NFSA RFT 2122/P060 – Infrastructure Maintenance

Document 2 – Statement of Requirements

Specification No. G21-02-S1

for

Infrastructure Maintenance

at ACT Premises of the

National Film and Sound Archive of Australia

Contents

1 DEFINITIONS

1.1 Defined Terms

Defined terms are capitalised in this Specification and in the Contract. The following are additional defined terms for the purpose of the Contract. Terms not defined in this Specification have the same meaning as set out in the Contract (Clause 1.1) unless a contrary intention is expressed.

'Annual Fee' means the lump sum annual fee payable for the *Primary Services* component of any contracted Service Element.

'Asset Register' means the detailed record of Engineering Services plant and equipment items being maintained under the Contract.

'Business Day' in relation to the doing of any action in a place, means a weekday other than a public holiday in that place.

'Commonwealth Agency' means an organisation (e.g. Department, Authority, Board, Commission etc) that is an official agent of the Australian Government.

'Contract' means the contract between NFSA and the Service Provider including the Schedules and any Annexures and any documents incorporated by reference, substantially in the form of RFT Document 4 – Proposed Draft Contract.

'Contract Schedule' means the completed Schedule, included in the Contract.

'Downtime' means the period for which applicable systems or equipment are unfit for service.

'Electrical Infrastructure' means the electrical systems falling within the scope of Service Element 2 (SE2). This includes all components of the systems, services and equipment described in section 9.2 [*Maintained Systems*] of the Specification.

'Engineering Services' are the physical services, systems and equipment that support the Premises and are maintained under this Contract (e.g. chilled & heating systems, air handling systems, dehumidifiers, electrical power systems, lighting, fire detection systems, plumbing etc).

'Extended Services' describes services to be provided by the Service Provider when authorised by the Project Officer on a discretionary basis. These services are additional to the *Primary Services* provided under the Contract and will be reimbursed at hourly rate charges and on-cost percentages as listed in the Contract.

'Fire Protection' means the building fire protection systems falling within the scope of Service Element 3 (SE3). This includes all components of the systems and equipment tabulated in section 0 [*Maintained Systems*] of the Specification.

'HVAC & Mechanical Services' means the heating, ventilation and air conditioning systems and other systems falling within the scope of Service Element 1 (SE1). This includes all components of the systems, services and equipment described in section 8.2 [*Maintained Systems*] of the Specification.

'Hydraulic Systems' means the building water supply and drainage systems falling within the scope of Service Element 4 (SE4). This includes all components of the systems and equipment tabulated in section 11.2 [*Maintained Systems*] of this Specification.

'Landscape Maintenance' means the maintenance of all site flora and features (lawns, shrubs, hedges, trees, paving, tarmac, garden beds etc) including internal courtyards falling within the scope of Service Element 5 (SE5) as set out in section 12.

'Maintenance Program' means a recurrent, calendar-based schedule of maintenance tasks framed to meet the requirements of the Specification. The Service Provider is required to develop and implement a Maintenance Program to meet the requirements of the Specification.

'Minor Repairs' means work up to the value of $6,000, exclusive of GST, required to restore plant, equipment or systems to good, serviceable condition following a fault, failure, malfunction, deterioration or other form unserviceability or impending failure. Minor Repairs are part of the *Primary Services* for Service Elements SE1, SE2 and SE3 only.

'Major Repairs' means work exceeding the value of $6,000, exclusive of GST, required to restore plant, equipment or systems to good, serviceable condition following a fault, failure, malfunction, deterioration or other form unserviceability or impending failure. Major Repairs are not automatically part of the Contract. The NFSA will decide if any Major Repair is undertaken under the Contract as *Extended Services* or *Separately Priced Work*.

'Premises' are the ACT Premises owned and/or leased by the National Film and Sound Archive (NFSA) as listed in this Specification, section 2.3.

'Primary Services' means the services to be delivered by the Service Provider for which a lump sum Annual Fee will be paid by NFSA. Services described in the Specification are *Primary Services* unless otherwise indicated.

'Project Officer' means the person specified (by name or position) in Contract Schedule 1, Item J [*Project Officer*] or any substitute notified to the Service Provider.

'Separately Priced Works' are works for which the scope and reimbursement are separately agreed between the Service Provider and NFSA. With the agreement of both parties, such works may be delivered under the Contract, in which case the provisions of the Contract documents including the Specification will apply to such works.

'Service Element' is a separately priced component part of the Services. The Contract shall be for the service elements specified in Contract Schedule 1, Item B [*Services and Products*]. Note that the characterisation of Service Elements as separable, indicates that the Contract may incorporate any one or more Service Elements.

'Services' means the services described in Contract Schedule 1, Item B [*Services and Products*].

'Service Provider' is the party engaged by the NFSA to deliver Services under the Contract. Reference to Service Provider includes the officers, employees, agents and subcontractors of the Service Provider.

'Specification' means Specification **G21-02-S1** (this document), comprising one part of RFT Document 2 – Statement of Requirements.

1.2 Acronyms and Abbreviations

The following acronyms and abbreviations are used in this Specification

ACT	Australian Capital Territory
AS	Australian Standard
AS/NZS	Australian/New Zealand Standard
BAS	Building Automation System
CAD	Computer Aided Drafting
DB	Distribution Board
DDC	Direct Digital Control(ler)
EWIS	Emergency Warning & Intercommunication System
FIP	Fire Indicator Panel
FFCP	Fire Fan Control Panel
GST	Goods & Services Tax
GPO	General Power Outlet
HQ	Headquarters (Acton)
HVAC	Heating, Ventilation & Air Conditioning
ICT	Information and Communications Technology
KPI	Key Performance Indicator
kW	Kilowatt
LED	Light Emitting Diode
MA	Mitchell Annex
M1	Mitchell 1
M2	Mitchell 2
M4	Mitchell 4
M5	Mitchell 5
MN	Mitchell Nitrate
MS	Microsoft
NFSA	National Film & Sound Archive
QA	Quality Assurance
RCD	Residual Current Device
RO	Reverse Osmosis
RPZD	Reduced Pressure Zone Device
SE1-5	Service Element 1-5
SSEP	Sound System for Emergency Purposes
UPS	Uninterruptible Power Supply
WHS	Work Health & Safety
WIP	Warden Intercom Point
xref	External Reference

2 SCOPE OF SERVICES

2.1 Introduction

The National Film and Sound Archive of Australia (NFSA) is a Statutory Authority established under the *National Film and Sound Archive of Australia Act 2008*. NFSA's mission is to collect, preserve and share Australia's audio-visual collection.

NFSA's audio-visual collection of over 3 million items represents Australia's cultural diversity. It includes dramas, documentaries, creative arts, social and scientific history, comedy, experimental and unique amateur audio-visual records. The collection also includes documents and artefacts, ranging from costumes and set pieces to posters, still photographs and, scripts.

NFSA manages nine sites which house and preserve the audio-visual collection. These sites provide office, exhibition, processing, storage and preservation accommodation. Due to the nature of the collection and NFSA activities, a significant portion of the accommodation has specialised equipment, systems and environmental controls (e.g. archival storage and exhibition spaces have tightly controlled temperature and humidity parameters).

This Contract has specific maintenance service requirements, response times and reliability requirements to safely preserve the collection and other NFSA assets.

This Specification sets out the requirements for specialist contract Service Providers to deliver maintenance, repair and associated services for the NFSA's owned and leased Premises in the ACT.

2.2 Objectives

The NFSA requires maintenance of selected infrastructure at the listed ACT Premises.

Objectives for the services are:

a) To support NFSA's business operations and provide flexibility for business needs;
b) To maintain the infrastructure and Engineering Services to maximise their utility, reliability, performance and economy;
c) To maintain reliable, stable, safe and appropriate long term storage conditions for NFSA's irreplaceable collection;
d) To provide high occupant and visitor satisfaction and a productive, safe and enjoyable environment in the Premises;
e) To maintain the integrity and value of the Premises and realise extended lives for components and systems;
f) To minimise disruptions to operations and plan those disruptions which are unavoidable so that adverse impacts are minimised;
g) To assure high service quality and cost effectiveness;
h) To maintain a physically safe and healthy working environment consistent with NFSA's duty of care obligations;
i) To ensure that the Premises and NFSA assets are secure;
j) To comply with all applicable statutory requirements and provide an audit trail to verify compliance;
k) To deploy assurance and auditing systems to verify that maintenance services are being completed and in a timely manner;

l) To contain recurrent costs in real terms and minimise lifecycle costs;
m) To provide effective and efficient response to service problems;
n) To utilise a continuous improvement strategy to optimise reliability and system efficiencies;
o) To contribute to NFSA's goal of environmentally sensitive operation of their Premises.
p) To preserve the heritage listed attributes of the Acton Headquarters, including the Residence cottage;
q) To monitor and systematically identify financial commitments and predict longer-term requirements for financial resources in relation to the Services; and
r) To meet specified Key Performance Indicators (KPIs).

2.3 Premises

NFSA is headquartered in Canberra, with additional premises in Sydney and Melbourne.

The Premises covered by this Contract are limited to the ACT Premises listed below. Note that the shorthand references, below, are used to designate the Premises in some of the sections within this Specification.

	Building Name	Address
HQ	Acton Headquarters (including Residence cottage)	McCoy Circuit, Acton
M1	Mitchell 1	6-8 Baillieu Court, Mitchell
MA	Mitchell Annex	10-12 Baillieu Court, Mitchell
MN	Mitchell Nitrate	16 Vicars Street, Mitchell
M2	Mitchell 2	Unit 6, 160 Lysaght Street, Mitchell
M4	Mitchell 4	Unit 5, 23 Essington Street, Mitchell
M5	Mitchell 5	18 - 20 Baillieu Court, Mitchell

The required Services vary from site to site as defined in the service descriptions for each separable Service Element. The variation is fully defined in this Specification.

2.4 Maintained Infrastructure & Services

2.4.1 Existing Infrastructure

The existing infrastructure and Engineering Services to be maintained are listed in sections 8 – 12 of this Specification. Additional information on the infrastructure and Engineering Services is included in separate documents as follows:

1. Premises & Plant Descriptions (Appendix 1)	These descriptions are provided in a PDF document file. The descriptions provide summary information and brief development histories for the maintained NFSA Premises and Engineering Services.
2. Asset Register (Appendix 2)	The Asset Register is an Excel spreadsheet that contains component listing data on the service assets. This register can be manipulated to display information in selective categories such as service type or Premises.

2.4.2 Infrastructure Changes

Where there are changes to the maintained systems over time, resulting in changes to the scope of services, these will be handled in accordance with the section 2.17 of this Specification.

2.5 Term

The Term of this Contract commences on the Commencement Date and (unless otherwise lawfully terminated) shall continue in full force and effect for the period of **5 years** (the 'Initial Period').

NFSA may in its sole discretion extend the term of this Contract beyond the Initial Period for up to two (2) further periods of two (2) years on the terms and conditions of this Contract then in effect, by giving written notice to the Service Provider prior to the end of the then current term of this Contract.

Applicable contract extension periods will be notified, in writing to the Service Provider, before the expiry of the initial, or extended, Contract Term. The scope, conditions and requirements of the Contract (as varied during the preceding term of the Contract) shall remain unchanged.

2.6 Service Elements

The Contract is structured into separable Service Elements as per the following table:

Item No.	Service Element
SE1	HVAC & Mechanical Services Maintenance
SE2	Electrical Infrastructure Maintenance
SE3	Fire Protection Maintenance
SE4	Hydraulic Maintenance
SE5	Landscape Maintenance

The 'separable' terminology indicates that the Contract will cover any one or more of the Service Elements. The Service Provider shall deliver those Service Elements for which it is contracted. The contracted Service Elements are listed in the Contract Schedule 1, Item B [*Services and Products*].

2.7 Service Element Components

The contracted Services for each separable Service Element comprise three component categories of work per the following table:

Work Component	Reference	Basis of Reimbursement
a) *Primary Services*	Section 2.8	• Lump sum Annual Fee; • Reimbursement for call outs that are out of business hours; and • Part reimbursement for Minor Repairs valued between $3,000 and $6,000 (excluding GST) (applies to SE1-3 only) The above payments will fully cover the *Primary Services* for the contracted Service Elements.
b) *Extended Services*	Section 2.9	• Contracted item charges and labour rates • Cost plus contracted on-cost.
c) *Separately Priced Works*	Section 2.10	• Quoted Price; • Sub-contractor price plus contracted management fee; or • Other agreed basis, as applicable to the particular works

2.8 Primary Services

The core component of the contracted Services to be delivered under the Contract are termed *Primary Services*.

The *Primary Services* will be delivered for a lump sum Annual Fee for each contracted Service Element (plus reimbursement for after-hour call outs and part reimbursement for Minor Repairs valued between $3,000 and $6,000, excluding GST). Minor Repairs only applies to SE1-3. The service tasks and requirements described in this Specification are *Primary Services*, unless stated otherwise.

2.8.1 Primary Services Inclusions

The *Primary Services* for a Service Element shall include:

a) General Service Requirements (section 4);
b) Requirements for *Primary Services* (section 5);
c) Minor Repairs (section 2.11) - applicable to SE1, SE2 and SE3 only);
d) Callout and Notification Services (section 2.16);
e) Applicable Service Element maintenance (described in sections 8 -12); and
f) Management and progressive improvement of the service delivery.

The Annual Fee for *Primary Services* shall include for all start-up and site establishment costs plus the overheads and profit associated with the *Primary Services*. Overheads covered by the Annual Fee shall include, but not be limited to:

a) Business overheads;

b) Management, administrative and supervisory costs;
c) Staffing overheads;
d) Training and trade licensing costs;
e) Insurance costs;
f) Quality assurance costs;
g) Costs for consumables (section 2.15);
h) Tool and equipment costs;
i) Travel costs; and
j) Parking costs.

2.8.2 Primary Services Exclusions

The following service costs shall be excluded from the Annual Fee for *Primary Services*:

a) the cost of utility services such as natural gas, electricity and water (refer to section 2.15.1);
b) the cost of statutory inspections and licences for:
    i. Pressure vessel inspections;
    ii. Dangerous goods licences;
    iii. Trade waste licence for cooling and wastewater discharge;
    iv. Licence for BAS software and upgrades;
    v. Compliance inspections and legislative charges; and
    vi. Any inspection or licence charges associated with *Extended Services*.

The Service Provider shall meet the cost of any other statutory charges or licences needed to deliver the Services.

2.9 Extended Services

The Service Provider may, at NFSA's discretion, be required to deliver additional Services under the Contract. These services are termed *Extended Services*. These Services will attract a payment in addition to the lump sum annual fee for *Primary Services*.

Extended Services can be considered as an extension to the normal work covered under the lump sum, Annual Fee. They will typically comprise the provision of Services or consumables for which the scope or quantum cannot be identified before the Contract is let. Generally, *Extended Services* will be provided at the unit rates and charges scheduled in the Contract.

Note that any contracted Major Repairs (repair value exceeding $6,000 excluding GST) will be *Extended Services* or *Separately Priced Works*. They are not covered by the Annual Fee for *Primary Services*.

NFSA does not make any representation about the level of *Extended Services* that will be required. This Contract will not automatically entitle the Service Provider to undertake all or any part of potential *Extended Services*. NFSA reserves the right to have any work beyond the *Primary Services* undertaken by alternative service providers.

2.9.1 Typical Extended Services

The following table lists typical *Extended Services* for the Contract.

These listings are provided to clarify specified requirements and indicate the type of services that may be typically required and shall not be taken as exhaustive.

Category	*Extended Services*
a) Data Recording	CAD drafting for converting manual drawings and correcting and updating 'as built' drawings. Preservation or scanning work on existing 'as built' drawings.
b) Record Drawings	Development or amendment of record CAD drawings. Permanent drawings and signage per section 4.5.4
c) Plant & Service Maintenance	Major plant overhaul not resulting from a malfunction, fault or failure (if required). Relocating diffusers, temperature sensors and other service changes associated with fit-out changes. Topping up chemicals in closed systems after drainage or servicing not forming part of the *Primary Services*. Re-programming of computer-based systems to accommodate physical changes.
d) Callouts	Labour costs for after-hours callouts in some circumstances (see clauses 2.16.4 and 2.16.5 for clarification). Note: Callouts within the hours 7.00AM – 5.00PM on Business Days will be part of the *Primary Services*.
e) Repairs	Major Repairs Repairs resulting from accidents or vandalism (excluding accidental damage caused by the Service Provider or its agents). Repairs of damage covered by building insurance.
f) System & Equipment Software Upgrade	Additional program modules beyond those needed for the specified functions. Additional programming or bespoke reports not covered by the specification.

2.9.2 Initiation

To initiate *Extended Services* work, where appropriate, the Service Provider shall advise the NFSA of work required which is outside the scope of the *Primary Services* under the Contract.

The advice shall be written and shall include:

a) A clear definition of work required and the reason it is required.
b) An estimated upper limit cost for the work.
c) A program and list of resources required for the work.
d) Names of personnel proposed for the work.
e) A quotation provided on an NFSA template.

Note that NFSA may initiate *Extended Services* work where a need for work beyond the *Primary Services* is identified. *Extended Services* work shall not exceed the upper limit cost authorisation.

2.9.3 Upper Limit of Cost for *Extended Services*

If an upper limit of cost is not specified by the NFSA when authorising the Service Provider to undertake *Extended Services*, a default upper limit of **$8,000** (exclusive of GST) shall apply to each authorisation.

The Service Provider shall not undertake work beyond the value of the upper limit of cost without further, written authorisation from the NFSA.

No liability for payment beyond the NFSA's upper limit authorisation for *Extended Services* is enforceable under the Contract.

If, after commencement, a particular service is found to be likely to exceed its upper limit authorisation, the NFSA shall be so advised at the earliest practical time. The NFSA will advise, in writing, whether the authorised limit can be increased. In no circumstances shall work continue beyond the written upper limit cost authorisation.

2.9.4 Staffing

Where *Extended Services* work is undertaken by the Service Provider, additional staffing shall be provided to accommodate the additional work.

Adequate staffing for *Primary Services* shall be maintained at all times. Staff resources shall not be diverted from *Primary Services* to accommodate *Extended Services*.

2.9.5 Updating Documentation

Where *Extended Services* work results in a modification to services, include in the priced scope of work, for updating record drawings and asset listings to reflect the modifications undertaken.

On completion of *Extended Services*, the Service Provider shall ensure that relevant record drawings and asset listings describe the current 'as built' status of services.

2.9.6 Charges

Overheads and profit for *Extended Services* shall be apportioned into the unit rates, on-cost percentages, fees and prices tendered for the applicable component of the work.

2.9.7 Payment

The normal basis of payment for *Extended Services* will use either,

a) tendered unit costs; or
b) tendered labour rates; and
c) material or third-party costs plus tendered on-costs.

Refer to the section Contract Schedule 1, Item E for details of payment for *Extended Services*.

The Service Provider shall not undertake *Extended Services* unless the applicable itemised cost, labour rates or other basis for determining the actual cost of labour and non-labour resources have been agreed between the Service Provider and the NFSA.

2.9.8 Claim Template

Invoices for *Extended Services* shall be accompanied by a completed pricing template similar to the following layout. Note that the template is indicative and shall be adapted to suit the particular scope of work and pricing model. The template shall summarise pricing calculations in accordance with Contract Schedule 1, Item E2 [*Payment for Extended Services*].

Scope of Work:				
***Extended Services* Claim No**				
Authorisation Reference or Purchase Order No				
Pricing Schedule – Labour Charges				
Personnel Classification	Hours	Rate	Price (ex GST)	Sub – Total
Pricing Schedule – Materials or Unit Charges				
Item	Qty	Rate	Price (ex GST)	Sub – Total
Materials On-cost	%			
Pricing Schedule – Third Party Services				
Service	Qty	Rate	Price (ex GST)	Sub – Total
Service On-cost	%			
Goods & Services Tax				
Total Price				

2.10 Separately Priced Works

Separately Priced Works are, typically, additional works that have the attributes of a separate project. They will normally require a dedicated project management regime.

The category of *Separately Priced Works* shall cover new works, refurbishment and other works and services, of any type whatsoever, priced separately from the other service components described herein. This category of work may be handled by one of several possible tendering and contractual arrangements, as follows:

a) The work may be offered to the Service Provider as a single, selected provider under an agreed scheme of payment;
b) The Service Provider may be requested to quote for the work in competition with third party service providers; or

c) The Service Provider may be paid an agreed management or on-cost fee to supervise and sub-contract the work to a third-party service provider with or without selected sub-contract tendering.

The Service Providers quotation for *Separately Priced Works* shall be based on the work being incorporated into the Contract, under the applicable conditions of the Contract. The Contract conditions will supersede any of the Service Provider's standard conditions included in their quotation.

NFSA does not make any representation about the level of *Separately Priced Works* that will be required. This Contract will not automatically entitle the Service Provider to tender for or undertake all or any part of potential new works, refurbishment, Major Repairs or other works or services. NFSA reserves the right to have any work beyond the *Primary Services* undertaken by alternative service providers.

2.11 Minor Repairs

As part of the *Primary Services* for service elements SE1, SE2 and SE3 (only), the Service Provider will accept part of the risk of premature degradation, malfunction or failure in the Engineering Services infrastructure and equipment covered by the Contract. The Service Provider will be required to undertake Minor Repairs for these service elements as necessary to ensure that plant and services remain safe and fully serviceable and do not prematurely deteriorate.

For the purpose of the Contract, Minor Repairs are necessary repairs, remedial work and corrective maintenance up to a value of $6,000 (excluding GST) per individual repair and are subject to repair value assessment (section 2.14). Minor Repairs include, but are not limited to:

a) Repairs, remedial work and corrective maintenance necessary to maintain plant, equipment and services in fully serviceable condition;
b) Repairs necessary to prevent imminent failure;
c) Repairs necessary to restore components or systems after malfunction, breakdown or failure from any cause, including under and over voltage, but excluding vandalism;
d) Repairs, remedial work or preventative maintenance arising from inspections and necessary to maintain plant condition or reliability;
e) Repairs or remedial work arising from inspection, investigations, callouts or fault notification;
f) Repairs or remedial work necessary because of component deterioration, wear, tear and/or aging; and
g) Replacement of minor failed or life expired components (regardless of whether the failure or life expiry is due to service conditions, adventitious circumstances or other cause).

Minor repairs form part of the *Primary Services* for Service Elements SE1, SE2 and SE3 only. They are not part of the *Primary Services* for Service Elements SE4 or SE5.

2.11.1 Minor Repair Liability for SE1, SE2 & SE3

The *Primary Services* for Service Elements SE1, SE2 and SE3 include any necessary Minor Repairs. The service provider is required to automatically undertake these Minor Repairs.

As part of the *Primary Services* for SE1, SE2 and SE3, the Service Provider is liable for the full cost of individual Minor Repairs up to a value of $3,000 excluding GST. For Minor Repairs with value in the range $3,001 - $6,000 the Service Provider's liability is capped at $3,000

unless the repair is required due to the Service Provider's omission, fault or failure to meet the requirements of the Contract per section 2.14.

The liability for Minor Repairs shall be unchanged regardless or whether the failure is due to service conditions, adventitious circumstances, life expiry or any other cause, except circumstances covered by the property insurance.

2.11.2 Repairs for SE4 and SE5

Minor Repairs are not part of the *Primary Services* for Service Elements SE4 and SE5. However, there are some repair or repair like works included in the *Primary Services* descriptions for these Service Elements. Examples of these are:

a) Replacing tap washers and re-cutting tap seats where needed

b) Reseeding bare lawn patches

Any repairs or repair like services that are described as *Primary Services* for these Service Elements will be covered by the Annual Fee and will not attract additional reimbursement. Other repairs, of any value, shall be undertaken as *Extended Services* or *Separately Priced Works*, where and as authorised by the NFSA. The Service Provider will be fully reimbursed for the value of authorised repairs, unless section 2.14 applies.

2.12 Major Repairs

For the purpose of the Contract, Major Repairs are necessary repairs, remedial work and corrective maintenance with a value above $6,000 excluding GST. Major Repairs will be part of *Extended Services* or *Separately Priced Works*. Where Major repairs are authorised, they will be wholly reimbursed additionally to the lump sum fee for *Primary Services*, unless the repair is required due to the Service Provider's omission, fault or failure to meet the requirements of the Contract.

2.13 Repair Value Assessment

The value of a repair (including Minor / Major Repairs) shall be the price for the repair assessed at the Service Provider's normal commercial market rates. For liability purposes, each repair shall be regarded as separate from other repairs where the fault or failure:

a) occurs at a different time; or.

b) is not located at the same position; or

c) is otherwise unrelated to another fault or failure.

Note that it is not acceptable for a Service Provider to aggregate individual Minor Repairs to exceed the Minor Repair limit of $6,000 excluding GST. For example, if an inspection reveals multiple, faulty light fittings, each faulty fitting shall be classed as requiring an individual Minor Repair.

There is one exception to this calculation limitation with regard to the 6-monthly emergency lighting tests. In this case only, the cost for the repair or replacement of faulty emergency lights may be aggregated for all tests at that service interval, to determine if a Minor or Major Repair is applicable.

2.14 Service Provider's at Fault Liability

Where a repair is needed due to the Service Providers omission, fault or failure to meet the requirements of the Contract, the Service Provider will be liable for the cost of the repair in proportion to its culpability for the fault or failure. Where there is no other contributing fault, the Service Provider will be liable for the full cost of the repair. The liability under this will apply to all needed repairs and will apply across all Service Elements.

2.15 Consumables

2.15.1 Electricity, Gas & Water

The cost for supply of electricity, natural gas and water will be met by NFSA. Natural gas, electricity and water procurement does not form part of this Contract and will not attract any on-cost or other payment not included in the Annual Fee for *Primary Services*.

2.15.2 Other Consumables

The Service Provider shall supply and deliver all other consumables necessary for the contracted Services as part of the *Primary Services*. These consumables shall be covered by the Annual Fee for *Primary Services*.

Typical consumables to be supplied as part of the *Primary Services* are listed below. Note that the listing is not exhaustive:

a) Air and water filters;
b) Deioniser resins (note: replacement of Reverse Osmosis membrane cartridges will be *Extended Services*);
c) Cooling tower chemicals and biocides;
d) Wastewater neutralisation chemicals;
e) Landscape supplies (Seeds, fertilisers, pesticides, garden chemicals etc);
f) Lubricants and greases;
g) Degreasers and cleaning products;
h) Steam humidifier replaceable electrode cylinders (note: most steam humidifiers use non-replaceable cylinders from which spalled scale deposits can be emptied);
i) Celdek pads for evaporative humidifiers;
j) Minor batteries (refer section 2.15.3);
k) Safety and service signs and labels;
l) Anti-freeze and anti-corrosion chemicals;
m) Refrigerant (as necessary);
n) Luminaire lamps, tubes and starters;
o) Insulation, tapes, adhesives;
p) Primers and paints;
q) Instant boiling & chilled water unit filters/cartridges; and
r) VESDA filters.

2.15.3 Minor Battery Replacement

The *Primary Services* shall include the replacement of all failed or exhausted batteries except for gel or lead-acid batteries incorporated in UPS units of over 5 kVA rating. Batteries to be provided as part of the primary services include:

a) All single use or rechargeable cellular batteries up to 9 Volt; and
b) Batteries for small UPS units supporting computer workstations for maintained systems (e.g. BAS, C-Bus, Fire panels).

2.16 Callout & Notification Service

The Service Provider shall provide a 24-hour, 7 day per week callout and notification service and maintain appropriate standby resources to respond to and complete service requests within the specified response and completion times respectively. A callout and notification service forms part of the *Primary Services* for all Service Elements.

Callout and notifications will typically cover:

- Faults;
- Failures;
- Weather incidents;
- Accidents;
- Incomplete or deficient service work;
- Problems or other issues requiring assessment and resolution; and
- Additional work or services required.

Work undertaken in response to callouts and notifications may be *Primary Services* or *Extended Services* depending on its classification in accordance with this Specification.

An additional callout charge will be paid for after-hours call outs. After-hours callouts are defined as callouts where work is required to be undertaken outside the hours of 7.00am – 5.00pm on a Business Day.

The Service Provider shall respond to all requests for service or notifications as notified by the NFSA. Upon receipt of a callout request, the Service Provider shall:

a) Attend the site within the callout response time specified in section 2.16.2 and coordinate with the site contact person;
b) Comply with all reasonable directives or requests from the site contact person and/or a member of staff or security;
c) Take every practical step to carry out works to restore the areas or elements to normal, in as short a period of time as practical.
d) Prior to leaving the site, the Service Provider shall contact the site contact person and fully explain the status of the work and any other relevant issues.
e) Log and report the incident / failure and its cause and remedy; and
f) Coordinate with the Project Officer to fully resolve the incident.

2.16.1 On-Call Personnel

On-call personnel shall have the skills and knowledge to correct plant faults or deal with other likely contingencies. They should be familiar with the Premises and building systems.

2.16.2 Response Times

The response times for callouts / notifications shall not exceed the following.

Callout / Notification Condition	Max. Response Time	
	Business-Hours	After-Hours
Emergency incident, as nominated by NFSA (e.g. flooding, fire, plant failure during public performance)	30 mins	45 mins
Critical incident, as nominated by the NFSA (e.g. critical plant failure or hazardous event)	1 hour	2 hours
Non-emergency, non-critical incident requiring priority response	by 1200 hours on next Business Day, unless otherwise advised by the Project Officer	
Routine Notification	As nominated by the Project Officer or within 4 weeks where no response time is nominated	

The NFSA representative (normally the Project Officer or other on-call personnel) will nominate the status of the callout. Response time shall be measured from the time of initial Service Provider notification to the time when relevant on-call staff attend the site and commence meaningful action to address or rectify the fault condition.

Failure to respond to callouts within the applicable response times scheduled will authorise the NFSA Project Officer to make alternative arrangements to correct the problem at the Service Provider's expense.

2.16.3 Critical Items

The NFSA Premises have a number of systems classed as critical because of hazards or adverse operational consequences arising from failure.

Critical Items	Critical Aspects	Max Downtime
Collection Storage Vaults	Any failure that compromises internal environmental conditions, is critical.	4 hours
Arc Cinema & Theatrette	Any failure that disrupts a public performance	1 hour
Exhibition spaces	Any failure that compromises internal conditions, is critical.	4 hours
Sound Studios	Any failure that interrupts production activities is critical.	8 hours
Central Heating Plant	Any failure that compromises the plant's ability to meet the peak daily load is critical.	2 hours
Central Chiller Plant	Any failure that compromises the plant's ability to meet the peak daily load is critical.	2 hours
Sump Pumps	Any sewerage, storm water or sump pump failure initiating a high-level alarm, is critical.	4 hours

Critical Items	Critical Aspects	Max Downtime
Alarm Systems	Failures likely to compromise DDC and BAS alarm systems are critical.	8 hours
Electrical Power	Any failure (excluding utility mains failure) that compromises power supply to critical plant or restricts business operations is critical.	4 hours
Fire Protection	Any failure that significantly compromises fire protection is critical.	8 hours
General Services	Any fault assessed by the Project Officer as requiring immediate attention is critical. This will include any significant fault or failure: • likely to cause danger or damage; • causing staff dissatisfaction; • having a negative impact on visitors; or • compromising business operations.	- -

The maintenance regime for critical plant must be sufficient to meet performance requirements. The Service Provider shall ensure that all measures within its control are taken to avoid or minimise downtime in these Premises.

The Service Provider must ensure that the response times for callouts are achieved. Critical systems have maximum duration limits for plant down time that must not be exceeded. These limits are scheduled in the table above.

2.16.4 Callout Reimbursement under SE1, SE2 & SE3

This section applies to Service Elements SE1, SE2 & SE3 (which include liability for Minor Repairs). It excludes incidents where section 2.14 [*Service Provider's at Fault Liability*] applies.

The Service Provider will be reimbursed for,

a) An after-hours callout fee, if applicable; and

b) Part payment if the work involves a Minor Repair between $3,000 and $6,000, excluding GST; or

c) Full payment if the repair work is authorised as a Major Repair (i.e. *Extended Services*).

No payment beyond the Annual Fee (*Primary Services*) will apply for work that is a Minor Repair of value up to $3,000, excluding GST. Note that Minor Repairs are automatically authorised as part of the *Primary Services*.

2.16.5 Callout Reimbursement under SE4 and SE5

This section applies to Service Elements SE4 and SE5 (which exclude liability for Minor Repairs). It excludes incidents where section 2.14 [*Service Provider's at Fault Liability*] applies.

The Service Provider will be reimbursed for,

a) An after-hours callout fee, if applicable;

b) Work necessary to avert a crisis or arrest on-going damage; and

c) Other repair / remedial work if authorised as *Extended Services*.

2.17 Contract Adjustment for Scope Changes

NFSA may increase or reduce the scope of the *Primary Services* to be provided by the Service Provider from time to time due to infrastructure changes or other changes that affect the requirements for maintenance Services.

A change to the scope of Services initiated by, or agreed by, the NFSA will result in the Annual Fee for *Primary Services* being adjusted by an amount agreed between the NFSA and the Service Provider.

Infrastructure refurbishment where plant or equipment items are refurbished, updated or replaced by similar equipment will not constitute a change to the scope of Services.

3 PAYMENTS & INVOICING

3.1 Payment of Fees & Charges

3.1.1 General

NFSA will pay fees and charges in accordance with the requirements of the Contract (including Contract Schedule 1 Item E and H) and as further detailed in this Specification. NFSA will be entitled to withhold any payment of fees or charges until the Service Provider has completed, to the satisfaction of NFSA, that part of the Services to which the payment relates.

NFSA will be entitled to delay a payment until the Service Provider has provided:

a) copies of insurance policies current at the date of invoice;

b) a tax invoice; and

c) adequate documentation to support claims for payment.

3.2 Price Indexation

The Annual Fee in Contract Schedule 1, Item E [*Fees*] and the included rates and charges in Schedule 4 will increase by 3% for Year 2 and all subsequent years of the Contract Term on the anniversary of the Contract Commencement Date.

3.3 Invoicing

The Service Provider shall invoice for completed Services monthly, in arrears, during the Contract Term;

Claims for *Extended Services* and *Separately Priced Works* shall include works order, purchase order numbers or other relevant approval identifications issued by the NFSA.

The Service Provider shall claim only for work that has been carried out in accordance with the Contract.

The claim shall set out a detailed calculation of all items not forming part of the Annual Fee for *Primary Services* and attach copies of invoices and all other supporting documentation necessary to demonstrate that all charges have been calculated and are payable to the Service Provider in accordance with the Contract.

4 GENERAL SERVICE REQUIREMENTS

[*This section of the Specification applies to the delivery of all Services for the contracted Service Elements.*]

4.1 Contractor Protocols

The Service Provider must comply with the NFSA Contractor Protocols (Contract Schedule 5) which set out standard requirements for working on each site. Requirements of the Contractor Protocols form part of the Contract for Infrastructure Maintenance.

4.2 Site Management & Control

4.2.1 Business-hours

The Service Provider will be permitted to deliver the Services on Business Days between 7.00 am – 5.00 pm. Access outside these times can be available on special arrangement with the Project Officer.

Public access areas in the NFSA's Acton site are open to the public between:

- Monday to Friday 8.30AM and 5.00PM
- Weekends and Public Holidays 10.00AM to 4.00PM

Special functions may extend beyond the nominated hours.

At the Acton site, the Arc cinema and Theatrette operate on an extended hours basis, often late into the night and on weekends. These operations and events will place additional restrictions on noisy, disturbing or disruptive activities in the headquarters precinct. Note that, currently, the Arc cinema has programs Thursday, Friday, Saturday and Sunday evenings but these times may vary.

NFSA Property & Security team office hours are 8:30am-4:30pm on Business Days. An NFSA duty officer is on call at all other times. Service Provider supervisors and regular technicians attending site shall store the duty officer number (0417 263 623) on mobile phones, for use in the event of an incident or emergency.

The Service Provider's normal and after-hours timeframes for hourly rate charging of *Extended Services* shall be as listed in Contract Schedule 4. For the purpose of this Contract, after-hours callouts are callouts outside the hours of 7.00am – 5.00pm on a Business Day.

4.2.2 Site Storage

There is no dedicated site storage to support the Service Provider's activities. Limited storage is available in some plant and basement areas. The Service Provider shall liaise with the NFSA regarding any on site storage.

The Service Provider shall note the following limitations applying to on-site storage:

a) There is very limited on-site storage space available for large equipment.
b) Space can be found for small items, but with significant limitations.
c) Goods may not be stored on site except in areas allocated to the Service Provider.
d) With the agreement of NFSA, the Service Provider may install a 6m lockable storage (i.e., standard shipping) container at the rear of the M1 or M5. If permitted, this storage will be at the Service Provider's risk and should be insured by the Service Provider.

e) The Service Provider shall work within the limits of the space allocated.

4.3 Confidentiality Requirement

The contracted Service Prover must treat all information connected with the Contract as commercial-in-confidence unless otherwise authorised and must not provide this information to the public or third parties without the prior written approval of NFSA.

The contracted Service Provider must refer all media inquiries to the Project Officer.

4.4 Interpretation of NFSA Documents

NFSA has existing operation and maintenance manuals and 'as built' drawings in electronic file and/or hard copy format. Where appropriate, this documentation will be supplied to the Service Provider, on request.

NFSA does not warrant the accuracy of the 'as built' documentation or operation and maintenance manuals.

The Service Provider shall validate all supplied documents before using them in providing the Services under the contract. This may include, but is not limited to:

a) obtaining information and technical data to execute the Services from primary sources such as site measurements, site inspections or, where necessary, from manufacturer's documentation;
b) site measuring critical, or relevant, dimensions; and
c) verifying part numbers before ordering replacement components or proceeding with services under the Contract.

Costs arising from failure to take accurate measurements or verify other pertinent information shall be borne by the Service Provider.

4.5 Service documentation

4.5.1 Records

NFSA require complete, traceable records of maintenance to confirm the Service work undertaken including maintained items, dates of service, service personnel and service confirmation / feedback.

The Service Provider shall maintain a complete record of maintenance and other contract services using a systematic approach.

Service records with appropriate audit trails will be taken as evidence of completed work for payment purposes. Payments will be made only on the basis of evidence that the Service work has been undertaken.

The Service Provider shall develop and maintain:

a) accurate and meaningful records of all works undertaken under the Contract; and
b) functional design documentation for any modifications to the infrastructure.

Following completion of significant modifications to existing services, the Service Provider shall amend existing 'as built' drawings to accurately reflect the changes to existing services.

The Service Provider shall also:

a) keep all existing operation and maintenance manuals up to date and modify them, as necessary, to reflect the current status of services;
b) provide new CAD drawings to record the 'as built' arrangement for all significant new work.
c) advise the NFSA, in writing, where significant discrepancies between the 'as built' drawings and services are observed;
d) record and notify the NFSA, in writing, of concealed or underground services routes as revealed by inspections or excavations, during delivery of the Services;
e) record service notes and system parameters (e.g. clean filter pressure drops) in a systematic, and accessible manner and include in maintenance reports;
f) provide additional labelling or service instructions on plant, where appropriate;
g) tag equipment to indicate service completion, service faults or special instructions; and
h) keep systematic and comprehensive service logs and records.

4.5.2 Supply of Records

The Service Provider shall supply the NFSA with detailed service maintenance records/reports in a timely manner following the completion of a service maintenance activity.

The Service Provider shall also supply NFSA with an annual record of all Services provided under the Contract. The record shall be in an editable MS Excel or CSV format. It shall be supplied to the NFSA annually, within one month of the anniversary of the contract Commencement Date. A final annual report shall also be provided to the NFSA within 2 weeks following the end of the Contract Term.

4.5.3 Compliance & Statutory Maintenance Records

The Service Provider shall file and catalogue records of compliance with safety regulations, statutory maintenance, and other statutory requirements as part of the *Primary Services*.

Provide one copy to NFSA and maintain a separate, complete register of certificates, approvals and the like including,

- Compliance certificates;
- Trade waste licences and waste management approvals;
- Cooling tower reports, cooling water laboratory test results, and risk assessment;
- Utility and statutory authority approvals;
- Test records and certificates;
- Maintenance records for fire protection and other safety systems; and
- Relevant correspondence, reports etc.

4.5.4 Provision / Updating of Drawings

Preparation of new or amended drawings does not form part of the *Primary Services*.

New or amended drawings may be required as part of *Extended Services* or *Separately Priced Works*.

New drawings prepared in delivering *Extended Services* or *Separately Priced Works* shall be provided to the NFSA in both PDF and unsecured drawing file formats. Acceptable drawing file formats are AutoCAD (.dwg) or TurboCAD (.tcw).

Note that NFSA use TurboCAD for in-house drawings and amendments. To facilitate conversion, AutoCAD drawings shall,

a) be saved in a .dwg file format standardised between 2010 and 2018;
b) have all external references (xrefs) bound into the file; and
c) be as compact as practical (e.g. avoid using more than 20 layers, remove unused blocks, use simplified building backgrounds etc).

Drawings shall be prepared in accordance with industry practice and Australian Standards for drawings and graphic symbols. The Service Provider shall also ensure that external reference files are bound into any record drawing files.

Where instructed by the NFSA, the Service Provider shall provide and mount on site, permanent copies of drawings for work such as:

a) new or modified electrical circuits or switchboard wiring diagrams; and
b) warning or summary operating instructions for plant.

Permanent drawings shall be at least A3 size for complex circuits or schematics. They shall be plastic laminated prints on acid free paper. They shall be wall-mounted in frames or on timber or metal backing sheets adjacent new or modified services. Obsolete instructions or wiring diagrams shall be removed and replaced with up-to-date permanent drawings.

4.5.5 Switchboard Schedules

The Service Provider shall:

a) keep all switchboard schedules up to date;
b) amend schedule cards immediately after modifications or revisions to any switchboard power circuits; and
c) replace cards with new updated cards where the schedules are soiled, heavily amended or untidy.

4.5.6 Plant Coding

A system of plant identification and coding exists at each site. The existing coding system shall be retained and used for all asset registers, plant reports and other service documentation under the contract.

4.5.7 Record Format

All maintenance records shall be kept and stored in electronic file format. The formats shall be standard office formats such as pdf, docx (MS Word), xlsx (Excel) or common database.

Any hardcopy records or service sheets shall be scanned into searchable pdf format for distribution and storage.

Records exported to NFSA shall be in an acceptable, readable format, namely,

a) MS Word (.docx) or Acrobat (.pdf) for documents, programs etc
b) MS Excel or CSV for plant records and spreadsheets;
c) Acrobat (.pdf) plus AutoCAD (.dwg) or TurboCAD (.tcw) for drawings.

4.5.8 Records at Contract Expiration or Termination

Within 30 days of Contract expiration or termination, the contractor must provide the NFSA with all maintenance documents and databases that are not already recorded in the NFSA file server. This shall include the latest Asset Register, latest Maintenance Program, all historical data, service records, reports and associated computer files etc.

4.5.9 Ownership

Ownership of all plant and service documentation, asset registers, maintenance programs, computer files, data, manuals, permanent and record drawings, signage, labelling, instructions and the like shall reside, on creation, with NFSA.

4.6 Coordination Requirements

4.6.1 Service Communications

The Service Provider shall develop and maintain a system of service coordination and communications at all levels throughout the Service regime. This includes providing a formal reporting, and data collection system to support the service delivery.

In addition, the Service Provider shall:

- foster throughout the service network, a culture of advising NFSA staff of impending work, informing them of progress on existing complaints and priority allocations;
- maintain support for NFSA's business activities as a priority; and
- minimise business disruption and dislocation.

The Service Provider shall:

- ensure that the NFSA is kept informed of matters that affect the business operation, have significant cost implications, or involve work health and safety issues;
- report important matters to the NFSA immediately they arise; and
- not rely wholly on formal report mechanisms in the Contract.

4.6.2 Coordination Meetings

Formal meetings with the NFSA and the Service Provider shall be undertaken for service coordination and contract review purposes. The meetings shall be held at the NFSA headquarters in Acton at a regular mutually agreed day and time based on the following meeting intervals:

- Monthly for SE 1 and 2
- Quarterly fort SE 3, 4 and 5

Monthly/quarterly reports must be submitted at least 5 Business Days prior to the scheduled meeting.

A standard agenda for the meeting will depend on the separable components included in individual contracts and would include, but not be limited to, service reporting on,

a) WHS issues;
b) Site attendances for maintenance services;
c) Progress on actions from previous meeting;
d) Premises / Engineering Services / asset status (as applicable);
e) Listing of legislative compliance certifications indicating date due and current status;
f) Service tasks completed / not completed;
g) Housekeeping and cleaning work completed;
h) Person-hours expended in *Primary Services*, *Extended Services* and *Separately Priced Works* (recorded in the separate categories);
i) Breakdowns, callouts, response times and repair times;

j) Progress on repairs and minor works (as applicable);
k) Progress with notifications;
l) Problem reports and assessment;
m) Analysis of faults and failures and avoidance recommendations;
n) Performance indices for assessment of routine maintenance;
o) Issues impacting on energy consumption and energy management;
p) Environmental initiatives adopted, issues or incidents;
q) Full financial report including cashflows/expenditure/savings etc.;
r) Financial assessment and updating of projected annual costs; and
s) Other specific and general items of interest to meeting participants.

The Service Provider shall provide NFSA a routine, monthly/quarterly report covering the above items for review by the NFSA and other non-routine reports as necessary to meet the service requirements specified herein. The routine report and ancillary data shall be presented in a standardised format developed to suit the particular requirements of the NFSA.

The Service Provider will be responsible for minuting all meetings. Minutes shall be a concise, action focused list.

The Service Provider shall provide the reports in electronic file format, preferably MS Word or PDF for minutes of meetings.

4.6.3 Service Defects

Service defects shall be reported at each meeting and reviewed strategically at annual intervals. Recorded defects shall include:

a) Defective or deficient service task or rework.
b) Unacceptable quality outcome or non-conformance.
c) Failure to respond to a callout within the required time limits.
d) Safety breach or inadequate safety precautions.
e) Failure to complete or clean-up after service or repair tasks.
f) Environmental incident or inadequate preventative measures.
g) Unscheduled business interruption causing complaint (within Service Provider's control).
h) Failure to carry out an undertaking given by the NFSA.
i) Failure of a system to consistently meet design perimeters.

4.6.4 Annual Strategic Review

A strategic review meeting with the NFSA shall be scheduled annually. This meeting may follow a routine coordination meeting described in the preceding section. However, it shall have a separate agenda and attendees shall include contractor personnel with appropriate high-level skills to advise on strategic issues. This meeting shall address issues, including:

a) Any overall problems or observed deficiencies from both NFSA and Service Provider perspective and scope for improvement;
b) Other constraints impacting service delivery;
c) Progress on continuous improvement, including performance review;
d) Enhancement of servicing and plant performance;
e) Recommended adjustments to the Maintenance Program;

f) Medium term planning, development issues and the like;
g) Review of compliance with service level standards and performance indicators; and
h) Review of financial issues.

4.6.5 Complaints

Complaints shall be recorded and reviewed at each bi-monthly meeting. Complaints arising from chronic problems or other problems not controllable by the Contractor should be registered but shall not be counted for performance assessment purposes.

4.7 Staffing Requirements

4.7.1 Competence

The Service Provider shall use only appropriately qualified and experienced personnel working within the scope of their qualifications and training to undertake the Services.

Service Provider personnel undertaking trade work, other than handyman services, shall have appropriate trade qualifications.

Work requiring a statutory licence shall be performed only by personnel with a currently valid licence for such work.

Personnel maintaining complex services such as controls / BAS / C-Bus lighting systems or sophisticated plant (e.g. chillers) must have training for the specific equipment and tasks they will be undertaking.

Selection criteria for staff engaged to work on the Premises shall include,

a) Appropriate qualifications, skills accreditations and competencies;
b) Good productivity;
c) Acceptable presentation;
d) Friendly, helpful and efficient approach to service delivery;
e) Maturity and responsibility; and
f) Adaptability, resourcefulness and enthusiasm.

The NFSA reserves the right to reject the continued engagement under the Contract of personnel with poor or unsafe job performance, regardless of notional skills and qualifications.

4.7.2 Staffing Levels & Stability

The level of staffing shall be adequate to meet the requirements of the Contract, including requirements to deliver Services in a timely fashion, in accordance with the schedules and programs.

Where *Extended Services* or *Separately Priced Work* is undertaken under the Contract, the Service Provider shall ensure that staffing is increased to accommodate the additional workload to avoid compromising the delivery of *Primary Services*.

Service Provider Personnel delivering the Services shall not be rotated excessively or in a manner that precludes acquiring familiarity with the Premises and a good working knowledge of service requirements or systems being maintained.

4.7.3 Training

The Service Provider shall provide staff with specialist training as necessary to operate or maintain the building services, building control and automation systems and the specialised tools and equipment. This includes the need for the following specific training, where appropriate to duties:

a) ACT white card WHS induction training for personnel engaged in construction activities or working on construction sites;
b) ACT “Asbestos Awareness: course # 10675NAT;
c) ACT “Working Safely with Asbestos Containing Material” course # 10852NAT (previously known as 10559NAT);
d) Safe working practice for work in confined spaces or at height;
e) Approved methods of lifting and carrying;
f) Operation of specialised tools and machinery;
g) Specific training for servicing complex and high value equipment items;
h) Training for operation or servicing of C-Bus lighting control systems;
i) Training for building automation and monitoring systems;
j) Operational training for other computer monitoring systems;
k) Training for appropriate record keeping; and
l) Occupational first aid.

4.8 Security

The Service Provider must comply with:

a) all directives given by the NFSA in relation to security requirements; and
b) NFSA's security and access policies, which may be changed from time to time.

4.8.1 Police Check

The Service Provider shall ensure that all personnel, including supervisors and sub-contractors, have an Australian Federal Police (AFP) check and clearance before entry to the Premises will be granted. The Service Provider shall provide all necessary details to allow the AFP to complete security assessments without delaying Contract services.

The Service Provider shall ensure that the Project Officer is advised five (5) days in advance of any new personnel commencing on site and shall provide NFSA with a copy of the police check. Failure to obtain clearances may result in denial of entry and other sanctions. If Contract services are thereby delayed or compromised, the Service Provider shall take corrective action in accordance with the NFSA’s instructions.

NFSA reserves the right to deny access to any person based on an unsatisfactory police check, without impacting on the requirements of the Contract.

The cost of obtaining police clearances shall be borne by the Service Provider. Copies of police clearances must be provided to the NFSA within seven (7) days of request.

4.8.2 Australian Government Security Vetting – Security Clearance

In certain circumstances the Service Provider may also be required to obtain and maintain an Australian Government Security Vetting Agency (AGSVA) security clearance prior to being

issued with a security access card or allowed to commence work. The cost of obtaining the AGSVA clearances shall be borne by the Service Provider.

4.9 Materials & Workmanship

4.9.1 Standards

The Service Provider shall ensure that all materials and workmanship comply with the latest relevant Standards and Codes of the Standards Association of Australia.

The Service Provider shall procure copies of Standards and Codes expressly specified in the Contract, for reference in the performance of the Services and make these available at all times to service personnel and the Project Officer.

In carrying out the Services, the Service Provider shall observe all applicable statutory regulations and codes of safe practice and observe all applicable Australian Standards. Note, in particular, standards applicable to storage and use of materials, fire and safety precautions in arc or flame heating, cutting or welding, and microbial control in air and water handling systems.

Materials, accessories, fittings and components required for repair or service works shall be of a uniform type, model and manufacture and shall normally be of identical make and model to existing components.

Where practical, the Service Provider shall avoid using materials, accessories, fittings and components with adverse environmental impacts.

No material containing asbestos fibre shall be incorporated into the works or used on site.

4.9.2 Consumables

The Service Provider shall arrange for procurement, recording, and storage, as applicable, for all consumables necessary for the Services.

Consumables supplied shall be of suitable performance and quality for their intended purpose. Replacement consumables for plant and equipment shall be identical or completely equivalent to items supplied by the original equipment manufacturer. Any alternative consumables shall be approved by the NFSA prior to ordering.

The Service Provider may be requested by the NFSA to provide alternative consumables based on energy efficiency or environmental requirements. Upon such request, the Service Provider will be provided with the opportunity to negotiate a variance to the Annual Fee for the applicable *Primary Services*.

Consumable lubricants, chemical and other materials affecting the performance or service life of components or services shall be as recommended by the component manufacturer. The characteristics and properties of all consumables shall be sufficient to meet any warranty requirements of installed systems or equipment. Water treatment chemicals and biocides for cooling towers shall be suitable to meet performance and statutory requirements.

4.9.3 Refurbishment & Restoration

The Service Provider shall ensure compatibility between existing and new elements when modifying, refurbishing or restoring existing services by:

a) matching adjacent fittings and finishes;

b) preserving, as far as practical, commonality of new and existing components; and

c) making good any deterioration or damage to adjacent components.

New penetrations or mountings need prior approval by the NFSA before implementation.

4.9.4 Tools & Equipment

The Service Provider shall supply all tools, apparatus and instrumentation required for the Services. Tools and apparatus used for maintenance work shall be appropriate for the task and be in good, serviceable condition. Adequate instrumentation shall be provided and used to maintain the quality of servicing, repairs and inspection work.

The building automation systems, permanent gauges and other instruments incorporated in the Premises may be used for testing purposes provided instrument readings are initially calibrated against certified instruments.

Test instruments used for the Contract shall be checked for accuracy by a NATA approved laboratory. The Service Provider shall submit test certificates to the NFSA upon request. The Service Provider shall bear the calibration costs for test instrumentation.

The Service Provider will have access to a building automation system (BAS) terminal under conditions designated by the NFSA.

The Service Provider shall ensure all electrical appliances, tools and electrical cords used in delivering services, are tested and tagged for electrical safety in accordance with AS 3760. When undertaking services, the Service Provider shall use residual current (RCD) protective devices for all tools and appliances that plug into a general power outlet (GPO) unless the outlet is known to have RCD protection.

It shall be the responsibility of the Service Provider to ensure that the personnel using machinery and equipment are qualified to do so and have the necessary experience.

4.9.5 Explosive Powered Tools

Explosive powered tools shall not be used in the execution of the Services, unless specifically authorised by the NFSA. Any approval to use explosive powered tools shall apply only to the particular instance for which approval is sought.

Low velocity plunger type power actuated fastening tools and metal expansion devices may be used for non-structural fixing applications. Structurally important fixings shall be approved by an NPER-3 registered structural engineer. Power driven fixings shall not be used on any post-tensioned structural component.

4.10 Quality Assurance

4.10.1 Quality Assurance System

The Service Provider shall implement an appropriate system for controlling and auditing the delivery of the Services and to verify their quality. The system implemented shall ensure that all work:

a) is undertaken in a timely fashion (in accordance with the Maintenance Program or other applicable Service schedule);
b) accords with best trade practice;
c) conforms to WHS requirements;
d) is authorised, if not part of *Primary Services*;
e) is routinely audited or spot checked; and

f) is appropriately documented and traceable.

The Service Provider may use certified quality assurance (QA) systems or develop a purpose system to meet the requirements above.

The QA system shall be a simple, practical, verification system that meets the requirements herein, and be consistently implemented.

Third party QA certification is not required but is acceptable, if desired by the Service Provider.

5 REQUIREMENTS FOR PRIMARY SERVICES

[*This section of the Specification applies to the delivery of Primary Services for all contracted Service Elements. All costs associated with compliance of these requirements shall be included in the Annual Fee for Primary Services.*]

5.1 General

The *Primary Services* predominantly relate to preventative/planned maintenance, upkeep and cleaning activities associated with the buildings, their Engineering Services and the grounds.

The *Primary Services* include a complete range of preventative/planned inspection, maintenance and upkeep services to ensure that the systems, equipment building elements and grounds are kept in peak condition and that the service work is performed safely and efficiently.

This includes:

a) Delivery of a preventative/planned maintenance services, in accordance with this Specification, statutory and manufacturer requirements;
b) Validation and regular updating of the Asset Register for maintained items for each of the Separable Service Elements;
c) Routine inspection and condition monitoring;
d) Minor Repairs for Service Elements SE1, SE2 and SE3 only;
e) Procurement, recording, and storage for consumables necessary for the *Primary Services*;
f) Maintenance service documentation, recording and reporting; and
g) Management and progressive improvement of the Service delivery.

5.2 Primary Services Benchmarks

For the contracted Service Elements, the benchmarks for acceptable *Primary Services* performance shall include:

a) completing at least 95% of the programmed maintenance for the applicable monthly period, including completion of any residual maintenance items that were outstanding from previous months;
b) responding to any callouts within the specified response time limits; and
c) completing any Minor Repairs within the mutually agreed time limits that fall due in the applicable monthly period.

The Service Provider must:

a) Meet the requirements in (a) – (c) above;

b) Provide documentation verifying performance with the achieving items (a) – (c) above; and
c) Have an audit process in place to assure that service documentation accurately reflects the service work that was physically undertaken.

The Service Provider shall take necessary action to improve service performance, if it fails to meet the benchmarks listed above.

5.3 Key Performance Indicators

The Service Provider shall develop and monitor a series of Key Performance Indicators (KPIs) for each Separable Element to provide objective benchmarks for assessing and reporting on performance of the Services.

The NFSA will approve such performance targets where acceptable and shall use these as a basis for assessment of the Services.

The Key Performance Indicators will be reported to the NFSA on a six-monthly basis.

The following requirements are to be used by the NFSA to determine Key Performance Indicators:

5.3.1 Financial Management

KPI-1: Primary Services invoicing is provided in the correct format and accurate.

KPI-2: Extended Services invoicing is utilising the correct tendered hourly rates and management percentages.

5.3.2 Reactive Maintenance / Maintenance Planning

KPI-3: Average Response Time; (% response time achieved within published targets for various situations).
KPI-4: Average Rectification Time.
KPI-5: Maximum Response Time.
KPI-6: Maximum Rectification Time.

5.3.3 Improvements and Innovations

KPI-7: Improvements and innovations implemented during the previous specified period.
KPI-8: Cost benefit of improvements and innovations implemented during the previous specified period.

5.3.4 Service Delivery

KPI-9: Compliance status measured against mandatory requirements.
KPI-10: 95% of Preventative Maintenance activities completed within 5 days of the scheduled date.

The percentage completion of programmed service tasks shall be reported and reviewed quarterly. Timely completion of service tasks shall be taken a basic requirement of the contract.

More than 5% of programmed service tasks incomplete during a reporting period shall be taken as evidence of deficient performance requiring corrective action. If programmed tasks from one reporting period remain incomplete after the expiry of a further reporting period, the NFSA shall have the discretion to have the incomplete tasks completed independently and at the Service Provider's cost.

5.4 Maintained Systems & Equipment

The applicable systems and equipment to be maintained under the contracted *Primary Services* are listed in this Specification including the Asset Register (Appendix 2).

All relevant infrastructure, systems, plant, equipment and components in the service categories shall be fully maintained as part of the *Primary Services*. The service descriptions and plant listings throughout this Specification are intended to cover the range of maintained components.

5.5 Service Element Maintenance

5.5.1 Maintenance Objectives

The following maintenance objectives shall apply to maintenance services delivered for Engineering Services under the Contract

a) Delivery of cost-effective maintenance within budgetary and time constraints.
b) Maintaining and enhancing the reliability of plant and the utility and presentation of Premises.
c) Maximising the economic service life of plant and other assets.
d) Maximising the energy efficiency of Engineering Services.
e) Avoiding down-time in systems, particularly critical systems.
f) Minimising disruption to building operations or inconvenience to users.
g) Minimising life cycle costs for Engineering Services.
h) Complying with all applicable statutory requirements.
i) Providing a high standard of WHS and environmental management.
j) Implementing and maintaining complete maintenance records, service verification, traceability and quality assurance.

5.5.2 Maintenance Requirement

The Contract requires maintenance of nominated services:

a) in accordance with the prescriptive requirements in this Specification, as a minimum standard;
b) in accordance with statutory and manufacturer requirements; and
c) as necessary to reasonably meet the maintenance objectives outlined in section 5.5.1.

The work listed in maintenance schedules shall be interpreted in the context of requirements set out in this Specification. In particular:

a) Scheduled tasks shall not be interpreted in a narrow, literal sense. Inspections for deterioration, wear, malfunction corrosion etc. shall be integrated with scheduled maintenance activities.
b) Work which is an obvious adjunct to scheduled tasks or which would be part of normal, good trade practice in carrying out tasks shall be taken as included in the task schedule and as part of the maintenance service.
c) Associated systems and sub-systems of the listed plant shall be taken as covered by the service schedules.

5.5.3 Maintenance Strategy

The maintenance strategy applicable under the Contract shall comprise:

a) Updating and enhancement of a detailed Asset Register covering all components requiring the contracted maintenance services;
b) Development, documentation and implementation of a detailed calendar-based Maintenance Program for the contracted Service Elements;
c) Efficient repair and fault correction services for faults, failures and asset damage or deterioration;
d) A comprehensive regime of routine inspections, servicing and appropriate adjustment and remedial work;
e) Maintenance in accordance with statutory or code requirements;
f) Scheduled maintenance against objective performance criteria (e.g. service at designated differential pressure, run-hours, cycles of operation etc.); and
g) Scheduled maintenance at designated time intervals where (f) is not applicable.

5.5.4 Asset Register

As part of the Maintenance Program development, the Service Provider shall conduct site surveys and examination of manuals, drawings and other relevant documentation to update and enhance the existing detailed register of assets requiring maintenance services. Recorded asset information shall include the following, as applicable, for each listed component or plant item:

a) Plant, equipment or asset description;
b) Component Code, where applicable, from As Installed drawings or O&M Manuals;
c) Room number;
d) Make / model;
e) Serial Number;
f) Capacity, rating or other key attribute, as appropriate;
g) Year of installation;
h) Repair, modification or refurbishment, as applicable; and
i) Comments or information of relevance.

The Asset Register shall be updated, enhanced and forwarded for review by the NFSA within twelve (12) weeks of the Contract Commencement Data and, at least, annually thereafter.

5.5.5 Maintenance Program

The Service Provider shall develop a Maintenance Program for the contracted Service Elements. The Maintenance Program shall identify, schedule and assign dates for detailed service tasks to accord with requirements of this Specification. The Maintenance Program shall be completed and provided to the NFSA for review, within eight (8) weeks of the Contract Commencement Date.

The Maintenance Program shall be recurrent, calendar based and shall include all the required maintenance inspections and tasks at the required service intervals. The Maintenance Program shall be sequenced to the maintenance tasks undertaken prior to the Contract Commencement Date so that any change in maintenance providers is as seamless as practical.

The Maintenance Program and service staffing shall be developed for mutual compatibility allowing sufficient free or reserve resources to accommodate performance based and unscheduled service tasks.

Tasks in the Maintenance Program shall be specific, defined tasks and not generalised, ill defined, or unnecessarily aggregated.

Work orders issued under the Maintenance Program shall make it clear to trades personnel what tasks are to be undertaken on what plant items. Work orders shall provide for feedback from the trade personnel. They shall always be returned with confirmation of tasks undertaken, plus comments on plant condition, serviceability, difficulties encountered, or other relevant issues. Feedback and service confirmation shall be recorded as part of the service quality assurance.

Service feedback shall be provided to the NFSA (by email) following the report by the trades personnel or technician and included in the monthly report.

5.5.6 Enhancement Techniques

For Engineering Services maintenance, the Service Provider shall implement reliability centred maintenance (section 5.6.1) and preventative maintenance (section 5.6.2) techniques. These techniques shall be designed and implemented to develop, progressively, a better-targeted and more rational Maintenance Program. The Maintenance Program shall be progressively enhanced using the referenced techniques and experience in actual maintenance delivery. However, the Maintenance Program shall retain its essential character as a defined, calendar-based, inspection and maintenance schedule.

Proposed changes to the Maintenance Program meeting all requirements herein, shall be costed and discussed with the Project Officer and implemented only with the NFSA's written authorisation.

5.5.7 Maintenance Schedules

Maintenance schedules are included in the sections 8 -12 of this specification. The Maintenance Program for each applicable Service Element shall meet the requirements of the applicable schedules.

5.6 Engineering Services Maintenance

5.6.1 Reliability Centred Maintenance

The Service Provider shall use Reliability Centred Maintenance (RCM) techniques to improve and adapt the Maintenance Program for Engineering Services. The adaptations should account for:

a) The importance or criticality of each element or system;
b) The potential for life extension of plant items;
c) The risk of failure associated with that element;
d) The extent to which failure in the element can be predicted; and
e) The usage and condition of the element.

The Service Provider shall apply RCM techniques to progressively improve the Maintenance Program as operational experience at the Premises accumulates. In applying reliability centred techniques, the Service Provider shall ensure that preventative maintenance is not compromised to the detriment of plant life.

The Service Provider shall base reliability centred techniques on the following:

a) Published data for generic plant items;
b) The Service Provider's own historical database for plant, equipment and Engineering Services;
c) NFSA lifecycle plans;
d) Data and experience progressively acquired on site; and
e) Routine inspections and condition assessments.

Where appropriate and approved by the NFSA, the Service Provider shall

a) Increase maintenance and condition monitoring on systems that have high rates of usage, deterioration or failure or need life extension beyond notional limits; and
b) Achieve economies by reducing maintenance in areas where systems are less critical and have proven reliability and durability or lower usage.

5.6.2 Preventative Maintenance

The Service Provider shall provide appropriate preventative maintenance for Engineering Services. The preventative maintenance shall:

a) Maintain a high level of reliability and availability in services;
b) Realise the full potential economic life of the assets or extend plant life where appropriate; and
c) Operate plant and systems at their peak efficiency capability.

Preventative maintenance includes monitoring of components showing signs of wear, impending life expiry and other conditions that could contribute to a failure. The status of such components shall be reviewed at appropriate intervals and recorded as part of the routine review and reporting requirements.

Note that minimisation of life cycle costs for the Premises is a major maintenance objective. In general, the NFSA seek to achieve plant design life, as a minimum. Many plant items at older Premises have been refurbished to successfully extend their life beyond normal expectations.

The Service Provider shall ensure that all preventative maintenance measures necessary to achieve the design life of plant and equipment are provided.

5.6.3 Corrosion Protection

Routine inspection of plant for corrosion and preventative treatment shall form part of the *Primary Services*. The Service Provider shall:

a) Undertake routine inspections of components and systems as part of the normal maintenance regime;
b) Take advantage of service or repair work where components are opened up to also inspect for corrosion sites;
c) Routinely clean salt or dirt deposition from components to prevent corrosion being initiated; and
d) Pay particular attention to leakage at pump and valve seals or glands, external components and the like.

Where corrosion sites are discovered, remove corrosion products back to bare metal and treat with an appropriate anti-corrosion treatment to restore surfaces.; and

Top up and maintain system water treatments as necessary to inhibit corrosion.

5.6.4 Fault & Failure Analysis

The Service Provider shall:

a) Maintain a log of faults, failures and excessive rates of wear.
b) Determine the cause of failure and provide recommendations on the appropriate actions to prevent recurrence of faults or failures.

5.6.5 Monitoring Wear in Moving Parts

When undertaking the *Primary Services* the Service Provider shall:

a) Routinely inspect moving parts for premature or excessive wear;
b) Undertake routine inspections of components and systems as part of the normal maintenance regime taking advantage of other work where components are opened up to also inspect for wear;
c) Routinely inspect all drives for alignment, belt tension, coupling or bearing slop, vibration and the like;
d) Ensure that wearing parts of mechanism are replaced at appropriate intervals to maximise life and minimise life cycle costs in components; and
e) Correct conditions likely to accelerate wear on moving parts.

Where components are found to suffer premature wear, the Service Provider shall provide an engineering analysis to identify and correct the problems leading to the failure condition.

5.7 Operational Monitoring & Energy Management

5.7.1 Operational & Performance Monitoring

The Service Provider shall provide routine and systematic operational and performance monitoring as part of the maintenance regime for Engineering Services.

Service personnel shall be trained to fully understand the systems they are responsible for maintaining. Active monitoring of plant both via Building Automation (BAS) or Management systems, data loggers and by direct observation during service routines shall be promoted.

The Service Provider shall routinely inspect Engineering Services during maintenance procedures and other regular activities so that impaired or inefficient operation is quickly discovered and corrected. The Service provider shall look for issues including, but not limited to:

a) Hunting of valves and dampers;
b) Incorrect damper positions;
c) Simultaneous opening of heating and cooling valves;
d) Loose drive belts;
e) Lighting left on or operating out of schedule;
f) Unusual noise or vibration;
g) Low voltage;
h) Unusual speed readings on variable speed drives;
i) Incorrect gauge or instrument readings;
j) Out-of-limit control conditions;
k) Excessively heated bearings or other components;
l) Water, compressed air, refrigerant and steam leaks; and

m) Excessively frosted refrigerant lines.

The Service Provider's technicians should have ready access to basic diagnostic instruments and gauges for the equipment and systems being maintained.

5.7.2 Quality Assurance System for *Primary Services*

The Service Provider shall implement an appropriate system for assuring that *Primary Services* are completed in accordance with the requirements of this Contract and agreed delivery program.

The Service Delivery Assurance Program must include;

a) A method of allocating maintenance tasks to trades personnel so that allocated resources are adequate for the tasks;
b) A systematic work order and sign-off process for trades personnel;
c) A reliable method of trades personnel reporting the completion of maintenance tasks for individual plant items;
d) An audit and physical (spot) checking regime that confirms maintenance recording is an accurate reflection of service tasks undertaken; and
e) A monthly reconciliation of service work undertaken against scheduled work required, including computation of percentage service completion.

The assurance process above shall have an audit trail that allows identification of specific service tasks, associated plant item, trade personnel and dates for service tasks. Generalised or summary description and protocols are not acceptable.

Outcomes shall be reported to NFSA as part of the contract reporting requirements.

5.7.3 Energy Management Support

The NFSA aims to progressively reduce energy usage and operational costs at the Premises where possible.

The *Primary Services* shall include support services for NFSA's energy management objectives as applicable to the contracted Service Elements. Note that the Service Provider is not required to accept responsibility for energy management or meeting an energy reduction target. However, the operational and maintenance support necessary to maintain data collecting systems and effect a progressive reduction in building energy consumption forms part of the *Primary Services*.

Services to be provided to meet this requirement are as follows:

a) Routine review and usage of energy consumption statistics from the energy metering system as a diagnostic tool to ensure building services are operating as efficiently as practical.
b) Routine surveys and observation of plant and equipment to assess operation and identify any wasteful operation or practices (e.g. unnecessary operation, inappropriate usage, unnecessarily tight control, excessive cycling or hunting, poor calibration, heating fighting cooling, maladjustment etc.)
c) Routine monitoring of services using the facilities of the existing building automation and energy metering systems and by conducting random and targeted inspections and measurement throughout the Premises.
d) Routine tuning of systems for peak operational efficiency.

e) Checking and reconciling normally expected natural gas consumption with metered consumption.
f) Operational assistance with implementation of any specific energy management measures as advised by the NFSA.

6 SERVICE START UP

6.1 Site Accommodation

The Service Provider will not be allocated permanent accommodation at any of the work sites. Some cupboard space and storage space in plant or basement areas can be allocated for support of the maintenance services.

6.2 Service Establishment

The Service Provider shall fully establish the contract Services within twelve (12) weeks of the Contract Commencement Date. The service establishment shall include:

a) Staff allocation;
b) Procurement/transfer of physical resources, tools, spares and consumables to the sites;
c) Development and documentation of service delivery plans;
d) Establishment of hierarchy of personnel / directives / notices / reports etc.
e) Establishment of support and contract management systems;
f) Establishment of communications networks and response protocols;
g) Review and update of the existing Asset Register (section 5.5.4);
h) Development of an asset condition report (section 6.3);
i) Development and documentation of the Maintenance Program and verification that it meets the requirements of this Specification (section 5.5.5).
j) Development of work schedules and protocols aligned with the specification requirements.
k) Analysis of critical spare parts requirements (section 6.5);
l) Development of contract management procedures and protocols;
m) Risk assessment for work health and safety (WHS);
n) Development of a health and safety plan;
o) Development of safe work method statements for high-risk activities;
p) Development of quality assurance procedures and verification plans (sections 4.10 and 5.7.2);
q) Development of environmental management procedures;
r) Initial submission of report formats for assessment by NFSA; and
s) Induction and contract initiation presentation to NFSA.

An establishment planning document covering the planning and program for the above issues must be prepared within four (4) weeks of the Contract Commencement Date. The planning document must be discussed and reviewed with the NFSA and amended, as necessary, for authorisation. It must be authorised by NFSA, before implementation.

6.3 Asset Condition Report

The Service Provider shall complete a condition survey report for all plant and equipment associated with the Services and submit the report to the NFSA within twelve (12) weeks of the Contract Commencement Date.

In conducting the condition survey, the Service Provider shall:

a) validate and update the Asset Register (section 5.5.4);
b) provide a record of the current condition of the systems, sub-systems and major equipment.; and
c) Highlight the need for any unprogrammed maintenance or remedial work.

6.4 WHS Management System

The Service Provider shall demonstrate that it has an appropriate WHS management system and can verify its implementation in practice.

The Service Provider shall prepare a WHS Management Plan for the delivery of the Services which will include the following as a minimum:

a) a risk assessment for the delivery of the Services. The risk assessment requires identification of the hazards associated with the Contract, an assessment of the associated risks and development of appropriate control measures;
b) a Health and Safety Plan outlining the structure and means by which health and safety will be managed by the Service Provider; and
c) Safe work method statements for high-risk activities.

The Service Provider shall undertake routine audits and review the plan to ensure that the WHS Management Plan is kept up to date and that all relevant people are informed of any amendments. The WHS Management Plan should demonstrate the integration of WHS requirements with service delivery procedures, practices and safety management.

The WHS management system and plan shall be submitted to the Project Officer within fourteen (14) days of the Contract Commencement Date and when revised during the term of the Contract.

6.5 Spare Parts Procurement, Storage & Control

The NFSA has an existing stock of spare parts to support the Engineering Services at its Premises. A spare parts listing is available on request from the Project Officer.

The Service Provider shall procure additional spare components as necessary to assist and streamline service operations or avoid extended down-time. These components shall be added to the spare parts stock and listed on the spare parts record.

The Service Provider shall:

a) use a reliability centred maintenance approach to identifying strategic plant spares; and
b) review spares holdings at least annually, based on operational experience.

7 TRANSITION ASSISTANCE

On either the expiration or termination of the Contract, the Service Provider must provide the NFSA and / or the NFSA's new service provider with reasonable assistance to transition to the

new arrangement. Assistance shall include but not be limited to allowing the new service provider to accompany maintenance and service staff in the course of normal maintenance activities during the final month of the Contract.

The Service Provider shall:

a) Allow one full day attendance to provide site familiarisation to the new service provider within the first 4 weeks following the expiration or termination of the Contract; and

b) Allow a further 8 hours for help-desk type assistance via telephone or e-mail for 12 weeks following the expiration or termination of the Contract.

8 HVAC & MECHANICAL MAINTENANCE (SE1)

[*This section of the Specification covers Primary Services, unless otherwise stated. It details the routine maintenance services for Service Element 1 (SE1).*]

8.1 Service Element 1 (SE1)

8.1.1 Scope

Separable Service Element 1 (SE1) of this Contract covers servicing and maintenance of Heating Ventilation and Air Conditioning (HVAC) and some other mechanical services and equipment in the NFSA Premises.

The maintenance work shall include all common service elements as defined in this section, and management of the service delivery in accordance with the Specification.

The *Primary Services* for SE1 include:

a) Routine inspections.
b) Programmed and unprogrammed servicing and maintenance.
c) Minor Repairs (valued up to $6,000 excluding GST. See section 2.11).
d) Callout Service and Notification Service (section 2.16);
e) Housekeeping and cleaning associated with the maintained services.
f) Spare parts procurement, storage and control.
g) Supply of consumables (section 2.15).
h) Service management and planning.
i) Data gathering, record keeping, analysis and assessment.
j) Other items as described in this section of the Specification.

Note, in particular, that the *Primary Services* for SE1 shall include:

a) Maintenance of automatic control and Building Automation Systems (BAS) as section 8.1.2;
b) Maintenance of the special boiler optimising controls at Acton HQ as section 8.1.2;
c) Active condition monitoring as section 8.1.3;
d) Cooling tower maintenance in accordance with section 8.1.4;
e) Water treatment in accordance with section 8.1.5;
f) Control of microbial growth in accordance with section 8.1.6;
g) Participating in the annual coordinated fire mode testing for Acton and Mitchell Premises with the Electrical (SE2) and Fire Protection (SE3) maintenance providers (in August each year).

The maintenance tasks and associated frequencies for the equipment covered by this Service Element are listed in this section.

8.1.2 Automatic Controls & BAS Maintenance

The Service Provider shall engage nominated sub-contractors to maintain:

a) the direct digital control (DDC) systems and computerised building automation systems (BAS) at the Acton HQ, M1, M4, and M5 sites;

b) the existing electronic analogue and digital control systems and their replacement DDC/BAS at Mitchell Nitrate (MN); and

c) the (DDCC Scanview) burner optimising control system for boilers at the Acton HQ.

Nominated sub-contractors shall be as follows:

Site	BAS / Control Systems	Nominated Sub-Contractor
HQ	Johnson Metasys	Benmax Engineering & Maintenance Services Pty Ltd
HQ	DDCC Scanview Burner Control	Saacke Australia Pty Ltd
M1	Siemens Apogee and Desigo	Control & Electric Pty Ltd
M4	Siemens Apogee	Control & Electric Pty Ltd
M5	Reliable Controls	Innovative Electrical Solutions Group
MN	Existing Johnson Modular Analogue Controls and upgrade to Siemens DDC/BAS in 2022.	Control & Electric Pty Ltd

BAS / automatic controls servicing shall be monthly and shall include the maintenance services listed in section 8.6.24. Scanview burner control servicing shall be annually in April or May (prior to the winter heating season). It shall be in accordance with section 8.6.25. Note that BAS systems operate on NFSA corporate networks. All patching and server upgrades need to be coordinated with the NFSA ICT department.

The existing Johnson analogue modular control systems are due to be replaced by July 2022. The servicing for Mitchell Nitrate shall cover the existing Johnson analogue modular control systems up until system replacement. Following replacement, the servicing shall cover the new Siemens DDC and BAS connection. The M1 servicing shall account for the M4 / M1 BAS interconnection.

Maintenance personnel shall have completed certified training on the applicable control / BAS system. They shall have competence with the applicable hardware and software systems, and shall have good observation, analytical and programming skills and an understanding of applicable HVAC and control services.

8.1.3 Active Condition Monitoring

As part of the *Primary Services*, the Service Provider shall undertake active condition monitoring, per the following schedule:

a) Oil analysis for the Acton HQ chiller compressors (annually); and

b) Infra-red thermographic scanning of all mechanical switchboards, distribution boards & control boards and motors over 2 kW rating (annually).

The Service Provider may also provide any other active and non-destructive condition monitoring considered appropriate.

8.1.4 Cooling Tower Maintenance

The Service Provider shall undertake maintenance of cooling tower systems in accordance with the ACT Government's statutory requirements, including:

a) Equipment maintenance;

b) Risk minimisation in operation;
c) Cleaning, decontamination and disinfection;
d) Chemical dosing for control of microorganisms, scaling and corrosion;
e) Water sampling and analysis;
f) Record keeping;
g) Notification of high-risk events (via the Project Officer); and
h) Risk assessment (to be undertaken in year 2024) in accordance with the current *Code of Practice for Cooling Towers Evaporative Condensers and Warm Water Systems* (ACT Department of Health and Community Care).

The Service Provider shall arrange for monthly water analysis of condenser water for Legionella contamination and heterotopic microorganism concentration.

Water analysis shall be undertaken by a NATA accredited laboratory in accordance with AS/NZS 3896. Written reports of results for all testing shall be provided to the Project Officer. Reports shall highlight any public safety concerns. These issues must be brought to the attention of the Project Officer, immediately they become known.

The Service Provider shall meet all recommendations and requirements of the following ACT Government and SAA publications:

ACT Health	Cooling Towers, Evaporative Condensers and Warm Water Storage Systems (Specialised Systems) Code of Practice 2005
AS/NZS 3666.2 – 2011	Air handling and water systems of buildings – Microbial control - Operation and maintenance
AS/NZS 3666.3 - 2011	Air handling and water systems of buildings – Microbial control - Performance-based maintenance of cooling water systems

Note that ACT Government regulations require compliance with the latest published version of AS/NZS 3666.

In event of any changes in relevant codes or regulations, the Service Provider shall notify the Project Officer and arrange for the Maintenance Program to be updated. Contract adjustments for scope changes will be made in accordance with section 2.17 [*Contract Adjustment for Scope Changes*].

8.1.5 Water Treatment

The Service Provide shall engage and pay a specialist, water-treatment sub-contractor to monitor and maintain water treatment in open and closed loop circulating water systems to control corrosion, scaling and the build-up of contaminants.

The Service Provide shall maintain the propylene glycol anti-freeze concentration in the chilled water services as follows:

Premise	Glycol % by Volume	Freezing Temperature
M1 Repository	30%	-12^{0}C
M5 Repository	30%	-12^{0}C

The Service Provide shall:

a) Provide water treatment programs to meet all statutory requirements and maximise the service life of piping and fittings;
b) Use the existing chemical dosing systems for cooling tower systems; and
c) After partial or complete drainage of systems for servicing or cleaning, slug dose open and closed systems to restore the desired concentration of treatment chemicals.

8.1.6 Control of Microbial Growth

The Service Provider shall:

a) Monitor and control microbial growth in water and air handling services; and
b) Ensure that microbial burdens in systems do not give rise to health hazards or adversely affect the performance of systems.

8.2 Maintained Systems

8.2.1 Acton HQ, Mitchell Nitrate & M5

In the above-listed Premises, the HVAC and miscellaneous systems and equipment to be maintained under Service Element 1 comprise:

a) All HVAC services including:
    i. heating, ventilation and air conditioning (HVAC) plant and systems, including the special air handlers, process humidifiers and dehumidifiers;
    ii. refrigeration systems and heat exchangers;
    iii. reticulated services such as chilled water and heating water;
    iv. packaged and split system air conditioners;
    v. cool and cold rooms, including archival stores of cool room construction;
    vi. fume cupboards, exhaust hoods and other ventilation fans and containment devices;
    vii. building fire dampers, smoke dampers, air dampers; and
    viii. refrigerated shipping containers (at MN only).

b) HVAC electrical / control systems and computerised building automation system including.
    i. automatic control systems;
    ii. special DDCC Scanview burner controls (Acton HQ);
    iii. refrigerant gas monitoring (Acton HQ);
    iv. sensors, actuators, control devices and instrumentation;
    v. metering systems;
    vi. networks and controllers;
    vii. BAS servers and workstations;
    viii. electrical power, control and data wiring; and
    ix. mechanical switchboards, distribution boards, control panels and ancillary equipment.

c) Water systems comprising:
    i. Water supplies and condensate drainage for HVAC services;
    ii. feed & expansion tanks and vessels and associated plumbing;

iii. pure water system for ultrasonic humidifiers, including water supply cartridge filters and carbon adsorbers;
iv. space heating water systems;
v. chilled water & propylene glycol coolant reticulation systems.

d) Other systems comprising:
i. sandwich panel cool / cold /freezer room enclosures including door mechanisms and seals;
ii. reticulated compressed air systems;
iii. air compress plant at Acton HQ including filters and dryers;
iv. component and minor systems associated with (a) – (d) above.

8.2.2 Mitchell Annex, M2 & M4

In the above-listed Premises, the HVAC and miscellaneous systems and equipment maintained under Service Element 1 comprise:

Site	Mechanical Systems
a) Mitchell Annex	Split air conditioning unit (2 off, Dispatch Office and Sorting / Assessment Room). Archival store room / 'Vinegar Vault' (1 off) including enclosure, refrigeration plant, dehumidifier, controls electrical etc. Walk-in freezer (1 off), including enclosure and refrigeration plant Cytotoxic drug safety cabinet used for examining contaminated archival material (e.g. by fungal spores).
b) M2 Unit	Split, wall-hung, air-conditioning unit (1 off, Office).
c) M4 Unit	Warehouse ducted split air conditioning units (3 off). Office split wall-hung air conditioning unit Electronic steam humidifiers (2 off). DDC controls & localised Siemens BAS.

Sensors. controls, switchboards, control panels, wiring and condensate drainage systems for (a) – (c) above are included in the systems to be maintained.

8.2.3 Inclusions / Exclusions

The table below indicates specific inclusions and exclusions to clarify the scope of the SE1 maintenance Services under the Contract.

Items Included in the SE 1 *Primary Services:*
Water supplies to HVAC services (e.g. float valves, header / pressurising tanks etc).
Historic, one pipe radiator system for the HQ Gallery building.
Packaged (split & multi-split) air conditioners.
Ventilation containment devices (e.g. fume cupboard, cytotoxic cabinet, hoods).
Pure water system (filters, carbon adsorber, deioniser etc) for ultrasonic humidifiers.

Blowdown tanks /pumps for electronic steam humidifiers (at HQ).
Humidifiers and dehumidifiers.
Condensate drainage systems for HVAC services.
Compressed air plant including all filters dryers and ancillaries.
Café HVAC and exhaust fans.
Annual subscriptions for DDC/BAS software updates
Items Excluded from the SE 1 *Primary Services:*
Drainage systems other than condensate drainage and drain piping that is part of mechanical equipment.
Reduced pressure zone devices (RPZD) for HVAC water supplies.
RO membrane replacement for the pure water system.
Laboratory and process pure water systems.

8.3 Critical Indoor Environments

The Service Provider shall ensure that the HVAC maintenance regime shall routinely monitor and reliably maintain the listed process environmental conditions in the following critical areas:.

8.3.1 Acton HQ

Room or Occupancy Area	Environmental Design Conditions	
Cool Room - Film Services (G.11)	16.0°C ±2.0°	40% RH ± 5%
Cool Room – Cine World (G.53)	16.0°C ±2.0°	40% RH ± 5%
Cool Room A4 (F50)	18.0°C ± 2.0°	50% RH ± 5%
Cool Room A5 (F52)	18.0°C ± 2.0°	50% RH ± 5%
Cool Room 3 A6 (F8)	18.0°C ± 2.0°	50% RH ± 5%
Basement Server (B03)	18°C ± 2.0°C	45% ± 5%
Vault A2 (B78)	18°C ± 2.5°C	50% ± 5%
Vault A3 (B60)	16°C ± 2.5°C	35% ± 5%
Records Management Compactus (B79)	18°C ± 2.5°C	50% ± 5%
Basement Photo Lab (B62)	22°C ± 1°C	50% ± 5%
Digitisation Audio Server Room (G60)	22°C ± 1°C	50% ± 5%
South Gallery (SG1)	21°C ± 1°C	55% ± 5%
ICT Server Room (F.16)	17.0°C ±1.0°	

8.3.2 Mitchell 1

Room or Occupancy Area	Environmental Design Conditions	
Cool Stores 1 – 5	16.0°C ± 2.0°	35% RH ± 5%
Cold Stores 1 – 4	6.0°C ± 2.0°	35% RH ± 5%

Room or Occupancy Area	Environmental Design Conditions	
Document Rooms 1 – 6	18.0°C ± 2.0°	50% RH ± 5%

8.3.3 Mitchell 5

Room or Area	Environmental Design Conditions	
Film Vaults (Nos 1- 2)*	4.0°C ± 2.0°	35% RH ± 5%
Film Vaults (Nos 3-4)*	16.0°C ± 2.0°	35% RH ± 5%
Vault Circulation Areas	18.0°C ± 2.0°	35% RH ± 5%
Server Room	22.0°C ± 2.0°	50% RH ± 5%

*Note: Each vault has the capability to operate at a higher set-point (16°C / 35%RH) to act as staging room when moving items from low temperature to ambient temperature.

8.3.4 Mitchell Nitrate

Room	Environmental Design Conditions	
Nitrate Film Vaults (Nos 1 – 12)	6.0°C ± 2.0°	35% RH ± 5%
Nitrate Store Corridor	14.0°C ± 2.0°	35% RH ± 5%
Refrigerated Shipping Containers	6.0°C ± 2.0°	35% RH ± 5%

8.3.5 Mitchell Annex

Area	Environmental Design Conditions	
Annex Isolation Vault (vinegar vault)	6.0°C ± 1.5°	35% RH ± 5%
Walk-In Freezer Room	-30°C ± 2.0°	-

8.3.6 M4

Area	Environmental Design Conditions	
M4 Warehouse Storage	18.0°C ± 2.0°	50% RH ± 5%

8.4 Regulation or Standard Based Service Schedules

The Service Provider shall meet all requirements of ACT Government Regulations, Australian Standards and Codes of Practice applicable to the services.

The following table applies to the *Primary Services* and lists components or systems that shall be serviced and maintained in accordance with statutory requirements or an applicable Australian Standard. In addition to these requirements, undertake all other specific maintenance measures described herein at the designated intervals.

Item	Interval	Applicable Regulation or Australian Standard
Fire Dampers	As required	AS1682.1&2-2015, AS 1851 – 2012
Fire stopping for HVAC service penetrations	As required	AS4072.1-2005 Rec: 2016, AS 1851 – 2012

Item	Interval	Applicable Regulation or Australian Standard
Fire Shut Down in Air Handling Units	Yearly	AS 1851 – 2012, AS/NZS 1668.1-2015
Cooling Towers	Monthly	ACT Govt Regulations and Code of Practice AS/NZS 3666,1~3 – 2011
Pressure Vessel Inspection	2 Yearly	ACT Government Regulations AS/NZS 3788-2006
Cytotoxic Drug Safety Cabinet	12 Monthly	AS 2252.5:2017

Applicable standards referenced above are as follows:

AS/NZS 1668.1	The use of ventilation and air conditioning in buildings. Part 1: Fire and smoke control in buildings.
AS 1851	Routine servicing of fire protection systems and equipment
AS 1682	Fire, smoke and air dampers
AS 2252.5:2017	Controlled environments, Part 5: Cytotoxic drug safety cabinets (CDSC) - Design, construction, installation, testing and use
AS/NZS 3666	Air handling and water systems of buildings – Microbial control
AS/NZS 3788	Pressure equipment – In-service inspection
AS 4072	Components for the protection of openings in fire-resistant separating elements
ACT Government	Cooling Towers and Warm Water Storage Systems – Code of Practice 2005

8.5 Performance Based Service Schedule

The following table applies to the *Primary Services* and lists components that shall be serviced or replaced based on a measured or observable performance indicator.

Item	Interval	Indicator and Service
Air Filters – Small Packaged & Split Units*	3 monthly	Wash, brush or vacuum cleanable filters as appropriate.
	6 Monthly	Replace disposable filter media.
	3 Yearly	Replace washable filter media (excluding filters on wall hung units, if undamaged).
Air Filters – Fan Coil Units and Air Handlers	3 Monthly	Replace filter media when visibly soiled to limit or air pressure loss reaches 125 Pa. Note replacement date.
	12 Monthly	Replace any media that has accumulated more than 9 months service.
Dosing Chemicals	1 Monthly	Top up chemicals to full level when tank level falls below half full

Item	Interval	Indicator and Service
Anti-freeze	6 Monthly	Top up if coolant freezing point is above specified temperature (See section 8.6.20)

*(e.g. Server Room, Comms Room, Café, Theatrette Bio Box, Residence, MA, M2 and M4)

8.6 Time Based Service Schedules

8.6.1 General

The following tables apply to the *Primary Services* and list service tasks and components that shall be serviced or replaced at prescribed time intervals.

Where the service schedules require repair or remedial work to maintain plant serviceability, reliability or prevent premature deterioration, this work shall be undertaken as either Minor Repairs (*Primary Services*) or Major Repairs (*Extended Services*). Typical Minor Repairs will include replacing damaged bearings, replacing worn drive belts or seals, tightening or replacing fasteners, clearing blockages, sealing leaks, welding cracks, treatment to correct localised corrosion or damaged paintwork etc.

Without limiting obligation under the Contract, the Service Provider shall report the need for any Major Repairs (e.g. major overhaul or replacement) after completing inspections under the *Primary Services*.

8.6.2 Critical HVAC Plant

Reference to "Critical HVAC plant", in the following schedules is, a reference to plant, systems or equipment serving:

a) Collection archival (i.e. temperature and humidity controlled) storage spaces as listed in section 8.3;
b) Exhibition galleries (at HQ); and
c) Arc Cinema and Theatrette (at HQ).

8.6.3 Plant Areas – Housekeeping & Cleaning

Item	Interval	Service
Plant Areas	6 Monthly	Inspect each plant area and remove all rubbish, waste material, cobwebs, swarf, dust etc. Sweep & vacuum plant rooms (particularly areas that draw in unfiltered outside air). Vacuum & wipe accessible plant casings and surfaces. Clean dirt, oil and grease from accessible surfaces. If dirt or stains remain, clean via a suitable method (eg with a sponge or cloth lightly moistened with detergent solution or suitable solvent). Clear and clean around drains and other area susceptible to contamination. Arrange for inspection by the Project Officer.

Note: Observe appropriate safety precautions for cleaning operations. Cleaned areas must be inspected by the Project Officer. Advise the Project Officer after cleaning works are completed, so that an inspection can be arranged.

8.6.4 Non-Critical HVAC Plant

Item	Interval	Service
Air Handler & Fan Coil Supply Fans, Ventilation (Supply or Exhaust) Fans	6 Monthly	Inspect for dirt build up, damage, loose fittings, vibration, and wear. Clean, repair as necessary. Check that fans are running correctly and airflow is not abnormally restricted.
Fume Exhaust Fans	6 Monthly	Inspect for dirt build up, damage, loose fitting, vibration, and wear. Clean, repair as necessary. Assess for corrosion and report. Remove minor corrosion and repair coatings.
Air Filter Banks	3 Monthly	Clean and inspect for deterioration. Repair framing as necessary. Clean / replace media in accordance with section 7.4.
Belt Drives	3 Monthly	Inspect for damage, wear, loosening, or misalignment. Correct faults.
	12 Monthly	Clean, align and adjust belt tension.
	3 Yearly	Replace belts as matched set.
Bearings	6 Monthly	Inspect for excess heating, noise, and wear. Replace if defective.
	12 Monthly	Lubricate non sealed-for-life bearings.
Drive Motors	12 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Repair as necessary. Check insulation resistance. Infra-red scan for hot spots and repair if necessary.
Heating/Cooling Coils	12 Monthly	Vent coils to remove any air. Check coils for restrictions. Comb damaged fins.
	3 Yearly	Steam clean coils in air handlers.
Dampers/Actuators	6 Monthly	Check for adjustment, freedom of movement, and linkage wear. Check operation of actuators.
	12 Monthly	Brush or vacuum accessible damper blades to clear dirt build-up.
Valves/Actuators	6 Monthly	Clean strainers. Check for valve leakage or other deterioration. Check that control valves are operating correctly and not seized or hunting.
	12 Monthly	Check & record balancing valve setting. Lock any valves that are unlocked.
Condensate/Rain water drainage	6 Monthly	Check drip trays & drainage are unblocked. Clear dirt/detritus from drip trays & drains. Pressure flush with clean water. Clean/disinfect drip trays.

Item	Interval	Service
Air Handler & Fan Coil Casings	12 Monthly	Check for leakage. Reseal as required Check/repair fittings, access panels and seals. Check housing light globes. Replace as necessary.
	3 Yearly	Wash down exterior of casings with moist sponge and detergent. Dry off and touch up damaged paintwork.

8.6.5 Critical HVAC Plant

Item	Interval	Service
Air Handler & Fan Coil Supply Fans, Ventilation (Supply or Exhaust) Fans	3 Monthly	Inspect for dirt build up, damage, loose fittings, vibration, and wear. Clean, repair as necessary. Check that fans are running correctly and airflow is not abnormally restricted.
Fume Exhaust Fans	6 Monthly	Inspect for dirt build up, damage, loose fitting, vibration, and wear. Clean, repair as necessary. Assess for corrosion and report. Remove minor corrosion and repair coatings.
Air Filter Banks	3 Monthly	Clean and inspect for deterioration. Repair framing as necessary. Clean / replace media in accordance with section 7.4.
Belt Drives	3 Monthly	Inspect for damage, wear, loosening, or misalignment. Correct faults. Clean, align and adjust belt tension.
	12 Monthly	Replace belts as matched set
Bearings	3 Monthly	Inspect for excess heating, noise, wear. Replace if defective.
	12 Monthly	Lubricate non sealed bearings.
Drive Motors	3 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Repair as necessary.
	12 Monthly	Check insulation resistance. Infra-red scan for hot spots and repair if necessary.
Heating/Cooling Coils	12 Monthly	Check coils for restrictions. Comb damaged fins.
	3 Yearly	Vent coils to remove any air. Steam clean accessible coils in air handlers.
Dampers/Actuators	3 Monthly	Check for adjustment, freedom of movement, and linkage wear. Check operation of actuators.
	12 Monthly	Remove any obstructions. Brush accessible damper blades to clear dirt build-up. Check that dampers shut tight where this is part of their operating range.

Item	Interval	Service
Valves/Actuators	3 Monthly	Clean strainers. Check for valve leakage or other deterioration. Check that control valves are operating correctly and not seized or hunting.
	12 Monthly	Check & record balancing valve setting. Lock any balancing valves that are unlocked.
Condensate/Rain Water Drainage	3 Monthly	Check drip trays & drainage are unblocked. Clear dirt/detritus from drip trays & drains.
	6 Monthly	Pressure flush with clean water. Clean/disinfect drip trays.
Air Handler & Fan Coil Casings	12 Monthly	Check for leakage. Reseal as required. Check/repair fittings, access panels and seals. Check housing light globes. Replace as necessary.
	3 Yearly	Wash down exterior of casings with moist sponge and detergent. Dry off and touch up damaged paintwork.

8.6.6 Packaged Unitary & Split Air Conditioning Units

Item	Interval	Service
General	6 Monthly	Inspect for dirt build up, damage, loose fittings, vibration, and wear. Clean, repair as necessary. Check operation. Ensure unit is not short-cycling. Repair, adjust controls as necessary. Check drain line clear. Clean and flush as necessary.
	12 Monthly	Lubricate in accordance with the manufacturer's recommendation. Check that current draws for fans and compressors are normal. Correct any defects or deficiencies observed.
Refrigerant circuit	6 Monthly	Check sight glass for moisture indication or bubbles. Correct any defects revealed. Find/repair refrigerant leaks if refrigerant loss is occurring. Check crankcase heater operation.
	12 Monthly	Check refrigerant pressures are normal. Correct any faults observed.
Casing	6 Monthly	Check for corrosion. Cut back and re-coat any corrosion sites.
Air Filter Banks	3 Monthly	Clean and inspect for deterioration. Repair framing as necessary. Clean / replace media in accordance with section 8.5.
Fan/Motor	6 Monthly	Check high/med/low speed operation and repair as necessary.

Item	Interval	Service
	12 Monthly	Check insulation resistance.
Cooling & Condenser Coils and fittings	6 Monthly	Check for dirt build-up. Clean as necessary. Check for leakage. Seal any leaks. Clean and disinfect drip trays and flush drains.
Variable Refrigerant Flow Systems	6 Monthly	Check variable refrigerant flow system operation and service in accordance with manufacturer's special requirements.

8.6.7 Electronic Steam Humidifiers

Item	Interval	Service
Humidifiers	3 Monthly	Inspect and test operate. Check humidifier service and alarm logs and diagnose any faults. Correct any faults revealed. Check water circuit and clear blockages. Check for malfunctioning or deteriorated internal components or deteriorated hoses. Refurbish as necessary. Check the maintenance run timer and estimate when the next cleaning / descaling will be needed. Report logged faults or maintenance issues to the Project Officer. Clear the service log of faults or maintenance issues that have been resolved,
Cleaning / descaling for all resistance element humidifiers	At 1600 run-hours & 6 Monthly max	On the initial service visit (only), set the humidifier nominal maintenance interval for 2000 run-hours between successive cleaning /descaling. (Note: Set nominal maintenance interval above actual service interval to prevent humidifier shutdown if service is delayed). Note and record on the service sheet the humidifier run-hours since last cleaning and descaling. Clean and descale all parts that contact water. Remove and dismantle the boiler, as necessary. Empty spalled scaling from the boiler vessel. Clean and descale the heating elements, filter collector, liner and boiler casing. Chemically descale heater elements. Fit a new boiler gasket. Reassemble, recommission and test operate. Reset the maintenance run-hour counter to zero. All maintenance procedures shall be in accordance with the manufacturer's user manual.
Humidifier drain pump or valve	6 Monthly	Clean and check operation. Check for blockage or leakage. Correct problems or refurbish as required.

Item	Interval	Service
Replaceable Electrode Cylinders	On Demand & 12 Monthly max	Change electrode cylinder when indicated by the alarm warning system.

Notes:

1) In-service electronic steam humidifiers at the Acton HQ are recently installed, Carel heaterSteam, resistance element type. A small number of older replaceable, electrode cylinder type steam humidifiers remain at Acton HQ and M4. The electrode steam humidifiers at HQ are decommissioned. Two electrode steam humidifiers remain in service at M4.
2) Observe and record the rate of individual dehumidifier scaling over time. Where approved by the Project Officer, apply reliability centred maintenance techniques to adjust and optimise the services interval.

8.6.8 Ultrasonic Humidifiers

Item	Interval	Service
Humidifier	3 Monthly	Visually inspect and test operate. Check water tank interior, mist outlet and electrical parts. Check for malfunction, leaks or deterioration. Correct and advise Project Officer of any problems.
	12 Monthly	Flush and carefully clean with soft cloth and cleaning brush*.
Control Panel	3 Monthly	Check that controls are functioning correctly.
	12 Monthly	Clean control panel.

*Note: The ultrasonic transducer is a very delicate part. When the water tank interior is cleaned, special care must be taken to ensure the transducer is not scratched.

8.6.9 Evaporative Pad Humidifiers

Item	Interval	Service
Operational Checks	3 Monthly	Observe operation, check the following and correct any faults. The pump and fan are operating. Water in the tank is clean. The face of the evaporative pad is saturated with water with no dry spots. The bleed is operating. Relative humidity control is satisfactory. Check and fix any water leaks.
	2 Yearly	Check that the drain valve opens (after 48 hr delay) on shut down by temporarily isolating demand signal and bridging out the delay timer. Check that the drain valve shuts when the humidifier is re-energised.

Item	Interval	Service
Cleaning	3 Monthly	Drain water tank and clean using an anti-bacterial agent such as a cooling tower wash. Flush and drain after cleaning. Clean the fan blades and casing externally. Remove any scale deposits.
Celdek Pads	12 Monthly	Remove Celdek pad (Note orientation for reassembly, particularly direction of airflow and which surface is top of pad). Wash pad with clean water and dry. Do not use chemical cleaning agents. Replace any pads with heavy mineral deposits (white scale) remaining after cleaning.
	2 Yearly	Replace any Celdek pad, with 2-years of service. Note, when replacing pads, that Celdek pads must have a water distribution pad glued to the top.
Controls & Electrical	6 Monthly	Check that unit operates correctly and maintains correct relative humidity. Inspect electrical & control components for distress or dirt accumulation. Adjust, clean or repair as necessary.

8.6.10 Desiccant Wheel & Portable Dehumidifiers

Item	Interval	Service
Process & Reactivation Filter	3 Monthly	Inspect & clean filter housing. Replace filter if necessary.
	6 Monthly	Replace filter with new cell.
Housing	3 Monthly	Inspect and check for deterioration or physical damage. Clean / repair as necessary.
	6 Monthly	Check duct connections for air leakage. Repair as necessary. Clean internally and externally.
Process & Reactivation Fans	3 Monthly	Inspect and check for overheating, vibration, deterioration or physical damage. Clean / repair as necessary.
	6 Monthly	Remove all dirt and dust from motor cooling air intakes. Clean motor and housing. Check electrical connections for tightness or deterioration. Tighten/repair as necessary.
Desiccant Wheel & Drive	3 Monthly	Inspect and check rotor drive belt and tension. Tension or replace as necessary. Check rotor seals for damage or wear. Adjust or repair as necessary. Check rotor for clogging. Vacuum any dust accumulated on front of rotor. Inspect drive motor for overheating, wear or loose connections. Repair as necessary.

Item	Interval	Service
Reactivation Heater	3 Monthly	Inspect and check heater for operation, safety and dirt accumulation. Check electrical connections for tightness and overheating. Clean or repair as necessary
Controls & Electrical	3 Monthly	Check that unit maintains correct dewpoint or relative humidity. Inspect electrical & control components for distress or dirt accumulation. Adjust, clean or repair as necessary.
Portable Dehumidifier	6 Monthly	Inspect & clean. Replace filter, as required Test operate, check for condensate. Advise the Project Office if unit unfit for service.

8.6.11 Ductwork & Air Distribution Components

Item	Interval	Service
Rigid Ductwork	12 Monthly	Inspect for contamination, air leaks, rattling or deterioration in conjunction with other service operations. Clean, repair as necessary. Inspect wet areas (eg adjacent humidifiers, coils, external etc.) for leakage, corrosion or bacterial evidence. Repair, seal, clean, or disinfect as appropriate.
Fresh Air and Return Air Ducts and Risers	12 Monthly	Inspect for contamination and clean as required. Clean internally to remove all lint and dust contamination.
Kitchen Hood Exhaust Ductwork	12 Monthly	Remove grease build-up and clean ductwork internally in conjunction with kitchen hood cleaning.
Flexible Ductwork	12 Monthly	Inspect for fraying, detachment or deterioration in conjunction with other service operations. Repair or replace as necessary.
Diffusers	12 Monthly	Check for loose components or rattling. Repair and re-balance as necessary.
	3 Yearly	Check for soiling. If soiling is noticeable, clean by brushing with a soft vacuum brush. Wash with detergent if soiling remains.
Exhaust and Return Air Grilles	12 Monthly	Clean off adherent dust by brushing with a soft, vacuum brush. If visible soiling remains, wash with moist sponge or soft cloth. Use detergent to remove stubborn deposits. Check for loose components or rattling. Repair as necessary.

Item	Interval	Service
VAV boxes & diffusers	12 Monthly	Check temperature adjacent VAV diffuser thermal element or sensor. Artificially heat / cool thermal element or room temperature sensor and observe the correct operation of damper elements. Adjust, repair or replace as required.
Fire & Smoke Dampers	12 Monthly	Inspect, check test and service in accordance with AS 1851-2012, Table 13.4.1.4 and associated notes. Inspect min. 20% of dampers each year so that all fire & smoke dampers are inspected over a five-year period. Where a significant number of dampers fail (>10%), inspect all dampers within the Premises over the next year. Check fire stopping and mounting for defects. Repair damper, mounting, stopping, as required. Tag inspected dampers with year of inspection. Record inspection location and testing details in accordance with AS 1851-2012.

8.6.12 Cool / Cold Rooms

(Includes applicable items for Cool/Cold Sandwich Panel Archival Stores)

Item	Interval	Service
Sandwich Panel Casings	3 Monthly	Check and clear icing from cold rooms. Clear/Clean door viewing panels.
	12 Monthly	Inspect for leakage, displaced or deteriorated sealant or fitting damage. Repair as necessary. Examine freezer rooms for ice build up / bulging in panels. Check for and eliminate condensation. Clean light fittings internally and service as necessary.
Doors	12 Monthly	Check door mechanisms and door seals. Check provisions for emergency egress. Adjust, repair as necessary.
Forced Draft Coolers	6 Monthly	Check coil, casing and fans for damage, deterioration and vibration. Repair damage or deterioration. Clean coils. Clean, disinfect and flush condensate drainage. Inspect for dirt build up, damage, loose fitting, vibration, and wear. Clean, repair as necessary.
Fan Coil Units and Air Handlers	3 Monthly	As section 8.6.5 [*Critical HVAC Plant*]
Air Filter Banks	3 Monthly	Clean and inspect for deterioration. Repair framing as necessary. Clean / replace media in accordance with section 8.5.

Item	Interval	Service
Condensing Unit	6 Monthly	Inspect/check operation. Check oil level. Top up if required. Find source of loss. Check for refrigerant loss. If observed, find/repair leaks.
	12 Monthly	Clean condensing coil.
Belt Drives	3 Monthly	Inspect for damage, wear, misalignment. Correct faults.
	12 Monthly	Clean, align and adjust belt tension. Replace belts as matched set.
Bearings	3 Monthly	Inspect for excess heating, noise, wear. Replace if defective.
	12 Monthly	Lubricate non sealed bearings.
Drive Motors	12 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Repair as necessary. Check insulation resistance Infra-red scan for hot spots. Repair as necessary.
Electrical	12 Monthly	Check operation of trace heating elements for floors and door frames. Correct any defects. Remove accumulated condensation, dry and seal electrical junction boxes.

8.6.13 Pure Water System (for Ultrasonic Humidifier)

Item	Interval	Service
Cartridge Water Filters	As Required	Replace filter cartridges with the correct replacement cartridge if the RO pump trips on low inlet pressure.
	Monthly	Inspect cartridge filters for deterioration, leakage or excess pressure loss. Repair & replace filter cartridges with the correct replacement cartridge as required.
Activated Carbon Adsorber	3 Monthly	Draw off water sample and check for the presence of chlorine. If chlorine present, recharge the adsorber with new activated carbon Note: the normal chlorine residual in potable water will damage the RO membrane.
Reverse Osmosis (RO) Unit	Monthly	Observe the unit operation through at least one cycle. Observe gauges and drain water flows to confirm correct operation. Measure and check that product-water conductivity remains within the limits recommended by the ultrasonic humidifier manufacturer. Inspect unit and piping for deterioration, leakage or excess pressure loss. Adjust or repair as required. Advise the Project Officer if the RO membrane cartridge needs replacing.*

Item	Interval	Service
Deioniser	3 Monthly	Inspect deioniser for deterioration, leakage or excess pressure loss. Measure and check that product-water conductivity remains within the limits recommended by the ultrasonic humidifier manufacturer. Check whether deioniser resins are exhausted. Repair or replace components as required. Remove exhausted deioniser resins, exchange for regenerated resins and refill.
	12 Monthly	Exchange deioniser resins and refill with regenerated resins if resins have more than 6 months service.
Conductivity Monitor	6 Monthly	Check that the RO controller reads the correct product water conductivity and the alarm system is operating correctly. Calibrate / repair as required.

* If the RO membrane needs to be replaced, it will be treated as *Extended Services*. Other consumables (filters, activated carbon, deioniser resins / cartridge) for the pure water system will form part of the *Primary Services*).

8.6.14 Distribution & Circulating Pumps

Item	Interval	Service
Pump casings, base frames & isolators	12 Monthly	Inspect for dirt build up, damage, loose fitting, vibration, and wear. Clean, repair or realign as necessary. Check pump glands or mechanical seals for excess leakage. Tighten or repack glands and replace seals as necessary. Clean gland chamber and flush gland drains. Remove corrosion and touch up paintwork.
Flexible connectors	12 Monthly	Check for sponginess or deterioration. Replace if suspect.
Drive Motors	12 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Repair as necessary. Check insulation resistance. Infra-red scan for hot spots and repair as necessary.
Bearings	12 Monthly	Inspect for excess heating, noise, wear. Replace if defective. Lubricate non sealed bearings.
Strainers	12 Monthly	Remove strainer baskets. Clean and replace.

8.6.15 Fume Cupboard

Item	Interval	Service
Cupboard	6 Monthly	Test operate and check. Check fan speed control. Repair any observed defects. Check service valves and drainage for leaks and deterioration. Repair if leaky or defective. Clean bases, remove any corrosion and staining and buff surface. Clean sash. Check for smooth travel. Adjust or repair as necessary. Remove baffles and clean interior surfaces with sponge and detergent. Use rubber gloves and any necessary protection from contaminants. Touch up damaged protective coating. Replace baffles.
Controls	12 Monthly	Test operate fume cupboards and confirm correct sequencing and interlocks. Check control sequence is in accordance with AS/NZS 2243.8. Repair or correct any defects as required.
Exhaust Fans		See schedules for *HVAC Plant*
Annual Certification	12 Monthly	Carry out face velocity test in accordance with AS/NZS 2243.8 (Appendix B). Record and advise the Project Officer of test results. Correct and retest if any deficiencies are revealed. Fit test certificate to fume cupboard after successful test.

8.6.16 Cytotoxic Drug Safety Cabinet

Note: This safety cabinet is located at the Mitchell Annex (MA) and is used for opening / cleaning items contaminated by fungal spores. It is not used for cytotoxic drugs.

Item	Interval	Service
Safety Cabinet	6 Monthly	Test operate the unit and check that it is operating normally. Correct any problems observed.
	12 Monthly	Test the cabinet in accordance with AS 2252.5:2017 for a) filter integrity; b) inward air velocity; c) air velocity and uniformity in work zone; d) containment at the aperture; e) work zone Integrity; and f) alarm system function. Testing shall be by a competent, specialist test provider. Advise the Project Officer of any deficiencies identified by testing. Fit a test certificate to verify successful testing.

Item	Interval	Service
	As Required 4 Yearly max	Safely remove and dispose of HEPA filters in accordance with the procedure of AS 2252.5:2017. Fit new HEPA filters, test as above and verify correct performance.

8.6.17 Condensate Drainage Services

Item	Interval	Service
Condensate Drainage	3 Monthly	Visually inspect for blockage, condensation, deterioration or leakage. Clear, insulate or repair as necessary. Flush with dilute disinfectant solution. Clean holding trays or tanks.
Steam Humidifier Blow Down Tanks	3 Monthly	Visually inspect for blockage, contamination, deterioration or leakage. Check that seals and vent filter are operating correctly. Clear, clean or repair as necessary. Add disinfectant to stored water.
	12 Monthly	Replace vent filter.
Condensate & Blowdown Pumps	3 Monthly	Visually inspect and check operation. Clear or repair as necessary.

8.6.18 Compressed Air Plant

Item	Interval	Service
Compressor	Monthly	Check for oil leaks, damage, air/water leakage, loose fittings, excess vibration. Repair as necessary. Check belt drive. Correct any defects. Check cooling system. Correct any defects. Blow down aftercooler. Check lead/lag setup
	12 Monthly	Replace drive belt. Replace oil and oil filter (if fitted). Clean aftercooler heat exchangers. Check cylinder head bolts. Tighten as necessary.
Fan & bearing	12 Monthly	Clean and regrease.
	3 Yearly	Replace dust and tip seal.
Pressure Vessels	Monthly	Blow down vessel. Check safety valve operation.

Item	Interval	Service
Pressure Vessel Inspection	2 Yearly	Arrange for ACT Government statutory pressure vessel inspection (if required). Open up vessels for inspection and checking by the pressure vessel inspector. Do not clean initially. Clean after the pressure vessel inspector has assessed deposits and allow the inspector to assess the clean vessels. Correct any defects or deficiencies advised by the inspector. Record details of tests and any remedial action.
Suction filters	3 Monthly	Visually check filter element. Clean or replace as necessary.
	6 Monthly	Replace filter element.
Compressed air main supply filters	3 Monthly	Visually check filter element. Clean or replace as necessary.
	6 Monthly	Replace filter elements.
Compressed air terminal filters	6 Monthly	Purge any moisture from filter casing via drain valve. Visually check filter element. Clean or replace as necessary.
	12 Monthly	Replace filter elements.
Belt Drives	3 Monthly	Inspect for damage, wear, misalignment. Correct faults.
	12 Monthly	Clean, align and adjust belt tension. Replace belts as matched set.
Drive Motors	12 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Check insulation resistance. Infra-red scan and check for overheating. Repair as necessary.
Packaged controls	1 Monthly	Observe whether controls are cycling normally. Correct any observed defects.
	12 Monthly	Systematically check all sensors (pressure temperature). Check safety and operational control hardware and operation.
Refrigerant Dryer	3 Monthly	Check dew point on indicator. Check that auto drains are working correctly. Adjust / repair as necessary. Brush or clean condenser with compressed air jet.

Item	Interval	Service
	12 Monthly	Check for refrigerant leakage. Repair / top up as necessary. Check refrigerant suction pressure is between 2°C and 4°C. Check compressor temperature (Suction return line should be 10°C-20°C) Check setting of solenoid drain valve as per manufacturer's instructions. Renew pneumatic valve diaphragms if cracked or punctured. Check electrical circuit. Tighten connections. Adjust or repair as necessary.
Reticulation & Regulators	As required	Seal/repair leakage on demand.
	12 Monthly	Check / calibrate regulators and system pressures.

8.6.19 Gas Fired Heating Water Boilers

Item	Interval	Service
Boiler	Monthly	Check for correct operation, absence of leakage, or high temperatures
	12 Monthly	Open boiler and inspect/clean in accordance with manufacturer's requirements. Check condition of safety valves and fittings. Correct any defects.
Burner	Monthly	Check the Scanview burner control displays and step through display function to assess whether operation is normal and optimised. Correct any abnormalities observed.
	12 Monthly	Check complete burner operation and inspect for vibration, looseness or wear. Clean, check and adjust photocell as required. Check insulation resistance of motor. Infra-red scan for hot spots. Repair as necessary.
Gas service	12 Monthly	Check gas pressure under max. load.
Flue	12 Monthly	Inspect for deterioration or loose fasteners. Correct as required. Undertake flue gas analysis and check combustion efficiency. Adjust or correct as required. Check flue for corrosion. Advise the Project Officer of any problems.

Item	Interval	Service
Gas Metering	3 Monthly	Monitor and log gas consumption at the meter and correlate with seasonal boiler usage. Investigate and advise the Project Officer of anomalies in gas consumption. [Note: There have been anomalies in gas metering and charges that NFSA would like to have assessed by longer term monitoring and observation.]
Feed / Expansion Tank	12 Monthly	Inspect and check for leakage, overflow, deterioration or any other malfunction. Test operate and check the float valve.

8.6.20 Chiller Plants

Item	Interval	Service
Compressors (General)	Monthly	Check oil level. Top up, if necessary, with manufacturer approved compressor oil identical to existing. Check for excessive foaming of oil. Correct if necessary as per manufacturer's maintenance manual. Check oil pressure. Report any deficiency to the Project Officer.
	12 Monthly	Remove oil sample and send for oil analysis. Report results / problems to the Project Officer. Change the compressor oil if required by the analysis results. Check insulation resistance of motor windings. Report problems to the Project Officer.
Screw Compressors (Acton HQ)	6 Monthly	Replace the 5 µm oil line filter at the oil separator outlet.
General inspection	3 Monthly	Inspect for damage, water or oil leakage, loose fittings, excess vibration, deterioration. Check the water connections for leakage. Repair as necessary. Check leaving water temperature and observe operation over a sufficient time for the staging pattern to be checked. Report any abnormalities to the Project Officer. Check the unit operating parameters and compare them with previous values. Inspect for corrosion sites. Cut-back and re-coat any areas where corrosion is observed.
Controls / Electrical	Monthly	Check the control displays and step through display function to assess whether operation is normal and optimised. Check the alarm list and resolve any issues arising from these. Check the leaving water temperature and observe whether the control is stable. Correct any abnormalities observed.

Item	Interval	Service
	12 Monthly	Check and. Where necessary, tightens the power circuit electrical connections. Check the presence and the condition of the electrical protection devices. Check the correct operation of all heaters Remove the dust and clean the interior of control panels. Check all safety limit settings. Adjust any settings that are incorrect.
	3 Yearly	Replace fuses
Refrigerant circuits	1 Monthly	Check refrigerant sight-glasses for moisture or bubbles. Correct any deficiencies revealed. Top up refrigerant as necessary. Check for refrigerant leakage. If observed, find leaks and repair. Check refrigeration compressors for damage, loose fittings, unusual vibration or noise. Investigate and correct any defects. Report any suspected problems to the Project Officer. Check that suction, discharge and oil pressures are normal. Investigate and correct any defects.
	12 Monthly	Check TX valve superheat settings and adjust as necessary.
	3 Yearly	Replace filter/drier elements.
Condensers	12 Monthly	Mechanically de-scale water cooled condensers during winter season. Replace gaskets and seals with new components on all disturbed joints. Blow out contamination from finned air-cooled condensers with compressed air and comb any distorted fins.
Anti-freeze (M1 & M5)	6 Monthly	Take sample from coolant system and freeze. Check temperature as sample thaws. If freezing point above –9°C, top up with propylene glycol to restore to 30% glycol concentration (freezing point -12°C).
Refrigerant Gas Monitor (Acton HQ)	3 Monthly	Check monitor is operating correctly. Examine inbuilt alarm / fault logs & diagnostics to assess instrument performance and gas leakage status. Note gas concentration readings and assess whether there is change from normal status. Investigate any rising gas concentration or instrument malfunction and advise the Project Office.

Item	Interval	Service
	12 Monthly	Examine the end-of-line and inline filters inside the device enclosure for dirt and particulate build up. If the inline filters become severely clogged with particles or moisture, the flow rate for the device will decrease and eventually cause a flow fault. Replace dirty filters when necessary to prevent flow restriction. Note replacement date. Replace all filters after 2-years in service.
Feed / Expansion Tank	12 Monthly	Inspect and check for leakage, overflow, deterioration or other malfunction. Check circuit pressure for pressure tanks and verify there is an airspace in tanks (by ringing). Test operate and check the float valve in gravity tanks.

8.6.21 Cooling Towers

Item	Interval	Service
Tower Assemblies	3 Monthly	Inspect for damage, water leakage, loose fittings, excess vibration. Repair as necessary. Check entire system and components for corrosion. Touch up protective coatings. Report serious corrosion to the Contract Administrator. Check water levels in basins. Report problems to the Contract Administrator. Do not rebalance without authorisation. Check bleeds and drains. Adjust if required.
Tower Cleaning	3 Monthly	See *Regulation or Service Based Service Schedule*. (See Note 1).
Microbiological Water Analysis	1 Monthly	See *Regulation or Service Based Service Schedule*. Arrange for water analysis for Legionella contamination and heterotopic microorganism concentration by a NATA accredited laboratory. Immediately notify and highlight any high-risk event to the Contract Administrator. Report routine results in monthly report. Add test result to historical record.
Fans	3 Monthly	Clean dirt from blades, inspect for damage, loose fittings, excess vibration. Repair as necessary. Grease bearings. Clean off excess lubricant.
Drive Motors	12 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Repair as necessary. Check insulation resistance. Infra-red scan for overheating. Repair as necessary.
Water Treatment	1 Monthly	Top up chemicals on demand (See *Performance Based Service Schedule*) Check for obstructions to dosing lines. Clear if necessary.

Item	Interval	Service
	3 Monthly	Check dosing pumps and controls for correct operation. Test water for correct treatment. Adjust / repair as necessary.
Condenser Water System flush	12 Monthly	Temporarily decommission chiller plant in low load period and by prior arrangement with the Contract Administrator. Drain and flush condenser water system. Refill and slug dose system. Recommission & check chiller plant operation.
Risk Assessment	In 2024	Undertake a Cooling Tower risk assessment in accordance with the ACT Government requirements.

[Note 1: All cooling tower chemicals shall be supplied by the Contractor as part of the *Primary Services*. Refer section 2.15 [*Consumables*].

Note 2: Ensure any pressure washer for tower cleaning delivers not greater than 400kPa (higher pressure can break away fill material). After cleaning run condenser pumps for 10 minutes, then stop pumps and clean strainers.]

8.6.22 Refrigerated Shipping Containers

Item	Interval	Service
Container	3 Monthly	Inspect container interior and exterior for damage, deterioration, condensation, corrosion or other problems. Check internal conditions in container. Correct, treat or repair as required.
Air Filters	3 Monthly	Inspect and service as per section 8.5
Refrigeration plant	3 Monthly	Inspect and service as per section 8.6.5.
Desiccant Wheel Dehumidifier	3 Monthly	Inspect and service as per section 8.6.10.

Note: The refrigerated shipping containers at M1 are currently decommissioned and do not require routine maintenance. Three refrigerated shipping containers at MN are in service and require routine maintenance as tabulated above. The MN shipping containers provide critical archival storage for nitrate film.

8.6.23 HVAC/Mech Switchboards, DBs & Electrical Components

Item	Interval	Service
HVAC / Mech Switchboards & Distribution Boards	6 Monthly	Remove any swarf or rubbish, vacuum interiors and clean cabinets. Inspect for deterioration or distressed components. Check for signs of burnt contacts and hot connections or components. Check insulation for deterioration. Clean, tighten, replace or repair as required. Check all breakers & fuses are of correct rating. Examine panel seals. Rectify as necessary. Check and replace defective indicator lights. Repair damaged labelling. Check that any circuit modifications are properly labelled and recorded. Audit and update circuit cards. Replace deteriorated circuit cards.
	12 Monthly	Infra-red scan for overheated components. Check busbars and re-tension if overheated. Correct other defects causing high temperatures.
Electric Resistance Heaters	12 Monthly	Check insulation resistance and earthing of elements. Check for loose insulation, obstructions or debris in heater elements. Infra-red scan for overheated components. Check connectors and re-tension connections or replace if overheated. Check safety controls by fault simulation. Rectify any defects revealed by inspection and testing.

8.6.24 Automatic Control & Building Automation Systems

Item	Interval	Service
Sensors and Transmitters	6 Monthly	Critical systems only. Check that sensors are unobstructed and undamaged. Check zero reading on DP sensors. Check sensors reading against calibrated instrumentation. If consistency is outside the sensor manufacturer's accuracy limit, recalibrate sensors or insert calibration offsets in controllers. Adjust as necessary. Repair or replace any defective sensors.
	12 Monthly	Non critical systems – as above.
CO_2 Detectors	12 Monthly	Calibrate with test gas or other valid method. Check operation and correct any defects.
Digital and analogue I/Os	6 Monthly	Critical systems only. Review / inspect / test. Rectify any defects.
	12 Monthly	Non critical systems – as above.

Item	Interval	Service
DDC & Network Controllers	Monthly	Search network for failed devices and investigate, as required.
	12 Monthly	Maintain field control panels free of dust and other contamination. Check connections, voltage & condition. Back-up current firmware and control software.
Power Supplies	6 Monthly	Critical systems only. Check voltage / temperature. Rectify any defects.
	12 Monthly	Non critical systems – as above.
Control Valves	6 Monthly	Critical systems only. Perform progressively so that each device is checked once per 6 monthly intervals. Check physical condition of valves and actuators. Clean any deposits from valve stems. Repair any defects observed. Check valve operation for hunting or heating/cooling conflicts. Adjust or tune as required. Check control valves for correct operation and stroke
	12 Monthly	Non critical systems – as above.
Dampers & Actuators	6 Monthly	Critical systems only. Perform progressively so that each device is checked once per 6 monthly intervals. Check physical condition of dampers and actuators. Repair any defects observed. Check damper motors for correct operation and stroke. Check operation. Adjust or tune as required.
	12 Monthly	Non critical systems – as above.
Variable speed drive controllers	12 Monthly	Check operation. Trend log differential pressures to confirm correct performance. etc. Inspect and check controllers for correct operation and absence of defects. Check cooling fan operation with unit energised. Check for vibration, excessive noise, burning odour. Check for loose terminals, circuit damage or evidence of overheating; Clean dust from circuits, heat sinks and fans.
	5 Yearly	Adjust or repair as required. Replace unit cooling fans.

Item	Interval	Service
Building automation system (BAS)	Monthly	Check network communications via diagnostic software Check field controller integrity. Review firmware revisions, and database size. Install any release updates and undertake other routine housekeeping. Check and clear alarms as necessary. Investigate the source of the alarms with a view to keeping the alarm count to a minimum and eliminating spurious alarms. Check alarm setup and confirm call-out personnel with the Project Officer. Check network / system time & date to ensure synchronization is occurring correctly. Check and update programmed time schedules including daylight savings and public holidays. Archive obsolete data and trend logs. Inspect current trend logs and set up new trend logs for continuing systematic plant observation. Report any observed anomalies or shortcomings to the Project Officer. Set up and routinely inspect BAS trend logs to assess if plant is operating optimally, or its operation can be improved. Set up and review any trend logs requested by the Project Officer Monitor trend-data on critical control loops and perform loop tuning, as required Conduct checks on any suspect systems and further random checks on systems on a cyclical basis so that the bulk of systems will be checked in detail at least once every year. Check for any unauthorised access to, or modifications of, BAS settings and web accounts. Contact and coordinate with the Project Officer to resolve any problems observed over the service period.
	12 Monthly	Validate graphic data progressively at monthly inspections so that all data is reviewed and validated over 12-month period. Back-up current BAS software and maintain current on and off-site back-up copies.
Servers & Work Station	Monthly	Search network for failed devices and investigate, as required. Undertake any plant graphic amendments needed or requested by the Project Officer.
Air Handling Plant – critical	6 Monthly	Observe operational cycle for each control system. Check for maintenance of control parameters and absence of hunting, heating/cooling conflicts etc. Correct any defects observed.

Item	Interval	Service
Air Handling Plant – non-critical	12 Monthly	As above.
Refrigeration Plant (Archive Stores & Freezer Room)	6 Monthly	Observe operational cycle for each control system. Check for maintenance of control parameters and absence of hunting, short cycling etc. Correct any defects observed.
Ventilation Fans	12 Monthly	Check for correct fan status on BAS graphic displays. Repair or correct any defects as required.
Chiller, Boiler and Cooling Tower Plant	6 Monthly	Observe a complete operational cycle of loading and unloading for each plant unit. Observe the operation of auxiliary systems such as circulating pumps etc. Report any abnormalities to the Project Officer. Check for correct sequence interchange (Acton & M1 only). Remove any swarf or rubbish from unit mounted control panels and clean cabinets. Inspect for deterioration or distressed control/electrical components. Check for signs of burnt contacts and hot connections or components. Check insulation for deterioration. Clean, tighten, replace or repair as required.
Air Compressor Plant	12 Monthly	Observe a complete operational cycle of loading and unloading for each compressor. Report any abnormalities to the Project Officer. Remove any swarf or rubbish from the plant control cubicle and clean the cabinet. Inspect for deterioration or distressed control/electrical components. Check for signs of burnt contacts and hot connections or components. Check insulation for deterioration. Clean, tighten, replace or repair as required.

8.6.25 Boiler Burner Controller

Item	Interval	Service
Scanview Burner Controller	12 Monthly	Carry out, at minimum, a one-day annual inspection service and testing in accordance with the Scanview manufacturer's requirements. Remove any swarf or rubbish and clean the control cabinet and touchscreen. Check that touchscreen is fully functional. Inspect for and replace any deterioration or distressed components. Check terminal connections and tighten, replace or repair as required. Check all fuses and replace as necessary. Check and verify correct gas pressure. Examine fault logs and diagnose / correct any problems. Step through all screen displays and determine if system set up and function is correct. Check the engineer's values parameter listing and determine if the settings are fault free and optimal. Advise the Project Officer before making any set-up or parameter changes. Check and calibrate the oxygen probe and other sensors. Carry out standard test routines and correct any defects or deficiencies observed. Check and observe the burner start-up, operational and shutdown sequences for correct and optimal control. Check sensor reading are within desired limits. Check control characteristics are stable and accurate. Make adjustments as necessary. Provide the Project Officer with a written report and certification of the burner control efficiency and safety.

9 ELECTRICAL INFRASTRUCTURE MAINTENANCE (SE2)

[*This section of the Specification covers Primary Services, unless otherwise stated. It details the routine maintenance services for Service Element 2 (SE2).*]

9.1 Service Element 2 (SE2)

9.1.1 Scope

Separable Service Element 2 (SE2) of this Contract covers servicing and maintenance of all Electrical Services, excluding those supporting HVAC plant as described in section 8.

The maintenance work shall include all common elements as defined in this section. The *Primary Services* include:

a) Routine inspections, including walk through inspections for all Premises;
b) Servicing and maintenance;
c) Minor Repairs (up to $6,000 excluding GST - section 2.11);
d) Callout Service and Notification Service (section 2.16);
e) Housekeeping and cleaning associated with the maintained services;
f) Routine back-up for computerised systems;
g) Supply of consumables (section 2.15);
h) Spare parts procurement, storage and control;
i) Service management and planning, including data gathering, analysis and assessment; and
j) Other items as described in this section of the Specification.

Note, in particular, that the Service shall include:

a) Weekly walk-through inspections as section 9.1.2;
b) Special condition monitoring as section 9.1.3;
c) Luminaire Lamp Replacement Service in accordance with section 9.1.4;
d) Electrical equipment safety checking in accordance with section 9.1.7 (in July each year);
e) Maintained and emergency lighting testing in accordance with section 9.4.4 (in March & September each year);
f) Fire stopping and removal of redundant cabling (section 9.1.8);
g) Year 1 audit of the C-Bus lighting control systems (section 9.1.9);
h) Year 1 audit of the power and data services at all NFSA Premises (section 9.1.10);
i) Participating in the annual coordinated fire mode testing for Acton and Mitchell Premises with the HVAC (SE3) and Fire Protection (SE5) maintenance providers (in August each year).

9.1.2 Walk Through Inspection

Walk through inspections of Premises shall be undertaken weekly on rotation across Acton & Mitchell Premises as follows:

Week 1 Acton;

Week 2 Mitchell; and repeat for following fortnights.

9.1.3 Special Condition Monitoring

As part of the maintenance service provide active condition monitoring as scheduled following:

a) Annual infra-red thermographic scanning of electrical boards, power factor correction cubicle, UPS units and (non HVAC) motors over 2 kW rating.

9.1.4 Luminaire Lamp Replacement Service

Provide a complete lamp replacement service to maintain lighting levels in accordance with Australian Standards or agreed benchmarks throughout the interior and exterior of the Premises.

The Service Provider shall within twelve (12) weeks of the Contract Commencement Date:

a) Conduct a comprehensive survey of lighting illumination levels throughout the Premises.
b) Measure the illumination levels at night when there is no contribution from daylight.
c) Determine a representative location for each measurement and record this location so that subsequent measurements will provide meaningful data, when the illumination level changes.
d) Establish a computer database of Premises lighting illumination levels and measurement locations to form a benchmark for assessment purposes.
e) Advise the Project Officer of any part of the Premises which has deficient lighting. The Project Officer will either accept an alternative benchmark or arrange for such areas to be upgraded to the required standard after which the lighting illumination levels shall be remeasured.
f) Establish lighting benchmarks in consultation with the Project Officer.

[Note: Existing data on Premises illumination levels will be provided to the Service Provider to assist with the above survey. The existing data has been professionally prepared. However, NFSA cannot warrant the data for accuracy or fitness for purpose.]

The Service Provider shall assess lighting as part of the weekly walk-through inspections (section 9.1.2). The Service Provider shall take illumination measurements, such that all areas of the Premises are assessed at least annually.

The Service Provider shall supply NFSA with an annual lux level report.

Re-lamp fittings as necessary, including:

a) When lighting levels fall below the accepted benchmarks or required illumination levels or maintenance limits prescribed by AS 1680 *Interior Lighting*;
b) When lights malfunction or fail; and
c) When globes or tubes show significant defects such as dimming, dark spots, flickering, noise, vibration, overheating etc.

Remeasure lighting illumination levels and update the computer database whenever any extensive relamping, replacement or modification of lighting occurs.

When relamping, the Service Provider shall ensure that the replacement lamp is the same light colour temperature as the other lamps in the space/room.

Note that the cost for ad hoc replacement of defective lamps and light fittings shall be incorporated in the Annual Fee for SE2 *Primary Services*. Each lamp or fitting repair / replacement will be assessed individually and will normally be a Minor Repair below $3,000, exclusive of GST.

If the lamp replacement is a consequence of the 6-monthly emergency lighting tests, the cost for the repair or replacement of multiple faulty emergency lights may be aggregated for all tests at that service interval, to determine if a Minor or Major Repair is applicable. See section 2.13 [*Repair Value Assessment*].

9.1.5 Replacement Lamps

When replacing lamps, consider whether more energy efficient or better performing lamps are available.

In general, replace incandescent or compact fluorescent lamps with equivalent LED lamps. Review the type of modern tubes available and select, as appropriate, when re-tubing fluorescent luminaires. Use best quality electronic ballasts when replacing ballasts.

Note that there may be some situations (e.g. in Galleries) where like-for-like replacement is desirable for aesthetic or presentation reasons.

9.1.6 Battery Replacement

The *Primary Services* shall include the replacement of all failed or exhausted batteries except for gel or lead-acid batteries incorporated in UPS units of over 5 kVA rating.

9.1.7 Electrical Equipment Safety Checking

9.1.7.1 Testing & tagging

The Service Provider shall carry out electrical safety checks on general power outlets (GPOs) and all plug-in electrical equipment to meet the requirements of AS/NZS 3760: 2010 (As amended), *In-service safety inspection and testing of electrical equipment*.

Safety checks shall be carried out by a licensed electrician or person certified as competent to undertake the testing.

Before checking equipment, provide the applicable area or section manager with at least one-week notice and arrange for appliances, equipment or instruments to be shut down and isolated for testing. Ensure that only low risk, non-destructive methods are used for testing. If there is doubt about damage occurring to particular equipment or instruments in testing, then do not proceed with the testing of that component.

Equipment identified as faulty and/or requiring repair shall be appropriately labelled (warning against further use) and removed from service.

Inform the NFSA of any electrical hazards, or faulty equipment, identified by testing.

Tag all electrical equipment that passes inspection and testing, with soft tags indicating the name of the approved person and the date by which the appliance is due for further inspection and test. Fit tags to power cords for equipment.

9.1.7.2 Appliances & equipment

Check all on-site electrical equipment, tools and appliances that plug into a GPO. Typical examples of equipment to be tested include:

a) Refrigerators, microwaves, dishwashers;
b) Toasters, sandwich makers, coffee pots, kettles;
c) Document appliances such as photocopiers, shredders, paper drills, electric staplers, laminators;
d) Scanners, faxes, televisions, video players, electronic whiteboards, computers;

e) Extension cords, outlet boxes, power tools and instruments.

All plug-in devices owned or leased by NFSA at the Premises shall be tested. Invite NFSA staff to submit, for testing, any personal plug-in items that they use routinely at the Premises. Test and tag all such items.

9.1.7.3 Premises for electrical testing & tagging

The electrical testing and tagging program shall cover all NFSA ACT Premises as listed in section 2.3 of this Specification.

9.1.7.4 Timing, quantity & frequency

Tag and testing shall be undertaken in July each year. The Service Provider shall examine the testing and tagging records and continue the existing test and tagging regime to maintain compliance with AS 3760. Repeat checking and testing at the intervals prescribed in the standard.

It is anticipated that each year, the Service provider will be required to tag and test approximately 3,000 items at Acton HQ and 220 items at the Mitchell sites. A summary of the items that underwent test and tagging in 2021 is included as a separate tab in Appendix 2 Asset Register as a general indication of the annual requirements.

9.1.8 Fire Stopping & Removal of Redundant Cabling

As part of routine service and inspection work, undertake inspections to assess whether any cabling is redundant. Generally, remove redundant cabling. Leave draw-wires in conduit, where appropriate.

Observe as part of normal service work, any deficiencies in sealing or fire stopping round cable penetrations. Make good any defects observed.

Note that the use of expanding foam products for fire sealant is prohibited.

9.1.9 C-Bus Audit

The Service Provider shall, in the first year of the Contract, undertake an audit of the C-Bus lighting control systems at the Acton HQ. The audit objective is to update the records and identify any existing defects or deficiencies in the lighting control systems.

The audit shall,

a) Identify and list all C-bus assets;
b) Update equipment descriptions and locations in the C-Bus database;
c) Update or provide new description of operation for O&M Manuals;
d) Check whether all equipment is operational and in sound condition;
e) Check that programming is suitable and optimised for purpose;
f) Functionally check the operation of all circuits, timers and light fittings; and
g) Advise the NFSA of defects or deficiencies;

Where authorised by the NFSA,

a) correct any problems as part of the audit; and
b) update record drawings.

Authorised corrective work items (a) and (b) resulting from the audit, will be treated as *Extended Services*.

9.1.10 Power & Data Audit

The Service Provider shall, in the first year of the Contract, undertake an audit of the power and data services at all NFSA Premises. The audit objective is to update records and identify any existing defects or deficiencies in the systems.

The audit shall,

a) Identify and list all power and data assets;
b) Check whether all services are operational and in sound condition;
c) Advise the NFSA of residual defects or deficiencies.

Where authorised by the NFSA,

a) Update switchboard and distribution circuit cards (these need to be standardised across all sites as they are in different formats – deliver old cards to the Project Officer for record purposes);
b) Update record drawings including accurate power / data outlet locations (these drawing are CAD files – many outlets need to be confirmed as the drawings are outdated);
c) Update or provide new description of operation for O&M Manuals, as necessary;
d) Correct any problems as part of the audit.

Authorised corrective work items (a) – (d) resulting from the audit, will be treated as *Extended Services*.

9.2 Maintained Systems

9.2.1 Coverage

Service Element 2 (SE2) shall provide services for all NFSA Premises in the ACT.

Note that NFSA is a low voltage customer at all ACT premises. As such, the electrical infrastructure up to the consumer mains is maintained by the supply utility.

9.2.2 Acton HQ, M1, M5 & MN

For the purposes of this Contract the major components of the Electrical Services Infrastructure to be maintained at the above Premises shall include:

a) Consumer mains and building main switchboard;
b) Power factor correction systems;
c) Uninterruptible Power Supply (UPS) systems;
d) Electrical distribution boards (excluding HVAC & mechanical switchboards & control panels);
e) Sub-mains, distribution circuits and other associated wiring;
f) Protective equipment including fuses, breakers and Residual Current Devices (RCDs);
g) Internal and external lighting and associated wiring and switching (including lift car lighting);
h) Maintained, emergency & exit lighting;
i) Dimmer and lighting control systems (e.g. C-Bus, timer systems);
j) General Power Outlets (GPOs) and hard wiring to non HVAC equipment;
k) Electrical components of automatic and motorised doors;
l) Non HVAC electric motors and ancillaries; and

m) Lightning protection.

Maintenance of specialised lighting control systems in the HQ Exhibition spaces, Arc Cinema and Theatrette are excluded from SE2 *Primary Services*.

9.2.3 MA, M2 & M4

For the purposes of this Contract the components of the Electrical Services Infrastructure to be maintained at the above Premises shall include:

a) Tenant power infrastructure including power distribution, protective equipment and RCDs;
b) All internal & external lighting for the tenancies;
c) Maintained, emergency and exit lighting for the tenancies.

9.2.4 Excluded Systems

The following items are maintained under separate service agreements. They do not form part of this Contract.

a) Hydraulic lifts.
b) Telecommunications and Information Technology services.
c) Security systems.

9.3 Regulation or Standard Based Maintenance Schedule

The Service Provider shall ensure that the Services are carried out in accordance with all requirements of Australian Standards and Codes of Practice applicable to the services.

The following table lists statutory requirements or an applicable Australian Standard that shall be taken as setting a minimum standard to which specific components or systems shall be serviced and maintained.

In addition to these requirements undertake all other specific maintenance measures described herein at the designated intervals.

Item	Interval	Applicable Australian Standard
Emergency & Exit Lighting	As reqd.	AS 2293 – Part-2 – 2018
GPOs, RCDs and Electrical Equipment Safety Checks	As reqd.	AS 3760 – 2010

Applicable standards referenced above are as follows:

AS 2293	*Emergency evacuation lighting for buildings*
AS 3760	*In service safety inspection and testing of electrical equipment*

In occupied areas, testing of emergency and exit lighting shall be undertaken outside the main business periods. Testing in the windows 6am - 9am and after 6pm weekdays will normally be acceptable, as will testing on weekends by prior arrangement with the Project Officer.

9.4 Time Based Maintenance Schedules

The maintenance tasks and associated frequencies as they relate to SE2 are provided in the tables following.

9.4.1 Switchboards, Distribution Boards & Electrical Components

Item	Interval	Service
Main and Sub Distribution Boards	12 Monthly	Remove any swarf or rubbish, vacuum interiors and clean cabinets internally and externally. Inspect for deterioration or distressed components. Check for signs of burnt contacts and hot connections or components. Check for any buzzing contactors or breakers. Check insulation for deterioration. Clean, tighten, replace or repair as required. Check and replace defective indicator lights. Check all fuses and circuit breakers are of correct rating. Square up misaligned breakers and tighten any loose terminations. Examine panel seals. Rectify as necessary. Repair damaged labelling. Check that any circuit modifications are properly labelled and recorded. Audit and update circuit cards. Replace deteriorated circuit cards. Infra-red scan for overheated components. Check busbars and re-tension if overheated. Correct other defects causing high temperatures.
Electric Resistance Heaters	12 Monthly	Check insulation resistance. Repair any defects. Infra-red scan for overheated components. Check connectors and re-tension or replace if overheated. Check safety controls by fault simulation. Rectify any defects.
Non-HVAC Electric Motors	12 Monthly	Check electrical connections and operation. Infra-red scan motors over 2 kW for overheated components. Correct any defects observed.
Residual current devices	12 Monthly	Test and verify correct operation of residual current protective devices. Check that they isolate power instantaneously. Replace any defective or suspect devices.

9.4.2 Power Factor Correction Systems

Item	Interval	Service
Power Factor Correction Cubicles	3 Monthly	Check display instrumentation for correct operation. Record power factor and other instrumentation readings. Check panel ventilation fan and ventilation openings. Clear or rectify as necessary.

Item	Interval	Service
	6 Monthly	Remove any swarf or rubbish, vacuum interiors and clean cabinets internally and externally. Inspect for deterioration or distressed components. Check for loose bolts, fasteners or terminations. Check for signs of burning and hot connections or components. Check insulation for deterioration. Check capacitors for signs of leakage or distress. Clean, tighten, replace or repair as required. Check and replace defective instrumentation. Repair damaged labelling.
	12 Monthly	Infra-red scan for overheated components. Check busbars and re-tension if overheated. Correct other defects causing high temperatures. Check capacitor currents with clip-on ammeter. If output differs from nameplate, check and correct any age deterioration, voltage malfunction or undesirable harmonics.

Note: Any shutdowns required shall be undertaken during hours of low load.

9.4.3 Uninterruptible Power Supply (UPS) Systems

Item	Interval	Service
UPS Display & Electronics	3 Monthly	Verify the UPS is operating correctly by reviewing input voltage & current, output voltage & current, output frequency, battery voltage and current, faults, history & other relevant information. Check environmental conditions are satisfactory (ie heat, dust, clutter, humidity etc). Advise the Project Officer of any observed deficiencies.
Batteries	3 Monthly	Visually inspect batteries for any sign of malfunction or distress.
	6 Monthly	Test and record open cell battery voltage. Apply test load, check and record voltage drop. Recharge cells where the battery voltage readings is less than 70% of nominal volts under test load and retest. Advise the Project Officer of needed battery replacement where a cell fails on retest, as above.
UPS System	3 Monthly	Check operation of ventilation fans. (Note: Fan operation is remote monitored for the 40 kVa UPS).

Item	Interval	Service
	12 Monthly	Vacuum and blow out dust and debris. Replace air filters. Visually inspect internal components, cables, circuit boards etc for any signs of overheating, damage, looseness or other problems. Closely inspect capacitors and check capacitance if there are issues of concern. Infra-red scan for overheated components. Check terminals and re-tension if overheated. Correct any defects observed.

Any required UPS shutdowns require NFSA prior approval (see *Contractor Protocols*).

9.4.4 Lighting

Item	Interval	Service
Lamp Inspection	Weekly	Routinely check for faulty lamps throughout the Premises as part of walk-through inspections (section 9.1.2).
	Monthly	Progressively measure illumination levels in all interior and exterior areas over a yearly interval. Check illumination levels against benchmarks. Re-lamp as indicated in the section 9.1.4 [*Luminaire Lamp Replacement Service*]
Maintained and Emergency exit lighting	AS2293 (6 Monthly maximum)	Statutory tests to AS 2293 part 2. Re-lamp as required. Repair, correct defects as required. Replace deteriorated or defective batteries to maintain system reliability. See section 9.3 [*Regulation or Standard Based Maintenance Schedule*].
Maintained and Emergency spot lighting	AS2293 (6 Monthly maximum)	Statutory tests to AS 2293 part 2. Re-lamp as required. Repair, correct defects as required. Replace deteriorated or defective batteries to maintain system reliability. See section 9.3 [*Regulation or Standard Based Maintenance Schedule*].
Lighting control systems	3 Monthly	Physically inspect dimmers and controllers for damage or other physical problems such as overheating. Correct any defects observed. Check PE cell operation of external lights by blanking detectors. Test operate switches and controllers. Check / inspect for correct operation. Correct any defects observed. Check that lights on C-bus timers and timer switches operate correctly. Check instrumentation and indicators. Repair or replace defective items.

Item	Interval	Service
	12 Monthly	Review and optimise the programming for C-bus systems and recheck all adjustment. Review functional arrangement and make any necessary recommendations to the Project Officer

9.4.5 Lightning Protection Systems

Item	Interval	Service
Lightning Conductors	12 Monthly	Inspect and test for loose connections and conductor deterioration or damage. Repair as required. Measure earth impedance in accordance with AS/NZS 1768 (Int)-2003 (Appendix C). Report the results to the Project Officer. Advise of earth systems with high impedance readings.

10 FIRE PROTECTION MAINTENANCE (SE3)

[*This section of the Specification covers Primary Services, unless otherwise stated. It details the routine maintenance services for Service Element 3 (SE3).*]

10.1 Service Element 3 (SE3)

10.1.1 Scope

Separable Service Element 3 (SE3) of this Contract covers alarm monitoring, servicing and maintenance of the fire detection and protection services at NFSA ACT Premises. The *Primary Services* include:

a) Routine inspection and testing;
b) Servicing and maintenance;
c) Minor Repairs (valued up to $6,000 excluding GST - section 2.11);
d) Callout Service and Notification Service (section 2.16);
e) Housekeeping and cleaning associated with the maintained services;
f) Routine back-up for microprocessor-based systems;
g) Supply of consumables (section 2.15);
h) Spare parts procurement, storage and control; and
i) Service management and planning including data gathering, analysis and assessment; and
j) Other items as described in this section of the Specification.

In addition to the above, the service shall include:

a) Battery replacement as section 10.1.2;
b) Managing, arranging and executing annual coordinated fire mode testing for Acton and Mitchell Premises with the HVAC (SE3) and Electrical (SE4) maintenance providers per section 10.5 (in August each year).
c) Fire alarm monitoring as section 10.6.
d) Documentation and records as per section 10.7.

10.1.2 Battery Replacement

The *Primary Services* shall include the 2-yearly changeout of all batteries associated with fire protection systems.

10.2 Maintained Systems

The fire protection services at NFSA Premises are shown in the following table. Premises are designated by shorthand references (as section 2.3 *Premises*) in the table header. The marking 'X' indicates that the listed service or equipment is fitted to the site and included in the scope of maintenance.

NFSA Premise	HQ	MA	M1	M2	M4	M5	MN
Fire Indicator Panel (FIP)	X	X	X	X	X	X	X
Emergency Warning Intercommunication Systems (EWIS)	X	X	X		X		
Sound System for Emergency Purposes (SSEP)						X	
Warden Intercom Points (WIP)	X						
Very Early Smoke Detection Apparatus (VESDA)			X			X	
Fire detection & alarm systems	X	X	X	X	X	X	X
Fire and smoke doors	X		X				X
Fire sprinkler systems	X				X		X
Hydrants / Boosters	X						X
Hose reels	X	X	X	X	X	X	
Fire extinguishers	X	X	X	X	X	X	X
Fire blankets	X	X	X	X	X	X	X
Smoke control systems - interface controls and monitoring*	X		X			X	
Fire Alarm Interface to Security System	X	X	X	X	X	X	X

* For air handler shutdown on Fire Alarm

10.3 Regulation or Standard Based Maintenance Schedule

The Service Provider shall meet all requirements of Australian Standards and Codes of Practice applicable to the Services.

The following table lists statutory requirements or an applicable Australian Standard that shall be taken as setting a minimum standard to which specific components or systems shall be serviced and maintained. In addition to these requirements, the Service Provider shall undertake all other specific maintenance measures described herein at the designated intervals.

Item	Interval	Applicable Regulation or Australian Standard
Fire Detection & Alarm Systems	Per Standard	AS 1670.1, AS 7240, AS 1851-2012
Fire Sprinkler System	Per Standard	AS 2118.1, AS 1851-2012
VESDA System	Per Standard	AS 1670.1, AS 1851-2012 & manufacturer's requirements

Item	Interval	Applicable Regulation or Australian Standard
EWIS, SSEP Early Warning Systems Intercom Systems	Per Standard	AS 2220.1&2-1989, AS 1670.1 2004 /2015, AS 1851-2012
Fire Extinguishers	Per Standard	AS 2444-2001, AS 1851-2012
Fire blankets	Per Standard	AS/NZS 3504, AS 1851-2012
Smoke Control Systems	Per Standard	AS/NZS 1668.1-1998/2015, AS 1851-2012
Fire Doors	Per Standard	AS 1905.1, AS 1851-2012
Hydrants & Hose Reels	Per Standard	AS 2441, AS 1851-2012

Applicable standards referenced in the foregoing table are as follows:

Standard / Code	Description
AS 1670	Fire detection, warning, control and intercom systems - System design, installation and commissioning
AS 1851	Maintenance of fire protection equipment
AS 1905.1	Components for the protection of openings in fire-resistant walls, Part 1: Fire-resistant doorsets
AS 2118	Automatic fire sprinkler systems
AS 2220	Emergency warning and intercommunication systems in buildings
AS 2441	Installation of fire hose reels
AS 2444	Portable fire extinguishers and fire blankets - Selection and location
AS 4428	Fire detection, warning, control and intercom systems
AS 7240	Fire detection and alarm systems
AS/NZS 1221	Fire hose reels
AS/NZS 1841	Portable fire extinguishers
AS/NZS 1850	Portable fire extinguishers – classification, rating and performance testing
AS/NZS 3504	Fire blankets

10.4 Timing for Long Term Maintenance

The timing for 5-yearly, 10-yearly, 25-yearly and 30-yearly scheduled service under AS AS1851-2012 shall be as follows:

a) The starting date for 5-yearly testing of fire extinguishers shall be the date of manufacture or the date of the last pressure test.

b) The year for 5-yearly service of fire detection and alarm systems shall be five years since the last recorded 5-yearly service. If these years cannot be established, the service years shall be as tabulated below:

HQ	MA	M1	M2	M4	M5	MN
2023, 2028	2022, 2027	2025 2030	2023, 2028	2023, 2028	2024, 2029	2024, 2029

c) The year for 5-yearly, 10-yearly, 25-yearly and 30-yearly scheduled service for fire sprinkler systems shall be as derived from the existing fire sprinkler service history. If the applicable service history benchmarks cannot be established, the service years shall be as tabulated below:

Service	HQ	M4	MN
5-yearly	2023, 2028	2024, 2029	2025, 2030
10-yearly	2023	2024	2025
25-yearly	2023	- -	2025
30-yearly	2028	- -	2025

10.5 Coordinated Fire Mode Testing

Coordinated fire mode testing shall be undertaken annually with HVAC, Electrical and Fire Protection service providers in attendance in August each year. This work shall test the end-to-end performance of fire protection systems including:

a) Testing correct registration of simulated alarm at the building FDCIE (FIP) including audible and visual alarms;
b) Testing fire detection and fire sprinkler alarm communication to the alarm monitoring centre through the ASE;
c) Checking that fire and smoke mode operation, or shutdown, of air handlers accords with fire systems design strategy;
d) Operational testing of fire fan control panels (FFCP) and interfaced systems; and
e) Testing electrical response to fire alarm and the electrical isolation provisions function as designed.

Annual testing shall be logged and test outcomes recorded. Deficiencies shall be reported to the Service Provider Administrator. Faults that fall within the repair cap shall be corrected.

The management, arrangement, coordination with HVAC & Electrical service element providers and test documentation are responsibilities of this (SE5) Service Element.

10.6 Fire Alarm Monitoring

Provide, set up and maintain an alarm monitoring service for remote monitoring of fire alarms from the NFSA Premises in the ACT.

The alarm monitoring service shall:

a) Direct all existing fire, smoke and sprinkler alarm transducers (ASE) to be received at the applicable monitoring site;
b) Provide any interfacing necessary to transmit or receive alarm signals;

c) Receive alarms on a 24 hour/day seven day/week basis at a permanently staffed alarm monitoring centre;
d) Direct or relay alarm signals to the ACT Fire Brigade in accordance with their operational protocol;
e) Maintain Permaconn dual sim communication solutions at each Premises necessary for signal transmission;
f) Discriminate fire sprinkler and detector alarms transmitted on common lines; and
g) Respond to alarms in accordance with an alarm protocol agreed with the NFSA and conforming to the requirements of the ACT Fire Brigade.

Fire alarm monitoring shall be delivered via a supplier with an established and reliable alarm monitoring centre in the ACT.

10.7 Documentation & Records

The Service Provider shall:

a) Provide traceable and systematic documentation and records for all maintenance and testing of fire safety and emergency response services. Records shall conform to the requirements of AS 1851 – 2012 and shall conform to the standardised formats wherever practical.
b) Supply record documentation to the NFSA at least annually and at the end of the Contract. Documentation shall be in electronic file format per section 4.5.7.

11 HYDRAULIC SYSTEM MAINTENANCE (SE4)

[*This section of the Specification covers Primary Services, unless otherwise stated. It details the routine maintenance services for Service Element 4 (SE4).*]

11.1 Service Element 4 (SE4)

11.1.1 Scope

Separable Service Element 4 (SE4) of this Contract covers servicing and maintenance of for Hydraulic Services in the NFSA Premises.

The maintenance work shall include all common service elements as defined in this section, and management of the service delivery in accordance with the Specification.

The *Primary Services* include:

a) Routine inspections;
b) Programmed and unprogrammed servicing and maintenance;
c) Callout Service and Notification Service (section 2.16);
d) Housekeeping and cleaning associated with the maintained services;
e) Supply of consumables (See section 2.15);
f) Spare parts procurement, storage and control;
g) Service management and planning;
h) Data gathering, record keeping, analysis and assessment; and
i) Other items as described in this section of the Specification.

11.1.2 Primary Services Inclusions

The following items shall form part of the *Primary Services* for SE4:

c) Clearing waste and detritus from gutters, downpipe, sumps, drains and wastes;
d) Clearing service blockages;
e) Replacing or applying new sealant to eliminate unwanted leakage;
f) Replacing tap washers and re-cutting tap seats where needed;
g) Servicing toilet cisterns to correct leakage;
h) Replacing sacrificial anodes on domestic hot water units.
i) System maintenance and trade waste neutralisation for the Acton HQ in accordance with section 11.1.3.

11.1.3 Trade Waste Neutralisation

The Service Provider shall maintain the trade waste neutralisation system at the Acton HQ including:

a) Sodium hydroxide chemical dosing for pH control;
b) Inspection, cleaning and equipment maintenance;
c) Water sampling and pH testing; and
d) Record keeping.

11.1.4 Gutter Cleaning

As part of the *Primary Services* the Service Provider shall provide an annual gutter cleaning service for the Acton HQ, M1 and MN. The cleaning shall be completed during the April-May period each year. The gutter clearing for the Acton HQ includes the Residence cottage and the bunker outbuilding on the southside of the main building. The gutter cleaning service shall include clearing all roof and other drainage gutters, clearing and unblocking sumps and downpipes and flushing systems to check drainage.

The Service Provider shall prepare Safe Work Method Statements (SWMS) for conducting the above work and ensure that access is done safely.

11.1.5 Stormwater & Sewerage Jetting – Acton HQ

As part of the *Primary Services* the Service Provider shall provide an annual jetting service of the stormwater and sewerage systems for the Acton HQ including the Residence cottage with works completed in the April/May period each year. The service shall include:

a) Accessing all common inspection openings and manholes;
b) Carrying out high pressure jet clearing of all accessible points through all common drainage into the town main; and
c) Allowance for minor CCTV investigation to ensure all issues found can be reported for further works, as required.

The Service Provider shall advise NFSA of all major faults at the time of the service.

11.2 Maintained Systems

The Hydraulic Services at NFSA Premises are shown in the table below. Premises are designated by shorthand references (as section 2.3 *Premises*) in the table header. The marking 'X' indicates that the listed service or equipment is fitted to the site and included in the scope of maintenance.

NFSA Premises	HQ	MA	M1	M2	M4	M5	MN
Domestic Cold Water Services	X	X	X				X
Cold Water Sand Filter	X						
Cold Water Header Tank	X						
Non-Potable Cold Water Services	X						
Filtered Cold Water Service to Humidifiers			X				
Reduced Pressure Zone Device / Backflow Prevention Device	X		X			X	
Storm Water Services	X		X				X
Storm Water Sump Pumps	X						
Roof Drainage System (including gutters, downpipes, sumps etc)	X		X				X
Drainage & Sewer System	X		X				X
Trade Waste Neutralisation	X						
Sewerage Pumps	X						

NFSA Premises	HQ	MA	M1	M2	M4	M5	MN
Toilets & Sanitary Plumbing (including vents)	X		X				X
Domestic Hot Water Systems	X		X				X
Instant Boiling & Chilled Water Units	X	X					

11.3 Callouts & Repairs

11.3.1 Callouts & Notifications

The Primary Services for Service Element 4 (SE4) shall include a callout and notification service (section 2.16).

11.3.2 Repairs

Minor Repairs are not part of the *Primary Services* for this Service Element. Where repair or remedial work is required, it shall be part of *Extended Services* or *Separately Priced Works*. This work requires separate authorisation by the NFSA.

Any repair like services described in section 11.1.2 are *Primary Services*.

Emergency repair work needed as part of a callout shall be taken as automatically authorised and reimbursable as *Extended Services*.

11.4 Time Based Service Schedules

11.4.1 General

The following tables apply to the *Primary Services* and list service tasks and components that shall be serviced at prescribed time intervals.

The Service Provider shall report the need for any overhaul or repair work after completing inspections under the *Primary Services*.

11.4.2 Cold Water Services

Item	Interval	Service
Cold Water Services	3 Monthly*	Inspect and check for leakage, deterioration or malfunction. Clear and clean away salt deposition and corrosion. Advise the NFSA of the need for any remedial work or repairs.
Valves, Tapware	3 Monthly*	Inspect and check for leakage, deterioration or malfunction. Check for freedom of mechanisms and clean / lubricate if binding, catching or otherwise difficult to operate. Replace any leaking tap washers and re-cut tap seats, as necessary. Seal or resealing around taps as necessary to prevent mould or water damage.

Item	Interval	Service
Header Tank	12 Monthly	Inspect and check for leakage, deterioration or malfunction. Test operate and check the float valve.
Reduced Pressure Zone Device / Backflow Prevention Device	12 Monthly	Inspect & test as per statutory requirement.
Pressure regulating valve	12 Monthly	Inspect and check for leakage, deterioration or malfunction.
Cartridge Filters	12 Monthly	Replace water filter cartridges.
Sand Filter	6 Monthly	Check for leakage. Check for correct operation and backwashing.
	2022	Replace filter bed with new sand as per manufacturer's requirements.

* Schedule service visits at maximum 3 monthly intervals and arrange inspections so that all cold water services are inspected at least annually.

11.4.3 Storm Water Drainage Systems

Item	Interval	Service
Roof Gutters	As section 11.1.4	Inspect and check for overflowing, blockage, leakage or deterioration. Clear leaves, soil and debris and ensure gutters are free flowing Reseal leaking joints. Advise the NFSA of the need for any remedial work or repairs.
Downpipes, Drains & Sumps	As section 11.1.4	Inspect and check for block, leakage or deterioration. Clear any blockages. Clear debris from drains and sumps. Reseal leaking joints. Flush systems to check drainage. Advise the NFSA of the need for any remedial work or repairs.
Sump Pumps	6 Monthly	Clear debris from sumps. Check operation, particularly level switching. Check for damage, leakage, looseness, excess wear or vibration. Remove any obstructions or blockage. Check reservoirs and casings for corrosion and deterioration. Advise the NFSA of the need for any remedial work or repairs.
	12 Monthly	Temporarily remove, drain and change oil for submersible pumps.

Item	Interval	Service
Accessible Pump Drive Motors	12 Monthly	Inspect for excess heat, vibration, loose fasteners and connections. Repair as necessary. Check insulation resistance. Infra-red scan for hot spots. Advise the NFSA of the need for any remedial work or repairs.

11.4.4 Toilets / Sinks / Sanitary Plumbing / Sewer

Item	Interval	Service
Toilets	3 Monthly*	Inspect water closets and urinals and check for leakage, cracked fittings, malfunctions and deterioration. Remove deposits from fittings and hardware to prevent deterioration or corrosion. Inspect and check cubicle door hardware and locks for malfunction. Advise the NFSA of the need for any remedial work or repairs.
Cisterns	3 Monthly*	Inspect, test operate and check for malfunction or leakage. Replace seals and adjust as necessary to correct leakage or malfunction of float mechanisms. Advise the NFSA of the need for any remedial work or repairs.
Sinks & Wastes	3 Monthly*	Inspect sinks and check for leakage, cracking or and deterioration. Seal or resealing around sinks and wastes to prevent mould or water damage. Check that drains are free flowing. Clear any flow obstruction. Advise the NFSA of the need for any remedial work or repairs.
Trade Waste Neutralisation	Monthly	Top up chemicals on demand (See *Performance Based Service Schedule*) Check for obstructions to dosing lines. Clear if necessary.
	3 Monthly	Check dosing pumps and controls for correct operation. Clean equipment. Test waste water for correct Ph. Adjust / repair as necessary.
Drainage System, Sanitary Plumbing & Sewer	3 Monthly*	Inspect and check for leakage, blockage or malfunctions and deterioration. Clear any blockage. Advise the NFSA of the need for any remedial work or repairs.

* Schedule service visits at maximum 3 monthly intervals and arrange inspections so that all fittings and services are inspected at least annually.

11.4.5 Domestic Hot Water Systems

Item	Interval	Service
Mains Pressure Hot Water Storage Units	12 Monthly	Check for leakage. Check drip trays are clear. Clean inlet strainer. Check elements electrically for insulation resistance and earthing. Check for correct thermostat operation. Check for correct water temperature. Operate pressure/temperature relief valve via manual lever. Check discharge. Check that it reseals. Adjust or repair as necessary.
Café Hot Water Booster	12 Monthly	Check and record temperature from hot water booster. Adjust to meet ACT Health requirements, if necessary. Check condition & operation. Adjust or repair as necessary.
Sacrificial Anodes	Year 2026	Replace sacrificial anode for corrosion control (all vessels exceeding 50 litres with over 5-years service).
Valves, Tapware	3 Monthly*	Inspect and check for leakage, deterioration or malfunction. Check for freedom of mechanisms and clean / lubricate if binding, catching or otherwise difficult to operate. Replace any leaking tap washers and re-cut tap seats, as necessary. Seal or reseal around taps to prevent mould or water damage.
Service Piping	3 Monthly*	Check for leakage, corrosion or deterioration. Check for deteriorated insulation. Check for leakage at valves and joints. Advise the Project Officer of the need for any remedial work or repairs.

* Schedule service visits at maximum 3 monthly intervals and arrange inspections so that all fittings and services are inspected at least annually.

11.4.6 Instant Boiling & Chilled Water Units

Item	Interval	Service
Instant Boiling & Chilled Water (e.g. Billi Boil)	12 monthly	Clean unit and remove any scaling or contamination. Replace water filter cartridges. Check for leakage Check tap operation. Check controls and indicators. Adjust or repair, as required.

12 LANDSCAPE MAINTENANCE (SE5)

[*This section of the Specification covers Primary Services, unless otherwise stated. It details the routine maintenance services for separable Service Element 5 (SE5).*]

12.1 Service Element 5 (SE5)

12.1.1 Objective

The objective for the SE5 *Primary Services* is to ensure that the NFSA gardens and grounds are well manicured, clean and tidy.

12.1.2 Scope

Separable Service Element 5 (SE5) of this Contract covers landscape maintenance for the NFSA Premises.

The maintenance work shall include all common service elements as defined in this section, and management of the service delivery in accordance with the Specification.

The *Primary Services* include:

a) Routine inspections;
b) Programmed and unprogrammed servicing and maintenance;
c) Callout Service and Notification Service (section 2.16);
d) Housekeeping and cleaning associated with the maintained services;
e) Supply of consumables (section 2.15);
f) Service management and planning;
g) Data gathering, record keeping, analysis and assessment; and
h) Other items as described in this section of the Specification.

12.1.3 Service Provider Qualifications

The Service Provider shall be an established, specialist landscape maintenance and development organisation with the capabilities and horticultural experience to provide the range of services required.

The provider shall be experienced in effective and environmentally friendly, landscape maintenance methods.

12.1.4 Primary Services Inclusions

The SE5 service work shall include the following:

a) Regular mowing and grounds maintenance;
b) Tree and bush pruning;
c) Control programs for landscape pests and disease;
d) Reseeding minor bare lawn patches (up to 2 square metres per patch);
e) Weed control;
f) Grounds cleaning etc.
g) Waste disposal as section 12.1.9.
h) Environmental management as section 12.1.5.

For landscape maintenance purposes, each maintained site shall include footpaths and nature strips out to the road boundaries.

Any tree pruning or trimming required above 3m height will be classified as *Extended Services*.

12.1.5 Environmental Management

The Service Provider shall provide horticultural services based on sound environmental management principles and undertake a continuous site management and landscape improvement program that subscribes, as far as practical, to the principles of ecologically sustainable development (ESD).

The Service Provider shall undertake maintenance practices and a deliver a development program to:

a) Eliminate non-productive water usage;
b) Minimise the water demand for healthy growth;
c) Reduce ground moisture evaporation;
d) Promote natural weed control;
e) Reduce rain water run-off;
f) Minimise chemical and fertiliser usage;
g) Remove organic waste and, where suitable, deliver to a local recycling centre; and
h) Improve habitats for desirable fauna.

12.1.6 Landscape Maintenance Program

The Service Provider shall provide a landscape Maintenance Program to meet the requirements of this specification to the NFSA within twelve (12) weeks of the Contract Commencement Date.

The Maintenance Program shall be calendar based and aligned with the landscape service schedules and intervals included in this section of the Specification.

Service staffing shall adequately support the Maintenance Program and provide sufficient reserve resources to accommodate unscheduled service tasks and the need to respond to high growth periods during favourable weather.

12.1.7 Management, Inspection & Quality Assurance

The Service Provider shall apply the necessary resources and horticultural skills to on-site work. The Service Provider shall provide an appropriate regime of supervision, inspection and reporting to assure the quality of the landscape maintenance to the satisfaction of the NFSA.

A minimum requirement shall be weekly site inspections by the landscape maintenance supervisor for the Acton site, and monthly inspections for other sites.

12.1.8 Report & Development Program

NFSA may request a professional horticultural appraisal of the sites. This work will not form part of the Contract and will be undertaken independently. The Service Provider shall provide the appraiser with advice on existing problems areas and other background information needed to complete the horticultural appraisal.

Where requested by the NFSA, existing horticultural practices shall be modified to accommodate recommendations from the horticultural appraisal. If the modified horticultural

practices result in a change in the scope of *Primary Services*, the Annual Fee will be adjusted in accordance with section 2.17 [*Adjustment for Scope Changes*].

12.1.9 Waste disposal

In general, removal of all organic and non-organic waste from site is part of the SE5 *Primary Services*. The Service Provider shall not compost organic waste on site as this may attract vermin.

Organic waste may be dispersed on site only where this would enhance the service outcome. For example, some pruning waste may be suitable for on-site mulching and dispersing into garden beds.

Where suitable, the Service Provider shall deliver organic or recyclable waste to a local recycling centre. Non-organic and non-recyclable waste shall be disposed in accordance with ACT Government requirements.

12.1.10 Mulch, Pebble & Screed Replenishment

Replenishment of mulch, gravel, pebbles and hardstand screed at the Premises will be required from time to time. The Service Provider shall advise the NFSA when the mulch, gravel pebble or hardstand screed requires replenishment and provide a quote for the services.

The cost of replenishing the mulch, pebbles and hardstand screed will be reimbursable as an *Extended Service*.

12.2 Sites Specific Details

12.2.1 Acton HQ

The Acton HQ site is a large (2.9 ha) site bounded by McCoy Circuit and Liversidge Street and includes the landscape around the Residence cottage.

The site has extensive, high-quality landscaping with:

a) Irrigated and non-irrigated lawns;
b) Extensive hedges, shrubs, and garden beds;
c) Large, mature trees;
d) Roads, paving, tarmac, concrete, pebble and screed hard-stand areas;
e) Courtyards with lawn, rock gardens, statues, pond, paving etc; and
f) Mulched areas.

The Acton HQ is a significant ACT public and tourist landmark. Site landscaping and infrastructure must be maintained to a very high standard as applicable to this status.

The Service Provider shall deliver a premium landscape maintenance service for the Acton HQ site to:

a) maintain the site as a high-quality amenity reflecting a professional public image for NFSA;
b) clear litter and rubbish from the site (site skips for general and comingled waste available);
c) pressure wash soiled areas of significance including the entries, courtyard areas & rock garden;
d) maintain healthy plants, trees, shrubbery;
e) maintain healthy and attractive flower displays;
f) eliminate unsightly or hazardous growth in plants, trees and shrubbery;

g) maintain trim, green, healthy, largely weed-free, irrigated and non-irrigated lawns and nature strips with grass length in the range 40-80 mm;
h) reseed any minor bare lawn patches (up to 2 square metres per patch);
i) rake, collect and dispose of leaves, branches, acorns and other organic litter, particularly during the Autumn period;
j) ensure irrigation systems are programmed and adjusted to optimise water distribution and suit prevailing weather conditions;
k) control growth and weeds in lawns;
l) maintain largely weed-free plant and garden beds;
m) replenish mulch where necessary for evaporation and weed control;
n) eliminate grass and weeds from paving, gravel beds, kerbs, tarmac and other areas that should be kept free of growth;
o) sculpt and trim hedges, shaped trees and shrubs;
p) maintain sightlines for roads, footpaths and carparks;
q) control landscape pest or disease infestations;
r) clean outdoor furniture and bike racks (excluding Café furniture);
s) eliminate erosion or other degradation of the site;
t) provide small scale habitats for non-vermin, native fauna;
u) eliminate habitats for vermin;
v) eliminate slime, moss and other growth or slip hazards from trafficable areas;
w) keep ponds clean and free of excess algal growth and maintain water quality for survival of fish;
x) maintain courtyard gardens.

Ahead of public holidays and NFSA special events, the Acton HQ site must be in highly presentable state. It requires weekly litter removal from the whole site, weekly site inspection and verbal or e-mailed report to the Project Officer (covering condition, vandalism, natural damage, seasonal anomalies etc).

Area priorities within the Acton site are as follows:

Priority 1	McCoy Circuit frontage, Courtyard & Visitor car park
Priority 2	Liversidge Street frontage and Southern lawns near bus parking
Priority 3	Staff Car Parks and Residence gardens

Regular maintenance work in the Courtyard must generally be completed before 9am.

12.2.2 Mitchell Nitrate (MN)

MN is a secure, fenced site, off limits to the public and having few visitors. The site has non-irrigated grassland with some mature trees and shrubs. The trafficable roof area has gravel cover that needs to be kept clean and free from weeds and organic growth.

The Service Provider shall deliver a basic landscape maintenance service for the site. The service shall:

a) clear litter and rubbish from the site;
b) maintain trim, largely weed-free, grassland and nature strips with grass length in the range 60-100 mm;
c) control growth and weeds in grassed areas;
d) reseed any minor bare lawn patches (up to 2 square metres per patch);

e) maintain & trim outdoor plants, trees and shrubbery;
f) remove or trim growth in exterior fencing;
g) eliminate grass and weeds from paving, pebble and gravel beds, tarmac and other areas that should be kept free of growth;
h) rake, collect and dispose of leaves, branches, nuts and other organic litter;
i) maintain a free access strip internally around the perimeter fencing;
j) eliminate erosion or other degradation of the site;
k) control pest and disease infestations;
l) eliminate habitats for vermin; and
m) eliminate slime, moss and other growth hazards from trafficable areas;

12.2.3 Other Mitchell Premises

The M2 and M4 sites have no landscape maintenance service requirements under this Contract.

The MA, M1 and M5 are semi-industrial sites with limited non-irrigated grass, shrubs and trees on footpath and nature strip areas. Most of the grounds are concrete or tarmac, except for a small garden area at the rear of each site.

The Service Provider shall deliver a basic landscape service for the MA, M1 and M5 sites, concentrating on keeping the sites clean and free from undesired organic growth and rubbish. In particular, the service shall:

a) clear litter and rubbish from the site (site hoppers available);
b) control growth and weeds in garden and grassland areas;
c) maintain & trim outdoor plants, trees and shrubbery;
d) remove or trim growth in exterior fencing;
e) eliminate grass and weeds from paving, pebble and gravel beds, tarmac and other areas that should be kept free of growth (including front entrance footpaths);
f) rake, collect and dispose of leaves, branches, nuts and other organic litter;
g) eliminate erosion or other degradation of the site;
h) control pest or disease infestations;
i) eliminate habitats for vermin; and
j) eliminate slime, moss and other growth hazards from trafficable areas.

12.3 Callouts, Repairs & Extended Services

12.3.1 Callouts & Notifications

The Primary Services for Service Element 5 (SE5) shall include a callout and notification service as per section 2.16).

12.3.2 Repairs

Minor Repairs are not part of the *Primary Services* for this Service Element. Where repair or remedial work is required, it shall be part of *Extended Services* or *Separately Priced Works*. This work requires separate authorisation by the NFSA.

Any repair like services in section 12.1.4 are *Primary Services*.

Emergency repair work needed as part of a callout shall be taken as automatically authorised and reimbursable as *Extended Services*.

12.3.3 Typical Extended Services

The following table lists typical *Extended Services* for SE5 the Contract.

These listings are provided to clarify specified requirements and indicate the type of services that may be typically required and shall not be taken as exhaustive:

- Tree pruning or trimming above 3m height.
- Annual tree arborist inspection and report.
- Replacements for dead or diseased flora.
- De-thatching and reseeding designated areas (Note: reseeding minor lawn patches will be part of *Primary Services*).
- Turf rejuvenation and top dressing.
- Materials for irrigation repairs (excluding where section 2.14 [*Service Provider's at Fault Liability*] applies)
- Replenishment of mulch, pebbles or hardstand screed.

12.4 Landscape Service Schedule

12.4.1 Basic Service Schedules

The following table defines a basic level of landscape maintenance to be provided at the Acton HQ, MA, M1, M5 and MN Premises where the items described are present at those sites under SE5.

Note that, in addition to the basic items scheduled below, the Service Provider shall provide all services necessary to meet the performance requirements in the foregoing sections.

12.4.2 Acton Headquarters (HQ) Schedule

Site	Task	Frequency
Courtyard, irrigated lawns & irrigated nature strips	Mow lawns & trim / clear edges of lawns and nature strips.	Mow as needed to maintain grass length within prescribed limits (40-80 mm).
	Spray weeds during growing season. Spray to eliminate grubs, on appearance.	Monthly (September to April inclusive)
	Fertilise garden beds with an approved general fertiliser.	6 monthly
	Fertilise lawns with an approved general fertiliser.	12 monthly
	Aerate lawns in courtyard, high pedestrian traffic areas and elsewhere, on request (**Notes 2 & 3**). De-thatch, top dress and reseed designated areas, on request (**Note 3**).	12 monthly
	Hand water when necessary (**Note 4**).	

Site	Task	Frequency
Non-irrigated lawns & non-irrigated nature strips	Mow the non-irrigated lawns and non-irrigated Acton nature strips.	Mow as needed to maintain grass length within prescribed limits (40-80 mm).
	Spray weeds during growing season.	Monthly (September to April inclusive)
	Fertilise with an approved general fertiliser.	12 Monthly
Leaf, nuts & branch litter	Rake and collect leaves, branches, seeds, nuts and other organic litter (year round for natives & particularly over the autumn period near deciduous trees & shrubs). Remove from sites.	2 times per month
Roads, tracks, walkways, paving & carparks	Inspect and clear litter. Clear debris, organic waste, bark, leaves etc. as necessary to avoid hazards and unsightliness. Inspect for slime, moss and other traffic hazards. Remove as required.	2 times per month
	Trim path edges as required.	Monthly
	Spray to eliminate grass and weed growth from cracks and gutters.	3 Monthly
Plant, shrub & garden beds	Inspect and weed as required. Replace diseased and deteriorated plants. Prune to maintain aesthetic qualities and eliminate excess, unsightly or hazardous growth. Dead head flowers after blossoms die.	Monthly
Irrigation systems	Visually inspect sprays and drip lines. Adjust as required. Clear obstructing growth and correct any problems. Report condition and any problems observed. Make seasonal adjustments to the automated irrigation programs (to suit weather conditions). Advise the NFSA of any needed repairs (e.g. head replacements, drip line repairs).	Monthly
Trees, Shrubs & Hedges	Check for growth problems, infestation or disease. Treat / correct problems as appropriate. Check for limbs or foliage obstructing car parking. Prune as required. Prune to maintain aesthetic qualities and eliminate excess, unsightly or hazardous growth. Advise the NFSA of the need to replace dead or diseased flora. Provide annual tree arborist inspection report. Report will include information	6 Monthly

Site	Task	Frequency
	about any needed tree maintenance above three metres height. Note: Authorised replacement flora, arborist inspections and tree maintenance above 3m height will be reimbursable as *Extended Services*.	
Gravel, Pebble, Mulch & Hard Stand Screed	Spray to eliminate grass and weed growth.	Monthly
	Inspect condition and advise the NFSA about any need to replenish fill. Authorised replenishment of mulch, gravel, pebble & hard stand screed will be reimbursable as *Extended Services*.	12 Monthly
Rock Features	Clear unsightly grass/weed growth. Clean off any contamination or graffiti. Do not move or damage these features.	Monthly
General Areas	Inspect the site generally and clear organic waste, leaves, litter etc. as necessary to avoid hazards and unsightliness.	2 times per month
	Pressure wash soiled hard surfaces of significance including entry, courtyard pond & rock garden.	6 Monthly
Courtyard gardens	Water non-irrigated plants. Inspect and remove weeds and unsightly waste. Check for infestation or disease. Treat and correct problems as appropriate. Replace if beyond remedy. Prune as required. Advise the NFSA about any needed repairs or replacement of deteriorated mulching or surface covering.	2 times per month
Ponds	Inspect and check the health of ponds. Clean pump filters. Remove leaves and other organic litter build up Routinely trim aquatic flora.	2 times per month

Acton HQ Notes

Note 1: Access courtyard only via Liversidge St entrance.

Note 2: All soil plugs must be collected and removed from site or dispersed so they are not visible.

Note 3: Aerating, de-thatching, top dressing and reseeding designated areas will be *Extended Services*.

Note 4: Hand watering will be required on occasions to maintain Acton HQ landscaping (e.g. non-irrigated garden beds/pots, during watering restrictions, or if water consumption becomes excessive).

12.4.3 Schedule for Mitchell sites (MA, M1, M5 and MN)

Site	Task	Frequency
Non-irrigated grasslands & nature strips	Mow non-irrigated grasslands and nature strips.	Mow as needed to maintain grass length within prescribed limits (60-100 mm).
	Spray weeds during growing season.	Monthly
Leaf, nuts & branch litter	Rake and collect leaves, branches, seeds, nuts and other organic litter (year round for natives & particularly over the autumn period near deciduous trees & shrubs). Remove from sites.	Monthly
Roads, tracks, walkways, paving & carparks	Inspect and clear litter. Clear debris, organic waste, bark, leaves etc. as necessary to avoid hazards and unsightliness. Inspect for slime, moss and other traffic hazards. Remove as required.	2 Monthly
	Trim path edges as required.	3 Monthly
	Spray to eliminate grass and weed growth from cracks and gutters.	3 Monthly
Plant, shrub & garden beds	Inspect and weed as required. Replace diseased and deteriorated plants. Prune to maintain aesthetic qualities and eliminate excess, unsightly or hazardous growth. Dead head flowers after blossoms die.	3 Monthly
Trees, Shrubs & Hedges	Check for growth problems, infestation or disease. Treat / correct problems as appropriate. Check for limbs or foliage obstructing car parking. Prune as required.	6 Monthly
Trees, Shrubs & Hedges (continued)	Prune to maintain aesthetic qualities and eliminate excess, unsightly or hazardous growth. Advise the NFSA about the need to replace dead or diseased flora and any needed tree maintenance above three metres height. Note: Authorised replacement flora and tree maintenance above 3m height will be reimbursable as *Extended Services*.	6 Monthly
	Spray to eliminate grass and weed growth.	Monthly

Site	Task	Frequency
Gravel, Pebble, Mulch & Hard Stand Screed	Inspect condition and advise the Project Officer of any need to replenish fill. Authorised replenishment of mulch, gravel, pebble & hard stand screed will be reimbursable as *Extended Services*.	12 Monthly
Rock Features	Clear unsightly grass/weed growth. Clean off any contamination or graffiti. Do not move or damage these features.	Monthly
General Areas	Inspect the site generally and clear organic waste, leaves, litter etc. as necessary to avoid hazards and unsightliness.	Monthly

13 APPENDICES

The following included files provide important information that forms part of this Specification and Contract. The descriptions document is not exhaustive and is for information purposes only.

Appendix 1: Premises & Plant Summary

These descriptions are provided in a PDF document file. The descriptions provide summary information and brief development histories for the NFSA Premises and maintained services. This document is essentially background information to promote an understanding of the Premises and maintained services.

Appendix 2: Asset Register

The Asset Register is an Excel that contains component listing data on the service assets. This register can be manipulated to display detailed and summary information in selective categories such as service type or premise.

Tabs:

- Asset Register (excluding itemised emergency and exit lights)
- Asset Register – Summary View
- Emergency Lights
- Emergency Lights – Summary
- Test & Tag 2021 Summary

The Service Provider is required to continuously update and enhance the Asset Register over the Term of the Contract (See section 5.5.4).

APPENDIX 1: PREMISES & PLANT SUMMARY

A copy of Appendix 1: Premises & Plant Summary follows this page.

APPENDIX 2: ASSET REGISTER

A copy of Appendix 2: Asset Register follows this page.