



Division 340003

Record Documentation

DESIGN GUIDE

340003 Record Documentation

1 Title Information

1.1 Title Information Requirements

CWU has established minimum requirements for title information to include on deliverables. The requirements are not intended to restrict additional content or usage.

- A. For all deliverables, include CWU's project name, contract number, and design/ record phase on the cover, title, or table of contents page of each volume.
- B. For all deliverables except drawings, include a brief description of the record such as project manual, O & M manual, pre-design study, etc.
- C. For drawings, include CWU's project name, contract number, and design/ record phase on the title bar of each sheet.
- D. Title information requirements exclude documents where a permitting or review agency has specific requirements.

2 Requirements for Providing Copies

2.1 Copy Requirements

CWU has established minimum requirements for printing, electronic file formats, and the number of copies to provide.

2.1.1 Hard Copy Document Deliverables

- A. Provide 2 prints of each deliverable.
- B. Print hard copies on white, 20 lb. bond paper. Excludes paper such as card stock that is used for cover pages.
- C. The minimum color quality is determined by the relevance of color and shading for accurate depiction and reading of graphics, lines, fonts, etc.
- D. Print drawings to scale and full-size. Bind drawings with staples or binding posts and screws. The requirements exclude duplicates inserted into manuals, studies, or reports.



- E. Bind operation and maintenance manuals and related maintenance, inspection, or testing reports in 3-ring binders. Insert tab dividers labeled with the division number or name shown in the table of contents.
- F. Bind specifications, studies, reports and related records in comb binders, 3-ring binders, or binding posts and screws.

2.1.2 Electronic Copy Document Deliverables

- A. Provide one copy of all deliverables in the Adobe Acrobat PDF format.
- B. For drawings, provide one copy in the AutoCAD format. This is in addition to the Adobe Acrobat PDF format.
- C. Provide one copy of any deliverables created in the BIM format.

2.1.3 Information Management Systems

- A. Provide one electronic copy of all records stored in information management systems.
- B. Provide the records in their native file format.
- C. Include duplicates such as Adobe Acrobat PDF files that were converted from their native format.

3 Electronic Document Indexing and File Naming Requirements

CWU's objective is to ensure that electronic versions of record documents are as easy to search as traditional printed versions. To facilitate this, CWU has established document indexing and file naming requirements. They aren't intended to restrict other document formatting or organization.

- A. Document indexing is used to replicate searches where readers refer to a table of contents page and/ or tab dividers to find specific content.
- B. Document file naming is used to ensure that individual files have descriptive names that retain a sort order and identify their content.

3.1.1 Electronic Record Format Compliance

The electronic record format determines if compliance with indexing and naming is required.

- A. Records in PDF format comply with the naming and indexing standards.
- B. Records in the AutoCAD and BIM format comply with CWU CAD and BIM Standards.
- C. Records in information management systems retain their folder and document organization.

3.1.2 Instructions for Document Indexing and File Naming Requirements



CWU maintains instructions for meeting document indexing and file naming requirements. They aren't applicable for documents where a permitting or review agency has their own requirements.

- A. See Exhibit 1 for drawing requirements.
- B. See Exhibit 2 for specification requirements.
- C. See Exhibit 3 for operation and maintenance manual requirements.
- D. See Exhibit 4 for requirements for studies, reports, and related records.

340003 Record Documentation

Exhibit 1

Instructions for Indexing and File Naming Requirements for Drawings

Section 1: General Requirements

CWU requires that Adobe Acrobat PDF drawings be provided in complete volumes or sets, and that each sheet be provided as an individual file. Providing disciplines as individual files is optional.

Section 2: Indexing for Complete Sets

For the purpose of indexing, a complete set is defined as a complete volume, set, or discipline.

1. Use the PDF bookmarking feature.
2. Retain the original sort order shown in the table of contents.
3. Each sheet has a bookmark captioned with the sheet number and name.
4. For content with multiple disciplines, there is a bookmark for the main group, then indented bookmarks for the individual sheets.

Example 1, illustrating bookmarks for a complete set or volume:

General

- G-001 Index
- G-002 Vicinity Map

Architectural

- A-001 General Architectural Notes
- A-101 First Floor Plan – Overall

Mechanical

- M-001 Legends and Abbreviations
- MA-101 First Floor Plan Air Distribution

Example 2, bookmarks for a complete discipline:



Assume that the General, Architectural, and Mechanical disciplines shown in Example 1 are provided as separate files. Bookmarks will be identical to the indented sheet numbers and names.

Section 3: File Naming for Complete Sets

The file name for complete sets contains the minimum information described below. Following the listed order isn't required.

1. The project name.
2. The deliverable description expressed as either "Drawings" or "Dwgs".
3. The design or construction phase, such as "Record Set".
4. Volume information where applicable, which can be expressed as either "Volume" or "Vol".

Example 3, illustrating a file name that meets the minimum requirements:

Project Name - Record Drawings - Vol 1
Project Name - Record Drawings - Vol 2

Section 4: File Naming for Individual Sheets

1. Include the sheet number and exclude the sheet name.
2. Retain the default alphabetic sort order.
3. Substitute underscores (" _ ") for punctuation marks, such as "G-001" converts to "G_001".
4. Insert an underscore between letters and numbers, such as "FP101" converts to "FP_101".
5. When applicable, preserve the sort order of numerals by adding a leading zero to numbers 1 through 9. Follow the same pattern for increasing degrees of a digit count.

Example 4, illustrating file name requirements:

<i>Original Sheet Numbers</i>	<i>File Naming for Individual Files</i>	
Sheet Numbers in Original Sort Order	Convert to File Name Convention	Electronic Files Default to Alphabetical Order
G.1	G_01	A_01
G.2	G_02	A_09_a
A.1	A_01	A_09_b
A.9a	A_09_a	G_01
A.9b	A_09_b	G_02
M.1	M_01	M_01
M.10	M_10	M_10

Section 5: File Directories

Filing individual sheets in a directory is optional. In these cases, match the directory name to the discipline name.



340003 Record Documentation

Exhibit 2

Instructions for Indexing and File Naming Requirements for Specifications

Section 1: General Requirements

CWU requires that Adobe Acrobat PDF specifications be provided in complete volumes or sets. Providing each primary division and/ or subdivision as individual files is optional.

Section 2: Requirements for Indexing Complete Sets

For the purpose of indexing, a complete set is defined as a complete manual, volume, or division.

1. Use the PDF bookmarking feature.
2. Bookmark captions match titles of the table of contents.
3. For content that is divided into primary and secondary divisions, the bookmarks for the secondary division are indented under the main section. Follow the same organizational pattern for additional degrees of sectioning, such as an attachment.

Example 1, illustrating bookmarks for a complete manual or volume:

Division 01 General Requirements

- 01 1000 Summary of Work
- 01 1130 Hazardous Materials
 - 01 1130 Asbestos Survey
- 01 1400 Work Restrictions

Division 09 Finishes

- 09 2116 Gypsum Board Assemblies
- 09 9000 Painting and Coating

Example 2, bookmarks for a complete division:

Assume that Division 1 and Division 9 shown in Example 1 are provided as separate files. Bookmarks will be identical to the indented subdivisions.

Section 3: File Naming for Complete Sets



The file name for complete sets contains the minimum information described below. Following the listed order isn't required.

1. The project name.
2. The deliverable description expressed as either "Project Manual" or "Specifications". They can be abbreviated "Proj Manual" or "Specs" respectively.
3. The design or construction phase, such as "Bid Set".
4. Volume information where applicable, which can be expressed as either "Volume" or "Vol".

Example 3, illustrating a file name that meets minimum requirements:

Project Name – Bid Set Proj Manual - Vol 1

Project Name – Bid Set Proj Manual - Vol 2

Section 4: File Naming Requirements for Individual Divisions and/ or Subdivisions

1. Include the division number and title.
2. For content without a division number, such as "Table of Contents", use the title shown in the table of contents.

Section 5: File Directories

Filing individual subdivisions in a directory is optional. In these cases, match the directory name to the primary division name.

340003 Record Documentation

Exhibit 3

Instructions for Indexing and File Naming Requirements for Operation and Maintenance Manuals

Section 1: General Requirements

CWU requires that Adobe Acrobat PDF operation and maintenance manuals be provided in complete volumes or sets. Providing each primary section, division, subdivision, and/ or equipment manual as individual files is optional.

Section 2: Organizational Requirements

CWU requires that the content be organized by the division it matches in the specifications. Insert tab dividers for prints.



Section 3: Requirements for Indexing Complete Sets

For the purpose of indexing, a complete set is defined as a complete manual, volume, or division.

1. Use the PDF bookmarking feature.
2. Bookmark captions match titles of the table of contents.
3. For content that is divided into primary and secondary divisions, the bookmarks for the secondary division are indented under the primary content. Follow the same organizational pattern for additional degrees of sectioning, such as a specific equipment manual.

Example 1, illustrating bookmarks for a complete manual or volume:

Subcontractor and Supplier Listing

Division 3 – Concrete

033000 Cast-In-Place Concrete

Division 8 – Doors and Windows

081113 Hollow Metal Doors and Windows

081416 Wood Doors

087100 Door Hardware

088000 Glass and Glazing

Example 2, bookmarks for a complete section or division:

Assume that Division 3 and Division 8 shown in Example 1 are provided as separate files. Bookmarks will be identical to the indented contents.

Section 4: File Naming for Complete Sets

The file name for complete sets contains the minimum information described below.

1. The project name.
2. A descriptive deliverable name, such as “OM”, “Maint Manual”, or similar.
3. The drafting phase, such as “For Review” or “Final”.
4. Volume information where applicable, which can be expressed as either “Volume” or “Vol”.

Example 3, illustrating a file name that meets the minimum requirements:

Project Name - OM for Review - Vol 1



Project Name - OM for Review - Vol 2

Section 5: File Naming Requirements for Individual Divisions and/ or Subdivisions

1. Include the division number and title.
2. For content without a division number, such as “Table of Contents”, use the title shown in the table of contents.

Section 6: File Naming Requirements for Individual Equipment Manuals

1. Begin the name with the division number.
2. Finish the name with the title of the equipment manual.

Section 7: File Directories

Filing individual subdivisions in a directory is optional. In these cases, match the directory name to the primary division name.

340003 Record Documentation

Exhibit 4

Instructions for Indexing and File Naming Requirements for Studies, Reports, and Related Records

Section 1: General Requirements

CWU requires that Adobe Acrobat PDF studies, reports, and related records be provided in complete volumes or sets. Providing each section and/ or subsection as individual files is optional.

Section 2: Requirements for Indexing Complete Sets

For the purpose of indexing, a complete set is defined as a complete manual, volume, study, report, or related record.

1. Use the PDF bookmarking feature.
2. Bookmark captions match titles of the table of contents.
3. For content that is divided into main sections and subsections, the bookmarks for the subsections are indented under the main section. Follow the same organizational pattern for additional degrees of sectioning, such as an attachment.

Example 1, illustrating indexing requirements for a complete manual, volume, study, report, or related record:



Chapter 1. Executive Summary

Chapter 2. Introduction

Letter from the President

Strategic Plan

Endnotes

Example 2, for a complete section:

Assume that the chapters and endnotes shown in Example 1 are provided as separate files. Chapter 2 will have bookmarks identical to its indented sections.

Section 3: File Naming for Complete Sets

The file name for complete sets contains the minimum information described below.

1. The project name.
2. The deliverable description.
3. The drafting phase, such as "For Review" or "Final".
4. Volume information where applicable, which can be expressed as either "Volume" or "Vol".

Example 3, illustrating a file name that meets the minimum requirements:

Project Name - Commissioning Report Final - Vol 1

Project Name - Commissioning Report Final - Vol 2

Section 4: File Naming Requirements for Individual Sections

File names match the title in the table of contents. If the file names won't default to the content's original sort order, then beginning file names with numbers or letters to maintain the sort order is required.

Section 5: Folder Directories and Subdirectories

Use folder directories and subdirectories for organizing individual files as needed. In these cases, match the directory name to the title in the table of contents.