the warden authorizes the use of cameras, it is strictly prohibited to take photos of inmates, CSC employees or of any part of the institution for which a photo is not necessary for performing the work in this contract.</p>
24 Completion of Construction Project	<p>.1 Upon completion of the construction project or, if applicable, upon take-over of the installations, the contractor shall remove all materials, tools and equipment that are not identified in the construction project as needing to be left at the institution.</p>

ANNEX B

CORRECTIONAL SERVICE OF CANADA
TECHNICAL SERVICES BRANCH
ELECTRONICS SYSTEMS

MAINTENANCE HANDOVER REPORT FORM

INSTITUTION: _____ DATE: _____

SYSTEM/EQUIPMENT: _____

APPLICABLE CONTRACT NO: _____
DSS FILE NO: _____
SPECIFICATIONS: _____

EQUIPMENT SUPPLIER (NAME AND ADDRESS):

SUPPLIER CONTACT (NAME AND TELEPHONE):

WARRANTY DETAILS:

Expiry date on materials/parts:
Expiry date on installation:
Expiry date on factory labour:

Travel & living expenses during the warranty period:

chargeable to CSC

not chargeable to CSC

Equipment transportation costs are paid by CSC for:

sending to the supplier

returning from the supplier

Negotiated rates for emergency repairs at site due to misuse/abuse during warranty period are as follows:
Not applicable.

Negotiated rates for labour at site after warranty period are as follows:
Not applicable.

<u>DEFICIENCIES:</u>		
	None remain	<input type="checkbox"/>
	List attached	<input type="checkbox"/>
<u>DOCUMENTATION:</u>		
Maintenance manual:		
	Supplied	<input type="checkbox"/>
	Due by	:
As-built drawings, cabling and wiring diagrams:		
	Supplied	<input type="checkbox"/>
	Due by	:
Acceptance test results:		
	Supplied	<input type="checkbox"/>
	Due by	:
<u>DISTRIBUTION OF DOCUMENTATION:</u>		
	1 copy to CESM sent on:	
	1 copy to RATIS/RTEO sent on:	
	2 copies to institution sent on:	
<u>SPARES:</u>		
	All delivered	<input type="checkbox"/>
	Delivery to be completed by	:
<u>EQUIPMENT LIST:</u>		
	See attached list.	<input type="checkbox"/>
<u>MAINTENANCE TRAINING:</u>		
	Completed	<input type="checkbox"/>
	Scheduled for	:
<u>SIGNATURE:</u>	Project Manager	
<u>DISTRIBUTION:</u>	CESM, NHQ RATIS/RTEO, RHQ AWMS, Institution	

ANNEX C

Following is a list of minimal equipments required of the key management and access control systems.

C.1 Minimal equipments required for the key management system

- .1 Three (3) key cabinets with a 96-key capacity.
- .2 Two (2) key cabinets with a 96-key capacity with an extended door.
- .3 Every key cabinet must have Cormax key cores from Best already installed. Each key core must have a different encoding.
- .4 Four hundred and eighty (480) individual trapped keys to be used with each key core. The trapped keys that will be used for the key rings must be already cut fit the key cores. The key model must be Cormax.
- .5 A network server including a personal computer, a keyboard, a mouse, a 22 inches LCD monitor, an HID corporate 1000 card reader and a laser printer for 8 ½', x 11" paper. The computer must be installed in a cabinet located in a technical room located in the basement.
- .6 A KVM extender must carry the signals from the basement up to the key system manager's office. In the key system manager office, a triple KVM selector must be installed.
- .7 A shop lifting detector must be installed at the main entrance to detect a shoplifting tag installed on a key ring. The shoplifting detector must include modules STC5800-TX, STC5800-RV and STC8201-P from Sentech or equivalent.
- .8 Every piece of equipment must be protected by an uninterruptible power supply (UPS) with a minimum uptime of one hour.
- .9 Six hundred (600) tamper proof key rings with unique serial number.
- .10 Five hundred (500) color identification rings (5 different colors, 100 of each) for key rings.
- .11 Five hundred (500) shoplifting RFID tags model STC1108-AM from Sentech or equivalent.
- .12 Two (2) kits of tools required for the setup and modification of tamper proof key rings.

C.3 Minimal spare parts required

- .1 One hundred (100) Cormax key cores for key cabinets.
- .2 One hundred (100) Cormax blank trapped keys.
- .1 Two (2) keyboards for key cabinets.
- .2 Two (2) electronic motherboards for key cabinets.
- .3 Two (2) HID 1000 compatible card reader.
- .4 Two (2) electrical door opening mechanism.

The exact number of key ring locations per key cabinet may vary from the number indicated above. However, it cannot be less than the stated above numbers.

Key cabinet must be made of 16 gauge steel. The front door must be solid. Extended door means a door that protrudes to allow for bigger keys.