

## Chapter 2

# Data Infrastructure

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The data infrastructure describes the specific data resources needed by USDA to effectively manage its real property assets. This document provides the CPAIS terms and descriptions.

For the list of values (LOV) for table-driven fields, please refer to Appendix A.

## 2.1 GLOSSARY

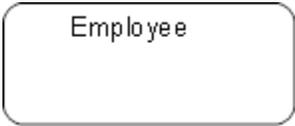
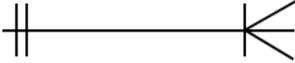
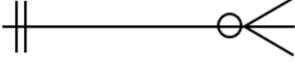
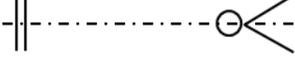
*Table 2-1. Terms and Descriptions*

Term	Description
Agreement	The binding document between parties for conveying use of the property owned by one of the parties, or that one of the parties acts an agent for the owner.
CAP Value Adjustment	An approved change to the to a capitalized amount in a value stream.
CAP Value Stream	A value stream that is capitalized and depreciation is being calculated for asset.
Category	
Easement Rights	Granting the right to cross property to gain access to a contained area.
Floor Space	The square footage of a particular area in a given installation/building/facility.
Leasehold Improvement	A development effort to build-out the space or land that is being leased.
OPEN Value Stream	A value stream that is accruing value prior to going into use.
Rental Occupancy Property	
Stewardship Property	Identification of property and property rights owned by the Federal Government for
Sub-Category	
Sub-ledger	The master record for an asset that exceeded the threshold for capitalization and accumulates the value of the property for all future enhancements.
Timber Resource Improvements	
Utilization Data	Information concerning how efficiently an installation is used.

Term	Description
Value (Stream) Transactions	FFIS transactions that are brought across the interface to be posted to the asset accounts.

## 2.2 ENTITIES AND DESCRIPTIONS (ORACLE DESIGNER)

The following symbols are used in the data model:

Symbol	Description
Entity 	An entity is a type of person, place, thing, or event that has meaning in the context of the organization's business and about which data may be stored. An entity name represents the term being defined. The definition should be a textual description of the data entity.
Weak entity 	A weak entity is an entity whose existence depends on the existence of another entity as in <i>Request</i> . A weak entity is always the child of a mandatory relationship or a super-sub relationship.
Associative entity 	An associative entity is a type of weak entity that exists only to resolve a many-to-many relationship. It is the child of two or more identifying relationships.
Identifying relationship: one-to-many 	A one-to-many identifying relationship indicates that the parent entity identifies the child entity. This identifying relationship is, by definition, a mandatory relationship.
Identifying relationship: one-to-zero, one, or many 	This type of identifying relationship indicates a one-to-zero, one, or many relationship between a parent and a child entity.
Non-identifying relationship: one-to-zero, one, or many 	A non-identifying relationship indicates that the child entity does not rely on the parent entity for its identification. There exists a one-to-zero, one, or many relationship between a parent and a child entity.

Symbol	Description
Identifying relationship: super-sub 	A super-sub relationship indicates that a generic entity type (the super type) is divided into subtypes. The super type specifies the common attributes and relations that are shared by all subtypes (i.e., sub entities). Each subtype specifies the attributes or relations that are distinct from other subtypes.
Identifying symbol: super-sub relationship 	The entities contained with a dashed line box are connected via a super-sub relationship.

Table 2-2. Entities and Descriptions

Entity	Description
Acquisition Code	Indicator for the way the property was acquired.
Acquisition Cost	All costs incurred to bring the property to a form and location suitable for its intended use.
Adjustment Date	Date of modifications made to an agreement.
Adjustment for GSA	Modification made to a GSA assignment agreement.
Adjustment for USDA	Modification made to a USDA lease.
Adjustment Type	Identifies the type of adjustment made to an agreement.
Admin Org (see Org)	A number of up to 7-digits that defines the managing organization of property for a location. The term admin org is Forest Service specific. Other agencies have defined an org structure that fits each agencies managing organization. The admin org or org is the element that defines the access privilege for managing assets.
Agency/Bureau Code	Four-digit GSA-provided code identifying the Department and agency/bureaus of USDA.
Agency/Bureau Name	The name of the agency/bureau associated with the Agency/Bureau Code.
Agency Agreement Number	An 11-digit number assigned to each agreement in an agency within USDA.
Annual Rental Amount	The amount required to be paid annually for rent on a property.
Antenna	Indicator for any device of a federal agency/contractor located on a public building or Federal-controlled land that can be used to transmit and/or receive electromagnetic signals. Included are devices for the transmission, relay, or reception of: television, AM or FM radio; or, microwave signals.

Entity	Description
Anticipated Excess Date	The date a property item is planned for release by an agency.
Appraisal Date	The date an appraisal was conducted on a property.
Appraised Value	The dollar amount assigned to a property by a certified appraiser.
Area/Parcel	The physical location identified by a street address, tract, subdivision or lot.
Asset ID	An alphanumeric identifier of 5-10 characters for each asset in an agency. The asset ID is a required field and part of the Unique Asset Identifier (UAI).
Base-Lining Information	Information that identifies a property in an unwarranted and/or deferred status.
Building Name	The name of the building or structure.
Building Negligible Cost Indicator	An indicator for buildings or structures with an acquisition cost of less than \$500.00.
Building Predominant Use Classification Codes	Two-digit numeric code that identifies the predominant usage of a building.
Business District	The name of the business district where property is located.
Change in Mission	Change in the need for or the use of the property due to loss of funding or cancellation of a program.
Cleaning Service	Indication of cleaning services being performed under contract on the property.
Common Agreement Number	An 11-digit number assigned to each agreement between USDA agencies. It is used as the vendor code in all transactions for these agreements.
Common Vendor Number	The 11-digit tax identification number provided by the vendor used for non-federal entities. Social Security Number may be used for vendors that are not incorporated. In some cases, the remaining two digits with SSN may identify type of agreement.
Concierge Services	Indication of concierge services under contract for the property.
Congressional District	Two-digit numeric code that identifies an area of a state by population that is used for electing members of the House of Representatives.
Contractor Fax Number	The Contractor's fax machine number.
Contractor Phone Number	The Contractor's telephone number.
Contractor POC	The name of the Contractor's Point of Contact responsible for upgrades or enhancements conducted on property.
Contractor POC Address	The full mailing/physical address of the Contractor's Point of Contact.
Contractor POC E-mail Address	The e-mail address of the Contractor's POC.
COR Indicator	An indicator that denotes the existence of a Contracting Officer's Representative (COR).

Entity	Description
COR Address	The Contracting Officer's Representative (COR) full mailing/physical address.
COR E-mail Address	The e-mail address of the Contracting Officer's Representative (COR).
COR Fax Number	The Contracting Officer's Representative (COR) fax machine number.
COR Phone Number	The Contracting Officer's Representative (COR) telephone number.
COR POC	The name of the Contracting Officer's Representative point of contact.
Daycare Services	An indicator identifying the presence of daycare services on the property.
Deferred	Indication that the property is in a deferred status and does not have to be reported to GSA.
Development Status	The indicator that defines the stage of the property life cycle, i.e., planned, existing, existing – excess.
Disabled Access	An indicator denoting that disabled access has been provided for the property.
Emergency Task Force	Indication of emergency task force is present on the property.
End Date	The date of expiration of an agreement.
Estimated Cost	The projected cost for space requested.
Estimated Square Feet	The projected total square footage of space requested.
Excess Indicator	Indicator that the property is declared as excess.
Excess Square Footage	Total square footage of space declared as excess.
Explanation of Change	Explanation of changes or adjustments made to an agreement.
FACTS Bureau Code	Federal Agencies Centralized Trial-Balance System (FACTS) agency/bureau two-digit code used for reporting financial information.
FACTS Dept ID	Federal Agencies Centralized Trial-Balance System (FACTS) department two-digit code used for reporting financial information.
Fair Market Value	The price for which an asset can be bought or sold in an arms length transaction.
Fee	Also known as PBS Fee, is a charge added to the agency GSA bill for services provided by GSA. The components are contract risk, brokerage services and property management.
Finance POC	The name of the person responsible for the finances relating to the purchase of property.
Finance POC Address	The financial person's full mailing/physical address.
Finance POC E-mail Address	The e-mail address of the Finance Point of Contact.

Entity	Description
Finance POC Fax Number	The Finance Point of Contact fax machine telephone number.
Finance POC Phone Number	The Finance Point of Contact telephone number.
Free Space	The total square footage of space in a given installation/building/facility for which no rent is paid, even if unoccupied.
Geographic Location Code (GLC)	A nine-digit code that identifies the geographical location of the property by state (2), city (3) and county (4).
GIS Information	Geographic Information Systems (GIS) locator code for the property.
Gross Square Footage	The measurement of a building's outside dimensions. NOTE: This square footage is not the sum of Rentable or Usable Square Footage. The amount of space as defined in Building Owners and Managers Association (BOMA)/American National Standards Institute (ANSI) Standard z65.1-1966. This standard has been adopted in accordance with GSA's desire to adopt nationally recognized industry standards to the extent possible.
GSA Assistance Needed	An indicator that denotes that GSA assistance is requested on the request for space.
GSA Classification	Property category specified by GSA.
GSA Property ID	Identification number assigned to a property by the GSA.
GSA Region Number	A 2-digit code that groups states into regions (for Virginia and Maryland areas grouped by state and county). There are currently 12 GSA regions (00 through 11).
GSA Space Use Code	GSA assigned code denoting the purpose for which the property is being used.
Hazard	Identifies the type of environmental or hazardous substance located on, or contained within, a property in accordance with 41 CFR 101-42-202.
Heritage Property	Assets that have historical or natural significance, cultural, or significant architectural characteristics.
Highest Best Use	An alpha code (A thru Q) that describes the highest and best use of a property in order to produce the highest monetary return, promote maximum value, or serve a public or institutional purpose.
Historical Building Indicator	An alpha code (H) that refers to an installation or any portion of an installation listed on or eligible for inclusion on the National Register of Historic Places, or that are considered Heritage assets that have historical or natural significance; cultural, or significant architectural characteristics. In some forms it is a check box.
Historical District	The name of the historical district in which a historical installation is located.
Infrastructure Enhancement Cost	Total cost of infrastructure-related enhancements conducted on property.

Entity	Description
Infrastructure Enhancement Date	Date infrastructure related enhancements were constructed on the property.
Infrastructure Enhancement Type	Type of infrastructure-related enhancements conducted on the property.
Installation Address	The installation or sub-installation street/mailling address.
Installation Identifier	A 7-digit alpha/numeric code identifying an installation location.
Land Acquisition Cost	Total acquisition cost associated with each land use classification code on an installation or sub-installation.
Land Acquisition Method	A 1-digit code that describes the method by which the land was acquired (1-Public Domain, 2-Purchases, exchanges, donations, etc., 3-Long-Term Interest).
Land Location	The physical location of the land as described in legal records. Note: The description field may be up to 256 characters.
Land Measurement	The land measure described in acres, to the nearest tenth of an acre, or lot size measurements in feet and inches.
Land Negligible Cost Indicator	An indicator for land with an acquisition cost of less than \$500.00.
Land Use Classification Codes	Two-digit numeric code that identifies the predominant use classification of the land.
Last Survey Date	The date of the last inspection conducted on a property.
Lead Agency	The agency code of the primary agency on a collocation lease agreement.
Lease Effective Date	The beginning date of a lease agreement or GSA assignment.
Lease Number	Unique number assigned to each lease agreement.
Lease Renewal Option	Number of years specified in lease for renewal.
Lessor POC	Lessor point of contact.
Lessor POC Address	Lessor point of contact full address.
Lessor POC E-mail	Lessor point of contact e-mail address.
Lessor POC Fax Number	Lessor point of contact fax number.
Lessor POC Phone Number	Lessor point of contact phone number.
Level of Involvement	Level of involvement of parties associated with agreements, i.e., grants.
Location	An identifier of up to 7 characters for the administrative organization responsible for a property. This is a required field in the Unique Asset Identifier (UAI).
Lot	Unit of land owned or leased as specified in the legal description of the agreement.
Monthly Rent	Monthly payment for space.
Multi-tenant	Indication whether a property is shared by more than one tenant.

Entity	Description
Mutual Beneficial	Indication of a mutually beneficial challenge agreement in place for a property.
Next Survey Date	Date of the next planned inspection to be conducted on the property for purposes such as maintenance.
Number of Card Readers	Total number of card readers located on a property.
Number of Days Effective	The number of days an agreement is effective.
Number of Federal Employees	Number of federal employees on a property.
Number of Individuals	Total number of individuals present on property.
Number of Leases	Total number of leases on the installation or sub-installation.
Number of Parking Spaces	Total number of parking spaces included in the agreement for a property.
Number of Part-Time Employees	Total number of part-time employees present on a property.
Number of Security Cameras	Total number of security cameras located on a property.
Number of Security Guards	Total number of security guards assigned to a property.
Occupant POC	Occupant point of contact.
Occupant POC Address	Occupant point of contact full address.
Occupant POC E-mail	Occupant point of contact e-mail address.
Occupant POC Fax	Occupant point of contact fax number.
Occupant POC Phone Number	Occupant point of contact phone number.
Occupant Type	Indication for type of tenant occupying the property.
Office Hours	The hours a property is open for business.
Office Number and Room Assignment	Office number or room assignment of a tenant or an occupant.
Office Status	Classification of new, closed, or relocated office.
Office Type	Categorization of office space as part-time office, area sub office, local sub office, or local office.
Org (see Admin Org)	A number of up to 7-digits that defines the managing organization of property for a location. Agencies have defined an org structure that fits each agencies managing organization. The org is the element that defines the access privilege for managing assets.
Partner Agency	Identification of a partner agency in a partnership agreement.
Period of Agreement	The length of time in years that is the initial term or the renewal term of an agreement.
Project Group	The category defining the type of asset, useful life, general ledger account and budget object code.
Property Status	Code designating the ownership of a property (USDA-owned, leased, GSA assigned).
Property Type	Code identifying an asset as a building, other structure, facility or land.

Entity	Description
Reimbursement	Total amount or reimbursement associated with a reimbursable agreement.
Renewal Options	Number of option periods for extending the agreement.
Rentable Square Feet	The actual occupiable area of a floor or an office; computed by measuring the finished surface of the office side of corridor and other permanent wall, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. No deductions are made for columns and projections necessary to the building. Not included in this calculation are common areas within the building.  The amount of space as defined in Building Owners and Managers Association (BOMA)/American National Standards Institute (ANSI) Standard z65.1-1966. This standard has been adopted in accordance with GSA's desire to adopt nationally recognized industry standards to the extent possible.
Research Number	Number identifying a specific research entity occupying a property.
Security Enhancement Cost	Total cost for security enhancements installed at a property.
Security Enhancement Date	Date the security enhancements were installed at a property.
Security Enhancement Type	Type of security enhancements installed at a property.
Security Equipment	An indicator that security equipment is present on the property.
Sequence Number	A 5-digit field (currently not used in the initial release of CPAIS).
Services Provided	The level of services provided at a leased property, either full or partial.
Shared Space	Identification that a leased property has more than one tenant.
Special Use	Identification of a special use permit on a property.
Floor Space	The square footage of a particular area in a given installation/building/facility.
Survey Result	Outcome of last inspection conducted on a property.
Telecommunications	An indicator that telecommunication equipment is present on the property.
Telecommunications Cost	Total cost for telecommunication equipment installed on the property.
Termination Clause	Indicator that an agreement has verbiage as to the ability to end an agreement early.
Title of Project	Title of the project associated with the occupation of a property.
Total Annual Rental Amount	Total amount paid annually for a leased property.

Entity	Description
Total Rentable Square Feet	The sum of all Rentable Square Feet for a building occupied by more than one agency under a collocation agreement.
Treasury Symbol	A 7 to 15-digit code assigned by the Department of Treasury through which Congress appropriates funds and reporting back to Treasury is accomplished.
Type of Agreement	Identification of the type of agreement on a property.
Type of Enhancement	Indicator of enhancements to a property.
Type of Improvement	Indicator of improvements made on a property.
Type of Program	Indicator for the program being conducted at a property.
Usable Square Feet	<p>The actual occupiable area of a floor or an office; computed by measuring the finished surface of the office side of corridor and other permanent wall, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. No deductions are made for columns and projections necessary to the building. Includes the common areas of the building or facility.</p> <p>The amount of space as defined in Building Owners and Managers Association (BOMA)/American National Standards Institute (ANSI) Standard z65.1-1966. This standard has been adopted in accordance with GSA's desire to adopt nationally recognized industry standards to the extent possible.</p>
USDA Phone Number	USDA point of contact telephone number.
USDA POC	USDA point of contact.
USDA POC Address	USDA point of contact address.
USDA POC E-mail	USDA point of contact e-mail address.
USDA POC Fax	USDA point of contact fax number.
Utilities Enhancement Cost	Total cost for enhancements of utilities on property.
Utilities Enhancement Date	Date of enhancements for utilities on property.
Utilities Enhancement Type	Type of enhancements for utilities on property.
Utilities Services	Identification of utilities services present on property.
ZIP Code and Suffix	A code assigned by the U.S. Postal Service for routing mail which consists of a 5-digit code which identifies a specific location for addressing mail and a 4-digit code which identifies a mail delivery route within a given ZIP code area.

## 2.3 PROPERTY MANAGEMENT DATA MODEL (ORACLE DESIGNER)

Table 2-3 shows the main data entities required to manage real property and the data elements associated with them (an Entity Relationship Diagram will be provided when completed). Definitions of these data elements can be found in Table 2-2.

Table 2-3. Data Entities and Attributes

Data Entity	Description	Attributes
Agreement	A legal document between USDA and a federal agency or a non-Federal entity that specifies the conditions under which the agency occupies a space managed by USDA or GSA.	transaction code fee term start date end date explanation of change easement rights cost allocation adjustment type adjustment date number of days effective termination clause services provided finance POC finance POC phone number finance POC fax number finance POC address finance POC email funding source allocation funding source amount budget source budget information funding source amount funding allocation agency agreement number common agreement number common vendor number COR COR POC COR POC address COR POC email COR POC fax number COR POC phone number cost per lease/consideration services provided vendor express number total annual rent amount monthly rent

Data Entity	Description	Attributes
		part year rent explanation of change lead agency Easement rights
Assignment	A legal document by which GSA grants the use of real estate or facilities for a specified term and for a specified monthly rental amount.	adjustment for GSA GSA space use code
Building	A physical structure that is leased or owned by USDA or is a GSA assignment..	building name building predominant use classification codes building measurement building negligible cost indicator historical building indicator
Challenge (Agreement)	An agreement of mutual benefit	mutual beneficial
Construction and Renovation	A program of building or improving a facility owned and managed by USDA.	security enhancement type security enhancement date security enhancement cost utilities enhancement type utilities enhancement date utilities enhancement cost infrastructure enhancement type infrastructure enhancement date infrastructure enhancement cost contractor POC contractor POC address contractor POC phone number contractor POC fax number contractor POC email
Cooperative (Agreement)	An agreement with non-federal entities to provide space and/or services to USDA or one of its agencies.	product
GSA Assignment	A specified area that is leased from GSA.	GSA property identifier adjustment for GSA
GSA OA	The occupancy agreement (OA) document defining the terms and conditions between GSA and USDA for the occupancy of a GSA managed property.	see Contract (Agreement)
Grant	Monetary or property related	level of involvement
Land	A lot or acreage that is leased or owned by USDA.	land use classification codes

Data Entity	Description	Attributes
		land location land measurement land acquisition method land acquisition cost land negligible cost indicator lot area/parcel
Lease	A legal document that grants the use of real estate or facilities for a specified term and for a specified monthly rental amount.	lease effective date lease number lease renewal option adjustment for USDA
Lessor	The entity that conveys property through a lease.	TIN number lessor POC lessor POC address lessor POC email lessor POC fax lessor POC phone number
Location	An identifier of up to 11 characters for the management organization responsible for a property.	Geographic Location Code (GLC) GSA region number Historical district installation address zip code and suffix congressional district GIS information
Occupant	The entity that occupies property under an agreement.	occupant type occupant POC occupant POC address occupant POC email occupant POC phone number occupant POC fax office number and room assignment office hours organization
Owned Property	A property that is owned by USDA.	date of acquisition depreciation information appraisal date appraised value acquisition cost date acquired from date acquired to
Permit	Agreement allowing usage of Federal property by a non-Federal entity.	special use
Program	The type of government program for which a property is being operated.	agency bureau code agency bureau name type of program commodity group

Data Entity	Description	Attributes
		total number of individuals federal employees part-time employees partner agency research number title of project
Property	Specified space, facility, land or building that is leased or owned by USDA or one of its agencies.	asset ID property type property status Installation ID heritage property stewardship property fair value highest and best use excess indicator historical indicator hazard code utilization data last survey date survey result baselining information deferral emergency task force next survey date change in mission GSA assistance needed USDA POC USDA phone number USDA email USDA fax cost per lease/consideration GSA property ID GSA classification treasury symbol
Reimbursable	Agreement	reimbursement
Security Measure	A step taken to ensure the security of a building: control entry, security guard, electronic equipment, etc.	number of security guards number of card readers number of security cameras security equipment
Space	The area in a facility that is occupied or available for occupancy.	square feet allocation rentable square feet usable square feet multi-tenant floor space free space shared space unique agency space office status change in mission number of leases

Data Entity	Description	Attributes
		predominant use code total square feet GSA assistance needed GSA space use code anticipated excess date deferral depreciation excess indicator excess square footage office type
Space Requirement	A specification of the need for space by an agency.	estimated cost estimated fee cost estimated square footage
Support and Maintenance	Performance or availability of a support activity such as repair or maintenance, concierge, etc.	number of parking spaces cleaning service utilities services disabled access daycare services antennae telecommunications concierge services
USDA Lease	A legal document that grants the use of real estate or facilities to USDA for a specified term and for a specified rental amount.	see Lease

## 2.4 RPA DATA MODEL

The major entities involved in Real Property Accounting are:

- ◆ Assets
- ◆ Subledgers
- ◆ Value Streams
- ◆ Depreciation
- ◆ Disposals

The database schema for Real Property Accounting consists of definitions for 47 tables. Appendix C, D and E contain the list of RPA tables, their corresponding columns as well as key and index listings.

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## 2.5 RPM DATA MODEL

The database schema for Real Property Management consists of definitions for 79 tables. Appendix E, F and G contains the list of RPM tables, their corresponding columns as well as key and index listings.