

U. S. DEPARTMENT OF ENERGY

Condition Assessment Information System (CAIS)

CAIS USER'S GUIDE



CAIS
CAIS



01/11/2024

SUMMARY OF CHANGES PAGE

The following information is being used to control and track modifications made to this document. All updates are made by the CAIS Support Team.

Date	CAIS Release Version	Summary of Changes
08/17/2015	3.0	Initial release
09/10/2015	3.0.15	Website update, IU Previous and Next, Ad Hoc IU level DM Flag,
11/10/2015	3.1	Updated Chap 5,6 and 10 screenshots, Copy IU, Updated report samples
12/17/2015	3.1.1	new screenshots for IU Detail, New IU, IU List, Archive Asset, Saved Types. Added Funding Source and Funding Type to Site Data window. Added Site Read Only user.
01/21/2016	3.2	Password change to 60 days. DED – removed Project Priority, Design Start Date, Design Complete Date; added Location Description. Removed 'Fair' from the Condition pick list. Modified report 005 and 006.
3/11/2016	3.3	My Profile – Advanced Filter selection; Copy IU – Last Inspection Date update; Report 005 – add Location Description
4/18/2016	3.4	Type Search and Modernization Flag
6/15/2016	3.5	Added IU Upload process; added IU Search to IU Detail; Ad Hoc Report enhancements; added Area to the CAIS to FIMS Upload process; added Estimated Disposition Year; added Property ID and 'All Areas' to Archive IU Search and IU Search; Modified report 003 and 004; updated Contacts
8/31/2016	3.6	Updated Chapter 9 Projects; updated Chapter 8 IU Delete button; DED; Chapter 10 Ad Hoc Report
10/03/2016	3.7	Menu updates – Chapters 2,9,12; updated Report 006; RPAM 430.1C update
10/12/2016	3.8	Added Chapter 13 Estimating, added Estimating data fields to DED
11/08/2016	3.9	Updated Chapter 13 Estimating screenshots – New Estimate, Estimate List and add Report 007
11/30/2016	3.9.1	Updated FIMS Upload
12/22/2016	3.10	Updated Chap 6 Inspection Unit Level Processing and Chap 3 Site Level Processing
03/01/2017	3.11	Chap 5 and 6 IU List, Chap 14 My Profile and User Detail, Chap 9 Project Module, Chap 13 Estimating
10/11/2017	3.12	Updated definition in DED for Engineered Cost to remove reference to estimator limits; Chapter 13 to update Estimate Type Search screen.
03/01/2018	3.13	Updated Chapter 5, 6, 9,11,13 to reflect change to IU cost processing using RSM Line Number; updated Chapter 4 Geographic Adjuster; removed WBS, Component, Repair Cost, National Average Cost, Deficiencies, Replacement Cost, and Type Search

Date	CAIS Release Version	Summary of Changes
03/15/2018	3.14	Rename Gross Sqft and OSF Primary Qty to Size. Rename OSF Primary Unit of Measure to Size Unit of Measure; replace Asset Detail, Archived Asset Detail, Estimate Detail, CAIS Home screenshots and Standard Report samples for 001, 004, 005 and 006 in Appendix B
3/23/2018	3.15	Added Legacy RSM Line Number and Legacy Line Number Description
5/03/2018	3.16	Projects Module, IU unarchive button, chg Modernization Cost num(10), chg Created By char(80), DED – change the table name reference to the FIMS tables for the FIMS data fields; updated the Advanced/Basic IU List window
9/20/2018	3.17	Updated the Helpdesk phone number; new Welcome window; Chap 13 – added Custom Model, DED – added Custom Model data fields
10/15/2018	3.18	Chap 8 – added New IU Upload processing
11/13/2018	3.19	Chap 5 – Asset Detail window; Chap 13 – Estimate Detail window; new Adders button; DED – added Functionality Assessment Date; Updated Report 004 sample
02/07/2019	3.20	Chap 5 – updated Asset Detail window, added Update All IUs with Last Inspection Date process, updated IU List window; Chap 6 – updated IU List window and Move/Copy IUs processing; DED – Added Overall Asset Condition, Physical Barriers Preventing Inspection (PBPI) and Update All IUs with Last Inspection Date
03/01/2019	3.21	Chap 5 – Asset Detail; Chap 11 – Archive Asset Detail; Chap 13 – Custom Model, Estimate List, Estimate Detail; DED – add Last Updated By User, RPUID
03/21/2019	3.22	Chap 5, Chap 6, Chap 11, and Chap 13 – Added Assembly Detail popup window details
04/16/2019	3.23	Chap 9 Projects Module revised; DED – added Program Manager, Project Manager, Project Start Date, Project Complete Date, deleted Construction Start Date, Construction Complete Date, Project Archived; Added Appendix B – Units of Measure; moved Appendix B Standard Report Samples to Appendix C, update Rpt 006
04/26/2019	3.24	Chap 2 – Asset Search; Chap 4 – Area Detail window; Chap 5 – System Level Deficiency Cost window, added for Excess/Shutdown assets; Chap 6 – IU Detail Optional section, added Line Number Load delete confirmation; Chap 14 added password reset;
06/06/2019	3.25	Chap 10 – Return to List button; Chap 13 – updated Custom Model, Estimate List; DED – removed FY Baseline Date, FY Baseline Cost, Last Updated by User (replaced with existing Last Updated By); Appendix C – Rpt 005
07/25/2019	3.26	Chap 9 – Project Detail window added Total Repair Needs and Total Modernization and a button to display IU Description and Comments, Link IU window added a button to display IU Description and Comments; Appendix C – Standard Report 006 added a prompt to include IU Description and Comments for each IU linked to the Project, added Total DM, Total Non-DM, Total Repair Needs and Total Modernization

Date	CAIS Release Version	Summary of Changes
01/08/2020	3.27	Chap 13 – Custom Model and Line Item updates; Chap 14 – Admin user updates; DED – RPV – CAIS; Appendix C – Report 005
05/04/2020	3.27	Updated the CAIS and CAISINFO web addresses
06/15/2020	3.28	Chap 3 – Site Data screenshot, updated Site Data table list Chap 5 – Asset Detail screenshot Chap 6 – IU Detail, Required, Optional, User Defined screenshots Chap 8 – IU Upload screenshot, New IU template Chap 10 – Ad Hoc Report screenshot Chap 11 – Archived Asset Detail, Archived IU Detail screenshots Chap 13 – Custom Model, Cost Details, Estimate List, Manage Adders, New Estimate screenshots, root Folder – Estimate Folders, folder selection required, Recost Estimates button DED – Added: FIMS Upload Exclusion, Site Defined 2 and Site Defined 3 DED – Removed: Access; Discipline, Discipline Code, Repair Cause, Repair Purpose, Repair Symptom, Repair Task, Service DED – Chg to Optional: Condition, Location, Urgency, Chg Size to 4 characters: Funding Source and Funding Type Chg def: Inspector Name, Added pick list values: Urgency Appendix C – Report samples 004 and 005
08/24/2020	3.29	Updated the CAIS and CAISINFO web addresses Chap 2 – Assets, Upload – updated; Asset Search – added IU Number Chap 8 – added Existing Asset upload processing Chap 11 – Archived IU Detail screenshot Chap 13 – Manager Adders screenshot
12/14/2020	3.30	Added Chapter 16 Mobile IU Tool; DED - Modernization Type standardized picklist
01/20/2021	3.31	Chap 3 – Updated Cost and Cumulative Adders screenshot Chap 4 – Updated Cost and Cumulative Adders screenshot Chap 5 – Updated Cost and Cumulative Adders screenshot; added Crew/Labor data Chap 6 – Updated Cost and Cumulative Adders screenshot; added Crew/Labor data Chap 7 – Updated Cost and Cumulative Adders screenshot; updated Cost and Cumulative Adders cost processing Chap 10 – Added new report 008 Chap 11 – Updated Cost and Cumulative Adders screenshot; added Crew/Labor data Chap 13 – Updated Cost and Cumulative Adders screenshot; Modify Folder changes; added Crew/Labor data DED – Added Condition Index, Crew, Daily Output, Deferred Maintenance Index, Labor Hours
03/19/2021	3.32	Chap 3 – Removed IU Status from Site Data window Chap 6 – Updated IU Detail, IU Required section, and IU Optional section screenshots Chap 9 – Added Assembly Detail and Crew/Labor Chap 10 – Updated Standard Report screenshot and renumbered report 008 to 007 Chap 11 – Updated Archived IU Detail screenshot

Date	CAIS Release Version	Summary of Changes
		<p>Chap 13 – Added Attachments to Estimate Detail; updated Estimate List and Estimate Detail screenshot; Added Job Cost Phase report and updated Export Estimate button; Added Export Estimate button to the Estimate Detail; Added 'Add Line Item' button</p> <p>Chap 16 – Updated Mobile IU screenshot</p> <p>DED – Removed Discipline, Next Inspection Date, Last Remodeled, Inspector Name; added IU Status pick list values; added Category</p> <p>Appendix C – Updated reports 004 and 005; renumbered report 008 to 007; add EST 001 and EST 002</p>
07/09/2021	3.40	<p>Chap 2 – Updated the CAIS Home screenshot and added the new Asset, Estimating, Mobile IU and Projects buttons</p> <p>Chap 6 – Updated entire chapter to reflect new multi Line Item IUs and window redesigns</p> <p>Chap 8 – Updated Upload screenshot, added new templates and key identifying fields information</p> <p>Chap 9 – Updated Project Detail and Link IU screenshots, changed Flags to Indicators, Comments to Notes, and added IU Number hyperlink</p> <p>Chap 10 – Updated Reports 004, 005 and 006 description; Ad Hoc report added new Level: IU Line Items</p> <p>Chap 11 – Updated Archived IU Search screenshot, Archived IU List screenshot and Archive IU Detail screenshot and processing</p> <p>Chap 16 – Updated the Mobile IU screenshot and processing</p> <p>DED – Added: Notes; Renamed: Deferred Maintenance Flag to Deferred Maintenance Indicator, Modernization Flag to Modernization Indicator, Repair Needs Flag to Repair Needs Indicator; Removed: RSM Cost</p> <p>Appendix C – Updated reports 004, 005 and 006 samples</p>
09/02/2021	3.41	<p>Chap 3 – screenshots Cost Adders and Cumulative Adders – added '%' and changed Overhead to O&P, Site Data removed Importance</p> <p>Chap 4 – screenshots Cost Adders and Cumulative Adders – added '%' and changed Overhead to O&P</p> <p>Chap 5 – screenshots Cost Adders and Cumulative Adders – added '%' and changed Overhead to O&P</p> <p>Chap 6 – screenshot new IU, IU Detail and IU Detail Optional section, updated IU Detail Return to List, screenshots Cost Adders and Cumulative Adders – added '%' and changed Overhead to O&P; Archive IU button – prohibit ZZ9999 archiving</p> <p>Chap 7 - screenshots Cost Adders and Cumulative Adders – added '%' and changed Overhead to O&P</p> <p>Chap 11 – screenshots Archive Asset List and Archive IU Search; screenshots Asset and IU Cost Adders and Asset and IU Cumulative Adders – added '%' and changed Overhead to O&P</p> <p>Chap 13 – screenshots New Custom Model window, Estimate Detail Custom Model window – increased size of Geographic Adjuster; screenshots Manage Adders, Apply Adders Across All Details and Estimate Cost Adders – added '%' and changed Overhead to O&P; updated the Advanced Model Customization section</p> <p>Appendix A – RSM Line Number – defined ZZ9999, removed Importance; defined new value for Staged IU</p> <p>Appendix C – Updated report 005 sample</p>

Date	CAIS Release Version	Summary of Changes
12/21/2021	3.42	Chap 13 - Added Life Cycle cost spreadsheet to Custom Model Building and Trailer RPVs Appendix A – RPV Model changed field size to 4
01/14/2022	3.43	Chap 16 – Added ability to update Qty for existing IUs, added Deferred Maintenance Indicator and Equipment ID, new processing and screenshots
02/15/2022	3.44	Chap 2 – updated Annual Processing - RS Means Annual Update section Removed Cumulative Adders and updated screenshots: Chap 3 Site Chap 4 Area Chap 5 Asset Chap 6 IU Chap 7 Cost and Cumulative Adders renamed to Cost Adders Chap 11 Archive DED
04/19/2022	3.45	Chap 9 - updated Project Detail screenshot Chap 13 – Category data field processing; updated Copy Estimate for new checkbox DED – updated Comments and added Project Description Appendix C - updated report EST002 Job Cost Phase Report and CAIS006 Project Detail Report samples
08/17/2022	3.46	Added Last R&R to the Life Cycle Cost Estimating spreadsheet
06/30/2023	3.47	Removed Area Level Cost Adders and updated screenshots: Chap 3 Site Chap 4 Area Chap 5 Asset Chap 6 IU Chap 7 Cost Adders Chap 11 Archive Processing DED – Removed Area Cost Adders Selected Chap 2 - Updated the Contact Us and CAIS Home screenshots to update the phone number Chap 5 – Added Condition Notes popup window if Overall Asset Condition is changed to 'Substandard' or 'Inadequate' Chap 8 – Added Next Inspection Date to the Existing Asset Upload template; RSM Line Number was added to the Existing IU Line Item template
12/14/2023	3.48	Added Multi-factor Authentication instructions.
01/11/2024	3.49	Added Inspection Frequency interval to Chapter 3. Updated Chapter 5 for system generation of Next Inspection Date.

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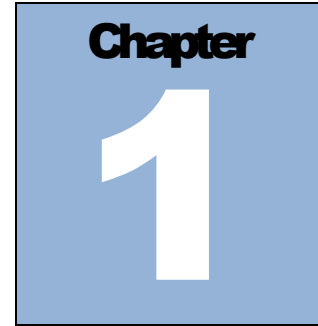
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CAIS Overview

Welcome

Welcome to the Condition Assessment Information System (CAIS). CAIS is a web-based cost-estimating tool used throughout the U.S. Department of Energy (DOE) that is based on RS Means construction costing data. It uses industry standard deficiency systems (Uniforamt II) and construction costing information to implement a costing algorithm for modeling deficiency repair and replacement costs. As a result, CAIS provides DOE with condition assessment information to ensure real property assets are maintained and will continue to meet DOE program goals.

CAIS supports and implements the requirements of DOE Order 430.1C (Real Property Asset Management Order). This order states that all real property assets must have a deficiency based inspection once every five (5) years. CAIS also provides the capability to develop and prioritize projects for reducing Repair Needs and Deferred Maintenance backlogs, in addition to replacing and/or upgrading real property asset components. For independent estimating needs, CAIS also contains an Estimating module.

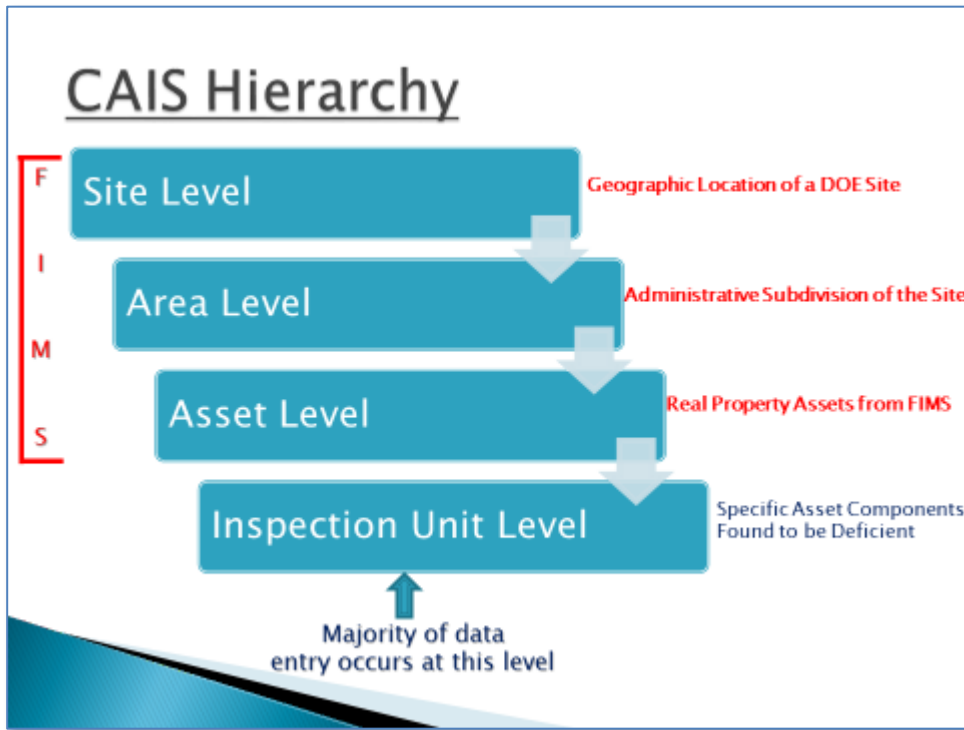
CAIS interfaces with the DOE Facilities Information Management System (FIMS) which is the Department's corporate real property database.

This is an important interface because it allows CAIS to easily upload critical information to FIMS which includes:

- Repair Needs
- Deferred Maintenance
- Last Inspection Date
- Modernization Cost
- Repair Needs by System

CAIS contains four (4) levels of information: Site, Area, Asset and Inspection Unit (IU). The Site, Area and Asset levels align with FIMS. CAIS uses the FIMS Site and Area naming conventions. In addition, only real property assets identified in FIMS are included in CAIS. The IU level is where the deficiency information from the most recent inspection is captured.

This diagram depicts the CAIS Hierarchy of Data:



CAIS is owned and managed by the Office of Asset Management (MA-50). Adam Pugh is the federal system owner and point of contact for CAIS. Adam's email address is adam.pugh@hq.doe.gov.

Condition Assessment Survey (CAS) Overview

DOE's Condition Assessment Survey (CAS) program is based on the Uniformat II system developed by the Construction Specifications Institute (CSI) that RS Means employs in its square foot cost analysis. In compliance with DOE Order 430.1C, Real Property Asset Management, the DOE CAS program involves visual and non-invasive inspections of real property assets.

The CAS program is a systemized, standard approach to facility and asset evaluations. It includes the following:

- A physical deficiency based assessment of assets based on industry standards
- The use of CAIS, which is the Department's database used for cost estimating of repair and replacement cost. CAIS utilizes RS Means costing data and is updated annually.
- Producing Repair Needs, Deferred Maintenance and Modernization Cost, based on reliable industry standard methodologies that can be used to support funding requests.

The CAS program has been designed to support the vital process of creating a facility condition baseline that is founded on recognized fully-defined industry-based inspection and deficiency standards. It is an essential tool in determining realistic requirements needed to obtain budgetary funding. The CAS program is vital in helping to direct limited resources to the most critical facilities and systems.

R.S. Means Data License

R.S. Means Costing Data and Replacement Plant Value Models are DOE and R.S. Means proprietary information and may not be shared with external engineering firms or with other software vendors.

CAIS and the R.S. Means data contained in it are for the sole purpose of supporting the Department of Energy In-house Condition Assessment Information System (CAIS) and can only be used for that purpose. Any further reproduction or transmittal of this information is not permitted without prior written permission of the Department of Energy and the R.S. Means Company.

CAIS Basics

Accessing CAIS

CAIS is a web-based application that can be accessed via the Internet using Internet Explorer version 10 or later. Other browsers such as Google Chrome or Firefox can be used but only Internet Explorer is officially supported.

From your browser, type in the following URL to access CAIS: <https://fims.doe.gov/CAIS>

Logging into CAIS

Once you have entered the URL from your browser, the CAIS logon screen will appear:

CAIS Login

Username:

Password:

CAIS Condition Assessment Information System
U. S. Department of Energy

NOTICE TO USERS

This is a Federal computer system and is the property of the United States Government. It is for authorized use only. Users (authorized or unauthorized) have no explicit or implicit expectation of privacy.

Any or all uses of this system and all files on this system may be intercepted, monitored, recorded, copied, audited, inspected, and disclosed to authorized site, Department of Energy, and law enforcement personnel, as well as authorized officials of other agencies, both domestic and foreign. By using this system, the user consents to such interception, monitoring, recording, copying, auditing, inspection, and disclosure at the discretion of authorized site or Department of Energy personnel.

Unauthorized or improper use of this system may result in administrative disciplinary action and civil and criminal penalties. By continuing to use this system you indicate your awareness of and consent to these terms and conditions of use. LOG OFF IMMEDIATELY if you do not agree to the conditions stated in this warning.

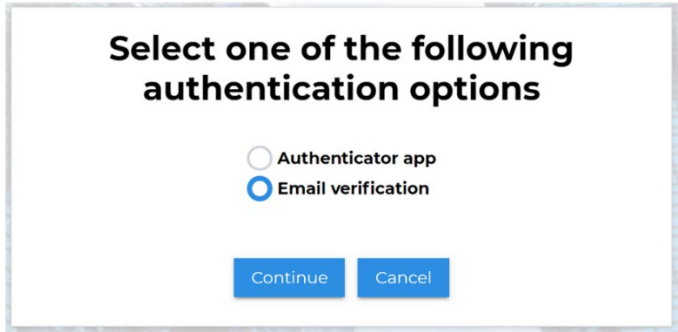
To log in to CAIS, you will need a Username and Password, which can be obtained from your CAIS Administrator.

Once you enter your Username and Password, click the **Login** button or press **Enter**. This will launch the Multifactor Authentication application.

Use the **Reset** button to clear the contents of the Username and Password fields if you have entered them incorrectly.

Multifactor Authentication

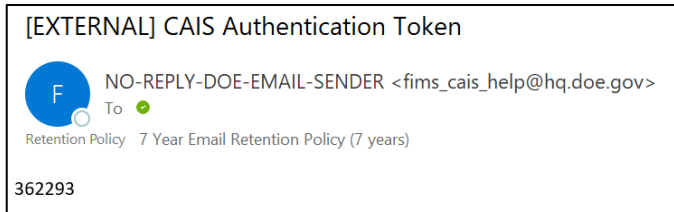
After logging into CAIS through the login page, the multifactor authentication page will appear:



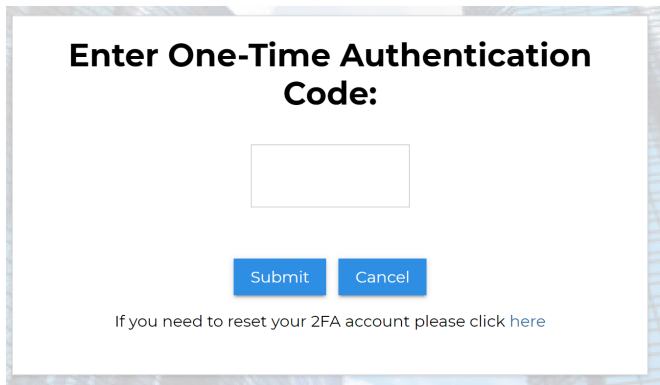
You will have the option of utilizing an authenticator application or email verification.

To utilize the email verification, you will select this and then continue.

The CAIS system will generate a one-time code and send to the email address you have on file in your CAIS profile.



From here you will see the CAIS website generate a box to input this one-time code. Enter the code and submit:



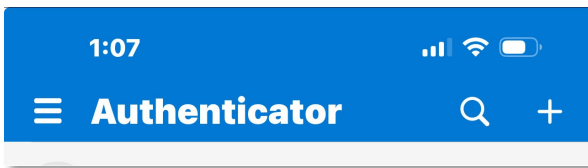
The system will now direct you to the CAIS Home page.

An alternative method to the email verification is utilizing the Authenticator application.

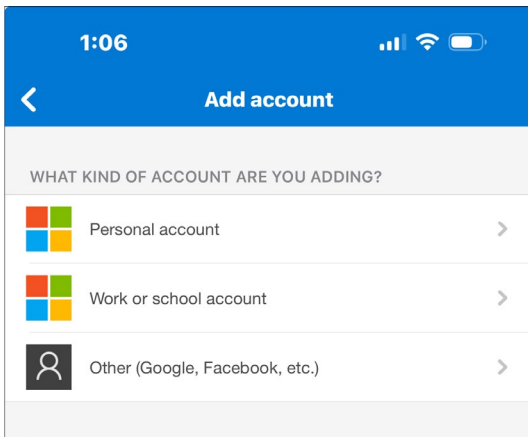
On your phone, download the Microsoft or Google Authenticator app (For demonstration purposes we are using Microsoft).



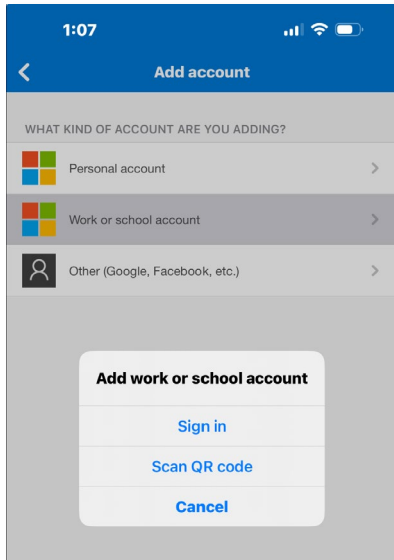
Once you have completed download, open the application, and select the plus icon in the top right corner.



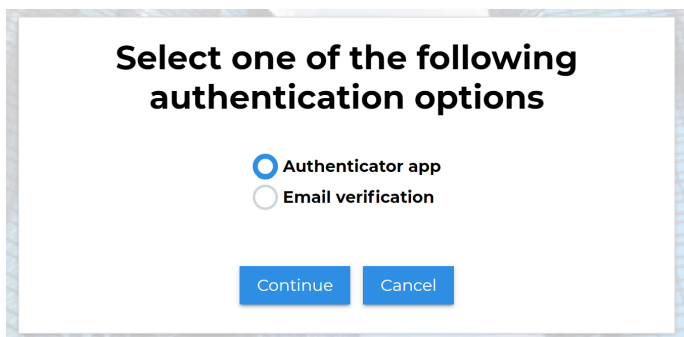
The next screen will give you options for type of account. Choose work or school account.



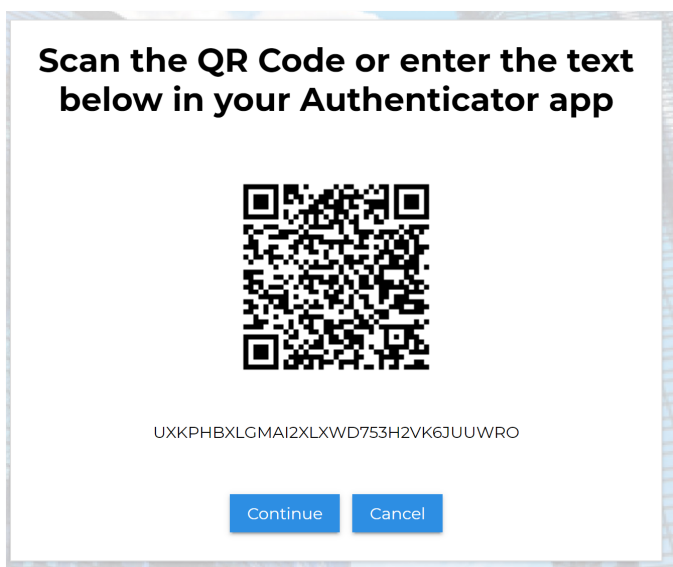
The next screen will allow you to choose a method in which to add account. Choose scan QR Code.



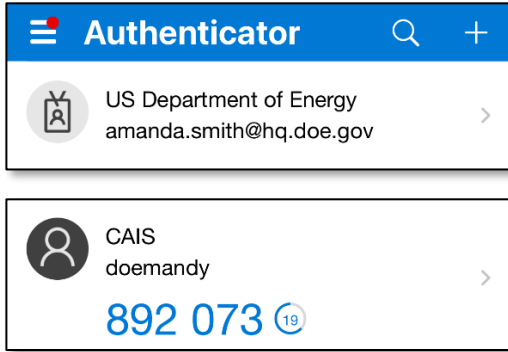
From the CAIS website, login as you normally would. Once logged on you will see the multifactor authentication page appear. Choose authenticator app and continue.



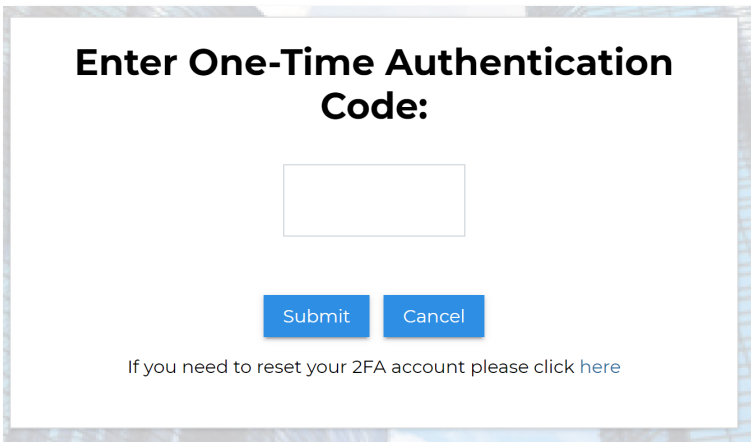
The next screen will give you a QR code. On the previous step, you selected "Scan QR code". Use this to capture the code.



As soon as the QR code is recognized, your phone application will show you a six-digit code for CAIS.



Enter these six digits into the appropriate box on the CAIS website.



The system will now direct you to the CAIS home page.

From this point on, you should not have to scan the QR code again. Upon opening the authenticator app, you will see a six-digit code for CAIS. These codes are only good for 30 seconds at a time. If the code is down to the last few seconds, wait for a new one to populate.

Home

After logging in through Multifactor Authentication, the Home page is displayed.

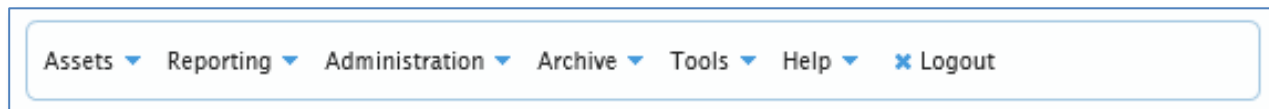


For more information regarding login credentials, please refer to Chapter 14 Application Security of this manual or click [here](#) for quicker access.

The Assets, Estimating, Mobile IU and Projects buttons can be used to navigate to each respective process.

Menus

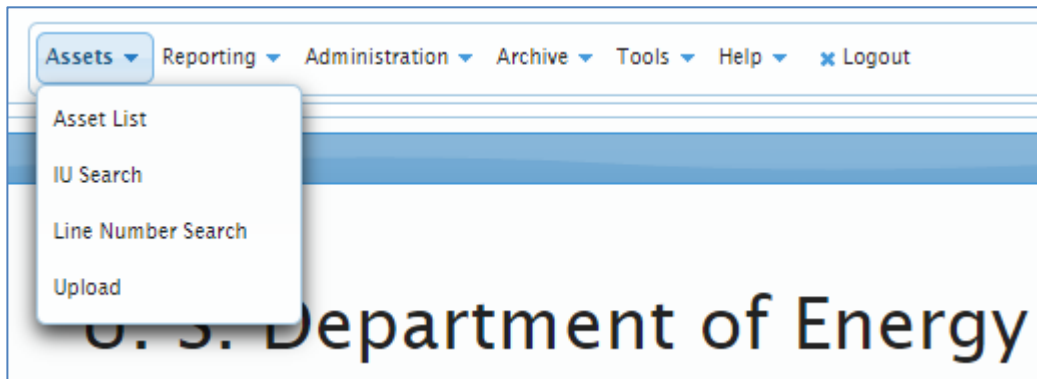
The menu options at the top of the window may also be used to navigate through the CAIS application.



By clicking on one of these menu options, additional menu items will be available for you to select.

These options are defined below:

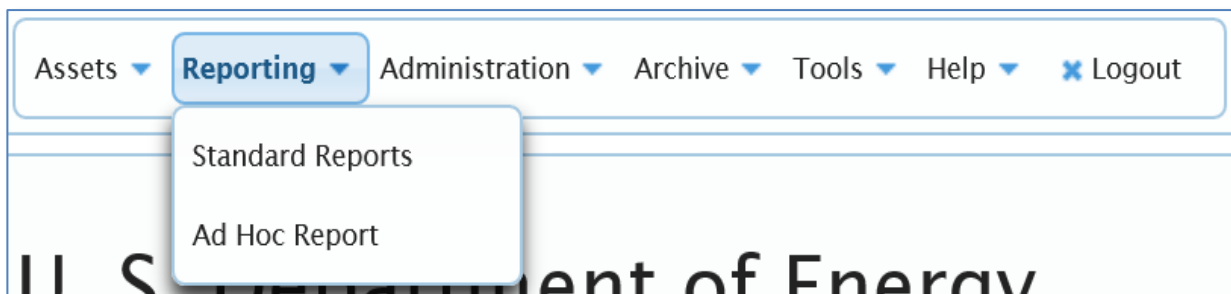
Assets



From the Assets menu, the following choices are available:

- **Asset List** - This menu option provides you with a list of real property assets. From here you can access the Asset Level or Inspection Unit Level information.
- **IU Search** - This menu option provides you with the capability to go directly to the IU record by inputting an IU number. You may also search by Property ID, Equipment ID or Work Order to retrieve a list of IU records to select.
- **Line Number Search** - This menu option provides you with the capability to search the RS Means data for a specific asset component. One option is to search based on Source, RSM Line Number and/or Line Number Description. A second option allows searching the Uniformat II and Master Format data using a tree structure.
- **Upload** – This menu option provides access to the CAIS Upload process. This process uses an Excel template to insert/update multiple records at one time.

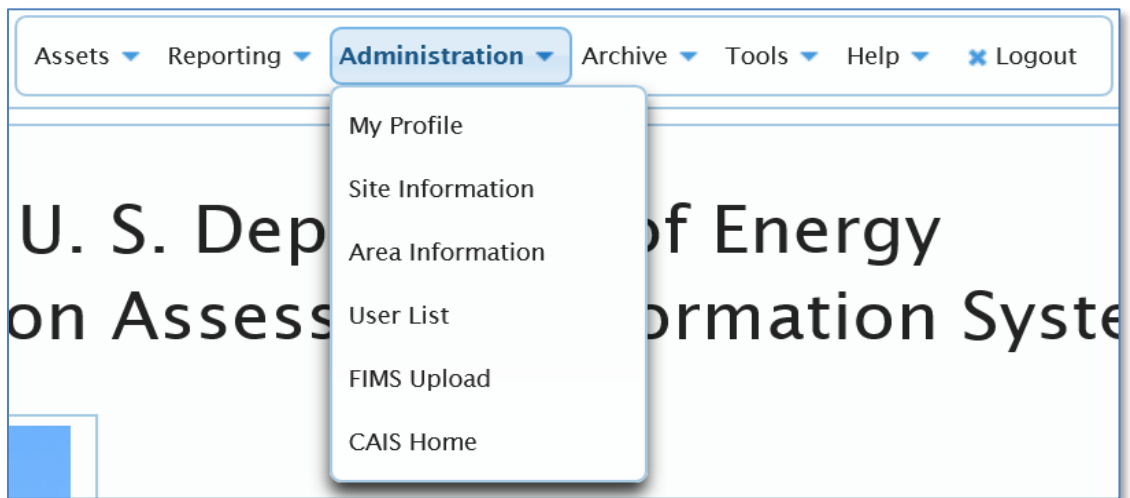
Reporting



From the Reporting menu, the following choices are available:

- **Standard Reports** - This menu option provides the capability to generate one of the CAIS standard reports.
- **Ad Hoc Queries** - This menu option provides the capability to develop Active or Archived Asset level, Inspection Unit level, or Inspection Unit Line Item level queries to extract information from the CAIS database.

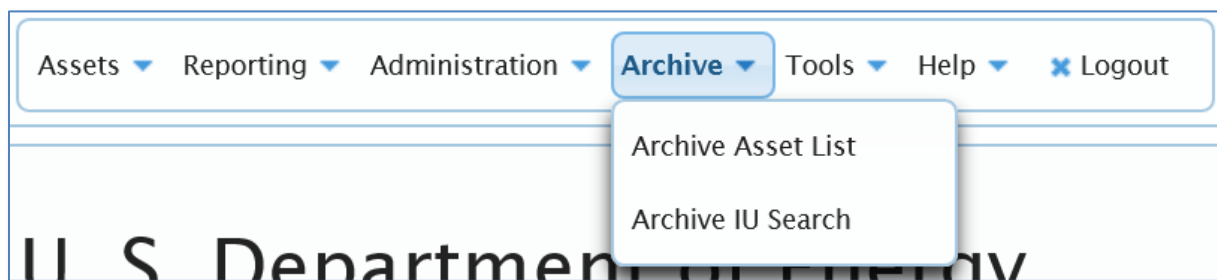
Administration



From the Administration menu, the following choices are available:

- **My Profile** - This menu option provides the capability to modify your password, update your contact information and establish your default location while using CAIS.
- **Site Information** - This menu option provides access to the Site Level information in CAIS as well as the capability to customize pick list data fields within CAIS.
- **Area Information** - This menu option provides access to the Area Level information that is included in CAIS.
- **User List** - This menu option is used primarily by CAIS Administrator users to perform account management tasks.
- **FIMS Upload** - This menu option provides you with the capability to upload critical CAIS data to FIMS.
- **CAIS Home** - This menu option directs you to the CAIS Home page.

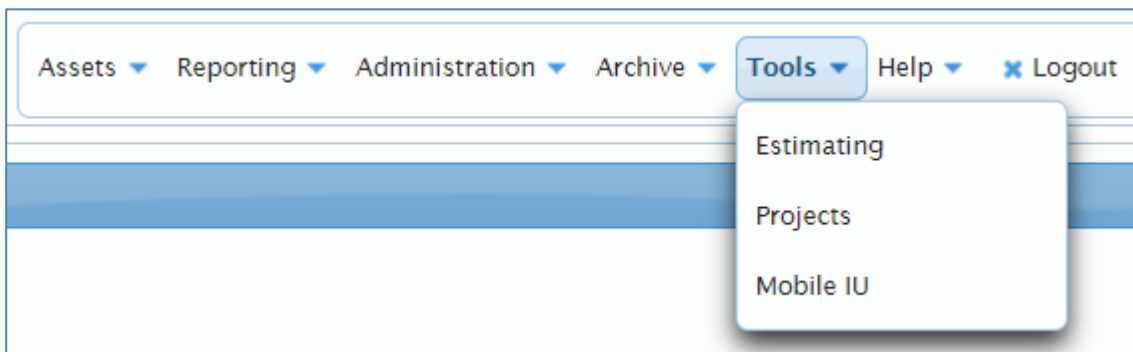
Archive



From the Archive menu, the following choices are available:

- **Archive Asset List** - This menu option displays and allows you to access data related to real property assets that have been archived in the CAIS database.
- **Archive IU Search** - This menu option allows you to access data related to Inspection Unit records that have been archived in the CAIS database.

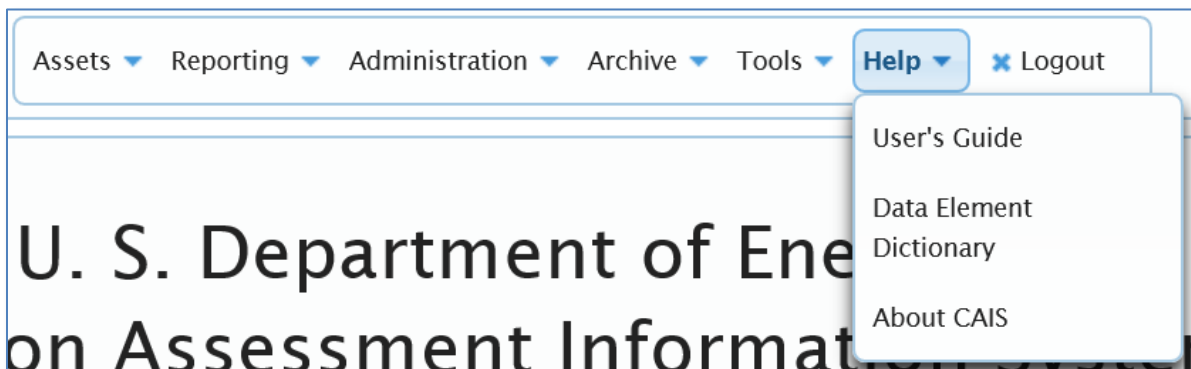
Tools



From the Tools menu, the following choices are available:

- **Estimating** – This menu option provides you with a module that will calculate estimates for repairs/replacements of deficiencies. It can also be used to develop custom Replacement Plant Values (RPVs).
- **Projects** - This menu option provides you with a list of projects that were created by your Site for the purpose of tracking the reduction of Repair Needs/Deferred Maintenance and/or Modernization Costs.
- **Mobile IU** – This menu option provides you with access to a mobile tool that can be used during the actual Condition Assessment Survey (CAS) for the purpose of collecting Inspection Unit data and creating new IU records.

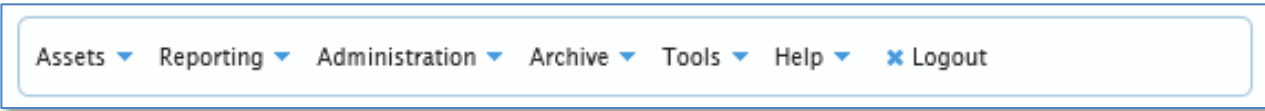
Help



From this Help menu, the following choices are available:

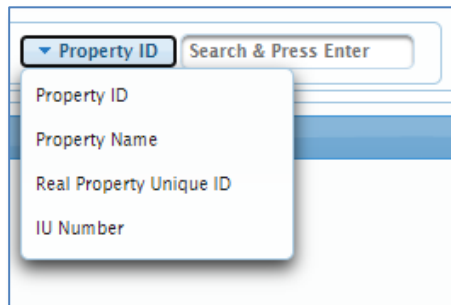
- **User's Guide** - This menu option opens the CAIS User's Guide.
- **Data Element Dictionary** - This menu option opens the CAIS Data Element Dictionary that defines each of the data elements included in the CAIS database.
- **About CAIS** - This menu option provides a brief overview of CAIS and the latest software version number.

Logout



This menu option terminates your CAIS session.

Asset Search



This option allows the user to quickly locate an asset by the **Property ID**, **Property Name**, **Real Property Unique ID** or **IU Number**. Select your search field from the pick list, enter the search value and press **Enter** to execute the search.

If a single record is found, the Asset Detail window will be opened displaying the asset. Click [here](#) for more information on the Asset Detail window.

If more than one records are found, the Asset Search List window will open with the search results as shown here.

The screenshot shows the CAIS 'Asset Search List' window. At the top, there is a header with the CAIS logo, 'Condition Assessment Information System', and 'U. S. Department of Energy'. To the right of the header is a navigation menu with 'Assets', 'Reporting', 'Administration', 'Archive', 'Tools', 'Help', and 'Logout'. Further right is a search bar with a dropdown set to 'Property Name' and a 'Search & Press Enter' button. Below the header is a blue bar with the text 'Asset Search List'. Underneath this bar is a button labeled 'Exact Match'. The main content area contains a table with the following columns: Property ID, Property Name, HQ Program Office, Site Name, Area Name, Ownership, Property Type, and Real Property Unique ID. The table contains two rows of data.

Property ID	Property Name	HQ Program Office	Site Name	Area Name	Ownership	Property Type	Real Property Unique ID
046	Transportation Building	SC	Argonne Natl Lab-Site D	Funky Town	DOE Owned	Building	123713
046A	Transportation Building	SC	Argonne Natl Lab-Site D	Funky Town	DOE Owned	Building	216311

Use the **Exact Match** button to limit the search results to the exact characters you entered for the search. To open a specific asset, click the **Prop ID** of that record and the Asset Detail window will open.

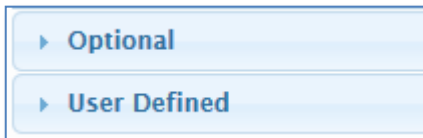
Data Entry Concepts

Navigation Tabs



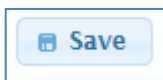
CAIS uses navigation tabs to facilitate easy access to varied information. These tabs are available at the Site, Area, Asset, Inspection Unit, Archive and Project levels within CAIS. You can easily navigate to a tab simply by clicking on the tab name. You will notice the active tab that you are currently viewing will always be colored differently from the other tabs.

Window Expansion



At the Inspection Unit Level, the IU Detail window provides an option to expand and collapse the Optional and User Defined portions of this window. This allows the user to simplify the view if they do not wish to use those data fields contained within the Optional and User Defined sections. To expand these sections, simply click the **Optional** or **User Defined** label.

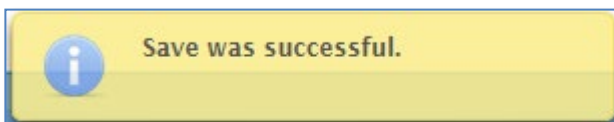
Saving Changes to the database



If you have been assigned update rights to CAIS, you will notice on many screens a **Save** button as you navigate through the system. If you do not have update rights, the **Save** button will be disabled.



Please note: The **Save** button must be clicked on each window prior to navigating to another window in order to save your changes to the database. When a record is successfully saved, you will receive the following confirmation message on the top right of the screen:

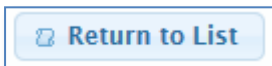


Date Fields



The date fields in CAIS utilize a graphical calendar. Arrow keys at the top of the calendar can be used to advance to future or previous months. Simply click the date you wish to select for a particular field. Once done, the graphical calendar will disappear and the date field will be populated with the date you selected. The option also exists that allows you to enter the date directly into the field without using the graphical calendar. Dates must be input in MM/DD/YYYY format.

Return to List



While viewing a Site, Area, Asset, Inspection Unit, Archive, Estimate or Project level record, a **Return to List** button will be available. This button will allow you to quickly navigate back to the Site List, Area List, Asset List, Inspection Unit (IU) List, Archive List, Estimate List, or Project List windows. These list windows allow you to sort and filter to easily navigate to another record.

System Messages



As you use the data entry windows, CAIS will display messages on the top right side of the window to assist you in the entry process. These messages generally indicate if a data field is required and missing or if a data field does not pass a validation test. Once displayed, you can click the 'X' button on the top right of the message box to delete the message or simply allow CAIS to remove it, once the record is successfully saved.

Annual Processing – RS Means Annual Update

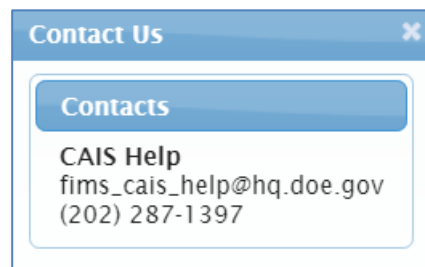
CAIS utilizes Unifomat II which is an industry standard method for classifying building components and cost estimating. The Unifomat II Assembly cost data, along with Master Format cost data are updated annually based on the latest data from RS Means. This annual update occurs in February of each year. This process is conducted by the Headquarters CAIS Support Team and requires no action on the part of the Site. This

update coincides with the RPV Model and Geographic Adjuster updates in FIMS. Sites are notified, in advance, when these updates are scheduled. Provided below is a detailed description of these updates.

- Updates to all RS Means construction cost data that is used by CAIS at both the IU level and the Estimating Module. This includes Assembly and Master Format cost data, equipment rental data and Crew/Labor information associated with Master Format line items.
- Geographic Adjuster factors will be updated at both the IU level and the Estimating Module.
- Updated Assembly detail for all Assembly line items.
- The Estimating Module will be updated to reflect all new RPV Models added in a given fiscal year.
- Updated RPV Model cost for all models within the Estimating Module.
- Automatic re-costing of all IU level and Estimating Module costs using the updated costing data.
- All Engineered Cost at the IU level and on the System Level Deficiency window will be escalated using the RS Means Any City Inflater.
- Updated Life Cycle cost estimates using the latest RS Means Preventive, Maintenance & Repair, and Replacement cost data.
- Any line numbers that are no longer supported by RS Means will be assigned a legacy line number designation (ZZ9999) within CAIS. All legacy line numbers will have their cost escalated using the RS Means Any City Inflater.
- Updates to the hierarchical tree structure within the Estimating Module for Uniformat II Assembly line items and Master Format divisions.

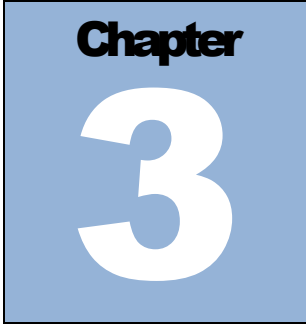
Contact Us

For those needing assistance using CAIS, an e-mail address and phone number can be found on the **Contact Us** link in the footer of the CAIS application. When you click **Contact Us**, a dialog box like the one below will appear.



CAIS Informational Website

Additional resources can be obtained from the CAIS informational website. A link to this website can be found in the footer of the CAIS application. The URL for this website is <https://fims.doe.gov/caisinfo>. Users can find valuable information related to the condition assessment process, system documentation, change requests, upcoming training opportunities and points of contact.



Site Level Processing

Site Overview

A Site is a geographical location that is a subdivision of the DOE Field Office. CAIS Site level data parallels the FIMS Site level data.

The following Site level data is maintained in FIMS and is automatically updated in CAIS as changes are made to FIMS:

Field Office	Site Name	Site Number
--------------	-----------	-------------

Site List

All CAIS users can view the Site level data.

To access the Site level data, click **Administration** then **Site Information** to open the Site List. Change the Field Office pick list, if applicable. Click the **Site Name** from the Site List to access the Site level data.

The screenshot shows the CAIS interface with the following elements:

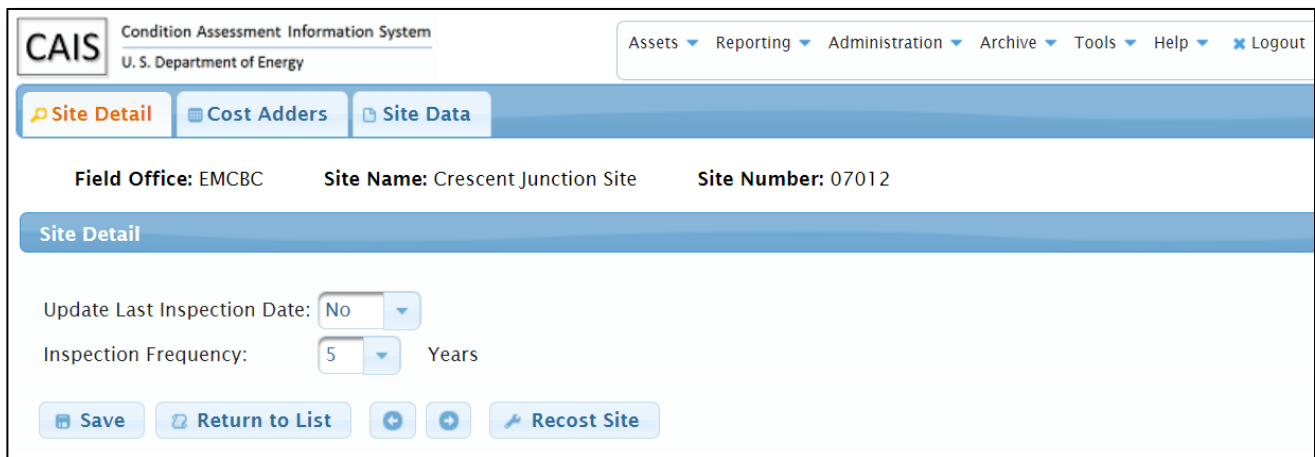
- Header: CAIS Condition Assessment Information System, U. S. Department of Energy
- Navigation: Assets, Projects, Reporting, Administration, Archive, Interfaces, Help, Logout
- Section: Site List
- Field Office: EMCBC
- Table with columns: Site Name, Site Number

Site Name	Site Number
Depleted Uranium Hexafluoride (DUF6) - Paducah	07010
Depleted Uranium Hexafluoride (DUF6) - Portsmouth	07004
Paducah Gaseous	07006
Portsmouth Gaseous	07007

Site Detail

The Headquarters Administrator, Field Office Administrator and Site Administrator are the only users that can modify CAIS Site Detail data.

The Site Detail window contains Site Level global designations. Only the Headquarters Administrator, Field Office Administrator and Site Administrator will have the **Save** button activated for making updates to the Site Detail data.




The Site Info window allows the following designation to be made for Site processing:

<p>Update Last Inspection Date</p>	<p>Designate that the IU Inspection Date should be used to update the Asset Level Last Inspection Date (if the date is more recent than the existing Asset Level Last Inspection Date)</p>
<p>Inspection Frequency</p>	<p>Designate that the Inspection Frequency will take place every 2, 3, 4, or 5 years. Default for all sites is 5 years.</p>

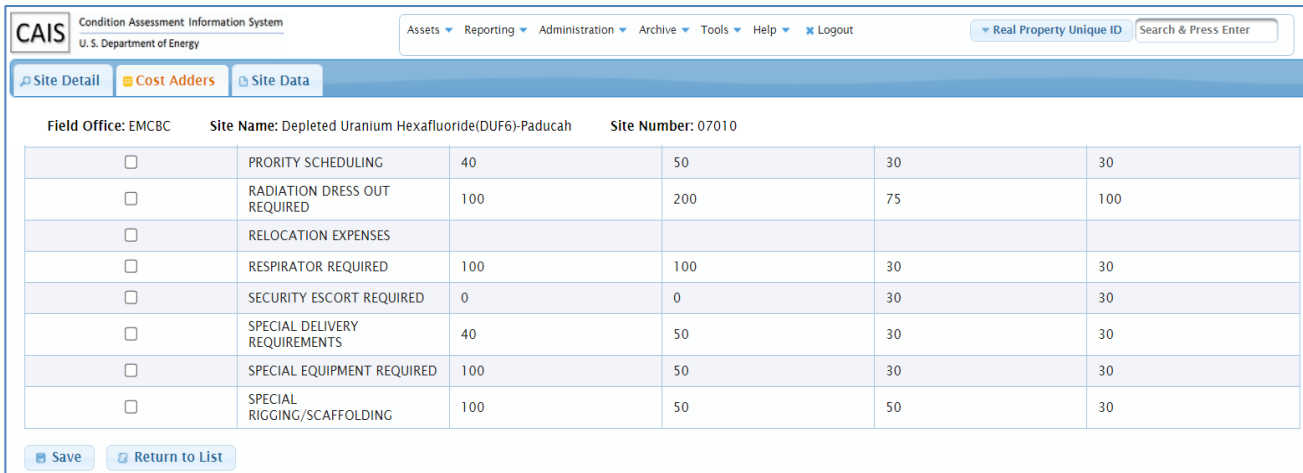
To commit changes to the database, click the **Save** button.

Use the previous  and next  buttons to navigate from one Site record to another.

The Site Detail window has a  button. By clicking this button, a site can recost all their CAIS generated Deferred Maintenance, Repair Needs and/or Modernization Cost. A site would only need to use this feature if changes were made to the Site and/or Area level data in CAIS. For example, a Site level Cost Adder was selected or changed, and/or the Area level Geographic Adjuster was changed.

Cost Adders

By clicking on the Cost Adders tab, the Cost Adders window will display:



The Headquarters Administrator, Field Office Administrator, and Site Administrator are the only users that can modify CAIS Cost Adders.

The Cost Adders window allows Site Level Cost Adders to be selected that are applied to the cost calculation for the entire Site.

Only the Headquarters Administrator, Field Office Administrator and Site Administrator will have the **Save** button activated for making updates to the Site Cost Adders data. To add a Site Level Cost Adder, click the **Selected** checkbox for all adders to be applied. Click the **Save** button to commit the changes to the database.

Reference Chapter 7 Cost Adders in this manual for additional information or click [here](#).

Site Data

The Headquarters Administrator, Field Office Administrator, and Site Administrator are the only users that can modify CAIS Site Data.

The Site Data window allows for the maintenance of the Site defined pick list used by CAIS. Only the Headquarters Administrator, Field Office Administrator and Site Administrator will have the **Save** button activated for this window. **This window allows for the adding, updating and deleting of pick list values for the following CAIS data fields:**

Cost Adders	Inspector	Site Defined 2
Funding Source	Project Status	Site Defined 3
Funding Type	Project Type	
Group	Site Defined 1	

To make changes to a user-defined data field, select the data field to be edited from the Selected Table pick list. The data field table will open. **Below is an example of the Project Status data field table:**

The screenshot shows the CAIS interface with the 'Site Data' tab selected. The 'Selected Table' dropdown is set to 'Project Status'. The table below lists status codes and their descriptions.

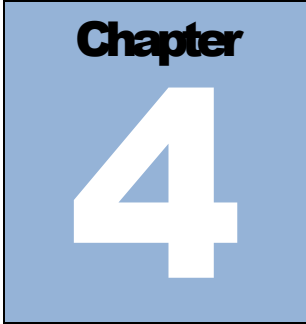
Delete	Status Code	Status Description
<input type="checkbox"/>	CANC	Cancelled
<input type="checkbox"/>	COMP	Completed
<input type="checkbox"/>	NP	Not Prioritized
<input type="checkbox"/>	PF	Prioritized - Funded, In Progress
<input type="checkbox"/>	PNF	Prioritized - Not Funded

Buttons at the bottom: Save, Add, Return to List.

To edit information, simply click in the appropriate field and change the information. Click the **Save** button to commit the changes to the database.

To add a new entry, click the **Add** button to insert a new line. Add values to the required fields. Click the **Save** button to commit the changes to the database.

To delete an entry, click the checkbox in the **Delete** column to insert a checkmark. Click the **Save** button to commit the changes to the database.



Area Level Processing

Area Overview

An Area is an administrative subdivision of a Site. CAIS Area Level data parallels the FIMS Area Level data.

The following Area Level data is maintained in FIMS and updated in CAIS automatically as changes are made to FIMS:

Area Name	Area Number
-----------	-------------

Area List

All CAIS users can view the Area Level data.

To access the Area Level data, click **Administration** then **Area Information** to open the Area List: Change the Field Office and/or Site pick lists, if applicable. Click the **Area Name** from the Area List to access the Area Level data.

The screenshot shows the CAIS web application interface. At the top left, it says "CAIS Condition Assessment Information System U.S. Department of Energy". A navigation menu includes "Assets", "Projects", "Reporting", "Administration", "Archive", "Interfaces", "Help", and "Logout". The main content area is titled "Area List". Below the title, there are two dropdown menus: "Field Office: EMCBC" and "Site: Paducah Gaseous". Below these are two columns: "Area Name" and "Area Number". The table lists three areas: "Infrastructure (INF)" with number "003", "Remediation (REM)" with number "001", and "USEC" with number "002".

Area Name	Area Number
Infrastructure (INF)	003
Remediation (REM)	001
USEC	002

Area Detail

The Headquarters Administrator, Field Office Administrator, and Site Administrator are the only users that can modify CAIS Area Detail data.

The Area Detail window allows for the designation of a geographic cost adjuster which is selected from a pick list of RS Means predefined locations. Only the Headquarters Administrator, Field Office Administrator and Site Administrator will have the **Save** button activated for making updates to the Area Detail data.

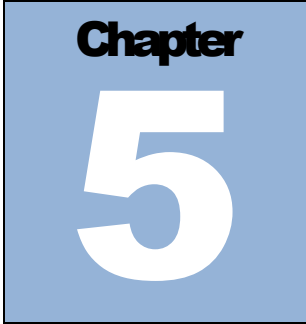
The screenshot shows the CAIS (Condition Assessment Information System) interface. At the top left, the CAIS logo and 'U.S. Department of Energy' are displayed. A navigation menu includes 'Assets', 'Reporting', 'Administration', 'Archive', 'Tools', 'Help', and 'Logout'. A search bar contains 'Property ID' and 'Search & Press Enter'. The main content area is titled 'Area Detail' and contains the following information:

- Field Office: Legacy Management
- Site Name: Ambrosia Lake, NM, Disposal Site
- Site Number: 08002
- Area Name: ALL
- Area Number: 001
- Geographic Adjuster: NEW MEXICO, ALBUQUERQUE (selected from a dropdown menu)
- Value: .900 (displayed in a text box)

At the bottom of the form, there are two buttons: 'Save' and 'Return to List'.

The Area Detail window displays the Geographic Adjuster unit cost of the selected location.

To commit changes to the database, click the **Save** button.



Asset Level Processing

Asset List

To access the list of assets for your Site, click **Assets** from the menu and select **Asset List**. The Asset List window will display the real property assets based on the Field Office, Site and Area default that you have established for your user account. Please reference Chapter 14 Application Security under **My Profile** or click [here](#) to learn how to establish a default location.



Please note: Only building, trailer and OSF real property assets from FIMS, regardless of ownership, are included in CAIS. Vertical scroll bars exist on the right that allow you to view the entire window.

CAIS Condition Assessment Information System U. S. Department of Energy							
Assets Reporting Administration Archive Tools Help Logout						Property ID Search & Press Enter	
Field Office: Chicago		Site Name: Argonne Natl Lab-Site D		Area Name: All		Staged IUS	
Asset List							
	HQ Program Office	Property ID	Property Name	Property Type	Last Inspection Date	Repair Needs	Deferred Maintenance
	Select One			Select One			
IU List	SC	030	SANITARY LIFT EAST AREA	Building	03/01/2018	\$63,346	\$480
IU List	SC	031	Storage	Building	03/01/2018	\$1,785,594	\$3,201
IU List	SC	032	Storage	Building	03/01/2018	\$19,577	\$0
IU List	SC	042	Elevated Water Strg Tank	Structure	03/01/2019	\$156,681	\$117,190
IU List	SC	046	Transportation Building	Building	03/01/2017	\$2,048,848	\$99,660
IU List	SC	046A	Transportation Building	Building	03/01/2017	\$534	\$534

The Asset List window will display the HQ Program Office, Property ID, Property Name, Property Type, Last Inspection Date, Repair Needs, and Deferred Maintenance for each real property asset. The Property ID contains a link that will direct you to the Asset Detail information. There is also an IU List link that will take you directly to the list of IU records for an asset.

The default sort for the Asset List window is the Property ID; however, you can change the sort by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on any of the columns displayed. For the HQ Program Office and Property Type, click the pick list to select a specific value to filter on. For the remainder of the columns, begin typing in the filter fields below the column name. As you type, the Asset List window will automatically filter based on your entry.

The Asset List window also allows you to identify assets that include Staged IU records that were created using the CAIS Mobile IU window. Just click the Staged IUs checkbox and the window will automatically refresh identifying those assets that contain Staged IU records.

To modify the Asset List window to reflect a different Field Office, Site and Area, click one of these fields and modify as needed. If the Field Office is modified, you will notice the pick list for Site and Area will be refreshed with new options. If the Site is modified, you will notice the pick list for Area will be refreshed with new options.

Asset Detail

By clicking on the Property ID link, you will be directed to the Asset Detail window below:

The screenshot shows the CAIS Asset Detail window. At the top, there is a navigation bar with tabs for Asset Detail, Attachments, Cost Adders, System Level Deficiency Cost, and IU. Below the navigation bar, the following information is displayed:

- Field Office: Savannah River Site
- Site Name: Savannah River Site
- Area Name: H
- Property ID: 221018
- Property Name: OFFICE BUILDING (221018H)
- Property Type: Building
- Ownership: DOE Owned
- RPUID: 143001

Below this information, there are several data fields for facility details:

- HQ Program Office: EM
- Usage Code: 101 Office
- Status: Operating
- Mission Dependency: Not Mission Dependent
- RPV: \$449,151
- RPV Model: E15 - Office - Small (E15)
- Size: 1,141 Gross Square Feet
- Year Built: 2003
- Estimated Disposition Year: 8888

On the right side of the form, there is a photograph of a blue industrial building.

At the bottom of the form, there are fields for financial and inspection data:

- Repair Needs: \$64,697
- Deferred Maintenance: \$64,697
- Modernization Cost: \$0
- Group: (dropdown menu)
- Last Inspection Date: 03/01/2017
- Next Inspection Date: (empty field)
- Functionality Assessment Date - CAIS: 05/06/2021
- Overall Asset Condition: Adequate (dropdown menu)
- Update All IUs with Last Inspection Date: (checkbox)
- PBPI: (dropdown menu)
- FIMS Upload Exclusion: No (dropdown menu)

There is a comments section with the text: "DM Evaluation Completed 11/14/2016 - SSH".

At the bottom, there are fields for "Added by FIMS", "Updated by FIMS: 08/19/2021", and "Archived by FIMS".

At the very bottom, there are buttons for "Save" and "Return to List".

At the top of the Asset Detail window is information that describes the asset you are currently viewing. This information includes Field Office, Site Name, Area Name, Property ID, Property Name, Property Type, Ownership and RPUID; it will be constantly displayed regardless of the tab you are viewing.

The next section below displays basic facility information about the asset. All of these data fields originate from FIMS and are displayed as read-only. If any of these data fields are modified in FIMS, those updates will be immediately reflected in CAIS.

The FIMS data fields displayed as read-only include the following:

Property ID	Mission Dependency
Property Name	RPV
Property Type	RPV Model
Ownership	Size
RPUID	Size Unit of Measure
HQ Program Office	Year Built
Usage Code	Estimated Disposition Year
Status	

The remaining portion of the window includes data fields from CAIS. Deferred Maintenance, Repair Needs, and Modernization Cost are system generated based on data input at the Inspection Unit Level or the System Level Deficiency Cost window. These are the critical fields that are uploaded to FIMS along with Last Inspection Date and the Repair Needs by Uniformat (Volume) . Please reference Chapter 12 CAIS to FIMS Upload or click [here](#) for more information.

The Last Inspection Date can be system generated if the CAIS Administrator sets the Update Last Inspection Date field from the Site Detail window to 'Yes'. As a result, if the Inspection Date from an Inspection Unit record for a particular asset is more recent than the Last Inspection Date from the Asset Detail window, then CAIS will automatically update the Last Inspection Date with the most recent date from the Inspection Unit record.

When the Last Inspection Date is updated, the Next Inspection Date will be system generated based on the Last Inspection Date plus the number of years defined in the Inspection Frequency. CAIS will continue to allow the user to manually update the Next Inspection Date after it has been system generated.

The Update All IUs with Last Inspection Date check box will update the Inspection Date (IU level) data field for all active Inspection Unit records (IUs) associated with the asset with the date in the Last Inspection Date (Asset level) data field. To perform this update, simply click the check box and click the Save button.

There are three (3) audit date fields at the bottom of the window. These are updated based on activity in FIMS.



Added by FIMS: <input type="text" value="09/29/2011"/>	Updated by FIMS: <input type="text" value="02/18/2015"/>	Archived by FIMS: <input type="text"/>
--	--	--

- **Added by FIMS** - When an asset is added to FIMS it is automatically added to CAIS. This field represents the date the asset was added to CAIS.
- **Updated by FIMS** - When any of the FIMS data fields that are displayed in this window are updated, this date reflects when those updates occurred in CAIS.
- **Archived by FIMS** - This date reflects when this asset was archived in FIMS. When an asset is archived in FIMS it is automatically archived in CAIS. Please reference Chapter 11 Archive Processing or click [here](#) for more information.

To make any updates on this screen, click the field you wish to update and make your changes. To commit changes to the database, click the **Save** button.



Please note: Updating the Overall Asset Condition to 'Substandard' or 'Inadequate' and clicking **Save** will open a popup window containing the Condition Notes. Any existing Condition Notes in FIMS will be displayed and may be modified or added to. Clicking the **Save** button on the Condition Notes popup window will save the updated Condition Notes to FIMS. Click the **Cancel** button to close the popup window without saving.

Use the previous  and next  buttons to navigate from one Asset Level record to another.

To return to the Asset List window, click the **Return to List** button.

Attachments

By clicking on the Attachments tab, the Attachments window below will display:

The screenshot shows the CAIS interface with the 'Attachments' tab selected. The header includes navigation menus and a search bar. Below the header, there are tabs for 'Asset Detail', 'Attachments', 'Cost Adders', 'System Level Deficiency Cost', and 'IU'. The main content area displays asset information: Field Office: Sandia Field Office, Site Name: SNL - New Mexico, Area Name: 001_Area 1, Property ID: 802, Property Name: ADMIN & DEV LAB, Property Type: Building, Ownership: DOE Owned, and RPUID: 87220. Below this information is a file upload section with 'Browse', 'Upload', and 'Cancel' buttons. The 'Asset Attachment List' table contains the following data:

View Attachment	Delete Attachment	File Name
↓ Download	🗑️ Delete	802-0038-E436F7E9-D150-BC49-B8B1-FF9AF59F59CA.Photo1.jpg
↓ Download	🗑️ Delete	802-0038-E436F7E9-D150-BC49-B8B1-FF9AF59F59CA.Photo2.jpg
↓ Download	🗑️ Delete	802-0038-E436F7E9-D150-BC49-B8B1-FF9AF59F59CA.Photo3.jpg
↓ Download	🗑️ Delete	802-0038-E436F7E9-D150-BC49-B8B1-FF9AF59F59CA.Photo4.jpg

At the bottom of the window, there is a 'Return to List' button.

CAIS has the capability to store Attachments at the Asset Level. Attachments that have already been uploaded for a particular asset will be displayed when the window opens. The file name will be displayed along with buttons to download or remove the Attachments. Click the **Download** button to view the image.

If you wish to remove an Attachment, click the **Delete** button. You will be prompted to confirm the delete request. CAIS will indicate the successful removal of the Attachment by providing a confirmation message.

To upload an attachment, perform the following:

1. Click the **Browse** button. You will then select the file you wish to attach.
2. Once you have selected a file, click the **Upload** button. If you wish to cancel the upload, click the **Cancel** button.
3. Once you click **Upload**, CAIS will attach the file and you will then see the file name displayed on the Asset Attachment List.



Please note: You can upload multiple attachments. Acceptable file types include .jpg, .pdf, .xls, .xlsx, .doc and .docx.

If you wish to return to the Asset List window, click the **Return to List** button.

Cost Adders

By clicking on the Cost Adders tab, the Cost Adders window will display:

The screenshot shows the CAIS interface with the 'Cost Adders' tab selected. The header includes navigation menus and a search bar. Below the header, there are tabs for 'Asset Detail', 'Attachments', 'Cost Adders', 'System Level Deficiency Cost', and 'IU'. The main content area displays asset information: Field Office: Savannah River Site, Site Name: Savannah River Site, Area Name: A, Property ID: 604000, Property Name: WALKS - A AREA (604000A), Property Type: Structure, Ownership: DOE Owned, and RPUID: 202974.

The 'Asset - Cost Adders' section contains two tables:

Site Applied Adders					
Type	Description	Equipment %	Material %	Labor %	O&P %
Site	COST ADJUSTER-SRS	57	57	129	129
Site	GEOGRAPHICAL SITE FACTOR	0	-3	1	0

Asset Level Adders					
Selected	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	ARA	130	130	130	0
<input type="checkbox"/>	ASBESTOS INSULATION PIPE,TANK	178	0	178	100
<input type="checkbox"/>	ASBESTOS TRANSITE,ROOF,TILES	43	0	43	50
<input type="checkbox"/>	CA	70	70	70	0

At the bottom of the window, there are 'Save' and 'Return to List' buttons.

The Cost Adders window allows Asset Level Cost Adders to be selected that are applied to the cost calculation for the asset. Any Site Level applied Cost Adders will be displayed in the Site Applied Adders section of the window.

To add an Asset Level Cost Adder, click the **Selected** checkbox for all adders to be applied. Click the **Save** button to commit the changes to the database.

Reference Chapter 7 Cost Adders in this manual for additional information or click [here](#).



NOTE ABOUT COST CALCULATIONS: If you remove or add any Cost Adders at the Asset Level, CAIS will automatically recost the Asset record and all Inspection Unit records associated with the asset.

System Level Deficiencies Cost

By clicking on the System Level Deficiency Cost tab, the System Level Deficiency Cost window will display:

CAIS Condition Assessment Information System
U.S. Department of Energy

Assets Reporting Administration Archive Tools Help Logout

Property ID

Asset Detail
Attachments
Cost Adders
System Level Deficiency Cost
IU

Field Office: Richland Ops Office Site Name: Office of River Protection Area Name: 200E Property ID: 2025ED

Property Name: Purgewater Unloading Facility Property Type: Building Ownership: DOE Owned RPUID: 208734

RPV Model: N17 - Process Building - Small (N17) Usage Code: 599 Other Industrial Facility

The use of this window is only intended for Excess/Shutdown assets.

System Level Deficiency Cost														
Volume	System Level				Repair Needs				Deferred Maintenance				Total	
	Cost	Factor	Percent Failed	DM	Engineerec	System Level	IU	Calculation Method	Engineerec	System Level	IU	Calculation Method	Repair Needs	Deferred Maintenanc
A10- Foundation	\$250,677	1.000	10	No		\$25,068	\$0	Sys Level			\$0	IU	\$25,068	\$0
A20- Basement	\$2,227	1.000	0	No		\$0	\$0	IU			\$0	IU	\$0	\$0
B10- Superstr.	\$663,536	1.000	10	No		\$66,354	\$0	Sys Level			\$0	IU	\$66,354	\$0
B20-Ext. Closure	\$154,837	1.000	20	Yes		\$30,967	\$0	Sys Level		\$30,967	\$0	Sys Level	\$30,967	\$30,967
B30- Roofing	\$243,840	1.000	20	No		\$48,768	\$0	Sys Level			\$0	IU	\$48,768	\$0
C10-Int. Const.	\$281,308	1.000	20	No		\$56,262	\$0	Sys Level			\$0	IU	\$56,262	\$0
C20-Int. Stairs	\$21,372	1.000	0	No		\$0	\$0	IU			\$0	IU	\$0	\$0

The System Level Deficiency Cost window provides an alternative to inputting Inspection Unit Level data. It is only intended to be used for Excess/Shutdown assets. These are assets with the FIMS Excess Indicator set to Yes and the Status set to Shutdown, Undergoing Stabilization/Deactivation, Undergoing Decommissioning, or Undergoing Disposition. **This window provides the following capabilities:**

- Repair Needs and Deferred Maintenance can be calculated by the percentage of the building system that is deficient. It can only be used for buildings and trailers that are utilizing a Replacement Plant Value (RPV) Model as the basis for the RPV calculation in FIMS.
- Sites can input an Engineered Cost for Repair Needs or Deferred Maintenance.
- Can be used in conjunction with the Inspection Unit Level data to calculate Repair Needs or Deferred Maintenance.

Why would you want to use the System Level Deficiency Cost window?

- Assets that are in shutdown status and will eventually be disposed.
 - RPAM still requires inspections on these assets but doesn't warrant the time needed to conduct a full CAS inspection.
- Assets where a system is in a known state of failure and a full CAS inspection is unnecessary.

There are four (4) Calculation Methods used by this screen to calculate Repair Needs and Deferred Maintenance:



Please note: The selection of Cost Adders have no impact on these calculations.

1. **IU** - This is the default calculation method that is selected when you open this window for the first time. It reflects the Repair Needs and Deferred Maintenance that was calculated based on entries at the Inspection Unit level.
2. **Engineered** - This calculation method represents a site-entered estimate for Repair Needs or Deferred Maintenance. When you enter an Engineered Cost for a particular volume, the Calculation Method will automatically change to Engineered.
3. **System Level** - This calculation method represents a calculated Repair Needs or Deferred Maintenance when the Percent Failed is populated. The Percent Failed should represent the percentage of the volume that is deficient. Once the Percent Failed is populated, CAIS will immediately calculate a Repair Need under the System Level column. You will notice the Calculation Method will automatically change to System Level. If you go to the DM pick list and change the value to 'Yes', then the System Level Cost that was generated for Repair Needs will also be generated for Deferred Maintenance under the System Level column.

The formula for calculating these System Level values is as follows:

$$\text{System Level Repair Needs or System Level Deferred Maintenance Cost} = (\text{System Level Percent Failed} * \text{System Level Cost}) * \text{System Level Factor}$$

The System Level Cost is system generated and is based on the RPV value of the asset and RPV Ratios that are provided by RS Means based on the RPV model used to calculate the RPV. The Factor field, which defaults to 1.000, can be modified if there is a need for escalating cost due to specific Site requirements.

4. **System Level + IU** - This calculation method represents the System Level cost as defined in Step 3 above, plus any Inspection Unit Level cost that was previously entered.



Please note: As you work with this window, you will notice there are total columns on the right-hand side which will represent the Total Repair Needs and Total Deferred Maintenance for each Volume. There are also Repair Needs and Deferred Maintenance grand totals at the bottom of the window that represent the Asset Level Repair Needs and Deferred Maintenance.

To make any updates on this screen, click the field you wish to update and click the **Save** button to commit the changes to the database. Once saved, the Total Repair Needs and Deferred Maintenance at the bottom of this screen will match the Repair Needs and Deferred Maintenance on the Asset Detail window.

To return to the Asset List window, click the **Return to List** button.

Inspection Unit (IU) List

By clicking on the IU tab, the IU List window will display:

The screenshot shows the CAIS (Condition Assessment Information System) interface. At the top, there are navigation tabs: Asset Detail, Attachments, Cost Adders, System Level Deficiency Cost, and IU (selected). Below the tabs, the following information is displayed:

- Field Office: Livermore Field Office
- Site Name: Lawrence Livermore National Laboratory
- Area Name: All
- Property ID: 02EPL
- Property Name: Electrical Utility - Primary Dist Lines
- Property Type: Structure
- Ownership: DOE Owned
- RPUID: 89512

The main table is titled "IU List" and contains the following data:

Select IU	IU Number	Description	Repair Needs	Inspector Name	Repair Needs Indicator	Deferred Maintenance	Deferred Maintenance Indicator	Modernization Indicator
<input type="checkbox"/>	35310		\$168,215	DENTON, WILLIAM	Y	\$168,215	Y	N
<input type="checkbox"/>	35351		\$168,215	DENTON, WILLIAM	Y	\$168,215	Y	N
<input type="checkbox"/>	35358		\$168,215	DENTON, WILLIAM	Y	\$168,215	Y	N
<input type="checkbox"/>	35425		\$26,262	ERICKSON, MEREDITH	Y	\$26,262	Y	N
<input type="checkbox"/>	35470		\$49,972	ERICKSON, MEREDITH	Y	\$49,972	Y	N
<input type="checkbox"/>	35472		\$7,239	GANCH, ED	Y	\$7,239	Y	N
<input type="checkbox"/>	35476		\$66,629	ERICKSON, MEREDITH	Y	\$0	N	N
<input type="checkbox"/>	35482		\$38,867	ERICKSON, MEREDITH	Y	\$38,867	Y	N
<input type="checkbox"/>	35485		\$6,611	GANCH, ED	Y	\$0	N	N
<input type="checkbox"/>	35489		\$29,150	GANCH, ED	Y	\$0	N	N

At the bottom of the window, there are buttons for "New IU", "Move/Copy IU", "Delete IU", and "Archive".

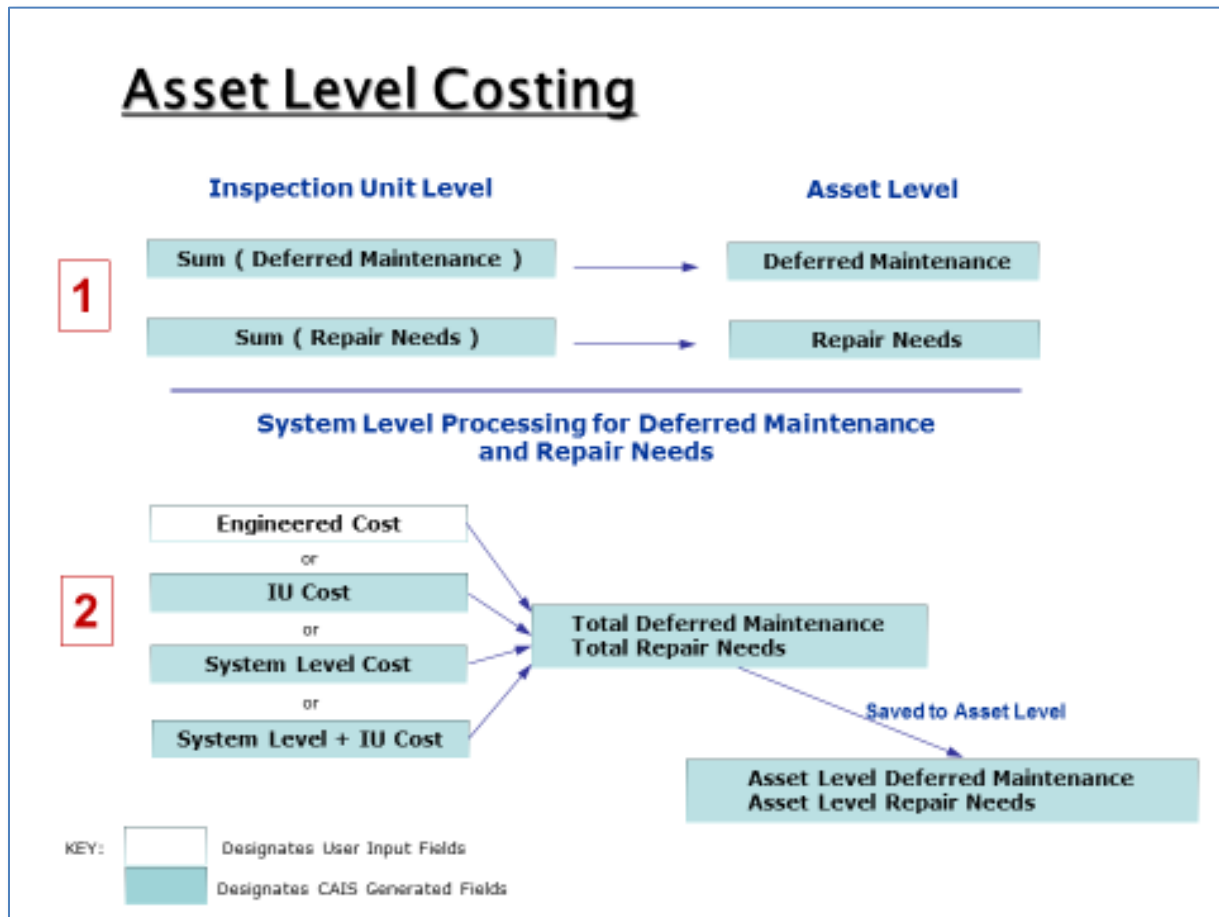
Reference *Chapter 6 Inspection Unit Level Processing* in this manual for details on using the IU List window or click [here](#).

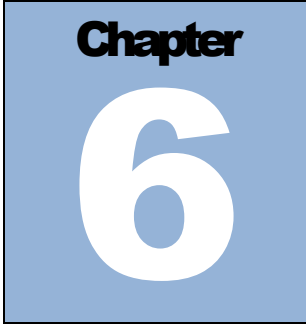
To return to the Asset level information, click one of the following tabs:

Asset Detail	Cost Adders
Attachments	System Level Deficiency Cost

The following diagram represents how Asset Level costing occurs within CAIS. Costing at this level can occur over one of two paths:

- **Option 1** symbolizes data entry at the Inspection Unit Level that results in Repair Needs and Deferred Maintenance being moved up to the Asset Level.
- **Option 2** represents a Site's use of the System Level Deficiency Cost window to calculate Repair Needs and Deferred Maintenance at the Asset Level. This process can work independently or in conjunction with the Inspection Unit Level, based on the Calculation Methods selected.





Inspection Unit Level Processing

A Condition Assessment Survey (CAS) is a visual, non-invasive inspection of a real property asset. When a CAS inspection is conducted, deficiencies can be identified. The Inspection Unit Level is where these deficiencies are entered into CAIS. This is where the majority of the data entry occurs within CAIS.

Inspection Unit List

There are two (2) ways to access a list of Inspection Units for a specific asset:

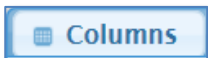
1. Click **Assets** from the menu and select **Asset List**. The Asset List window will display the real property assets based on the Field Office, Site and Area default that you have established for your user account. In the first column of the Asset List is a link called IU List. Click the **IU List** link to display the IU List window which contains a list of all Inspection Unit records associated with that asset.
2. Click **Assets** from the menu and select **Asset List**. The Asset List window will display the real property assets based on the Field Office, Site and Area default that you have established for your user account. By clicking on the Property ID, you will be directed to the Asset Level information. From there, you will see an IU tab at the top of the window on the far right. Click the **IU** tab and the IU List window will be displayed containing all Inspection Unit records associated with that asset.

Select IU	IU Number	Description	Repair Needs	Inspector Name	Repair Needs Indicator	Deferred Maintenance	Deferred Maintenance Indicator	Modernization Indicator
<input type="checkbox"/>	35310		\$168,215	DENTON, WILLIAM	Y	\$168,215	Y	N
<input type="checkbox"/>	35351		\$168,215	DENTON, WILLIAM	Y	\$168,215	Y	N
<input type="checkbox"/>	35358		\$168,215	DENTON, WILLIAM	Y	\$168,215	Y	N
<input type="checkbox"/>	35425		\$26,262	ERICKSON, MEREDITH	Y	\$26,262	Y	N
<input type="checkbox"/>	35470		\$49,972	ERICKSON, MEREDITH	Y	\$49,972	Y	N
<input type="checkbox"/>	35472		\$7,239	GANCH, ED	Y	\$7,239	Y	N
<input type="checkbox"/>	35476		\$66,629	ERICKSON, MEREDITH	Y	\$0	N	N
<input type="checkbox"/>	35482		\$38,867	ERICKSON, MEREDITH	Y	\$38,867	Y	N
<input type="checkbox"/>	35485		\$6,611	GANCH, ED	Y	\$0	N	N
<input type="checkbox"/>	35489		\$29,150	GANCH, ED	Y	\$0	N	N

The IU List window will display the Field Office, Site Name, Area Name, Property ID, Property Name, Property Type, Ownership, and RPUID at top that denotes the current asset represented by the list of Inspection Unit records on the window.

The default sort for the IU List window is the IU Number; however, you can change the sort by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on any of the columns displayed. You can begin typing in the filter fields below the column name. As you type, the IU List window will automatically filter, based on your entry.

The default columns displayed on this window are controlled by your user ID My Profile window setting for **Advanced Filters**. Checking **Advanced Filters** on the My Profile window for your user ID will display more columns, while leaving **Advanced Filters** unchecked will display less columns. Regardless of your user ID



setting, the **Columns** button on the IU List window maybe used to add additional columns or remove existing columns. Use the checkboxes in the pick list to add or remove columns.

The IU List window also allows you to identify Staged IU records that were created using the CAIS Mobile IU. Just click the Staged IUs checkbox and the IU List will automatically refresh displaying just Staged IUs.

Move/Copy IU




The **Move/Copy IU** button will move or copy selected IU(s) from the IU List window to the requested asset(s) within your site. The Copy function will copy all associated IU data (IU Detail, Attachment, and Cost Adders) and a new IU(s) will be created with a new IU Number(s). The Move function will move all associated IU data (IU Detail, Attachment, and Cost Adders) to the selected asset. The existing IU Number(s) will remain unchanged when moving IUs.

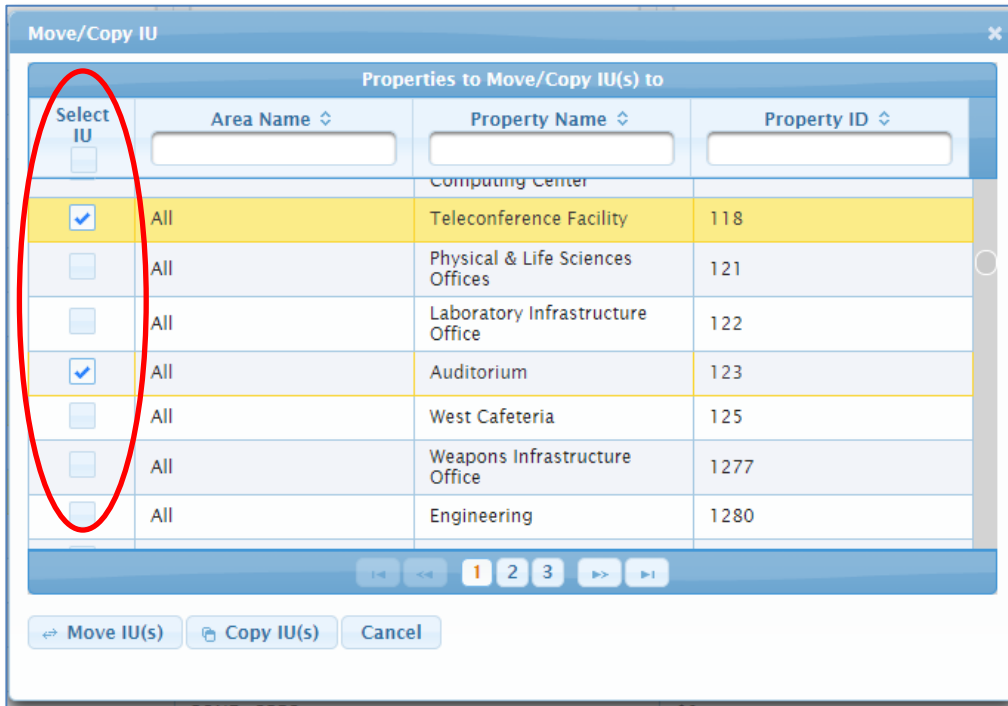


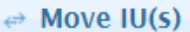
Important - when IUs are copied/moved: If the CAIS Administrator set the Update Last Inspection Date field on the Site Detail window to 'Yes', the Asset Last Inspection Date will be updated with the IU Inspection Date if the IU Inspection Date is greater than the Asset Last Inspection Date.

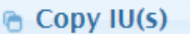
On the IU List window, use the checkboxes in the Select IU column to select one or more IUs desired to be copied or moved. The checkbox in the Select IU header can be selected to check all IUs.

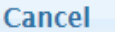
Select IU	IU Number	Repair Needs	Inspector Name	Deferred Maintenance	Modernization Cost
<input type="checkbox"/>	17247	\$18,934	BOND, CREG	\$18,934	\$9,139
<input type="checkbox"/>	31856	\$0	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	31857	\$6,335	MORELLI, BARRY	\$6,335	\$9,139
<input type="checkbox"/>	33590	\$0	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	34056	\$18,603	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	34530	\$9,359	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	44121	\$0	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	44123	\$171,880	MORELLI, BARRY	\$0	\$9,139
<input checked="" type="checkbox"/>	44125	\$162,834	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	44140	\$11,156	MORELLI, BARRY	\$0	\$9,139
<input checked="" type="checkbox"/>	45067	\$2,514	MORELLI, BARRY	\$0	\$9,139
<input type="checkbox"/>	45181	\$0	MORELLI, BARRY	\$0	\$9,139

Click the  button. The following window will open. Use the checkboxes in the Select IU column to select the asset(s) where the selected IU(s) will be copied or to select the asset where the selected IU(s) will be moved. For the copy function, the checkbox in the Select IU header can be selected to check all assets.




Click the  button to move the IU(s) to the selected asset.


Click the  button to copy the IU(s) to the selected asset(s).

Use the  button to cancel the IU Copy process.

Delete IU

The  button will delete one or more IUs from the IU List window. On the IU List window, use the checkboxes in the Select IU column to select one or more IUs to be deleted. The checkbox in the Select IU header can be selected to check all IUs. A popup will confirm that you wish to delete the selected IU(s).

Archive IU

The  button will archive one or more IUs from the IU List window. On the IU List window, use the checkboxes in the Select IU column to select one or more IUs to be archived. The checkbox in the Select IU header can be selected to check all IUs. A popup will confirm that you wish to archive the selected IU(s).

IUs with Legacy ZZ9999 RSM Line Number line items cannot be archived. A new line item should be created with a valid RSM Line Number and the ZZ9999 line item deleted.

New Inspection Unit



By clicking on the **New IU** button from the IU List window, the IU Detail window will be displayed:

The New Inspection Unit window will display the Field Office, Site Name, Area Name, Property ID, Property Name and Property Type at top that represents the asset for which the Inspection Unit record will be created.

Enter the data values in the Required section. Only Inspection Date and Inspector Name are required.



CAIS allows for multiple Line Items per IU record. Click the **+** button at the top left of the Line Items section of the window to add a new Line Item(s) to your IU. The Line Number Search window as shown below will open to allow you to search for your RS Means Line Item(s).

To Retrieve the RS Means Cost Data

The Line Number Search window will open as shown below:

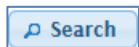
RSM Line Number	Line Number Description	EQP	MTL	LAB	O&P	Total	UOM
C10201023300	Door, double leaf, kd steel frame, hollow metal, commercial quality, B label, 2 - 3'-0" x 7'-0" x 1-3/8"	\$0.00	\$2,075.00	\$355.00	\$440.00	\$2,870.00	Opng.
C10201023400	Door, double leaf, kd steel frame, hollow metal, commercial quality, B label, 6'-0" x 10'-0" opening, with transor	\$0.00	\$2,500.00	\$440.00	\$515.00	\$3,455.00	Opng.

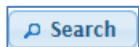
There are two ways to search and retrieve cost data to add to your IU.

Search Option 1

Use the following data fields to search for an item(s) to add to your IU:

- **Source** – Choose one of the following pick list values:
 - Assembly – Collection of components which make up the functional elements that are common to most assets. Assembly data is arranged according to the UNIFORMAT II classification system. Generally, this option is associated with new construction.
 - Maintenance Assembly - Collection of components which make up the functional elements that are common to most assets that are associated with maintenance and/or repair activities of existing construction. Assembly data is arranged according to the UNIFORMAT II classification system.
 - Maintenance Master Format - Represents a master list of titles and numbers for individual asset components. This option is associated with maintenance and/or repair activities of existing construction.
 - Master Format - Represents a master list of titles and numbers for individual asset components. Generally, this option is associated with new construction.
- **RSM Line Number** – Use this field to search for a specific line number or enter a portion of a line number.
- **Line Number Description** – Enter one or more keywords to search the cost data.



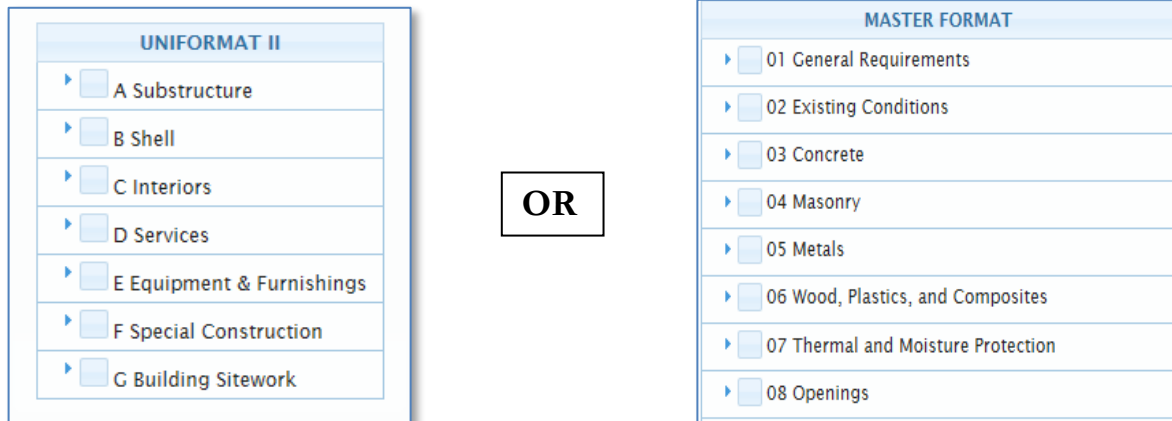
Click the  button to retrieve the matching cost data.

Search Option 2

A tree structure is available to search the Uniformat II and Master Format data. Make a select from the **Source** pick



list and then click the button to open either the Uniformat II or Master Format tree structure in the bottom left pane of the window as shown here.



Use the button beside each level to expand it to the next level. To retrieve cost data at a specific level, click



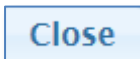
the check box to place a in one of the boxes. The matching cost data will be displayed.

Search Results

The retrieved Search Results can be sorted by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on RSM Line Number, Line Number Description, and/or UOM (Unit of Measure). Simply begin typing in the filter field below the column name. As you type, the retrieved data will automatically filter, based on your entry.

The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will be displayed. The following Assembly Detail window is an example of RSM Line Number G20202141920 Parking lot, 30 cars with 2 handicap & lighting, 3" bituminous paving, 10" crushed stone.



Click the button to close the Assembly Detail window.

Assembly Detail


G20202141920
Parking lot, 30 cars with 2 handicap & lighting , 3" bituminous paving, 10" crushed stone

RSM Line Number	Line Number Description	Quantity	UOM	Total
017123131300	Boundary & survey markers, crew for building layout, 4 pe	0.62	Day	\$1,795.50
033053403800	Structural concrete, in place, spread footing (3000 psi), ur	2.35	C.Y.	\$389.96
260519901300	Wire, copper, stranded, 600 volt, #8, type THWN-THHN, nc	8.4	C.L.F.	\$88.50
262816200100	Safety switches, general duty, 3 pole, fusible, 240 volt, 30	1	Ea.	\$235.50
265613103000	Light poles, anchor base, aluminum, 20' high, excl concre	5	Ea.	\$1,530.00
265621202780	Roadway area luminaire, high pressure sodium, 400 Watt,	5	Ea.	\$1,053.00
310516100320	Aggregate for earthwork, crushed stone, 1.40 tons per C.Y	449	L.C.Y.	\$33.80
312216100012	Fine grading, finish grading, small area, to be paved with	682	S.Y.	\$3.56
312316140100	Excavating, chain trencher, utility trench, common earth, i	420	L.F.	\$0.60

Close

- Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information as shown below. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).



Click the  button to close the Crew/Labor Information window.

Crew/Labor Information

262416302200
Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 32 circuits, NQOD, incl 20 A 1 pole plug-in breakers


[Crew Cost](#)
[Labor Rates](#)

Crew	Daily Output	Labor Hours
ELEC	0.72	22.222

Close

To select a line item or multiple line items, click the button(s) to the right of the line of data as shown below. Click the



 button to add the line item(s) to your IU and return to the IU Detail window.

Line Number Search

Source: RSM Line Number:

Line Number Description:

Search Results								
<input type="checkbox"/>	RSM Line Number	Line Number Description	EQP	MTL	LAB	O&P	Total	UOM
<input checked="" type="checkbox"/>	019302509141	Prepare railings for painting	\$0.00	\$0.00	\$2.42	\$1.40	\$3.82	L.F.
<input type="checkbox"/>	055123253000	Prepare fire escape balcony for painting	\$0.00	\$0.00	\$4.65	\$2.70	\$7.35	L.F.
<input type="checkbox"/>	055123253005	Prepare fire escape stair and platform for painting	\$0.00	\$0.00	\$111.00	\$66.00	\$177.00	Flight
<input type="checkbox"/>	055123253010	Prepare fire escape ladder for painting	\$0.00	\$0.00	\$0.93	\$0.54	\$1.47	V.L.F.
<input checked="" type="checkbox"/>	070130100090	Prime and paint prepared surface	\$0.00	\$0.72	\$0.77	\$0.64	\$2.13	S.F.
<input type="checkbox"/>	070130100100	Prime and paint surface	\$0.00	\$0.72	\$0.77	\$0.64	\$2.13	S.F.
<input checked="" type="checkbox"/>	080111100090	Paint door surface	\$0.00	\$0.27	\$0.55	\$0.40	\$1.22	S.F.
<input type="checkbox"/>	080111100140	Paint grated door surface	\$0.00	\$0.07	\$0.32	\$0.21	\$0.60	S.F.
<input type="checkbox"/>	080111100170	Paint metal mesh surface	\$0.00	\$0.07	\$0.32	\$0.21	\$0.60	S.F.

To return to the IU Detail window without selecting any line items, click the button.

Entering Line Item Data and Calculating Cost

After the line item(s) is added to your IU, you are returned to the IU Detail window.

Input the Quantity for each line item. Volume is system generated for Assemblies but must be populated for Master Format and Maintenance Master Format RS Means line items.

After inputting the required fields and any additional fields, click the **Save** button to commit changes to the database. Notice that a unique IU Number has now been generated for this newly created record.



Please note: There are several cost fields included on the IU Detail window. It is important to understand the distinction between each of them.

- **Engineered Cost** – User input, vendor generated detailed cost estimate which overrides any CAIS system generated costs.
- **Official Cost**– System generated summation of the Line Items Official Cost for the IU or if Engineered Cost is entered, it is set equal to the Engineered Cost
- **Completed Cost**– User input field that represents the cost to repair or replace a component

The Official Cost will be added to Asset Level Repair Needs, Deferred Maintenance or Modernization cost fields, depending on the following three (3) fields:

- **Repair Needs Indicator** - If this field is checked, the Official Cost for the IU will be added to the asset Repair Needs cost.

- **Deferred Maintenance Indicator** - If this field is checked, the Official Cost for the IU will be added to the asset Deferred Maintenance cost.



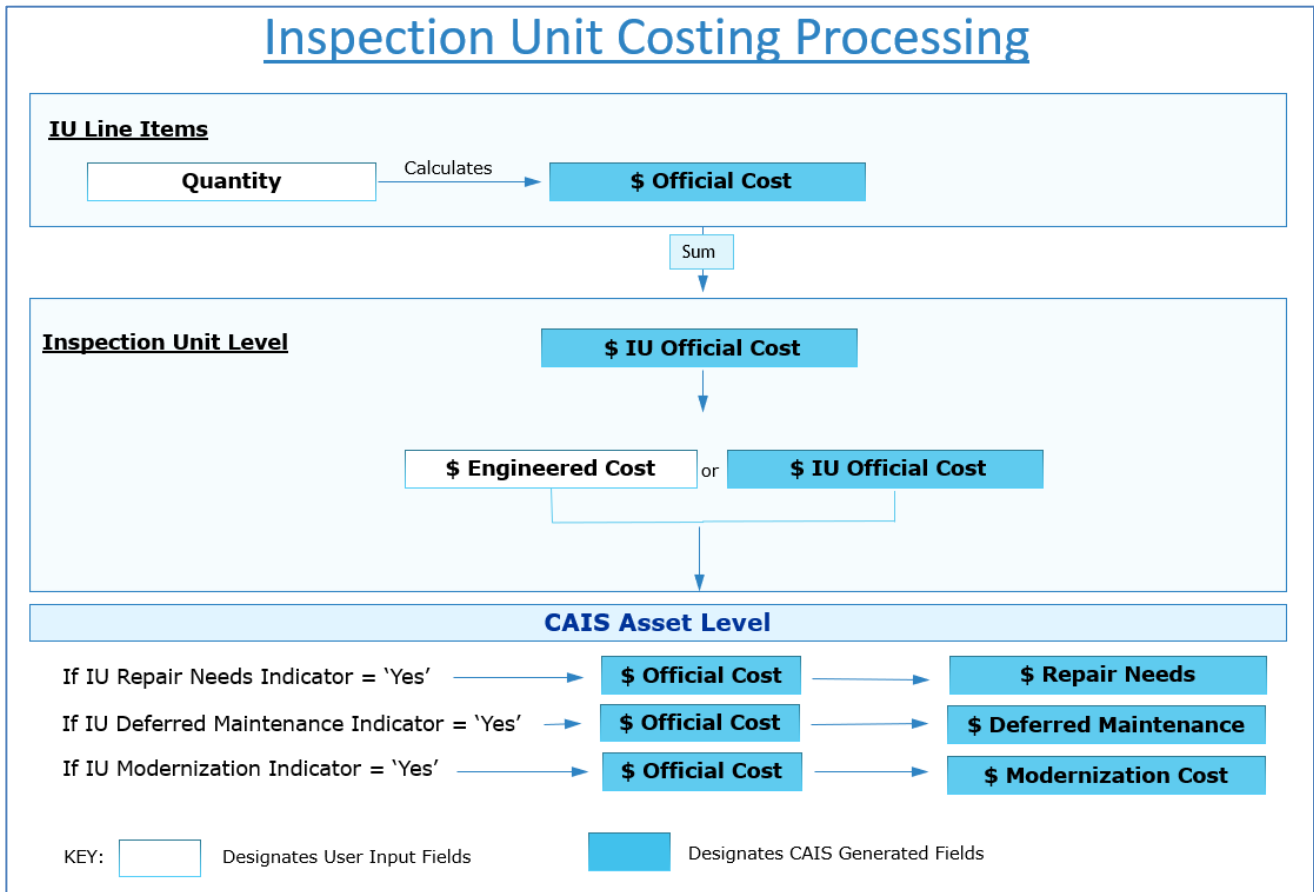
Important: In order for this field to be checked, the Repair Needs Indicator must also be checked.

- **Modernization Indicator** - If this field is checked, the Official Cost for the IU will be added to the asset Modernization cost.



Important: This field can only be checked when the Repair Needs Indicator and the Deferred Maintenance Indicator are not checked.

The illustration below highlights how the costs go from the Inspection Unit Level to the Asset Level, based on data input and generated at the Inspection Unit Level:



Inspection Unit Detail

There are two (2) ways to access the IU Detail window:

1. Click the **IU Number** link on the IU List widow
2. Click **Assets** from the menu and select **IU Search** to display the IU Search window.

Site	Area	Property ID	IU Number	Equipment ID	Work Order
Argonne Natl Lab-Site D	All	202	168251	13057	
Argonne Natl Lab-Site D	All	202	168253	13057	
Argonne Natl Lab-Site D	All	202	168254	13057	

- The IU Search window will display the Field Office, Site and Area default that you have established for your user account. The Area pick list provides an 'All Areas' option to allow a site to search all Areas within the Site. Additionally, the Property ID, IU Number, Equipment ID and Work Order are available to use for search criteria.
- The IU Search window provides 2 options:
 - This window will allow you to go directly to the IU Detail window by inputting an IU Number.
 - You may also search for IU records by Property ID, Equipment ID or Work Order.
 - If a single IU record is retrieved from the Property ID, Equipment ID or Work Order search, the IU Detail window will open.
 - If multiple IU records are retrieved, a list of IU records will display. Select one of the IU records from the list to open the IU Detail window.

The IU Detail window will display as follows:

The screenshot shows the CAIS IU Detail window. At the top, it displays the CAIS logo and navigation menus. Below that, it shows the following information:

- Field Office: Livermore Field Office
- Site Name: Lawrence Livermore National Laboratory
- Area Name: All
- Property ID: 625
- Property Name: EPD/RHWM Waste TSDF
- Property Type: Building

Under the 'Required' section, there are input fields for:

- IU Number: 60795
- Inspection Date: 10/04/2021
- Inspector Name: FERNANDES, JEFFREY
- Location: Room
- Location Description: 1000; ROOM
- Description: (empty)
- Engineered Cost: (empty)
- Official Cost: \$44,886
- Completed Cost: (empty)
- Equipment ID: T2142
- Indicators: Repair Needs, Deferred Maintenance, Modernization - Type: (dropdown)

Below this is a table titled 'Line Items' with the following data:

Select	Quantity	Volume	RSM Line Number	Line Number Description	UOM	RSM Unit Cost	Official Cost
<input type="checkbox"/>	1.00	D50	262213101900	Transformer, dry-type, single phase 240/480 V primary 120/240 V	Ea.	\$7,275.00	\$44,886

At the bottom, there are buttons for Save, IU, Line Items, Notes, Return to List, and IU Search.

The IU Detail window will display the Field Office, Site Name, Area Name, Property ID, Property Name and Property Type at top of the window to identify the asset to which the Inspection Unit record belongs. This information will be constantly displayed regardless of which Inspection Unit record window you are viewing.

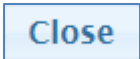
The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

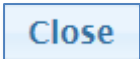
1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will be displayed. The following Assembly Detail window is an example of RSM Line Number [G20202141920](#) Parking lot, 30 cars with 2 handicap & lighting, 3" bituminous paving, 10" crushed stone.

The screenshot shows the Assembly Detail window for RSM Line Number G20202141920. The title is 'Assembly Detail' and the description is 'Parking lot, 30 cars with 2 handicap & lighting , 3" bituminous paving, 10" crushed stone'.

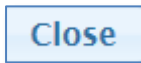
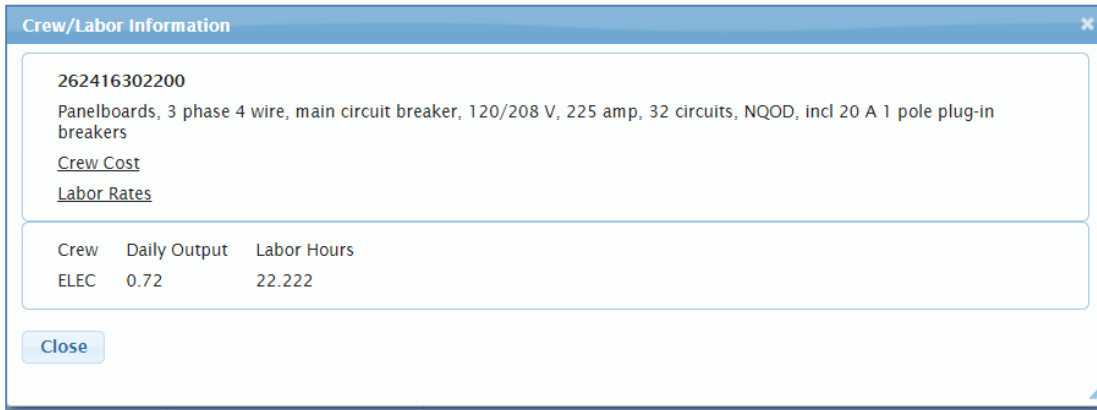
RSM Line Number	Line Number Description	Quantity	UOM	Total
017123131300	Boundary & survey markers, crew for building layout, 4 pe	0.62	Day	\$1,795.50
033053403800	Structural concrete, in place, spread footing (3000 psi), ur	2.35	C.Y.	\$389.96
260519901300	Wire, copper, stranded, 600 volt, #8, type THWN-THHN, n	8.4	C.L.F.	\$88.50
262816200100	Safety switches, general duty, 3 pole, fusible, 240 volt, 30	1	Ea.	\$235.50
265613103000	Light poles, anchor base, aluminum, 20' high, excl concre	5	Ea.	\$1,530.00
265621202780	Roadway area luminaire, high pressure sodium, 400 Watt,	5	Ea.	\$1,053.00
310516100320	Aggregate for earthwork, crushed stone, 1.40 tons per C.Y.	449	L.C.Y.	\$33.80
312216100012	Fine grading, finish grading, small area, to be paved with	682	S.Y.	\$3.56
312316140100	Excavating, chain trencher, utility trench, common earth, 1	420	L.F.	\$0.60

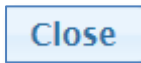
At the bottom left, there is a 'Close' button.



Click the  button to close the Assembly Detail window.

- 2. Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information as shown below. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).



Click the  button to close the Crew/Labor Information window.

You will also notice at the top of the window are tabs that include additional information associated with the Inspection Unit record.



The tab that is currently active is colored differently than the remaining ones. By clicking on a particular tab, you will be directed to additional data fields, which will be described later in this section. The '+' sign on a tab designates that data exists on this window for the current IU.

The IU Detail window is divided into three parts, Required, Optional and User Defined, and are described below:

Required

This section of the window includes required and more common data fields to track an Inspection Unit (IU) in CAIS including the Line Item(s) that define the deficiency. An IU may contain one or more Line Items. By default, the Required portion of the IU Detail window is always open.

Required

IU Number: 60795 Engineered Cost: Indicators: Repair Needs
 Inspection Date: 01/23/2019 Official Cost: \$24,235 Deferred Maintenance
 Inspector Name: TIMMERMAN, DANNY Completed Cost: Modernization - Type:
 Location: Equipment ID:
 Location Description: 221-12F, WAREHOUSE AND OFFICE AREA; F AREA
 Description: FLUORESCENT LIGHT FIXTURES

Line Items							
Select	Quantity	Volume	RSM Line Number	Line Number Description	UOM	RSM Unit Cost	Official Cost
<input type="checkbox"/>	30.00	D50	265113503100	Fluorescent fixture, interior, strip, pendant mounted, industrial, whi	Ea.	\$196.00	\$24,235

Optional

By default, the Optional section is collapsed. To view the data fields included in this section, click the **Optional** label. The Optional section will expand and all data fields will be available for update. If you wish to collapse this section, click the **Optional** label.



Please note: You may choose to have the Optional and User Defined sections expanded by default when you open the IU Detail window by checking the Optional and User Defined Panels Expanded option on the My Profile window. Reference Chapter 14 Application Security or click [here](#) for more details.

Optional

Urgency: Within 6-10 Years Year Installed: Project ID: CBRP
 Condition: Good Completion Year: Last Updated By: Zontos, Nick
 IU Status: Work Order: Last Updated: 05/10/2021
 Optimum Year: Creation Date: 03/20/2014

Sites can choose to use as few or as many of these fields as needed. There are some fields which are display only. **They include the following:**

Creation Date	Last Updated By
Last Updated	Project ID

User Defined

By default, the User Defined section is collapsed. To view the data fields included in this section, click the **User Defined** label. The User Defined section will expand and all data fields will be available for update. If you wish to collapse this section, click the **User Defined** label.



Please note: You may choose to have the Optional and User Defined sections expanded by default when you open the IU Detail window by checking the Optional and User Defined Panels Expanded option on the My Profile window. Reference Chapter 14 Application Security or click [here](#) for more details.

The screenshot shows the 'User Defined' section of a software interface. At the top left, there is a dropdown arrow and the text 'User Defined'. Below this, there are three dropdown menus labeled 'Site Defined 1:', 'Site Defined 2:', and 'Site Defined 3:'. The first dropdown menu is open and shows 'MOX'. Below the dropdown menus are nine text input fields labeled 'User Defined 1:' through 'User Defined 9:'. The fields for 'User Defined 6:' and 'User Defined 7:' are on the left, 'User Defined 8:' and 'User Defined 9:' are on the right, and 'User Defined 1:' through 'User Defined 5:' are in the middle.

The Site Defined 1, Site Defined 2, and Site Defined 3 data fields can be customized using the Site Data window. The remaining fields are text fields and will accept any values.

There are several buttons at the bottom of the IU Detail window and their functions are defined below:



The **Save** button can be used once you have made updates to one or more of the sections of the IU Detail window. You will receive a confirmation message indicating the record has been successfully saved.



Important: At least one Line Item is required to Save an Inspection Unit (IU).



NOTE ABOUT COST CALCULATIONS:

- When making updates to an Inspection Unit on the IU Detail window (Required Section only) that involve any of the following fields, CAIS will automatically recost the Inspection Unit record and the Asset Level record.
 - RSM Line Number
 - Engineered Cost
 - Quantity

- Volume
- Repair Needs Indicator
- Deferred Maintenance Indicator
- Modernization Indicator
- If you remove or add any Cost Adders at the Inspection Unit Level, CAIS will automatically recost the Inspection Unit record and the Asset Level record.

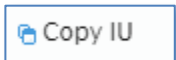


The IU button has the following four (4) options:



The **Archive IU** button can be used to archive an Inspection Unit record when you no longer want the Inspection Unit to be a part of your active inventory. The information associated with an archived Inspection Unit record can still be retrieved under the Archive menu option or the Ad Hoc query tool.

IUs with Legacy ZZ9999 RSM Line Number line items cannot be archived. A new line item should be created with a valid RSM Line Number and the ZZ9999 line item deleted.



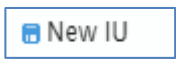
The **Copy IU** button allows you to make a copy of the Inspection Unit record within your site. When the copy occurs, data from all tabs are duplicated under the copied Inspection Unit and a new IU Number is generated when saved.



The **Delete IU** button can be used to permanently delete an Inspection Unit record.



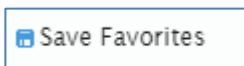
Important: Once a record is deleted, it cannot be retrieved!



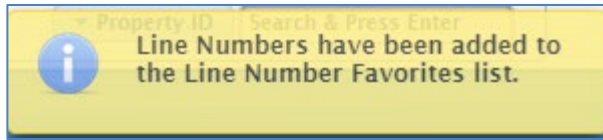
The **New IU** button can be used to create a new Inspection Unit record.



The Line Items button has the following three (3) options:



To store the RSM Line Number, Line Number Description and Unit of Measure to your Line Number Favorites list, select the Line Items you wish to save using the Select checkbox. Then click the **Save Favorites** options to save the RSM Line Numbers to be quickly retrieved and used repeatedly. **The following message will display indicating your Save Favorites has been successful:**



When you click the Load Favorites option, a window that identifies your Line Number Favorites appears:

Select	RSM Line Number	Line Number Description	UOM
<input type="checkbox"/>	B30131050700	Total BUR roof replacement	Sq.
<input type="checkbox"/>	B30131270600	Total EPDM roof replacement	Sq.
<input type="checkbox"/>	B30131300600	Total metal roof panel replacement	Sq.
<input type="checkbox"/>	B30136202020	Replace galvanized steel gutter, 6" box type, 26 ga.	L.F.
<input type="checkbox"/>	C10331101040	Replace toilet partitions, phenolic-overhead braced, per stall	Ea.
<input type="checkbox"/>	C10331102020	Replace urinal screen, stainless steel	Ea.
<input type="checkbox"/>	C20100110562	Stairs, CIP concrete, w/landing, 12 risers, w/nosing & rails	Flight
<input type="checkbox"/>	C20100110700	Stairs, steel, grate type w/nosing & rails, 24 risers, with landing	Flight
<input type="checkbox"/>	C30132020020	Replace wallpaper	S.Y.
<input type="checkbox"/>	C30234100020	Replace vinyl tile flooring	S.Y.

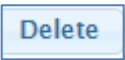
Load Delete Cancel

This window allows you to select a previously saved RSM Line Number and eliminate the search effort. The list is sorted ascending by RSM Line Number; however, you can change the sort by clicking any column heading. To select one or more, click the checkbox(es) in the Select column.

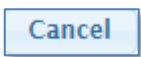


Once selected, click the **Load** button and you will be returned to the IU Detail window and the Volume (for Assemblies only), RSM Line Number, Line Number Description, Unit of Measure (UOM), and RSM Unit Cost will be populated with the data from the RSM Line Number(s) you selected.

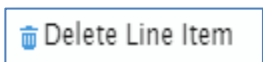
To remove entries from your Line Number Favorites list, use the checkbox(es) in the Select column to



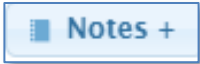
select the items to remove and click the **Delete** button. You will be prompted to confirm the delete request.



The **Cancel** button will close the Line Number Favorites window and return you to the IU Detail.



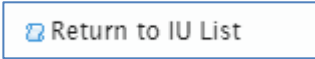
To delete a Line Item from an IU, use the checkbox(es) in the Select column to select the Line Item(s) to delete and click the **Delete Line Item** option.



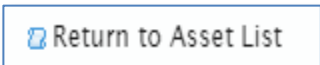
The **Notes** button opens the Inspection Unit's Notes data field. If Notes are present for an IU, a '+' will be displayed on the button as shown above.



The **Return to List** button has the following two (2) options:



button returns you back to the IU List window.



button returns you back to the Asset List window.



Use the **Previous** and **Next** buttons to navigate from one Inspection Unit Level record to another.



The **IU Search** button allows you to navigate directly to another IU by entering the **IU Number** and clicking the **IU Search** button.

Attachments

By clicking on the Attachments tab, the Attachments window will display:

The screenshot shows the CAIS interface for the Attachments window. At the top, there is a navigation bar with 'CAIS Condition Assessment Information System U.S. Department of Energy' and a search bar. Below this is a tabbed interface with 'IU Detail', 'Attachments +', and 'Cost Adders'. The main content area contains a form with the following fields: Field Office: Oak Ridge Science, Site Name: SLAC National Accelerator Laboratory, Area Name: SLAC, Property ID: 501S, Property Name: NLCTA Substation ESB, and Property Type: Building. Below the form is a file upload section with 'Browse', 'Upload', and 'Cancel' buttons. Underneath is the 'IU Attachment List' table:

IU Attachment List		
View Attachment	Delete Attachment	File Name
Download	Delete	IMG_6902.JPG

At the bottom left of the window, there is a 'Return to List' button.

CAIS has the capability to store Attachments at the Inspection Unit Level. Attachments that have already been uploaded for a particular Inspection Unit will be displayed when the window opens. The file name will be displayed along with buttons to download or remove the Attachments. Click the **Download** button to view the image. If you wish to remove an Attachment, click the **Delete** button. You will be prompted to confirm the delete request. CAIS will indicate the successful removal of the Attachment by providing a confirmation message.

To upload an attachment, perform the following:

1. Click the **Browse** button. You will then select the file you wish to attach.
2. Once you have selected a file, click the **Upload** button. If you wish to cancel the upload, click the **Cancel** button.
3. Once you click **Upload**, CAIS will attach the file and you will then see the file name displayed on the IU Attachment List.



Please note: You can upload multiple attachments. Acceptable file types include .jpg, .pdf, .xls, .xlsx, .doc and .docx.

If you wish to return to the IU List window, click the **Return to List** button. You can also click on another tab to view additional data associated with this Inspection Unit record.

Cost Adders

By clicking on the Cost Adders tab, the Cost Adders window will display:

The screenshot shows the CAIS interface with the 'Cost Adders' tab selected. The header includes navigation menus and a search bar. Below the header, property details are displayed: Field Office: Sandia Field Office, Site Name: SNL - New Mexico, Area Name: 003_Area III, Property ID: 6560, Property Name: VIBRATION TEST FACILITY, and Property Type: Building.

The main content area is titled 'IU - Cost Adders' and contains two tables:

Site/Asset Applied Adders					
Type	Description	Equipment %	Material %	Labor %	O&P %
Site	Direct Funded Overhead (2022)	70	70	70	70
Site	In Limited Area			15	
Site	In Property Protection Area			5	
Site	Restricted Access (KAFB)			10	

IU Level Adders					
Selected	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	Direct Funded Overhead (2022)	70	70	70	70
<input type="checkbox"/>	Higher Security			15	
<input type="checkbox"/>	In Limited Area			15	

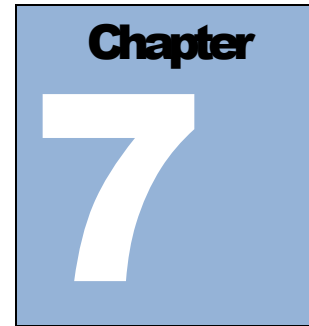
At the bottom of the window, there are 'Save' and 'Return to List' buttons.

The Cost Adders window allows Inspection Unit Level Cost Adders to be selected that are applied to the Official Cost calculation for the IU. Any Site Level or Asset Level applied Cost Adders will be displayed in the Site/Asset Applied Adders section of the window.

A '+' sign displayed on the Cost Adders tab designates that the IU has Cost Adders applied.

To add an Inspection Unit Level Cost Adder, click the **Selected** checkbox for all adders to be applied. Click the **Save** button to commit the changes to the database.

Reference Chapter 7 Cost Adders in this manual for additional information or click [here](#).



Cost Adders

Cost Adders

CAIS Condition Assessment Information System
U.S. Department of Energy

Assets Reporting Administration Archive Tools Help Logout

Real Property Unique ID Search & Press Enter

Asset Detail Attachments **Cost Adders** System Level Deficiency Cost IU

Field Office: Savannah River Site Site Name: Savannah River Site Area Name: A Property ID: 604000
 Property Name: WALKS - A AREA (604000A) Property Type: Structure Ownership: DOE Owned RPUID: 202974

Asset - Cost Adders

Site Applied Adders					
Type	Description	Equipment %	Material %	Labor %	O&P %
Site	COST ADJUSTER-SRS	57	57	129	129
Site	GEOGRAPHICAL SITE FACTOR	0	-3	1	0

Asset Level Adders					
Selected	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	ARA	130	130	130	0
<input type="checkbox"/>	ASBESTOS INSULATION PIPE,TANK	178	0	178	100
<input type="checkbox"/>	ASBESTOS TRANSITE,ROOF,TILES	43	0	43	50
<input type="checkbox"/>	CA	70	70	70	0

Save Return to List

DOE has many unique and hazardous environments which lead to a higher level of security. As a result of these circumstances, the cost to repair or replace asset components can significantly increase. **CAIS provides the flexibility to include Cost Adders, which are essentially costing multipliers for the following:**

- Equipment
- Labor
- Material
- O&P (Overhead & Profit)

Cost Adders can be defined at three different levels within CAIS: Site, Asset and IU. When implemented, Cost Adders will impact the Official Cost. It is important to work with the appropriate Subject Matter Experts at your Site to correctly identify Cost Adders that should be defined within CAIS. Correctly applying Cost Adders will improve the accuracy of CAIS estimates for the Official Cost, which is the basis for Repair Needs, Deferred Maintenance and Modernization Cost.

To access the Cost Adders for your Site, perform the following steps:

1. Click the **Administration** menu and select **Site Information**
2. From the Site List, select your Site by clicking on the **Site Name**
3. Click the **Site Data** tab
4. Go to the **Selected Table** pick list and choose **Cost Adders**

A list of Cost Adders that have been defined for your Site will display:

Delete	Cost Adder Code	Cost Adder Description	Equipment %	Labor %	Material %	O&P %
<input type="checkbox"/>	02	COST ADJUSTER-SRS	57	129	57	129
<input type="checkbox"/>	03	SWITCHGEAR ELECTRICAL	0	50	0	100
<input type="checkbox"/>	16	RIGGING LITE/EQUIP REQUIRED	25	25	0	0
<input type="checkbox"/>	17	RIGGING MEDIUM/EQUIP REQUIRED	35	35	0	0
<input type="checkbox"/>	18	RIGGING HEAVY/EQUIP REQUIRED	50	50	0	0
<input type="checkbox"/>	19	ASBESTOS INSULATION PIPE,TANK	178	178	0	100
<input type="checkbox"/>	20	ASBESTOS TRANSITE,ROOF,TILES	43	43	0	50
<input type="checkbox"/>	27	LEAD ABATEMENT	25	25	0	25
<input type="checkbox"/>	30	REMOVAL & DISPOSAL LITE	10	10	0	10
<input type="checkbox"/>	31	REMOVAL & DISPOSAL MEDIUM	40	40	0	40



Please note: The Headquarters Administrator, Field Office Administrator, and Site Administrator are the only users that can add, modify or delete CAIS Cost Adders.

To Add a New Cost Adder:

1. Click the **Add** button. A blank row will appear and you can now input the new Cost Adder by inputting the Cost Adder Code, Cost Adder Description and values for Equipment, Labor, Material and O&P. When inputting the Cost Adder values, you will input the percentage of increase or decrease for a particular Cost Adder category. For example, if you want to increase the cost of labor by 30%, you will enter a value of 30. If you want to decrease the cost of labor by 20%, you will enter a value of -20. It is acceptable to have blank Cost Adder categories for a particular Cost Adder. Blank Cost Adder categories are ignored when costs are being generated by CAIS.
2. Once the fields have been entered, click the **Save** button to commit the changes to the database.

To Modify an Existing Cost Adder:

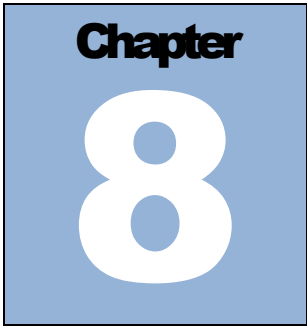
1. Place the cursor on the field you wish to modify. Make modifications as you wish.
2. Once you have completed your modifications, click the **Save** button to commit changes to the database.

To Delete a Cost Adder:



Please note: Prior to removing any Cost Adder, ensure it is not being used by your Site.

1. Place a check mark in the Delete column that is associated with the Cost Adder you wish to delete. You can choose multiple Cost Adders to delete.
2. Once completed, click the **Save** button to remove these Cost Adders for your Site.



Upload

The CAIS Upload process provides a tool for adding/updating multiple records in a single process versus individually accessing each record to add or update. The upload allows data to be loaded into CAIS from an Excel template format.

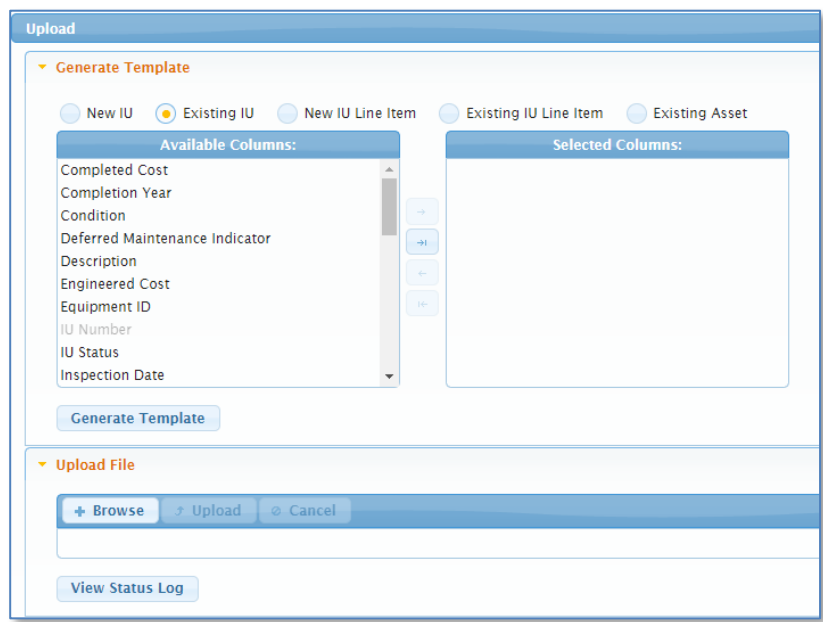
New IU and New IU Line Item records may be created as well as Existing IU and Existing IU Line Item records may be updated via the Upload process. The specific Asset level data may also be updated through the Upload process. The Upload process is initiated from the CAIS application via a link that allows the generation of the Excel template. Data being uploaded is subject to the same validation criteria applied by the CAIS application. Data that meets data entry requirements is moved to the CAIS database. Data that fails to meet data entry requirements will generate a detailed error report.


Upload Template


The CAIS application will generate a template to be used for the upload. A pick list of Available Columns displays the list of CAIS data fields that can be updated through the Upload process.

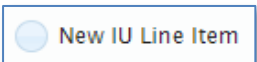
To create a template:

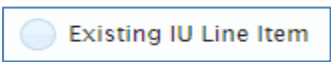
1. From the CAIS Main Menu select **Assets**, then **Upload**. The Upload window will display as shown here.



2. Click the  radio button to create new IU records through the upload.

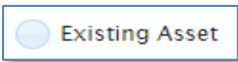
Click the  radio button to upload to existing IU records.

Click the  radio button to create new IU Line Item records through the upload.

Click the  radio button to upload Quantity, RSM Line Number, or Volume to existing IU Line Item records.





Please note: When modifying the RSM Line Number through the upload, if a Master Format or Maintenance Master Format line item (the ones that begin with a number) are uploaded, Volume will be required to be uploaded too.

Click the  radio button to upload the Functionality Assessment Date, Group, Last Inspection Date, Next Inspection Date, or Overall Asset Condition to existing asset records.

3. Use one of the following methods to move data fields to be uploaded from the 'Available Columns' list to the 'Selected Columns' list.

- Double-click the data field
- Drag and drop the data field by clicking the data field in the 'Available Columns' list and while holding the left mouse button drag the data field to the 'Selected Columns' list
- Click the data field and use the navigational arrows between the 'Available Columns' list and the 'Selected Columns' list to move the data field
- To select multiple data fields, Ctrl + Click each desired data field in the 'Available Columns' list.

Use the  navigational arrow between the 'Available Columns' list and the 'Selected Columns' list to move the group of data fields to the 'Selected Columns' list.

4. After selecting all the data fields to be uploaded in your upload file, click .

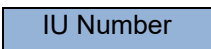
At the prompt, **Save** the Excel template file.

The template will contain key identifying data fields that you did not select as you generated the template. These key identifying data fields allow the upload process to uniquely identify the record in CAIS that you intend to add or modify.

When adding New IU records through the upload, the key identifying data fields are:

Site Number	Inspector ID	Repair Needs Indicator
Area Number	Inspection Date	Deferred Maintenance Indicator
Property ID		Modernization Indicator

When updating Existing IU records through the upload, the key identifying data field is:



When updating New IU Line Item records through the upload, the key identifying data fields are:

IU Number	RSM Line Number	Quantity	Volume
-----------	-----------------	----------	--------

When updating Existing IU Line Item records through the upload, the key identifying data fields are:

IU Number	Line Seq No
-----------	-------------

When updating Existing Asset records through the upload, the key identifying data fields are:

Site Number	Area Number	Property ID
-------------	-------------	-------------



Do not change the column headings generated in the Excel template file. Any changes to the column headings will cause the upload process to fail.

- The Excel template should then be populated with your upload data to complete the creation of the upload file.

Data Formatting Guidelines

The following will assist with formatting the data to be uploaded in your upload template file:


- Date fields should be formatted as MM/DD/YYYY.
- To remove a value from a data field, place blanks in that cell in your Excel upload template. Do not leave cells blank if you don't intend to remove the data from the CAIS database.
- Numeric data fields should be formatted without dollar signs or commas. Decimal points may be used for numeric values defined as decimals.
- The upload process will recognize upper- and lower- case letters. All desired capitalization should be applied to the data in your upload template file.
- When uploading CAIS pick list values, the Code should be uploaded to the database not the Description. Reference your **Site Data** window for codes and the **Data Element Dictionary**.

Initiating an Upload

To initiate an upload:

- From the CAIS Main Menu select **Assets**, then **Upload**.



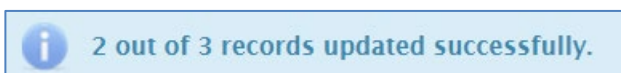
- Under the Upload File section of this window, click  to locate and Open the upload template file that is to be uploaded. The file name will be displayed.



- Click the  button to initiate the process.

The upload process runs immediately upon clicking the Upload button.

- Upon completion of the upload, a message will be displayed with the number of records updated successfully as shown here.



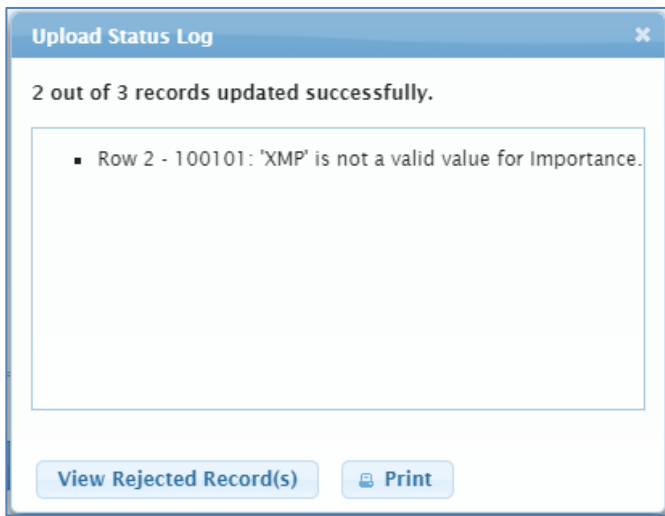
[View Status Log](#)

- If not all records updated successfully, click the [View Status Log](#) button to see the Upload Status Log. The Upload Status Log will identify how many records processed successfully and also provide detailed error messages along with the corresponding row number in the Excel upload template file of any records that did not upload.

[Print](#)

To print the Upload Status Log, click

The following is a sample of the Upload Status Log:



- If visible, click the [View Rejected Record\(s\)](#) button to open an Excel file with the rejected (not uploaded) records. Data values in error are highlighted by marking them in red text.

The following is a sample of the Rejected Record(s) Excel file:

	A	B	C	D	E	F	G
1	Site Number	IU Number	Completed Cost	Comments	Completion Year	Description	Importance
2	11002	100101	52000	Upper left inside	2012	Unit needs	XMP

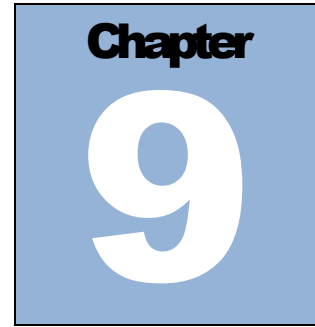
If you Browse and retrieve a file for uploading and decide you want to remove it and not upload the data, click

[Cancel](#)

the button.



Remember, it is important that you review and verify your data after the Upload process to ensure that the values were uploaded as you intended.



Project Module

The Project Module provides the capability to develop and prioritize Projects for reducing Repair Needs/Deferred Maintenance backlogs and for replacing/upgrading assets. Essentially, once a Project has been established in CAIS, you can then select Inspection Unit records to be included in your Project; for example, you may want to develop a roofing Project at your Site. In order to do that, you will build a Project within CAIS and then select Inspection Unit records related to roofing that you want to include in your Project.



Please note: Headquarters Read Only, Field Office Read Only, and Site Read Only users may be assigned add, update and delete access to the Project Module.



Project List

To access the list of Projects for your Site, click **Tools** from the menu and select **Projects**. The Project List window will display the Projects, based on the Field Office and Site default that you have established for your user account. Please reference Chapter 14 Application Security, under My Profile or click [here](#) to learn how to establish a default location.

Columns		Project List					
Select Project	Project ID	Project Name	Official Cost Estimate	Actual Cost	Project Start Date	Project Complete Date	Created By
<input type="checkbox"/>	5295	DM - Civil/Infra Rehab	\$3,156,784				
<input type="checkbox"/>	5351	U325 Cooling Tower Louver Repl	\$116,055				
<input type="checkbox"/>	5352	U291 PCT01, 02 Pump Repl	\$236,086				
<input type="checkbox"/>	5367	B695 Chiller Re-build RCHS02	\$272,811				
<input type="checkbox"/>	5391	B253 Generator Replacement	\$140,144				
<input type="checkbox"/>	5392	B391 Generator Replacement	\$139,744				
<input type="checkbox"/>	5401	B695 Chiller Re-build RCHS01	\$272,811				
<input type="checkbox"/>	5404	A-1 Parking Lot Replacement	\$865,780				
<input type="checkbox"/>	5405	B-7W Parking Lot Replacement	\$154,941				


The Project List window displays the Project ID, Project Name, Official Cost Estimate, Actual Cost, Project Start Date, Project Complete Date and Created By for each Project. The Project ID contains a link that will direct you to the Project Detail information.

The default sort for the Project List window is the Project ID; however, you can change the sort by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on any of the columns displayed. Simply begin typing in the filter fields below the column name. As you type, the Project List window will automatically filter, based on your entry.


The  button on the Project List window may be used to add additional columns or remove existing columns from the list. Click the  button and use the checkboxes in the pick list to add or remove columns.

To modify the Project List window to reflect a different Field Office or Site, click one of these fields and modify, as needed. If the Field Office is modified, you will notice the pick list for the Site will be refreshed with new options.

New Project


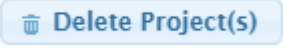

To create a new Project, click the  button at the bottom of the Project List window. **The New Project window will be displayed as shown here:**



Enter a Project ID and Project Name and click the  button to create your new Project. You will now be directed to the Project Detail window.

If you do not wish to proceed with creating a new Project, click the  button to close the New Project window.

Delete Project

To delete one or more existing Projects, simply select the Project(s) to be deleted by clicking the Select Project checkbox(es) and then click the  **Delete** button. You will be prompted to confirm the delete, click the  **Delete Project(s)** button to delete or click the  **Cancel** button to cancel the delete request.



Please note: Deleting a Project will trigger the following actions.

- The Project ID will be removed from all Inspection Unit records that were included in the Project.
- The Locked Flag will be set to 'No' for all Inspection Unit records that were included in the Project. This only occurs if the IUs Locked field was set to 'Yes' in the Project.
- The Project will be deleted from CAIS and will be **unavailable** to restore. You will be given an opportunity to confirm your intention to delete the Project prior to the actual deletion.

Project Detail

By clicking on the Project ID link from the Project List window or upon creating a new Project, you will be directed to the Project Detail window as shown below:

Select	Property ID	IU Number	Official Cost	RN	DM	Modernization
<input type="checkbox"/>	PXAT 480.02	87547	\$885,484	Y	Y	N
<input type="checkbox"/>	PXAT 480.02	73556	\$892,158	Y	Y	N
<input type="checkbox"/>	PXAT 480.02	73561	\$106,897	Y	Y	N


At the top of the Project Detail window, Field Office and Site Name are displayed. The Official Cost Estimate, Total DM, Total Non-DM, Total Repair Needs and Total Modernization are system generated based on the Inspection Unit(s) selected for the Project.



Please note: Here are some important points about the following fields:


- **Official Cost Estimate** – This is a system generated field that represents the sum of the Official Cost from all of the Inspection Unit records that are linked to the Project.
- **Total DM and Total Non-DM** – These are system generated fields that represent the sum of the Official Cost from all the Inspection Unit Records that are linked to the Project based on the Deferred Maintenance Indicator being checked (Total DM) or unchecked (Total Non-DM).
- **Total Repair Needs** – This is a system generated field that represents the sum of the Official Cost from all of the Inspection Unit records that are linked to the Project where the Repair Needs Indicator is checked.
- **Total Modernization** – This is a system generated field that represents the sum of the Official Cost from all of the Inspection Unit records that are linked to the Project where the Modernization Indicator is checked.
- **Funding Source, Funding Type, Project Status, and Project Type** – These fields can have their pick list customized by each Site. Please reference Chapter 3 Site Level Processing, under Site Data or click [here](#) for customizing Site defined data fields.
- **IUs Locked** – When the value for this field is set to 'Yes', any Inspection Unit (IU) record that is included in the Project will be locked and no updates will be permitted to those IUs. Only Headquarters Administrator, Field Office Administrator and Site Administrator security levels can update the IUs Locked data field.




To make any updates on this screen, click the field you wish to update. Click the  button to commit changes to the database when finished updating.

The Project IUs section of the Project Detail window list all the Inspection Units (Us) linked to your Project. The default sort for the Project IUs section is the Property ID; however, you can change the sort by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on any of the columns displayed. Simply begin typing in the filter fields below the column name. As you type, the Project IUs section will automatically filter, based on your entry.

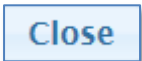


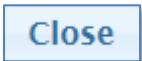
To view the Description and Notes associated with a linked Inspection Unit (IU), click the  button. A



popup window will open to display the IU's Description and Notes. Click the  button to close the popup window.

The IU Number column contains a hyperlink. Clicking on the IU Number will open an IU Line Items window as shown below that displays the RSM Line Number, Volume, Line Number Description and Official Cost for all the IU Line Items.



Click the  button to close the IU Line Items window.

RSM Line Number	Volume	Line Number Description	Official Cost
223333104180	D20	Water heater, commercial, electric, 100 Deg. rise, 12 kW, 49 GPH, 208 V, 80 gallon, note: for ea	\$30,994

Close

The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will be displayed. The following Assembly Detail window is an example of RSM Line Number G20202141920 Parking lot, 30 cars with 2 handicap & lighting, 3" bituminous paving, 10" crushed stone.



Click the button to close the Assembly Detail window.

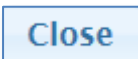
RSM Line Number	Line Number Description	Quantity	UOM	Total
017123131300	Boundary & survey markers, crew for building layout, 4 pe	0.62	Day	\$1,795.50
033053403800	Structural concrete, in place, spread footing (3000 psi), ur	2.35	C.Y.	\$389.96
260519901300	Wire, copper, stranded, 600 volt, #8, type THWN-THHN, nc	8.4	C.L.F.	\$88.50
262816200100	Safety switches, general duty, 3 pole, fusible, 240 volt, 30	1	Ea.	\$235.50
265613103000	Light poles, anchor base, aluminum, 20' high, excl concre	5	Ea.	\$1,530.00
265621202780	Roadway area luminaire, high pressure sodium, 400 Watt,	5	Ea.	\$1,053.00
310516100320	Aggregate for earthwork, crushed stone, 1.40 tons per C.Y	449	L.C.Y.	\$33.80
312216100012	Fine grading, finish grading, small area, to be paved with	682	S.Y.	\$3.56
312316140100	Excavating, chain trencher, utility trench, common earth, 1	420	L.F.	\$0.60

2. Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information as shown below. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).

262416302200
 Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 32 circuits, NQOD, incl 20 A 1 pole plug-in breakers






[Crew Cost](#)
[Labor Rates](#)

Crew	Daily Output	Labor Hours
ELEC	0.72	22.222



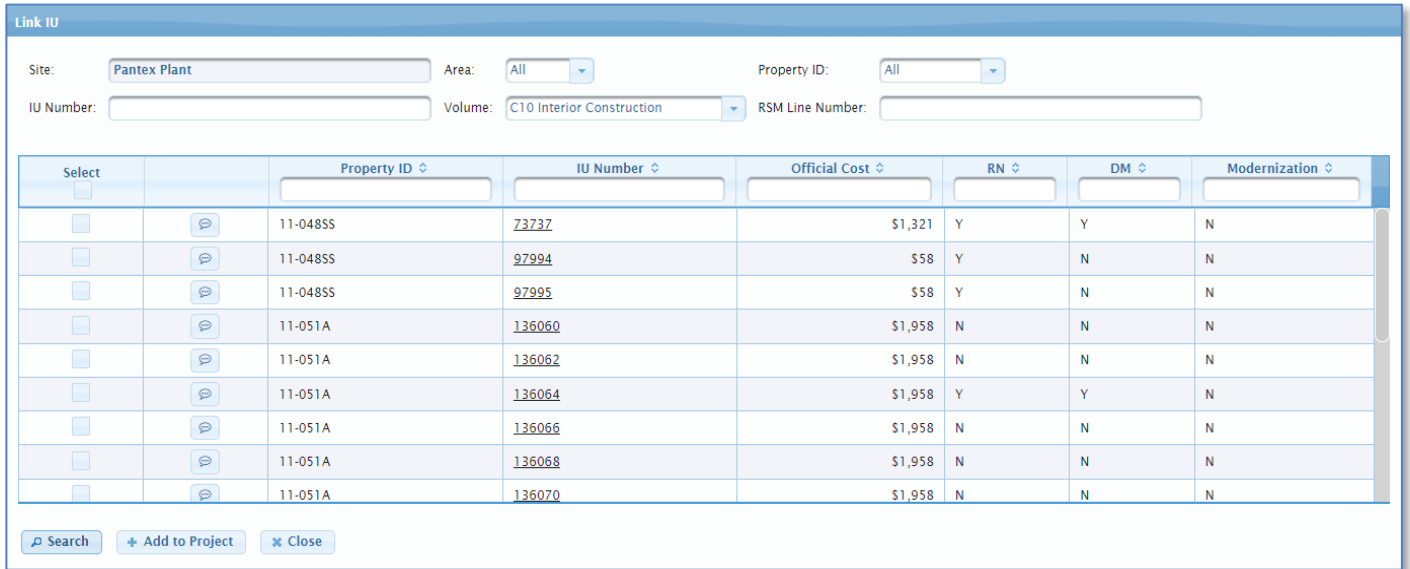
Click the button to close the Crew/Labor Information window.

The remaining buttons on the bottom of the screen are defined below:

- To select Inspection Unit records to be included in your Project, click the  button. Reference the next section, *Link Inspection Units*, for more information on how to perform this task.
- To unlink Inspection Unit (IU) record(s) from your Project, click the checkbox(es) in the Select column and then click the  button. When an IU is unlinked from a Project, the Project ID and the IUs Locked (if applicable) are removed from the IU record.
- To return to the Project List window, click the  button.
- Use the  and  buttons to navigate from one Project record to another.

Link Inspection Units

To select Inspection Unit records to be included in a Project, click the  button from the Project Detail window. The Link IU window will open as shown below:



The screenshot shows the 'Link IU' window with the following search criteria: Site: Pantex Plant, Area: All, Property ID: All, IU Number: (empty), Volume: C10 Interior Construction, RSM Line Number: (empty). The table below lists the results:

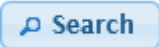


Select		Property ID	IU Number	Official Cost	RN	DM	Modernization
<input type="checkbox"/>		11-0485S	73737	\$1,321	Y	Y	N
<input type="checkbox"/>		11-0485S	97994	\$58	Y	N	N
<input type="checkbox"/>		11-0485S	97995	\$58	Y	N	N
<input type="checkbox"/>		11-051A	136060	\$1,958	N	N	N
<input type="checkbox"/>		11-051A	136062	\$1,958	N	N	N
<input type="checkbox"/>		11-051A	136064	\$1,958	Y	Y	N
<input type="checkbox"/>		11-051A	136066	\$1,958	N	N	N
<input type="checkbox"/>		11-051A	136068	\$1,958	N	N	N
<input type="checkbox"/>		11-051A	136070	\$1,958	N	N	N

Buttons at the bottom: Search, Add to Project, Close.

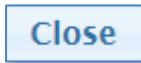
The following fields are available to narrow your search criteria when retrieving Inspection Unit records to be linked to a Project:

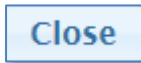
Area	Volume
Property ID (will default to 'All' but you can select individual assets)	RSM Line Number
IU Number	

To add Inspection Unit records to a Project, perform the following:

- After defining your search criteria, click the  button. The results of your search will be displayed in the table on the window. The search results may be sorted by clicking any column heading. The arrows designate the sort as ascending or descending. The search results may further be filtered, simply begin typing in the filter field below any of the column names. As you type, the search results will automatically filter, based on your entry.
- To view the Description and Notes associated with a displayed Inspection Unit (IU), click the  button. A popup window will open to display the IU's Description and Notes. Click the  button to close the popup window.

- The IU Number column contains a hyperlink. Clicking on the IU Number will open an IU Line Items window as shown below that displays the RSM Line Number, Volume, Line Number Description and Official Cost for all the IU Line Items.




- Click the  button to close the IU Line Items window.

RSM Line Number	Volume	Line Number Description	Official Cost
236213100550	D30	Condensing unit, air cooled, compressor, 7.5 ton, includes standard controls	\$20,323

Close

- Click the checkbox in the Select column to select each Inspection Unit record you want to link to your Project. For convenience, the checkbox in the Select column heading will select all retrieved IUs to link to your Project.


- Once you have completed your selections, click the  button. You will receive a confirmation message indicating Inspection Unit records have been added to the Project.

When the Inspection Unit records are added to the Project,

- the associated Project ID field on the Inspection Unit records will be updated to reflect the associated Project ID;
- in addition, if the IUs Locked Flag is set to 'Yes' on the Project Detail window, the Locked Flag data field on the Inspection Unit record will be updated to reflect a value of 'Yes'.



Please note: If the IU selected is already linked to another Project, a message will notify you that the IU cannot be linked to more than one Project. The Project ID that it is linked to will display in the message.

- To close the Link IU window, click the  button.

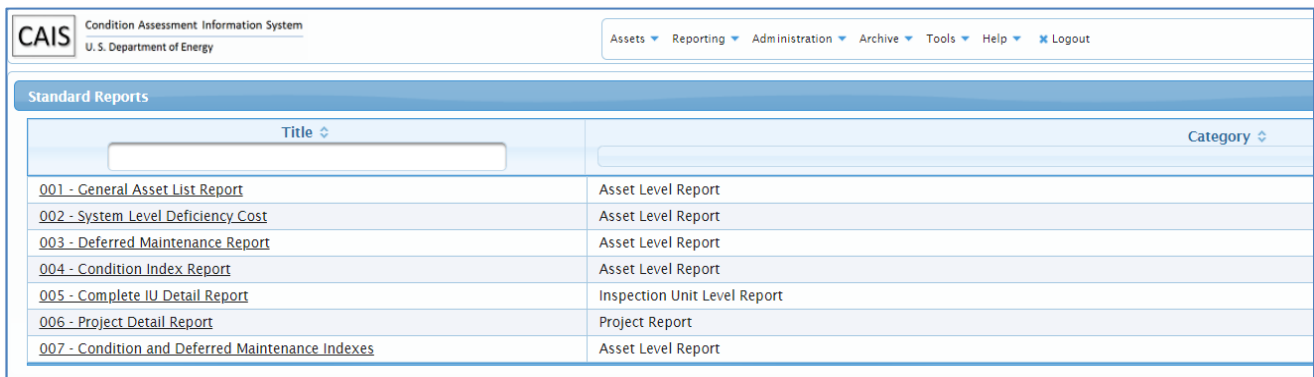
Chapter
10

Reporting

Standard Reports

CAIS provides a set of standard reports that represent Asset, Inspection Unit and Project information.

To access the Standard Reports window, click **Reporting** then **Standard Reports**.



A brief description of each report is provided below. To review samples of the CAIS Standard Reports, reference Appendix C, Report Samples or click [here](#).

Report Title	Description
001 General Asset List Report	Provides general Asset Level information
002 System Level Deficiency Cost	Provides Repair Needs and Deferred Maintenance by Volume
003 Deferred Maintenance Report	Provides Deferred Maintenance by Volume
004 Condition Index Report	Provides Repair Needs, Deferred Maintenance and Condition Index by Volume
005 Complete IU Detail Report	Provides detailed Inspection Unit Level data that can include Cost Adders, and User Defined fields May be sorted by IU Number or Equipment ID
006 Project Detail Report	Provides Project and associated Inspection Unit data IU Description and Notes may be included
007 Condition and Deferred Maintenance Indexes	Provides a site-level summary of Repair Needs, Deferred Maintenance, Condition Index, and Deferred Maintenance Index by Volume

These standard reports can be previewed and printed directly from CAIS. The user will be prompted to provide some criteria before generating a standard report; for example, a user may want to select one of their Sites for the report to represent or perhaps choose multiple assets to be included in the report. Each report can have the output generated in PDF or Excel formats.



Please note: To generate a Standard Report for specific Property IDs, you must first select a Field Office, Site and Area.

A sample of these prompts is provided below:

Field Office:	<ul style="list-style-type: none"> All Carlsbad Field Office Chicago EM LA Field Office EMCBC Golden Field Office Headquarters Idaho Operations Ofc
Site:	<ul style="list-style-type: none"> All Crescent Junction Site Depleted Uranium Hexafluoride(DUF6)-Paducah Depleted Uranium Hexafluoride(DUF6)-Portsmouth EMCBC Energy Tech Eng Ctr 700 Moab Site Paducah Caseous
Area:	<ul style="list-style-type: none"> All Areas All
Property ID:	<ul style="list-style-type: none"> All GRJ01-B MOA01-APS MOA01-BA MOA01-BM MOA01-BR MOA01-CRS MOA01-DP

To generate a Standard Report, perform the following:

1. Select **Reporting** from the menu and then choose **Standard Reports**.
2. From the Standard Reports window, click the **Title** you wish to generate.
3. Enter the **report prompts** as requested. This will enable you to refine your criteria for the report.



Please note: Depending on your response to the report prompts, some reports can be very large. It is recommended you check total number of pages before you decide to print.

4. You will then select your output option. Choose either **PDF Report** or **Excel Report**. The PDF option will provide a formal formatted report suitable for printing. The Excel option will provide the raw data used to produce the report. The Excel spreadsheet will have English column names and numeric columns will be formatted. You can also print the output from Excel.
5. To print a copy of the report, from the report preview, click **File, Print** and then click the **Print** button. (Options may vary slightly depending on which version of Adobe or Microsoft Office you are currently running).

- To exit the report preview window from a .pdf format, close the browser tab that contains the report. If you wish to close the report preview for an Excel report, click the **X** on the top right of the window or click **File** and select **Exit**.

To save a Standard Report, perform the following:

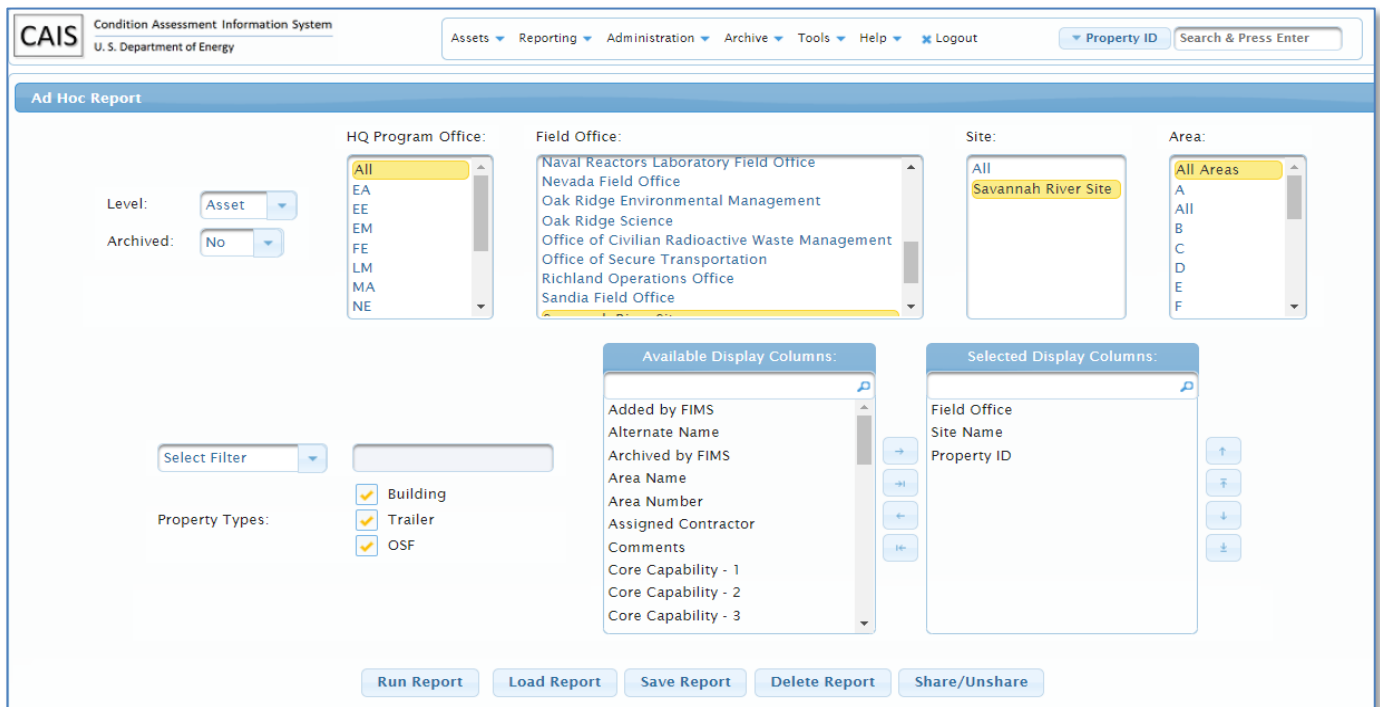
- Click **File** and select **Save as**. From the File Name field, you can modify the file name, if you wish and select a location to store the file.
- Click the **Save** button to store the PDF or Excel file.

To redisplay the Standard Report List, click the  button.

Ad Hoc Report

The Ad Hoc Report tool is built into the CAIS application. It provides list boxes, check boxes and pick list of search criteria and columns that are chosen to create an Excel report. Data may be extracted from the Active and Archive CAIS data at the Asset and Inspection Unit Level.

To access the Ad Hoc Report window, click **Reporting** then **Ad Hoc Report**.



Creating an Ad Hoc Report

The basic steps to generate an Ad Hoc Report are below:

- From the Level pick list choose **Asset** to retrieve CAIS Asset Level data, choose **IU** to retrieve CAIS Inspection Unit level data or choose **IU Line Items** to retrieve CAIS IU Line Item data.
- By default, the Archived selection is set to 'No' to query the active CAIS data. To query the CAIS Archived data, select 'Yes' from the Archived pick list box.





- From the HQ Program Office, Field Office, Site and Area list boxes, select your desired criteria. The Field Office and Site will default to your CAIS My Profile settings.



Please note: To select multiple consecutive list box items, click the first item and then shift + click the last item. To select multiple non-consecutive list box items, click the first item and then ctrl + click each additional list box item.




- Use the Select Filter pick list to retrieve data for a specific asset. Choose either **Property ID** or **Property Name** from the pick list and then input the appropriate Property ID or Property Name value in the text box provided.
- Select the Property Type by clicking the check boxes to select or deselect each option.
- If IU level was selected, two additional criteria fields **Repair Needs Indicator** and **Deferred Maintenance Indicator** will be displayed for further refining your retrieved data. Pick list choices are
 - Yes – retrieves IU records where the selected indicator is 'Yes'
 - No – retrieves IU records where the selected indicator is 'No'
 - All – retrieves all IU records regardless of the indicator value
- Select the columns you wish to display by moving them from the Available Display Columns list to the Selected Display Columns list.

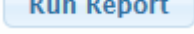
Columns can be moved from one list to the other by:

- Double clicking the column
- Clicking and dragging the column
- Clicking one column, or using click and shift + click to select consecutive columns, or using click and ctrl + click to select non-consecutive columns and then use the navigation arrows as follows:
 - Using the  to move the selected column(s) to the Selected Display Columns list
 - Using the  to move all columns to the Selected Display Columns list
 - Using the  to move the selected column(s) to the Available Display Columns list
 - Using the  to move all the columns to the Available Display Columns list

- Columns will appear in the Excel report in the same order as they are in the Selected Display Columns list.

The columns in the Selected Display Columns list may be reordered using the navigational arrows, 

Move Up,  Move Top,  Move Down, and  Move Bottom, to the right of the list.

- To generate the report, click the  button. Large reports may take a few extra seconds to display.

Saving an Ad Hoc Report

To save the report criteria for an Ad Hoc Report, follow the steps below:

1. Click the **Save Report** button. The following popup will appear.

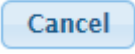
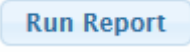
2. To save a new report, click the **Create New Report** button. Type a report name in the **Report Title** box.
OR
 To resave an existing report, click the **Replace Existing Report** button. Select the report from the **Report Title** pick list.
3. If you desire to share the report so other CAIS users can run the report, click the **Shared** checkbox. By leaving the Shared checkbox unchecked, the report will remain private for access by your logon only.
4. Click **Save** to save the report criteria or click **Cancel** to cancel the Save operation.

Loading a Saved Ad Hoc Report

To load a saved Ad Hoc Report, follow the steps below:


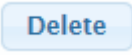

1. Click the **Load Report** button. The following popup will appear.

Owner	Report Title	Shared
Smith, Gayle	CAIS Training	No
Smith, Gayle	Inspection Date	No
Smith, Gayle	gayle	Yes

- By default, your saved Ad Hoc reports are displayed. To include shared Ad Hoc reports in the list, click the **Shared** checkbox. The Owner column displays the name of the Ad Hoc report originator. Your Ad Hoc reports will sort to the top of the list, followed by an alphabetical list by Owner of all CAIS shared Ad Hoc reports. Use the column heading to sort and/or filter on the users.
- Select a report from the **Report Title** pick list to load the saved report or click  to cancel the Load operation.
- To generate the Ad Hoc Report, click the  button. Large reports may take a few extra seconds to display.

Deleting a Saved Ad Hoc Report

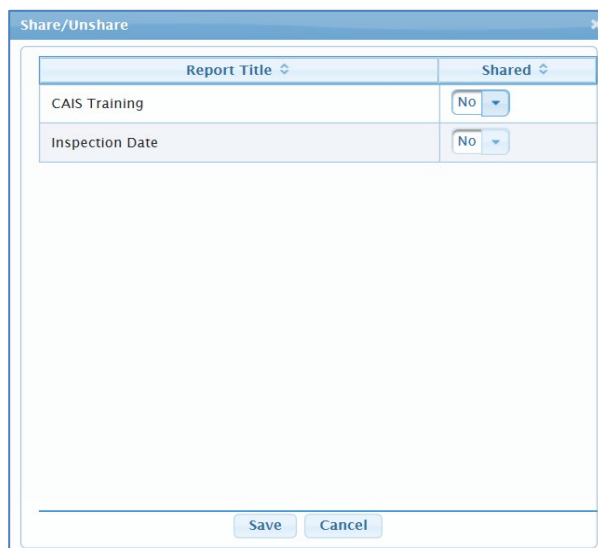
To delete a previously saved Ad Hoc Report, follow the steps below:


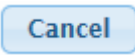
- Click the  button.
- Select a report from the **Report Title** pick list.
- Click  to delete the saved Ad Hoc Report or click  to cancel the Delete operation.

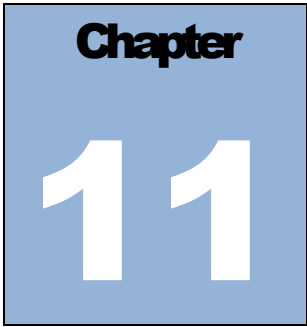
Shared/Unshare a Saved Ad Hoc Report

To share or unshare a previously saved Ad Hoc report, follow the steps below:

- Click the  button. The following popup will appear.



- Use the **Shared** Yes/No pick list to Share = Yes or Unshare = No your listed Ad Hoc reports.
- Click  to save your changes. Click  to exit without changes.



Archive Processing

The archive process is an important part of managing your inventory of assets and Inspection Units in CAIS. Real property assets identified in CAIS originate from FIMS. These assets may be disposed of at some point through a variety of disposition methods identified in FIMS.

Asset Archiving

When an asset is disposed of and archived in FIMS, it will be automatically archived in CAIS. This will ensure that the inventory in CAIS will mirror that of FIMS. When archiving of an asset occurs, the information associated with the asset is still accessible and can be updated. This also includes all Inspection Unit records associated with the archived asset. Archived assets however, cannot be restored from the Archive unless they are restored in FIMS. If this occurs, you will need to contact the Headquarters CAIS Support Team for assistance in restoring the asset from the Archive in CAIS.

Inspection Unit data can be archived, as well when the deficiency associated with the Inspection Unit is completed. Unlike assets, you can control when Inspection Unit records are archived. Once an Inspection Unit is archived, the information associated with the Inspection Unit is still accessible and can be updated. The capability does exist for you to easily restore an archived Inspection Unit record.

Archive Asset List

When an asset is automatically archived in CAIS as a result of the asset being archived in FIMS, the information associated with the record can be easily retrieved and updated, if needed.

To access the list of archived assets for your Site, click **Archive** from the menu and select **Archive Asset List**. The Archive Asset List window will display the archived real property assets based on the Field Office, Site and Area default that you have established for your user account. Please reference Chapter 14 Application Security, under My Profile or click [here](#) to learn how to establish a default location.

An **ARCHIVE** designation in red is visible to remind you that you are viewing an archived asset.

HQ Program Office	Property ID	Property Name	Property Type	Last Inspection Date	Repair Needs	Deferred Maintenance
EM	1310-KM	Tool Storage	Trailer		\$0	\$0
EM	1310-KS	EMERGENCY MGT. EQUIPMENT STORAGE #2	Trailer		\$0	\$0
EM	1310-NU	CONEX STORAGE CONTAINER	Trailer		\$0	\$0
EM	1310-SS	TSCA AREA BREAKROOM	Trailer		\$0	\$0
EM	1310-TI	RESPIRATOR/PAPR PARTS	Trailer		\$0	\$0
EM	1310-TK	CONEX BOX TOOL CRIB	Trailer		\$0	\$0

The Archive Asset List window will display the HQ Program Office, Property ID, Property Name, Property Type, Last Inspection Date, Repair Needs and Deferred Maintenance for each archived asset. The Property ID will contain a link that will direct you to the Asset Detail information for the archived asset. Additionally, there is an [IU List](#) link that will direct you to the archived Inspection Unit records associated with the asset.

The default sort for the Archive Asset List window is the Property ID; however, you can change the sort by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on any of the columns displayed. For the HQ Program Office and Property Type, click the **pick list** to select a specific value to filter on. For the remainder of the data fields, begin typing in the filter fields below the column name. As you type, the Archive Asset List window will automatically filter based on your entry.

To modify the Archive Asset List window to reflect a different Field Office, Site and Area, click one of these fields and modify as needed. If the Field Office is modified, you will notice the pick list for Site and Area will be refreshed with new options. If the Site is modified, you will notice the pick list for Area will be refreshed with new options.

Archive Asset Detail



By clicking on the Property ID link, you will be directed to the Archive Asset Detail window below:

At the top of the Archive Asset Detail window is information that describes the archived asset you are currently viewing. This information includes Field Office, Site Name, Area Name, Property ID, Property Name, Property Type, Ownership and RPUID. It will be consistently displayed regardless of the tab you are viewing. The next section below displays basic facility information about the asset. All of these data fields originated from FIMS and are displayed as read-only.

The remaining portion of the window includes data fields from CAIS. Deferred Maintenance, Repair Needs and Modernization Cost are system generated, based on data input at the Inspection Unit Level or the System Level Deficiency screen.

You will notice at the bottom of the window, there is an audit date field called Archived by FIMS. This field identifies the date the asset was archived in FIMS.

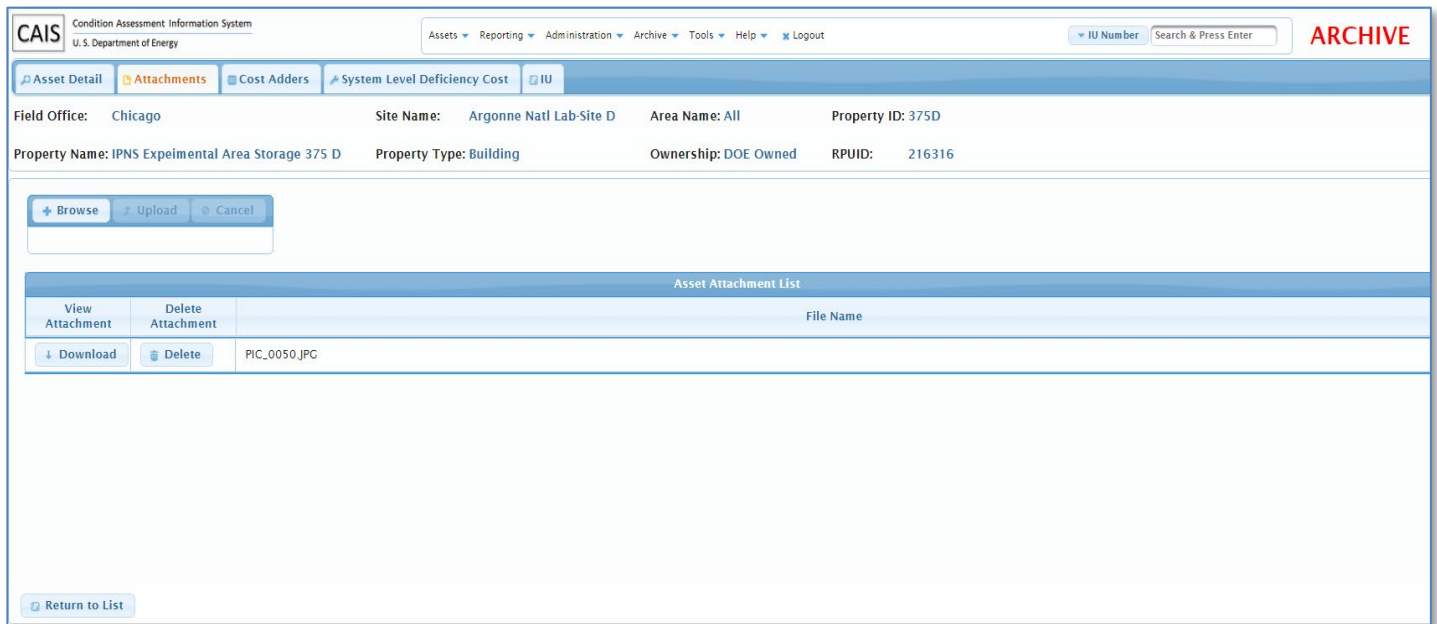
If you wish to make any changes to the available fields on this screen, click the field you wish to update and click the **Save** button to commit the changes to the database when finished.

Use the previous  and next  buttons to navigate from one archived Asset record to another.

To return to the Archive Asset List window, click the **Return to List** button.

Archive Asset Attachments

By clicking on the **Attachments** tab, the **Archive Attachments** window will display.



Attachments that have already been uploaded for the archived asset will be displayed when the window opens. The file name will be displayed along with buttons to download or remove the Attachments. Click the **Download** button to view the image.

If you wish to remove an Attachment, click the **Delete** button. Once an Attachment has been successfully removed, CAIS will provide a confirmation message indicating this.

To upload an Attachment, perform the following:

1. Click the **Browse** button. You will then select the file you wish to attach.
2. Once you have selected a file, click the **Upload** button. If you wish to cancel the upload, click the **Cancel** button.
3. Once you click **Upload**, CAIS will attach the file and you will then see the file name displayed on the Asset Attachment List.

Multiple Attachments may be uploaded. Acceptable file types include .jpg, pdf, doc, .docx, .xls and xlsx.

If you wish to return to the Archive Asset List window, click the **Return to List** button.

Archive Cost Adders

By clicking on the Cost Adders tab, the Archive Cost Adders window will display:

CAIS Condition Assessment Information System
U. S. Department of Energy

Assets Reporting Administration Archive Tools Help Logout Real Property Unique ID Search & Press Enter **ARCHIVE**

Asset Detail Attachments **Cost Adders** System Level Deficiency Cost IU

Field Office: Oak Ridge Science Site Name: Thomas Jefferson National Accelerator Facility Area Name: All Property ID: E85-TANK
Property Name: E85 Fuel Tank Property Type: Structure Ownership: DOE Owned RPUID: 219434

Asset - Cost Adders

Site Applied Adders					
Type	Description	Equipment %	Material %	Labor %	O&P %
Site	Site Factor	101	101	101	101

Asset Level Adders					
Selected	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	Demolition	40	0	40	40
<input type="checkbox"/>	Engineering (A/E Design) 10% (2022)	10	10	10	10
<input type="checkbox"/>	Roof Replacement (Conduit Relocation)	300	300	300	300
<input type="checkbox"/>	Roof Replacement (Demolition)	600	600	600	600

Save Return to List

The Archive Cost Adders window allows Asset Level Cost Adders to be selected that are applied to the cost calculation for the asset. Any Site Level applied Cost Adders will be displayed in the Site Applied Adders section of the window.

Changes may be made to the Archive Cost Adders. After completing any changes, click the **Save** button to commit the changes to the database.

Reference Chapter 7 Cost Adders in this manual for additional information or click [here](#).

Archive System Level Deficiency Cost

By clicking on the System Level Deficiency Cost tab, the Archive System Level Deficiency Cost window will display as seen below:

CAIS

Condition Assessment Information System
U.S. Department of Energy

Assets Reporting Administration Archive Tools Help Logout

IU Number Search & Press Enter

ARCHIVE

Asset Detail Attachments Cost Adders **System Level Deficiency Cost** IU

Field Office: Richland Ops Office
Site Name: Office of River Protection
Area Name: 200E
Property ID: 241AX801A

Property Name: Tank Farm Control House
Property Type: Building
Ownership: DOE Owned
RPUID: 138643

RPV Model: N17 - Process Building - Small (N17)
Usage Code: 599 Other Industrial Facility
The use of this window is only intended for Excess/Shutdown assets.

System Level Deficiency Cost														
Volume	System Level				Repair Needs				Deferred Maintenance				Total	
	Cost	Factor	Percent Failed	DM	Engineered	System Level	IU	Calculation Method	Engineered	System Level	IU	Calculation Method	Repair Needs	Deferred Maintenance
A10-Foundation	\$5,744	1.000	30	Yes		\$1,723	\$0	Sys Level		\$1,723	\$0	Sys Level	\$1,723	\$1,723
A20-Baseament	\$58	1.000	0	Yes		\$0	\$0	Sys Level		\$0	\$0	Sys Level	\$0	\$0
B10-Superstr.	\$15,142	1.000	30	Yes		\$4,543	\$0	Sys Level		\$4,543	\$0	Sys Level	\$4,543	\$4,543
B20-Ext. Closure	\$3,624	1.000	30	Yes		\$1,087	\$0	Sys Level		\$1,087	\$0	Sys Level	\$1,087	\$1,087
B30-Roofing	\$5,824	1.000	30	Yes		\$1,747	\$0	Sys Level		\$1,747	\$0	Sys Level	\$1,747	\$1,747
C10-Int. Const.	\$7,133	1.000	0	Yes		\$0	\$0	Sys Level		\$0	\$0	Sys Level	\$0	\$0
C20-Int. Stairs	\$581	1.000	0	Yes		\$0	\$0	Sys Level		\$0	\$0	Sys Level	\$0	\$0
C30-Int. Finish	\$3,273	1.000	30	Yes		\$982	\$0	Sys Level		\$982	\$0	Sys Level	\$982	\$982

Save
Return to List

To make any updates on this screen, click the field you wish to update and click the **Save** button to commit the changes to the database when finished. Once saved, the Total Repair Needs and Deferred Maintenance at the bottom of this screen will match the Repair Needs and Deferred Maintenance on the Archive Asset Detail window.

To return to the Archive Asset List window, click the **Return to List** button.

Archive Inspection Unit (IU) List

By clicking on the IU tab, the Archive IU List window will display:


Select IU	IU Number	Description	Repair Needs	Inspector Name	Repair Needs Indicator	Deferred Maintenance	Deferred Maintenance Indicator	Modernization Indicator	Modernization Type
<input type="checkbox"/>	6059		\$6,906	SUDDARTH, GREG	Y	\$0	N	N	
<input type="checkbox"/>	6061			SUDDARTH, GREG	N		N	N	
<input type="checkbox"/>	6063			SUDDARTH, GREG	N		N	N	
<input type="checkbox"/>	6065		\$0	SUDDARTH, GREG	N	\$0	N	N	
<input type="checkbox"/>	6068		\$0	SUDDARTH, GREG	N	\$0	N	N	
<input type="checkbox"/>	6071			SUDDARTH, GREG	N		N	N	
<input type="checkbox"/>	6075			SUDDARTH, GREG	N		N	N	
<input type="checkbox"/>	6078	#5	\$106,204	SEXTON, CHARLES	Y		N	N	

The Archive IU List window will display the Field Office, Site Name, Area Name, Property ID, Property Name, Property Type, Ownership and RPUID at the top. This list represents all Inspection Unit records that have been previously input for the archived asset described at the top.

The Archive IU List window includes the IU Number, Description, Repair Needs, Inspector Name and Inspection Date. The default sort for this window is the IU Number; however, you can change the sort by clicking any column heading. The arrows designate the sort as ascending and descending. The capability also exists to filter on any of the columns displayed. Just click into the filter field below the column name and begin typing. As you type, the Archive Inspection Unit list window will automatically filter based on your entry.

The default columns displayed on this window are controlled by your user ID My Profile window setting for **Advanced Filters**. Checking **Advanced Filters** on the My Profile window for your user ID will display more columns, while leaving **Advanced Filters** unchecked will display less columns. Regardless of your user ID



setting, the  button on the IU List window may be used to add additional columns or remove existing columns. Use the checkboxes in the pick list to add or remove columns.

You can now perform one of the following actions:

- To navigate to the Archive Inspection Unit Detail windows, click the **IU Number** link.
- Click one of the tabs at the top to return to the archived asset level information. **The tabs available are:**
 - Asset Detail
 - Attachments
 - Cost Adders
 - System Level Deficiency Cost

Inspection Unit Archiving

Archive Inspection Unit (IU) List

Archived Inspection Unit records may be associated with active or archived assets. **There are two ways to access a list of Archived Inspection Units.**

1. Click **Archive** from the menu and select **Archive Asset List**. The Archive Asset List window will display the archived real property assets based on the Field Office, Site and Area default that you have established for your user account. In the first column of the Archive Asset List is a link called IU List. Click the **IU List** link to display a window containing all Inspection Unit records associated with the archived asset.

OR

2. Click **Archive** from the menu and select **Archive IU Search**. The Archive IU Search window will display as follows:

Site	Area	Property ID	IU Number	Equipment ID	Work Order
Los Alamos National Laboratory - NNSA	UI	16-0201	33483		
Los Alamos National Laboratory - NNSA	UI	16-0201	33485		
Los Alamos National Laboratory - NNSA	UI	16-0201	33488		

- The Archive IU Search window will display the Field Office, Site and Area default that you have established for your user account. The Area pick list provides an 'All Areas' option to allow a site to search all Areas within the Site. Additionally, the Property ID, IU Number, Equipment ID and Work Order are available to use for search criteria.
- This window provides 2 options:
 - This window will allow you to go directly to the IU record by inputting an archived IU Number.
 - You may also search for archived IU records by Property ID, Equipment ID or Work Order.
 - If a single IU record is retrieved from the Property ID, Equipment ID or Work Order search, the IU record will open.
 - If multiple IU records are retrieved, a list of IU records will display. Select one of the IU records from the list to open it by clicking the IU Number.

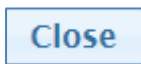
Archive IU Detail

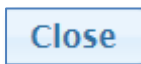
Once a valid archived IU Number has been retrieved/selected, the Archive IU Detail window will appear.

At the top of the Archive IU Detail window is information that identifies the asset to which this archived Inspection Unit record belongs. This information includes Field Office, Site Name, Area Name, Property ID, Property Name and Property Type. It will be consistently displayed regardless of the tab you are viewing. An **ARCHIVE** designation in red is visible at the top right to remind you that you are viewing an archived Inspection Unit record. The **Optional** and **User Defined** sections can be expanded by clicking those labels if they are currently collapsed.

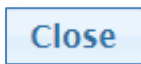
The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

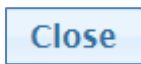
1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will open.



Click the  button to close the Assembly Detail window.

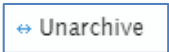
2. Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).



Click the  button to close the Crew/Labor Information window.



Update can be made to any sections of the Archive IU Detail window. Click the **Save** button once all updates have been made to commit the changes to the database.



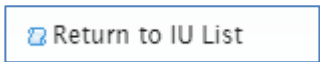
Use the **Unarchive** option of the **IU** button to move an archived IU that belongs to an active record to an active IU. You will be returned to the active IU List for the active record once unarchived.



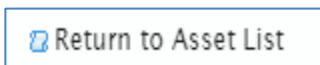
The **Notes** button opens the archived Inspection Unit's Notes data field. If Notes are present for an archived IU, a '+' will be displayed on the button as shown above.



The **Return to List** button has the following two (2) options:



button navigates you back to the Archive IU List window.



button navigates you back to the Archive Asset List window.



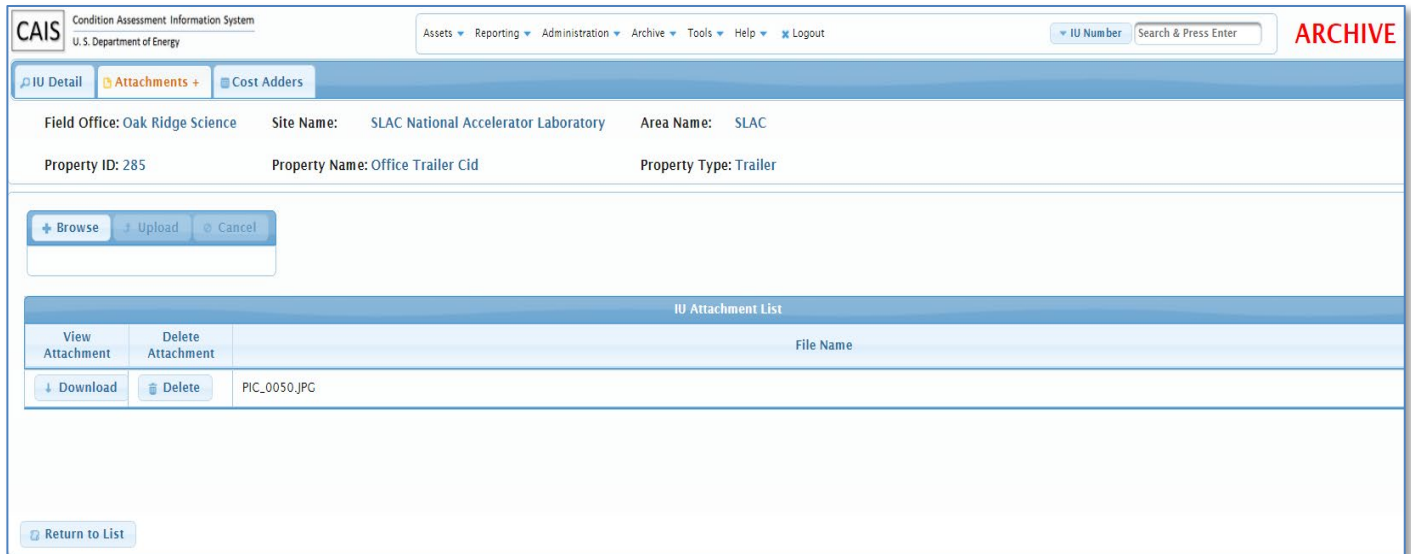
Use the **Previous** and **Next** buttons to navigate from one archived Inspection Unit record to another.



The **IU Search** button allows you to navigate directly to another archived IU by entering the archived **IU Number** and clicking the **IU Search** button.

Archive IU Attachments

By clicking on the Attachments tab, the Archive IU Attachments window will display:



Attachments that have already been uploaded for the archived Inspection Unit will be displayed when the window opens. The file name will be displayed along with buttons to download or remove the Attachments. Click the **Download** button to view the image.

If you wish to remove an Attachment, click the **Delete** button. Once an attachment has been successfully removed, CAIS will provide a confirmation message indicating this.

To upload an attachment, perform the following:

1. Click the **Browse** button. You will then select the file you wish to attach.
2. Once you have selected a file, click the **Upload** button. If you wish to cancel the upload, click the **Cancel** button.
3. Once you click **Upload**, CAIS will attach the file and you will then see the file name displayed on the IU Attachment List.

Multiple Attachments may be uploaded. Acceptable file types include .jpg, pdf, doc, .docx, .xls and xlsx.

If you wish to return to the Archive Inspection Unit List window, click the **Return to List** button. You can also click on another tab to view additional data associated with the archived Inspection Unit record.

Archive IU Cost Adders

By clicking on the Cost Adders tab, the Archive Cost Adders window will display:

The screenshot shows the CAIS (Condition Assessment Information System) interface for the U.S. Department of Energy. The top navigation bar includes 'Assets', 'Reporting', 'Administration', 'Archive', 'Tools', 'Help', and 'Logout'. A search bar is present with the text 'Real Property Unique ID' and a 'Search & Press Enter' button. The 'ARCHIVE' status is displayed in red on the right.

Below the navigation bar, there are tabs for 'IU Detail', 'Attachments', and 'Cost Adders +'. The 'Cost Adders +' tab is active. The main content area displays the following information:

- Field Office: Oak Ridge Science
- Site Name: SLAC National Accelerator Laboratory
- Area Name: SLAC
- Property ID: 285
- Property Name: Office Trailer Cid
- Property Type: Trailer

The 'IU - Cost Adders' section is divided into two tables:

Site/Asset Applied Adders

Type	Description	Equipment %	Material %	Labor %	O&P %
No records found.					

IU Level Adders

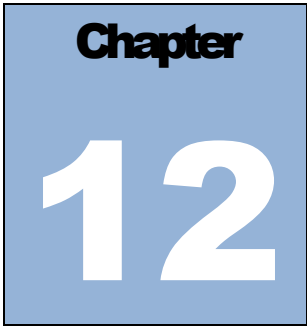
Selected	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	Asbestos removal Cost (2022)	20	20	20	20
<input type="checkbox"/>	Corrective adder for FY15 Labor (2022)	-32	-32	-32	-32
<input checked="" type="checkbox"/>	DEMOLITION FACTOR	20	20	20	20
<input type="checkbox"/>	Demolition Factor (2022)	10	10	10	10
<input type="checkbox"/>	Engineering Cost (2022)	10	10	10	10

At the bottom of the window, there are 'Save' and 'Return to List' buttons.

The Archive Cost Adders window allows Inspection Unit Level Cost Adders to be selected that are applied to the cost calculation. Any Site Level or Asset Level applied Cost Adders will be displayed in the Site/Asset Applied Adders section of the window.

Changes may be made to the archived IU Cost Adders. After completing any changes, click the **Save** button to commit the changes to the database.

Reference Chapter 7 Cost Adders in this manual for additional information or click [here](#).



CAIS to FIMS Upload

FIMS Upload

CAIS provides an upload process to update FIMS. The data fields uploaded to FIMS are essential for FIMS year-end reporting and at a minimum should be uploaded to FIMS prior to the Deferred Maintenance / Repair Needs / Modernization Cost annual year-end reporting deadline, which typically occurs at the end of September.

The following data fields are uploaded to FIMS through the CAIS FIMS Upload process:

Deferred Maintenance (DOE owned assets only)	Modernization Cost
Repair Needs	Unifomat Repair Needs data
Last Inspection Date	



Please note: Only Headquarters Admin, Field Office Admin and Site Admin users can perform the CAIS to FIMS upload.

To access the FIMS Upload process, click **Administration** from the menu and select **FIMS Upload**. The FIMS Upload process window will open displaying the five steps to perform the upload as shown below:

Step 1: Select Site to Upload to FIMS

Field Office:

Site:

Area:

Step 2: Recost Site/Area

Step 3: View data being uploaded to FIMS

Step 4: Upload to FIMS

Step 5: View Exception Data

Step 1: Select the Site to Upload to FIMS

The Field Office will automatically default to your User ID Field Office restriction and will be display only. The Site will automatically default to your User ID Site restriction. For users with Site level access, the Site data field is display only because users only have access rights to the one listed Site. For Field Office users, make a selection from the available Sites in the pick list.

The Area pick list will default to 'All Areas' within a Site. If you desire to upload to a specific Area, select the Area from the pick list.

Step 2: Recost Site/Area

This step performs a Site/Area level recost of Deferred Maintenance, Repair Needs and Modernization Cost values prior to uploading to FIMS.

Click the  button to execute the Site/Area level recost based on the selected Site and Area.

Step 3: View data being uploaded to FIMS

Click the  button to generate an Excel report of the Site's data that will be uploaded to FIMS.

Two sheets will be generated in the spreadsheets. The first sheet **Upload DM and RN** will show the Deferred Maintenance, Repair Needs, Modernization Cost and Last Inspection Date to be uploaded. The second sheet **Upload Uniformat** will show the Repair Needs cost by Volume Code to be uploaded.

Step 4: Upload to FIMS

Click the  button to initiate the upload to FIMS.


An Uploading processing box will display to show that the upload is in progress.



Upon completion, the following message will be displayed:



Step 5: View Exception Data

After the upload has completed, click the  button to see if there is any exception data that did not upload. The Exception Report is produced in an Excel format and provides messages as to why the data did not upload.

FIMS Updates to CAIS

CAIS has 19 data fields that parallel FIMS. The database provides automatic updates from FIMS to CAIS for these 19 data fields when updates are made in FIMS. These are display only and not updatable in CAIS.

The following table identifies the 19 data fields updated through this process:

Field Office	Property ID	Usage Code	Size
Site Name	Property Number	Mission Dependency	Size Unit of Measure
Site Number	Property Type	Status	Year Built
Area Name	HQ Program Office	RPV	Estimated Disposition Year
Area Number	Ownership	RPV Model	

New Real Property Assets

As new real property assets are added to FIMS, the assets are simultaneously added to CAIS through a database process. All buildings, trailers and OSF regardless of ownership are added to CAIS.

When the new asset is created in CAIS, the **Added by FIMS** date field on the Asset Detail window will be populated with the date the asset was added.

A CAIS user may also receive an automated email notification that a new asset has been added to CAIS for their Site if the **Email Notifications** check box on the My Profile window is checked. Reference the My Profile section in Chapter 14 Application Security for more details or click [here](#)

Updates to Existing Assets

When updates to any of the 19 data fields listed in the previous table occur in FIMS, the **Updated by FIMS** date field on the Asset Detail window will be populated with the date the FIMS asset was updated.

Assets Archived in FIMS

When assets are archived in FIMS, they are simultaneously archived in CAIS through a database process.

When these updates occur in CAIS, the **Archived by FIMS** date field on the Asset Detail window of the archived asset will be populated with the date the asset was archived.

A CAIS user may also receive an automated email notification that an asset has been archived in CAIS for their Site if the **Email Notifications** check box on the My Profile window is checked. Reference the My Profile section in Chapter 14 Application Security for more details or click [here](#).

Chapter
13

Estimating

Estimating Module

CAIS provides a module that can be used to calculate Estimates for repairs/replacements of deficiencies. The module incorporates the RS Means costing data already utilized by CAIS to calculate the Estimates. Estimates can be developed at the component or assembly level. The tool can be used to develop custom Replacement Plant Values (RPVs) for buildings, OSFs and trailers and also to customize the existing DOE RPV Models. All Estimates are updated annually during the automated RS Means costing update to CAIS.



Please note: Headquarters Read Only, Field Office Read Only, and Site Read Only users may be assigned add, update and delete access to the Estimating Module.

Estimate List

To access the list of Estimates for your Site, click **Tools** from the menu and select **Estimating**. The Estimate List window will display the Estimates, based on the Field Office and Site default that you have established for your user account. Please reference Chapter 14 Application Security, under My Profile or click [here](#) to learn how to establish a default location.

Estimate ID	Estimate Name	Property ID	Total Estimate Value	Created By	Last Updated By
1645	RPV 57-CT02	57-CT02	\$830,280	Fazenbaker, David	
1647	RPV 38-CT02	38-CT02	\$2,327,598	Fazenbaker, David	
1648	RPV 67-CT02	67-CT02	\$3,419,870	Fazenbaker, David	
1649	RPV 58-CT01	58-CT01	\$2,351,908	Fazenbaker, David	
1650	RPV 92-CT02	92-CT02	\$1,207,930	Fazenbaker, David	
1651	RPV 200-CT01	200-CT01	\$849,729	Fazenbaker, David	
1908	RPV WELLS	WELLS	\$55,173	Fazenbaker, David	
1924	RPV SIDEWALK	SIDEWALK	\$548,804	Fazenbaker, David	
2045	RPV ROADS	ROADS	\$8,082,814	Fazenbaker, David	
2046	RPV FENCING	FENCING	\$1,976,586	Fazenbaker, David	
2047	RPV POND-N	POND-N	\$772,265	Fazenbaker, David	

The Estimate List window displays the Estimate ID, Estimate Name, Property ID, Total Estimate Value, Created By and Last Updated By for each Estimate. The Estimate ID contains a link that will direct you to the Estimate Detail information.

Folders, on the left, are created to group and organize Estimates. Estimates cannot be stored in the root, Estimate Folders. The Building/Trailer RPV and OSF RPV folders have been created to organize you Site RPV estimates. These folders cannot be deleted.

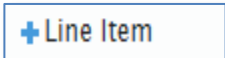
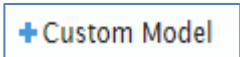
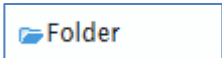
The default sort for the Estimate List window is the Estimate ID. However, you can change the sort by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on Estimate ID, Estimate Name, Property ID, Created By or Last Updated By. Simply begin typing in the filter field below the column name. As you type, the Estimate List window will automatically filter, based on your entry.

To modify the Estimate List window to reflect a different Field Office or Site Name, click and select another value from the pick list. If the Field Office is modified, you will notice the pick list for the Site Name will be refreshed with new options.

The buttons at the bottom of the Estimate List window perform the following functions:




The **New** button provides the following three options.

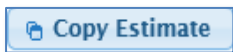
-  Create a new estimate using the RS Means Line Numbers.
-  Create a new estimate to customize a DOE RPV Model.
-  Create a new folder to group and organize Estimates.

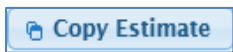



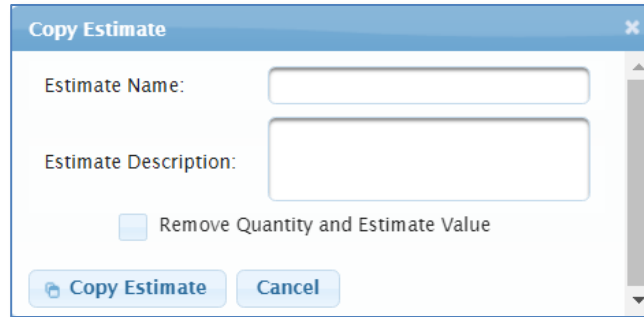
The **Copy** button will copy a selected existing Estimate and create a new Estimate. Use the check box on the

Estimate List window to select the Estimate to be copied and click . The window below will open.

Enter the Estimate Name and Estimate Description. Click the Remove Quantity and Estimate Value checkbox if you want to remove all the Quantity values and the calculated Estimate Value from the new Estimate being created. Leave the checkbox unchecked to copy the existing Quantity values and calculated Estimate Value.



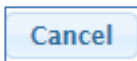
Click the  button to copy the Estimate or click the  button to cancel the copy operation.



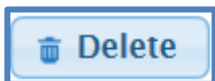
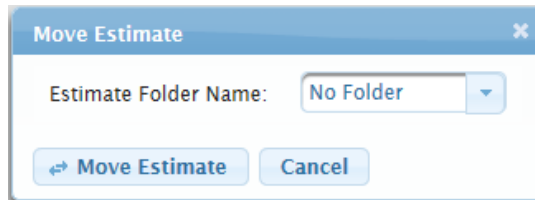
The **Move** button allows estimates to be moved into folders. From the popup window shown below,



select an existing Estimate Folder Name from the pick list and click

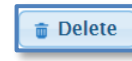


to cancel the move.



The **Delete** button will permanently delete the selected existing Estimate(s)/Folder(s). Use the check box on

the Estimate List window to select the Estimate(s)/Folder(s) to be deleted and click



. You will be prompted to confirm the delete. Click



to delete or click



to cancel the delete request. The Building/Trailer RPV and OSF RPV folders may not be deleted. Also, any estimate that is linked to a FIMS real property asset by Property ID, may not be deleted.



The **Modify Folder** button allows CAIS Headquarters Admin, Field Office Admin and Site Admin users to assign user access to Folders and/or change the Folder Owner. It also allows Folders to be renamed if you have access rights to rename the Folder.



Please note: Only Headquarters Admin, Field Office Admin and Site Admin users can assign Folder access to CAIS users and/or change the Folder Owner.



Select a Folder from the list using the check box to the left of the folder name. Click the following Modify Estimate Folder popup window will open.

Grant User	User
<input type="checkbox"/>	
<input type="checkbox"/>	Dickerson, Allen
<input checked="" type="checkbox"/>	Rodriguez, Adan

One or more of the following may be performed depending on your access rights to the folder:

1. To grant a user access to a folder, use the Grant User check box to select users to assign read/write access to the selected folder.
2. To change the Folder Owner, select a user from the picklist.
3. To rename an existing folder, enter the new folder name in the Rename Folder field.



Click the **Modify Estimate Folder** button to save the changes or click the **Cancel** button to cancel the changes.



Please note: If the Folder Owner or Rename Folder field is not available on the Modify Estimate Folder window, you do not have access right to perform these functions.



To generate **EST 001 Cost Estimate Detail Report**, use the check boxes on the Estimate List window to select Estimate(s)/Folder(s)) for the report. Then choose either the **PDF** or **Excel** format from the **Export Estimate** pick list.

The Excel report will provide three sheets of information in the spreadsheet. The Estimate data detail, the Cost Adders included in the Estimate and the Additional Cost applied to the Estimate.

To generate **EST 002 Job Cost Phase Report**, use the check boxes on the Estimate List window to select a single estimate. Then choose **Excel** from the **Export Estimate** pick list for the Job Cost Phase Report.

See Appendix C, Report Samples or click [here](#) for a sample report layout of these reports.



The **Manager Adders** button will open the window to allow Estimate Cost Adders to be added, updated or deleted for your Site. These Estimate Cost Adders are separate from the CAIS Cost Adders. These adders allow adjustments based on Equipment, Material, Labor and O&P (Overhead & Profit) resulting in the



escalation of the Estimate cost. Click the button to open the following window.

Delete	Cost Adder Code	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	01	Labor Adj.			30	30
<input type="checkbox"/>	02	Materials Adj.		20		10
<input type="checkbox"/>	03	Equipment Adj.	10		0	10
<input type="checkbox"/>	04	Sales Tax	9.75	9.75		10
<input type="checkbox"/>	05	Adjustment for True Market Value, Paint		100	100	100
<input type="checkbox"/>	06	Adjustment to True Market Value, MS&D		50	50	50
<input type="checkbox"/>	07	Adjustment to ACM Abatement		500	500	500
<input type="checkbox"/>	08	Adjustment to asphalt milling	1000	1000	1000	
<input type="checkbox"/>	09	True Market Value for HVAC Air Cleaners		50	50	
<input type="checkbox"/>	10	Y-12 Procedures Adjustment	50	50	50	50



Click the button to add a line to create a new Estimate Cost Adder.



Click the button to save the new adder or to save any changes.

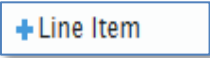


Click the button to recalculate all Site Estimates based on changes to the Adder values.



Click the button to return to the Estimate List window.

New Line Item Estimate



To create a new Line Item Estimate, click the **New** button then click **+ Line Item** at the bottom of the Estimate List window. **The New Estimate window will be displayed.**

The 'New Estimate' window contains the following fields and buttons:

- Area Name: dropdown menu with 'A' selected
- Property ID: dropdown menu
- Folder: dropdown menu
- Estimate Name: text input field
- Estimate Description: text input field
- Buttons: 'Save/Build Estimate' and 'Cancel'

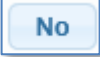
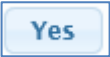
To link a Line Item Estimate to a real property asset, select an Area Name and a Property ID from the pick lists. A Property ID can only be assigned to one estimate. Property IDs already assigned to a CAIS estimate will appear protected in the Property ID pick list and cannot be selected.

If a Property ID was selected from the pick list, the Estimate Folder Name will automatically be set to Building/Trailer RPV for a building/trailer asset or to OSF RPV for an OSF asset. Otherwise, you will be required to choose an Estimate Folder Name from the pick list.



Enter the Estimate Name and Estimate Description (optional) and click the **Save/Build Estimate** button to create your Estimate.

If a Property ID was selected and it already has an existing RPV in FIMS, the following message will be



generated to alert you. Select **Yes** to continue or **No** to stop the creation of a Line Item Estimate.

The 'Save RPV Estimate' dialog box contains the following text and buttons:

Save RPV Estimate

⚠ By selecting a FIMS Property ID, you are intending to change the existing RPV in FIMS to a CAIS generated RPV. Do you wish to continue?

Buttons: Yes, No

The **Estimate Detail** window in the following section will open upon successfully saving your new Line Item Estimate.



If you do not wish to proceed with creating a new Estimate, click the **Cancel** button to close the New Estimate window.

Estimate Detail

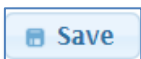
By clicking on the Estimate ID link from the Estimate List window or after saving a new Line Item Estimate, you will be directed to the Estimate Detail window as shown below:

The Field Office, Site Name, Area Name and Property ID (if linked to a real property asset) are displayed.

The Estimate ID is system generated when you Save the new Estimate. It uniquely identifies the Estimate.

The Estimate Name and Estimate Description are updatable. If a Property ID is displayed, the Geographic Adjuster value from FIMS is displayed and protected from update. If no Property ID is displayed, the Geographic Adjuster is updatable.

The Category is optional. A list of existing Category values can be displayed for the Estimate by entering a value in the data field to show a popup that can be used to select a value from or a value can simply be typed in.



Click the  button to commit changes to the database after making any updates.

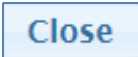


Please note: If the Estimate has a Property ID displayed, the calculated estimate total will be labelled RPV - CAIS and FIMS will be updated with the RPV. If the Estimate does not display a Property ID, the calculated estimate total will be labelled Total Estimate Value.

The Estimate Detail window is used to build your Estimate. Use this window to add Estimate line items to your Estimate or delete them. Adders may be applied to each line item or globally to all line items and an overall Additional Cost may be added to the Estimate on this window.

The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will be displayed. The following Assembly Detail window is an example of RSM Line Number G20202141920 Parking lot, 30 cars with 2 handicap & lighting, 3" bituminous paving, 10" crushed stone.

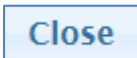


Click the button to close the Assembly Detail window.

RSM Line Number	Line Number Description	Quantity	UOM	Total
017123131300	Boundary & survey markers, crew for building layout, 4 pe	0.62	Day	\$1,795.50
033053403800	Structural concrete, in place, spread footing (3000 psi), ur	2.35	C.Y.	\$389.96
260519901300	Wire, copper, stranded, 600 volt, #8, type THWN-THHN, nc	8.4	C.L.F.	\$88.50
262816200100	Safety switches, general duty, 3 pole, fusible, 240 volt, 30	1	Ea.	\$235.50
265613103000	Light poles, anchor base, aluminum, 20' high, excl concre	5	Ea.	\$1,530.00
265621202780	Roadway area luminaire, high pressure sodium, 400 Watt,	5	Ea.	\$1,053.00
310516100320	Aggregate for earthwork, crushed stone, 1.40 tons per C.Y	449	L.C.Y.	\$33.80
312216100012	Fine grading, finish grading, small area, to be paved with	682	S.Y.	\$3.56
312316140100	Excavating, chain trencher, utility trench, common earth, 1	420	L.F.	\$0.60

2. Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information as shown below. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).

262416302200 Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 32 circuits, NQOD, incl 20 A 1 pole plug-in breakers		
Crew Cost		
Labor Rates		
Crew	Daily Output	Labor Hours
ELEC	0.72	22.222



Click the button to close the Crew/Labor Information window.

Adding Estimate Line Items

🔍 Line Number Search

Clicking the **Line Number Search** button on the Estimate Detail window will open the Line Number Search window as shown below:

RSM Line Number	Line Number Description	EQP	MTL	LAB	O&P	Total	UOM
B20300453100	Door, wood, overhead, panels, heavy duty, electric operator, 8'-0" x 8'-0" opening	\$0.00	\$2,375.00	\$620.00	\$605.00	\$3,600.00	Opng.
B20300453150	Door, wood, overhead, panels, heavy duty, electric operator, 10'-0" x 10'-0" opening	\$0.00	\$2,875.00	\$665.00	\$685.00	\$4,225.00	Opng.
B20300453200	Door, wood, overhead, panels, heavy duty, electric operator, 12'-0" x 12'-0" opening	\$0.00	\$3,525.00	\$755.00	\$820.00	\$5,100.00	Opng.
B20300453250	Door, wood, overhead, panels, heavy duty, electric operator, 14'-0" x 14'-0" opening	\$0.00	\$4,875.00	\$840.00	\$985.00	\$6,700.00	Opng.
B20300453300	Door, wood, overhead, panels, heavy duty, electric operator, 20'-0" x 16'-0" opening	\$0.00	\$6,975.00	\$1,700.00	\$1,725.00	\$10,400.00	Opng.
B20300462850	Door, wood, overhead, panels, heavy duty, manual operation, 8'-0" x 8'-0" opening	\$0.00	\$1,250.00	\$415.00	\$375.00	\$2,040.00	Opng.
B20300462900	Door, wood, overhead, panels, heavy duty, manual operation, 10'-0" x 10'-0" opening	\$0.00	\$1,750.00	\$460.00	\$455.00	\$2,665.00	Opng.
B20300462950	Door, wood, overhead, panels, heavy duty, manual operation, 12'-0" x 12'-0" opening	\$0.00	\$2,400.00	\$550.00	\$590.00	\$3,540.00	Opng.
B20300463000	Door, wood, overhead, panels, heavy duty, manual operation, 14'-0" x 14'-0" opening	\$0.00	\$3,750.00	\$635.00	\$765.00	\$5,150.00	Opng.

There are two ways to search and retrieve cost data to add to your Estimate.


Search Option 1

Use the following data fields to search for items to add to your Estimate:

- **Source** – Choose one of the following pick list values:
 - Assembly – Collection of components which make up the functional elements that are common to most assets. Assembly data is arranged according to the UNIFORMAT II classification system. Generally, this option is associated with new construction.
 - Maintenance Assembly - Collection of components which make up the functional elements that are common to most assets that are associated with maintenance and/or repair activities of existing construction. Assembly data is arranged according to the UNIFORMAT II classification system.
 - Maintenance Master Format - Represents a master list of titles and numbers for individual asset components. This option is associated with maintenance and/or repair activities of existing construction.

- Master Format - Represents a master list of titles and numbers for individual asset components. Generally, this option is associated with new construction.
- **RSM Line Number** – Use this field to search for a specific line number or enter a portion of a line number.
- **Line Number Description** – Enter one or more keywords to search the cost data.




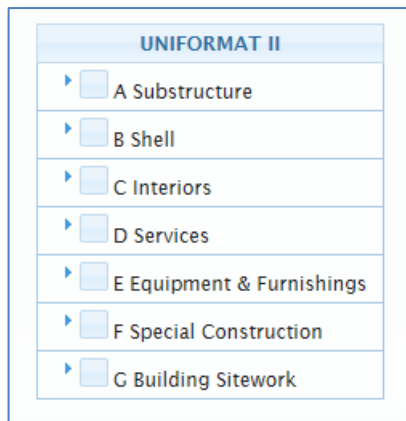
Click the  button to retrieve the matching cost data.

Search Option 2

A tree structure is available to search the Uniformat II and Master Format data. Make a selection from the Source



pick list and then click the  button to open either the Uniformat II or Master Format tree structure in the bottom left pane of the window as shown here.




OR



Use the  button beside each level to expand it to the next level. To retrieve cost data at a specific level, click



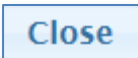
the check box to place a  in one or more check boxes.

Select Estimate Line Items

The retrieved cost data can be sorted by clicking any column heading. The arrows designate the sort as ascending or descending. The capability also exists to filter on RSM Line Number, Line Number Description, and UOM (Unit of Measure). Simply begin typing in the filter field below the column name. As you type, the retrieved data will automatically filter, based on your entry.

The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will be displayed. The following Assembly Detail window is an example of RSM Line Number G20202141920 Parking lot, 30 cars with 2 handicap & lighting, 3" bituminous paving, 10" crushed stone.



Click the button to close the Assembly Detail window.

RSM Line Number	Line Number Description	Quantity	UOM	Total
017123131300	Boundary & survey markers, crew for building layout, 4 pe	0.62	Day	\$1,795.50
033053403800	Structural concrete, in place, spread footing (3000 psi), ur	2.35	C.Y.	\$389.96
260519901300	Wire, copper, stranded, 600 volt, #8, type THWN-THHN, nc	8.4	C.L.F.	\$88.50
262816200100	Safety switches, general duty, 3 pole, fusible, 240 volt, 30	1	Ea.	\$235.50
265613103000	Light poles, anchor base, aluminum, 20' high, excl concre	5	Ea.	\$1,530.00
265621202780	Roadway area luminaire, high pressure sodium, 400 Watt,	5	Ea.	\$1,053.00
310516100320	Aggregate for earthwork, crushed stone, 1.40 tons per C.Y.	449	L.C.Y.	\$33.80
312216100012	Fine grading, finish grading, small area, to be paved with	682	S.Y.	\$3.56
312316140100	Excavating, chain trencher, utility trench, common earth, 1	420	L.F.	\$0.60

- Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information as shown below. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).

262416302200
 Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 32 circuits, NQOD, incl 20 A 1 pole plug-in breakers

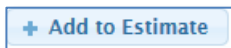
[Crew Cost](#)
[Labor Rates](#)

Crew	Daily Output	Labor Hours
ELEC	0.72	22.222



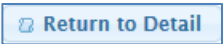
Click the button to close the Crew/Labor Information window.

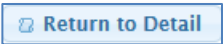
Use the check boxes to select cost data to add to your Estimate. One or more line items may be selected as shown



here. Click the button to add the line items to your Estimate and return to the Estimate Detail window.

Search Results							
RSM Line Number	Line Number Description	EQP	MTL	LAB	O&P	Total	UOM
C30204100080	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 35 oz	\$0.00	\$4.05	\$0.53	\$0.70	\$5.28	S.F.
C30204100100	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 42 oz	\$0.00	\$5.25	\$0.53	\$0.81	\$6.59	S.F.
C30204100140	Carpet, tufted, nylon, roll goods, 12' wide, 26 oz	\$0.00	\$2.59	\$0.57	\$0.58	\$3.74	S.F.
<input checked="" type="checkbox"/> C30204100160	Carpet, tufted, nylon, roll goods, 12' wide, 36 oz	\$0.00	\$4.04	\$0.57	\$0.72	\$5.33	S.F.
C30204100180	Carpet, tufted, roll goods, woven, wool, 12' wide, 36 oz	\$0.00	\$11.30	\$0.60	\$1.50	\$13.40	S.F.
C30204100200	Carpet, tufted, roll goods, woven, wool, 12' wide, 42 oz	\$0.00	\$12.30	\$0.60	\$1.70	\$14.60	S.F.
C30204100220	Carpet, padding, add to above, 2.7 density	\$0.00	\$0.66	\$0.28	\$0.24	\$1.18	S.F.
<input checked="" type="checkbox"/> C30204100240	Carpet, padding, add to above, 13.0 density	\$0.00	\$0.89	\$0.28	\$0.27	\$1.44	S.F.
D50201150840	Undercarpet power system, 3 conductor with 5 conductor feeder, low density	\$0.00	\$1.37	\$0.30	\$0.28	\$1.95	S.F.

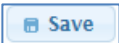


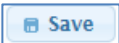
Click the  button to go back to the Estimate Detail window.

Calculating the Estimate Line Item Cost

After the line item is added to the Estimate, you are returned to the Estimate Detail window. The following data is entered to calculate the Estimate cost.

- Quantity - Enter a Quantity for the line item to calculate the Estimated Value. Quantity should be entered in the specified Unit of Measure (UOM).




Click the  button to calculate the Estimate line item cost and commit the change to the database.

Adding Estimate Cost Adders to Estimate Line Item Cost



Estimate Cost Adders may be applied to each Estimate line item using the following steps. These Estimate Cost Adders are defined and managed by the Site from the Estimate List window.



- Click the  button on the Estimate line item to open the Estimate Cost Adder window as shown here.

<input type="checkbox"/>	Description	Equipment %	Material %	Labor %	O&P %
<input checked="" type="checkbox"/>	COST ADJUSTER _ SRS	57	129	57	129
<input type="checkbox"/>	ARA	130	130	130	0
<input type="checkbox"/>	ASBESTOS INSULATION, PIPE, TANK	178	178	0	100
<input type="checkbox"/>	ASBESTOS, TRANSITE, ROOF, TILE	43	43	0	50
<input type="checkbox"/>	CONFINED SPACE NON-PERMIT	0	10	0	0
<input type="checkbox"/>	CONFINED SPACE PERMIT REQUIRED	40	40	0	40
<input type="checkbox"/>	CONGESTED AREA - EXTREME	160	160	0	50

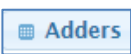
- Select or deselect the desired Estimate Cost Adder(s) by clicking the checkbox.

- Click the  button to recalculate the Estimate line item cost and return to the Estimate Detail window. Notice the Adder button , the '+' identifies that an Adder has been applied to this line item.

- Click the  button to return to the Estimate Detail window without applying Adders.

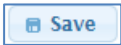
Adding Estimate Cost Adders Globally to All Estimate Line Items

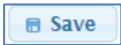
Estimate Cost Adders may be applied globally to all Estimate line items using the following steps. These Estimate Cost Adders are defined and managed by the Site from the Estimate List window.

- Click the  button at the bottom of the Estimate Detail window to open the Apply Adders Across All Details window as shown here.

<input type="checkbox"/>	Description	Equipment %	Material %	Labor %	O&P %
<input type="checkbox"/>	ARA	130	130	130	0
<input type="checkbox"/>	ASBESTOS INSULATION, PIPE, TANK	178	178	0	100
<input type="checkbox"/>	ASBESTOS, TRANSITE, ROOF, TILE	43	43	0	50
<input type="checkbox"/>	CONFINED SPACE NON-PERMIT	0	10	0	0
<input type="checkbox"/>	CONFINED SPACE PERMIT REQUIRED	40	40	0	40
<input type="checkbox"/>	CONGESTED AREA - EXTREME	160	160	0	50
<input type="checkbox"/>	CONGESTED AREA - LIGHT	60	60	0	50

- Select or deselect the desired Adder(s) by clicking the checkbox(es).



- Click the  button to apply the selected Adder(s) to all the Estimate line items, recalculate the costs, and return to the Estimate Detail window.




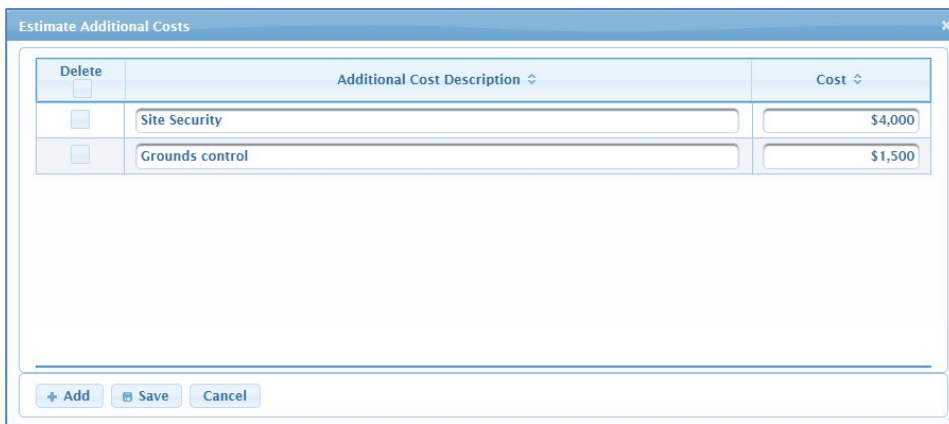
- Click the  button to return to the Estimate Detail window without applying Adders.


Adding Additional Cost to the Estimate

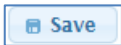
Additional Cost may be added to the Estimate following these steps:



- Click the  button to open the Estimate Additional Costs window as shown here.




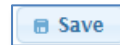
- Click the  button to add a row and enter the Additional Cost Description and Cost. Repeat to add more costs.



- Click the  button to recalculate the Total Estimate Value and return to the Estimate Detail window.



Notice the Add Cost button , the '+' identifies that Additional Cost have been added to the Estimate.




- Use the **Delete** checkbox to remove Additional Cost. Then click the  button to recalculate the Total Estimate Value and return to the Estimate Detail window.




- Use the  button to return to the Estimate Detail window without applying adders.

Deleting Estimate Line Item Cost from an Estimate

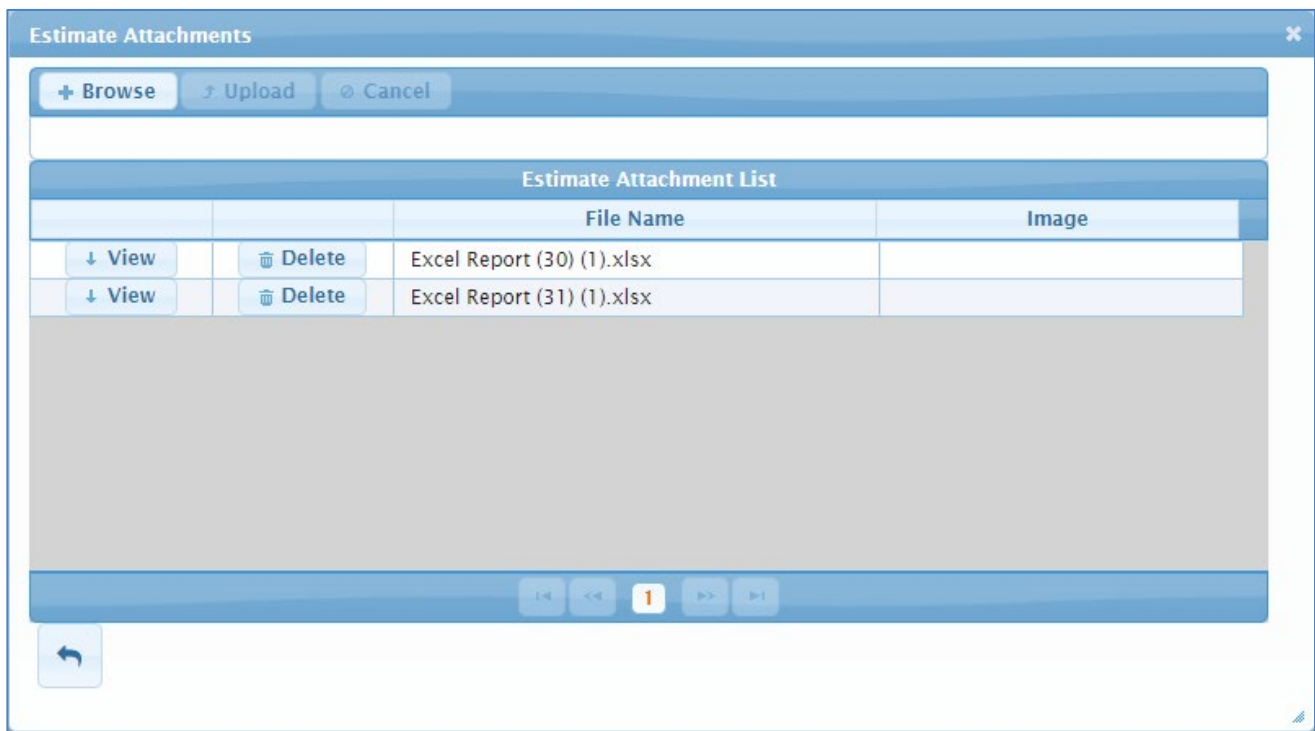
To remove an Estimate line item from an Estimate, use the checkbox(es) to select the Estimate line item(s) to be

removed and then click the  button. The Total Estimate Value will be recalculated.

Attaching files to an Estimate

To store attachments to your Estimate, use the  button. A '+' sign displayed on the Attachments button designates that attachments exists for the Estimate.

Clicking the Attachments button will open the Estimate Attachments pop-up window as displayed below.





To upload an attachment, perform the following:


1. Click the **Browse** button. You will be prompted to locate a file. Select your option to obtain a file to attach and click the **Open** button.
2. Once you have selected a file, click the **Upload** button. If you wish to cancel the upload, click the **Cancel** button.
3. Once you click **Upload**, CAIS will attach the file and you will then see the File Name and Image displayed in the Estimate Attachment List.



Please note: You can upload multiple attachments. Acceptable file types include .jpg, .pdf, .xls, .xlsx, .doc and .docx.

To view an attached image, click the  button.


To remove an attached image, click the  button.

If you wish to return to the Estimate Detail window, click the  button at the bottom left of the Estimate Attachments window.

Adding a Customized Line Item to an Estimate

To add a custom item that represents a component not found in the RS Means costing data, use the



 button. The Quantity, Line Number Description (freeform text), UOM and Estimated Value will be required. Category is optional. Upon clicking Save, the RS Means Line Number will display 'Custom'.

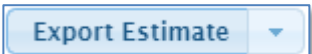
Generate an Estimate Report

Generate **EST 001 Cost Estimate Detail Report** for the current estimate to either **PDF** or **Excel** format using



the  pick list.

Generate **EST 002 Job Cost Phase Report** for the current estimate to **Excel** using the



 pick list.

See Appendix C, Report Samples or click [here](#) for a sample report layout of these reports.

Return to the Estimate List



To return to the Estimate List window from the Estimate Detail window, click the  button.

New Custom Model



To create a new Custom RPV Model, click the **New** button then click **+ Custom Model** at the bottom of the Estimate List window. **The New Estimate window will be displayed.**

The 'New Estimate' window contains the following fields and controls:

- Area Name: A dropdown menu with 'A' selected.
- Property ID: A dropdown menu.
- Folder: A dropdown menu.
- Estimate Name: A text input field.
- Estimate Description: A larger text input field.
- Buttons: 'Save/Build Estimate' and 'Cancel'.



Please note: For Building and Trailer RPVs, FIMS and CAIS provide the same parameters to calculate the value. If your site is not customizing Building and Trailer RPVs beyond the CAIS Custom Model window, there is no need to develop your RPVs in CAIS.

To link a Custom Model estimate to a real property asset, select an Area Name and a Property ID from the pick lists. A Property ID can only be assigned to one estimate. Property IDs already assigned to a CAIS estimate will appear protected in the Property ID pick list and cannot be selected.

If a Property ID was selected from the pick list, the Estimate Folder Name will automatically be set to Building/Trailer RPV for a building/trailer asset or to OSF RPV for an OSF asset. Otherwise, you will be required to choose an Estimate Folder Name from the pick list.



Enter the Estimate Name and Estimate Description (optional) and click the **Save/Build Estimate** button to create your Estimate.

If a Property ID was selected and it already has an existing RPV in FIMS, the following message will be

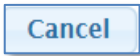


generated to alert you. Select **Yes** to continue or **No** to stop the creation of a Custom Model estimate.

The 'Save RPV Estimate' dialog box contains the following text and controls:

- Warning icon and text: "By selecting a FIMS Property ID, you are intending to change the existing RPV in FIMS to a CAIS generated RPV. Do you wish to continue?"
- Buttons: 'Yes' and 'No'.

The **Custom Model** window in the following section will open upon successfully saving your new Custom Model estimate.



If you do not wish to proceed with creating a new Estimate, click the **Cancel** button to close the New Estimate window.

Custom Model

After saving a New Custom Model Estimate, you will be directed to the Custom Model window as shown below:

The Custom Model window is used to set the parameters for your customized RPV Model.

The Field Office, Site Name and Area Name are displayed to identify the Site with which the Custom Model Estimate is associated. If the Custom Model Estimate is linked to a specific real property asset, the Property ID and Usage Code will also display.


The Estimate ID is system generated when you save a new Custom Model Estimate. It uniquely identifies the Estimate.

Select a FIMS RPV Model from the Select a Model pick list. The default RPV Model data will be displayed.

If a Property ID is displayed, the Geographic Adjuster value from FIMS is displayed and protected from update. If a Property ID is displayed and the asset is a building or trailer, the Size, Perimeter and No of Floors values from FIMS are displayed and protected from update. If no Property ID is displayed, these data fields are updatable.

The Estimate Name, Estimate Description, Basement, Floor Height, and Wall/Framing Type are updatable. Enter

any parameters and click the  button to update the Total Model Cost and Cost Per Sqft.

Use the  button to save your Custom Model Estimate.

To return to the Estimate List window, click the  button.

Advanced Model Customization



After the Custom Model Estimate is saved on the **Custom Model** window, the **Cost Details** button becomes available. This option allows you to further customize your Custom Model. Clicking this button will open the **Estimate Detail** window displaying the Custom Model assemblies for the chosen RPV Model as shown below. This window is also opened for Custom Model RPV estimates when the Estimate ID link is clicked from the Estimate List window.

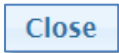
The screenshot shows the 'Estimate Detail' window. At the top, there are navigation menus and a search bar. Below that, several input fields are populated with data: Field Office (Savannah River Site), Site Name (Savannah River Site), Area Name (F), Property ID (241062), Estimate ID (4093), Estimate Name (241062F MODEL UPDATE), No of Floors (1), Estimate Description, Geographic Adjuster (SC, AIKEN), Cost Per Sq Ft (0.832), Basement (No), Size (400), Cost Per Sq Ft (\$534.34), Perimeter (LF) (80), Model Name (Substation Small (N66)), Wall/Framing Type (Sub Station, Small with 840 S.F. Offices, Concrete Pad 20,000 S.F. Lot), and Floor Height (LF) (8).

	Source	Quantity	RSM Line Number	Line Number Description	UOM	Category	Estimated Value	
<input type="checkbox"/>	Assembly	400.00	A10301207962	Slab on grade for DOE Substation	S.F.		\$3,155	Adder
<input type="checkbox"/>	Assembly	8.00	D50100230200	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 400 A	Ea.		\$212,074	Adder +
<input type="checkbox"/>	Assembly	1.00	D50101108900	Electrical distribution, high voltage shielded conductors, DOE trailer	Ea.		\$998	Adder
<input type="checkbox"/>	Assembly	1.00	D50101208900	Electrical service & distribution, 3 phase, 4 wire for DOE trailer	Ea.		\$6,792	Adder
<input type="checkbox"/>	Assembly	1.00	D50901100010	Grounding for DOE SNM Component Staging Facility	Ea.		\$8,738	Adder
<input type="checkbox"/>	Assembly	0.50	D50901200010	Lightning protection for DOE SNM Component Staging Facility	Ea.		\$24,590	Adder
<input type="checkbox"/>	Assembly	0.18	G20401051710	Gate, sliding with overhead support, 8' high (DOE 2429)	L.F.		\$49	Adder
<input type="checkbox"/>	Assembly	120.00	G20401051830	Security fence, FE-8 (DOE)	L.F.		\$7,551	Adder
<input type="checkbox"/>	Assembly	0.48	G40101101010	Electrical Substation, 500 kVA (DOE 8979)	kVA		\$161	Adder

At the bottom of the table, there are several action buttons: Line Number Search, Save, Attachments, Delete, Modify Model Parameters, Adders, + Add Line Item, Export Estimate, and Return to List.

The RSM Line Number column contains hyperlinks. Based on the Source of the RSM Line number, one of the following will occur:

1. By clicking an Assembly line number (the ones that begin with an alpha character) hyperlink, a detailed list of the RSM Line Numbers that make up the Assembly will be displayed. The following Assembly Detail window is an example of RSM Line Number [G20202141920](#) Parking lot, 30 cars with 2 handicap & lighting, 3" bituminous paving, 10" crushed stone.



Click the **Close** button to close the Assembly Detail window.

Assembly Detail

G20202141920
Parking lot, 30 cars with 2 handicap & lighting , 3" bituminous paving, 10" crushed stone

RSM Line Number	Line Number Description	Quantity	UOM	Total
017123131300	Boundary & survey markers, crew for building layout, 4 pe	0.62	Day	\$1,795.50
033053403800	Structural concrete, in place, spread footing (3000 psi), ur	2.35	C.Y.	\$389.96
260519901300	Wire, copper, stranded, 600 volt, #8, type THWN-THHN, nc	8.4	C.L.F.	\$88.50
262816200100	Safety switches, general duty, 3 pole, fusible, 240 volt, 30	1	Ea.	\$235.50
265613103000	Light poles, anchor base, aluminum, 20' high, excl concre	5	Ea.	\$1,530.00
265621202780	Roadway area luminaire, high pressure sodium, 400 Watt,	5	Ea.	\$1,053.00
310516100320	Aggregate for earthwork, crushed stone, 1.40 tons per C.Y	449	L.C.Y.	\$33.80
312216100012	Fine grading, finish grading, small area, to be paved with	682	S.Y.	\$3.56
312316140100	Excavating, chain trencher, utility trench, common earth, i	420	L.F.	\$0.60

Close

- Clicking a Master Format or Maintenance Master Format RSM Line Number (the ones that begin with a number) hyperlink will open Crew/Labor Information as shown below. The popup window also contains hyperlinks to Crew Cost and Labor Rates data. Reference Appendix A, Data Element Dictionary for definitions or click [here](#).

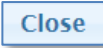
Crew/Labor Information

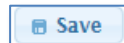
262416302200
Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 225 amp, 32 circuits, NQOD, incl 20 A 1 pole plug-in breakers


[Crew Cost](#)
[Labor Rates](#)

Crew	Daily Output	Labor Hours
ELEC	0.72	22.222

Close

Click the  button to close the Crew/Labor Information window.




On the **Estimate Detail** window, Quantity may be modified. Clicking the  button will calculate each line item Estimated Value and the Total Estimate Value or RPV - CAIS total and commit the changes to the database.




Please note: If the Estimate has a Property ID displayed, the calculated estimate total will be labelled 'RPV – CAIS' and FIMS will be updated with the RPV. If the Estimate does not display a Property ID, the calculated estimate total will be labelled Total Estimate Value.




New RS Means Line Items can be added to the Custom Model using the  button. Reference [Adding Estimate Line Items](#) in this chapter for details on the Line Item Search function. For each additional RS Means Line Item added to a Custom Model, the Source column value will be displayed in red to highlight the additions to the Custom Model. Hovering over the Source value will also identify either “RPV model default” or “Added by CAIS user” to distinguish those line items that are part of the RPV Model or line items that have been added to the Custom Model by the user.



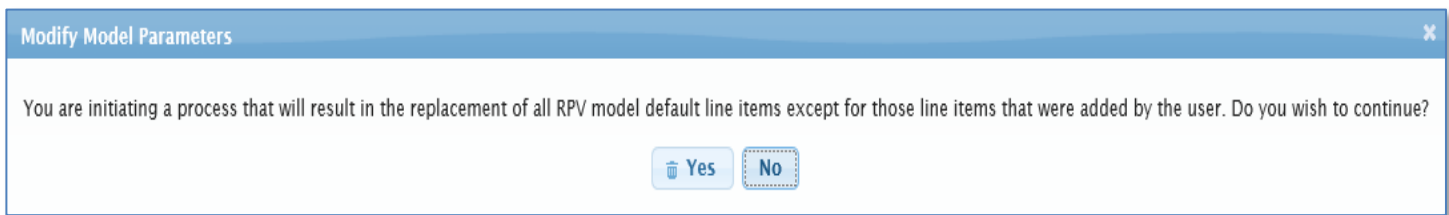
Use the  button to store documents with your estimate. Reference [Attaching files to an Estimate](#) in this chapter for details.



The  button will remove a line item(s) from the Custom Model Estimate. Use the checkbox(es) to the left of each line item to select the line item(s) to be removed and then click the Delete button. The Total Estimate Value will be recalculated.

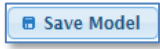


Clicking the  button will display the following message.




Clicking ‘No’ will close the message window and simply return you to the **Estimate List** window.

Clicking ‘Yes’ will return you to the **Custom Model** window where you can further customize the parameters for your customized RPV Model. Any RS Means Line Items added to your Estimate will be retained and added back to your




Custom Model estimate after the  button is clicked on the Custom Model window.




Use the  button on a line item to apply Adders for a specific line item. Reference [Adding Estimate Cost Adders to the Estimate Line Item Cost](#) in this chapter for details.




Use the  button at the bottom of the window to globally apply adders to all line items. Reference [Adding Estimate Cost Adders Globally to All Estimate Line Items](#) in this chapter for details.



Use the  button to add an overall additional cost to the Custom Model Estimate. Reference [Adding Additional Cost to the Estimate](#) in this chapter for details.

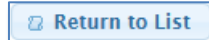


Use the  button to add a custom item that represents a component not found in the RS Means costing data, reference [Adding a Customized Line Item to an Estimate](#) in this chapter for details.



To generate Estimate reports use the this chapter for details.

pick list. Reference [Generate an Estimate Report](#) in



To return to the Estimate List window from the Estimate Detail window, click the button.

Life Cycle Cost Estimating

Life Cycle cost offers many benefits. It can identify long term maintenance and repair activities needed to keep facilities in good working order which helps to eliminate a backlog of repairs. It can also be beneficial for the planning/budgeting of facility preventive maintenance, repair costs, and replacement costs. CAIS Life Cycle Cost Estimating provides preventive maintenance, maintenance and repair, and replacement Life Cycle Cost for building and trailer Custom Model RPV estimates linked to a FIMS asset.

Preventive maintenance is defined as periodic and planned actions to maintain a piece of equipment or assets within design operating conditions. Preventive maintenance keeps assets running and prevents unplanned downtime from unexpected equipment failure.

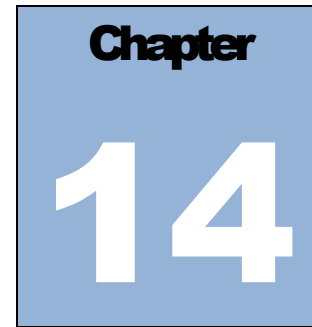
Maintenance and repair cost include scheduled maintenance items as well as cost associated with repairing building components that have failed but are necessary to maintain operations.

Replacement cost represents the replacement of building components that have failed or beyond their useful life and the frequency in which these actions need to occur.



To generate the Life Cycle Cost Estimate for a specific asset, click the icon to the right of the Property ID. This icon is only available for building and trailer Custom Model RPV estimates that are linked to a FIMS asset (CAIS generated RPVs). The Life Cycle Cost Estimate spreadsheet includes both a detailed and summary sheet.

- The detailed sheet, **Life Cycle Cost Estimate**, includes asset and RPV Model information, model assembly list which includes Preventive, Maintenance and Repair, and Replacement costs as well as Life Cycle cost projections for 50 years. The 50 year cost projections are based on the Year Built of the asset. There is a column in the Life Cycle Cost Estimate spreadsheet called Last R&R (Repair & Replace). The user can enter the four-digit year of the repair or replacement for a particular line item which will readjust the 50 year cost projections for that line item.
- The summary sheet, **Life Cycle Cost Summary**, summarizes the Life Cycle cost by year and includes indexed cost based on a user entered inflation percentage. The default inflation percentage is 3.5% but the value can be updated in the spreadsheet and the costs on the sheet will automatically recalculate.



Application Security

Security Overview

CAIS is an unclassified computer system, owned and operated by the Department of Energy. The CAIS user must adhere strictly to the security measures and internal controls that have been established. Access to CAIS is granted based on certain expectations. These expectations are referred to as **Rules of Behavior**. When you log into CAIS and establish/modify your password, you will need to acknowledge that you have read and agree to these Rules of Behavior. CAIS is protected from unauthorized access through the use of passwords. Each CAIS user is assigned a User ID and password by their Field Office or Site Administrator.

The following Rules of Behavior must be adhered to when changing your password:

Rules of Behavior

- Password contains between eight (8) and 20 non-blank characters
- Password contains at least one (1) number
- Password must contain a non-numeric in the first and last position
- Password must contain at least one (1) special character within the first seven (7) positions
- Password does not contain the User ID
- Password does not include the user's own or to the best of his/her knowledge, close friends or relatives names, employee serial number, Social Security number, birth date, phone number, or any information about him/her that the user believes could be readily learned or guessed
- Password does not, to the best of the user's knowledge, include common words that would be in an English dictionary, or from another language which the user has familiarity
- Password does not, to the best of the user's knowledge, employ commonly used proper names, including the name of any fictional character or place
- Password does not contain any simple pattern of letters or numbers, such as "qwertyxx" or "xyz123xx"
- Password employed by the user on his/her unclassified system is different than the passwords employed on his/her classified systems

Additionally, you agree to protect your password in the following manner:

- Must not share the password except in emergency circumstances or when there is an overriding operational necessity
- Must not leave clear-text passwords in a location accessible to others or secured in a location whose protection is less than that required for protecting the information that can be accessed using the password
- Must not enable applications to retain passwords for subsequent reuse

- Password must be changed at least every 60 days, immediately after sharing, on direction from management, and as soon as possible, but within one (1) business day after a password has been compromised, or after it is suspected that a password has been compromised.

Upon logging into CAIS, a message will display with the days remaining before your Password will expire. This message will change to **red** when your Password is within 10 days of expiring. CAIS will notify you through an email 7 days prior to your Password expiring. If your Password expires, CAIS will generate an additional email with the appropriate CAIS Administrator to contact to have your User ID reactivated. It is highly recommended that you change your Password immediately after receiving a reminder message.

If your password has expired and you remember your password and are within 60 days of your last logon, you can logon and CAIS will prompt you to change your password. If CAIS does not prompt you to change your password, you will need to contact your Administrator to have your account reactivated.

CAIS also utilizes a suspension feature for individual with three (3) invalid login attempts. **The following message will be received if your logon account becomes suspended:**



The account has been locked. Please contact your System Administrator to unlock your account.



Please note: Once the account has been suspended, you will need to contact your CAIS Administrator to have the account reactivated.

For any accounts that have been inactive for a period of 60 days, those accounts will automatically be suspended as well. Contact your CAIS Administrator to reactivate suspended accounts.

In addition to your password, your system access is also controlled by the security level assigned to your User ID. Add, Update, and Delete access to all CAIS records is controlled by the assigned security level.

Security Levels

Headquarters Administrator

- Full access to all data within the CAIS Database
- Can establish user accounts
- Can assign Estimate Folder access
- Can update Site Data tables
- Can perform the CAIS to FIMS upload

Headquarters Read Only

- Read-only access to all data within the CAIS database
- May be assigned add, update and delete access to Projects and/or Estimating

Field Office Administrator

- Add, update and delete access to all Sites for a specific Field Office
- Responsible for establishing and maintaining user accounts for one (1) Field Office
- Responsible for assigning Estimate Folder access
- Responsible for maintaining Site Data tables
- Responsible for running the CAIS to FIMS upload

Field Office User

- Add, update and delete access to all Sites for a specific Field Office

Field Office Read Only

- Read-only access to all Sites for a specific Field Office
- May be assigned add, update and delete access to Projects and/or Estimating

Site Administrator

- Add, update and delete access to one specific Site
- Responsible for establishing and maintaining user accounts for one Site
- Responsible for assigning Estimate Folder access
- Responsible for maintaining Site Data tables
- Responsible for running the CAIS to FIMS upload

Site User

- Add, update and delete access to one specific Site

Site Read Only

- Read-only access to one specific Site
- May be assigned add, update and delete access to Projects and/or Estimating

Request a User ID

To request a CAIS User ID, an email should be sent to the appropriate CAIS Administrator for your Field Office/Site. **The email should include the following information for the individual requesting the User ID:**

Name	Email address
DOE Organization or Contractor Name	Security Level requested
Phone Number	Field Office/ Site requesting access

The CAIS Administrator will acknowledge the request by assigning a User ID or denying the request. After receiving notification that your User ID has been created, you will logon to CAIS with the User ID and Password supplied to you.

After logging on to the CAIS logon page, another page will pop up requesting you to enter your **New Password** and **Confirm New Password**. You should create a new password following the Rules of Behavior guidelines outlined previously in this Chapter. **Acknowledge the Rules of Behavior** by selecting 'Yes' from the pick list and click the **Save** button. You will then receive a window that acknowledges that you have successfully changed your password and to click [here](#) to login again. Click **here** to enter your CAIS User ID and the New Password you just created to access the system.

Request for Reactivating a User ID

If your User ID becomes suspended and you can no longer access CAIS, you must send an email to your CAIS Administrator requesting reactivation.

After receiving notification that your User ID has been reactivated, you will logon to CAIS with your User ID and the new password supplied to you.

After logging on to the CAIS logon page, another page will pop up requesting you to enter your **New Password**, **Confirm New Password** and to **Acknowledge the Rules of Behavior**. After entering the requested information, click the **Save** button. You will then receive a window that acknowledges that you have successfully changed your password and to click [here](#) to login again. Click **here** and enter your CAIS User ID and the New Password to access the system.

My Profile

The CAIS application allows you to modify your personal information associated with your User ID. To display and modify your user information, click **Administration** then **My Profile**.

The following User Detail window is displayed with the information that may be modified:

The screenshot shows the 'User Detail' window in the CAIS application. The header includes the CAIS logo and navigation menu (Assets, Reporting, Administration, Archive, Tools, Help, Logout). The main content area is divided into several sections:

- User ID:** bryanm1
- First Name:** Matthew
- Last Name:** Bryan
- Security Level:** Site Read Only
- Organization:** Infrastructure
- Email:** bryan@doe.gov
- Phone Number:** (empty field)
- Password:** (masked with dots) and an 'Update Password' button
- Account Status:** Active
- Default Location:**
 - Field Office:** NNSA Production Office (Restricted)
 - Site:** Y-12 National Security Complex (Restricted)
 - Area:** NNSA
- Custom Settings:**
 - Email Notifications:
 - Optional and User Defined Panels Expanded:
 - Advanced Filters:
- Module Access:**
 - Allow Access to Estimate Module:
 - Allow Access to Project Module:

A 'Save' button is located at the bottom left of the form.



It is imperative to keep your contact information up-to-date. Your email address is used to generate application emails for password and other notifications.

The shaded data fields designate information that is protected and not updatable.

Your Default Location is determined by your CAIS Administrator when your User ID is created. The data field(s) designated as **Restricted** can only be changed by your CAIS Administrator. You may modify any data fields that are not protected. This Default Location determines what data will be displayed by default throughout CAIS. For example, the Asset List will open and list CAIS assets for the Default Location specified Field Office, Site and Area. Another example is when you open the Standard Reports, the criteria window will default to your designated Field Office and Site.

Use the Custom Settings check boxes to designate the following:

Email Notifications	Check this check box if you desire to receive email notifications whenever a FIMS asset is created in CAIS or archived in CAIS
Optional and User Defined Panels Expanded	Check this check box if you desire to have the Optional and User Defined sections of the IU Detail window to always be expanded (open) when you open this window.
Advanced Filters	Check this check box if you desire a more detailed list of default columns displayed on the IU List window. If unchecked, the default will be fewer displayed columns. These displayed columns are completely customizable on the IU List window.

User List

All CAIS users may view the list of CAIS application users. To browse the CAIS users, click **Administration** then **User List**. The following User List window will appear:

User ID	First Name	Last Name	Organization	Security Level	Account Status
bodell	Martin	Bodell	Swift and Staley	Site Admin	Active
doemann	Kim	Mann	Headquarters	Field Office Read Only	Active
dsills	Daron	Sills	Fluor	Field Office Read Only	Active
emkoscis	Jessica	Pedersen	Fluor	Field Office Read Only	Active
ibeck	Jeff	Beck	Swift and Staley	Site User	Active
ibrown	Jim	Brown	Swift and Staley	Site User	Active
ihaves	Jacob	Hayes	Swift and Staley	Site Admin	Active
smarinel	Stacey	Marinelli	Swift and Staley	Site Admin	Active
tgross	Tim	Cross	Swift and Staley	Site User	Active

To view a particular user record, click the desired **User ID** from the User List.

User Detail

The User Detail window will open upon selecting a User ID from the User List window. The following information on this window is read-only for all users except the CAIS Administrators:

User ID: idomark

First Name: Mark

Last Name: Smith

Security Level: Site Read Only

Organization: INL

Email: smithrm@id.doe.gov

Phone Number: (210) 526-6453

Password: [Masked] [Update Password](#)

Account Status: Active

Default Location

Field Office: Idaho Operations Ofc Restricted

Site: Idaho National Lab-Scoville Restricted

Area: Site Wide

Module Access

Allow Access to Estimate Module:

Allow Access to Project Module:

Custom Settings

Email Notifications:

Optional and User Defined Panels Expanded:

Advanced Filters:

[Save](#) [Delete](#) [Return to List](#)

Administrator Responsibilities

The CAIS Headquarters Administrator, Field Office Administrator, and Site Administrator have responsibility for maintaining the CAIS user community within their Field Office /Site designations.

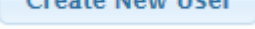
The responsibilities are as follows:

- Review and approve the request for User IDs and Passwords from individuals under the purview of their specified Field Office and/or Site
- Add, delete, update or reinstate CAIS users under the purview of their Field Office and/or Site
- Maintain a current record of all CAIS users under the purview of their Field Office and/or Site and annually review for updates and deletes to their CAIS user community

Adding a New User

The CAIS Headquarters Administrator, Field Office Administrator and the Site Administrator are the only CAIS users that can add a new CAIS user.

If you are a CAIS Headquarters Administrator, Field Office Administrator or a Site Administrator, you can add a new user by clicking **Administration** then **User**

List. From the User List, click the  button. **The New User window appears as follows:**

To establish a new user account, enter the requested information and click the **Save** button.

Module Access

Headquarters Read Only, Field Office Read Only and Site Read Only users may be assigned add, update and delete access to the Projects Module and/or Estimating Module by clicking the appropriate checkbox(es) under Module Access.

Updating / Reactivating a User

The CAIS Headquarters Administrator, Field Office Administrator and the Site Administrator are the only CAIS users that can update or reinstate a CAIS user.

If you are a CAIS Headquarters Administrator, Field Office Administrator or a Site Administrator, you can update a user by clicking **Administration** then **User List**. From the User List, click the **User ID** associated with the user information you wish to modify.

The following information may be updated:

First Name	Password
Last Name	Account Status
Security Level	Site Default Location
Organization	Area Default Location
Email	Email Notifications
Phone Number	

When a user is selected that the CAIS Administrator does not have security rights to modify, the **Save** button is hidden, allowing the Administrator to **view** only the User Detail information.

Reactivating a suspended User ID


If a User ID becomes suspended and they can no longer logon to CAIS, the CAIS Administrator can reactivate the suspended User ID and change the password.

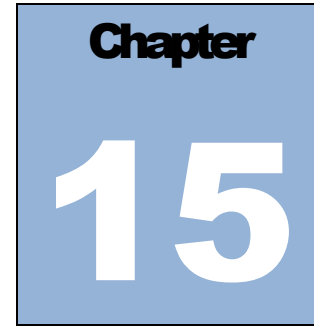
To reactivate a suspended User ID, on the User Detail window, change the Account Status value to 'Active', change the Password and **Save** the password change, and then click **Save** on the User Detail window.

Deleting a User

The CAIS Headquarters Administrator, Field Office Administrator and the Site Administrator are the only CAIS users that can delete a CAIS user.

If you are a CAIS Headquarters Administrator, Field Office Administrator or a Site Administrator, you can delete a user by clicking **Administration** then **User List**. From the User List, click the **User ID** associated with the user information you

wish to delete. Click the  **Delete** button to delete the user record. A message appears confirming the delete operation.



Help

CAIS User's Guide

To access the .pdf version of the CAIS User's Guide while logged into CAIS, click **Help** from the menu and then select **User's Guide**. The CAIS User's Guide is designed to provide comprehensive end-user assistance with all aspects of the application. You can also access the CAIS User's Guide from the Quick Links menu on the CAIS Home page when you first log into CAIS.

CAIS Data Element Dictionary

To access the .pdf version of the CAIS Data Element Dictionary while logged into CAIS, click **Help** from the menu and then select **Data Element Dictionary**. The CAIS Data Element Dictionary, which originates from Appendix A of the CAIS User's Guide, provides definitions for all data elements in the CAIS database. The Data Element Dictionary also identifies required/optional fields, database column names and data element characteristics. The data elements are listed by English name displayed on all of the application windows. You can also access the CAIS Data Element Dictionary from the Quick Links menu on the CAIS Home page when you first login to CAIS.

About CAIS

To access the latest software version number and a brief description of the CAIS application, click **Help** from the menu and then select **About CAIS**.

Chapter
16

Mobile IU

Mobile IU Overview

The Mobile IU (Inspection Unit) tool provides users with a condensed data entry window for collecting inspection unit data during the actual Condition Assessment Survey (CAS) conducted at the asset. This data entry window consists of the essential data fields for the creation an Inspection Unit (IU) record. The window allows for the creation of Staged IU records where the RSM Line Number will be input at a later time or for updating existing inspection unit records. The Mobile IU data entry window was designed for use with a tablet or even a smart phone. It is also accessible from a laptop or desktop computer.

Accessing the Mobile IU Tool

The Mobile IU tool can be accessed from the CAIS Home page (default page when you initially logon) by



clicking the Mobile IU button or by clicking **Tools** from the menu and selecting **Mobile IU**. The CAIS Mobile IU window opens, as displayed below, to your Site default that you have established for your user account. Please reference Chapter 14 Application Security, under My Profile or click [here](#) to learn how to establish a default location.

CAIS Mobile IU

Site Name:

Area Name:

Property ID:

Property Type:

IU Number:

Inspection Date:

Repair Needs Deferred Maintenance Modernization

Location:

Location Description:

Description:

Inspector Name:

Modernization Type:

Equipment ID:

Quantity	UOM	Line Number Description
No Line Items found.		

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To create/update an IU record, perform the following steps:

- 1) Select a different Site Name and/or Area Name from the picklist if applicable.
- 2) Select a Property ID from the picklist. Property Type will be displayed.
- 3) The Mobile IU window is ready to create a new Staged IU for the selected Property ID. Click the



button to identify required data fields. Input the desired values. The IU Number will be generated when the Staged IU is Saved.

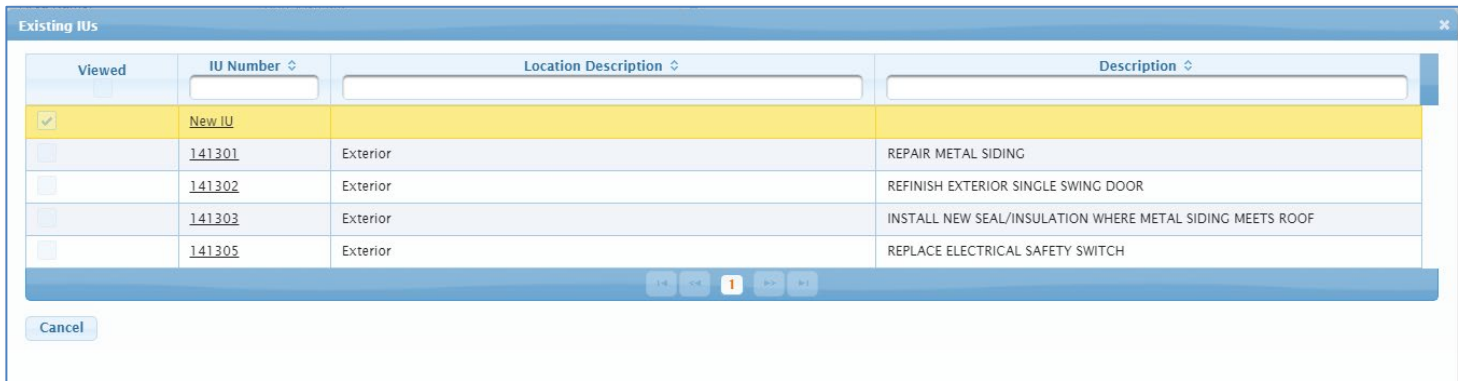


Important: When entering a Staged IU, you are required to enter a description, quantity, and unit of measure into the Description field. You will need this information when you go back to assign a RSM Line Number using the CAIS IU Detail window.

OR




- 4) Click the button to the right of the IU Number data field. The following popup window will open with a list of existing IUs for the selected Property ID.



Either select an existing IU Number or New IU from the popup window. This will return you to the CAIS Mobile IU window. For an existing IU, the available data will be displayed.

The Viewed column of the Existing IUs popup window indicates with a checkmark which IU records have been viewed during your session.

Click the  button to close the Existing IUs popup window if you don't want to make a selection.

Input/update any of the following IU data for existing IUs:

Inspection Date	Location
Inspector Name	Equipment ID
Repair Need Indicator	Location Description
Deferred Maintenance Indicator	Description
Modernization Indicator / Modernization Type	Quantity

- 5) Click the  button to Save the IU record to the database.

The buttons on the Mobile IU window are defined as follows:



Save the IU record to the database.



Open the Mobile IU Attachments window.



Move to the Previous IU record.



Move to the Next IU record.



Clear the Mobile IU window. Does not save.



Return to CAIS. Closes the Mobile IU window and returns to CAIS. Does not save.




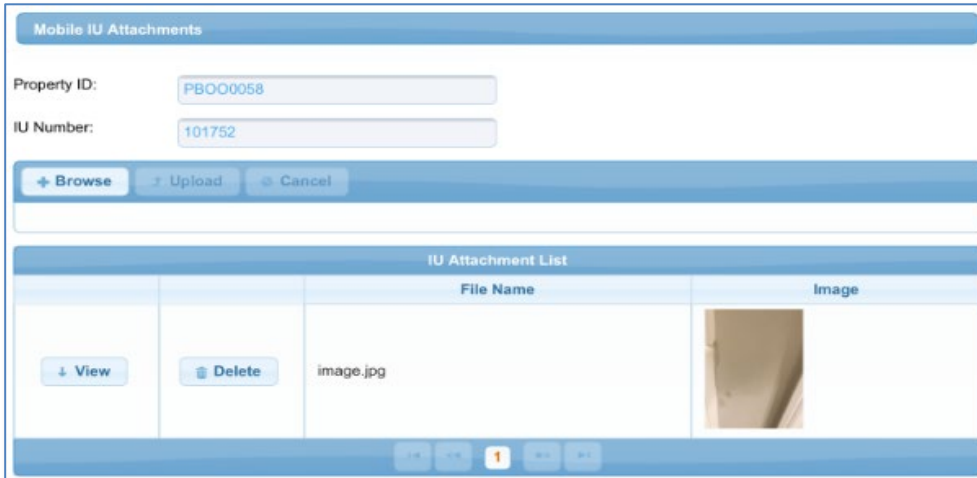
Logout of CAIS.

Mobile IU Attachments

The Mobile IU tool has the capability to store Attachments at the Inspection Unit Level. To utilize this window for new Staged IU records, you must first create the Staged IU record on the Mobile IU window. Attachments that have already been uploaded for an existing Inspection Unit will be displayed when the window opens. The file name and an image will be displayed along with buttons to View or Delete the Attachments.



From the Mobile IU window, click the  button to open the Mobile IU Attachment window as displayed below. Property ID and IU Number will be displayed.




To upload an attachment, perform the following:

4. Click the **Browse** button. On a mobile device, you will be prompted to use an existing photo, take a photo or browse. On your desktop computer, you will be prompted to locate a file. Select your option to obtain a file to attach.
5. Once you have selected a file, click the **Upload** button. If you wish to cancel the upload, click the **Cancel** button.
6. Once you click **Upload**, CAIS will attach the file and you will then see the File Name and Image displayed on the IU Attachment List.




Please note: You can upload multiple attachments. Acceptable file types include .jpg, .pdf, .xls, .xlsx, .doc and .docx.




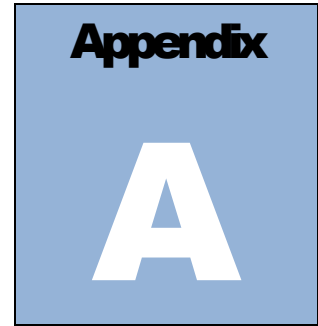
To view an attached image, click the  button.



To remove an attached image, click the  button. You will be prompted to confirm the delete request.



If you wish to return to the Mobile IU window, click the  button at the bottom left of the Mobile IU Attachment window.



Appendix A: CAIS Data Element Dictionary

CAIS Data Element Dictionary

English Name	Window Name	Format	Definition
Access Restrictions Field Office Required	<i>User Detail</i>	Char(2)	Specifies the Field Office that a user may access.
Access Restrictions Site Required	<i>User Detail</i>	Char(5)	Specifies the Site that a user may access.
Account Status Required	<i>User Detail</i>	Char(9)	Indicates whether a user's account is Suspended, meaning the user is unable to logon to CAIS, or is Active. This field is only visible on the User Detail window to Headquarters Field Office Administrators.
Actual Cost Optional	<i>Project Detail</i>	Num(12)	Represents the actual cost expenditures to complete the project.
Added by FIMS System Generated	<i>Asset Detail</i>	Date	When a new real property asset is created in FIMS, FIMS will automatically add the asset to CAIS. This field represents the date (MM/DD/YYYY) the property was added to CAIS from FIMS.
Alternate Name	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS). The alternate name assigned to a specific property.
Approval Date	<i>Project Detail</i>	Date	Represents the date that project approval was received.

English Name	Window Name	Format	Definition
Optional			
Archived by FIMS System Generated	<i>Asset Detail</i>	Date	When a real property asset leaves the department's inventory, it is archived in FIMS. The field represents the date (MM/DD/YYYY) the property was archived in FIMS.
Area Name FIMS	<i>Area List</i> <i>Asset Detail</i>	Char(35)	This data field is imported from the Facilities Information Management System (FIMS) and is display only. A name that is assigned to identify an administrative subdivision of a Site.
Area Number FIMS	<i>Area List</i>	Char(3)	This data field is imported from FIMS and is display only. A three-digit number that identifies an administrative subdivision of a Site.
Asset Cost Adders Selected Optional	<i>Asset Cost Adders</i>		Checkbox that identifies when checked that the cost adder is applied to the asset and all IUs associated with that Asset when the costs are calculated.
Assigned Contractor	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS). The name of the company/contractor assigned responsibility for managing and maintaining the real property asset. This optional field is available for tracking asset responsibility at sites with multiple contractors.
Basement	<i>Estimate Detail</i>	Char(1)	Identify Yes (Y) or No (N) if the asset has a basement for a Custom RPV Model.
Category	<i>Estimate Detail</i>	Char(100)	This field can be used for general notes and information, such as to describe why you have chosen a particular line item, or to include a link to a website. If you are estimating work in multiple areas of a building, and need to keep costs separated, this field can be used to assign names for specific area.
Comments Optional	<i>Asset Detail</i>	Char(1000)	Text field that contains comments associated with the asset record.
Completed Cost Optional	<i>IU Detail</i>	Num(14)	The actual cost to correct the deficiency.

English Name	Window Name	Format	Definition
Completion Year Optional	<i>IU Detail</i>	Num(4)	Completion Year (YYYY) represents the year in which the IU Status was changed to 'Complete' on the inspection unit record.
Condition Optional	<i>IU Detail</i>	Char(2)	Pick list that represents the condition associated with the inspection unit. Values are: <ul style="list-style-type: none"> • Excellent • Good • Adequate • Poor • Fail
Core Capability – 1	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS) and is display only. The Core Capability from the FIMS pick list that would be most degraded should the asset fail to perform as intended.
Core Capability – 2	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS) and is display only. The Core Capability from the FIMS pick list that would be the second most degraded should the asset fail to perform as intended.
Core Capability - 3	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS) and is display only. The Core Capability from the FIMS pick list that would be the third most degraded should the asset fail to perform as intended.
Core Capability - 4	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS) and is display only. The Core Capability from the FIMS pick list that would be the fourth most degraded should the asset fail to perform as intended.
Core Capability - 5	<i>Ad Hoc – Asset Level</i>		This data field is imported from the Facilities Information Management System (FIMS) and is display only.

English Name	Window Name	Format	Definition
			The Core Capability from the FIMS pick list that would be the fifth most degraded should the asset fail to perform as intended.
Created By System Generated	<i>Estimate List</i> <i>Project List</i>	Char(80)	Name of the CAIS user that created the Estimate or Project.
Creation Date Optional	<i>IU Detail</i>	Date	System generated date when the inspection unit was created.
Crew	<i>Crew/Labor Information</i>		Represents the typical trade or crew used to install the line item. If the installation is accomplished by one trade, then a single trade is displayed. Example, electrician, painter, plumber, etc. If the installation requires more than one trade, a composite crew code is displayed. View the Crew Cost (hyperlink) to define these composite crew codes.
Daily Output	<i>Crew/Labor Information</i>		Represents the typical number of units the designated crew would install in a normal 8-hour day. To determine the number of days a given crew would require to complete the installation: Days = Quantity / Daily Output
Default Location Area Required	<i>User Detail</i>	Char(10)	Specifies the Area to be active each time the user enters CAIS.
Default Location Field Office Required	<i>User Detail</i>	Char(2)	Specifies the Field Office to be active each time the user enters CAIS.
Default Location Site Required	<i>User Detail</i>	Char(5)	Specifies the Site to be active each time the user enters CAIS.
Deferred Maintenance System Generated	<i>Asset Detail</i> <i>IU List</i>	Num(10)	Maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.

English Name	Window Name	Format	Definition
			<p>Maintenance costs and work do not include the following:</p> <ul style="list-style-type: none"> • Regularly scheduled janitorial work such as cleaning and preserving facilities and equipment. • Work performed in relocating or installing partitions, office furniture, and other associated activities. • Work usually associated with the removal, moving, and placement of equipment. • Work aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from or significantly greater than those originally intended. • Improvement work performed directly by in-house workers or in support of construction contractors accomplishing an improvement. • Work performed on special projects not directly in support of maintenance or construction. • Non-maintenance roads and grounds work, such as grass cutting and street sweeping.
<p>Deferred Maintenance Calculation Method</p> <p>Optional</p>	<p><i>System Level Deficiency Cost</i></p>	<p>Char(10)</p>	<p>Pick list to identify the value to be used for Deferred Maintenance. Defaults to IU.</p> <p>Values are:</p> <ul style="list-style-type: none"> • Engineered • IU • Sys Level • Sys Level + IU
<p>Deferred Maintenance Engineered</p> <p>Optional</p>	<p><i>System Level Deficiency Cost</i></p>	<p>Num(10)</p>	<p>Represents an Engineer Estimated Cost for Deferred Maintenance by Volume.</p>
<p>Deferred Maintenance Indicator</p> <p>Required</p>	<p><i>IU Detail</i></p>	<p>Char(1)</p>	<p>A checkbox that indicates when checked that the IU Official Cost is included in the asset Deferred Maintenance cost.</p> <p>Defaults to unchecked.</p>

English Name	Window Name	Format	Definition
			The Repair Needs Indicator must be checked before the Deferred Maintenance Indicator can be checked.
Deferred Maintenance Index (DMI)	<i>Report 007</i>		Calculated for buildings and trailers: DMI = 100 * (1 – Deferred Maintenance / System Level Cost)
Deferred Maintenance IU System Generated	<i>System Level Deficiency Cost</i>	Num(10)	Sum of the IU Deferred Maintenance for an asset by Volume.
Deferred Maintenance Sys Level System Generated	<i>System Level Deficiency Cost</i>	Num(10)	If the System Level DM Yes/No data field = 'Yes', this is a calculated Deferred Maintenance cost by Volume based on the Percent Failed and Factor. Deferred Maintenance System Level = System Level Cost × System Level Factor × System Level Percent Failed
Description Optional	<i>IU Detail</i>	Char(200)	Detailed description of the inspection unit.
Email Required	<i>User Detail</i>	Char(100)	E-mail address associated with the user.
Email Notification Required	<i>User Detail</i>	Char(1)	A checkbox that indicates the user wishes to receive email notifications when new real property assets are added to CAIS.
Engineered Cost Optional	<i>IU Detail</i>	Num(14)	A vendor detailed cost estimate that includes overhead and profit for non-standard material, labor or equipment for one-off construction. Vendor estimates are good for 5 years. After 5 years, must be re-estimated. The vendor estimate should be attached to the IU. Input into this field will override any CAIS calculated costs in the Official Cost field.
Equipment ID Optional	<i>IU Detail</i>	Char(50)	Identification number associated with the equipment.
Estimate Description	<i>Estimate Detail</i>	Char(100)	A narrative description of the Estimate.

English Name	Window Name	Format	Definition
Optional			
Estimate ID System Generated	<i>Estimate Detail</i>	Num(12)	A system generated number that uniquely identifies the Estimate.
Estimate Name Required	<i>Estimate Detail</i>	Char(50)	The descriptive name of the Estimate.
Estimated Disposition Year FIMS	<i>Asset Detail</i>	Char(4)	This FIMS data field is display only. The estimated fiscal year that disposition of a real property asset will be completed (e.g. For Demolition it would be the estimated contract completion year. For Transfers outside the Department, the estimated year the property transfer will be completed). In cases where it is impossible to estimate a disposition year, sites may enter '9999'.
Estimated Value System Generated	<i>Estimate Detail</i>	Num(10)	Calculated cost for the Estimate line item. Includes Estimate Cost Adders if applied.
Field Office FIMS	<i>Asset Detail</i> <i>Site List</i> <i>User List</i>	Char(2)	This data field is imported from the Facilities Information Management System (FIMS) and is display only. Code used to identify the DOE Field Office or Operations Office.
Field Office Number	<i>Ad Hoc – Asset Level</i> <i>Ad Hoc – IU Level</i>		This data field is imported from the Facilities Information Management System (FIMS). Code used to identify the DOE Operations/Field Office. The first two digits of the Site Number identify the Field Office.
FIMS Upload Exclusion	<i>Asset Detail</i>	Char(1)	A Yes/ No data field. Yes, identifies that the asset's data (Repair Needs, Deferred Maintenance, Modernization Cost, Inspection Date, ...) <u>should not</u> be uploaded to FIMS. All new assets are defaulted to No, which allows the asset's data to be uploaded to FIMS.

English Name	Window Name	Format	Definition
First Name Required	<i>User Detail</i>	Char(35)	Represents the first name of the CAIS user.
Floor Height	<i>Estimate Detail</i>	Num(4)	The measurement from the floor to the ceiling in linear feet for a Custom RPV Model.
Functionality Assessment Date FIMS	<i>Asset Detail</i>	Date	<p>This date field is linked to the Functionality Assessment Date in the Facilities Information Management System (FIMS). This field may be input/updated in CAIS and will automatically update in FIMS upon clicking Save.</p> <p>The date of the most recent completed review to determine the difference between the asset's current physical condition and its capability to meet mission requirements to serve a designated function or use.</p> <p>Required for all buildings, trailers, and OSF when Status = 1 Operating, 2 Standby or 3 Outgranted.</p> <p>Functionality Assessments must occur at a minimum on a reoccurring 5 calendar year cycle, not more than 1,826 days between assessments.</p> <p>For new assets, the date of beneficial occupancy can be used.</p> <p>Future dates are not permissible.</p> <p>Do not enter a date unless a formal assessment has been performed based on Program Office guidance.</p> <p>If the Functionality Assessment Date was input in FIMS, the label will display "FIMS" on the Asset Detail window. If the date was input in CAIS, the label will display "CAIS" on the Asset Detail window.</p>
Funding Request Date Optional	<i>Project Detail</i>	Date	Represents the date a formal funding request was initiated for a project.

English Name	Window Name	Format	Definition
Funding Source Optional	<i>Project Detail</i>	Char(4)	Represents the source of financial resources to be used to complete the project. This pick list is created and maintained by the Site Administrator using the CAIS Site Data window.
Funding Type Optional	<i>Project Detail</i>	Char(4)	Represents the method that was used to fund the project. This pick list is created and maintained by the Site Administrator using the CAIS Site Data window.
Geographic Adjuster Required	<i>Area Detail</i> <i>Estimate Detail</i>	Num(10)	Used by the CAIS costing algorithm to account for where your Site is located geographically in the country. This number is updated annually by RS Means.
Group Optional	<i>Asset Detail</i>	Char(15)	Allows for the characterization of assets into categories that are independent of the area. This pick list is created and maintained by the Site Administrator using the CAIS Site Data window.
HQ Program Office FIMS	<i>Asset Detail</i> <i>Asset List</i>	Char(4)	This FIMS data field is display only. The DOE headquarters program office responsible for the building, trailer, or OSF and its operations (SC, EM, etc.).
In House Labor Optional	<i>Project Detail</i>	Char(1)	A Yes/No field that indicates if in-house labor was used as part of the project.
Inspection Date Required	<i>IU Detail</i>	Date	Date (MM/DD/YY) that represents when the IU inspection occurred.
Inspector ID	<i>Ad Hoc – IU Level</i>		Code associated with the name of the inspector who performed the Condition Assessment.
Inspector Name Required	<i>IU Detail</i> <i>IU List</i>	Char(30)	Identifies the name of the inspector who performed the Condition Assessment. This pick list is created and maintained by the Site Administrator using the CAIS Site Data window.

English Name	Window Name	Format	Definition
IU Cost Adders Selected Optional	<i>IU Cost Adders</i>		Checkbox that identifies when checked that the cost adder is applied to the IU when the costs are calculated.
IU Number System Generated	<i>IU Detail</i> <i>IU List</i> <i>IU Search</i>	Num(10)	A unique identifier that is system generated and assigned to each inspection unit record that is input into CAIS.
IU Status Optional	<i>IU Detail</i>	Char(4)	Identifies the current status of the inspection unit. Values are: 01 Completed 02 Could Not Locate/Unknown 03 Demolished 04 Disconnected/Out of Service 05 Identified 06 Planned 07 Regular Online Equipment 08 Removed/No Longer Needed
IUs Locked Optional	<i>Project Detail</i>	Char(1)	Indicates if the Inspection Unit records associated with a project should be protected from being updated. Only Headquarters Administrator, Field Office Administrator, and Site Administrator security levels can update this data field.
Labor Hours	<i>Crew/Labor Information</i>		Represent the number of labor hours required to install one unit of work. To determine the number of labor hours required for a particular task: $\text{Hours} = \text{Quantity} \times \text{Labor Hours}$
Last Inspection Date Required	<i>Asset Detail</i>	Date	The date (MM/DD/YYYY) when the last inspection of the asset occurred.
Last Name Required	<i>User Detail</i>	Char(35)	Represents the last name of the CAIS user.
Last Updated System Generated	<i>IU Detail</i> <i>Project Detail</i>	Date	Represents the date (MM/DD/YY) of the last update to the inspection unit record or project.

English Name	Window Name	Format	Definition
Last Updated By System Generated	<i>Estimate List</i> <i>IU Detail</i> <i>Project Detail</i>	Char(30)	Represents the name of the last person who updated the inspection unit record, project or estimate/custom model.
Legacy Line Number Description	<i>IU Detail</i> <i>Line Number Search</i>		Displays the legacy RSM Line Number/description that is no longer supported by RS Means.
Legacy RSM Line Number	<i>Estimate Detail</i>		Displays the legacy RSM Line Number that is no longer supported by RS Means and should be updated to a current valid RSM Line Number.
Line Number Description System Generated	<i>Estimate Detail</i> <i>IU Detail</i> <i>Line Number Search</i>	Char(255)	The description of the RSM Line Number item.
Line Seq No System Generated	<i>Ad Hoc – IU Line Items</i>	Num(12)	Each IU Line Item has a system generated unique sequence number. This data field is used to update existing IU Line Items through the Upload process.
Location Optional	<i>IU Detail</i>	Char(40)	Pick list that identifies the physical location of the inspection unit within the real property asset.
Location Description Optional	<i>IU Detail</i>	Char(150)	A description of the location of the inspection unit within the real property asset. Use this field instead of using the User Defined fields for location description.
Locked Flag	<i>Ad Hoc – IU Level</i>	Char(1)	Identifies an inspection unit record that is locked from changes due to it being included in a project that was created using the projects module.
Mission Dependency FIMS	<i>Asset Detail</i>	Char(1)	This FIMS data field is display only. The value an asset brings to the performance of the mission as determined by DOE in one of the following categories. - Mission Critical - Mission Dependent, Not Critical - Not Mission Dependent

English Name	Window Name	Format	Definition
Modernization Cost System Generated	<i>Asset Detail</i>	Num(10)	Estimated cost representing improvements to the asset that result in better quality work, increased capacity, extended useful life as well as enhancing the value of the asset. The estimated Modernization Cost is a cumulative value over a rolling five (5) fiscal year timeframe to include the current plus four (4) fiscal years.
Modernization Indicator Required	<i>IU Detail</i>	Char(1)	A checkbox that indicates when checked that the IU Official Cost is included in the asset Modernization cost. Defaults to unchecked. This field can only be checked when the Repair Needs Indicator and the Deferred Maintenance Indicator are unchecked.
Modernization Type Required when Modernization Indicator is checked	<i>IU Detail</i>	Char(2)	Pick list that represents improvements that result in better quality work, increased capacity, extended useful life as well as enhancing the value of the asset.
Next Inspection Date Optional/System Generated	<i>Asset Detail</i>	Date	The date (MM/DD/YYYY) when the next condition assessment inspection is scheduled for. This date can be entered by the user or system generated based on the Inspection Frequency defined within CAIS.
No of Floors	<i>Estimate Detail</i>	Num(2)	The number of floors in a building including below grade floors. A floor may be defined as an internal structure designed to support personnel and/or equipment that covers at least 40% of the available area, i.e., not a catwalk. This data field is used for creating a Custom RPV Model.
Notes Optional	<i>IU Detail</i>	Char(2000)	Text field that contains notes associated with the IU record.
Official Cost System Generated	<i>IU Detail</i>	Num(14)	A system generated cost calculated at the Inspection Unit level that represents an estimated cost for the RSM Line Number(s) that have been selected. In calculating the

English Name	Window Name	Format	Definition
			<p>Official Cost, other factors will impact the cost which include Cost Adders and Geographic Adjuster.</p> <p>Official Cost is calculated at the IU Line Items level and summed to the Inspection Unit (IU).</p>
<p>Official Cost Estimate</p> <p>System Generated</p>	<i>Project Detail</i>	Num(12)	A system generated field that represents the sum of the Official Cost for all Inspection Unit records that are included in a Project.
Old IU Number	<i>Ad Hoc – IU Level</i> <i>Ad Hoc – IU Line Items Level</i>		Represents the original IU Number prior to the renumbering to assign unique values. The Old IU Number is only unique when combined with the Site Number.
<p>Optimum Year</p> <p>Optional</p>	<i>IU Detail</i>	Char(4)	Represents the year in which the inspection unit will become deficient if it is not repaired or replaced.
<p>Optional and User Defined Panels Expanded</p> <p>Optional</p>	<i>User Detail</i>	Char(1)	A checkbox that indicates when checked that the user wishes to have the IU Detail window Optional and User Defined sections always expanded upon entering the window. The IU Detail window default is to have the Optional and User Defined sections collapsed.
<p>Organization</p> <p>Required</p>	<i>User Detail</i>	Char(50)	Organization to which the user belongs.
<p>Overall Asset Condition</p> <p>FIMS</p>	<i>Asset Detail</i>	Char(11)	<p>This field is linked to the Overall Asset Condition in the Facilities Information Management System (FIMS). This field may be input/updated in CAIS and will automatically update in FIMS upon clicking Save.</p> <p>Based on a Condition Assessment Survey, Functionality Assessment, and other real property indicators, select one of the following:</p> <p>ADEQUATE <u>Buildings/Trailers</u> - Asset is fully capable of performing its current mission, meets all ES&H and/or security requirements, meets stated DOE objectives or goals, and has only minor deficiencies that can be corrected within normal operating budgets.</p>

English Name	Window Name	Format	Definition
			<p><u>OSF's</u> - Asset is fully capable of performing its current mission, meets all ES&H and/or security requirements, meets reliability goals, has adequate capacity, meets stated DOE requirements, and has only minor deficiencies that can be corrected within normal operating budgets.</p> <p>SUBSTANDARD</p> <p><u>Buildings/Trailers</u> - Asset has deficiencies that limit performance of the mission including attracting and maintaining key staff, poses added ES&H and/or security risk, or affects DOE requirements. Asset requires refurbishment to bring to adequate condition.</p> <p><u>OSF's</u> - Asset has deficiencies including reliability issues or capacity that limits performance or capacity of the mission, poses added ES&H and/or security risk, or affects DOE requirements. Asset requires refurbishment to bring to adequate condition.</p> <p>INADEQUATE</p> <p><u>Buildings/Trailers</u> - Asset has major deficiencies that significantly impair or put performance of the mission at risk, poses significant ES&H and/or security risk, or is unable to meet DOE requirements. Asset requires major refurbishment or replacement to bring it to adequate condition.</p> <p><u>OSF's</u> - Asset is unable to meet DOE requirements or has major deficiencies including reliability or capacity, which significantly impair or put performance of the mission at risk or pose significant ES&H or security risks. Asset requires major refurbishment or replacement to bring it to adequate condition.</p> <p>Required for all buildings, trailers, and OSF when Status = 1 Operating, 2 Standby or 3 Outgranted.</p>

English Name	Window Name	Format	Definition
<p>Ownership</p> <p>FIMS</p>	<p><i>Asset Detail</i></p>	<p>Char(1)</p>	<p>This FIMS data field is display only.</p> <p>Identifies the property as: DOE Owned (O), DOE Leased (D), Contractor Leased (C), Contractor Owned (T), GSA Owned (G), GSA Leased (L), Federal Permit (P), Non-Federal Permit (N), DOE License (B) or Contractor License (E).</p>
<p>Password (New Password, Confirm New Password)</p> <p>Required</p>	<p><i>User Detail</i> <i>Update Password</i> <i>Password Reset</i></p>	<p>Char(20)</p>	<p>A sequence of characters used to logon to the CAIS. The password may consist of eight to twenty alphanumeric characters. It must start and end with a nonnumeric character. It must contain at least one (1) number and one of the following special characters within the first seven (7) positions.</p> <p style="text-align: center;">! # \$ % & () *</p>
<p>PBPI (Physical Barriers Preventing Inspection)</p> <p>FIMS</p>	<p><i>Asset Detail</i></p>	<p>Char(1)</p>	<p>This data field is linked to the PBPI in the Facilities Information Management System (FIMS). This field may be input/updated in CAIS and will automatically update in FIMS upon clicking Save.</p> <p>Indicates Yes (Y) or No (N) if a condition assessment for a DOE owned Other Structure and Facility (OSF) is not appropriate to determine Repair Needs/Deferred Maintenance because of physical barriers.</p> <p>For example, underground storage tanks or underground pipe systems generally cannot be visually inspected. The accepted practice in this case is to use engineering data such as studies, test results, ultrasound results or other auditable data sources to determine if repair or replacement is necessary.</p> <p>If auditable data indicates the existence and quantity of Repair Needs/Deferred Maintenance, a value should be entered in Repair Needs and Deferred Maintenance for PBPI = 'Yes' assets and the Inspection Date left blank.</p> <p>Required for DOE owned OSF.</p>

English Name	Window Name	Format	Definition
Perimeter	<i>Estimate Detail</i>	Num(5)	The exterior linear feet of the asset's footprint for a Custom RPV Model.
Phone Number Required	<i>User Detail</i>	Char(14)	Telephone number and extension of the CAIS user.
Program Manager Optional	<i>Project Detail</i>	Char(35)	The name of the individual in charge of the Program for the Project.
Project Complete Date Optional	<i>Project Detail</i>	Date	Represents the date the project was completed.
Project Description Optional	<i>Project Detail</i>	Char(2000)	Text field that contains comments associated with the project record.
Project ID Required (Project Detail)	<i>Project Detail</i> <i>IU Detail</i>	Char(15)	A unique number that is generated by the user when a new project is created in the Projects module. The Project ID is displayed on the IU Detail window for IUs that are linked to a project.
Project Manager Optional	<i>Project Detail</i>	Char(40)	The name of the individual in charge of the Project.
Project Name Required	<i>Project Detail</i>	Char(30)	Represents the user assigned name of a project defined within the project module.
Project Start Date Optional	<i>Project Detail</i>	Date	Represents the date of initiation for the project.
Project Status Optional	<i>Project Detail</i>	Char(4)	A pick list identifying the status of the project. This pick list is created and maintained by the Site using the CAIS Administrator Site Data window.

English Name	Window Name	Format	Definition
Project Type Optional	<i>Project Detail</i>	Char(4)	A pick list Identifying the type of project. This pick list is created and maintained by the Site using the CAIS Administrator Site Data window.
Property ID FIMS	<i>Asset Detail</i> <i>Asset List</i> <i>IU Search</i> <i>Estimate Detail</i>	Char(20)	This FIMS data field is display only. A unique control number assigned to a property. Used on the Estimate Detail window to associate a Custom RPV Model with a specific FIMS asset.
Property Name FIMS	<i>Asset Detail</i> <i>Asset List</i>	Char(40)	This FIMS data field is display only. The name assigned to a specific property.
Property Type FIMS	<i>Asset Detail</i>	Char(1)	This FIMS data field is display only. . Code that identifies an asset by B - Building, S - Other Structures and Facilities (OSF), and T - Trailer.
Quantity Required	<i>IU Detail</i> <i>Estimate Detail</i>	Num(10,2)	Enter the quantity associated with the stated UOM (Unit of Measure) to calculate the cost. NOTE: Ensure the Quantity entered represents the stated Unit of Measure.
Real Property Unique ID FIMS			This data field is imported from the FIMS and is display only. A FIMS system generated number used to uniquely identify a real property asset.
Repair Needs System Generated	<i>Asset Detail</i> <i>System Level Deficiency Cost</i>	Num(10)	The estimated cost to restore a real property asset's component failures noted during a condition assessment survey to a state substantially equivalent to the most recently configured capacity, efficiency, or capability as required my mission. The "needs" originate from the real property asset, not necessarily management. Repair Needs will always be equal to or exceed Deferred Maintenance; the difference between the two depends on each noted deficiency's optimum period and acceptability to management.

English Name	Window Name	Format	Definition
Repair Needs Calculation Method Optional	<i>System Level Deficiency Cost</i>	Char(14)	Pick list to identify the value to be used for Repair Needs. Defaults to IU. Values are: <ul style="list-style-type: none"> • Engineered • IU • Sys Level • Sys Level + IU
Repair Needs Engineered Optional	<i>System Level Deficiency Cost</i>	Num(10)	Represents an Engineer Estimated Cost for Repair Needs by Volume.
Repair Needs Indicator Required	<i>IU Detail</i>	Char(1)	A checkbox that indicates when checked that the IU Official Cost is included in the asset Repair Needs cost. Defaults to checked. The Repair Needs Indicator must be checked before the Deferred Maintenance Indicator can be checked.
Repair Needs IU System Generated	<i>System Level Deficiency Cost</i>	Num(10)	Sum of the IU Repair Needs for an asset by Volume.
Repair Needs System Level System Generated	<i>System Level Deficiency Cost</i>	Num(10)	Calculated Repair Needs cost by Volume based on the Percent Failed and Factor. $\text{Repair Needs System Level} = \text{System Level Cost} \times \text{System Level Factor} \times \text{System Level Percent Failed}$
RPUID (Real Property Unique ID) FIMS	<i>Asset Detail</i>	Num(12)	This FIMS data field is display only. System generated number used to uniquely identify a property.
RPV (Replacement Plant Value) FIMS	<i>Asset Detail</i>	Num(14,2)	This FIMS data field is display only. Current cost to replace an existing asset with a new asset based on comparable size and current usage using current technology, codes, standards, and materials. This value does not include the cost of the underlying land, personal property (furnishings), sitework, D&D cost, demolition, contamination, and any production equipment.

English Name	Window Name	Format	Definition
<p>PV - CAIS</p> <p>System Generated</p>	<p><i>Estimate Detail</i></p>	<p>Num(10)</p>	<p>If a Property ID is linked to an asset, the calculated estimate total label on the Estimate Detail window is changed to 'RPV – CAIS'. This identifies a FIMS real property asset where the CAIS estimate value is used to automatically update the FIMS RPV.</p>
<p>RPV Model</p> <p>FIMS</p>	<p><i>Asset Detail</i> <i>System Level Deficiency Cost</i></p>	<p>Char(4)</p>	<p>This FIMS data field is display only.</p> <p>Each model represents a typical building that would be built to replace an existing building based on its current usage using today's construction techniques, materials, and current building codes. The model uses costs and engineering statistics compiled by RS Means.</p> <p>The RPV unit cost per square foot is provided with the RPV Model description.</p>
<p>RSM Line Number</p> <p>Required</p>	<p><i>Estimate Detail</i> <i>IU Detail</i></p>	<p>Char(12)</p>	<p>A unique 12-character number that represents specific material, task, or construction items in the RS Means database that conform to the Construction Specifications Institute MasterFormat.</p> <p>If the RSM Line Number begins with a number, it represents a MasterFormat component which is commonly used for unique or smaller projects. If the RSM Line Number begins with an alphabetic character, it represents an Assembly which is a collection of MasterFormat components that represent larger or more common projects.</p> <p>ZZ9999 RSM Line Numbers are generated in CAIS when existing RSM Line Number are designated as obsolete or are deleted by RS Means. This generation occurs when the new RS Means cost data is being applied to CAIS annually. Line Items with ZZ9999 RSM Line Numbers should be deleted and new Line Items created to replace the no longer valid RSM Line Number. The Line Number Description data field provides the Line Number Description of the original RSM Line Number to aid in searching for a replacement RSM Line Number.</p>

English Name	Window Name	Format	Definition										
RSM Unit Cost	<i>IU Detail</i>	Num	The RS Means cost associated with the RSM Line Number and the Unit of Measure.										
Security Level Required	<i>User Detail</i>	Char(25)	Determines the Add, Update, and Delete capability of the user. The levels of CAIS security are: HQ Admin HQ Read Only Field Office Admin Field Office User Field Office Read Only Site Admin Site User Site Read Only										
Selected Table Optional	<i>Site Data</i>		Pick list that allows the editing of the following user definable tables: <table border="1" data-bbox="1220 683 1829 842"> <tr> <td>Cost Adder</td> <td>Project Status</td> </tr> <tr> <td>Funding Source</td> <td>Project Type</td> </tr> <tr> <td>Funding Type</td> <td>Site Defined 1</td> </tr> <tr> <td>Group</td> <td>Site Defined 2</td> </tr> <tr> <td>Inspector</td> <td>Site Defined 3</td> </tr> </table>	Cost Adder	Project Status	Funding Source	Project Type	Funding Type	Site Defined 1	Group	Site Defined 2	Inspector	Site Defined 3
Cost Adder	Project Status												
Funding Source	Project Type												
Funding Type	Site Defined 1												
Group	Site Defined 2												
Inspector	Site Defined 3												
Site Cost Adders Selected Optional	<i>Site Cost Adders</i>		Checkbox that identifies when checked that the cost adder is applied to all the assets and IU under the Site when the costs are calculated.										
Site Defined 1 Optional	<i>IU Detail</i>	Char(75)	This is a Site created and maintained pick list. It is used and defined on an individual Site basis. This pick list is created and maintained using the CAIS Site Data window.										
Site Defined 2 Optional	<i>IU Detail</i>	Char(50)	This is a Site created and maintained pick list. It is used and defined on an individual Site basis. This pick list is created and maintained using the CAIS Site Data window.										
Site Defined 3 Optional	<i>IU Detail</i>	Char(50)	This is a Site created and maintained pick list. It is used and defined on an individual Site basis. This pick list is created and maintained using the CAIS Site Data window.										

English Name	Window Name	Format	Definition
Site Name FIMS	<i>Site List</i> <i>Area List</i> <i>Asset Detail</i> <i>User List</i>	Char(50)	This data field is imported from the Facilities Information Management System (FIMS) and is display only. Name assigned to a DOE Site.
Site Number FIMS	<i>Site List</i>	Char(5)	This data field is imported from the Facilities Information Management System (FIMS) and is display only. Five-digit number that uniquely identifies the Site.
Size FIMS	<i>Asset Detail</i> <i>Estimate Detail</i>	Num(16,3)	This FIMS data field is display only. <u>Buildings and Trailers:</u> Gross Sqft (<u>recorded for DOE owned</u>) Preferred Method: The area of all floor areas on all levels of a building or trailer in square feet as determined by using an industry standard methodology such as ANSI/BOMA Z65.3-2009, <i>Gross Area of a Building: Standard Methods of Measurement</i> . Secondary Method: The total floor area of a building or trailer in square feet measured between exterior finished surfaces and multiplied by the number of floors. Rentable Sqft (<u>recorded for all Ownerships except DOE owned</u>) The rentable area, in SQFT, ingrant under the current agreement as determined using ANSI/BOMA Z65.1-2010, Office Buildings: Standard Methods of Measurement. It is the area, measured to the inside finished surface of the permanent outer building walls, excluding any major vertical penetrations of the floor. Areas of columns and building projections are included in rentable area. Excluded are exterior walls, major vertical penetrations, and interior parking spaces. If the ingrant is based on gross square footage, the rentable area is determined using ANSI/BOMA Z65.3-2009, Gross Areas of a Building: Standard Methods of Measurement. For GSA owned and GSA leased buildings, the ANSI rentable area assigned by the Occupancy Agreement.

English Name	Window Name	Format	Definition
			<p>OSF: A numeric value representing the measurement for an OSF based upon the unit of measure generated by FIMS from the OSF usage code.</p>
<p>Size Unit of Measure</p> <p>FIMS</p>	<p><i>Asset Detail</i></p>	<p>Char(5)</p>	<p>This data field is imported from the Facilities Information Management System (FIMS) and is display only.</p> <p>The unit in which the data element Size is measured, i.e., acres, gross sqft.</p> <p>The label displayed is based on the Usage Code.</p>
<p>Source</p> <p>Required</p>	<p><i>Estimate Detail</i> <i>Line Number Search</i></p>	<p>Char(19)</p>	<p>A pick list used by the Line Number Search window to filter the RS Means cost data being searched. Choices are:</p> <p><u>Assembly</u> - Consists of a collection of components which make up the functional elements that are common to most assets. Assembly data is arranged according to the UNIFORMAT II classification system. An example of an Assembly would be for a roof or footing. An assembly option would make it easy to find all of the components of a roof or footing in one single line item. Generally, this option is associated with new construction.</p> <p><u>Maintenance Assembly</u> - Consists of a collection of components which make up the functional elements that are common to most assets that are associated with maintenance and/or repair activities of existing construction. Assembly data is arranged according to the UNIFORMAT II classification system.</p> <p><u>Maintenance Master Format</u> - Represents a master list of titles and numbers used to organize specifications and other project information for most commercial asset design and construction projects. This option represents Master Format asset components associated with maintenance and/or repair activities of existing construction.</p>

English Name	Window Name	Format	Definition
			<p><u>Master Format</u> - Represents a master list of titles and numbers used to organize specifications and other project information for most commercial asset design and construction projects. CAIS uses Master Format 2014 to cover many of the new modern technologies, materials and procedures used today. Master Format represents individual asset components. Generally, this option is associated with new construction.</p>
Staged IU	<i>Ad Hoc – IU Level</i>		<p>Valid values:</p> <p>Y - The IU was created by the Mobile IU process and not yet completed/finalized/updated.</p> <p>M - The IU record was created by the Mobile IU process and then updated through the upload or the IU Detail window.</p> <p>N - The IU was created through the IU Detail or the upload process.</p>
<p>Status</p> <p>FIMS</p>	<i>Asset Detail</i>	Char(2)	<p>This FIMS data field is display only.</p> <p>Reflects programmatic intentions as well as the predominant physical/operational status of an asset based on size. The selections are as follows:</p> <ul style="list-style-type: none"> Operating Standby Outgranted Shutdown Undergoing Stabilization/Deactivation Undergoing Decommissioning Undergoing Disposition
System Level Condition Index (SLCI)	<i>Report 007</i>		<p>Calculated for buildings and trailers:</p> <p>$SLCI = 100 * (1 - \text{Repair Needs for the System} / \text{System Level Repair Cost})$</p>
<p>System Level Cost (by Volume)</p> <p>System Generated</p>	<i>System Level Deficiency Cost</i>	Num(14)	<p>System generated cost based on the asset's RPV multiplied by the RPV Ratio for each of the Volumes.</p>

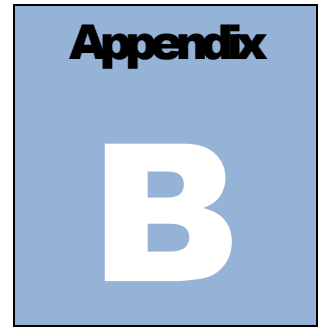
English Name	Window Name	Format	Definition								
System Level DM Optional	<i>System Level Deficiency Cost</i>	Char(1)	Yes/No flag to indicate if the calculated Repair Needs System Level cost should also be used for the Deferred Maintenance System Level cost.								
System Level Factor Optional	<i>System Level Deficiency Cost</i>	Num(6,3)	Factor used in the calculation of the System Level Repair Needs. Defaults to 1.000. Values can range from .001 to 10.000. $\text{Repair Needs System Level} = \text{System Level Cost} \times \text{System Level Factor} \times \text{System Level Percent Failed}$								
System Level Percent Failed Optional	<i>System Level Deficiency Cost</i>	Num(3)	Pick list of values from 0 to 100 incremented by 5. Represents the percentage of the Volume in failure. Used as part of the calculation for Repair Needs System Level cost. $\text{Repair Needs System Level} = \text{System Level Cost} \times \text{System Level Factor} \times \text{System Level Percent Failed}$								
Total Deferred Maintenance System Generated	<i>System Level Deficiency Cost</i>		This system generated value for each Volume is based on the Deferred Maintenance (DM) Calculation Method. <table border="1"> <thead> <tr> <th>If DM Calculation Method is</th> <th>Displayed Cost Value equals</th> </tr> </thead> <tbody> <tr> <td>Engineered IU</td> <td>Deferred Maintenance Engineered IU</td> </tr> <tr> <td>Sys Level</td> <td>Deferred Maintenance Sys Level</td> </tr> <tr> <td>Sys Level + IU</td> <td>Deferred Maintenance Sys Level + Deferred Maintenance IU</td> </tr> </tbody> </table>	If DM Calculation Method is	Displayed Cost Value equals	Engineered IU	Deferred Maintenance Engineered IU	Sys Level	Deferred Maintenance Sys Level	Sys Level + IU	Deferred Maintenance Sys Level + Deferred Maintenance IU
If DM Calculation Method is	Displayed Cost Value equals										
Engineered IU	Deferred Maintenance Engineered IU										
Sys Level	Deferred Maintenance Sys Level										
Sys Level + IU	Deferred Maintenance Sys Level + Deferred Maintenance IU										
Total DM System Generated	<i>Project Detail</i>	Num(12)	A system generated field that represents the sum of the Official Cost where the Deferred Maintenance Indicator is checked for all Inspection Unit records that are linked to a Project.								
Total Estimate Value System Generated	<i>Estimate Detail Estimate List</i>	Num(10)	Calculated total cost for the Estimate. May include Cost Adders for the Estimate line items if applied and an Additional Cost if added.								
Total Modernization System Generated	<i>Project Detail</i>	Num(12)	A system generated field that represents the sum of the Official Cost where the Modernization Indicator is checked for all Inspection Unit records that are linked to a Project.								

English Name	Window Name	Format	Definition										
Total Non-DM System Generated	<i>Project Detail</i>	Num(12)	A system generated field that represents the sum of the Official Cost where the Deferred Maintenance Indicator is not checked for all Inspection Unit records that are linked to a Project.										
Total Repair Needs System Generated	<i>Project Detail</i> <i>System Level Deficiency Cost</i>	Num(12)	<p>For the Projects module, a system generated field that represents the sum of the Official Cost where the Repair Needs Indicator is checked for all Inspection Unit records that are linked to a Project.</p> <p>For the System Level Deficiency Cost, this system generated value for each Volume is based on the Repair Needs (RN) Calculation Method.</p> <table border="1"> <thead> <tr> <th>If RN Calculation Method is</th> <th>Displayed Cost Value equals</th> </tr> </thead> <tbody> <tr> <td>Engineered</td> <td>Repair Needs Engineered</td> </tr> <tr> <td>IU</td> <td>Repair Needs IU</td> </tr> <tr> <td>Sys Level</td> <td>Repair Needs Sys Level</td> </tr> <tr> <td>Sys Level + IU</td> <td>Repair Needs Sys Level + Repair Needs IU</td> </tr> </tbody> </table>	If RN Calculation Method is	Displayed Cost Value equals	Engineered	Repair Needs Engineered	IU	Repair Needs IU	Sys Level	Repair Needs Sys Level	Sys Level + IU	Repair Needs Sys Level + Repair Needs IU
If RN Calculation Method is	Displayed Cost Value equals												
Engineered	Repair Needs Engineered												
IU	Repair Needs IU												
Sys Level	Repair Needs Sys Level												
Sys Level + IU	Repair Needs Sys Level + Repair Needs IU												
Unit of Measure (UOM)	<i>Estimate Detail</i> <i>IU Detail</i>		Identifies the measurement associated with the RSM Line Number.										
Update All IUs with Last Inspection Date	<i>Asset Detail</i>		<p>This check box will update the Inspection Date (IU level) data field for all active Inspection Unit records (IUs) associated with the asset with the date in the Last Inspection Date (Asset level) data field.</p> <p>To perform this update, simply click the check box and click the Save button.</p>										
Update Last Inspection Date Required	<i>Site Detail</i>	Char(1)	Indicates whether the Last Inspection Date at the asset level is updated with the Last Inspection Date from the IU level. Selections for this field are 'Yes' or 'No'.										
Updated by FIMS System Generated	<i>Asset Detail</i>	Date	The field represents the date (MM/DD/YYYY) the property was last updated in FIMS.										
Urgency Optional	<i>IU Detail</i>	Char(2)	This pick list identifies the timeframe/attention to be given to the repair or replacement. Values are:										

English Name	Window Name	Format	Definition								
			<table border="1"> <tr> <td data-bbox="1220 228 1577 256">01 – None</td> <td data-bbox="1577 228 1904 256">05 – Within 6-10 Years</td> </tr> <tr> <td data-bbox="1220 256 1577 318">02 – Within 1 Year (immediately)</td> <td data-bbox="1577 256 1904 318">06 – Out-years (11+)</td> </tr> <tr> <td data-bbox="1220 318 1577 345">03 – Within 1-2 Years</td> <td data-bbox="1577 318 1904 345">07 – To Be Demolished</td> </tr> <tr> <td data-bbox="1220 345 1577 373">04 – Within 3-5 Years</td> <td data-bbox="1577 345 1904 373"></td> </tr> </table>	01 – None	05 – Within 6-10 Years	02 – Within 1 Year (immediately)	06 – Out-years (11+)	03 – Within 1-2 Years	07 – To Be Demolished	04 – Within 3-5 Years	
01 – None	05 – Within 6-10 Years										
02 – Within 1 Year (immediately)	06 – Out-years (11+)										
03 – Within 1-2 Years	07 – To Be Demolished										
04 – Within 3-5 Years											
Usage Code FIMS	<i>Asset Detail</i> <i>System Level Deficiency Cost</i>	Char(4)	This FIMS data field is display only. Code which designates the predominant current use based on size of a real property asset. For example, buildings used for office purposes are classified as office even though certain smaller portions of them may be used for storage or research.								
User Defined 1 User Defined 2 User Defined 3 User Defined 4 User Defined 5 User Defined 6 User Defined 7 User Defined 8 User Defined 9 Optional	<i>IU Detail</i>	Char(256) Char(256) Char(256) Char(256) Char(256) Char(30) Char(30) Char(30) Char(30)	These nine (9) optional data fields are specific to each Site and are defined by the Site.								
User ID Required	<i>User Detail</i>	Char(8)	Uniquely identifies the user to CAIS. The User ID may consist of a minimum of four up to eight alphanumeric characters. The User ID must begin with an alphabetic character.								
Wall/Framing Type	<i>Estimate Detail</i>	Char(100)	Pick list with applicable wall or framing components used for a Custom RPV Model.								
Volume Required	<i>IU Detail</i> <i>System Level Deficiency Cost</i>	Char(3)	Represents the Uniformat II which is a standard for classifying building elements and related site work. Elements are defined as major components common to most buildings. Uniformat II represents the following: A10 Foundations A20 Basement Construction B10 Superstructure B20 Exterior Closure B30 Roofing								

English Name	Window Name	Format	Definition
			<p>C10 Interior Construction C20 Interior Stairs C30 Interior Finishes D10 Conveying Systems D20 Mechanical - Plumbing D30 Mechanical - HVAC D40 Mechanical - Fire Protection D50 Electrical Systems E10 Equipment E20 Furnishings F10 Specialty Systems F20 Selective Building Demo G10 Sitework Preparation G20 Sitework Improvements G30 Sitework Mechanical Util. G40 Sitework Electrical Util. G90 Sitework Other</p> <p>On the IU Detail, Volume is system generated for Assembly or Maintenance Assembly RSM Line Numbers (those that begin with an alphabetic letter). For Master Format or Maintenance Master Format RSM Line Numbers (those that begin with a numeric), the Volume must be input.</p>
<p>Work Order</p> <p>Optional</p>	<p><i>IU Detail</i></p>	<p>Char(25)</p>	<p>Used to identify a work order related to the IU.</p>
<p>Year Built</p> <p>FIMS</p>	<p><i>Asset Detail</i></p>		<p>This FIMS data field is display only.</p> <p>For DOE construction, the calendar year (YYYY) that a building/trailer is accepted for beneficial occupancy. If acquiring an existing building/trailer, it is the calendar year the building/trailer was constructed (best estimate if unknown).</p> <p>For OSFs, the calendar year (YYYY) construction of the structure was completed.</p>
<p>Year Installed</p>	<p><i>IU Detail</i></p>	<p>Num(4)</p>	<p>The year (YYYY) the inspection unit was installed.</p>

English Name	Window Name	Format	Definition
Optional			



Appendix B: Units of Measure

Unit of Measure Abbreviations

A	Area Square Feet; Ampere	Brk., brk	Brick	Csc	Cosecant
AAFES	Army and Air Force Exchange Service	brkt	Bracket	C.S.F	Hundred Square Feet
ABS	Acrylonitrile Butadiene Styrene;	Brs.	Brass	CSI	Construction Specifications Institute
A.C., AC	Asbestos Bonded Steel Alternating Current; Air-Conditioning; Asbestos Cement;	Btz.	Bronze	CT	Current Transformer
ACI	American Concrete Institute	Bsn.	Basin	CTS	Copper Tube Size
ACR	Air Conditioning Refrigeration	Btt.	Better	Cu	Copper; Cubic
ADA	Americans with Disabilities Act	BTU	British Thermal Unit	Cu. Ft.	Cubic Foot
AD	Plywood, Grade A & D	Bu.	BTU per Hour	cw	Continuous Wave
Addit.	Additional	BUR	Bushels	C.W.	Cool White; Cold Water
Adj.	Adjustable	BX	Built-up Roofing	Cwt.	100 Pounds
af	Audio-frequency	°C	Interlocked Armored Cable	C.W.X.	Cool White Deluxe
AFUE	Annual Fuel Utilization Efficiency	c	Degree Centigrade	C.Y.	Cubic Yard (27 cubic feet)
AGA	American Gas Association	C	Conductivity, Copper Sweat	C.Y./Hr.	Cubic Yard per Hour
Agg.	Aggregate	C/C	Hundred; Centigrade	Cyl.	Cylinder
A.H., Ah	Ampere Hours	C-C	Center to Center	d	Penny (nail size)
A hr	Ampere-hour	Cab	Center to Center; Cedar on Cedar	D	Deep; Depth; Discharge
A.H.U., AHU	Air Handling Unit	Cait	Cabinet	Dis., Disch.	Discharge
A.I.A.	American Institute of Architects	Cal.	Air Tool Laborer	Db	Decibel
AIC	Ampere Interrupting Capacity	Calc	Caliper	Dbl.	Double
Allow.	Allowance	Cap.	Calculated	DC	Direct Current
alt., alt	Alternate	Carp.	Capacity	DDC	Direct Digital Control
Alum.	Aluminum	C.B.	Carpenter	Demob.	Demobilization
a.m.	Ante Meridiem	C.C.A.	Circuit Breaker	d.ft.	Dry Film Thickness
Amp.	Ampere	C.C.F	Chromate Copper Arsenate	d.f.u.	Drainage Fixture Units
Anod.	Anodized	cd	Hundred Cubic Feet	D.H.	Double Hung
ANSI	American National Standards Institute	cd/sf	Candela	DHW	Domestic Hot Water
APA	American Plywood Association	CD	Candela per Square Foot	DI	Ductile Iron
Approx.	Approximate	CDX	Grade of Plywood Face & Back	Diag.	Diagonal
Apt.	Apartment	Cefi.	Plywood, Grade C & D, exterior glue	Diam., Dia	Diameter
Asb.	Asbestos	Cem.	Cement Finisher	Distrib.	Distribution
A.S.B.C.	American Standard Building Code	CF	Cement	Div.	Division
Asbc.	Asbestos Worker	C.F	Hundred Feet	Dk.	Deck
ASCE	American Society of Civil Engineers	C.F	Cubic Feet	D.L	Dead Load; Diesel
A.S.H.R.A.E.	American Society of Heating, Refrig. & AC Engineers	CFM	Cubic Feet per Minute	DLH	Deep Long Span Bar Joist
ASME	American Society of Mechanical Engineers	CFRP	Carbon Fiber Reinforced Plastic	dlx	Deluxe
ASTM	American Society for Testing and Materials	c.g.	Center of Gravity	Do.	Ditto
Attchmt.	Attachment	CHW	Chilled Water;	DOP	Diocyl Phthalate Penetration Test (Air Filters)
Avg., Ave.	Average	C.I., CI	Commercial Hot Water	Dp., dp	Depth
AWG	American Wire Gauge	C.I.P., CIP	Cast Iron	D.P.S.T.	Double Pole, Single Throw
AWWA	American Water Works Assoc.	Cite.	Cast in Place	Dr.	Drive
Bbl.	Barrel	C.L	Circuit	DR	Dimension Ratio
B&B, BB	Grade B and Better;	CL	Carload Lot	Drink.	Drinking
B&S	Belled & Butlapped	Clab.	Chain Link	D.S.	Double Strength
B&W.	Bell and Spigot	Clam	Common Laborer	D.S.A.	Double Strength A Grade
b.c.c.	Black and White	C.L.F	Common Maintenance Laborer	D.S.B.	Double Strength B Grade
B.C.Y.	Body-centered Cubic	C.LF	Hundred Linear Feet	Dty.	Duty
B.C.Y.	Bank Cubic Yards	CLF	Current Limiting Fuse	DWV	Drain Waste Vent
BE	Bevel End	CLP	Cross Linked Polyethylene	DX	Deluxe White, Direct Expansion
B.F	Board Feet	cm	Centimeter	dyn	Dyne
Bg. ctm.	Bag of Cement	CMP	Centimeter	e	Eccentricity
BHP	Boiler Horsepower;	CMU	Concrete Masonry Unit	E	Equipment Only; East; Emissivity
B.I.	Boiler Horsepower	CN	Change Notice	Ea.	Each
bidir.	Black Iron	Col.	Column	EB	Encased Burial
Bit., Bitum.	bidirectional	CO ₂	Carbon Dioxide	Econ.	Economy
Bit., Cotc.	Bituminous	Comb.	Combination	E.C.Y	Embankment Cubic Yards
Blk.	Bituminous Concrete	comm.	Commercial, Communication	EDP	Electronic Data Processing
Bkrs.	Backed	Compt.	Compressor	EFS	Exterior Insulation Finish System
Bldg., bldg	Breakers	Conc.	Concrete	E.D.R.	Equivalent Direct Radiation
Blk.	Building	Cont., cont	Continuous; Continued, Container	Eq.	Equation
Blk.	Block	Cot	Cotangent	EL	Elevation
Bm.	Beam	Cov.	Cover	Elec.	Electrician; Electrical
Boil.	Boilermaker	C/P	Cedar on Paneling	Elev.	Elevator; Elevating
bpm	Blows per Minute	CPA	Control Point Adjustment	EMT	Electrical Metallic Conduit; Thin Wall Conduit
BR	Bedroom	Cplg.	Coupling	Eng.	Engine, Engineered
Brg., btrng.	Beating	CPM	Critical Path Method	EPDM	Ethylene Propylene Diene Monomer
Brhe.	Bricklayer Helper	CPVC	Chlorinated Polyvinyl Chloride	EPS	Expanded Polystyrene
Bric.	Bricklayer	C.Pr	Hundred Pair	Eghv.	Equip. Oper., Heavy
		CRC	Cold Rolled Channel	Eqht.	Equip. Oper., Light
		Creos.	Creosote	Eqmd.	Equip. Oper., Medium
		Crpt.	Carpet & Linoleum Layer	Eqmm.	Equip. Oper., Master Mechanic
		CRT	Cathode-ray Tube	Eqol.	Equip. Oper., Oilers
		CS	Carbon Steel, Constant	Equip.	Equipment
			Shear Bar Joist	ERW	Electric Resistance Welded

Unit of Measure Abbreviations

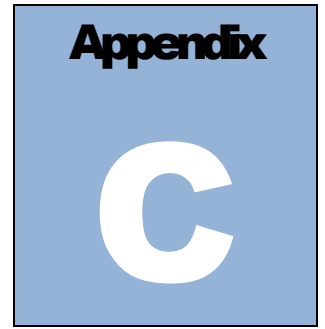
ES.	Energy Saver	H	High Henry	Lath.	Lather
Est.	Estimated	HC	High Capacity	Lav.	Lavatory
esu	Electrostatic Units	H.D., HD	Heavy Duty; High Density	lb.; #	Pound
E.W.	Each Way	H.D.O.	High Density Overlaid	LB., LB	Load Bearing; L Conduit Body
EWT	Entering Water Temperature	HDPE	High Density Polyethylene Plastic	L. & E.	Labor & Equipment
Excav.	Excavation	Hdt.	Header	lb./hr.	Pounds per Hour
excl	Excluding	Hdwe.	Hardware	lb./LF	Pounds per Linear Foot
Exp., exp	Expansion, Exposure	H.I.D., HID	High Intensity Discharge	lb/sq.in.	Pound-force per Square Inch
Ext., ext	Exterior; Extension	Help.	Helper Average	L.C.L.	Less than Carload Lot
Extru.	Extrusion	HEPA	High Efficiency Particulate Air Filter	L.C.Y.	Loose Cubic Yard
f	Fiber Stress			Ld.	Load
F	Fahrenheit; Female; Fill	Hg	Mercury	LE	Lead Equivalent
Fab., fab	Fabricated; Fabric	HIC	High Interrupting Capacity	LED	Light Emitting Diode
FBGS	Fiberglass	HM	Hollow Metal	LF	Linear Foot
FC.	Footcandles	HMWPE	High Molecular Weight Polyethylene	LF Nose	Linear Foot of Stair Nosing
f.c.c.	Face-centered Cubic			LF Rst	Linear Foot of Stair Riser
f.c.	Compressive Stress in Concrete; Extreme Compressive Stress	HO	High Output	Ig	Long; Length; Large
EE.	Front End	Horiz.	Horizontal	L & H	Light and Heat
FEP	Fluorinated Ethylene Propylene (Teflon)	H.P., HP	Horsepower; High Pressure	IH	Long Span Bar Joist
		H.PF	High Power Factor	L.H.	Labor Hours
		Hr	Hour	LL., LL	Live Load
EG.	Flat Grain	Hrs./Day	Hours per Day	LL.D.	Lamp Lumen Depreciation
E.H.A.	Federal Housing Administration	HSC	High Short Circuit	lm	Lumen
Fig.	Figure	Ht.	Height	lm/sf	Lumen per Square Foot
Fin.	Finished	Htg.	Heating	lm/W	Lumen per Watt
FIPS	Female Iron Pipe Size	Htrs.	Heaters	LOA	Length Over All
Fixt.	Fixture	HVAC	Heating, Ventilation & Air Conditioning	log	Logarithm
FJP	Finger jointed and primed			LO-L	Laterallet
Fl. Oz.	Fluid Ounces	Hvy.	Heavy	long.	Longitude
Flt.	Floor	HW	Hot Water	L.P., LP	Liquefied Petroleum; Low Pressure
FM	Frequency Modulation; Factory Mutual	Hyd.; Hydt.	Hydraulic	L.PF.	Low Power Factor
		Hz	Hertz (cycles)	IR	Long Radius
Pmg.	Flaming	I.	Moment of Inertia	L.S.	Lump Sum
FM/UL	Factory Mutual/Underwriters Labs	IBC	International Building Code	Lt.	Light
Fdn.	Foundation	I.C.	Interrupting Capacity	Lt. Ga.	Light Gauge
FNPT	Female National Pipe Thread	ID	Inside Diameter	L.T.L.	Less than Truckload Lot
Fori.	Foreman, Inside	I.D.	Inside Dimension; Identification	Lt. Wt.	Lightweight
Foto.	Foreman, Outside	I.F	Inside Frosted	L.V.	Low Voltage
Fount.	Fountain	I.M.C.	Intermediate Metal Conduit	M	Thousand; Material; Male; Light Wall Copper Tubing
rpm	Feet per Minute	In.	Inch	M ² CA	Meters Squared Contact Area
FPT	Female Pipe Thread	Inch.	Incandescent	m/hr.; M.H.	Man-hour
Fr	Frame	Incl.	Included; Including	mA	Milliamperet
FR.	Fire Rating	Int.	Interior	Mach.	Machine
FRK	Foil Reinforced Kraft	Inst.	Installation	Mag. Str.	Magnetic Starter
FSK	Foil/Scrim/Kraft	Insul., insul	Insulation/Insulated	Maint.	Maintenance
FRP	Fiberglass Reinforced Plastic	I.P	Iron Pipe	Marb.	Marble Setter
FS	Forged Steel	I.P.S., IPS	Iron Pipe Size	Mat; Mat'l.	Material
FSC	Cast Body; Cast Switch Box	IPT	Iron Pipe Threaded	Max.	Maximum
Ft., ft	Foot; Feet	I.W.	Indirect Waste	MBF	Thousand Board Feet
Ftng.	Fitting	J	Joule	MBH	Thousand BTU's per hr.
Ftg.	Footing	J.I.C.	Joint Industrial Council	MC	Metal Clad Cable
Pt lb.	Foot Pound	K	Thousand; Thousand Pounds; Heavy Wall Copper Tubing, Kelvin	MCC	Motor Control Center
Furn.	Furniture	K.A.H.	Thousand Amp. Hours	M.C.F	Thousand Cubic Feet
FVNR	Full Voltage Non-Reversing	kcmil	Thousand Circular Mils	MCFM	Thousand Cubic Feet per Minute
FVR	Full Voltage Reversing	KD	Knock Down	M.C.M.	Thousand Circular Mils
FXM	Female by Male	K.D.A.T.	Kiln Dried After Treatment	MCP	Motor Circuit Protector
Fy.	Minimum Yield Stress of Steel	kg	Kilogram	MD	Medium Duty
g	Gram	kG	Kilogauss	MDF	Medium-density fibreboard
G	Gauss	kgf	Kilogram Force	M.D.O.	Medium Density Overlaid
Ga.	Gauge	kHz	Kilohertz	Med.	Medium
Gal., gal.	Gallon	Kj	1000 Pounds	MF	Thousand Feet
Galv., galv	Galvanized	KJ	Kilojoule	M.F.B.M.	Thousand Feet Board Measure
GC/MS	Gas Chromatograph/Mass Spectrometer	K.L.	Effective Length Factor	Mfg.	Manufacturing
		K.L.F.	Kips per Linear Foot	Mfrs.	Manufacturers
Gen.	General	Kn	Kilometer	mg	Milligram
GFI	Ground Fault Interrupter	KO	Knock Out	MGD	Million Gallons per Day
GFRC	Glass Fiber Reinforced Concrete	K.S.F	Kips per Square Foot	MGPH	Million Gallons per Hour
Glaz.	Glazier	K.S.I.	Kips per Square Inch	MH, M.H.	Manhole; Metal Halide; Man-Hour
GPD	Gallons per Day	kV	Kilovolt	MHz	Megahertz
gpf	Gallon per Flush	kVA	Kilovolt Ampere	Mi.	Mile
GPH	Gallons per Hour	kVAR	Kilovar (Reactance)	MI	Malleable Iron; Mineral Insulated
gpm, GPM	Gallons per Minute	KW	Kilowatt	MIPS	Male Iron Pipe Size
GR	Grade	KWh	Kilowatt-hour	mj	Mechanical Joint
Gran.	Granular	L	Labor Only; Length; Long; Medium Wall Copper Tubing	m	Meter
Grnd.	Ground	Lab.	Labor	mm	Millimeter
GVW	Gross Vehicle Weight	lat	Latitude	Mill.	Millwright
GWB	Gypsum Wall Board			Min., min.	Minimum, Minute

Unit of Measure Abbreviations

Misc.	Miscellaneous	PDCA	Painting and Decorating Contractors of America	SC	Screw Cover
ml	Milliliter; Mainline	PE., PE	Professional Engineer;	SCFM	Standard Cubic Feet per Minute
M.L.F.	Thousand Linear Feet		Potcelain Enamel;	Scaf.	Scaffold
Mo.	Month		Polyethylene; Plain End	Sch., Sched.	Schedule
Mobil.	Mobilization		Potcelain Enamel on Cast Iron	S.C.R.	Modular Brick
Mog.	Mogul Base	PE.C.I.	Perforated	S.D.	Sound Deadening
MPH	Miles per Hour	Perf.	Pressure Injected	SDR	Standard Dimension Ratio
MPT	Male Pipe Thread	PEX	Pile Driver	S.E.	Surfaced Edge
MRGWB	Moisture Resistant Gypsum Wallboard	Ph.	Package	Sel.	Select
		PI.	Plaster	SER, SEU	Service Entrance Cable
MRT	Mile Round Trip	File	Plasterer	S.F.	Square Foot
ms	Millisecond	Pkg.	Plasterer Helper	S.F.C.A.	Square Foot Contact Area
M.S.F.	Thousand Square Feet	Pl.	Plasterer	S.F. Fl.	Square Foot of Floor
Mstz.	Mosaic & Terrazzo Worker	Plah.	Pounds Per Linear Foot	S.E.G.	Square Foot of Ground
M.S.Y.	Thousand Square Yards	Plas.	Plumber	S.F. Hot	Square Foot Horizontal
Mtd., mtd., mtd	Mounted	plf	Plumber Helper	SFR	Square Feet of Radiation
Mthe.	Mosaic & Terrazzo Helper	Pluh.	Plumber	S.F. Shlf.	Square Foot of Shelf
Mtng.	Mounting	Plum.	Plumbing	S4S	Surface 4 Sides
Mult.	Multi; Multiply	Pl.	Post Meridiem	Shee.	Sheet Metal Worker
M.V.A.	Million Volt Amperes	p.m.	Painted	Sh.	Sine
M.V.A.R.	Million Volt Amperes Reactance	Pntd.	Painter, Ordinary	Skwk.	Skilled Worker
MV	Megavolt	Pord.	Pages	SL	Saran Lined
MW	Megawatt	pp	Polypropylene	S.L.	Slimline
MXM	Male by Male	PP, PPL	Paris per Million	Sldr.	Solder
MYD	Thousand Yards	P.P.M.	Pair	SLH	Super Long Span Bar Joist
N	Natural; North	Pr.	Pre-engineered Steel Building	S.N.	Solid Neutral
na	Nanoampere	PE.S.B.	Prefabricated	SO	Standed with oil resistant inside insulation
NA	Not Available; Not Applicable	Prefab.	Prefinished	SO-L	Socketolet
N.B.C.	National Building Code	Prop.	Propelled	sp	Standpipe
NC	Normally Closed	PSE psf	Pounds per Square Foot	S.P.	Static Pressure; Single Pole; Self Propelled
NEMA	National Electrical Manufacturers Assoc.	PSI, psi	Pounds per Square Inch	Spri.	Sprinkler Installer
		PSIG	Pounds per Square Inch Gauge	spwvg	Static Pressure Water Gauge
NEHB	Bolted Circuit Breaker to 600V.	PSP	Plastic Sewer Pipe	S.P.D.T.	Single Pole, Double Throw
NFPA	National Fire Protection Association	Pspr.	Painter, Spray	SPF	Spruce Pine Fir; Sprayed Polyurethane Foam
NLB	Non-Load-Bearing	Pst.	Painter, Structural Steel		
NM	Non-Metallic Cable	PT.	Potential Transformer	S.P.S.T.	Single Pole, Single Throw
nm	Nanometer	P & T.	Pressure & Temperature	SPT	Standard Pipe Thread
No.	Number	Ptd.	Partitions	Sq.	Square; 100 Square Feet
NO	Normally Open	Pu	Ultimate Load	Sq. Hd.	Square Head
N.O.C.	Not Otherwise Classified	PVC	Polyvinyl Chloride	Sq. In.	Square Inch
Nose.	Nosing	Pvmt.	Pavement	S.S.	Single Strength; Stainless Steel
NPT	National Pipe Thread	PRV	Pressure Relief Valve	S.S.B.	Single Strength B Grade
NQOD	Combination Plug-on/Bolt on Circuit Breaker to 240V.	Pwt.	Power	sst, ss	Stainless Steel
		Q	Quantity Heat Flow	Sowl.	Structural Steel Worker
N.R.C., NRC	Noise Reduction Coefficient/ Nuclear Regulator Commission	Qt.	Quart	S.S.	Structural Steel Welder
		Quan., Qty.	Quantity	St.; Std.	Steel
N.R.S.	Non Rising Stem	Q.C.	Quick Coupling	StC	Sound Transmission Coefficient
ns	Nanosecond	r	Radius of Gyration	Std.	Standard
nW	Nanowatt	R	Resistance	Stg.	Staging
OB	Opposing Blade	R.C.P.	Reinforced Concrete Pipe	STK	Select Tight Knot
OC	On Center	Rect.	Rectangle	STP	Standard Temperature & Pressure
OD	Outside Diameter	recpt.	Receptacle	Stpi.	Steamfitter; Pipefitter
O.D.	Outside Dimension	Reg.	Regular	Str.	Strength; Starter; Straight
ODS	Overhead Distribution System	Reinf.	Reinforced	Strd.	Stranded
O.G.	Ogee	Req'd.	Required	Struct.	Structural
O.H.	Overhead	Res.	Resistant	Sty.	Sty
O&P	Overhead and Profit	Resi.	Residential	Subj.	Subject
Opet.	Operator	RF	Radio Frequency	Subs.	Subcontractors
Opng.	Opening	RFID	Radio-frequency Identification	Surf.	Surface
Orna.	Ornamental	Rgh.	Rough	Sw.	Switch
OSB	Oriented Strand Board	RGS	Rigid Galvanized Steel	Swbd.	Switchboard
OS&Y	Outside Screw and Yoke	RHW	Rubber, Heat & Water Resistant; Residential Hot Water	S.Y.	Square Yard
OSHA	Occupational Safety and Health Act		Root Mean Square	Syn.	Synthetic
			Round	S.Y.P.	Southern Yellow Pine
Ovhd.	Overhead	rms	Rodman	System	System
OWG	Oil, Water or Gas	Rhd.	Rodman	t.	Thickness
Oz.	Ounce	Rofc.	Roof, Composition	T	Temperature; Ton
P	Pole; Applied Load; Projection	Rofp.	Roof, Precast	Tan	Tangent
p.	Page	Rohe.	Roofers (Composition)	T.C.	Terra Cotta
Pape.	Paperhanger	Rots.	Roof, Tile & Slate	T & C	Threaded and Coupled
PA.PR.	Powered Air Purifying Respirator	R.O.W.	Right of Way	T.D.	Temperature Difference
PAR	Parabolic Reflector	RPM	Revolutions per Minute	TDD	Telecommunications Device for the Deaf
PB., PB	Push Button	R.S.	Rapid Start		
Pc., Pcs.	Piece, Pieces	Rst	Riser	T.E.M.	Transmission Electron Microscopy
PC.	Portland Cement; Power Connector	RT	Round Trip	temp	Temperature, Tempered, Temporary
P.C.F.	Pounds per Cubic Foot	S.	Suction; Single Entrance; South	TFFN	Nylon Jacketed Wire
PCM	Phase Contrast Microscopy	SBS	Styrene Butadiene Styrene		

Unit of Measure Abbreviations

TFE	Tetrafluoroethylene (Teflon)	U.L., UL	Underwriters Laboratory	w/	With
T. & G.	Tongue & Groove;	Uld.	Unloading	W.C., WC	Water Column; Water Closet
	Tar & Gravel	Unfin.	Unfinished	W.F.	Wide Flange
Th., Thk.	Thick	UPS	Uninterruptible Power Supply	W.G.	Water Gauge
Thn.	Thin	URD	Underground Residential	Wldg.	Welding
Thrded	Threaded		Distribution	W. Mile	Wire Mile
Tilf.	Tile Layer, Floor	US	United States	W-O-L	Weldolet
Tilh.	Tile Layer, Helper	USGBC	U.S. Green Building Council	WR	Water Resistant
THHN	Nylon Jacketed Wire	USP	United States Primed	Wrck.	Wrecker
THW	Insulated Strand Wire	UTMCD	Uniform Traffic Manual For Control	WSPU	Water Supply Fixture Unit
THWN	Nylon Jacketed Wire		Devices	W.S.P	Water, Steam, Petroleum
T.L., TL	Truckload	UTP	Unshielded Twisted Pair	WT., Wt.	Weight
T.M.	Track Mounted	V	Volt	WWF	Welded Wire Fabric
Tot.	Total	VA	Volt Amperes	XFER	Transfer
FO-L	Threadolet	VAT	Vinyl Asbestos Tile	XFMR	Transformter
tmpd	Tempeted	V.C.T	Vinyl Composition Tile	XHD	Extra Heavy Duty
TPO	Thermoplastic Polyolefin	VAV	Variable Air Volume	XHHW	Cross-Linked Polyethylene Wire
T.S.	Trigger Start	VC	Veneer Cote	XLPE	Insulation
Tt	Trade	VDC	Volts Direct Current	XLP	Cross-linked Polyethylene
Transf.	Transformter	Vent.	Ventilation	Xport	Transport
Tthv.	Truck Driver, Heavy	Vett.	Vertical	Y	Wye
Ttr	Trailer	VE	Vinyl Faced	yd	Yard
Tth.	Truck Driver, Light	VG.	Vertical Grain	yr	Year
TTY	Teletypewriter	VHF	Very High Frequency	Δ	Delta
TV	Television	VHO	Very High Output	%	Percent
T.W.	Thermoplastic Water Resistant	Vib.	Vibrating	-	Approximately
	Wire	VLF	Vertical Linear Foot	Ø	Phase; diameter
UCI	Uniform Construction Index	VOC	Volatile Organic Compound	@	At
UF	Underground Feeder	Vol.	Volume	#	Pound; Number
UGND	Underground Feeder	VRP	Vinyl Reinforced Polyester	<	Less Than
UHF	Ultra High Frequency	W	Wire; Watt; Wide; West	>	Greater Than
U.I.	United Inch			Z	Zone



Appendix C: Report Samples

CAIS 001

U.S. Department of Energy Condition Assessment Information System General Asset List

Page: 1 of 1
03/12/2018

Field Office: Livermore Field Office

Site: Lawrence Livermore National Laboratory

Area: All

Property ID: 008

Property Name: LLNS Off-site Office

Property Type: Building

Property

HQ Program Office: NNSA
Ownership: Contractor Leased
Usage Code: 101 Office
Status: Operating
Mission Dependency: Not Mission Dependent
Year Built: 2007
Group:
RPV Model:
Last Inspection Date: 09/25/2015
Next Inspection Date:

Dimensions

Size: 3,529.000 Rentable Square

Costs

Repair Needs: \$ 0
Deferred Maintenance: \$ 0
Modernization Cost: \$ 0
PBPI:
RPV: \$ 905,577

Audit

Added By FIMS:

Updated By FIMS: 11/02/2017

Archived by FIMS:

CAIS 002		U.S. Department of Energy Condition Assessment Information System System Level Deficiency Cost										Page: 1 of 1 10/27/2015	
Field Office: Carlsbad Field Office			Site: 17001 Waste Isolation Pilot Plant					Area:001All					
Property ID: 254.1		Property Name: AREA SUBSTATION #1			Property Type: Building		Ownership: DOE Owned						
RPV: \$ 22,299		RPV Model: E25 Warehouse/Storage(pre-eng)			Usage Code: 612 Electronics Shops								
--- System Level ---		----- Repair Needs -----					----- Deferred Maintenance -----					----- Totals -----	
Volume	Percent Factor	Percent Failed	Engineered	System Level	IU	Calculation Method	Engineered	System Level	IU	Calculation Method	Repair Needs	Deferred Maintenance	
A10 Foundation	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
A20 Basement	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
B10 Superstr.	1.000	0		\$ 0	\$ 8,209	IU	\$ 0	\$ 8,209	IU	\$ 8,209	\$ 8,209	\$ 8,209	
B20 Ext. Closure	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
B30 Roofing	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
C10 Int. Const.	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
C20 Int. Stairs	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
C30 Int. Finish	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
D10 Conveying	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
D20 Plumbing	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
D30 HVAC	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
D40 Fire Prot.	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
D50 Electrical	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
E10 Equipment	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
E20 Furnishing	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
F10 Specialty	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
F20 Bldg. Demo.	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
G10 Site-Prep.	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
G20 Site-Improve	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
G30 Site-Mech	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
G40 Site-Electical	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
G90 Site-Other	1.000	0		\$ 0	\$ 0	IU	\$ 0	\$ 0	IU	\$ 0	\$ 0	\$ 0	
				\$ 0	\$ 8,209		\$ 0	\$ 8,209		\$ 8,209	\$ 8,209		

CAIS 003

U.S. Department of Energy
Condition Assessment Information System
Deferred Maintenance Report

Page: 1 of 2
06/01/2016

Field Office: National Energy Site: Pittsburgh Office Area: All

Property ID	Property Name		Property Type	Group	Last Inspection Date	HQ Program Office	Total Deferred Maintenance	
PBOO0058	Building 58		Building		02/25/2016	FE	\$ 13,761	
A10:	\$0	A20: \$0	B10: \$4,275	B20: \$0	B30: \$0	C10: \$0	C20: \$0	C30: \$9,486
D10:	\$0	D20: \$0	D30: \$0	D40: \$0	D60: \$0	E10: \$0	E20: \$0	F10: \$0
F20:	\$0	G10: \$0	G20: \$0	G30: \$0	G40: \$0	G90: \$0		
PBOO0059	Building 59		Building		08/30/2001	FE	\$ 34,215	
A10:	\$0	A20: \$0	B10: \$0	B20: \$34,215	B30: \$0	C10: \$0	C20: \$0	C30: \$0
D10:	\$0	D20: \$0	D30: \$0	D40: \$0	D60: \$0	E10: \$0	E20: \$0	F10: \$0
F20:	\$0	G10: \$0	G20: \$0	G30: \$0	G40: \$0	G90: \$0		
PBOO0083	Building 83		Building			FE		
A10:	\$0	A20: \$0	B10: \$0	B20: \$0	B30: \$0	C10: \$0	C20: \$0	C30: \$0
D10:	\$0	D20: \$0	D30: \$0	D40: \$0	D60: \$0	E10: \$0	E20: \$0	F10: \$0
F20:	\$0	G10: \$0	G20: \$0	G30: \$0	G40: \$0	G90: \$0		
PBOO0084	Building 84		Building		10/20/2003	FE	\$ 66,085	
A10:	\$2,367	A20: \$2,131	B10: \$0	B20: \$22,831	B30: \$10,869	C10: \$0	C20: \$0	C30: \$2,840
D10:	\$0	D20: \$0	D30: \$25,047	D40: \$0	D60: \$0	E10: \$0	E20: \$0	F10: \$0
F20:	\$0	G10: \$0	G20: \$0	G30: \$0	G40: \$0	G90: \$0		
Area Grand Totals:							Area Total Deferred Maintenance:	\$ 114,061
A10:	\$ 2,367	A20: \$ 2,131	B10: \$ 4,275	B20: \$ 57,046	B30: \$ 10,869	C10: \$ 0	C20: \$ 0	C30: \$ 12,326
D10:	\$ 0	D20: \$ 0	D30: \$ 25,047	D40: \$ 0	D60: \$ 0	E10: \$ 0	E20: \$ 0	F10: \$ 0
F20:	\$ 0	G10: \$ 0	G20: \$ 0	G30: \$ 0	G40: \$ 0	G90: \$ 0		

CAIS 004

U.S. Department of Energy Condition Assessment Information System Condition Index Report

Field Office: Livermore Field Office		Site: 14002 Lawrence Livermore National Laboratory		Area: 001 All	
Property ID: 071	Property Name: Westgate Badge Office	Property Type: Building	Ownership: DOE Owned		
RPV: \$ 6,494,716	RPV Model:	HQ Program Office: NNSA	Group:		
Last Inspection Date: 01/20/2021	Status: Operating	Mission Dependency: Not Mission Dependent			
Usage Code: 296 Security Hq/Badge Issuance/Gatehouse					

Volume	Cost	Repair Needs	Deferred Maintenance	Condition Index
A10 Foundation	\$ 0	\$ 0	\$ 0	100.00%
A20 Basement	\$ 0	\$ 0	\$ 0	100.00%
B10 Superstr.	\$ 0	\$ 0	\$ 0	100.00%
B20 Ext. Closure	\$ 0	\$ 92,052	\$ 92,052	98.58%
B30 Roofing	\$ 0	\$ 340,854	\$ 0	94.75%
C10 Int. Const.	\$ 0	\$ 0	\$ 0	100.00%
C20 Int. Stairs	\$ 0	\$ 0	\$ 0	100.00%
C30 Int. Finish	\$ 0	\$ 0	\$ 0	100.00%
D10 Conveying	\$ 0	\$ 0	\$ 0	100.00%
D20 Plumbing	\$ 0	\$ 0	\$ 0	100.00%
D30 HVAC	\$ 0	\$ 165,035	\$ 0	97.46%
D40 Fire Prot.	\$ 0	\$ 48,062	\$ 48,062	99.26%
D50 Electrical	\$ 0	\$ 294,563	\$ 294,563	95.46%
E10 Equipment	\$ 0	\$ 0	\$ 0	100.00%
E20 Furnishing	\$ 0	\$ 0	\$ 0	100.00%
F10 Specialty	\$ 0	\$ 0	\$ 0	100.00%
F20 Bldg. Demo.	\$ 0	\$ 0	\$ 0	100.00%
G10 Site-Prep.	\$ 0	\$ 0	\$ 0	100.00%
G20 Site-Improve	\$ 0	\$ 0	\$ 0	100.00%
G30 Site-Mech	\$ 0	\$ 0	\$ 0	100.00%
G40 Site-Electrical	\$ 0	\$ 0	\$ 0	100.00%
G90 Site-Other	\$ 0	\$ 0	\$ 0	100.00%
Total:		\$ 940,566	\$ 434,677	85.52 %

CAIS 005

**U.S. Department of Energy
Condition Assessment Information System
Complete IU Detail Report**

Page: 1 of 5
08/31/2021

Field Office: Nevada Field Office
Area: Nevada National Security Site
HQ Program Office: NNSA

Property ID: 201635
Mission Dependency: Mission Dependent, Not Critical Overall Asset Condition: Inadequate

Site: Nevada National Security Site
Property Name: 27-5306

Ownership: DOE Owned
Property Type: Building
Group:

Inspection Unit

IU Number: 121591 Inspector Name: JOHNSON, BILLY Inspection Date: 05/23/2019 Equipment ID:
Location: Interior Location Description: INTERIOR
Description: LIGHTS 4 FT FLUOR

Cost

Engineered Cost: Official Cost: \$ 7,611
Repair Needs Indicator: Yes Repair Needs: \$ 7,611
Deferred Maint Indicator: Yes Deferred Maint: \$ 7,611
Modernization Indicator: No Modernization Cost: \$ 0
Completed Cost:
Modernization Type:

Optional

Urgency:
Condition: Adequate Work Order:
Project ID:
IU Status: Locked Flag:
Last Update By: Johnson, Billy
Optimum Year: 2001 Last Updated Date: 05/23/2019
Year Installed:
Completion Year: Creation Date: 07/10/2002

Notes:

Line Items

Quantity	Volume	RSM Line Number	Line Number Description	UOM	Official Cost
13.00	D50	265113501300	Fluorescent fixture, interior, surface mounted, acrylic lens, 2-40 W, 2' W x 4' L, incl lamps, mounting	Ea.	\$ 7,611

CAIS 006

**U.S. Department of Energy
Condition Assessment Information System
Project Detail Report**

Page 1 of 26

04/07/2022

Field Office: NNSA Production Office
Project ID: PXCulverts I
Project Start Date:
Funding Request Date:
Funding Source: M&R
In House Labor: No
Last Updated By: Patterson, Steve

Site Name: Pantex Plant
Project Name: Drainage Plan Phase I
Project Complete Date:
Approval Date: 02/19/2021
Funding Type: PX Maint-Prog Subm leveraged
Project Status:
Last Updated Date: 02/19/2021

Total Repair Needs: \$ 3,882,187
Total DM: \$ 3,882,187
Total Non-DM: \$ 104,385
Total Modernization: \$ 0
Actual Cost:

Project Description:

2/19/21 updated from project #PXMaint(FY18)3(SP) 01/18/18 Updated Proj name, IDAC-A-3A(2).

Property ID	IU Number	Description	Official Cost
PXAT 470.06	76858		\$ 1,870
	Notes:	CULVERT 1, 12" DIA., CONCRETE PIPE, APPROX. 11 FT LONG, MOD DETERIORATION. NEEDS CLEANING & DRESS DITCHES.	
PXAT 470.06	76869		\$ 24,926
	Notes:	CULVERT 10, 18" DIA., CONCRETE PIPE, AGE UNKNOWN. NEEDS CLEANED & DITCHES DRESSED. PER THE DOE DESIGN LIFE MANUAL A 40 YR LIFE CYCLE APPLIES. , If actual install year is unknown, OSFs w/install Yr of 1900 in CAIS/BUILDER will be populated with year of first FY inspection (USER DEFINED 3) (SP)	
PXAT 470.06	76889		\$ 74,340
	Notes:	CULVERT 27, 42" DIA., 1 OF 2, CONCRETE PIPE, AGE UNKNOWN. NEED CLEANING, PLUGGED N END. PER THE DOE DESIGN LIFE MANUAL A 40 YR LIFE CYCLE APPLIES. , If actual install year is unknown, OSFs w/install Yr of 1900 in CAIS/BUILDER will be populated with year of first FY inspection (USER DEFINED 3) (SP)	
PXAT 470.06	76890		\$ 74,340
	Notes:	CULVERT 27, 42" DIA., 2 OF 2, CONCRETE PIPE, AGE UNKNOWN. PER THE DOE DESIGN LIFE MANUAL A 40 YR LIFE CYCLE APPLIES. , If actual install year is unknown, OSFs w/install Yr of 1900 in CAIS/BUILDER will be populated with year of first FY inspection (USER DEFINED 3) (SP)	
PXAT 470.06	76891		\$ 15,710
	Notes:	CULVERT 28, 18" DIA., 1 OF 3, CONCRETE PIPE, AGE UNKNOWN. NEED CLEANED. PER THE DOE DESIGN LIFE MANUAL A 40 YR LIFE CYCLE APPLIES. , If actual install year is unknown, OSFs w/install Yr of 1900 in CAIS/BUILDER will be populated with year of first FY inspection (USER DEFINED 3) (SP)	

CAIS 007 Condition and DM Indexes by Volume

Source: CAIS Database as of 03/11/2021

**U.S. Department of Energy
Condition Assessment Information System
Condition and Deferred Maintenance Indexes**

**Field Office: Oak Ridge SC
Site: Oak Ridge Office**

Condition Index (CI)

Deferred Maintenance Index (DMI)

Volume	Rating	Repair Needs	Rating	Deferred Maintenance
A10 Foundation	●	\$30,474	●	\$18,940
A20 Basement	●	\$0	●	\$0
B10 Superstr.	●	\$30,312	●	\$30,256
B20 Ext. Closure	●	\$471,682	●	\$417,667
B30 Roofing	●	\$634,737	●	\$516,597
C10 Int. Const.	●	\$5,660	●	\$1,018
C20 Int. Stairs	●	\$14,053	●	\$14,053
C30 Int. Finish	●	\$511,171	●	\$319,574
D10 Conveying	●	\$0	●	\$0
D20 Plumbing	●	\$59,201	●	\$59,051
D30 HVAC	●	\$1,104,851	●	\$594,396
D40 Fire Prot.	●	\$12,340	●	\$0
D50 Electrical	●	\$139,213	●	\$138,899
E10 Equipment	●	\$0	●	\$0
E20 Furnishing	●	\$0	●	\$0
F10 Specialty	●	\$20,587	●	\$20,176
F20 Bldg. Demo.	●	\$0	●	\$0
G10 Site-Prep.	●	\$3,667	●	\$2,757
G20 Site-Improve	●	\$263,042	●	\$259,127
G30 Site-Mech	●	\$195,551	●	\$195,551
G40 Site-Electrical	●	\$1,306	●	\$1,306
G90 Site-Other	●	\$2,137	●	\$2,137
Site CI	●	\$3,499,984	Site DMI	\$2,591,505

Key - Buildings and Trailers

Good	When Index value is ≥ 90
Fair	When Index < 90 and ≥ 80
Poor	When Index < 80

EST 001		U.S. Department of Energy Condition Assessment Information System Cost Estimate Detail						Page: 1 of 3 03/16/2021		
Field Office: National Eng Tech Lab		Site: Morgantown Office								
Estimate ID	Estimate Name	Geographic Adjuster	Created By	Last Updated By	Description					
7723	B-16 Re-roofing	WEST VIRGINIA, MORGANTOWN	Kulchock, Gary	Kulchock, Gary						
Source	Quantity	RSM Line Number	Description	Equipment	Material	Labor	Overhead	RSM Unit Cost	UOM	Estimate Value
Master Format	4.00	013113200260	Field personnel, superintendent, average	\$0.00	\$0.00	\$2,325.00	\$1,400.00	\$3,725.00	Week	\$ 14,100
Master Format	6.00	015423700090	Scaffolding, steel tubular, regular, labor only to erect & dismantle, building exterior, wall face, 6'-4" x 5' frames, 1 to 5 stories, excludes planks	\$0.00	\$0.00	\$164.00	\$97.00	\$261.00	C.S.F.	\$ 1,481
Master Format	16.00	015423705700	Scaffolding, planks, labor only to install & remove, 2"x10"x16', up to 50' high	\$0.00	\$0.00	\$18.25	\$10.75	\$29.00	Ea.	\$ 439
Master Format	2.00	015436501400	Mobilization or demobilization, delivery charge for equipment, hauled on 20-ton capacity towed trailer	\$224.00	\$0.00	\$425.00	\$271.00	\$920.00	Ea.	\$ 1,767
Master Format	10.00	040513300200	Mortar, masonry cement, 1:3 mix, type N	\$0.00	\$5.45	\$2.44	\$2.06	\$9.95	C.F.	\$ 97
Master Format	325.00	040519260015	Masonry reinforcing bars, #3 and #4 reinforcing steel bars, placed horizontally, ASTM A615	\$0.00	\$0.62	\$0.95	\$0.64	\$2.21	Lb.	\$ 690
Master Format	160.00	042210420300	Concrete masonry unit (CMU), screen block, 2000 psi, 8" x 8" x 16", includes mortar, excludes scaffolding, horizontal reinforcing, vertical reinforcing, mortar and grout	\$0.00	\$13.35	\$7.35	\$5.80	\$26.50	S.F.	\$ 4,124
Master Format	180.00	047210100800	Aluminum coping, stock units, for 12" wall, excludes scaffolding	\$0.00	\$9.45	\$9.75	\$6.80	\$26.00	L.F.	\$ 4,517
Master Format	1.00	047210109000	Coping, minimum labor/equipment charge	\$0.00	\$0.00	\$390.00	\$235.00	\$625.00	Job	\$ 591
Master Format	48.00	053113505100	Metal floor decking, steel, non-cellular, composite, galvanized, 1-1/2" D, 16 gauge	\$0.04	\$4.90	\$0.56	\$0.85	\$6.35	S.F.	\$ 301
Master Format	180.00	070505102370	Selective demolition, thermal and moisture protection, roof edge, sheet metal coping, up to 12" wide	\$0.00	\$0.00	\$1.48	\$0.88	\$2.36	L.F.	\$ 402
Master Format	5,400.00	070505102470	Selective demolition, thermal and moisture protection, roof insulation board, over 2" thick	\$0.00	\$0.00	\$0.23	\$0.14	\$0.37	B.F.	\$ 1,891
Master Format	1,800.00	072216100018	Roof deck insulation, asphaltic cover board, fiberglass lined, 1/4" thick, fastening excluded	\$0.00	\$0.99	\$0.28	\$0.29	\$1.56	S.F.	\$ 2,752
Master Format	1,800.00	072216101946	Roof deck insulation, extruded polystyrene, 4" thick, R20, 25 PSI compressive strength, fastening excluded	\$0.00	\$4.20	\$0.30	\$0.65	\$5.15	S.F.	\$ 9,171

U. S. Department of Energy Condition Assessment Information System Job Cost Phase Report										
EST 002										04/07/2022
Field Office:	Oak Ridge Science				Site:	Oak Ridge Office				
Estimate ID:	8925				Estimate Name:	ORO Sidewalks				
Created By:	McMillan, John				Last Updated:	McMillan, John				
Source	RSM Line Number	Line Number Description	Quantity	UOM	Material	Labor	Equipment	O&P	Total	Category
Master Format	013113200160	Field personnel, general purpose laborer, average	3.00	Week	\$0	\$4,079	\$0	\$3,548	\$7,626	
Master Format	013113200220	Field personnel, project manager, maximum	2.00	Week	\$0	\$4,247	\$0	\$3,795	\$8,042	
Master Format	013113200280	Field personnel, superintendent, maximum	6.00	Week	\$0	\$11,846	\$0	\$10,395	\$22,241	
Master Format	013113300020	Insurance, standard builders risk, minimum	600.00	Job	\$0	\$0	\$0	\$158	\$158	
Master Format	013113300600	Insurance, public liability, average	120.00	Job	\$0	\$0	\$0	\$267	\$267	
Master Format	015433204890	Rent loader, skid steer, wheeled, 1 CY 78 HP, diesel	3.00	Week	\$0	\$1,696	\$4,443	\$633	\$6,772	
Master Format	015433204897	Rent skid steer attachment, concrete hammer	3.00	Week	\$0	\$97	\$1,908	\$187	\$2,191	
Totals for 01 "General Requirements"					\$0	\$21,965	\$6,351	\$18,983	\$47,297	
Master Format	030505100060	Selective concrete demolition, reinforcing 1% - 2% of cross-sectional area, break up into small pieces, excludes shoring, bracing, saw or torch cutting, loading, hauling, dumping	149.00	C.Y.	\$0	\$12,766	\$3,434	\$11,473	\$27,673	
Master Format	030513800050	Waterproofing and dampproofing, integral waterproofing, add to cost of regular concrete	150.00	C.Y.	\$1,215	\$0	\$0	\$127	\$1,343	
Master Format	033053404960	Structural concrete, in place, slab on grade (3000 psi), 4" thick, includes forms(4 uses), welded wire mesh, concrete (Portland cement Type I), placing and finishing	8,028.00	S.F.	\$28,813	\$2,632	\$0	\$5,122	\$36,567	
Totals for 03 "Concrete"					\$30,028	\$15,398	\$3,434	\$16,722	\$65,583	
Master Format	312216101150	Fine grading, fine grade for slab on grade, hand grading	600.00	S.Y.	\$0	\$711	\$120	\$570	\$1,401	
Master Format	312323202600	Hauling, haul road maintenance, includes loading	5.00	Day	\$0	\$1,807	\$4,225	\$1,898	\$7,930	
Totals for 31 "Earthwork"					\$0	\$2,518	\$4,345	\$2,468	\$9,331	
Estimate Subtotal					\$30,028	\$39,881	\$14,130	\$38,173	\$122,211	
									\$11,927	
									\$9,542	
Additional Cost										\$21,469
Total Estimate										\$143,680