

**UNIVERSITY OF ARIZONA
CONSTRUCTION AND RENOVATION
PERMITTING PROCEDURE
ADOPTED: JULY 2011**

CONTENTS

- A. PURPOSE**
- B. DESIGNATED RESPONSIBILITIES**
- C. DEFINITIONS**
- D. PROJECT SUBMITTAL PROCEDURE**
- E. REQUIREMENTS FOR MAJOR PROJECTS**
- F. REQUIREMENTS FOR MINOR PROJECTS**
- G. ASBESTOS MANAGEMENT PROCEDURE**
- H. PROCEDURE FOR NON-COMPLIANCE**

A. PURPOSE

This procedure is written to establish and describe the process to obtain required approval by the Risk Management Services Department for all construction and renovation projects at the University of Arizona (U of A). This procedure also represents the U of A's compliance plan for the following statutes, directives and policy statements:

1. ARS §41-2163 (C)
All plans and specifications for new construction, remodeling, alterations and additions for any State, county and public school buildings and grounds shall be submitted to the director for review and approval by the state fire marshal prior to construction. The plans and specifications shall be reviewed and approved or disapproved within sixty days of submission. No construction shall commence until the plans have been approved and a permit has been issued.
2. Memorandum of Understanding between the University of Arizona and the State Fire Marshal, dated June 29, 2010 (Attachment 1).
3. 3D Memorandum from President Likins dated 10/21/98 titled "Policy for Alterations and Renovations of University Buildings" (Attachment 2).

B. DESIGNATED RESPONSIBILITIES

1. University Fire Marshal

The Director of Occupational and Environmental Health and Safety (University Fire Marshal) and the University Assistant Fire Marshal, of the Department of Risk Management Services (RMS), are designated as the U of A liaisons to the State Fire Marshal (SFM), and are responsible for coordinating with the SFM and providing the required reports. RMS has been delegated the responsibility and authority by the SFM to review and permit all projects and perform all fire inspections.

RMS may elect to consult with the SFM as needed to obtain code clarification or other guidance.

2. Plan Review Responsibility

For all projects, RMS is responsible for performing review of plans and specifications to identify possible code compliance items and risk management concerns prior to construction. Since changes during construction cause costly delays and code violations increase the risk, it is very important to identify and resolve code issues as early in the design process as possible.

3. Inspection Responsibility

For all projects, RMS is responsible for performing fire inspections and life safety final inspections to verify fire code compliance and conformance to RMS reviewed plans.

4. Project Manager and Designer Responsibility

Originators of each project requiring a permit are responsible for the preparation and timely submittal of a project, meeting the requirements outlined in this procedure. Designers are responsible for code compliant design. Approval and/or permitting of construction plans by RMS represents a good faith review of the documents as submitted, and does not relieve the designer of its responsibility for proper design criteria and code compliance.

5. Contractor or Construction Unit Responsibility

Contractors or university units performing construction and renovation work on permitted projects are responsible to implement and complete the work in accordance with the approved plans. Contractors or university units performing construction and renovation work on permitted projects are also responsible for scheduling RMS inspections. Project managers are responsible for responding to SFM or RMS questions or concerns that arise during the course of construction or renovation, and resolving discrepancies to ensure that project implementation is consistent with approved design.

6. Appeals for Alternative Materials, Methods of Construction or Equipment

Appeals for Alternative Materials, Methods of Construction or Equipment must be submitted in writing to the University Fire Marshal for review and final determination.

Change orders or other modifications require re-submittal and approval by RMS prior to proceeding if they affect the following: fire alarm systems, fire suppression systems, exiting systems, occupancy changes or changes to space utilization, or other life safety systems. Work on the proposed change may not commence until the change has been approved by RMS as a revision to the original project approval. Project activities unrelated to the change may continue or commence as needed.

7. Budget Responsibility

Costs for preparation and duplication of project submittals are to be funded from the project budget. Similarly, cost increases associated with required changes to the project that are identified during plan review or site inspection are typically absorbed by the project budget, which may necessitate requesting additional funds from the project's funding source.

C. DEFINITIONS

The following definitions are applicable to this procedure:

1. New Construction:

The creation of a new facility or the addition, expansion, or extension of an existing facility that adds to the building's overall gross square footage. Examples include but are not limited to: additions to existing facilities, construction of portable or temporary buildings, etc.

2. Renovation:

Interior and/or exterior modifications to university owned buildings or property that involve any of the following:

- a. addition, relocation, or removal of walls, doors, windows, floors or ceilings
- b. installation, relocation, or modification of fire alarm system components, including fire alarm devices or panel
- c. installation, relocation or modification of automatic fire sprinkler system components
- d. change of occupancy classification or change in seating capacity or exit paths
- e. installation or modification of equipment in a rated corridor or exit pathway
- f. installation or modification of hazardous material storage or delivery systems
- g. installation of modular furniture, wall panels, cubicles, if they create or modify exit pathways
- h. demolition in preparation for new construction or renovation

3. Major Project Definition

Major projects require RMS review and approval of the project submittal as described herein. Projects including one or more of the following criteria are defined as major projects:

- a. Capital projects per Arizona Board of Regents (ABOR) definition.
- b. Renovation projects with scope of demolition and construction greater than any single floor of a building. Concurrent small renovations on multiple floors of a building are not considered a major project unless the cumulative scope of work in square feet is greater than the largest single floor of the building.
- c. New, freestanding or attached buildings other than very simple structures such as storage buildings, ramadas, etc.
- d. Projects that change occupancy classification, character of building use, means of egress, or fire rated construction.
- e. Any project requiring approval of an appeal to the University Fire Marshal.
- f. New automatic fire sprinkler systems (shop drawings by contractor).
- g. Automatic fire sprinkler system modifications that involve the cumulative installation or relocation of more than ten heads.
- h. New fire alarm systems (shop drawings by contractor) other than system work involving the cumulative installation, replacement or relocation of five devices or less, and will not require additional system capacity or components in the panel.
- i. Projects involving a hazardous occupancy (H-designation per IBC), or projects that create or modify systems for storage or delivery of hazardous materials, including above and underground fuel storage tanks.

4. Minor Project Definition

Minor projects which are reviewed and approved by RMS are defined by the following criteria:

- a. Primarily tenant improvements that do not involve more than one floor of a building, or do not meet the major project definition listed above. Typical projects in this category include demolition or construction of walls, relocation of doors or windows, enclosure of new space, or other projects that meet the definition of renovation, and are not major projects, as outlined herein.
- b. Automatic fire sprinkler system work involving the cumulative installation or relocation of ten heads or less, provided the modifications will not impact existing design criteria.
- c. Fire alarm system work involving the cumulative installation, replacement or relocation of five devices or less, and will not require additional system capacity or components in the panel.

5. Exceptions

The following activities do not require a permit from RMS. *

- a. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet.
- b. Fences (or site walls) not over 6 feet high.
- c. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
- d. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18 925 L) and the ratio of height to diameter or width does not exceed 2:1.
- e. Sidewalks and driveways not more than 30 inches above adjacent grade, and not over any basement or story below and are not part of an accessible route.
- f. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
- g. Temporary motion picture, television and theater stage sets and scenery.
- h. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
- i. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
- j. Portable heating appliance (gas or mechanical).
- k. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- l. Routine maintenance or replacement of electrical, plumbing, HVAC systems
- m. Minor carpentry - shelving, cabinet installation, countertops,
- n. Floor covering replacement or repair
- o. Roofing repair or replacement
- p. Demolition that is not part of renovation or new construction.

* Asbestos management procedure may be applicable, see Asbestos Management Procedure - Section G.

D. PROJECT SUBMITTAL PROCEDURE

1. Standard Procedure

Construction and renovation projects as defined herein, must be reviewed and a permit issued before construction (including demolition) may begin (see exceptions under C.5.). To initiate plan review, a project submittal, including a completed permit application form and two complete sets of construction drawings and specifications, must be provided to RMS. RMS will log in receipt of each submittal, complete the plan review, and return the comments for correction, or issue the permit. As a general practice, project submittals will be scheduled for review in the order received by RMS. Out of sequence project review may be requested as described below under Expedited Project Review.

The SFM is authorized by statute up to 60 days to review and either approve or disapprove submitted plans. In accepting the authorization and responsibilities of the SFM, RMS will have that same deadline. However, the RMS goal for major projects is 20 working days, especially if there has been an RMS review prior to submission. The goal for minor projects is 10 working days, especially if there has been an RMS review prior to submission. Project schedules should recognize that review time will be influenced by workload and the quality of the original project submittal. Generally, but not always, required project review time is directly proportional to project complexity.

2. Expedited Project Review

Expedited review will be implemented on a special request basis. Requests for expedited review must be submitted in writing, with justification, to the Senior Associate Vice President for Business Affairs (AVP). Upon direction from the AVP, RMS will implement the following to expedite project review and approval: RMS will suspend review of current projects and will expedite internal review of the project.

An expedited review does not change the information requirements for a project submittal as described below. Additionally, expedited review increases the possibility of a code requirement being missed during the initial review, and being required to be incorporated into the project at a later date.

3. Applicable Codes

RMS will review projects for compliance to the 2006 International Fire Code (IFC). RMS will also review the project for compliance to the 2006 International Building Code (IBC) and 2005 National Electric Code (NEC) where these codes relate to fire code issues.

E. REQUIREMENTS FOR MAJOR PROJECTS

For major projects being submitted to RMS, project submittals must contain the following minimum information as it is applicable to the project:

1. Information required in major project submittals (where applicable):

- a. Construction drawings (see below for drawing requirements)
- b. Demolition drawings
- c. Fire flow requirements for site per IFC Appendix B and Table B105.1
- d. Building Construction Type and Occupancy Classification (with allowable increases described) per the IBC
- e. Square footage of each floor and building
- f. Height of each building
- g. Fire hydrant locations on and off site

2. Requirements for major project construction drawings:

Construction drawings are to be prepared and stamped by an appropriate professional registrant, based on the primary type and scope of the project. Drawing packages will contain the following information where applicable, or noted as non-applicable:

2.1. All plans and drawings shall comply with the following:

- a. Be to scale and legible
- b. Include an accurate index of drawings on the first sheet of the set
- c. Have a north arrow
- d. Have a legend defining all symbols
- e. Show the location of the fire riser and all automatic fire sprinkler heads
- f. Show the location of the fire alarm control panel and all fire alarm devices
- g. Show the location of all fire department connections (FDC)
- h. Designer shall designate and include references and citations pertaining to specific codes (NEC, IMC, IBC, etc.), and provide the year for each code referenced.
- i. Have a title block with the following information:
 - i. Project name, number, address, and UA building number
 - ii. Designer name and phone number
 - iii. Sheet number
 - iv. Date

2.2 Site drawings, drawn to scale, showing the following information:

- a. Buildings on site
- b. North arrow
- c. Dimensions locating new structures in relationship to existing structures
- d. Dimensions locating new structures in relationship to property line and public right of way
- e. Security plan for fencing, access control, gates, etc.
- f. Fire department access lanes, including:
 - i. grades
 - ii. height clearances
 - iii. width
 - iv. surface materials and construction (including weight bearing)
 - v. turnarounds and hammerheads (showing turn radii)

2.3 Floor plans, drawn to scale, of each floor showing the following information:

- a. Room names and room numbers for each space
- b. Occupancy separations
- c. Fire doors

- d. Area separations - Drawings should indicate existing occupancy and areas and any changes to these that the project will create
- e. Exiting requirements
- f. Corridor widths
- g. Direction and swing of doors
- h. Distances between exits
- i. Show the length of the diagonal of the space served by these exits
- j. Panic hardware and all other life safety hardware such as door closers. This information need not be shown on the drawing provided it is included with the project submittal in some format (specifications, etc.).
- k. Fire stops
- l. All rated construction
- m. Emergency lighting (type and location)
- n. Occupant load in assembly areas
- o. Exit signs
- p. Flame spread characteristics of wall coverings and finishes
- q. Protected openings in exterior walls
- r. Vertical opening enclosures
- r. Details, sections and risers where applicable

2.4 Mechanical plans of each floor showing the following information:

- a. Fire dampers
- b. Smoke dampers
- c. Air handling units greater than 2000 cfm
- d. Locations of supply and return vents

2.5 Shop Drawings

Shop drawings for major projects shall be submitted directly to RMS by the university project manager, with concurrent courtesy copies submitted to Facilities Management. Shop drawings should not be submitted before the overall project has been approved and permitted.

F. REQUIREMENTS FOR MINOR PROJECTS

For minor projects being submitted to RMS, project submittals must contain the following minimum information as it is applicable to the project:

1. Project submittals for minor projects must contain the following:

- a. Dimensioned construction drawings, drawn to scale (see requirements below).
- b. Demolition drawings (if applicable).
- c. Square footage of work area.
- d. Explanation of the current use of the area covered by this work and what the new use will be.

2. Requirements for minor project construction drawings (as applicable):

Construction drawings for minor projects can be fairly simple, and do not typically require an architect or engineer stamp unless the scope of work is such that professional registration is required for specialized portions of the project.

However, minor project drawings need to meet the following requirements to facilitate timely and effective project review and approval.

2.1 Plans must comply with the following:

- a. Be to scale and legible.
- b. Include an accurate index of drawings on the first sheet of the set.
- c. Have a north arrow.
- d. Have a blank area for RMS approval stamp. Size to be coordinated with RMS.
- e. Have a legend defining all symbols.
- f. Have a title block with the following information:
 - i. Project name, number, address, and UA building number
 - ii. Designer name and phone number
 - iii. Sheet number
 - iv. Date

2.2 Plan of entire floor, showing where renovation will occur.

2.3 Floor plans drawn to scale showing the following information where applicable:

- a. Room names and room numbers for each space
- b. Occupancy separations
- c. Fire doors
- d. Area separations - Drawings should indicate existing occupancy and areas and any changes to these that the project will create
- e. Exiting requirements
- f. Corridor widths
- g. Direction and swing of doors
- h. Distances between exits
- i. Show the length of the diagonal of the space served by these exits
- j. Panic hardware and all other hardware such as closers
- k. Fire stops
- l. All rated construction
- m. Emergency lighting (type and location)
- n. Occupant load in assembly areas
- o. Exit signs
- p. Flame spread characteristics of wall coverings and finishes when those finishes are something other than paint
- q. Protected openings in exterior walls
- r. Vertical opening enclosures
- r. Details, sections and risers where applicable

2.4 Mechanical plans of each floor showing the following as applicable:

- a. Fire dampers
- b. Smoke dampers
- c. Air handling units greater than 2000 cfm
- d. Locations of supply and return vents

2.5 Fire protection system drawings showing the following as applicable:

- a. Fire lines that are impacted by the project
- b. Automatic fire sprinkler system changes, including relocating, adding or removing heads

- c. Fire alarm system changes

G. ASBESTOS MANAGEMENT PROCEDURE

Asbestos abatement is strictly regulated by the EPA and authority for enforcement is delegated to the Pima County Department of Environmental Quality (PDEQ). All asbestos abatement in university buildings requires RMS oversight and possibly PDEQ permitting if certain regulatory thresholds are met. Small abatement jobs can be accomplished under the umbrella of an Operations and Maintenance Permit maintained by RMS, but notification is still required.

Examples of activities that require asbestos coordination include building demolition, impacts to floor tile, insulation, structural fireproofing, decorative and acoustic sprayed or troweled on materials, roofing materials, and other suspect building materials. Project managers are responsible to contact RMS for assistance with asbestos assessment and coordination of abatement activities. Project budgets must fund expenses associated with asbestos assessment and abatement.

H. PROCEDURE FOR NON-COMPLIANCE

Construction or renovation projects in university buildings that are started without approved plans will be secured and shut down until appropriate RMS review is complete and a permit is issued. Shut down will be accomplished by immediate written direction from the University Fire Marshal to the project manager and the department head responsible for the project. All costs associated with project shut down will be borne by the project budget, or responsible department, or both if applicable.