Oklahoma State University Geospatial Systems

Requirements for University Project Archive Submittals

Facilities Management's and Energy Services' Geospatial Systems (GeoSys) department maintains and manages the University'sConstruction Plan Archive. Similarly, it is Geospatial's responsibility to support the OSU building inventory which includes building names, building numbers, and room numbers for all renovation and construction projects. Geospatial is the point-of-contact for the submittal of issued construction documents and record/as-built submittals for permanent storage in the University's archives.

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Building Names, Building Numbers, and Room Numbers

1. The Use of Building Names in Project Documents

Only official building names from OSU's system of record for the University's facilities inventory (maintained in Archibus) should be used in all project communications. Official building names shall be incorporated into project cover sheets and other plan sheets.

Board of Regents policy stipulates that without specific Board action to adopt a name for a building, the name of a new building will be the name that appears on the construction documents at the time of bidding. Therefore, careful thought needs to be given to placing a new building name on a set of plans, especially on the cover sheet. GeoSys will use the name on the cover sheet to assign the official name to the new building; and once the name is made official, it requires Board action to change it.

According to Board Policy, the project name for the new building will be assigned by Facilities Management (FM) or Long-Range Facilities Planning (LRFP) during the design phase of the project in consultation with appropriate University administrators and in consultation with the University department or departments sponsoring the project. Project managers are to coordinate with the GeoSys Manager or CAFM Specialist for the assignment of building names, building numbers, and room numbers.

2. The Assignment of Building Numbers

GeoSys assigns building numbers to new buildings when they are added to the facilities inventory. New buildings are commonly added to the inventory during the design phase of their construction. Building numbers may be requested after the project design work has been authorized by the Board of Regents. Official building numbers shall be incorporated into project cover sheets and other plan sheets.

Note: GeoSys maintains the facilities inventory of all buildings in the OSU System of campuses. GeoSys assigns building numbers for new buildings at these sites. These entities include OSU-Stillwater, OSUIT, OSU-OKC, OSU-Tulsa, OSU-CHS, all experiment stations, and remote research facilities.

3. The Assignment of Room Numbers

Prior to the completion of project designs, the project's manager shall deliver, or arrange for the project's design team to deliver floor plans to GeoSys, for the assigning OSU room numbers. To keep from producing many versions of room numbers, the floor plans should not be submitted for room numbering until room layouts are well established. Floor plans shall be submitted to GeoSys in AutoCAD drawing format in accordance with Section 8. Thefloor plans shall be 2D drawing files containing all walls, overhangs, columns, windows, doors, wall openings, casework, and room use labels.

Notes: Only official OSU room numbers shall be used to label rooms and building service panels. (2) Even the relocation of one room door during construction may necessitate a change in multiple room numbers. Submit door and wall changes to GeoSys during construction and prior to labeling work. (3) Only room numbers issued by GeoSys will be used in OSU's official inventory records and floor plans.

GeoSys does not assign room numbers for OSU-IT, OSU-OKC, OSU-CHS, or OSU-Tulsa.

4. The Assignment of Building Addresses

GeoSys assigns addresses for new buildings on the OSU Stillwater campus. Addresses are commonly requested during the design phase of construction.

Submittals for Archiving

Note: The following requirements apply to construction projects for all OSU System campuses, experiment stations, remote research sites, and other land or locations in which the OSU System has ownership of or lease interest in facilities. This includes facilities constructed on OSU-owned property that is leased to other parties for either short-term or long-term use of land and facilities intended for conveyance to the University.

5. Archive PDF File Requirements

OSU requires that the issued drawings be printed directly to PDF from the CAD/Graphics software used to produce the original drawings. Print such that layers, bookmarks, and comments are not included in individual PDF files. Drawings may be scanned to PDF on a high-quality large format scanner in accordance with Section 9, using the original, stamped, and issued plan sheets if that is required to display signatures and seals on the plan sheets. *Scanned PDFs of copies of originals are not acceptable as submittals*.

All record/as-built PDF files shall display and print with a "Record Drawing" or "As-Built" stamp as well as the record date on each PDF file (sheet) in the plan set. All files shall be produced and delivered as full-size sheets that both view on screen and print to the exact scale of the originally issued sheets.

Each drawing sheet in the plan set shall be delivered as a separate PDF file. Each separate PDF file shall be named using the sheet number and sheet description, as indicated in the sheet's title block. Example: The file for sheet "A101" in the plan set shall be named, "A101 FIRST FLOOR PLAN.PDF."

6. Place of Submittal

Documents shall be delivered to the OSU department managing the project (Long Range Facilities Planning or Facilities Management). LRFP or FM will deliver completed documents to GeoSys' Construction Plan Archive found in Room 016 Central Plant.

It should be noted during the transmittal from LRFP/FM whether the delivered USB flash drive(s) contains the only electronic set that was initially received (Original Copy) or if it contains a copy and LRFP or FM are keeping the Original Copy that was received.

7. Submittal of Approved and Issued Plans and Specifications (Bid Documents)

Approved construction plans and specifications (bid documents), including pre-bid addendum, shall be delivered to GeoSys at the time of bidding for storage in the University's archives.

A. To Be Delivered: Electronic PDF Issued Drawings — One (1) labeled USB flash drive containing the complete set of electronic versions (PDF files) of the signed and sealed issued construction drawings.

B. To Be Delivered: Electronic PDF Issued Specifications — One (1) labeled USB flash drive containing a complete set of electronic versions (PDF files) of the issued specifications.

8. End-of-Project Record Submittals (As-Builts)

At the end of construction, the project manager or design firm, as applicable, shall submit final record (as-built) construction plans, specifications, and O&M manuals to GeoSys' Records Specialist.

A. To Be Delivered: Electronic PDF Record Drawings — One (1) labeled USB flash drive containing a complete set of electronic versions (PDF files) of the record/as-built drawings that incorporate all addenda and any other modifications to the issued plans. *All record drawings are to be stamped "Record Drawings" or "As-Built" and include the record date.*

B. To Be Delivered: Electronic PDF Record Specifications — One (1) labeled USB flash drive containing a complete set of electronic versions (PDF files) of the record specifications to include addenda and any other modifications made. *The covers of the PDF record specification files shall display on screen and print with the label "Record Specifications" or "As-Built."*

C. To Be Delivered: Electronic PDF O&M Manuals — One (1) labeled USB flash drive containing a complete set of electronic versions (PDF files) of the Operation and Maintenance Manuals. Include Shop Drawings and Field Copy Drawings as applicable.

9. Submittal of As-built AutoCAD Floor Plans for OSU's Space Management System

A. To Be Delivered: For all building construction projects: One AutoCAD drawing for each floor in the building. Each drawing shall represent the as-built conditions of all building components stated below. All 3D objects, including walls, columns, windows, and doors shall be flattened and reduced to basic AutoCAD line work representing the 2D views of the floors. Include in the drawings only walls, overhangs, columns, windows, doors, wall openings, casework, furniture, and room labels. Remove all other extraneous data including, but not limited to, gridlines, plan notes, section cut lines, schedules, and note/schedule bubbles.

All walls shall be drawn to actual dimensions of the building material, not to nominal dimensions.

10. Scanning Requirements

All PDF drawings shall be printed directly to PDF files from the parent software used to generate the original files (e.g., AutoCAD, Microstation, etc.) unless otherwise stipulated in these requirements. In cases when drawings may be scanned into PDF files, only original drawings shall be used for scanning. The original files shall be scanned to full drawing size and exact scale on a high quality, high-resolution large format scanner capable of scanning at a minimum of 600 dpi, with a 1200 dpi minimum being preferred. To provide PDF files of reasonable size, the scanned images may be post-processed with scanning management software into high quality PDFs with a resolution of no less than 200 dpi for the final deliverable. The GeoSys archiving staff reserves the right to reject inferior quality scans because of incompleteness, poor legibility, scaling issues, and issues with file resolution. It is suggested that design firms and project managers provide GeoSys staff with preliminary samples of scanning results (PDF files) for quality review prior to completing scanning of project documents and submissions.

11. Electronic File Formats and Containers for Submittals

AutoCAD Drawing Files: When AutoCAD drawing files are delivered for any reason, the drawings shall be submitted in a form that provides for each sheet within the plan set to be saved as a separate AutoCAD drawing file with all cross-referenced files within the drawing file having been bound to the drawing using the "BIND" command with

"Insert" as the "Option Type." This provides for all drawing layer names to be in their original form without the cross-referenced drawing name being tagged onto the layer names. For drawings that are part of a plan set, when each submitted drawing file is opened within AutoCAD for viewing, each drawing must appear visually identical to the contents of the drawing printed for the plan set.

Scanned PDF files submitted for project specifications and O&M manuals must be scanned to support OCR (Optical Character Recognition) or printed directly to PDF to provide character search capabilities within Adobe Acrobat Reader.

All electronic files containing project submittals shall be delivered to GeoSys on USB flash drives in protective cases. Multiple drives may be delivered for each project. However, files for only one project shall be included on any one drive.

USB flash drive protective cases shall include inserts imprinted with the following:
- Project Name
- OSU Building Name and Number
- Architect or Engineer as applicable
- Status and Type of Files on the discs/drives ("As-built Drawings," "O&M Manuals," etc.)