

SECTION 02 CODES AND REGULATIONS

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Unless stated otherwise, the standards in this Facilities Design Manual (FDM) are directed to the Design Professional to incorporate into the Project.

*Changes to this Section since the last issuance are indicated with **yellow highlighted text**.*

Links to Support Documents, external webpages and other FDM sections are shown in underlined text.

02.01 GENERAL

A. GENERAL DESIGN PROFESSIONAL RESPONSIBILITIES – DESIGN PHASES

1. Design to comply with, but not be limited to, the codes, rules and standards referenced in this Section 02 applicable to the Project.
2. For projects with federal funding, comply with federal regulations applicable to the Project.
3. Secure written code approval of Construction Documents from appropriate authorities before bidding.
 - a. Submit electronic copies of approval letters to the Owner's Representative, and publish approval letters in Adobe Portable Document Format (PDF) to the Owner's project web site.

B. BUILDING PERMIT

1. Specify the Contractor to obtain a building permit if needed.
 - a. A building permit is not required for construction on University property.
 - 1) "University property" includes educational institutions listed below where Facilities Planning and Management manage capital projects.
 - a) Iowa State University (ISU), Ames
 - b) Iowa School for the Deaf (ISD), Council Bluffs
 - c) Iowa Lakeside Laboratory (ILL), Milford
 - d) Iowa Braille and Sight Saving School (IBSSS), Vinton
 - b. Construction in off-campus buildings (usually leased) may require a building permit.
 - c. New construction in a flood plain may require a building permit or special clearance.

C. REFERENCES TO THE IOWA ADMINISTRATIVE CODE AND THE IOWA CODE

1. References to rules in the Iowa Administrative Code include, within ending parentheses, the originating Iowa Code chapter for which the rules are intended to implement.
2. Links to originating Iowa Code chapters are found within the text of the Iowa Administrative Code.

02.02 STATE BUILDING CODE

A. GENERAL

1. Rules are administered by the State Building Code Bureau within the Division of State Fire Marshal under the Iowa Department of Public Safety.
2. Comply with rules in the Iowa Administrative Code, Public Safety Department [661], Chapters 200 to 399 applicable to the Project.

B. CHAPTER 300 – ADMINISTRATION

1. Comply with requirements in this chapter applicable to the Project.
2. Submit documents to the State Building Code Bureau in compliance with their plan [review requirements](#).
3. Include Owner's Representative in plan review discussions with any Authority Having Jurisdiction (AHJ) applicable to the project.

C. CHAPTER 301 – GENERAL PROVISIONS

1. Comply with requirements in this chapter applicable to the Project.
2. Comply with the [current adopted editions](#) of the following codes:
 - a. International Building Code, as amended under section 661.
 - b. International Mechanical Code, as amended under section 661.
 - c. National Electric Code, as amended under section 661.
 - d. Comply with the State Plumbing Code as described under section 661.

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- e. For projects that involve an existing building, comply with the International Existing Building Code, as amended in section 661. See 661 for “Existing Building” definition.
- f. For residential construction projects as defined in section 661, comply with the International Residential Code, as amended in section 661.
- g. International Fire Code, as amended in section 661

D. CHAPTER 302 – ACCESSIBILITY OF BUILDINGS AND FACILITIES AVAILABLE TO THE PUBLIC

- 1. Comply with requirements in this chapter applicable to the Project
- 2. Comply with Owner's requirements under paragraph 02.07B Accessibility Standard.

E. CHAPTER 303 – REQUIREMENTS FOR ENERGY CONSERVATION IN CONSTRUCTION

- 1. Comply with requirements in this chapter applicable to the Project
- 2. Comply with the current adopted editions of the following codes:
 - a. Comply with the International Energy Conservation Code, as amended in section 661.
 - b. For residential construction projects as defined in section 661, comply with the International Energy Conservation Code, as amended in section 661.
- 3. Comply with life cycle cost analysis (LCCA) requirements in section 661, using the [current adopted version](#) of the *Life Cycle Cost Analysis Guidelines* by the State Fire Marshal's Office.

F. CHAPTER 310 – SUSTAINABLE DESIGN STANDARDS

- 1. Where required by the Building Program, comply with applicable requirements in this chapter and submit the Project to the State Building Code Commissioner for approval as a “sustainably designed project.”

G. CHAPTER 315 – WEATHER SAFE ROOMS

- 1. Where required by the Building Program, comply with applicable requirements in this chapter.

H. CHAPTER 350 – STATE HISTORIC BUILDING CODE

- 1. Comply with requirements in this chapter applicable to the Project.

02.03 STATE ELEVATOR CODE

A. GENERAL

- 1. Comply with rules in the Iowa Administrative Code, Labor Services Division [875], Chapters 65 to 75 applicable to the Project.

B. CHAPTER 72 – NEW INSTALLATIONS

- 1. Comply with the codes and standards listed in rule 875-72.

02.04 BOILER AND PRESSURE VESSEL RULES

A. GENERAL

- 1. Comply with rules in the Iowa Administrative Code, Labor Services Division [875], Chapters 90 to 96 applicable to the Project.

B. CHAPTER 91 – GENERAL REQUIREMENTS FOR ALL OBJECTS

- 1. Comply with the codes applicable under various conditions listed in rule 875-91.

02.05 ART ON CAMPUS (AOC) PROGRAM

A. GENERAL

- 1. At the beginning of conceptual planning or building programming, FP&M will notify the Director of Museums about any new project with a total estimated project cost of \$1 million or more that meets the criteria below.

- a. For capital building projects with a total estimated cost of \$1 million or more, public art produced by a public artist(s) selected by the university shall be incorporated into the project. The public art will be valued at 0.5% (percent) or more of the total estimated cost of the project.
 - i. Public art may be incorporated in the building construction, either inside or exterior to the structure.
 - ii. Public art will be included for projects with an estimated project cost of \$1 million or more and fall within the following project categories:
 - 1. New Buildings / Major Additions / Renovations / Remodels
 - iii. Utility projects, exterior projects (e.g.: site work/parking lot / road construction), and energy conservation projects will not include public art.

2. Public Art Definition

- a. Public art is defined as "sculpture, fountains, bas-reliefs, mosaics, frescoes, wall hangings, crafts, photography, paintings or other enhancements to be integrated into the total environment of the building or complex of buildings."
- b. Policy further defines that public art not include "the incidental ornamental detail of functional structural elements, or hardware and other accessories."

- 3. For additional information regarding the Art on Campus Program, see the University Museums website located at: <https://www.museums.iastate.edu/visit/art-on-campus-collection/>

B. ART ON CAMPUS (AOC) PROJECT ADVISORY COMMITTEE

- 1. For capital building projects with a total estimated project cost of \$1 million or more and meeting the criteria above, an AOC Project Advisory Committee will be formed with membership appointed by the Director of University Museums.
 - a. At ISU, University Museums has been designated to act in the role of the Arts Administrator for the Art on Campus Program and Collection.
- 2. The AOC Project Advisory Committee will make the following recommendations to University Museums:
 - a. Type of purchase program appropriate for the building and budget, amounting to no less than 0.5% of the total estimated cost of the Project.
 - b. Method of selecting the artist or public work of art.
 - c. Placement or incorporation of the public work(s) of art in the building and/or grounds.
 - d. Selection of the work(s) of art to purchase or selection of the artist for commission.
- 3. Additional activities of the AOC Project Advisory Committee are as follow:
 - a. Formulate a Public Art Statement / Philosophy for the Project
 - b. Develop artist application procedures.
 - c. Whenever possible, use a competitive process to select artist, work of art and designs.
 - d. Adopt review criteria for the Project following University Museums' guidelines.
 - e. Designate a recorder and write official minutes of all meetings and submit to University Museums.

C. DESIGN PROFESSIONAL RESPONSIBILITIES

- 1. For projects with a total estimated cost of \$1 million or more, participate as a non-voting member of the AOC Project Advisory Committee.
- 2. Participating as a member of the AOC Project Advisory Committee is included in Basic Services as defined in the executed Agreement and includes, but is not limited to, the following services:
 - a. Attend Committee meetings and post minutes of each meeting to the Owner's project web site.
 - b. Provide design and building detail information to the Committee.
 - c. Suggest locations where public art may be suitably incorporated.
- 3. In the project design, coordinate and document specific building requirements (lighting, structure, wall space, etc.) to accommodate the public art installation.

4. During Design Development, provide a narrative of how public art will be incorporated into the project. For the AOC Program narrative requirements, see Design Development section of the FDM.

D. FP&M RESPONSIBILITIES

1. As the project progresses, the Owner's Representative (Project Manager/Construction Manager) will:
 - a. Update and provide detail information on project budget to the Director of University Museums.
 - b. Communicate overall project schedule to the committee.
 - c. Coordinate and facilitate project specific construction requirements with Design Professionals and Contractors from design through construction.
2. One member of the FP&M staff, as determined by the Project Manager and University Architect / Director of Campus Planning during schematic design, may be a voting member of the Committee. Other FP&M representatives and the Design Professional are non-voting, ex-officio members.

02.06 OWNER STANDARDS

A. DESIGN STANDARD

1. Unless approved otherwise by the Owner's Representative, incorporate the standards in this Facilities Design Manual into the project.

B. ACCESSIBILITY STANDARD

1. Comply with the preferred dimensions and universal design recommendations presented in the reference guide, *Access for Everyone; A Guide to the Accessibility of Buildings and Sites with References to 2010 ADASAD (Third Edition)* by Dr. Arvid E. Osterberg, Iowa State University, Ames IA.
 - a. All references to 2010 ADAAG have been changed to 2010 ADASAD and references to the Uniform Federal Accessibility Standards (UFAS) in previous printings have been eliminated. More information is available under Frequently Asked Questions at <http://www.fpm.iastate.edu/accessforeveryone/faq.asp>.
 - b. Either third edition, *Access... 2010 ADASAD* or *Access... 2010 ADAAG*, is an acceptable reference.
2. *Access for Everyone* is available for purchase at <http://www.fpm.iastate.edu/accessforeveryone>.

02.07 ENVIRONMENTAL AND SAFETY REGULATIONS

A. DEPARTMENT OF ENVIRONMENTAL HEALTH AND SAFETY

1. [The Department of Environmental Health and Safety \(EH&S\)](#) is the Owner's authority on environmental issues, occupational health and safety programs and associated state and federal regulations.
2. EH&S will be involved with the following Project-related services:
 - a. During Design
 - 1) Ensure code-required containment of stored flammable and combustible materials.
 - 2) Consult on roof safety design requirements for new buildings and reroof projects.
 - 3) Consult on project storm shelter locations (if applicable) during Schematic Design and through Construction Document phase.
 - 4) Locate eyewash and safety showers.
 - 5) Locate AED's and sharps containers.
 - 6) Locate fire extinguisher cabinets
 - a) Specify size of fire extinguisher cabinets to accommodate fire extinguishers furnished by EH&S.
 - 7) Review Schematic Design, Design Development and Construction Documents for code compliance.
 - 8) When required, meet with the Design Professional, Ames Fire Department personnel and State Building Code Bureau personnel.
 - b. During Construction:

- 1) Lead and asbestos abatement
 - a) Normally the Owner will have removed lead and asbestos containing materials (ACM) before the start of the Project.
 - b) Where lead and ACM must be abated during various phases of the Project, include in Division 01 the schedule for abatement by the Owner and any related actions required by the Contractor before and after the abatement.
 - c) Clearly indicate in the Documents the locations and suspected locations of lead and ACM provided by the Owner's Representative.
 - d) Specify Contractor personnel to immediately announce a known or suspected encounter with lead or ACM and to comply with procedures required by EH&S personnel.
 - 2) Oversee abatement of existing asbestos, lead, mold, polychlorinated biphenyl (PCB) and other hazardous materials encountered within the construction limits.
 - 3) Perform inspections and write reports associated with Storm Water Pollution Prevention Plans.
 - 4) Review the Project at Substantial Completion to authorize occupancy.
 - 5) Generally observe work safety issues at the construction site.
3. If discussion with EH&S personnel is required, contact the Owner's Representative to schedule a meeting.

B. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM

1. A National Pollution Discharge Elimination System (NPDES) permit is required to protect water quality from pollution sources when the area disturbed inside the construction limits is 1 acre or more.
2. The Iowa Department of Natural Resources (DNR) will issue an NPDES permit after a Final Pollution Prevention Plan is submitted to, and approved by, the Iowa DNR before the project is bid.
 - a. In FDM Part 1, see paragraphs under 06.03C6g in [Sec 06 Schematic Design Phase.pdf](#), paragraphs under 07.02A5b in [Sec 07 Design Development Phase.pdf](#) and paragraphs under 08.02A8 in [Sec 08 Construction Document Phase.pdf](#).

C. HAZARDOUS MATERIALS

1. Materials containing asbestos, lead, polychlorinated biphenyl (PCB) and other substances in amounts deemed hazardous by the U. S. Environmental Protection Agency (EPA) and the U. S. Department of Labor's Occupational Safety and Health Administration (OSHA) are prohibited from the Project.
 - a. See certification required by the Design Professional in paragraph 08.01C8 in FDM Part 1/ [Sec 08 Construction Document Phase.pdf](#).

D. CLEAN AIR ACT (CAA)

1. Iowa State University is classified as a major emission source under the CAA. Construction permits are required for all new ISU emission sources, unless specifically exempted by regulation.
2. When planning construction or modification of facilities or equipment, EH&S will assist in determining the need for an emission source construction permit. If an air construction permit is required, EH&S will prepare and submit the permit application.
3. For Design Considerations, and additional information, see the "Air Emission Source Construction Permitting at Iowa State University" document, located by [clicking here](#).
 - a. Document has been prepared for informational purposes only and is not intended to be a comprehensive compliance manual of the Clean Air Act.
4. As early as possible in the planning and design phases of a project, consult the Owner's Representative and EH&S when the project is anticipated to require any new emission source. All emission sources, including those that are exempt from construction permitting, have the potential to impact ISU's Title V Clean Air Act operating permit and must be reported to EH&S.
 - a. Examples of common emission sources at Iowa State include:
 - 1) Emergency generators
 - 2) Paint booths

- 3) Dust control cyclones
- 4) Boilers/Process water heaters
- 5) Cooling towers

END OF SECTION 02 CODES AND REGULATIONS