



university
**DESIGN
STANDARDS**

GENERAL REQUIREMENTS SECTION

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MONTCLAIR
STATE UNIVERSITY

General Requirements Subgroup

DIVISION 01 – GENERAL REQUIREMENTS

Introduction

This section provides general guidelines to be used by Architectural/Engineering firms (*the “Consultant”*) in the design of new construction and renovation of facilities and systems at the University (*the “Project”*). The following topics are included:

- I. Design Process
- II. Regulatory Agencies
- III. Insurance Carrier Review
- IV. Accessibility
- V. Universal Design
- VI. Sustainability
- VII. Cost Estimate and Schedule
- VIII. General Guidelines and Responsibilities
- IX. Project Communication and Documentation

I. Design Process

All design documents outlining repair, renovation, or new construction shall be reviewed by the University Facilities Office of **Capital Planning and Project Management** along with any applicable internal stakeholders and University Energy Partner (DCO) for approval at all phases of design prior to release for bidding and construction.

The University must approve the design at each respective phase of design, including selection of materials, equipment, furnishings, and colors, for projects. The Consultant shall include a list of proposed materials, equipment, furnishing and finishes with contract documents and provide an explanation, if requested, as to why the selected products would best serve the interests of the University.

Proposed designs shall be of a character that promotes a cohesive and distinctive campus setting. It is important to create a design concept that blends well with the surrounding area along with the University’s architectural vernacular and should be consistent with surrounding campus improvements. Proposed improvements to an existing facility shall complement the surrounding architectural character. New designs should be responsive and sensitive to the existing facility while taking into account the context of the campus and adjacent buildings. When a space undergoes remodeling, the new construction work shall appropriately incorporate the construction type, architectural features/details, finishes/treatments, color schemes, fixtures, hardware, etc. that have been used in adjacent areas in order to maintain continuity.

As the University continues to grow in population, so does the need to provide safe environments for the students, faculty and staff. Innovative design solutions that are visually pleasing and safe shall be utilized when addressing the various areas identified within this document.

Where feasible and reasonable, exterior spaces should be designed as inviting outdoor areas that promote interaction and campus community.

II. Regulatory Agencies

It shall be the responsibility of the Consultant to design in accordance with all applicable building codes and to and prepare permit application(s), as necessary. Permitting shall include, but is not limited to:

- International Building Code and Applicable Subcodes (*Rehabilitation, Barrier Free, Electric, Plumbing, Mechanical, Elevator, Energy*)
- Standards and Requirements of the Public Employee Occupational Safety and Hazard Act of 1984 (PEOSHA)

Consultants shall check with the New Jersey Department of Community Affairs (DCA) to determine the latest adopted dates of the above codes. A listing of the codes used for design of the project, with dates, can be found at <https://www.nj.gov/dca/divisions/codes/codreg/>.

All governing regulatory agencies should be coordinated and/or met with to ascertain feasibility of the proposed plans.

Consultants shall be responsible for filing and preparing all required applications and revisions to design documents to receive requisite approvals of the DCA. Consultants shall also facilitate the review of Project bid documents with the NJ State Comptroller for all public bid projects subject to this review.

III. Insurance Carrier Review

Where applicable, design documents must be sent to FM Global for review and comment in order to ensure compliance with its property insurance policies. Consultant shall refer to FM Global [Data Sheets](#) and FM Global Approval Guide for submittal requirements. The University shall make a determination as to which comments from FM Global will be incorporated into the Project.

IV. Accessibility

All designs for new construction and renovations to existing facilities shall be designed and constructed in such a manner that the new or renovated facility is readily accessible to and usable by individuals with disabilities consistent with all applicable state and federal mandates.

Beyond mere compliance with the requirements and regulations of the Americans with Disabilities Act (ADA), every design component should be examined for its impact on persons with disabilities and adjusted to achieve the optimum balance between user requirements and convenient access to individuals with disabilities:

- a. All students, faculty, staff, and guests shall be provided equal access to all campus buildings and circulation walkways.
- b. Pedestrians who are physically challenged shall have the ability to travel freely between all campus parking lots, barrier-free pedestrian pathways, exterior facilities, and accessible building entrances.
- c. Accessibility improvements shall be a consideration in the planning of upgrades, maintenance and repairs to existing facilities.
- d. Campus stakeholders may be consulted to determine whether additional accessibility features should be included to better meet the needs of the campus community.

ACCESSIBILITY MAP – University Facilities maintains a Campus Accessibility Map (<https://www.montclair.edu/facilities/campus-access-maps/>) on its website that includes an overview of inter-campus shuttle routes and stops, accessible parking spaces across all campus surface lots, barrier-free routes, and locations of accessible building entrances as well as automatic door operators. The Office of Capital Planning and Project Management is responsible for ensuring that the map reflects the most accurate information and accounts for recent and future major construction projects.

V. Universal Design

The University strives to provide a built environment that is universally usable by those with diverse physiologic and sensory abilities. Universal Design principles that exceed minimum code requirements shall be considered when feasible in order to provide consistent, convenient, and dignified access for all campus building users.

Universal design (“UD”) is defined as “*the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design*”. Universal design goes beyond regulatory compliance by proactively removing barriers to access and reducing the need for individual accommodations. Its main principles include Equitable Use, Flexibility in Use, Simple and Intuitive Use, Perceptible Information, Tolerance for Error, Low Physical Effort, and Appropriate Size and Space for Approach and Use.

- a. **EQUITABLE USE** – *The design is useful and marketable to people with diverse abilities. For example, a counter space or desk surface may be raised or lowered to accommodate users of varying height, or an individual who uses a wheelchair.*
- b. **FLEXIBILITY IN USE** – *The design accommodates a wide range of individual preferences and abilities. For example, a captioned video will allow people to choose to listen or to read in order to understand content.*
- c. **SIMPLE AND INTUITIVE USE** – *Use of the design is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level. For example, Arrange information consistent with its importance.*
- d. **PERCEPTIBLE INFORMATION** – *The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities. For example, Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.*
- e. **TOLERANCE FOR ERROR** – *The design minimizes hazards and the adverse consequences of accidental or unintended actions. For example, arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.*
- f. **LOW PHYSICAL EFFORT** – *The design can be used efficiently, comfortably, and with a minimum of fatigue. For example, an automatic door opener can facilitate access to an office space or classroom.*
- g. **SIZE AND SPACE FOR APPROACH AND USE** – *The appropriate size and space is provided for approach, reach, manipulation, and use regardless of a particular user’s body size, posture, or mobility. For example, a clear line of sight is provided to important elements for any seated or standing user.*

VI. Sustainability

Sustainable design strives to improve the human condition of our students, community, state and nation through the prudent use of our resources, both natural and fiscal. These Sustainable Design Standards aim to promote environmentally-friendly practices in the planning, design, construction, maintenance, and operation of buildings on campus. Site selection, energy efficiency, energy conservation, indoor air quality, and waste recycling shall be reviewed thoughtfully for each project with consideration of the university resources required.

A. Projects Pursuing LEED Certification:

All new campus buildings shall be designed and constructed to conform with the standards outlined in the most current version of the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) program and shall meet the specifications for a Silver rating or higher.

B. Projects Not Pursuing LEED Certification:

All major campus renovation projects, including those that are not seeking third party certification to a comprehensive green building standard such as LEED, shall make active efforts to incorporate elements of green building design and energy-efficiency whenever feasible.

Consultants shall comply with and integrate the following into all applicable projects:

- i. FACILITIES SUSTAINABILITY PLAN – *Launched in April 2022, the Montclair State University Facilities Sustainability Plan represents a commitment to upgrading and exceeding past practices to ensure the viability of our built environment and institution for future generations. All work shall be in alignment with the Facilities Sustainability Plan and Sustainable Facilities requirements. (<https://www.montclair.edu/facilities/sustainability/facilities-sustainability-plan/>)*
- ii. COMPLETE STREETS ON CAMPUS – *In February 2022, the Board of Trustees approved a resolution making a commitment to adopt a Complete Streets Policy for Montclair's campus. The resolution defines Complete Streets as a means to provide a comprehensive, integrated, connected multi-modal network of transportation options through the planning, design, construction, maintenance, and operation of new and retrofitted transportation facilities along the entire right-of-way for all users of all ages and abilities. (<https://www.montclair.edu/facilities/sustainability/complete-streets-on-campus/>)*
- iii. AASHE STARS – *The University has enrolled in the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment & Rating System (STARS). The Project design approach should be in congruence with the University's goal to accrue STARS Credits as outlined by the STARS 3.0 Program Technical Manual. (<https://www.montclair.edu/sustainability/aashe-stars/>)*

C. Sustainability Project Procedures:

Projects that are seeking third party green building certification shall comply with the following guidelines as applicable:

- i. *The Architect is expected to have at least one staff member who has experience on previous LEED projects assigned to the project through all phases of work. This person will be responsible for coordinating with all contractors and subcontractors in order to ensure that specifications are met. It is expected that this topic will be addressed at regularly scheduled meetings with the University Facilities Office of Capital Planning and Project Management (CPPM).*
- ii. *LEED COORDINATOR – The project design and construction team shall each identify one person employed by the firm to coordinate LEED requirements. This LEED AP certified person will be the primary point-of-contact for the University and its LEED consultant (if separate from the design team).*
- iii. *PROJECT MEETINGS – At least one Sustainability Review and Discussion meeting shall be conducted during each phase of design (conceptual design, schematic design, design development, construction documents); as well as once every quarter during the construction phase. The University Sustainability Directory and Energy Manager shall be invited to the meetings.*

Regardless of a Project seeking third party green building certification, the following guidelines should be followed as applicable:

- i. *PRODUCT SUBSTITUTION AND CHANGE ORDER REQUESTS – Product substitutions and change order requests which impact agreed-upon project energy and sustainability goals should not be evaluated and approved on the basis of first costs alone, but should also consider the energy and environmental impacts based on life cycle analysis.*
- ii. *Sustainable design goals shall be developed for each project, including consideration of seeking third-party green building certification.*
- iii. *At project initiation, the University Project Manager (“Project Manager”) shall identify one or more sustainability objectives that the project will aim to satisfy (refer to the University's Capital Project Sustainability Checklist for a comprehensive list of possible credits). These will vary depending on project type, scope, budget, and overall appropriateness.*
- iv. *The Project Manager shall be responsible for ensuring that these benchmarks are being met through planning, design, and construction.*
- v. *Upon project completion, the Project Manager shall be responsible for reporting which sustainability benchmarks were met or not met (with a brief explanation of why if not met), as well as providing all relevant support documentation pertaining to the benchmarks.*
- vi. *CONSTRUCTION CLEANING AND WASTE MANAGEMENT – Projects with a construction value greater than \$2,500,000 that are not pursuing third party green building certification (e.g., LEED) shall reference and comply with Montclair State University's Construction Waste Management Plan. The Consultant shall include this in the design documents.*

VII. Cost Estimate and Schedule

Consultants shall be responsible for providing Construction Cost Estimates and for ensuring budget compliance throughout the Project as defined in the RFP.

Construction Bids received greater or less than 10 percent of the approved estimated construction cost may require redesign by the Consultant at no cost to the University.

Consultants shall provide a comprehensive schedule which includes all design phases, University review/comment period at each design phase, FM Global plan review (*if required*), DCA plan review, University procurement and bidding, and anticipated long lead equipment and construction milestones.

VIII. General Guidelines and Responsibilities

Architectural Consultants shall comply within the professional parameters and deliverables consistent with the most recent edition of “*The Architect’s Handbook of Professional Practice*” prepared by the American Institute of Architects (AIA) as well as any University Design Standards (<https://www.montclair.edu/facilities/our-services/capital-planning-project-management/university-facilities-design-standards/>).

Engineering Consultants shall comply with all laws and regulations established by the New Jersey State Board of Professional Engineers and Land Surveyors.

The Consultant shall be responsible for the accommodation of all utilities into and out of the proposed Project. Consultants shall confirm with all local utilities the capacity to support the new facility and design the requisite utilities along with all permits/applications.

Technology should be included as a base service and shall be consistent with the University’s OIT suite of hardware, delivery methodology and mediated equipment programs. Spaces throughout the Project will be furnished with data ports and voice lines. Wireless technology should be provided throughout the Project. The Consultant shall design all AV/IT components of the Project, which may be under a separate contract than the general construction contractor.

The Consultant shall evaluate existing road conditions and traffic patterns (*pedestrian, vehicle, bus, service, emergency, etc.*) and shall recommend and design the connections/modifications to existing roads as necessary.

All site furnishings, lighting, paving, signage, and other aesthetic components should be consistent throughout the Project.

Parking and circulation routes for vehicles, including pedestrians, shall be provided within the Project Site, as required, for handicapped residents/visitors/faculty/staff, University service vehicles, and Official Personnel.

Landscaping for the Project shall be provided with plantings that are consistent with the overall design theme and approved by the University. All plant material should be native to the northern New Jersey area.

Signage getting to and around the Project shall be provided with the style/layout that is consistent with University standards and should be submitted and approved by the University.

IX. Project Communication and Documentation

Consultants shall utilize Projectmates, the University’s electronic project management system, for all project correspondence. The Projectmates website includes a secure document management system for the storing/distribution of drawings and specifications along with database-driven applications for managing RFIs, Submittals, Daily Field Logs, and Meeting Minutes. All items shall be entered, submitted, tracked, and responded to via the web-based software system.