



THE UNIVERSITY OF  
SYDNEY

# Asset Identification and Labelling Standard

Campus Infrastructure and Services

# Document edition control

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# 1 Purpose

The Asset Identification and Labelling Standard sets out the University of Sydney's minimum requirements for the identification and labelling of assets maintained by COS and delivered by UI. It ensures new, existing and refurbished assets and associated data will be identified, recorded and labelled in a systematic and consistent manner, and documented in the CMMS, enabling the University to record information and store data on its assets for strategic asset management planning.

Applicable requirements documented in Australian and New Zealand Standards (AS/NZS), the Building Code of Australia (BCA), Australian National Construction Codes, Workplace Health and Safety legislation and other relevant statutory requirements are minimum compliance requirements that are considered mandatory. The minimum relevant AS/NZS documents are provided in Section 11 of this standard.

Where any ambiguity exists between this standard and the aforementioned mandatory requirements then:

- a) the highest performance requirements must apply
- b) applicable requirements must follow this order of precedence:
  - i) Workplace Health and Safety legislation
  - ii) Disability Discrimination legislation
  - iii) State Environmental Planning and Assessment legislation
  - iv) All other Commonwealth and State legislation
  - v) NCC and BCA
  - vi) AS/NZS
  - vii) this standard and other University standards.

# 2 Scope

This standard applies to planners, project managers, consultants, contractors, sub-contractors, tenants, University staff and affiliates and others involved in the design, construction, installation, operation and maintenance of existing, new and proposed assets.

The standard covers asset types operated and maintained by the University which are shown in the **CIS-ASSET-F001 Form**.

This standard addresses the identification, labelling and data management requirements for University assets throughout the entire lifecycle of the asset, including but not limited to:

- a) existing assets
- b) modifications to existing asset data
- c) newly created assets resulting from new building construction
- d) newly created or renewed assets resulting from refurbishment projects
- e) renewed or replaced assets resulting from asset renewal and replacement programs.

# 3 Ethical conduct

All staff and affiliates must conduct activities in an ethical and transparent manner and comply with the principles and values in the University's **Code of Conduct** and the **External Interests Policy 2010**.

## 4 Definitions

<b>affiliate</b>	means a clinical title holder; an adjunct, conjoint or honorary appointee; a consultant or contractor to the University; an office holder in a University entity; a member of any University committee; and any other person appointed or engaged by the University to perform duties or functions on its behalf.
<b>alpha numeric</b>	means a code/ sequence of characters that includes letters and numbers.
<b>AV</b>	means asset validation.
<b>CA</b>	means condition assessment.
<b>CAD</b>	means computer aided design and drafting
<b>CIS</b>	means Campus Infrastructure and Services.
<b>COS</b>	means Central Operations Services.
<b>CMMS</b>	means computerised maintenance management system.
<b>concatenated</b>	means the linking together of information.
<b>equipment code</b>	means the unique identifier number for each asset.
<b>equipment standard</b>	means the University assigned number for a particular asset type, example: chilled water pump.
<b>Item count asset</b>	means the equipment code allocated in the CMMS for a collective group of similar assets that do not have a unique bar code.
<b>spatial bar code</b>	physical barcode that identifies the building, level and room number for individual spaces listed in the CMMS space database.
<b>unique bar code asset</b>	means the physical barcode installed either on or adjacent to an asset depicting the equipment code allocated in the CMMS for that asset.
<b>UI</b>	means University Infrastructure.
<b>virtual asset</b>	means the equipment code allocated in the CMMS for an individual asset that does not have a unique bar code.

## 5 Roles and responsibilities

This standard is issued by CIS.

It is approved by the Deputy Director Asset Management and Operations and the Strategic Asset Manager is responsible for reviewing and maintaining the standard and keeping it up-to-date.

The standard must be reviewed and kept up-to-date at least biennially.

## 6 Technical requirements

Each asset in the **CIS-ASSET-F001 Form** will be identified by a unique equipment code. The equipment code will be one of the following types:

- virtual asset
- item count asset
- unique bar code asset

The equipment standard determines the type of equipment code required for each asset, together with the master asset data information required to be captured. These details are listed in the **CIS-ASSET-F001 Form**.

### 6.1 Spatial bar code identification labels

Spatial bar code identification labels must be allocated to every internal building space listed in the space database as follows:

- a) Bar code label installed at the top left-hand corner of the room's main entry door jamb which identifies spatial information as per the University of Sydney Space Management Standards:
  - i) building alpha numeric code, eg G12
  - ii) floor level, eg 01
  - iii) room number, eg 123.
- b) The example listed above would result in a spatial bar code number indicating G12-01-123.

Spatial identifiers for buildings, levels and spaces are also allocated for areas outside of building envelopes such as roofs, landscaped and open areas, as designated below:

- XS – external structures
- RF – roof
- OSB – outside building

These identifiers are used to capture unique equipment codes together with the location details for all assets located in areas without spatial bar code numbers.

Contractors must request from the University the spatial bar code identification labels for each space requiring a bar code. The University will provide the unique spatial bar codes and the contractor will install them.

### 6.2 Virtual asset

Virtual asset identification is used for individual assets where it is impractical to provide a physical unique bar code label to each asset. Each virtual asset and associated asset information is captured as a single entry on the asset data capture spreadsheet and in the asset database contained within the CMMS.

Virtual asset numbers are comprised of the University's spatial bar code number concatenated with an equipment standard code and the sequential number of the asset type in a room.

**Example: G12-01-123-12112-01**

G12-01-123 Spatial bar code number  
 12119 Equipment standard number for EWIS / OWS Speakers (from **CIS-ASSET-F001 Form**)  
 01 Sequential number of the asset type within the room.

An example is shown below.

**Equipment code assigned for the first EWIS / OWS Speaker in room 123 on level 1 of building G12**

G	1	2	-	0	1	-	1	2	3	-	1	2	1	1	9	-	0	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

																			The Services Building
Level Code	.	.	.	.	0	1	.	.	.	.	.	.	.	.	.	.	.	.	Level one
Room Code	.	.	.	.	.	.	1	2	3	.	.	.	.	.	.	.	.	.	Room 123
Equipment Standard	.	.	.	.	.	.	.	.	.	.	.	1	2	1	1	9	.	.	EWS / OWS Speakers
Asset Number	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	1	First smoke detector in room

G12-01-123-12119-01 (building – level – room –equipment standard code – number of asset type recorded in a clock wise direction)

The asset number is allocated in sequential order in a clockwise direction from the main entry door where the bar code is located, and then front to back. Location of the equipment is reinforced by referring to the CAD drawing for the room, CAD drawings can be obtained from the University.

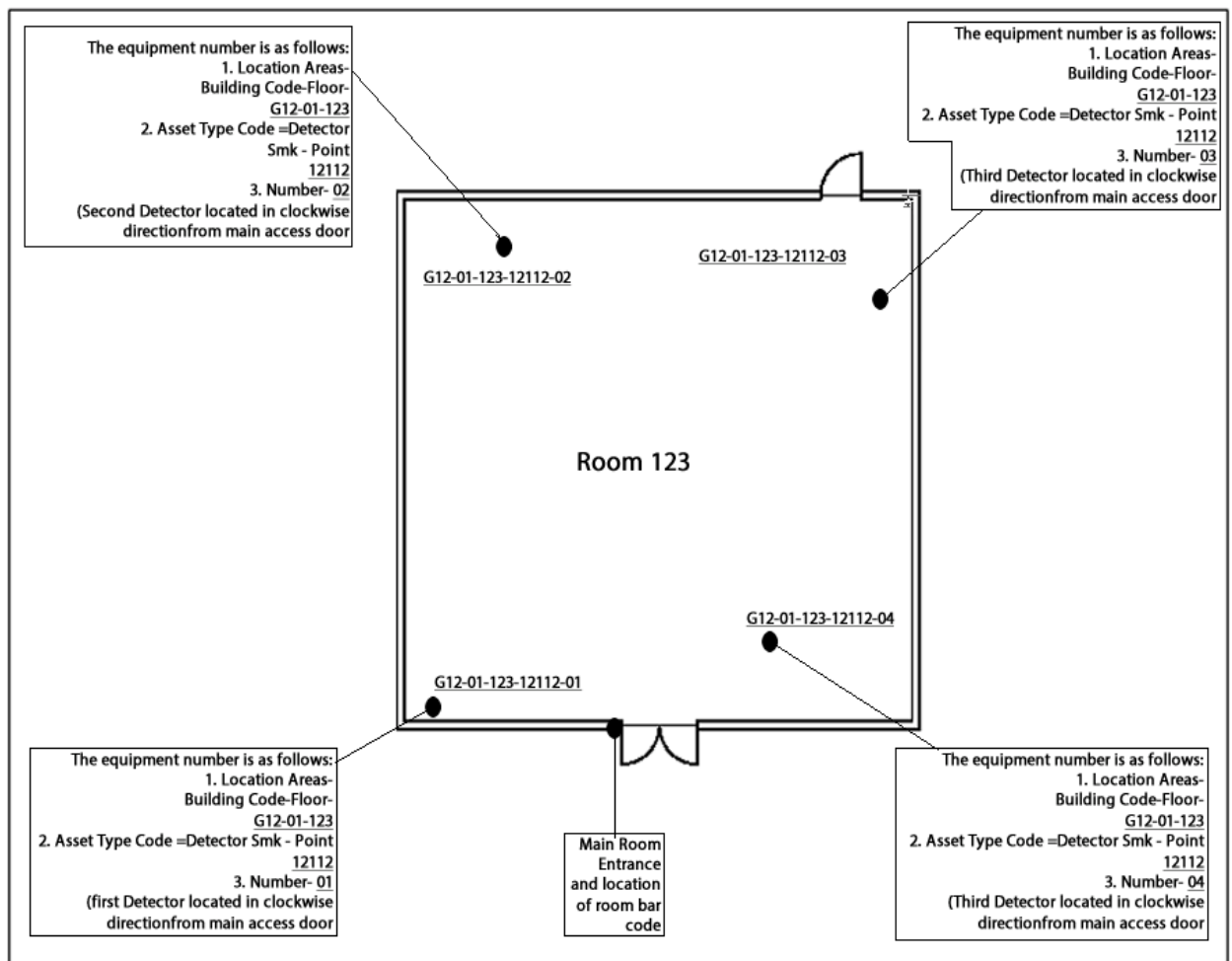
The equipment can then be easily identified by:

- a) Noting the location of the bar code on the left-hand side door jamb of the main entry door.
- b) Where equipment is attached to the wall all equipment will be identified in a clockwise direction.
- c) Where equipment is attached to the ceiling the equipment will be identified in a clockwise direction starting from the front and the closest asset to where the room bar code asset label is affixed. (If there is more than one entrance only one entrance will have the bar code), then front to back.

A typical example of the process logic is shown in **Figure 1**.



**Figure 1: Virtual asset identification**



## 6.3 Item count asset

Item count asset identification is used for assets where it is acceptable for a group of similar assets located in a space to be captured as a single asset. Unique bar code labels are not required for assets captured by this methodology. This methodology requires the associated asset information for each item count asset located in a space to be identical.

Item count asset identification captures multiple assets of the same equipment type as a single entry on the data capture spreadsheet and in the asset database contained within the CMMS and includes the quantity of the identical assets listed under the single entry.

The equipment standard determines if the Item count asset information is collected at room code, floor level code or building code, as identified in the **CIS-ASSET-F001 Form**.

### 6.3.1 Room code item count

Item count asset identification at the room code must be allocated as follows:

- For a specific type of asset located within a space, the equipment code begins with the spatial bar code number installed at the top left-hand corner of the room's main entry door jamb. This number provides the unique University building alpha numeric code, floor level and room number.

- b) The asset type will be given an equipment-specific equipment standard code from the **CIS-ASSET-F001 Form**.
- c) The asset type will be given a number depending on the total quantity of the specific equipment located within the space.

An example is shown below.

**Equipment code assigned for all “T5 Single” assets in room 123 on level 1 of building G12**

G	1	2	-	0	1	-	1	2	3	-	1	4	5	0	0	-	0	4
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Building Code																			The Services Building
Level Code	.	.	.	.	0	1	.	.	.	.	.	.	.	.	.	.	.	.	Level one
Room Code	.	.	.	.	.	.	1	2	3	.	.	.	.	.	.	.	.	Room 123	
Equipment Standard	.	.	.	.	.	.	.	.	.	.	1	4	5	0	0	.	.	Fluro Surface T12 600mm Single	
Asset Number	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	4	Count of asset room

A typical example of the process logic is shown in **Figure 2**.

**Figure 2: Room code item count asset identification**

Virtual Lighting Asset code for  
Asset Type 14500 in G12 Room 123

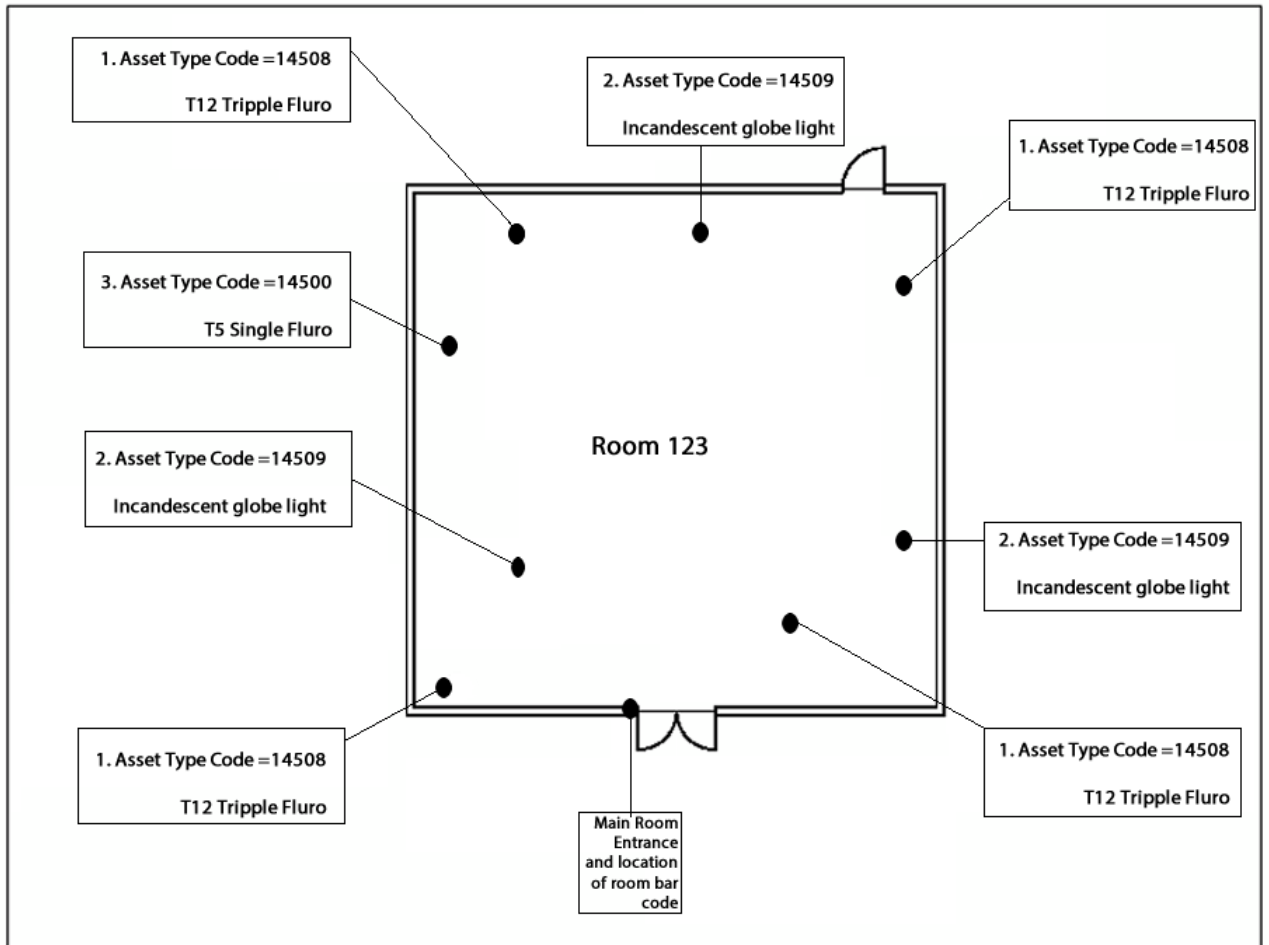
G12-01-123-14500-01

Virtual Lighting Asset code for  
Asset Type 14508 in G12 Room 123

G12-01-123-14508-04

Virtual Lighting Asset code for  
Asset Type 14509 in G12 Room 123

G12-01-123-14509-03



### 6.3.2 Floor level code item count

Item count asset identification at the floor level code must be allocated as follows:

- For a specific type of asset located within a level of a building, the equipment code begins with the University building alpha numeric code and the floor level number.
- The asset type will be given an equipment-specific equipment standard code from the **CIS-ASSET-F001 Form**.
- The asset type will be given a number depending on the total quantity of the specific equipment located within the level.

An example is shown below.

**Equipment code assigned for all “Shading Elements” on level 1 of building G12**

G	1	2	-	0	1	-	4	1	0	0	7	-	8	4
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Building Code

The Services Building

Level Code	. . . . . 0 1 . . . . .	Level one
Equipment Standard	. . . . . 4 1 0 0 7 . . . . .	Shading Elements
Asset Number	. . . . . . . . . . . 8 4	Count of asset on floor

### 6.3.3 Building code item count

Item count asset identification at building code must be allocated as follows:

- d) For a specific type of asset located within a building, the equipment code begins with the University building alpha numeric code number.
- e) The asset type will be given an equipment-specific equipment standard code from the **CIS-ASSET-F001 Form**.
- f) The asset type will be given a number depending on the total quantity of the specific equipment located within the building.

An example is shown below.

#### Equipment code assigned for all “Bilock General” assets in building G12

G	1	2	-	2	7	5	0	1	-	1	8	4
---	---	---	---	---	---	---	---	---	---	---	---	---

Building Code	. . . . . G 1 2 - 2 7 5 0 1 - 1 8 4	The Services Building
Equipment Standard	. . . . . 2 7 5 0 1 . . . . .	Bilock General
Asset Number	. . . . . . . . . . . 1 8 4	Count of assets in building

## 6.4 Unique bar code asset

Unique bar code asset identification is used for assets where a physical unique bar code label is required to be affixed to the asset. Each physical bar code and associated asset information is captured as a single entry on the asset data capture spreadsheet and in the asset database contained within the CMMS.

Physical unique bar code labels must be allocated as follows:

- a) Bar codes must be affixed next to the manufacturer name plate. Where manufacturer name plate is not accessible or available, the bar code must be affixed in an easily accessible and visible position on the asset, as defined in the **CIS-ASSET-F001 Form**.
- b) Bar code is not to be affixed to any part of the asset that could be replaced such as a filter, isolator or to an equipment base plate.
- c) The asset types which require a unique bar codes are defined in the **CIS-ASSET-F001 Form**.
- d) Contractor must request from the University the number of unique bar codes required and for which equipment standard category they are to be applied.
- e) The University will provide the unique bar codes and the contractor will apply them to the equipment and include them in the asset data capture spreadsheet, together with all associated asset information.

- f) Only one physical bar code can be installed for each asset requiring unique bar code asset identification. Where individual assets are provided with more than one physical unique bar code, the contractor must advise the University to determine which bar codes are to remain and which must be removed.
- g) **Table 1** below outlines bar code range numbers applicable to the equipment standard category they are applied to.

**Table 1: Unique bar code number ranges**

Number range	Equipment standard category
1 Million	FFE, Interiors, Exteriors, Façade, Structure, Substructure, Waste, Building Structure, ICT AV
2 Million	Mechanical, Fume Cupboard, Water Treatment
3 Million	Electrical, Relamping and Lighting, Exit and Emergency Lighting (EEL)
4 Million	Fire
5 Million	Plumbing, Grounds
6 Million	BMS
7 Million	Lift, Cranes & Hoists, Access Equipment, Roof and Gutter, Roof Safety
8 Million	Auto Doors & Shutters, Locksmith, Security Electronic, Traffic
9 Million	FFE Safety, FFE Lab, FFE Specialist, Medical and Lab Gasses

## 6.5 Redundant equipment

Equipment made redundant which is left in-place must be labelled as redundant. Note that equipment that is left in place and is redundant must have had its related CIS design standard services dispensation form approved before this section applies.

Contractors must ensure all redundant equipment not removed is labelled as redundant as shown below. The label shall be placed adjacent to any existing physical unique bar code.

All assets labelled as redundant must be reported to the University, and the equipment status field changed to reflect the new status, as defined in the **CIS-ASSET-F001 Form**



## 6.6 New assets – data capture

### 6.6.1 Overview

This section sets out the procedure for the capture of information for new assets installed in areas owned and/or operated by the University. This section details the procedure and process flow for capturing previously unrecorded assets.

### 6.6.2 Procedure

In keeping with the asset management requirements of the University, whenever a new asset is installed in a building or area owned and/or operated by the University, the asset must be assigned an equipment code, and its details recorded in the CMMS.

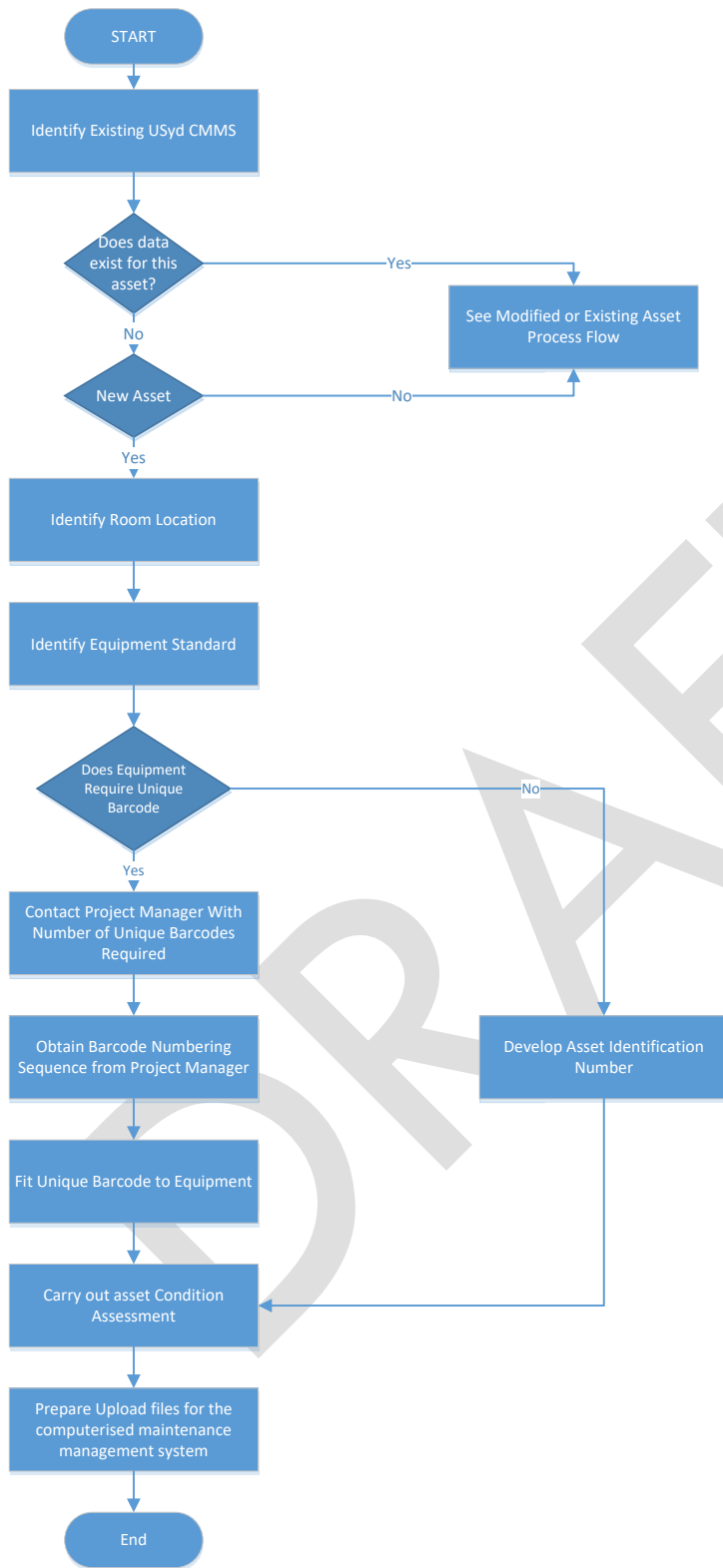
For each new asset, the building, floor level and room number in which it is installed must be recorded. This number is integral to the equipment code.

Additional mandatory information that must be captured for all assets is identified on the **CIS-ASSET-F001 Form**.

Some assets will require a unique bar code number. The **CIS-ASSET-F001 Form** contains a list of equipment standards, identifying those which require a unique bar code. To obtain the required bar codes, those responsible for the installation of the new assets are required to contact the University and inform them of the number of unique bar codes required for each category type, and to which assets they will be applied.

The captured data for all new assets must be compiled into standard upload files as per **CIS-ASSET-F001 Form**, Tab 5 – Additions, for processing and upload to the CMMS.

### 6.6.3 New assets process flow



## 6.7 Modified assets – data capture

### 6.7.1 Overview

This section sets out the procedure for the capture of information for modified assets installed in areas owned and/or operated by the University. This section details the procedure and process flow for describing modified assets.

### 6.7.2 Procedure

In keeping with the asset management requirements of the University, whenever an asset is modified or replaced, the details for the asset must be updated in the CMMS.

Prior to commencement of works where assets are proposed to be modified or replaced:

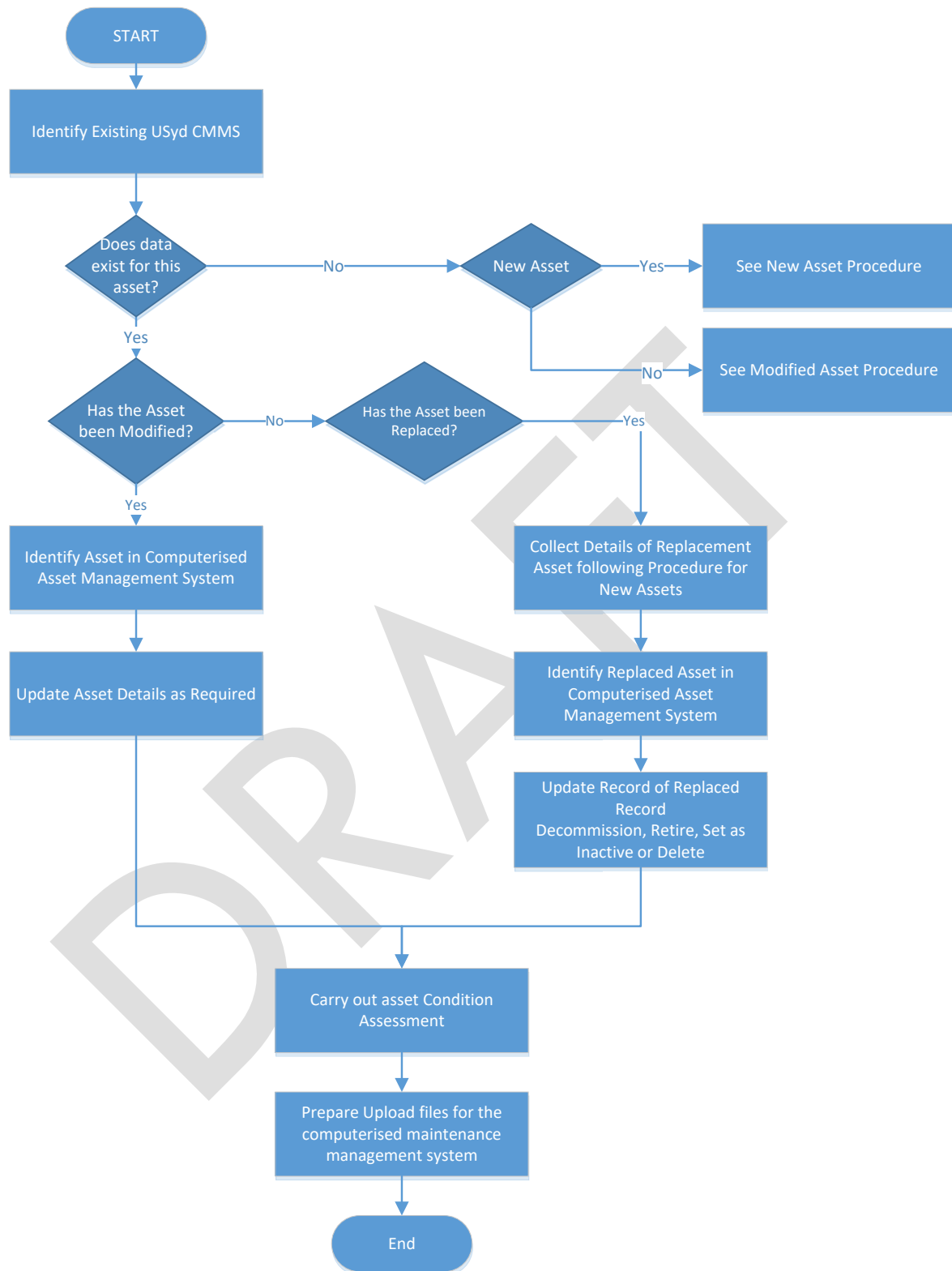
- the contractor shall request the University to provide details of all existing assets contained in the CMMS for the spaces and assets proposed to be modified
- the University will provide these details to the contractor in the format of the **CIS-ASSET-F001 Form**
- the contractor will then resubmit to the University the list of assets in the format of the **CIS-ASSET-F001 Form**, updating any asset equipment status changes required for the duration of the works. Depending on the scope of the project, equipment status changes may be, “Out of Service”, “In Repair”, “In Storage” or Abandoned”
- the University will then update the CMMS to reflect the asset equipment status changes to ensure there is no maintenance work requests generated for the assets no longer “In Service” for the duration of the works.

On completion of the works when an asset is replaced, the details for the new asset must be collected in accordance with the new asset – data capture process outlined in this standard. Following data collection, the asset being replaced must be identified in the CMMS, and the asset details updated to note the asset has been decommissioned and replaced with a new asset. The record for the replaced asset must be updated to reflect its decommissioned status.

Where an asset has been modified, the new details for the asset must be collected in accordance with the asset data capture template. The captured data for all modified and replaced assets must be compiled into standard upload files as per **CIS-ASSET-F001 Form**, Tab 4 – Modifications and Tab 6 – Deactivations, for processing and upload to the CMMS.



### 6.7.3 Modified assets process flow



## 6.8 Existing assets – asset validation

### 6.8.1 Overview

This section sets out the procedure for the capture of information for existing assets installed in areas owned and/or operated by the University.

### 6.8.2 Procedure

In keeping with the asset management requirements of the University, each asset installed in a building or area owned and/or operated by the University, must be assigned an equipment code, and its details recorded in the CMMS.

The purpose of an asset validation is to ensure master data accuracy and validity of the asset records in the CMMS for the University to facilitate asset maintenance and scheduling. Asset validation is also fundamental to the development of asset management processes such as:

- a) Life-cycle cost modelling to ensure the model uses actual installed equipment rather than historical records.
- b) Development of maintenance strategies to suit the asset condition and criticality.
- c) Identifying equipment that has not previously been captured.

The asset validation method for existing assets requires the export of the existing data to allow for validation. The existing data is provided in the format of the data capture template **CIS-ASSET-FO01 Form**. Alternatively, the data may be set up as an asset and equipment survey mobile application, linked directly to the CMMS. Once the existing asset data has been compiled the physical process of validating the assets can begin.

The asset validation procedure requires:

- a) Visual inspection of all assets and capture of the date the validation was performed.
- b) Capture and update of all CMMS asset data attributes and information, including spatial validation.
- c) A physical unique bar code attached to the asset and removal of existing unique bar codes where required.
- d) Update of the equipment code number to suit new physical unique bar code details or updated equipment standard or location details.
- e) Condition, criticality and equipment status assessment.
- f) Recommended action and priority assessment together with repair and replacement costs.
- g) Capture any new or previously unrecorded assets together all asset data attributes and information.
- h) Equipment status updates for any existing assets which cannot be located or are not operational.
- i) Digital photos provided for each asset clearly identifying the unique physical bar code attached to the assets and the general location and condition of the asset. All photos shall have file names corresponding to the individual equipment code.

The assessor must have considerable experience in the operation and maintenance of the type of equipment being assessed to ensure valid and consistent data capture and data integrity. The equipment can only be inspected when it is safe to do so and the assessor must follow all site and state regulations regarding safety and isolation procedures. Where assets cannot be validated due to safety reasons, details must be provided to the University and an action plan determined to allow for the validation of the asset.

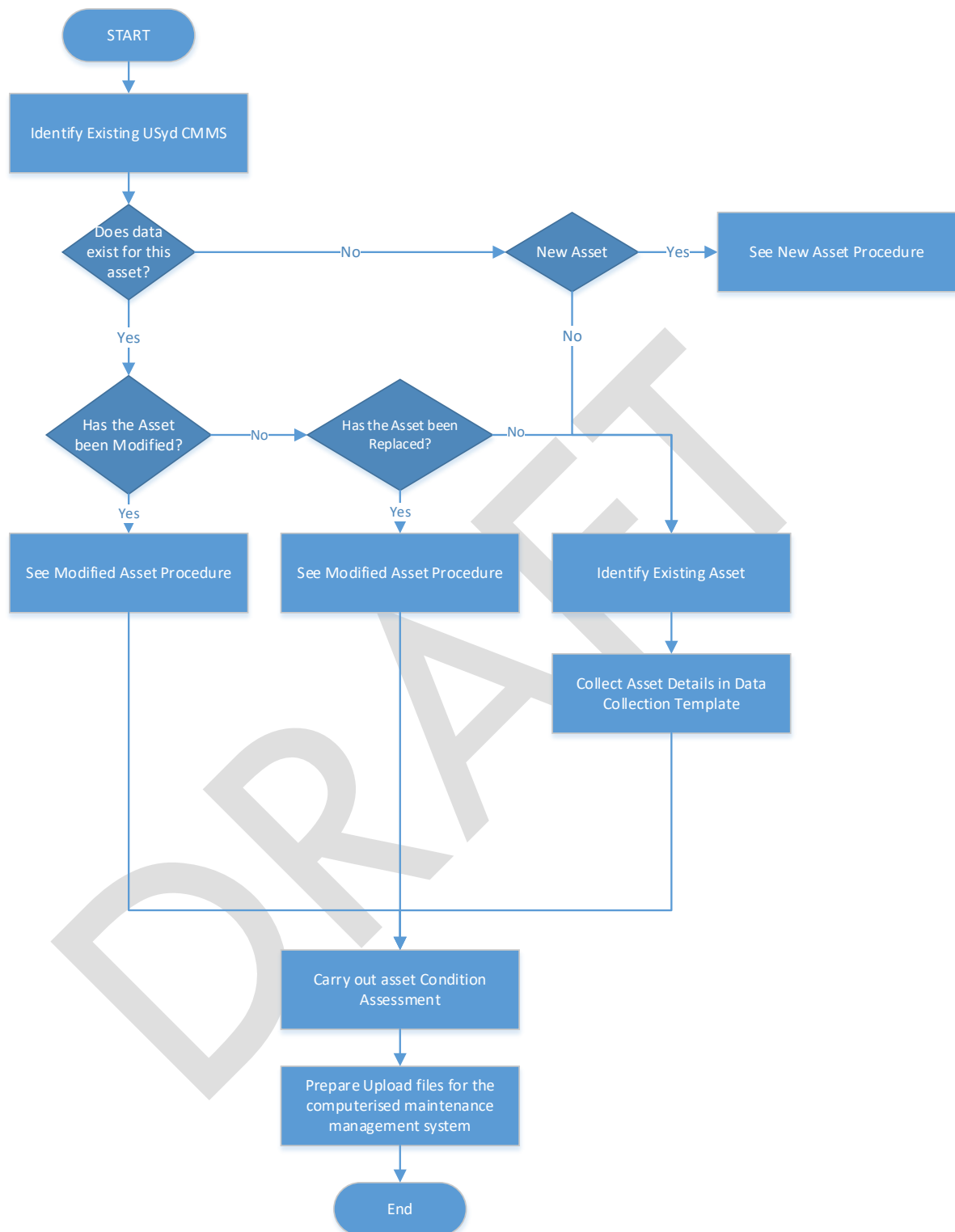
During the equipment validation, any additional information deemed mandatory, e.g. asset condition, asset criticality, asset life expectancy, manufacturer and model information etc., which is missing from the records for the existing equipment, must be collected.

Where an asset validation identifies incorrect, modified or new data for existing and new assets, the details for the asset must be collected in accordance with the asset data capture template. The captured data for all assets must be compiled into standard upload files as per **CIS-ASSET-F001 Form**, Tab 4 – Modifications and Tab 6 – Deactivations, for processing and upload to the CMMS.

Alternatively, if the asset validation is set up as an asset and equipment survey mobile application, linked directly to the CMMS, then the data changes will be identified directly in the mobile application.

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### 6.8.3 Existing asset equipment validation process flow



## 6.9 Asset validation and condition assessment procedure

### 6.9.1 Overview

This procedure sets out the requirements for conducting an asset validation (AV) and condition assessment (CA) of new, existing and modified assets. The purpose of the AV and CA is to undertake a parameter based visual inspection of asset attributes and condition. The AV and CA is useful for the asset management process such as:

- a) life-cycle cost modelling to ensure the CMMS uses actual data rather than nominal life predictions
- b) development of risk-based asset management plans.

### 6.9.2 Asset validation and condition assessment collection methodology

There are two stages to the AV and CA process:

- 1) AV – to ensure the equipment is accurately recorded in the CMMS. This procedure follows the AV process in Section 6.8 above.
- 2) CA – an assessment of the condition, criticality and environment of the assets. This is a visual assessment process only. If more intrusive CA is required, the appropriate work management procedures must be followed.

### 6.9.3 Template contents

Table 2 is an example of the AV and CA tables.

All fields listed are mandatory for all AV and CA inspections.

**Table 2: Example of asset validation and condition assessment table**

Asset Assessment Section - Used when performing asset validation and condition assessments						
Condition Rating	Criticality Rating	Priority Rating	Recommended Action	Repair Cost	Replacement Cost	Description
As per University condition rating table	As per University criticality rating table	As per University priority rating table	As per University recommended action table	Estimated cost to bring the asset back to excellent working condition	Replacement value at time of assessment	Description of the condition of the asset and details of repairs or replacement

### 6.9.4 Condition rating

The condition rating follows a 1 to 5 rating system. The use of a single value must coincide with its description. The definitions are shown below. The field can only contain a single number and cannot have any additional text. The rating is the best estimate by the assessor based on a visual inspection.

**Table 3: Condition rating**

Rating	Status	Description
1	Excellent	Asset has no defects; condition and appearance are as new
2	Good	Asset exhibits superficial wear and tear, minor defects, minor signs of deterioration to surface finishes; does not require major maintenance; no major defects exist.
3	Fair	Asset is in average condition; deteriorated surfaces require attention; services are functional but require attention; backlog maintenance work exists.
4	Poor	Asset has deteriorated badly; serious structural problems; general appearance is poor with eroded protective coatings; elements are defective, services are frequently failing; and a significant number of major defects exist.
5	Unacceptable	Asset has failed; is not operational and is unfit for occupancy or normal use.

### 6.9.5 Criticality rating

The criticality rating follows a 1 to 5 rating system. The use of a single value must coincide with its description. The definitions are shown below. The field can only contain a single number and cannot have any additional text. The rating is the best estimate by the assessor and shall take into account the asset impact to operations, safety and environment, together with an assessment of single point failure, maintainability, reliability and spares lead time. The rating is based on an assessment of available documentation and understanding the hierarchy of the system the asset forms part of and the operations that the asset supports.

**Table 4: Criticality rating table**

Rating	Status	Description
1	Non-Critical	Failure of asset is not significant to business operations. Recommend run to fail or basic condition assessment at extended frequencies.
2	Minor Criticality	Failure of asset represents minor consequence to business operations. Recommend basic condition assessment to reduce risk exposure.
3	Moderately Critical	Failure of asset has moderate consequences to business operations. Recommend preventive maintenance and basic condition assessments are undertaken to keep asset operational.
4	High Criticality	Critical assets with major consequences to operations if failure occurs. Recommend preventive maintenance and detailed condition assessments are performed regularly to reduce risk exposure.
5	Extremely Critical	Critical assets with catastrophic consequences to business if failure occurs. Extensive reliability centred preventive maintenance, performance monitoring and detailed condition assessments to be performed at a high frequency to ensure asset remains operational and performance is monitored.

### 6.9.6 Recommended action

The recommended action rating follows a 1 to 5 rating system. The use of a single value must coincide with its description. The definitions are shown below. The field can only contain a single code and cannot have any additional text. This rating is we believe the best estimate based on the knowledge of the assessor on the required action rectify an issue with the asset.

**Table 5: Recommended action rating table**

Rating	Status	Description
0	No Action	Asset requires no works performed
1	Clean	Asset requires cleaning
2	Adjust	Asset requires minor adjustments
3	Remove	Asset is required to be removed
4	Repair	Asset requires repairs
5	Replace	Asset requires replacement as it is past its operational lifecycle

### 6.9.7 Priority rating

The priority rating table follows a 1 to 10 rating system. The use of a single value must coincide with its description. The definitions are shown below. The field can only contain a single code and cannot have any additional text. This is the best estimate of the assessor based on knowledge of the site.

The priority rating quantifies risk associated with the asset if it was to fail.

**Table 6: Priority rating table**

Rating	Status	Description
1	Maintain	Regular maintenance required to maintain current state
2	Company image	Improvements required to enhance the public image of the University
3	Def. Renovation	Deferral of repairs or renovations which may eventually lead to major damage to a facility and loss of use, hamper building utilisation or effect economies of operation
4	Cost Effective	Energy or functional conservation measures with a rapid return on investment
5	Delayed Priority	Repairs and renovations required, but of less urgency than mission support
6	Mission Support	Actions required to support functional activities, such as laboratory or workshop equipment that requires repair to be fully functional, or assets that require repair in order to support a productive work environment
7	Environ. Code	Repairs, renovations and improvements required for long term compliance with local, state or federal environmental regulations
8	Facility Loss	Repairs, renovations and improvements required to prevent serious facility deterioration and significantly higher costs if not immediately corrected

Rating	Status	Description
9	Code Compliance	Repairs, renovations and improvements required for immediate compliance with local, state or federal building regulations
10	Life Safety	Hazardous building or site conditions that jeopardise life safety of occupants

### 6.9.8 Repair cost

The repair cost field is used to identify the estimated cost to bring the asset back to excellent working condition.

### 6.9.9 Replacement cost

The replacement cost is the value at time of audit for a like for like replacement of the asset.

### 6.9.10 Description

The description field is a free text field that allows for the assessor to provide further commentary on the asset, its condition and details of the recommended repair and/or replacement.

## 6.10 Template for data capture

The template for capturing asset data is as per the **CIS-ASSET-F001 Form** and the descriptions listed in Tables 7 and 8 listed below.

**Table 7: Instructions for completing the CIS-ASSET-F001 Form**

Field	Instructions	Requirement
Date information captured	The date the data for new assets, modified assets, deactivated assets, asset validation and/or condition assessment was captured.	Mandatory for all assets.
Equipment code	The date the data for new assets, modified assets, deactivated assets, asset validation and/or condition assessment was captured.	Mandatory for all assets.
Subcomponent of	Identifies the equipment code of the parent asset, in order to create an asset hierarchy. If the asset does not have a parent asset then the equipment code for that asset will be provided.  For example for a smoke detector the equipment code for the building FIP would be inserted in this field. However for the FIP, if it has no parent equipment that it is connected to, then the equipment code for the asset would be duplicated in this field.	Mandatory for all assets.
Equipment standard code	Identifies a code for the type of equipment as per the <b>CIS-ASSET-F001 Form</b> . Linked to the equipment standard description field.	Mandatory for all assets.
Equipment standard description	Identifies a description of the type of equipment as per the <b>CIS-ASSET-F001 Form</b> . Linked to the equipment code field.	Mandatory for all assets.



Field	Instructions	Requirement
Building name	Building Name as per University space data. Linked to the building code field.	Mandatory for all assets.
Building code	Building Code as per University space data. Linked to the building name field.	Mandatory for all assets.
Floor Code	Floor Code as per University space data.	Mandatory for all assets.
Room code	Room Code as per University space data.	Mandatory for all assets.
Latitude	For capture of GPS location of assets located external to buildings.	Mandatory for any asset located external to a building.
Longitude	For capture of GPS location of assets located external to buildings.	Mandatory for any asset located external to a building.
Asset location	To identify location of asset, this is a free text field.	Non-mandatory.
Manufacturer	Manufacturer of asset, this is a free text field.	Mandatory for all assets.
Model	Model of asset, this is a free text field.	Mandatory for all assets.
Serial number	Serial number for asset, this is a free text field.	Mandatory for new assets only.
In service date	Date of installation of asset. For existing assets where limited information is available, an estimate of the in-service date must be provided.	Mandatory for all assets.
Years life expectancy	Estimated number of years of operational life for the asset when originally placed in service.	Mandatory for all assets.
Warranty	If the asset has a warranty state duration.	Mandatory for new assets only.
Equipment status	Identifies the current status of the asset. Refer <b>Table 8: standard equipment status values</b> below.	Mandatory for all assets.
Comments	Free field for any additional information on the asset or relating to the asset.	Mandatory where details are listed in <b>CIS-ASSET-F001 Form</b> .

**Table 8: Standard equipment status values**

Status Value	Definition
Abandoned	Asset has been vacated or left unattended and is no longer being used. The asset is still owned by the enterprise.
In Repair	Asset is being repaired and is not in service
In Service	Asset is ready for use or being used

Status Value	Definition
In Storage	Asset is being stored and is not in use but is usable
Missing	Asset is missing
Out of Service	Asset that is no longer used; is being run minimally or could be out of service for a while.
Unknown	Asset status is unknown

## 7 Safety in design

The contractor must consider risk during the design. A design safety report must be submitted to the relevant project or contract manager for every design project. Contractors must confirm that the asset is selected and to minimise risks to health and safety throughout the operational life of the asset, including maintenance and replacement throughout the assets entire life cycle.

Design risks must be considered for the asset lifecycle covering construction, operational and maintenance, refurbishments and decommissioning.

The design safety report must include the following:

- a) Description of design element.
- b) Description of potential risks and hazards associated with the design element.
- c) A low/medium/high risk assessment considering likelihood and consequence.
- d) Proposed measures to eliminate risks where practicable.
- e) Control measures to mitigate and manage design risks.
- f) Nominating responsibilities for managing the design risks.

This may be provided as a design risk register where appropriate and must include results of any calculations, testing and analysis etc.

## 8 Documentation and records

UI and COS must document assets in asset registers in the format provided in the **CIS-ASSET-F001 Form** and uploaded in the CMMS.

## 9 Authorisation of variations

Project managers, consultants, contractors, commissioning agents and facilities maintenance personnel must ensure compliance with these requirements is achieved.

Variations to this standard must only be considered where:

- a) The University Standard's requirement cannot physically or technically be achieved.
- b) The alternative solution delivers demonstrated and proven superior performance.

Consultants and contractors must identify and justify requirements of the standard that do not apply to the project or which need to be varied and these must be approved by the issuer of this standard. Formal requests for all variations to this Standard must be submitted using the **CIS Request Dispensation from Standard Form (CIS-ENG-F001)**. The issuer of this standard or their delegated authority must review and consider requirements of stakeholders from clients, projects and facilities management before deciding whether to approve variations.

Their formal sign-off is required for acceptance of any non-compliances and departures from this standard's requirements.

## 10 Design standard compliance

Compliance with requirements of this standard must be checked throughout the design, construction and commissioning phases of projects by UI and COS. Any issues or deviations from this standard must be reviewed and approved in writing by the issuer of this standard.

Consultants and project representatives must check compliance with this standard during design reviews and formal site inspections. Any non-conformances with requirements of this standard must be documented and provided to the UI or COS project or contract manager for issue to contractors and their consultants.

Project and contract managers must maintain a formal register of non-conformances and manage close out of outstanding non-conformances. Contractors and their consultants issued with non-conformances must take appropriate corrective actions. The UI or COS project and contract manager must ensure:

- a) proposed corrective actions are implemented
- b) close out of non-conformances in relation to this standard is formally approved and signed off by the author of the standard or their delegate.

## 11 Design standard certification

Contractors and their consultants must certify compliance to the design standard by completing and submitting the **CIS Project Design Certification Form, CIS-PROJ-F001** to the UI or COS project or contract manager at handover.

Notwithstanding UI and COS's internal quality control processes, contractors and their consultants must implement their own robust quality assurance and control procedures to ensure compliance with requirements of this standard.

## 12 Document amendment history

Version (Revision)	Amendment	Commencing
001	First Issue	16 August 2013
002	<ul style="list-style-type: none"> <li>• 5.5 New Assets Data Capture clause added.</li> <li>• 5.6 Modified Assets Data Capture clause added.</li> <li>• 5.7 Existing Equipment Validation clause added.</li> <li>• 5.8 Condition Assessment Procedure clause added.</li> <li>• 5.9 Template for Data Capture clause added.</li> </ul>	18 September 2015
003	<p>DRAFT ISSUE AWAITING APPROVAL</p> <p>Amendments made to suit major RFT for the provision of Hard FM Service:</p> <ul style="list-style-type: none"> <li>• Minor amendments to definitions and terminology throughout document.</li> </ul>	26 November 2018

Version (Revision)	Amendment	Commencing
	<ul style="list-style-type: none"> <li>• Inclusion of additional Criticality field and tables as part of the Asset Validation and Condition Assessment Clauses 5.8.3 and 5.8.5.</li> <li>• Inclusion of a description column for Priority Rating Table 6.</li> <li>• Remove Preventive Maintenance Clause 5.8.15.</li> <li>• Update data capture fields listed under Clause 5.9 to incorporate amendments made to the <b>CIS-ASSET-F001 Form</b> and to identify mandatory fields.</li> <li>• <b>CIS-ASSET-F001 Form</b> updated to provide instructions, include modification, addition and deactivation of Asset data, update asset reference data and assessment tables to suit RFT requirements.</li> </ul>	
004	<p>DRAFT ISSUE AWAITING APPROVAL</p> <p>Amendments made to suit current document and protocols template.</p> <p>Issued to align asset validation with Archibus v23.2 upgrade and strategic asset management framework development:</p> <ul style="list-style-type: none"> <li>• Clauses 6 to 6.4 - updated to provide greater clarity regarding spatial bar codes and virtual, item count, unique bar code asset identification methodologies.</li> <li>• Clause 6.7 &amp; 6.8 – updated to provide greater clarity of procedures regarding asset modification data capture and existing asset validation.</li> <li>• Clause 6.9.4 - Asset condition rating table modified to suit ratings on <b>CIS-ASSET-F001 Form</b></li> <li>• Clause 6.10 – updated to show information in table format including updates to additional equipment status values and provision of details where mandatory comments required when details listed on <b>CIS-ASSET-F001 Form</b>.</li> <li>• Attachment 1 deleted.</li> <li>• <b>CIS-ASSET-F001 Form</b> updated to include additional equipment types required to be captured together with further clarity on information required to be captured for each asset.</li> </ul>	19 September 2019

## 13 Further information

### 13.1 Key contact person

For further information, please contact Martin Ayres, Strategic Asset Manager.

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## 13.2 Links, attachments and supporting documents

This standard is published at <https://sydney.edu.au/about-us/working-with-the-university/contractors.html>

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