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## Audit of Contracted Facilities Maintenance Services



October 2018

1259-3-0020 (ADM(RS))

## Table of Contents

<b>Acronyms and Abbreviations .....</b>	<b>ii</b>
<b>Results in Brief .....</b>	<b>iii</b>
<b>1.0 Introduction .....</b>	<b>1</b>
1.1 Background .....	1
1.2 Rationale .....	2
1.3 Objective.....	3
1.4 Scope .....	3
1.5 Methodology .....	3
1.6 Audit Criteria.....	4
1.7 Statement of Conformance.....	4
<b>2.0 Findings and Recommendations .....</b>	<b>5</b>
2.1 Information for Decision Making .....	5
2.2 Authorities, Roles and Accountabilities.....	10
2.3 Environmental, Health and Safety .....	13
<b>3.0 General Conclusion .....</b>	<b>14</b>
<b>Annex A—Management Action Plan.....</b>	<b>A-1</b>
<b>Annex B—Audit Criteria .....</b>	<b>B-1</b>

## **Acronyms and Abbreviations**

ADM(IE)	Assistant Deputy Minister (Infrastructure and Environment)
ADM(Mat)	Assistant Deputy Minister (Materiel)
ADM(RS)	Assistant Deputy Minister (Review Services)
ARA	Authorities, Roles and Accountabilities
AWR	Additional Work Request
CAF	Canadian Armed Forces
COSO	Committee of Sponsoring Organizations of the Treadway Commission
DND	Department of National Defence
DRMIS	Defence Resource Management Information System
FM	Facilities Maintenance
KPI	Key Performance Indicator
OCI	Office of Collateral Interest
OPI	Office of Primary Interest
PIF	Performance Incentive Fee
PSPC	Public Services and Procurement Canada
QA	Quality Assurance
RP Ops Gp	Real Property Operations Group
SOW	Statement of Work
VFM	Value-for-Money

## Results in Brief

Infrastructure is a key element of Defence capability and, as a result, the maintenance of this infrastructure is essential for Canadian Armed Forces (CAF) operations.

Facilities maintenance is limited to some, but not all of the infrastructure operations services. It includes the following:

- Mechanical (e.g., plumbing, boilers);
- Electrical (e.g., primary and secondary distribution systems, panel and switch boards);
- Building exterior maintenance (e.g., exterior wall surfaces, drainage, retaining walls);
- Building interior maintenance (e.g., floors, walls, windows, doors, painting);
- Fire detection and suppression systems;
- Snow and ice control;
- Environmental management programs (e.g., solid waste management, spill response and hazardous materials); and
- Preventative maintenance management.

### Overall Assessment

Over the short term, contracted facilities maintenance services are managed to ensure infrastructure availability. However, as custodian of infrastructure, ADM(IE) will need to establish and communicate clear authorities, roles and accountabilities for the management of facilities maintenance. Further, ADM(IE) will need to identify information needs to ensure value-for-money and the long-term sustainability of infrastructure.

The 2017/18 Departmental Plan and Canada's 2017 defence policy, *Strong, Secure, Engaged* both highlight the importance of improving infrastructure on Bases and Wings to better serve Defence including exploring "ways to partner with the private sector". Contracting of items such as facilities maintenance (FM) permits the Department to remain focused on the delivery of mandated programs and capabilities.

As of 2016, infrastructure was centralized and resulted in Assistant Deputy Minister (Infrastructure and Environment) (ADM(IE)) becoming the sole custodian of all Department of National Defence (DND) and CAF infrastructure. This centralization transformed how infrastructure is managed across the Department. Where FM services are contracted, it is done in one of two ways:

1. FM only contracts – the contracted services are limited to facility maintenance; and
2. Full service contracts – the contracted services include a variety of Base/Wing services, such as food service, accommodations, operations, as well as FM services.

Given that DND/CAF's infrastructure is aging and the recent transformation that resulted in ADM(IE) becoming responsible for all departmental infrastructure and related maintenance, Assistant Deputy Minister (Review Services) (ADM(RS)) conducted an audit of Contracted

Facilities Maintenance Services. The audit was included in the ADM(RS) Risk-based Internal Audit Plan for fiscal years 2016/17 to 2018/19.

The objective was to determine whether contracted arrangements for FM services are managed to achieve value-for-money (VFM), ensure continued infrastructure availability and sustainability, as well as comply with environmental, health and safety regulations. Findings and recommendations in this report can inform ADM(IE) decision making to support its centralized portfolio management approach to infrastructure.

## Findings and Recommendations

**Information for Decision Making.** While DND/CAF resources are overseeing contract performance, there was no evidence that ADM(IE) was gathering portfolio-wide information to make informed FM decisions, assess contractor performance or analyze total FM costs. The risk is that the Department is unable to determine if the decision to contract FM services ensures VFM and if vendor performance meets operational requirements.

It is recommended that ADM(IE):

1. Determine and communicate which FM data and performance indicators are needed to make informed FM decisions.
  - This will ensure increased comparability and accuracy of information across the infrastructure portfolio and help leverage lessons learned.
2. Implement a mechanism to gather all data, including cost information, for FM services.
  - This will help ensure consistency, accessibility and timeliness of information.
3. Conduct a cost-benefit analysis of in-house FM versus contracting FM services.
  - This will inform the cost efficiency of current and future FM services related decisions.

According to our analysis, varying contract terms and conditions (e.g., contract length, Statement of Work (SOW) requirements, and performance-related clauses) and the combination of FM services with other services increase the risk that these contracts may not ensure the achievement of the Department's infrastructure objectives. ADM(RS) asks that ADM(IE) consider using the lessons learned from current FM related contracts to inform future FM services decisions.

**Authorities, Roles and Accountabilities.** The FM only and full service contracts we examined were negotiated and signed by various custodians prior to the ADM(IE) infrastructure centralization. Since the ADM(IE) transformation, Real Property Operations Group (RP Ops Gp), within ADM(IE), became the technical authority for the FM only contracts. In contrast, for full service contracts, RP Ops Gp is the technical authority for only the FM portions. This has resulted in two different reporting structures, with ADM(IE) having different roles in the management of contracted FM services depending on the nature of the contract. Clear and

consistent authorities and roles were not always aligned with the new centralized accountabilities of infrastructure. Inconsistent management of FM services may increase the risk of some FM services not receiving the appropriate attention. RP Ops Gp is beginning to have a larger role in both the negotiations and performance incentive fee<sup>1</sup> (PIF) committees for full service contracts.

While there was no documented management process or guidance, including quality assurance (QA), for FM services, ad hoc QA was conducted. QA of FM services was given varying levels of importance between full service contracts and FM only contracts. As a result, there is a risk of inconsistent oversight of contract performance across DND/CAF locations which could impact infrastructure maintenance and long-term sustainability.

It is recommended that ADM(IE):

4. In collaboration with Assistant Deputy Minister (Materiel) (ADM(Mat)), outline and communicate clear Authorities, Roles and Accountabilities (ARA) between ADM(IE), the Contracting Authority, the contractor and other relevant stakeholders in all FM related contracts.
5. Develop and implement centralized QA FM guidance.
  - This will help ensure consistent QA of all DND/CAF infrastructure by asset class.

**Environmental, Health and Safety.** For the contracts examined, the Environmental, Health and Safety requirements were met by the Department.

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**Note:** Please refer to [Annex A—Management Action Plan](#) for the management response to the ADM(RS) recommendations.

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<sup>1</sup>Performance Incentive Fee is a built in incentive for contractors that achieve a minimum standard or go above and beyond the SOW (including Additional Work Requests). In such instances, contractors are assessed and potentially awarded a PIF.

## **1.0 Introduction**

### **1.1 Background**

The 2017/18 Departmental Plan and Canada's 2017 defence policy, *Strong, Secure, Engaged* both highlight the importance of improving infrastructure on Bases and Wings to better serve Defence including exploring "ways to partner with the private sector." Contracting of items such as FM permits the Department to remain focused on the delivery of mandated programs and capabilities.

Infrastructure is a key element of Defence capability and, as a result, the maintenance of this infrastructure is essential for CAF operations. The Department is responsible for the largest infrastructure portfolio within the federal government which is worth approximately \$26 billion and includes over 20,000 buildings, 5,500 kilometers of roads and 3,000 kilometers of water works. Ten percent of the defence budget is for infrastructure maintenance, operation and workforce.

As of 2016, infrastructure was centralized and resulted in ADM(IE) becoming the sole custodian of all DND/CAF infrastructure, thus transforming how infrastructure is managed across the Department. This transformation aimed to:

- Coordinate the Department's infrastructure assets in a holistic portfolio manner;
- Plan from a strategic perspective;
- Ensure the Department has the right infrastructure assets in the right place at the right time;
- Ensure facilities meet federal regulations; and
- Identify deficiencies as well as preventative and corrective actions to be taken to ensure availability and sustainability of infrastructure.

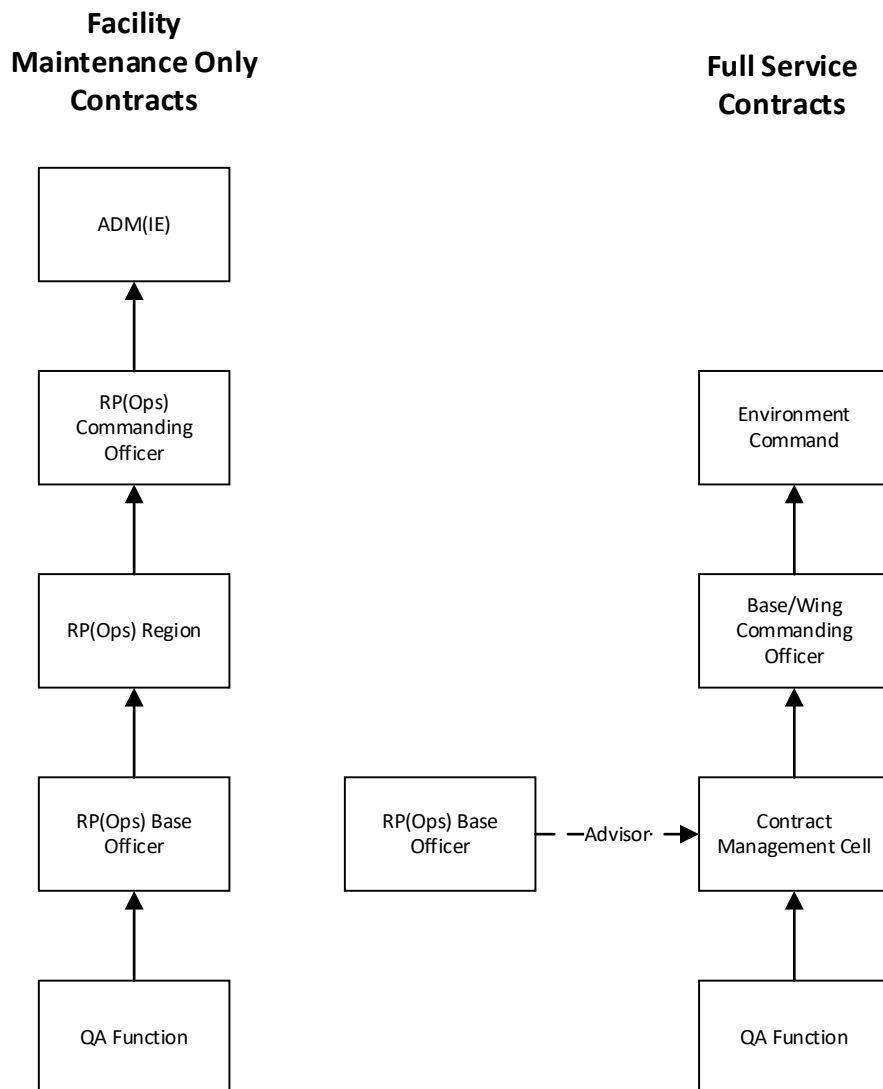
Many contracts for FM, including those reviewed, were implemented prior to ADM(IE) becoming responsible for infrastructure and its maintenance. Since the ADM(IE) transformation, RP Ops Gp has become the technical authority for contracted FM services. As a result, there are two different governance structures for FM services depending on the nature of the contract – FM only versus full service contract.

#### **Governance Structure – Pre ADM(IE) Transformation**

Prior to the ADM(IE) transformation, the previous custodians, including the Canadian Army, Royal Canadian Navy, and Royal Canadian Air Force, were responsible for the infrastructure at their respective sites. Each organization had construction engineering units which would report to their respective Commanders. These organizations were responsible for all infrastructure related functions, including FM.

### Governance Structure – Post ADM(IE) Transformation

Post ADM(IE) transformation, the responsibility and reporting structure differ for full service contracts and FM only contracts (please refer to Figure 1). For FM only contracts, RP Ops Gp took over the managing and reporting responsibility. For full service contracts, RP Ops Gp provides technical advice for the QA of infrastructure because the QA function remains with the environments.



**Figure 1. Illustration of the Different Reporting Structures.** This figure outlines the management, reporting and QA differences.

### 1.2 Rationale

Given that DND/CAF’s infrastructure is aging and the recent transformation that resulted in ADM(IE) becoming responsible for all departmental infrastructure and related maintenance, ADM(RS) conducted an audit of Contracted Facilities Maintenance Services. The audit was



included in the ADM(RS) Risk-based Internal Audit Plan for fiscal years 2016/17 to 2018/19. Findings and recommendations in this report can inform ADM(IE) decision making in support of its centralized portfolio management approach to infrastructure.

### **1.3 Objective**

The audit objective was to determine whether contract arrangements for FM services are managed to achieve VFM, ensure continued infrastructure availability and sustainability, as well as comply with environmental, health and safety regulations.

### **1.4 Scope**

The scope of this audit included locations that had contracted FM services during fiscal years 2016/2017 and 2017/2018. This audit was conducted between the months of October 2017 and March 2018.

The audit team did not determine if VFM was achieved, but rather looked at if both ADM(IE) and ADM(Mat) have the required information to determine if VFM was achieved.

### **1.5 Methodology**

A non-statistical sample of five contracts for FM services was chosen for examination based on dollar value, geographic diversity and suggestions from ADM(IE). The sample was selected from a population of 36 contracts provided by ADM(IE) as the known inventory of both FM only and FM full service contracts. The population of 36 contracts included six full service contracts, 27 FM only contracts and three contracts that were undefined as per the information provided by ADM(IE).

The FM value of the five contracts examined in our review represented about 50 percent of the total FM value of both FM only and full service contracts (\$131 million out of \$258 million).

The audit used the following methodology:

- File and document review, including contracts, performance reports, inspections reports, and committee minutes;
- Interviews with key internal DND/CAF stakeholders (e.g., Commander of RP Ops Gp within ADM(IE), RP Ops Gp personnel, local level contract management cells and ADM(Mat) Director of Procurement); and

- Site visits to the five sites with contracted FM services (five sampled contracts) :
  - The North Warning System (managed out of the National Capital Region);
  - Canadian Forces Base Goose Bay;
  - Land Force Central Area Training Centre Meaford;
  - Toronto Armouries; and
  - Defence Research and Development Canada – Toronto.

## **1.6 Audit Criteria**

The audit criteria for the audit were as follows:

- Decisions related to contracted FM services are fully supported and properly approved.
- Agreements for contracted FM services ensure infrastructure is available to support operational requirements.
- Requirements for contracted FM services ensure compliance with environmental, and health and safety regulations.

The audit criteria can be found at [Annex B](#).

## **1.7 Statement of Conformance**

The audit findings and conclusions contained in this report are based on sufficient and appropriate audit evidence gathered in accordance with procedures that meet the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*. The audit thus conforms to the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing* as supported by the results of the quality assurance and improvement program. The opinions expressed in this report are based on conditions as they existed at the time of the audit and apply only to the entity examined.

## 2.0 Findings and Recommendations

### 2.1 Information for Decision Making

There was no evidence that ADM(IE) had the information required to evaluate risks and leverage lessons learned to make informed decisions to support its portfolio-wide infrastructure accountabilities.

To make informed decisions, relevant, timely, accurate and accessible data is required. For the infrastructure services that are contracted, required data may include condition of assets, SOW and Additional Work Requests<sup>2</sup> (AWR) contract costs and contractor performance results.

We expected ADM(IE) to have defined information needs and performance indicators, and, at a minimum, to gather and report the following information:

- Consolidated details of all contract arrangements for FM;
- Analysis of the cost of FM options (e.g., contracted resources versus internal resources);
- Assessment of contractor performance; and
- Contract costs (including SOW and AWR).

FM contracts are currently managed differently across locations resulting in varied information being gathered. This limits the ability of the Department to collect consistent FM information and identify lessons learned to inform future FM decisions.

#### Notable Practices

- The Department has recently developed a new module in the Defence Resource Management Information System (DRMIS) to collect relevant infrastructure information for decision making.
- The Department has effectively exercised the revenue-at-risk clause to ensure completion of agreed SOW.
- One site visited indicated that moving from an itemized equipment list to a systems list approach could reduce the ambiguity of what is included in the SOW and potentially reduce AWR costs.

#### 2.1.1 Consolidated information

ADM(IE) does not currently gather consolidated information on contracted FM arrangements. A spreadsheet of all full service and FM only contracts and their estimated values was manually created by RP Ops Gp for the purposes of this audit. The data provided was incomplete and inconsistent (e.g., total contract dollar value versus annual contract dollar value). As a result, the audit team was not able to verify the accuracy of the information provided. Further, for the sampled contracts, there was no evidence of any analysis on how much was spent on AWRs that were over the established SOW ceilings. Only one site was able to provide a partial analysis

<sup>2</sup>Additional Work Requests is the process followed by the Department to authorize the contractor to perform work in the SOW that exceeds the prescribed ceiling.

by requesting an ad hoc report from the contractors' systems. Creating this report was labour intensive given that the data was not easily accessible. Not having access to accurate information does not allow ADM(IE) to have a complete view of FM services.

Between DND and the various contractors, there is a variety of systems used to gather data such as DND specific systems, contractor specific systems and others. For security reasons, not all contractors have access to DND systems. Using such a variety of systems increases the risk of inconsistency of data and its comparability, as well as the risk of human error in the amalgamation of information across various locations.

Interviews indicated that full service and FM only contracts have little to no FM information, performance indicators or data analysis requested by the chain of command. Any FM data collected remains at the local level. Without clear data needs identified, it is difficult to collect relevant information for decision making in relation to the ADM(IE) infrastructure portfolio. The new module in DRMIS will consolidate all infrastructure information such as asset condition, assessment and replacement costs. At the time of this audit, two of the contracts reviewed had already entered basic information in DRMIS. Interviewees indicated that enhanced DRMIS related training was required to better utilize the system for FM services management. Implementing this module will allow the Department to address some of the aforementioned risks.

### **2.1.2 Value-for-Money**

The Department has varied interpretations and definitions for VFM, with different short-term and long-term focuses. For example:

- From a performance management perspective, VFM may be the contractor's overall performance of FM services.
- From an infrastructure perspective, VFM may be the long-term sustainability and recapitalization costs of infrastructure.
- From a contracting perspective, VFM may be the cost of the contract (e.g., lowest bid).

### **2.1.3 Cost-Benefit Analysis**

While interviewees indicated that ADM(IE) does not currently have the capacity to internally maintain all departmental infrastructure, there was no evidence of the Department gathering data to analyze and compare costs of in-house FM versus contracted FM services. This increases the risk of ADM(IE) not having the necessary information to make any future "make or buy" decisions on FM services.

### **2.1.4 Contractor Performance**

Past contractor performance is important when determining whether to exercise current contract options or negotiate new contracts. There was limited evidence of analysis at the local

or portfolio level (such as analysis of past quality of work or QA reports). At one site visited, a sustainment business case recommended not exercising the contract option with the current contractor. While the business case outlined how the contractor was not meeting desired performance requirements, there was no evidence of further advancement of the sustainment business case. Not formally assessing contractor performance limits the ability of the Department to identify lessons learned and effectively negotiate contract terms and conditions that better meet departmental expectations.

Attractive contract terms and conditions aligned with location specifics could provide the Department with a greater number of bidders. For example, short term contracts may not be beneficial for contractors to competitively bid on FM only or full service contracts. A small pool of bidders increases the risk of having a less qualified contractor maintain DND/CAF infrastructure.

Revenue-at-risk clauses allow the Department to withhold a portion of the fixed contract cost for work that is below standard or not fully completed. Four of the five contracts sampled contained such a clause.

PIFs are a key mechanism which allow the Department to periodically assess contractor performance. PIFs are intended to promote cost-saving innovations and incentivize excellence by the contractor. While four of the five contracts sampled have PIFs based on key performance indicators (KPI), they were awarded differently in each of the contracts. In one full service contract, the amount of PIF awarded was based on the contractor's performance of all the SOW, using a weighted system. In another full service contract, the PIF payment was based on work that was over and above the SOW (e.g., AWRs), but did not assess if the SOW was completed. There is a risk that the full fixed price of the contract and the PIF could be awarded without meeting all the SOW requirements. With PIFs being awarded differently, contract performance may not always meet the infrastructure maintenance and sustainability goals of ADM(IE).

### **2.1.5 Contract Costs**

Clear wording of contract requirements, such as the SOW, helps ensure all parties involved understand the work to be completed. The current wording of SOW technical requirements in the contracts sampled had varying amounts of detail. The risk of being too prescriptive is that if a component is missed in the SOW, the contractor could submit an AWR, resulting in an increased cost to the Department.

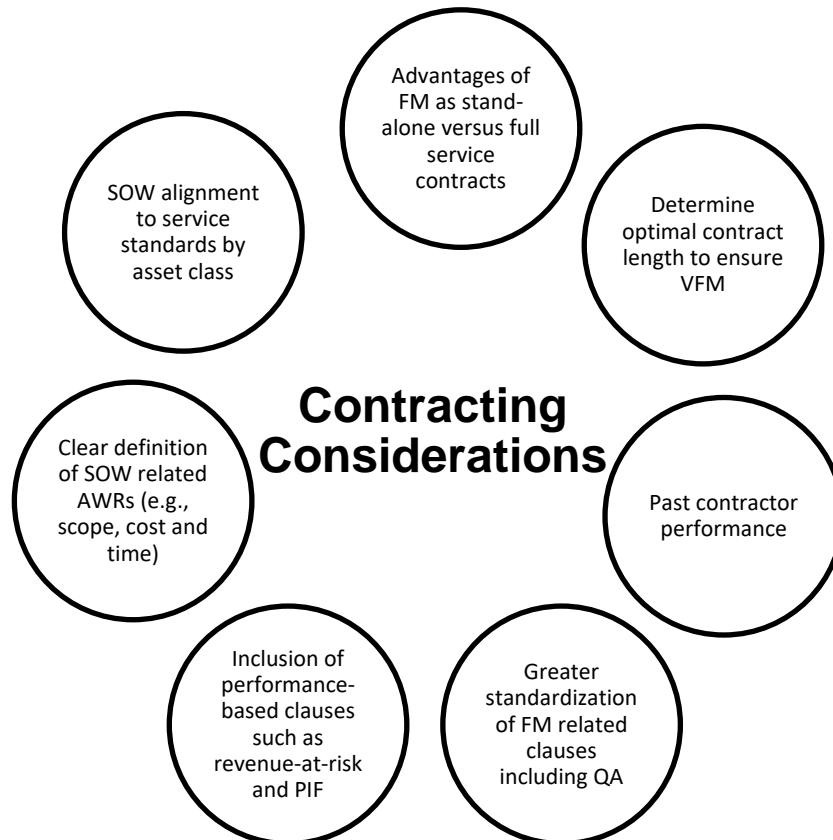
The long-term sustainability and recapitalization costs of infrastructure are an important consideration in the decision to contract FM services. This is not always reflected in the SOW. For some contracts, the focus was on keeping the fixed contract costs low and did not always consider the long-term infrastructure sustainability. For example, in one sampled contract, the SOW states that the infrastructure is to be available to the extent required to support normal operations. Interviewees expressed concern that a contractor could be doing the minimum

required with little to no preventative maintenance to ensure its long-term sustainability. A reactive approach, such as this, could increase the risk that infrastructure would require major repairs or replacements sooner than expected.

While having a low bid price is another criterion for VFM, it can lead to AWRs being required to meet the actual FM infrastructure needs. AWRs are included in the contract as a legitimate contractual tool, enabling the Department to ensure the long-term sustainability of its infrastructure requirements. Interviewees at one of the five sites visited suggested that a contractor bid significantly lower than the other bidders to win the contract. There have since been issues with the contractor in completing the SOW and a number of AWRs have been issued.

AWRs occurred in every contract sampled leading to additional unforeseen costs. If not closely managed and without the consistent use of well-defined parameters, certain contracting risks may exist for AWRs, such as:

- Perception of sole sourcing as other contractors are unable to bid on additional tasks included in the SOW;
- Taking time away from SOW work from both a contract management perspective and contractor perspective as AWRs generate extra revenue for the contractor, above the fixed price contract;
- Overall more costly approach to maintaining infrastructure; and
- Having difficulty budgeting the true cost of FM.



**Figure 2. Illustration of various contracting considerations.** This figure outlines various VFM and lessons learned for future contracting decisions.

### ADM(RS) Recommendation

1. ADM(IE) should determine and communicate which FM data and performance indicators are needed to make informed FM decisions. This will ensure increased comparability and accuracy of information across the infrastructure portfolio and help leverage lessons learned.
2. ADM(IE) should implement a mechanism to gather all data, including cost information, for FM services. This will help ensure consistency, accessibility and timeliness of information.
3. ADM(IE) should conduct a cost-benefit analysis of in-house FM versus contracted FM services. This will inform the cost efficiency of current and future FM services related decisions.
4. ADM(IE) should continue the implementation of the Real Estate module in DRMIS and provide training as required.

**OPI:** ADM(IE)

## 2.2 Authorities, Roles and Accountabilities

The different governance structures and varied QA practices create inconsistent management of FM related contracts limiting ADM(IE)'s ability to oversee the infrastructure portfolio in a holistic manner.

Clearly defined, communicated and implemented ARA play an important role in consistent FM management and in ensuring the alignment of FM services with infrastructure portfolio objectives.

We expected ADM(IE) to have consistent ARA in relation to:

- Contract negotiations;
- PIF assessment boards; and
- Quality assurance.

### Notable Practice

- Even though the contracts sampled were negotiated prior to the ADM(IE) transformation, there is an ADM(IE) RP Ops Gp representative on the PIF Committee for three of the contracts sampled.

The contracts sampled were all negotiated and entered into by various custodians prior to the centralization of infrastructure to ADM(IE). In the three full service contracts sampled, the respective organizations (e.g., Canadian Army, Royal Canadian Air Force and ADM(Mat)) represented the technical authority at the time, ADM(Mat) was the procurement authority and Public Services and Procurement Canada (PSPC) was the contracting authority. For the two FM only contracts sampled, the Canadian Army represented the technical authority at the time and Defence Construction Canada was the procurement and contracting authority. Since the ADM(IE) transformation, RP Ops Gp, within ADM(IE) has become the technical authority for FM only contracts as well as for the FM portion of full service contracts.

Notwithstanding the ADM(IE) transformation, different ARA remain for FM within full service and FM only contracts. The audit team found that infrastructure ARA are clear between ADM(IE) and ADM(Mat) at the senior management level, but infrastructure-related ARA vary at the local level and are not always aligned to the overall ADM(IE) accountability for infrastructure. This limits the ability of the Department to manage the infrastructure portfolio in a holistic manner.

### 2.2.1 Contract Negotiation

Given that all of the contracts in the audit sample were negotiated and signed prior to the ADM(IE) transformation, ADM(IE) was not involved in the negotiation process for any of the full service or FM only contracts. During the audit, one full service contract sampled had begun the contract renegotiation process and RP Ops Gp (as the technical authority) will have a role in relation to the FM portion of the contract. When ARA are inconsistent, there is a risk that ADM(IE) infrastructure interests and/or priorities are not considered in contract negotiations.



### **2.2.2 PIF Committees**

Proper oversight of PIF is a control that ensures that the government is only paying incentives earned by the contractor. A local level performance evaluation team and a PIF Committee assess the contractor's performance with the PIF Committee responsible for authorizing the amount of PIF payable for each contract evaluation period. The committee includes a technical representative responsible for managing the contract from the Department and the Contracting Authority (Defence Construction Canada, ADM(Mat) or PSPC). The role of ADM(IE) varies in both the negotiations of the PIF criteria and the periodic awarding of the PIF for all contracts. For two contracts, RP Ops Gp is simply informed of the performance reports from the Contracting Authority. Without consistent RP Ops Gp involvement in PIF payout decisions, there is a risk that not all relevant information is considered when awarding the PIF.

### **2.2.3 Quality Assurance and Resources**

We expected that ADM(IE)'s authorities and responsibilities related to the QA of the FM portion of these contracts would be aligned to their new infrastructure accountabilities.

Full service contracts include a variety of services in addition to FM and, as shown in Figure 1, QA is performed by local staff with results being reported to their respective Commander, as applicable. This cell is responsible for the QA for all services in the contract, including the FM services. This can result in the QA of FM being a secondary responsibility. The role of RP Ops Gp officers varies amongst the different full service contracts increasing the risk that RP Ops Gp is not always fully informed of FM related issues. In the FM only contracts examined, the RP Ops Gp officer at the local level performs the QA with results being reported, as needed, to the Regional Commander of RP Ops Gp, who reports to the Commanding Officer of RP Ops Gp. In these instances, QA is strictly related to FM services. The inconsistent reporting structure between the two contract types creates a risk that RP Ops Gp involvement in the management of infrastructure may not be fully aligned with its accountabilities in full service contracts.

Clear guidance that outlines QA expectations for FM is important to support the ongoing maintenance and long-term sustainability of DND/CAF's infrastructure.

We expected ADM(IE) to have established and communicated guidance for all infrastructure asset classes that would at a minimum:

- Identify planning methodology based on cost, age, capability needs and type of asset;
- Outline QA performance and reporting requirements (for example, frequency and type of QA activity which can be a mix of desk validation and site inspection); and
- Identify training expectations.

QA is important for ensuring maintenance is performed properly, for preventing premature asset replacement, for monitoring the performance of the contractor and for managing infrastructure issues. At the portfolio level there was no evidence of any QA guidance. As a

result, there were a number of inconsistencies across the five sites sampled in terms of QA planned, performed and reported.

None of the contracts sampled had a formal QA plan. Of the contracts sampled, three had a partial QA plan which only outlined a travel schedule to the various sites included in the contract. The absence of a formalized risk-based QA plan based on standardized guidance by asset class may result in inconsistent oversight of a contractor's performance and may not support ADM(IE) infrastructure objectives in both the short and long term.

The majority of DND inspectors interviewed stated they perform QA on an ad hoc basis and due to resource restrictions focus on critical elements. Given the additional cost, QA of AWR was given priority over the SOW tasks. Further, the QA approach (desk validation or re-performance of the FM inspection) varied. There was no evidence that any QA reports from the locations examined were sent to corporate RP Ops Gp. The absence of corporate oversight could result in QA inspections of FM not meeting the needs of ADM(IE). Without a standardized process to QA the work of the contractors it is difficult for RP Ops Gp to ensure that FM services contracts are being well managed.

It is important for QA inspectors to have a sufficient level of training and experience in accordance with the asset class to allow them to identify maintenance needs and validate that the work has been completed as per performance expectations. There was no evidence of a formal training program for the Department's inspectors. Inspectors learn on the job and rely on guidance, if available, from the person previously in the position. Given the military posting schedule, locations that have military members as inspectors risk losing QA experience and knowledge. In the absence of a formal training program, there is a risk that the Department does not have the capacity to perform QA.

#### **ADM(RS) Recommendation**

5. In collaboration with ADM(Mat), ADM(IE) should outline and communicate clear ARA between ADM(IE), the Contracting Authority, the contractor and other relevant stakeholders in all FM related contracts.
6. ADM(IE) should develop and implement centralized QA FM guidance. This will help ensure consistent QA of all DND/CAF infrastructure by asset class. The guidance could include, but not be limited to:
  - Risk-based QA plans considering infrastructure sustainability, long term operational needs, risk tolerance and dollar value;
  - QA approach and reporting needs; and
  - Training requirements.

**OPI:** ADM(IE)

**OCI:** ADM(Mat)

## 2.3 Environmental, Health and Safety

The Department is meeting its Environmental, Health and Safety requirements for the contracts examined.

We expected that the Department would comply with the Environmental, Health and Safety requirements listed in each contract.

### 2.3.1 Environmental Management

Based on SOW requirements, the contractor reports environmental issues (e.g., spills of chemicals), as applicable. Reporting by the contractor's environmental officer is coordinated through the Department's environmental officer. Contractors are responsible for remediating all spills of chemicals or HAZMAT-related issues regardless of who caused the spill. Interviews and environmental reports indicated that environmental issues and corresponding remedies have been reported to DND. Follow ups by an independent third party are completed the year following an audit, if necessary, to ensure any corrective measures recommended have been implemented and are in compliance with environmental standards.

#### **Notable Practice**

- DND monitors the contractor's performance in meeting the defined environmental standards through contractor self-reporting and third-party audits.

### 2.3.2 Health and Safety

As per contracts, the Department and the contractor are respectively responsible for the health and safety of their own personnel. The audit found no issues in this area.

### **3.0 General Conclusion**

Contracted FM services are managed to ensure infrastructure needs are met in the short term as well as comply with environmental, health and safety regulations. To help ensure consistency in FM management, VFM and the long-term sustainability of infrastructure, ADM(IE) will need to identify information requirements and establish and communicate clear FM related ARA.

ADM(IE) has recently become the custodian of all DND infrastructure. The different authorities and roles across FM related contracts are not aligned with the new accountabilities of ADM(IE). This has resulted in varied QA practices and inconsistent FM management which has limited ADM(IE)'s ability to optimize its oversight of the infrastructure portfolio.

ADM(IE) requires additional FM information from each location to help leverage lessons learned and ensure increased comparability and accuracy of information across the infrastructure portfolio. Standardized ARA for FM stakeholders and a risk-based QA approach will provide more consistent oversight of FM.

ADM(IE) may wish to consider using the lessons learned from current FM related contracts to develop consistent SOWs, PIFs and other clauses in FM related contracts that meet the Department's needs and potentially reduce expenses.

## Annex A—Management Action Plan

ADM(RS) uses recommendation significance criteria as follows:

**Very High**—Controls are not in place. Important issues have been identified and will have a significant negative impact on operations.

**High**—Controls are inadequate. Important issues are identified that could negatively impact the achievement of program/operational objectives.

**Moderate**—Controls are in place but are not being sufficiently complied with. Issues are identified that could negatively impact the efficiency and effectiveness of operations.

**Low**—Controls are in place but the level of compliance varies.

**Very Low**—Controls are in place with no level of variance.

### Information Needs

#### ADM(RS) Recommendation (High)

1. It is recommended that ADM(IE) determine and communicate which FM data and performance indicators are needed to make informed FM decisions. This will ensure increased comparability and accuracy of information across the infrastructure portfolio and help leverage lessons learned.

### Management Action

Action 1.1 – Agreed. In order to determine and communicate which FM data and performance indicators are needed to make informed FM decisions, ADM(IE) will:

- Determine and document the appropriate FM KPI levels for its infrastructure portfolio;
- Consult internal and external stakeholders; and
- Communicate strategy to all relevant stakeholders.

**OPI:** ADM(IE) – CF RP Ops Gp

**Target Date:** December 2019

### Information Collection Mechanism

#### ADM(RS) Recommendation (Moderate)

2. It is recommended that ADM(IE) implement a mechanism to gather all data, including cost information, for FM services. This will help ensure consistency, accessibility and timeliness of information.

## Management Action

Action 2.1 – Agreed. ADM(IE) will implement a mechanism to gather data, including cost information, for FM services. Specifically, ADM(IE) will develop tools and plans in order to:

- Consolidate details of all outsourcing arrangements for FM and FM related outsourcing costs. This consolidation data should all be housed within DRIMIS/IERIS; and
- Assess contractor performance and contract costs at least annually during the contract.

**OPI:** ADM(IE) – CF RP Ops Gp

**Target Date:** December 2019

## Cost-Benefit Analysis

### ADM(RS) Recommendation (Moderate)

3. It is recommended that ADM(IE) conduct a cost-benefit analysis of in-house FM versus contracted FM services. This will inform the cost efficiency of current and future FM services related decisions.

## Management Action

Action 3.1 – Agreed. ADM(IE) will conduct a comprehensive cost-benefit analysis of in-house versus outsourced FM services to inform the cost efficiency of future FM services, including the renewal of FM contracts and related decisions by undertaking the following actions:

- Create an evaluation framework for cost-benefit analysis;
- Consult internal and external stakeholders;
- Analyse the cost of FM options (e.g., outsourcing versus internal resources);
- Document and communicate the evaluation framework to all internal stakeholders; and
- Apply the evaluation framework to all future FM services decisions.

**OPI:** ADM(IE) – CF RP Ops Gp

**Target Date:** December 2020

## Information Collection Mechanism

### ADM(RS) Recommendation (High)

4. It is recommended that ADM(IE) continue to implement the Real Estate module in DRMIS and provide training as required.

## Management Action

Action 4.1 – Agreed. ADM(IE) will validate the training requirements and coordinate the delivery of updated training for the Real Estate module in DRMIS to assist in the management of FM services.

**OPI:** ADM(IE) – CF RP Ops Gp and DGIEES/DAES/IEBDS  
**Target Date:** March 2020

### **Authorities, Roles and Accountabilities**

#### **ADM(RS) Recommendation (High)**

5. It is recommended that ADM(IE), in collaboration with ADM(Mat), outline and communicate clear ARA between ADM(IE), the Contracting Authority, the contractor and other relevant stakeholders in all FM related contracts.

#### **Management Action**

Action 5.1 – Agreed. ADM(IE), in collaboration with ADM(Mat), will establish clear ARA as articulated in the recommendation, especially regarding contract negotiations, PIF assessment boards and quality assurance.

Additionally, ADM(IE) will review existing full service contract (that include FM) templates and modify to ensure that any future contracts will have clear ARA as articulated in the recommendation.

ADM(Mat) will be included in any policy development of FM contracts for which ADM(Mat) is implicated, and will endorse any portion of such policy that relates to ADM(Mat) prior to being implemented and/or communicated within the Department.

**OPI:** ADM(IE) – CF RP Ops Gp  
**OCI:** ADM(Mat)  
**Target Date:** April 2019

### **QA Guidance**

#### **ADM(RS) Recommendation (High)**

6. It is recommended that ADM(IE) develop and implement centralized QA FM guidance. This will help ensure consistent QA of all DND/CAF infrastructure by asset class. The guidance could include, but not be limited to:
  - Risk-based QA plans considering infrastructure sustainability, long-term operational needs, risk tolerance, and dollar value;
  - QA approach and reporting needs; and
  - Training requirements.

#### **Management Action**

Action 6.1 – Agreed. ADM(IE) will develop and implement centralized QA FM guidance. Specifically, working with the contracting authority, ADM(IE) will:

- Establish and communicate guidance for all infrastructure asset classes that, at a minimum:
  - Identify planning methodology based on condition of asset;
  - Outline QA performance and reporting requirements;
  - Identify training requirements and expectations;
- Develop risk-based QA plans considering infrastructure sustainability, long-term operational needs, risk tolerance, and dollar value;
- Consult with stakeholders;
- Communicate policy change with internal and external stakeholders; and
- Ensure the new authorities and responsibilities related to the QA of the FM portion of FM contracts are aligned to new infrastructure accountabilities.

**OPI:** ADM(IE) – CF RP Ops Gp

**Target Date:** December 2020



## **Annex B—Audit Criteria**

### **Criteria Assessment**

The audit criteria were assessed using the following levels:

#### **Assessment Level and Description**

**Level 1**—Satisfactory

**Level 2**—Needs Minor Improvement

**Level 3**—Needs Moderate Improvement

**Level 4**—Needs Significant Improvement

**Level 5**—Unsatisfactory

### **Governance**

1. Decisions related to contracted FM services are fully supported and properly approved.

**Assessment Level 4** – The ADM(IE) transformation has created two reporting structures which have created inconsistent oversight of the contractors at the Base/Wing level. There is also a lack of information to support contracting decisions.

### **Risk Management and Control**

2. Agreements for contracted FM services ensure infrastructure is available to support operational requirements.

**Assessment Level 3** – While there are terms in the contracting agreements that outline some preventative maintenance requirements, the contracts could be modified to emphasize the long-term sustainability of the Department’s infrastructure.

3. Requirements for contracted FM services ensure compliance with environmental, health and safety regulations.

**Assessment Level 1** – Compliance with environmental regulations was the responsibility of the contractor with departmental oversight. Compliance with health and safety was managed respectively by the contractor and the Department for their employees. Both were compliant and no issues were identified.

## Sources of Criteria

### Governance:

- Reference to: Committee of Sponsoring Organizations of the Treadway Commission (COSO), Internal Control – Integrated Framework, March 2013
- Reference to: ADM(IE) transformation documentation

### Risk Management:

- Reference to: COSO, Internal Control – Integrated Framework, March 2013

### Controls:

- Reference to: COSO, Internal Control – Integrated Framework, March 2013