

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

National Policy



Effective Date: 3/20/2019

SUBJ: National Facility Drawing Library Procedure

- 1. Purpose of This Order. The National Computer-Aided Engineering Graphics (CAEG) Program has the responsibility for establishing and maintaining the Federal Aviation Administration (FAA) CAEG Facility Library for all National Airspace System (NAS) national standard project and facility drawings. The Office of Primary Responsibility (OPR) of this document designates the official FAA Electronic Document Management System (EDMS) database repository to be Bentley ProjectWise. The OPR of this order is AJW-291, National Engineering Support.
- **a.** This order provides the guidance and procedures on how to prepare drawings and submit them to, or retrieve them from the EDMS. These activities include data processing, cataloging, secure storage, access, and retrieval.
- **b.** The information contained in the EDMS must comply with FAA Order 1375.1, Information/Data Management as well as FAA Order 1600.75, Protecting Sensitive Unclassified Information (SUI).
- **c.** This order prescribes the CAEG software suite and the current version of FAA-STD-002, FAA Standard Engineering Drawing Preparation and Support, as the required tools to be used in the creation of engineering project construction drawings for NAS buildings and facilities. This order covers the creation of new engineering drawings, the use of engineering drawing standards, access to current electronic engineering drawings, and policy changes.
- **d.** This order prescribes the CAEG Drawing Management Standard Operating Procedure (SOP) as the required process to manage and safeguard (e.g. security sensitivity labeling/markings) engineering drawings by the Air Traffic Organization (ATO) Engineering Services, Engineering Support, CAEG Program, and provides direction for obtaining engineering drawing services.
- **2. Audience.** This order applies to all FAA employees, contractors, consultants, and grantees who create, modify, handle, or access engineering data in the CAEG EDMS system.
- **3.** Where Can I Find This Order? You can find an electronic copy of this order on the Directives Management System (DMS) Website: https://employees.faa.gov/tools_resources/orders_notices/. Or go to the MyFAA Employee Website, select "Tools and Resources," and then "Orders and Notices." The https://employees.faa.gov/org/linebusiness/ato/operations/technical_operations/atc_facilities/national_engineering_support/caeg/documentation/.
- **4.** Cancellation. This order cancels FAA Order 6000.55B, National Facility Drawing Library Procedure, dated May 11, 2012.

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5. Explanation of Policy Changes. This order replaces FAA Order 6000.55B and reestablishes FAA-STD-002 as well as the CAEG Drawing Management SOP.

6. Roles and Responsibilities.

- **a.** The National CAEG Program is responsible for establishing standards, guidance, and procedures for implementing this order.
- **b.** FAA management and contracting officials at all levels must ensure that FAA employees, users, and system administrators use the approved software and adhere to this policy to configuration management policy as well as to FAA standards and notices as described in this order.
- **c.** FAA employees, contractors, consultants, and grantees must follow the standards, guidance, and procedures contained in this order when creating or modifying engineering drawings or models for the FAA.

7. Drawing Standards.

- **a.** A drawing is defined as any engineering document issued by an FAA headquarters organization or an engineering service area, prepared by the FAA or by an outside source, which graphically depicts a design standard or a regionally modified design to accommodate site-specific requirements, construction sets, or actual as-built conditions for a particular structure, facility, or equipment therein.
- **b.** Submitters must develop all drawings using the latest version of the FAA-STD-002. Submitters can find FAA-STD-002 on the FAA Intranet at http://caeg.faa.gov. Select "Documentation," and then select "FAA-STD-002."
- **c.** Certain drawings are subject to formal configuration management procedures as described in the latest version of Order 1800.66, Configuration Management Policy. Changes to any drawings under configuration management must follow the procedure as outlined in the order.

8. Procedures for New Drawings.

a. All NAS project or facility drawings prepared by the FAA or by outside sources must follow the drawing-numbering guidelines in the current version of FAA-STD-002. All new and revised drawings and/or models prepared by the FAA must be prepared and edited within the EDMS. Drawings must be submitted and stored within the CAEG EDMS, not on local computer hard drives or on other interactive group sites (such as Knowledge Services Network [KSN]). Submitters must coordinate any exceptions with the local CAEG staff, and they must agree to those changes. This ensures that drawings and/or models created by and for the FAA do not become orphaned. Submitters must deliver drawings prepared by outside sources (in electronic format) to the FAA CAEG drafting coordinator for storage within the EDMS. Any drawings or models created by the FAA or outside sources for the FAA are FAA property.

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b. The preferred vector file format for engineering drawings from outside sources is MicroStation (.DGN). The other acceptable vector format for engineering drawings from outside sources is AutoCAD drawing format (.DWG). The acceptable raster formats are the Portable Document Format (.PDF) and Tag Image File Format (.TIFF). Submitters must accompany all raster-file-format deliveries with the corresponding version of that file in the preferred vector file format. Any drawing format deliveries must be coordinated with the local drafting coordinator per FAA-STD-002.

c. The drawings will be stored in the CAEG EDMS until seven years after the facility shown in the drawings has been decommissioned and deleted.

9. Accessing Current Electronic Drawings.

- a. The CAEG Program currently uses the Bentley ProjectWise software for the EDMS systems. Users can find an updated drawing list using the EDMS. All users must have an FAA Active Directory login and password to gain access to the EDMS. Users will have to contact the National Service Center (NSC) to request the ProjectWise software installation. Users will need to have access to the FAA network and an FAA email address to be granted direct access to the local CAEG EDMS or other CAEG EDMS systems as needed. Local ProjectWise system administrators can assist with local access for users who meet the stipulations above.
- **b.** If users experience technical issues with ProjectWise, they should contact the NSC to request ProjectWise support.
- **c.** If users do not find the drawings they are looking for in a specific CAEG EDMS, they should contact the local ProjectWise system administrator or drafting coordinator (See paragraph 10. Requests for Information).
- **10. Requests for Information.** Users can find contact information for the CAEG program at http://caeg.faa.gov. The headquarters CAEG facility is located at FAA 10A, 800 Independence Avenue SW Washington, DC 20591.
- **11. Distribution.** This order will be distributed electronically.

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Appendix A. Definitions

Project drawings are typically associated with a specific project and JCN; used for the purpose of directing facility construction or equipment installation.

Construction drawings are a type of Project drawing, showing the design of buildings, structures, or the related construction, and are normally associated with the architectural, construction, and engineering operations. Construction drawings establish all the interrelated elements of the pertinent services, equipment, utilities and other engineering components.

Design drawings are another type of Project drawing, depicting future improvements, changes, or modifications to an existing facility. Alternatively, it may depict a future constructed state of a facility that currently does not exist.

Facility drawings are typically associated with a specific NAS facility; used for the purpose of indicating the as-built conditions showing how a facility was constructed or equipment was installed.

As-built drawings are a type of Facility drawing accurately depicting the physical location of equipment, or architectural components of, or within a facility. This includes showing the exact dimensions, geometry, and location of all project elements. The main purpose of an as-built drawing is to document all deviations from the Project drawings used for the equipment installation or architectural construction of that facility.

For **Record** purposes, all these drawing types are the signed and scanned PDF plots of the same 2D CAD files stored in ProjectWise.

Buildings vs Facilities

Buildings - Typically a permanent or temporary structure enclosed within exterior walls and a roof, and including all attached apparatus, equipment, and fixtures that cannot be removed without cutting into ceiling, floors, or walls.

Facilities - The infrastructure used to house, support and/or protect systems, subsystems or equipment.

National Standard Drawings

National standard drawings may be either construction or installation drawings generated for or by Washington Headquarters Program Offices, and depict standard design and installation requirements.

Regional Standard Drawings

Regional standard drawings are generated and maintained by the Regional Offices, Aeronautical Center or Technical Center, based on local requirements and are intended for their exclusive use.