Appendix C – Element Attribute Dictionary

C.1 Element Naming Conventions

The Element Attribute Dictionary (EAD) – Element Naming Conventions provides a recommended schema and guidelines for creating standardized model element names. Standardization allows easy identification, filter and search capabilities in BIM and in schedules based on known descriptors. Conforming to a naming pattern in BIM also allows for better communication & coordination across project teams based on the readable model element names. The examples in the document are provided for implementation in Revit and can be used for any CAD or BIM authoring software. The Airport will partner with the project teams through a series of engagements to develop the element naming conventions.

LOADABLE FAMILY NAMES

Loadable families in Revit are elements that can be *"purchased, delivered and installed in and around a building"[1]*, such as:

- Building components, e.g. doors, windows, casework, fixtures, furnishings & equipment etc.
- System components or equipment, e.g. boilers, water heaters, air handlers and plumbing fixtures etc.
- Customizable annotation elements, e.g. symbols and title blocks

Family Name:	[Functional Type] _	[Subtype] _	[Descriptor 1] _	[Descriptor 2]
Required / Optional:	*Required, Use Asset Class from DVD*	*Required*	*As-needed*	*As-needed*

Implementation guidelines:
- Each family must have a unique name.
- The family name should describe how the element (product) is identified in the real world.
- Limit the use of acronyms to known industry terminology (e.g. AHU, VAV) or as approved by SFO.
- Keep the names short.
- The system category must not be included in the family name (unless the functional type is the same as the category, e.g. Door, Window)

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[1] https://knowledge.autodesk.com/support/revit-products/learn-explore/caas/CloudHelp/cloudhelp/2016/ENU/Revit-Model/files/GUID-A6600994-DFBE-4079-87F9-D6AC8681A915-htm.html

- Use 'CamelCase' (i.e. capitalize first letter of word without spacing) for family names
- When adding optional descriptors to family names, the order in which the descriptors are listed must ensure that the families appear in BIM and schedules in the most logical and intuitive order.
- Use an underscore (_) to separate fields in the family name.
- Performance range can be designated with a hyphen (-) separated range enclosed in parentheses, for example, (230-250Ton).
- Avoid using attributes that are part of the EAD Common Attributes Set, such as Model Number, Classification Codes etc., in the family or type name. OK to use Manufacturer as a Descriptor.
- Hierarchical order of descriptors may be determined by its importance or level of detail in describing the element using OmniClass Table23 Levels.
- To the extent possible within Identity Data, the family shall include the CSI Master Format numbering system in the keynote field and UNIFORMAT Assembly Code.

Examples:

Category	Family Name
Air Terminals	Grill_Return_LayIn_Eggcrate
Mechanical Equipment	Chiller_Absorption_Classic_(112-465)Tons
Mechanical Equipment	AHU_SplitSystem_Horizontal
Door	Door_Interior_Single_HollowMetal

Type Names

A type is a specific representation in a family defined by distinct parametric, graphical and documentation characteristics which makes it unique from other types in the family. The type name generally mirrors actual real-world usage, such as size, dimensions and/or capacity.

Implementation guidelines:
- Category or family name should not be repeated in the type name.
- Type names should indicate the key differences between types (size, count, material) and when applicable, reflect standard sizes.
- If the type is named by size, use the dimensions followed by the dimensions indicator, e.g. inch, feet, mm, or use industry standard conventions, e.g. W12x200.
- If the type is named by capacity, use the industry standard acronym for the unit indicator, e.g. CFM, Hz, A, V.

Examples:

Category	Family Name	Type Name
Air Terminals	Grill_Return_LayIn_Eggcrate	12inch x 12inch
Mechanical Equipment	Chiller_Absorption_Classic_(112-465)Tons	200Tons
Mechanical Equipment	AHU_SplitSystem_Horizontal	30000Btu
Door	Door_Interior_Single_HollowMetal	36inch x 84inch

Refer to the Revit Standard for further details about System Family Naming