Design Records Appraisal Tool

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ABSTRACT

A common obstacle during the appraisal of design records is the specialized vernacular creators use to describe them. As a result, archival professionals may feel unprepared for discussions with potential donors while acquiring these distinct and sometimes problematic materials. Using authoritative architectural and archival sources, the authors expanded on existing literature to develop appraisal grid templates that generally align with different collecting institutions' missions and overarching development and retention policies and created a consolidated and comprehensive glossary of design phases, categories, and definitions to use as a reference. The authors hope that this resource will assist those who are unfamiliar with the design process to interpret disparate design record types, to inform the appraisal process, and ultimately, to make accessioning decisions.

KEY WORDS

Appraisal, Design records, Architecture, Drawings, Archives, Records management

Appraisal, during which records are selected for their determined historical, legal, administrative, and research value, is an important process in the life cycle of any collection.[1] While true of the appraisal of any archival or research collection, design and construction records have long posed additional challenges for archival professionals. Over the past twenty-five years, archival literature has helped them make difficult appraisal choices. This article seeks to expand on that literature and add another tool to archival professionals' toolbox.

In 1996, *American Archivist* designated the spring volume as a special issue on architecture. In it, Terry Cook rightly noted that appraisal of architectural records is paramount, as the documents may be the only evidence left of a building. "In studying the history and traditions of architecture, it may not be possible to look around and see the architect's physical monument: very often it no longer exists, or has been restored, refaced, reconstructed several times, reused for radically different purposes; or it may be located far away in another city or country. Therefore, the monument of the architect's work may not be the actual building, but the archival documents that give evidence of the building's plan, design, construction, use, and subsequent alteration and possible demolition."[2] Archival professionals struggle to understand all potential research value, and poor appraisal decisions could mean losing valuable historic documents. Therefore, as Richard Cox points out, it should not solely be up to them to appraise the collection; instead, it should be a collaborative and planned process. "The synergy comes from bringing together archival experts, records creators, subject specialists, and others in order to do one very important thing: think about objectives *before* examining any records. Appraisal of particular architectural fonds will be more meaningful. And the appraisal process will have the greater chance of being successful by a move from reactive analysis of specific records to planned appraisal."[3]

A variety of collecting institutions, with different missions and priorities, share these challenges inherent in selecting design records for acquisition. A clearly articulated collecting scope and an understanding of this landscape of potentially available records, and particularly design records, enables an institution to more efficiently and effectively complete the appraisal and acquisition processes.

Building upon the work published in the 1996 issue of *American Archivist,* Waverly Lowell and Tawny Ryan Nelb published their seminal work *Architectural Records: Managing Design and Construction Records* in 2006, a much-needed step forward in standardizing and sharing knowledge within the archival design community. The aim of this article is to expand upon the Appraisal Grid developed by Lowell at the Environmental Design Archives, at the University of California, Berkeley (see Table 1), and published by Lowell and Nelb. Collectively,

the authors of this article have decades worth of experience working in design records repositories and are intimately familiar with design phases, record types and generation methods, architecture terminology, and records retention best practices. Our Appraisal Tool templates offer guidance to several types of institutions on how to assess potential collection materials and raise considerations to account for the increasing amount of born-digital records. The templates distill the broad range of collecting institutions that currently hold and continue to actively collect design records into three general collecting scope categories: Special Collections, Facilities Management and University Archives, and Design/Engineering Firm Corporate Archives.

Table 1. Appraisal Grid

OFFICE RECORDS	Permanent	Retain for Documentation	Retain for Examples	Destroy or Transfer*	Case By Case	Reformat
Minutes of Meetings		X				
Financial Records				X		
Marketing Records	X					
Personnel Records				X		
Awards	X					
Correspondence with Publishers	X					
Clip Files/Tear Sheets	X					
DESIGN DEVELOPMENT						
Sketches	X					
Schematics	X					
Presentation Drawings	X					
CAD	X					X
CONSTRUCTION DRAWINGS						
Final Drawings/Record Set	X					
Site Plans	X					
Elevations	X					
Sections	X					
Floor Plans	X					
Bid Sets				X		
Field Sets				X		
Field Sets (if annotated)	X					X
Electrical Plans*				X		

CONSTRUCTION DRAWINGS, *continued*	Permanent	Retain for Documentation	Retain for Examples	Destroy or Transfer*	Case By Case	Reformat
Mechanical Plans*				X		
Plumbing Plans*				X		
Structural Plans	X					
As-Builts / Design Build	X					
Reproduction Masters						X
Details					X	
PROJECT FILES						
Photographs	X					
Slides	X					
Videos	X					X
Negatives	X					
Specifications (buildings)		X				
Specifications* (plumbing, electrical)				X		
Contracts		X				
Correspondence with Clients		X				
Correspondence with Contractors/Subs		X				
Legal Documents	X					
Daily Reports			X			
Weekly Reports			X			
Monthly Reports		X				
Consultant Reports			X			
Engineer Reports			X			
Tenant Improvements		X				
Architect Alterations	X					
Product Samples					X	
Punch Lists		X				
Models			X			
Transmittals				X		
Change Orders			X			
Bid Documents			X			
Telephone Notes		X				
Financial Statements/ Billing			X			

POST-CONSTRUCTION RECORDS	Permanent	Retain for Documentation	Retain for Examples	Destroy or Transfer*	Case By Case	Reformat
Public Response	X					
Publications	X					

* Return to firm or give to building owners

** Electrical, mechanical, and plumbing specifications: you may choose to retain these for some residencies but not for major projects

Courtesy of Waverly Lowell, Environmental Design Archives, University of California, Berkeley, licensed under CC BY-ND 2.0.

Design Records Considerations

The design of our built environment brings together a diverse range of professional disciplines and interest groups. These participants in the design process, from the architect and the client, to the specialized engineers on the consultant team, the code officials responsible for issuing the building permit, and the construction company that executes the plan, have distinct languages to describe their contributions to a project. This results in a rich and complex documentary record that presents an inherent challenge to conversations among archival professionals, between archival professionals and records creators, and sometimes within the records creators' communities themselves: differing terminology used to describe the variety of design records. While many records produced during the design process fall into familiar document categories such as financial records, personnel files, or meeting minutes, some archival professionals might be misled by industry-specific terminology not represented in common archival resources. For example, the term "schedule" as defined in the Society of American Archivists' (SAA) *Dictionary of Archives Terminology*[4] is "The process of identifying and describing records held by an organization, determining their retention period, and describing disposition actions throughout their life cycle." Whereas, in the design field, a schedule can be, among other things, "a supplemental list, usually in a chart form, of a project system, subsystem, or portion thereof."[5] To directly address this issue, we have included a glossary of terms to clarify for both archival professionals and design records managers the technical and nuanced aspects of design records that might be of interest to each type of collecting institution.[6]

The terms defined in the Appraisal Tool templates come from sources selected from different areas of the design and archival professions, most significantly the *Architect's Handbook of Professional Practice* (2013 edition), an extremely important resource for any built environment designer. References to the construction phases and established terms within the design profession, such as community engagement and financial records, are provided by several of the

American Institute of Architects' online resources. Although most sources come from the design profession, several are archival in nature, such as the Getty's *Art and Architecture Thesaurus* and, of course, Lowell and Nelb's *Architectural Records: Managing Design and Construction Records*. For terms in the glossary not sufficiently accounted for in the aforementioned resources, we generated definitions according to our professional experience and judgment. Comprehending terminology used within the design profession, from the architect to the construction company, can help archival professionals understand the materials prior to acquisition.

The customizable Appraisal Tool templates, which are divided by institution type, reflect both the general phases of architectural design and descriptions of record types relevant to a general collecting scope. These templates are intended to be used as a starting point for archival professionals to either compare or create new appraisal documentation. Rather than separate files by format, the introductory discussion for each template offers guidance about relevant concerns and considerations for born-digital design records specific to that institutional context.

Appraisal Tool Components

Each Appraisal Tool template lists record types relevant to each institution, organized into categories based on when the record is produced during the design process, followed by a recommendation about retention. This approach integrates the contextual information inherent in the relationships among records created together and makes the Appraisal Tools more intuitive for donors by matching their understanding of where records belong.

Phases of Architectural Design Projects

Regardless of design discipline, design projects typically move through a series of standard phases associated with particular types of records (see Table 2). These phases exist to manage the immense amount of multifaceted decision-making that occurs over the course of a project, but the phases vary by national context and can be customized according to the needs of the project or a firm's approach. While records specific to each phase may be collected comprehensively at the end of the project, sometimes the records may be collected on a rolling basis as they are produced. Understanding the phases of design and the timing of certain types of records generation will help archival professionals identify records or prompt them to ask the records creators more pointed follow-up questions when ambiguity arises.

The standard phases of design are shown in Table 2.

Table 2. Phases of Design[7]

DESIGN	
Phase	**Description**
Pre-Design/ Concept	Phase of the project in which the servicing firm aims to "assist the [client] in establishing the program, financial and time requirements, and limitations for the project." In practice, the pre-design or concept phase can occur as part of a proposal or competition submission or be built into the overall project schedule. Common deliverables during this phase include a programming document or booklet exploring the concept of the project and presentation materials (slide deck, presentation boards, presentation models).
Schematic Design (SD)	Phase of the project in which the servicing firm "consults with the [client] to ascertain the requirements of the building project and prepares . . . studies consisting of drawings and other documents illustrating the scale and relationships of the building components for approval by the owners." The servicing firm "also submits to the owner a preliminary estimate of construction cost based on current area, volume, or similar conceptual estimating techniques." The typical deliverable during this phase is a drawing set. Supporting specifications or a project narrative may be produced, but during this phase that document typically will be in a preliminary state. Major presentations to the client and larger groups of stakeholders often correspond with the conclusion of SD that produce slide decks and supporting presentation materials (boards, models).
Design Development (DD)	Phase of the project in which the servicing firm produces drawings that "fix and describe the size and character of the entire project with respect to architectural, structural, mechanical, and electrical systems; materials; and other elements as may be appropriate." Typical deliverables during this phase are a drawing set with specifications. Major presentations to the client and larger groups of stakeholders often correspond with the conclusion of DD that produce slide decks and supporting presentation materials (boards, models).

CONSTRUCTION	
Phase	**Description**
Construction Documents (CD)	Phase of the project in which the servicing firm produces "construction documents from the approved design development documents and assists the owner in the preparation of the bidding documents." The construction documents "[set] forth the requirements for the construction of the project." The typical deliverable during this phase is the final drawing set that is issued to be used for construction, with specifications.
Construction Administration (CA)	Phase of the project in which the servicing firm performs "general administration of the construction contract(s)." Tasks include "reviewing and certifying amounts due the contractor, reviewing the contractor's submittals, preparing change orders, making site visits to observe progress of the work, and conducting site inspections to determine dates of substantial completion and final completion." The flow of communication between the servicing firm, the contractor, any consultants or subconsultants, and the client becomes more formalized during this phase. Resultingly, most CA records are generated by that well-documented paper trail. Many photos are taken as the firm evaluates progress on the construction site.

POST-CONSTRUCTION	
Phase	**Description**
Project Close Out	Phase of the project in which the servicing firm meets "requirements established in the contract documents, acceptance, and final payment on a construction project." Deliverables for this phase usually include final documentation of the built asset, which the client or property owner uses for ongoing maintenance of the buildings. These include as-built drawings, operation and maintenance manuals, warranties, and specifications for materials and systems installed.
Post-Occupancy	Phase of the project that encompasses the servicing firm's and client's activities related to the project after construction is complete and the facility is being used and occupied. This can involve "services necessary to assist the owner in the use and occupancy of the facility" on the part of the servicing firm depending on the designated services forms of agreement. Most commonly, this encompasses the documentation of the finished structure/space with photos and video, along with the generation of promotional materials and writing to publicize the project's completion. In some cases, formalized post-occupancy study of the building is undertaken to evaluate the building's performance.

The "Design," "Construction," and "Post-Construction" categories offer a broad grouping for the records created within each phase. These categories are also present in the glossary to help provide context as semantics around phases may vary by institution type or level of direct involvement with records creators during a project.

Institution Policy Retention Decisions

Every repository will most likely have a records retention policy that addresses legal requirements for keeping specific records. Archives professionals should first follow an institution's records schedule. ". . . Records retention schedules typically factor in historical value to some degree, but the primary goal of records managers is to eliminate noncurrent records as quickly as possible. Keeping records beyond their legally required retention results in increased costs and risks for the records creators. If records are systematically and consistently destroyed according to established schedules, the records creator enjoys lower storage and maintenance costs, and avoids the need to produce those records in a court of law." [8] Thus, sometimes users' needs may not align with these schedules. When historically significant records or specific types of design records are not addressed, the suggestions that follow offer further guidance. We also recommend speaking with the records management department about updating schedules for these types of records. If the institution lacks a records management department or a records manager, the Appraisal Tool tables offer six retention decision recommendations to account for the variability of institutional repositories. They are as follows:

1. **Permanently Retain:** comprehensively keep in perpetuity
2. **Keep Approved Copy:** keep only the final version

3. **Active Document**: keep original and update a resource over time
4. **Temporary**: see institution's retention policy, which should adhere to legal standards such as those outlined by the American Institute of Architects (AIA)
5. **Sample**: keep a few for examples
6. **Dispose/No Retention**: records outside of collecting or retention scope

Overview of Appraisal

Appraisal is unique to each institution, and archival professionals should understand the implications of accepting a design collection before accessioning. Records retention requirements, legal guidelines, as well as storage, budgetary, or technology limitations determine collection policies. Prior to accessioning, archival professionals should use an Appraisal Tool template as a guide when talking to a donor or preparing for transfer of internal records to address the full range of potential collection materials available. Readers are invited to use the templates provided in this resource, making updates as necessary to accommodate their institutions' collecting policy or to adjust for each anticipated acquisition. Keep in mind institutional policies, storage availability, and staff knowledge while assessing a donor's records. Using the Appraisal Tool template with the donor at the beginning of the donation process will help to develop a shared understanding of researchers' interests, to address any concerns related to the size and scale of available design records, and to clarify the long-term needs of the collection. Accepting the entirety of a design collection is not always a fundamental requirement. Some collections have high research value, and accessioning the entire collection is necessary; however, most can be appraised prior to accessioning, and archival professionals should set expectations on what they hope to receive.

When deciding to accept a design collection, archival professionals agree to maintain access to the records over time. Costs associated with storing and maintaining access to design collections are the most significant barriers for archives. Physical records can include oversized items such as drawings, models, awards, and ephemera, which require large storage areas, processing space, and special supplies like oversized folders, flat files, tubes for rolled drawings, and custom-sized storage boxes. Digital records require storage space, knowledge of design software, and access to software licenses to enable viewing.

Born-digital design records pose many challenges related to technological dependencies that the archives must consider before acquisition to properly preserve and make the collections available. To fully understand these challenges, conversations with the designer about the following are often constructive: software and hardware obsolescence, software licensing, versioning and patches of software, their technological ecosystems, and cloud-based dependencies.[9]

Software applications change often and may lead to the loss of data or the misrepresentation of the designer's original intent. Designers will know and can share what software features are idiosyncratic. Archival professionals should ask if any features would be lost if nonproprietary or "light" versions of the software are used to view the files. Designers may concede that portable document format (PDF) images of the final design are sufficient to express their design intent and critical information about the design or project. If not, archival professionals can also ask donors to provide software licenses, which can then be written into donor agreements. In addition, budgeting for current and future yearly license fees is critical to avoid holding unreadable files. We recognize that many archives do not have individuals on staff with the necessary experience or the technical infrastructure to address such issues. These considerations for conversations with donors are listed as best-case scenarios to address before acquisition.

After a donation, archival professionals should thoroughly review the accession to confirm that all expected records have been received and to identify out-of-scope records and prepare them for immediate disposition if they have been accessioned. Born-digital design files have relational interdependencies, and archival professionals should check that the donated files are a complete package. Born-digital design files should be appraised to ensure files open correctly and complete designs with all relevant components can be viewed. Archival professionals should review files promptly as this makes it easier to ask for and receive missing reference files and to clarify and rectify any concerns with the donation.

Sometimes discrepancies and complications with design, construction, or contracts can result in legal action. Legal holds will require the archives to keep everything in the collection, even records not typically accepted, such as temporary records. Leaving the records with the design or project management teams until litigation has ended may be preferable. If this is not possible, archival professionals should wait to process the collection until the hold is over, creating a box- or folder-level inventory so it is easier to find files needed for litigation.

Design and construction collections vary as much as the repositories that hold them. These Appraisal Tool templates are meant to be used as examples and starting points. Recognizing that many institutions can be categorized across the three institution types discussed as follows, archival professionals should take into consideration the mission and needs of the repository, the collection, and the users to update or mix-and-match the templates accordingly.

Special Collections Appraisal Tool

In regard to collecting design records for special collections, the collection development policy should observe and reflect the mission of the archives

and its parent institution (see Table 3). The scope of the collecting institution should consider the records that include long-term use by researchers and eliminating any redundancy. It is also important to ". . . retain records that indicate the structure, procedures, and operations of the firms responsible for the design project."[10]

Another important step is to discuss intellectual property (IP) with the designer before acquisition. This can be addressed in the deed of gift. Transferring the IP to the archives is ideal; however, if it remains with the designer, all important details, such as reproductions and access, should be determined prior to acquisition. Also, if the designer is still practicing, we recommend determining how often the records will be transferred to the archives and establishing a retention policy to cover that frequency and the appropriate projects to be preserved within the archives. As previously mentioned, addressing any software-dependent records that will be transferred to the archives, of which the designer should have firsthand knowledge, is crucial. This will impact the preservation of and future access to the records.

The audience for design records may vary with special collections. The records may be used in partnership with archival professionals and faculty for collection-based instruction and projects for students. Researchers may also be interested in accessing the records for either scholastic efforts, including creating exhibits/exhibitions, or for historic restoration or renovation to extant structures reflected in the collection.

Table 3. Special Collections Appraisal Grid

FIRMWIDE RECORDS OR CAMPUS ADMINISTRATION RECORDS	POLICY
Contractual Records	Permanently Retain
Financial Records	Permanently Retain
PROJECT ADMINISTRATION	**POLICY**
As-Builts	Permanently Retain
Community Engagment	Permanently Retain
Directory	Permanently Retain
Meeting Minutes & Agendas	Permanently Retain
Regulatory	Permanently Retain
Reports	Permanently Retain
Schedule	Permanently Retain
CONCEPT, SCHEMATIC, AND DESIGN DEVELOPMENT	**POLICY**
Land Surveys	Permanently Retain
Program	Permanently Retain

Schematic Design/Design Development Sets by Discipline	Permanently Retain
Drawings	Permanently Retain
CONSTRUCTION ADMINISTRATION	**POLICY**
Photographs/Negatives/Slides/Videos	Permanently Retain
Progess Schedule	Permanently Retain
Change Orders	Permanently Retain
Design Log	Permanently Retain
Field Photographs	Permanently Retain
Field Reports	Permanently Retain
As-Builts/Design Build	Permanently Retain
CONSTRUCTION DRAWINGS	**POLICY**
Record Set	Permanently Retain
Schedule	Permanently Retain
Specifications	Permanently Retain
PROJECT CLOSE OUT	**POLICY**
Awards/Certifications	Permanently Retain
Conditions Assessments and Safety Records	Permanently Retain
Press and Publications	Permanently Retain
Project Dossier	Permanently Retain
Project Manual	Permanently Retain
Project-Related Ephemera	Permanently Retain

University Archives/Facilities Management Appraisal Tool

A variety of repositories, including university archives, project management or maintenance departments, municipalities, and utility companies, hold facilities collections. Maintenance staff, engineers, and architects typically use operational records while researching upcoming construction projects. In addition, other departments, such as safety, security, sustainability, and legal counsel, may use these records to assist in their job duties. Public affairs or archival professionals may also use these resources in exhibits.

Post-construction operational records are particularly important to this type of repository (see Table 4). This phase of a project produces records that the repository will need to maintain, including as-built drawings, operations and maintenance manuals, and an operations copy of the latest updates or changes, as well as documentation about what systems are currently in service. Because permits, fire alarms, and other equipment must be up-to-date

according to national and local code compliance, archival professionals should expect to receive safety assessments and reports as well.

Table 4. University Archives/Facilities Management Appraisal Grid

DESIGN	POLICY
Cost Estimates	Permanently Retain
Financial Records	Permanently Retain
Schedule	Keep Approved Copy
Community Engagment	Sample
Personnel Records	Temporary
Comprehensive RFP/RFQ/Competition Documentation	Keep Approved Copy
Contractual Records	Permanently Retain
Meeting Minutes & Agendas	Permanently Retain
Reports	Permanently Retain
Studies	Permanently Retain
Land Surveys	Temporary
Reviewed and Annotated Drawing Sets	Temporary
Physical Models	Sample
Bid Sets	Permanently Retain
Correspondence with Consultants	Permanently Retain
Conformed Construction Documents	Permanently Retain
Regulatory	Permanently Retain
CONSTRUCTION	**POLICY**
Comprehensive RFP/RFQ/Competition Documentation	Keep Approved Copy
Contractual Records	Keep Approved Copy
Financial Records	Keep Approved Copy
Correspondence with Consultants	Permanently Retain
Transmittals	Temporary
Request for Information (RFI)	Permanently Retain
Change Orders	Permanently Retain
Legal/Claims	Permanently Retain
Photographs/Negatives/Slides/Videos	Sample
Inspector Reports	Permanently Retain
Material Delivery/Material Tests	Temporary
Progress Schedule	Keep Approved Copy
Standard Details	Permanently Retain

Submittals	Keep Approved Copy
Shop Drawings	Keep Approved Copy
Specifications	Permanently Retain
Punch Lists	Permanently Retain
Permit sets	Permanently Retain
As-Builts /Design Build	Permanently Retain
Record Set	Permanently Retain
POST-CONSTRUCTION	**POLICY**
Equipment Index	Active Record
Operations and Maintenance Manuals	Active Record
Project Manual	Permanently Retain
Warranty	Temporary
Awards/Certifications	Active Record
Conditions Assessments and Safety Reports	Active Record
Geographic Information System (GIS) Files	Active Record
Press & Publications	Sample
Physical Models	Sample
Post-Occupancy Evaluation	Permanently Retain
Certificate of Occupancy	Permanently Retain
Project-related Ephemera	Sample
Project Dossier	Permanently Retain

Architects design buildings to last, and inevitably they will require ongoing maintenance and repair, equipment replacement, and complete renewals. These records are dynamic and in active use while the building is extant, therefore archival professionals and records managers should anticipate that these records may be updated and changed over time. If an existing building undergoes any renovations, records should incorporate those changes. Maintenance and field staff need current records for day-to-day operations and building emergencies; out-of-date records can result in lost time and frustration for all involved. Architects and engineers need current records so they can adequately scope new design projects. In this instance, outdated records can result in change orders, thereby increasing project costs for the client. Once building renovations are complete, clients should create as-builts of the new facility for future research use. This involves incorporating each of the separate projects into one collection of drawings and manuals for the entire building.

Because facilities documentation serves a variety of users, archival professionals should consider formats when speaking with and accepting files from donors. With the push toward born-digital records, design records creators may want to donate only files that require specialized software. Construction and facilities managers might not have access to the software needed to open these files. In addition, some might prefer to have either a hard-copy drawing in the field or a portable file that can be accessed on a tablet. Even if the repository purchases the necessary software, archival professionals might not have the technical skills to digest, manipulate, or deliver the files needed by the users. If storage of physical materials is not possible, archival professionals should consider requiring supplemental files that are software independent, such as Tagged Image Format Files (TIFFs) or PDFs.

Access to design and construction records for this institution type should be limited to internal staff due to the sensitive nature of the information included in the records. Whereas displaying shovels used in ground-breaking ceremonies, open ephemera collections, or contracts that were publicly put out to bid is appropriate, facilities repositories should limit access to as-built drawings such as structural and security systems drawings or photographs and manuals of equipment. "Archives routinely separate out the drawings of security systems from collections open to the public and may restrict these drawings sets to the people authorized to maintain these structures. There is little point in restricting access to information that can be ascertained by visiting the structure or site."[11] However, allowing access to sensitive building-related resources may expose an institution to unwanted risk. Drawings that illustrate structural assembly, security system components, and locations of priceless art and rare materials in the wrong hands can expose an institution to sinister intentions.

Design/Engineering Firm Corporate Archives Appraisal Tool

Corporate archives at design and engineering firms collect and preserve records generated in the course of operations for their enduring value. Firms may have explicit archival programs or a more informal system of permanently retained records. Regardless of the level at which a firm articulates its archival program, records management and appraisal are occurring.[12] Each design firm attributes different weights to company history, legacy, corporate intelligence/institutional memory, relationship building with repeat or new clients, and legal compliance while deciding which records to retain. A records retention policy will help make those implicit evaluations clear to ensure a firm's record-keeping is in line with its values and priorities. More guidance concerning the creation of a records retention policy can be found in "Retaining and Archiving Records" in *The Architect's Handbook of Professional Practice*, 14th edition.[13]

Project records document the design process and the deliverable products, both of which have inherent value; however, when space and other resources are limited, the archival professional should prioritize significant record documents (see Table 5). Recognizing that iteration is a critical part of the design process that often results in many slightly varying copies of files and drawing sets, archival professionals are encouraged to selectively weed to address potential excessive storage burdens. Records reflecting valuable institutional knowledge are more challenging to identify when the project team has undertaken no or limited curation of the project records prior to their transfer into the archival repository.

Design records within corporate archives are used by a range of individuals, from within and beyond the design community. At the firm, architects and engineers reference design records from past projects as part of their active work to understand how the firm has solved design problems previously or to refer to prior work for a repeating client. Marketing, communications, and special projects departments utilize materials from the archives to win new projects, attract clients, and present the firm's work publicly in press, publications, or exhibitions. Academic researchers contact firms to gain access to design records to study their work. Clients sometimes request drawings, specifications, or other documentation to support facility management, long after project close-out. A firm may consider how to maintain the archives for eventual acquisition by a special collection and may make smaller donations of project records to galleries, archives, or museums over time. The consideration that perhaps weighs most heavily on management's minds is that a firm's design records must be maintained to comply with legal guidelines governing projects and could be referenced as part of ongoing litigation or legal discovery.

In contemporary practice, most design records created throughout the life of a project are born digital, with a smaller proportion of analog materials like sketches, mark-up notations, and models.[14] This shift to digital may give design firms the illusion of endless storage and records existing in perpetuity. These conceptions can result in putting off important decisions to ensure long-term maintenance and accessibility of their records. When attempting to reference digital project records in their archives, firms may discover the compact discs (CDs) or Blu-rays on which they stored their files have degraded, they no longer have the software or hardware necessary to open files that are more than a few years old, or key links within computer-aided design (CAD) files have been moved or deleted.[15] We strongly recommend that the corporate archival professional work closely with the technology support staff within the firm to address these technical hurdles.

Additionally, questions of ownership and custody should be considered thoughtfully in an increasingly complex landscape of digital tools. Contractors

and consultants use proprietary content and information management platforms to ease collaboration. This can lead to the loss of records and information if that flow of documentation is not intentionally captured. An increasing reliance on cloud storage within businesses raises similar concerns of ownership and management.

Strategies to navigate the complex issues of digital preservation of design records are discussed in SAA's forthcoming Trends in Archives Practice publication, *Born-Digital Design Records*.[16] Appraisal is an important initial step in meeting those challenges: understanding what records are kept is the foundation for understanding how to maintain them for the long term.

Table 5. Design/Engineering Firm Corporate Archives Appraisal Grid

FIRMWIDE RECORDS	POLICY
Comprehensive RFP/RFQ/Competition Documentation	Permanently Retain
Contractual Records (including additional services)	Permanently Retain
Financial Records (including invoices and billing statements)	Temporary
Personnel Records	Temporary
Project Databases (e.g., https://www.knowledge-architecture.com/synthesis)	Permanently Retain
PROJECT ADMINISTRATION	**POLICY**
Meeting Minutes, Agendas (internal, clients, consultants)	Permanently Retain
Schedule	Permanently Retain
Directory	Permanently Retain
Community Engagement	Sample
Product Material Resarch	Keep Approved Copy
Reports (e.g., Geotech, traffic, soil survey, etc. from outside firm)	Permanently Retain
Sourced GIS Files	Permanently Retain
As-Built / Existing Conditions	Permanently Retain
Contextual Research (cultural, climate, etc.)	Sample
Regulatory (easements, zoning, permits, etc.)	Permanently Retain
Cost Estimates (drafts and final)	Permanently Retain
Correspondence with Clients (through life of project)	Permanently Retain
Correspondence with Consultants (through life of project)	Sample
Correspondence with Contractors/Sub/Prime (through life of project)	Sample
CONCEPT, SCHEMATIC, AND DESIGN DEVELOPMENT	**POLICY**
Program	Permanently Retain
Sketches	Permanently Retain

Studies	Sample/Depends on How Studies Are Used
SD/DD Sets of Architecture (includes plans, elevations, sections, details)	Permanently Retain
SD/DD Sets of Landscape Architecture	Permanently Retain
SD/DD Sets of Interiors	Permanently Retain
SD/DD Sets of Environmental Graphics/Wayfinding	Permanently Retain
Consultants Drawings	Permanently Retain
Presentations	Keep Approved Copy
Presentation Drawings	Permanently Retain
Reviewed and Annotated Drawing Sets (e.g., redlines)	Sample
Drafts of Master Plan	Sample
Physical Models	Sample
CONSTRUCTION DRAWINGS	**POLICY**
Incremental CD Sets (e.g., 50%, 75%, 100%) by Discipline	Permanently Retain
Reviewed and Annotated Drawing Sets (e.g., redlines)	Permanently Retain
Final Drawings/Record Set	Permanently Retain
Bid Sets	Permanently Retain
Field Sets	Temporary
Field Sets—If Annotated	Permanently Retain
Specifications	Permanently Retain
As-Builts / Design Build	Permanently Retain
Shop Drawings (including details)	Permanently Retain
Schedules	Permanently Retain
CONSTRUCTION ADMINISTRATION	**POLICY**
RFIs	Temporary
Permits	Temporary
Submittals	Temporary
Bulletins	Temporary
Transmittals	Temporary
Punch Lists	Temporary
Change Orders	Temporary
Decision Log	Permanently Retain
Project Manual	Permanently Retain
Bid Documents	Temporary
Field Photos	Sample

Field Reports	Temporary
Inspector Reports	Permanently Retain
Certification of Completion	Permanently Retain
Certification of Occupancy	Permanently Retain
POST-CONSTRUCTION	**POLICY**
Press and Publications	Sample
Awards Submissions	Sample
Awards Received	Sample (Document Objects Before Disposal)
Physical Models	Sample
Post Occupancy Data	Temporary
Facilities Support Documentation (e.g., equipment index, maintenance manuals)	Temporary
Project-Related Ephemera	Sample

Conclusion

This professional resource is intended to provide a foundation for archival professionals, records managers, facility managers, and other professionals responsible for collecting and providing access to design records for their institutions, as well as to aid any new archival professional unfamiliar with terms and records that are part of design collections. "Appraisal is the process of distinguishing records of enduring value from those of little or no value so that the latter may be eliminated."[17] The definition of "records of enduring value" varies across institution types, as well as within those institution types based on the collecting policies and records retention schedules, anticipated audience, and availability of resources. As records creators change their practices and collecting repositories adjust their collecting policies, the appraisal process must be revisited and seen as a continuously developing practice.

The appraisal process is also a balancing act of adhering to collection policy guidelines and embracing curiosity. The customized Appraisal Tool templates by institution types offer a starting point, or frame of reference, for practitioners to ask questions about what is currently in their collections and about future potential acquisitions. Being proactive in asking questions not only about the records available, but also about the ecosystem in which they were created and how they were used or disseminated internally and externally, will help ensure a more comprehensive understanding of what records have enduring value for an institution. This line of questioning will also expose potential barriers to

long-term preservation and access. The Appraisal Tool glossary aims to assist the archival professional with this interaction.

The Appraisal Tool also offers guidance on restrictions regarding design records that may not otherwise cross the mind of an archival professional. Archival records are frequently available after a timeframe set in accordance with personal privacy concerns; however, some design documentation continues to be active until a building is no longer extant. Drawings for structures inherently contain information that exposes weaknesses and vulnerabilities, and being aware of these can protect an institution's liability and the safety of the building.

Institutional records management offices exist to determine retention schedules based on use and state and local guidelines. When these policies do not specifically address design records, archival professionals can use the recommendations in this professional resource to make retention decisions and to provide valuable feedback to records managers. These recommendations are based on our experience with the utility of these records over time across a wide range of design records collecting repositories.

Every institution's contribution to collecting design records helps ensure a lasting memory of the built environment and, through a variety of collecting scopes, ensures that the broadest range of local, regional, and national spaces are documented.

Appendix A: Glossary

ORGANIZATIONAL RECORDS

Firmwide Records or Campus Administration Records

Term	Definition	Source
Comprehensive RFP/RFQ/ Competition Documentation	Documentation related to the solicitation process, in which an organization publicizes that a specific project is available for companies to place bids for the project's completion. On the organization's side, these include Requests for Qualification, Requests for Proposal, and supporting materials (background reading and administrative documents). On the firm's side, these include Qualifications, Proposals, letters of interest, correspondence (internal, with the potential client, and to coordinate with the consultant team), interview presentation slides, and research subject files.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135.
Contractual records	Documentation that forms the record for a legally enforceable agreement concerning services that are part of a design or construction project between two or several parties. Often in the context of a design project, these parties can include the design or engineering firm, the owner or client, the contractor, and firms or individuals within the consultant team. Record types can include the owner-architect agreement; conditions of the contract (general, supplementary, and other conditions); drawings, specifications, and addenda issued prior to execution of the contract; other documents listed in the agreement; modifications issued after execution of the contract; and additional services.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1122.
Financial records	Includes financial statements, checks, time sheets, expense reports, payroll, accounts receivable/payable, income tax returns, pension/profit-sharing records, billing statements and invoices.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 246–48.
Personnel records	Includes the application for employment, and records which are used or have been used to determine an employee's qualifications for promotion, compensation, termination, or disciplinary action.	Author generated
Project databases	Data related to projects contained in internal databases, project information management tools, other databases, or spreadsheets.	Author generated

PROJECT LIFE-CYCLE RECORDS

Project Administration

Term	Definition	Source
As-built / existing conditions	Drawings that reflect the record of the building project as constructed based on information the contractor provides to the owner under the contract for construction. Because the as-constructed record drawings are based on the contractor's markups, the architect is not responsible for their accuracy or completeness.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1118.
As-builts	Document "the actual finished structure, landscape, or object, including on-the-work-site changes, directly on the working drawings." In some instances, ". . . heavily annotated field sets that serve as the final record of the project as completed."	Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records* (Chicago: Society of American Archivists, 2006), 42.
Community engagement	Surveys, survey results, notes, sketches, correspondence, and other documents related to efforts on a project to conduct community-based participatory research.	Adapted from "Engaging Community," American Institute for Architects' Guides for Equitable Architecture, last modified 2019, http://content.aia.org/sites/default/files/2019-12/AIA_Guides_for_Equitable_Practice_08_Community_Engagement.pdf.
Contextual research	Subject files gathered during a project team's research about topics related to the project, including cultural, climate, or environmental information about the site and local community.	Author generated
Correspondence with clients	Includes incoming and outgoing letters, memoranda, and attached documents with the client through the life of a project.	Author generated
Correspondence with consultants	Includes incoming and outgoing letters, memoranda, and attached documents with consultants through the life of a project.	Author generated
Correspondence with contractors/ sub/prime	Includes incoming and outgoing letters, memoranda, and attached documents with contractors, subcontractors, and prime contractors through life of project.	Author generated
Cost estimates	Documents (drafts or final) related to the process of predicting the cost of a facility through quantitative analysis of the work required by the design documents, either in-house or by a third-party contracted firm.	Adapted from Michael D. Dell'Isola, "Detailed Cost Estimating" (excerpt from *The Architect's Handbook of Professional Practice, Update 2003*, Supplemental Architectural Services, AIA, 2003), 1.
Directory	Listings for all project entities and their key personnel, which can be prepared in a format the firm normally uses, or the entries can be printed from an email management program.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 588.

Project Administration or Project Close Out

Term	Definition	Source
Geographic Information System (GIS) files	Data used to view and manage information about geographic places, analyze spatial relationships, and model spatial processes. A GIS provides a framework for gathering and organizing spatial data and related information so that it can be displayed and analyzed.	"GIS dictionary," Esri, http://webhelp.esri.com/arcgisserver/9.3/java/geodatabases/definition.

Project Administration

Term	Definition	Source
Meeting minutes and agendas	A written record of project meetings that can include topics discussed and decisions made. Meeting minutes are considered "official business records" and may be introduced as evidence in a court proceeding and can be for internal, clients and/or consultants.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1129.
Product material research	Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the contractor or vendor to illustrate a material, product, or system for some portion of the work.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1132.
Regulatory	Documentation related to legally created restrictions or approvals issued by agencies governing the project site, including easements, zoning, permits, and variances.	Author generated
Reports	Geotechnical investigation: "The boring and sampling process, together with associated laboratory tests, necessary to establish subsurface profiles and the relative strengths, compressibility, and other characteristics of the various strata encountered within depths likely to have an influence on the design of the building." Reports could possibly be from traffic, soil surveys, Geotech, etc. from outside the firm.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1126.
Schedule	List of tasks and deadlines, usually by trades for tasks with a desired completion date, or project construction schedule/progress schedule/master schedule; a baseline sequence of events for ensuring that a project is completed in a timely and cost-efficient manner. This term has additional meaning, see Construction Drawings—Schedule.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135

DESIGN

Concept, Schematic, and Design Development

Term	Definition	Source
Conformed construction documents	Construction documents revised to reflect all changes issued by addenda during bidding prior to the start of construction. Preparation of conformed construction documents is an additional service to the consulting designer's basic services. These records may be referred to as part of the Bid Set.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1121.
Land surveys	An instrumental determination of land-surface limits or elevations and their subsequent plotting on a plan or map (e.g., Soil, Geothermal, Utilities, Topographic, Environmental Impact, Property Lines, etc.).	Baker H. Morrow, *A Dictionary of Landscape Architecture* (Albuquerque, NM: University of New Mexico Press, 1987), 329.
Drafts of master plan	A dynamic long-term planning document that provides a conceptual layout to guide future growth and development including conducting a site evaluation, identifying environmental requirements, evaluating existing buildings, and providing conceptual drawings for potential development.	Adapted from "Master Planning," Urban Regeneration, World Bank, https://urban-regeneration.worldbank.org/node/51; and "B203-2017 Standard Form of Architect's Services: Site Evaluation and Project Feasibility," American Institute of Architects, last modified 2017, https://www.aiacontracts.org/contract-documents/155121-standard-form-of-architects-services.
Physical models	A type of scale form, providing a three-dimensional visualization of a structure or space that may be built at a variety of scales.	Author generated
Presentation drawings	Presentation drawings are traditionally the most artistic renderings of the proposed design; often containing color, a sense of atmosphere, illustrations of people, and a variety of stylistic techniques. The term also can include plans, elevations, and other drawings that illustrate the architect's concept to external audiences who may have little to do with construction documentation.	Author generated, adapted from Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records* (Chicago: Society of American Archivists, 2006), 25–26; and International Council on Archives, Architectural Records Section, *A Guide to the Archival Care of Architectural Records: 19th–20th Centuries* (Paris: ICA, 2000), 136.
Presentations	Slide decks, reports, and other collateral prepared for showing and explaining the project to the client, the public, or other audiences, typically during meetings related to project milestones.	Author generated

Term	Definition	Source
Program	A written statement setting forth design objectives, constraints, and criteria for a project, including space requirements and relationships, flexibility and expandability, special equipment and systems, and site requirements; and documentation related to programming, the research and decision-making process that defines the problem to be solved by design.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1133.
Reviewed and annotated drawing sets	Drawings and specifications that have been marked up with errors, changes, and revisions, often during a firm's iterative formal quality assurance and review process. Typically these documents are produced as the drawings reach levels of completion, for example: 30%, 60%, 90%, or 25%, 50%, 75%. These records may be referred to colloquially as "redlines."	Author generated
Land surveys	Collection of drawings issued by the creator/designer/firm and associated consultants at the completion of each preconstruction phase of a project, which are typically schematic design and design development.	Author generated
Sketches	Often a designer's earliest creative drawings, typically "freehand representations of ideas or digital drawings, including spatial relations, massing of elements, and exterior design components . . . documenting the creative design process."	Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records* (Chicago: Society of American Archivists, 2006), 23, 37.
Studies	An iterative design tool, intended to explore an aspect of the structure or project footprint, typically at scale or incorporating analytical information such as climate, topography, circulation, or lighting.	Author generated
Drawings	Graphic and pictorial documents depicting the design, location, and dimensions of the elements of a project. Drawings generally include plans, elevations, sections, details, schedules, and diagrams.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1124.

CONSTRUCTION

Construction Administration

Term	Definition	Source
Bid/bidding documents	The documents required to bid or negotiate the construction contract, including the bidding requirements, contract forms, contract conditions, specifications, drawings, and addenda.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1119.
Bulletins	Used by designer or engineer to issue changes after bid proposals are submitted by the bidding contractors, and probably after the contract is signed between the owner and the successful bidder. Revisions issued via a bulletin may have cost impact and may qualify for change orders.	Gang Chen, *Architectural Practice Simplified* (Outskirts Press, 2009), 132.
Certification of completion	Standard form for recording the date of substantial completion of the work or a designated portion thereof. The contractor prepares a list of items to be completed or corrected following substantial completion, and the architect verifies and amends this list. If the architect finds that the work is substantially complete, the form is prepared for acceptance by the contractor and the owner, and the list of items to be completed or corrected is attached.	"G704–2017 Certificate of Substantial Completion," American Institute of Architects, https://www.aiacontracts.org/contract-documents/155061-certificate-of-substantial-completion.
Certification of occupancy	Document issued by a governmental authority certifying that all or a designated portion of a building is approved for its designated use.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1120.
Change orders	Contract modifications (e.g., additions or changes after the contract is signed, such as orders for minor changes in the work, construction change directives, and change orders).	American Institute of Architects, "Construction Documents," in *Emerging Professional's Companion* (2013), http://content.aia.org/sites/default/files/2017-03/EPC_Construction_Documents_2F.pdf.
Decision log	A list of critical decisions agreed upon throughout the project, as is beneficial for recording impactful decisions and serving as a central repository for those decisions.	Brenda Hallman, "The Why What and When of a Decision Log," *Project Times*, https://www.projecttimes.com/articles/the-why-what-and-when-of-a-decision-log.html.
Field photographs	Images taken on-site throughout construction to document the progress and identify and/or document any areas of concern.	Author generated
Field reports	A required report made when the architect visits a construction site to keep the owner apprised of construction progress and the quality of work being completed. It is a record of a project's progress, job site decisions, and concerns and is typically issued by the architect after each field visit.	"Glossary of Terms," Procore, last modified July 1, 2020, https://support.procore.com/references/construction-management/glossary-of-terms.

Term	Definition	Source
Inspector reports	These may concern the inspection or testing of various code and safety components such as alarm, fire protection, and septic system. Project construction cannot proceed unless all the code and safety requirements are met, and these reports document compliance. These should be prepared by a representative of a governmental authority employed to inspect construction for compliance with applicable codes, regulations, ordinances, and permit requirements.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1121 and Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records* (Chicago: Society of American Archivists, 2006), 66.
Legal/claims	Correspondence, case files, and other records from attorneys, contractors, or outside parties generated by litigation concerning the project. Can include weather or other claims. Claims: A demand for money, services, or property based upon a right usually found in contract or by operation of law. In a claims-made insurance policy, coverage is triggered by reporting a claim made during the policy period, such as a demand for money or services made by a client accompanied by an allegation of a wrongful act.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1120.
Material delivery/ material tests	Record of materials delivered to construction site. Tests to ensure equipment or supplies including concrete, sand, silt, slump test. These records may also be referred to as "acceptance tests," which are conducted by a purchaser (or an agent thereof) (a) to determine if the materials, devices, or equipment delivered conform to the purchase contract specifications and/or (b) to determine the degree of uniformity of the product supplied by the vendor.	Cyril M Harris, *Dictionary of Architecture and Construction* (McGraw-Hill, 2006), 5.
Permit	A governmental municipal authorization to perform a building process.	"Permit," Dictionary of Construction Terminology, Complete Design, Inc., https://www.completedesign.cc/client-resources/dictionary-of-construction-terminology/509-permit.
Photographs, negatives, slides, and videos	Visual documentation of construction progress, products, ceremonies, etc. and other events related to the construction process.	Author generated
Progress schedule	"(1) Of project construction/progress schedule/master schedule: a baseline sequence of events for ensuring that a project is completed in a timely and cost-efficient manner. (2) Of submittals: a sequence of required submittals closely coordinated and correlated with the project schedule." Definition found under Schedule.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135.

Term	Definition	Source
Project manual	Documents comprised of a project description, including overviews of activities or products to be realized, and instructions for the project organization and methods, tools, and the definition of standards used.	"Art and Architecture Thesaurus Online," Getty Research, last modified 7 March 2017, http://www.getty.edu/vow/AATFullDisplay?find=bid&logic=AND&note=&subjectid=300027686.
Punch lists	"[G]enerated at the end of construction and comprises an itemized list of elements that are incomplete or unacceptable to the client or the designer, such as missing latches, broken tiles, or more serious complaints."	Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records* (Chicago: Society of American Archivists, 2006), 67.
Request for Information (RFI)	Used in construction to clarify any uncertainties or to fill in any gaps in information that may be found in any specifications, plans, contracts, or other documents, from one party of a contract to another. Most commonly in a construction context, this is from a contractor to the client's consultant team.	Adapted from Tyler Riddell, "What Is an RFI in Construction: Best Practices for the Subcontractor," eSUB Construction Software, November 30, 2018, https://esub.com/the-rfi-and-its-implication-for-the-subcontractor/; and R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135.
Standard details	Refers to detailed design specifications that are predetermined by the building owner/management (in conjunction with an architect or design professional). May be referred to as building standard.	U.S. General Services Administration, "Design Intent Drawing: Review Guide" (2016), https://www.gsa.gov/cdnstatic/DID_Review_Guide_Final.pdf.
Submittals	Documents and physical samples prepared by the contractor, subcontractors, suppliers, or manufacturers that describe in detail how the contractor will construct the work, submitted to the design professional for its review and processing. Submittals are closely scheduled and coordinated with the project construction schedule and include shop drawings, project data, physical samples, and similar submittals, which can include coordination drawings, details, calculations, and other supporting data as specified.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1123.
Transmittals	A record that acts much like a packing slip to record the documents, drawings, goods, materials, samples, and supplies that are transferred between entities on a project.	Rachel Novotny, "Transmittals and Submittals in Construction: What Is the Difference?," eSUB Construction Software, July 5, 2019, https://esub.com/the-rfi-and-its-implication-for-the-subcontractor/ https://esub.com/transmittals-and-submittals-in-construction-what-is-the-difference/.

Construction Drawings

Term	Definition	Source
As-builts / design build	These drawings are intended to represent the finished condition of a newly built structure. Architects and designers are usually responsible for compiling this final drawing set, but because they are not always on-site to see work being performed firsthand, they rely on drawing markups from contractors in the field. Records may come directly from consultants and subconsultants. Contractual documents, therefore, are likely to place responsibility for as-built accuracy with the contractor.	Josh Newland, "Generating As-Built Drawings as a Project Gets Built," *The Construction Specifier*, October 23, 2015, https://www.constructionspecifier.com/generating-as-built-drawings-as-a-project-gets-built/.
Bid sets	A formal offer by a contractor, in accordance with specifications for a project, to do all or a phase of the work at a certain price in accordance with the terms and conditions stated in the offer.	Adapted from "Bid," Dictionary of Construction Terminology, Complete Design, Inc., https://www.completedesign.cc/client-resources/dictionary-of-construction-terminology/822-bid.
Field sets	A set of drawings or specifications used in the field (construction site), typically an issued or updated set from the architect.	Author generated
Field sets (if annotated)	Annotations may indicate installed conditions or identify aspects of the design the contractor will ask via RFI for the architect to clarify or update the drawings and specifications accordingly. These marked-up drawings and specifications may be referred to as "redlines."	Author generated
Incremental construction drawings (CD) sets by discipline	These drawing and specification sets "show, in graphic and quantitative form, the extent, configuration, location, relationships, and dimensions of the work to be done. They generally contain site and building plans, elevations, sections, details, diagrams, and schedules. In addition to drawn information, they may include photographs, other imported graphics, and printed schedules." Sets of drawings are completed iteratively, which produce both a submitted and reviewed set at percentage milestones such as 25%, 50%, 75%, 100%. The reviewed records may be referred to colloquially as "redlines."	American Institute of Architects, "Construction Documents" in *Emerging Professional's Companion* (2013), http://content.aia.org/sites/default/files/2017-03/EPC_Construction_Documents_2F.pdf.
Permit sets	Drawings submitted with permit applications for review by municipalities prior to construction.	Author generated
Record set	Final drawing set that is prepared by the architect, landscape architect, or engineer of record and reflect on-site changes the contractor noted in the as-built drawings. They are often compiled as a set of on-site changes made for the owner per the owner's architect or contractor.	U.S. General Services Administration, "Design Intent Drawing: Review Guide" (2016), https://www.gsa.gov/cdnstatic/DID_Review_Guide_Final.pdf.

Construction Drawings

Term	Definition	Source
Reviewed and annotated drawing sets	The redline drawings record the changes that have occurred during review of construction drawing sets and during the construction process. Edits from these reviews are incorporated onto the plans manually and/or are electronically prepared by the construction administrator. The field redline set and other miscellaneous documents will be provided by the construction administrator for the preparation of the revised as-built drawings.	American Institute of Architects, "Construction Documents," in *Emerging Professional's Companion* (2013), http://content.aia.org/sites/default/files/2017-03/EPC_Construction_Documents_2F.pdf.
Schedules	These appear in construction drawings and account for the door, hardware, finish, window, fixture, and equipment used on the project. Both drawings and specifications may include a supplemental list, usually in chart form, of a project system, subsystem, or portion thereof.	Adapted from American Institute of Architects, "Construction Documents," in *Emerging Professional's Companion* (2013), http://content.aia.org/sites/default/files/2017-03/EPC_Construction_Documents_2F.pdf; and R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135.
Shop drawings	Drawings, diagrams, schedules and other data specially prepared for the work by the contractor, or a subcontractor, sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the work. These can be grouped or filed with submittals and may address a broad spectrum of design elements including details.	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135.
Specifications	"Written requirements for materials, equipment, and construction systems, as well as standards for products, workmanship, and the construction services required to produce the work. May be received as separate documents, or incorporated into the drawings."	Adapted from R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1136.

POST CONSTRUCTION

Project Close Out

Term	Definition	Source
Awards and certifications	Recognition, achievements, or designation compliance (including recertifications). Includes submissions to award agencies and awards received, including physical awards, photographs of awards, and certificates. This may apply to certifications for historic designation, sustainability, and others.	Author generated
Certificate of occupancy	A document issued by a local government agency or building department certifying a building's compliance with applicable building codes and other laws, and indicating it to be in a condition suitable for occupancy.	*West's Encyclopedia of American Law*, edition 2, s.v. "Certificate of Occupancy," https://legal-dictionary.thefreedictionary.com/Certificate+of+Occupancy.
Conditions assessments and safety reports	Written documentation, potentially from external sources, regarding testing and assessing the stability, reliability, and safety of structures or equipment, which may be required by local, state, and federal guidelines. Examples of reports include Arc Flash, NFPA, condition assessments.	Author generated
Equipment index	List of products, manufacturers, retailers, and serial numbers so replacement parts and pieces can be ordered. Lists can be imported into databases or used in an in-house system.	Author generated
Operations and maintenance manuals	Documents that include equipment specifications and schedules, drawings, and overall information needed to maintain installed equipment.	MIT Department of Facilities, "MIT Design Standards BIM and CAD Drawing Standards v6.0 Thematic Folder," Facility Information Systems, MIT Infrastructure Business Operations, November 1, 2016, https://web.mit.edu/facilities/maps/MIT_CAD_BIM_guidelines.pdf.
Physical models	Three-dimensional representations of the as-built structure or site, often part of contract deliverables to clients, but occasionally kept for exhibition in or outside the firm.	Author generated
Postoccupancy evaluation	"An evaluation by an architect of the performance of a building. Application varies widely in scope, as an evaluation may take place at any time after the building is occupied and may address one or more aspects of the performance of a building."	L. Hayes, ed. *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1132
Press and publications	Any documentation or reporting provided to the public regarding the project in print or digital format.	Author generated

Project Close Out		
Term	**Definition**	**Source**
Project dossier	Produced by the designer to articulate overarching themes or critical decision-making practices, also referred to as a "narrative of the design process through construction."	Author generated
Project manuals	Documents comprised of a project description, including overviews of activities or products to be realized, and instructions for the project organization and methods, tools, and the definition of standards used.	"Art and Architecture Thesaurus Online," Getty Research, last modified 7 March 2017, http://www.getty.edu/vow/AATFullDisplay?find=bid&logic=AND&note=&subjectid=300027686.
Project-related ephemera	Materials, may include printed documents, created for a specific, limited purpose, and generally designed to be discarded after use. Examples include, but are not limited to novelty shovels, hard hats, jars of soil celebrating a building's groundbreaking, internal promotional materials, speaking engagement collateral.	Author generated
Warranty	Legally enforceable assurance of quality or performance of a product or work or the duration of satisfactory performance.	R. L. Hayes, ed., *The Architect's Handbook of Professional Practice*, 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1138.

Appendix B: Related Reading

American Institute of Architects. *The Architect's Handbook of Professional Practice,* 14th ed. Hoboken, NJ: John Wiley & Sons, 2008.

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Notes

1 Society of American Archivists, s.v. "appraisal," *Dictionary of Archives Terminology*, https://dictionary.archivists.org/entry/appraisal.html, captured at https://perma.cc/97PM-DMC9.

2 Terry Cook, "Building an Archives: Appraisal Theory for Architectural Records," *American Archivist* 59, no. 2 (1996): 137, https://doi.org/10.17723/aarc.59.2.9016827w6t4271wl.

3 Richard J. Cox, "The Archival Documentation Strategy and Its Implications for the Appraisal of Architectural Records, *American Archivist* 50, no. 2 (1996): 154, https://doi.org/10.17723/aarc.59.2.a63421672782h178.

4 On April 29, 2020, the Society of American Archivists announced that the resource *A Glossary of Archival and Records Terminology* was superseded by the *Dictionary of Archives Terminology* (DAT).

5 American Institute of Architects, *The Architect's Handbook of Professional Practice,* 15th ed. (Hoboken, NJ: John Wiley & Sons, 2013), 1135.

6 As of March 2021, the authors reached out to the Dictionary Working Group regarding submitting terms from the following glossary for inclusion in the DAT. A small team of volunteers from the Digital Design Records Taskforce are currently working to complete the submission guidelines that require citations with usage context in addition to the definition and source listed in the "source" column of the glossary.

7 American Institute of Architects, *The Architect's Handbook of Professional Practice,* 15th ed., 1122, 1132–35.

8 Kathryn A. Scanlan, "ARMA v. SAA: The History and Heart of Professional Friction," *American Archivist* 74, no. 2 (2011), 448, https://doi.org/10.17723/aarc.74.2.b52104n3n14h8654.

9 Jody Thompson, Euan Cochrane, Aliza Leventhal, Laura Schroffel, and Emily Vigor, "Emerging Best Practices in the Accession, Preservation and Emulation of Born-Digital Design Materials," in *Born-Digital Design Records*, ed. Stacie Williams and Samantha Winn (Chicago: Society of American Archivists, forthcoming), 120–23.

10 Waverly Lowell and Tawny Ryan Nelb, *Architectural Records: Managing Design and Construction Records* (Chicago: Society of American Archivists, 2006), 37.

11 Lowell and Nelb, *Architectural Records*, 161.

12 Kathryn Pierce, "Collaborative Efforts to Preserve Born-Digital Architectural Records: A Case Study Documenting Present-Day Practice," *Art Documentation Journal of the Art Libraries Society of North America* 30, no. 2 (2011): 47.

13 American Institute of Architects and Evan H. Shu, "Retaining and Archiving Records," in *The Architect's Handbook of Professional Practice,* 14th Edition (Hoboken, NJ: John Wiley & Sons, 2008), 445–57.

14 Aliza Leventhal, Julie Collins, and Tessa Walsh, "Of Grasshoppers and Rhinos: A Visual Literacy Approach to Born-Digital Design Records," *American Archivist* 84, no. 2 (2021).

15 For a discussion regarding the challenges posed by born-digital design records for architecture and engineering firms, see Aliza Leventhal, "Designing the Future Landscape: Digital Architecture, Design & Engineering Assets" (Washington, DC: Library of Congress, 2018).

16 For detailed information on digital preservation of design records, see Thompson, Cochrane, Leventhal, Schroffel, and Vigor, "Emerging Best Practices in the Accessioning, Preservation, and Emulation of Born-Digital Design Materials."

17 Next Generation Technical Services POT 3 Lightning Team and the UC Guidelines Revision Project Team, "Guidelines for Efficient Archival Processing in the University of California Libraries," v. 4 (University of California Systemwide Libraries, 2020), https://escholarship.org/uc/item/4b81g01z.

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