

01000S08-Closeout Submittals

I Operation and Maintenance Manuals

The University requires a minimum of four bound sets of final installation, training, operation, maintenance, and repair manuals to be turned over to the owners representative and approved for content by the University prior to the acceptance of substantial completion.

A. Style

All manuals shall be bound in white, hard cover, three ring (D-ring) binders with clear view, presentation type, vinyl covers. Binders shall also contain front and back pockets. Maximum allowable spine width is two inches.

No binder will be accepted that is filled to more than 80% of capacity. When necessary to submit multiple volume sets, each volume will be labeled numerically, using Roman numerals, in ascending order, beginning with number I. The order of the volumes will follow the specification division numbers contained on the tabs inside each volume.

B. Content

Manuals provided must be of sufficient detail as to enable University Employees to install, calibrate, train, operate, maintain, service, and repair every system, subsystem, and piece of equipment installed on or as a part of any contract awarded by the University.

What follows is a list of items, and their required formats, that must be included as a part of all submitted manuals.

Binder Inserts:

The Front cover insert shall be printed on high quality white, bonded paper and contain the following: U.K. Logo, U.K. Project Title, U.K. Project number, Location, date of submittal, volume number name of Architect, name of Engineer, and the name of the U.K. project management representative. The spinal insert will contain only the U.K. Logo, U.K. project Title, U.K. project number, date of submittal and volume number. No insert will be placed in the back cover. To maintain Uniformity, No other information will be accepted on these inserts.

Index:

The first page in each volume will be a master Index describing, by division numbers, the information contained in each volume. The page(s) immediately following the master index will be the volume table of contents containing the description and 5 digit division number of all information contained in that volume. All information will be indexed using the CSI master format 5 digit division numbers. Information will be divided by tabbed inserts with the 5 digit item numbers printed on the tabs.

Other Information:

The pages immediately following the table of contents in each volume will contain the following information in this order.

1. Information sheet - Project title, project number, location, date of submittal, Architect (name, address, and telephone number), Engineer (name, address, and telephone number), Contractor (name, address, and telephone number), and all Sub-Contractors (name, address, and telephone number).
2. Emergency Contact List - Names and telephone numbers of contact persons on warranty items. Any special instructions should also be included on this page.
3. Inspections and Guarantees - Copies of all inspection, guarantee, and warranty certificates with the University of Kentucky named as owner of all equipment and property.
4. Valve Tag List - A record of all valves installed shall be made and shall include the following information: Valve tag number, location of valve, service area, type of service, type of valve, manufacturer, and model number.
5. Finish Schedule - A copy of the interior and exterior finish plan schedule listing all finish materials, manufacturers, colors, paint numbers, and use & care instructions.

Equipment:

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All equipment required by contract and/or installed by the contractors or sub-contractors must be accompanied by the original copies of its documentation. This documentation must be included in all four sets of manuals and at minimum include: Installation manuals, training manuals, service manuals, parts lists, shop drawings, calibration manuals (if applicable), operation manuals, repair manuals, and wire lists (if applicable).

Under no circumstances will catalog cut sheets be considered acceptable replacements for any of the above items.

Documentation for each piece of equipment shall be indexed as mentioned above and be placed after the appropriate tab. Each tabbed section must contain, as its first sheet, a checklist of all documentation included in that section, location(s) of equipment, and vendor name and address. If more than one type of equipment falls under the same number, a checklist for each type must be present. If the binder includes manuals from any one vendor covering several model numbers, the model used must be highlighted.

Shop Drawings:

The maximum drawing size allowed in binders shall be folded 11" x 17". These drawings shall be hole punched, re-enforced, and placed with the appropriate information under the correct tab. Drawings placed in pockets of binder are not acceptable. Top of drawings shall be at the top or spine side of the manual. The complete drawing must be viewable without opening rings. All drawings not meeting these size requirements must be bound together, rolled, banded, and submitted (4 sets) along side manuals.

Test and Balance Report

Copies of each system air balancing record and each system hydronic balancing record must accompany manuals submittal. As most such documents are produced using computers, one additional copy of the Test & Balance report should be submitted on a 3 ½ inch diskette. (4 total sets)

II As - Built Drawings:

Blueprints

Three sets of blueprints with "As - Built" stamps shall be submitted upon completion of project. These sets should be complete and accurate. Any changes made during construction must be made before submittal of these drawings.

Reproduction Drawings

One set of reproducible "As - Built" drawings shall be submitted for use by University Archives. These drawings will be locked up and used to produce new drawing sets to replace others as they become worn.

CAD Drawings

As most Drawings are made on CAD programs, one full set of "As - Built" drawings must be submitted on CD-ROM for official use in both the Engineering and Maintenance Departments. The standard format is currently AutoCad r.14 .dwg. The CD should also include any shop drawings available in this format.