

UNIVERSITY OF PITTSBURGH
DIVISION A
GENERAL PROJECT REQUIREMENTS

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DIVISION A GENERAL PROJECT REQUIREMENTS

A.1 INTRODUCTION

- A. This Instruction to the Design Manual is for the Professionals to use as a guide in the development and preparation of Contract Documents for construction and renovation projects assigned by the University of Pittsburgh. Deviations from these standards must be discussed with the University's Project Manager and prior approval shall be required before making such deviations. The term "Professional" used throughout this manual refers to the registered Architects and Engineers performing design work for the University.

Unless specifically stated otherwise, reference to specific products and manufacturers is included only to establish a standard of quality. Products of other manufacturers which are of equal quality and perform identical functions will be considered for use. The University does not represent or endorse any specific manufacturer or product referred to in these documents.

From time to time these standards will require revisions and additions. Professionals will verify that their copies contain the latest revisions and requirement changes prior to proceeding with the project design. For chronology of updates to this Division A, see the coversheet.

The provisions of this Manual are applicable to University of Pittsburgh facilities whether owned or leased (however it is recognized that in leased facilities, full compliance may not be achieved). Provisions of the Manual apply to both new and existing construction. Facilities covered by this document include all types of buildings and their contents, structures (whether considered temporary or permanent), mobile and stationary equipment, and outside storage. The requirements of the Contract (which by reference includes the University's RFP and the Professional's Proposal) supersede the requirements of this Manual where in conflict.

The term "Project Manager" refers to the University staff person assigned to a particular project. The term "User" refers to the University Department, School, person or persons that will use the spaces or facility designed under a specific project.

- B. Duties of the Project Manager:

The University's Project Manager acts as a liaison between the Professional and the User and/or other University entities involved in the project. The University's Project Manager provides a one-person contact for the Professional so as to promote program and budget control. The Professional is thereby discouraged from contacting the User and/or any other University entities for the purpose of discussing the project, without the knowledge and consent of the University's Project Manager.

It is the Professional's responsibility to ensure that all requirements discussed in this Manual are incorporated in the Contract Documents, unless specifically waived by the University's Project Manager. The Professional must therefore familiarize himself/herself with the contents of this Manual and ensure that his/her Consultants are also familiar with its requirements.

Professionals performing work under contract with the Pennsylvania Department of General Services (DGS): Whenever a conflict arises between the DGS requirements and

requirements of this manual, the Professional shall inform the Project Manager (and note that the DGS requirements prevail).

A.2 RESPONSIBILITIES OF THE PROJECT MANAGER AND THE PROFESSIONAL

- A. At the beginning of the project, the University will assign a Project Manager who will work with the Professional during the design stage of the project. The function of the Project Manager is to act as a liaison between the Professional and other University personnel, including the Users, Telecommunications, Health and Safety, Engineering, and any other University Offices that need to be involved in the project.
- B. THE PROFESSIONAL, AS WELL AS THEIR CONSULTANTS, ARE STRONGLY DISCOURAGED FROM CONTACTING ANY OTHER UNIVERSITY REPRESENTATIVES, UNLESS SPECIFICALLY AUTHORIZED BY THE PROJECT MANAGER.
- C. It is the Project Manager's responsibility to INFORM the Professional of the University's needs, standards, and requirements. This information will be reflected in Minutes of the Meetings, the Design Manual, the Room Data Sheets, etc. HOWEVER, IT IS THE PROFESSIONAL'S RESPONSIBILITY TO ENSURE THAT THESE NEEDS, STANDARDS, AND REQUIREMENTS ARE INCORPORATED IN THE CONTRACT DOCUMENTS.
- D. The Project Manager will review the project documents as required to keep the Users informed of the general status of the project. THE PROJECT MANAGER IS NEITHER RESPONSIBLE FOR COMPLIANCE WITH CODES, NOR FOR DOCUMENTS COORDINATION. IF, UPON SUBMISSION OF DOCUMENTS TO THE PROJECT MANAGER, IT COMES TO HIS/HER ATTENTION THAT THE CONTRACT DOCUMENTS ARE POORLY COORDINATED OR INCOMPLETE, THE PROJECT MANAGER WILL RETURN THE DOCUMENTS TO THE PROFESSIONAL AND WILL DECLARE THE SUBMISSION INVALID FOR THE PURPOSE OF PAYMENT AND/OR COMPLIANCE WITH THE ESTABLISHED PROJECT SCHEDULES.
- C. Selection of Design Professionals for University of Pittsburgh Facility Projects is to select firms with the best potential to achieve a high-quality design on schedule and within budget. A firm's experience and specialization in the project's requirements should demonstrate:
 - Potential to achieve desired results
 - Firm's relevant experience
 - Firm's ability to manage similar projects
 - Capabilities of the Firm's proposed Project Manager
- 1. Procedures:
 - a. The procedures to be used to select Professionals will vary, depending on the fund source and estimated construction cost or design fee. The amount of contracts for professional services will be on a maximum, not-to-exceed basis inclusive of reimbursable expenses. Professionals must attach time rates to their proposals. Proposals will not be processed as contracts by Facilities Management Administration, unless the fee is structured as stated above. The University has its own professional services agreement that is sent with the RFP and the Professional will be expected to sign without modifications, nor additional, Terms and Conditions in the Professional's proposal set forth in the University's agreement.

b. State-funded Projects:

Professionals for State-funded projects are selected by the State Selections Committee of the Department of General Services (DGS) under the regulations of Act 45.

c. University-funded Projects:

Professionals will be selected from a Professional Selections List that contains the names, experience and qualifications of those firms that have expressed interest in working for the University Office of Facilities Management. Qualified design firms that have not had recent contracts with the University and qualified minority or women-owned firms are strongly encouraged to express interest.

2. Sample Evaluation Criteria:

a. Planning and Feasibility Studies:

Ability to define User needs and to establish functional relationships, to recommend funding priorities and project phasing, to estimate costs early in the design process, and to communicate design alternatives with schematic sketches.

b. Site Planning:

Ability to analyze site conditions and develop creative design solutions, considering topography and drainage, soils, tree preservation and landscaping, wetlands and environmental issues, historic or archeological features, utility sources and capacities, parking, pedestrian circulation, open spaces, density, scale, views, and spatial relationships.

c. Architectural and Interior Design:

Ability to understand program requirements and functional relationships and to develop functional designs of high aesthetic quality that reflect program requirements and site conditions.

d. Energy and Life Cycle Costs:

Ability to analyze energy and product alternatives and to design facilities with low energy, maintenance, and operating costs, without significantly increasing initial costs.

e. Schedule and Cost Consciousness:

Ability to develop economical design solutions, to design projects on schedule and within budget, to make accurate cost estimates, and to avoid costly change orders caused by errors and omissions in design documents.

f. Project Management Concept:

Ability to manage design of projects of similar complexity and scale, to coordinate the work of all required disciplines, and to communicate design alternatives to building users.

g. Specialized Experience:

Prior experience with planning studies or the design of sites, buildings, interior spaces, utility systems, environmental and code related studies, with functions similar to those proposed for the project under consideration.

A.3 CODE COMPLIANCE

- A. The Professional will be responsible for incorporating the most restrictive requirements of the applicable local, state, and federal standards and codes into each project design. The Professional will include a statement outlining the basic code requirements applicable to the project and will include a listing of codes enforced by the local authority having jurisdiction. Notwithstanding the above, many sections of the Design Manual exceed minimum code requirements.
- B. It is the intent of the University to establish uniform criteria for all campuses. The Professional will identify any conflicts between University requirements and code requirements during the preliminary phase of the project. Conflicts should be resolved prior to preparation of construction documents.
- C. The University is required by its property insurance carrier to comply with the provisions of the National Fire Codes as published by the National Fire Protection Association. Further, the insurer provides specific design criteria which may exceed the minimum standards established by the applicable codes utilized by the Authority having Jurisdiction. The Professional will review the recommendations of the insurance carrier during preliminary design. Where there are conflicts between the applicable codes, the Project Manager will secure the interpretations and approvals of appropriate University personnel.
- D. University projects will be designed to comply with the Americans with Disabilities Act Guidelines and state requirements.

A.4 SPECIAL SUBSURFACE AND LAND CONDITIONS

- A. The University's campuses present a variety of subsurface conditions that must be taken into consideration when designing new buildings and/or utility systems. Unless requested or proposed during the RFP process, the Professional shall solicit from the University a change order for additional services should a project require subsurface/Geotech investigations. Common conditions on the University campuses include:
 - 1. Oakland Campus: The Upper Campus area contains a larger number of abandoned coal mines. The Professional will obtain from the City, records of the locations of these mines and design the buildings accordingly.

Some areas of the Campus may also have high water tables due to underground streams.

2. Greensburg Campus: The Greensburg Campus is bisected by a creek that floods heavily in the spring. Buildings in this Campus will be located above the 100-year flood plain.

On the lower parts of this Campus, the water table is very high. Professionals are discouraged from designing basements in these areas.

3. Bradford Campus: The Bradford Campus is located adjacent to a creek that presents heavy floods. Buildings in this Campus will be located above the 100-year flood plain.

The water table is very high in most areas of the Campus. Professionals are discouraged from designing buildings with basements.

A large part of this Campus property may be identified as being “wetlands” by the Corps of Engineers. Professionals will be responsible to ensure that new buildings do not disturb the wetlands areas or impacts are offset.

4. Johnstown Campus: Soils with expansive characteristics have been found in some areas of this Campus.

A.5 PROJECT APPROVALS

A. Municipal and Community Approvals:

1. University projects on the Oakland Campus must be approved by various governing entities and community groups. This may include but is not limited to the AHJ (usually L&I – see Division C), City of Pittsburgh Planning Department, Pittsburgh Planning Commission, Historic Review Commission, etc., Regional Campus projects will be reviewed with the appropriate community groups and governing bodies for approvals. Preparation of materials for these approvals are considered Basic Services.
2. When appropriate, the University will schedule meetings with community groups and the Department of City Planning. The Professional shall not arrange any meetings without University knowledge and consent.
3. Should special presentation materials (such as models and high-res renderings/ fly-throughs) be required, the Professional will submit to the University and obtain approval of a proposal for these additional services before performing the work.

B. University Approvals:

1. From time to time, the Professional may be required to make a presentation of the project to the Board of Trustees, the Chancellor and/or other University Committees as required to obtain approvals. The Professional’s time and materials required for these presentations are considered part of the Basic Service of the Contract.

A.6 RELEASE OF PROJECT INFORMATION TO THE NEWS MEDIA

- A. Release of information relative to the project to the News Media, will be coordinated by the Office of Marketing & Communications (OMC) in cooperation with the Professional and the University's Project Manager. OMC will produce and update press releases, in order to ensure the accuracy of the information. The Professional, without prior approval of the University's Project Manager, will not release project information during design and construction of the building.
- B. The Professionals are not authorized to use the name "University of Pittsburgh" or any University logo or mark, or the University seal in brochures, press releases, or advertising without prior approval from OMC through the Project Manager.

A.7 PROJECT PUBLICATION

The Professional may be asked by the University to write a piece of approximately 600 words containing a description of the project and design philosophy and process. This piece will serve as the basis for articles about the project, to be published in the University Journals, together with photographs, renderings, plans, etc.

A.8 ROOM NUMBERS

The Professional, during the **DESIGN DEVELOPMENT PHASE** of the project, will submit to the University, building floor plans showing rooms to be provided in the project. The University will assign room numbers to areas of the building in accordance with established procedures. The Professionals will incorporate the final room numbering system information into the project documents. (See Division F in the Manual "Drawing Standards" F.7)

A.9 MINUTES OF THE MEETING

- A. As part of the Contract's Basic Services, it is the Professional's responsibility to write minutes of meetings conducted during the planning, design & construction of the project. Draft copies of the meeting minutes will be provided to the Project Manager prior to distribution.
 - 1. The Minutes will contain the following information:
 - a. Date of the Meeting and Date of issuance of the Minutes.
 - b. Project Name and Number.
 - c. Purpose of the Meeting.
 - d. Persons in attendance.
 - e. Issues discussed at the Meeting and resolution of these items.
 - f. At the end of the Meeting Minutes, the Professional will list the necessary Follow-up Tasks as a consequence of the meetings discussions. Each Task will state the person or entity responsible, the nature of the Task and the date by which it needs to be completed, in order not to delay the project.

A.10 WARRANTY INSPECTION

- A. The Professional will be required to specify a one (1) year Warranty Inspection. If doing site observation, the Professional will be asked to attend the inspection meeting.

- B. The Warranty Inspection will be arranged through the University's Project Manager. The warranty inspection will be scheduled prior to the end of the tenth (10th) month, and the review completed before the end of the eleventh (11th) month.
- C. The Contractor will be given written notice of defective material and/or workmanship and be required to correct all deficiencies within ten (10) calendar days.

A.11 DESIGN SUBMISSION REQUIREMENTS

- A. The following design submission requirements will be required for renovations, additions, and new structures. These requirements are in addition to the requirements of the RFP, Professional's accepted Proposal and the Contract. Smaller renovations may not have all of these required elements

1. SCHEMATIC DESIGN SUBMISSIONS

- a. At the completion of this stage, the design is 15% complete and the University gives the basic approval to the design from which all further work will flow. Notice to Proceed to the next project phase is given by the Project Manager.
- b. Floor plans shall follow orientation of the site plan. Each drawing should also contain appropriate title information (name of project, scale, date, etc.). Colors and exterior materials should be identified to permit staff evaluation as to design intent and compatibility with the overall campus.
- c. The information listed below, shall be shown on the title page of the drawings.
 - i. Type of Construction
 - ii. Occupancy Classification and Occupant Load Calculations
 - iii. Applicable Building Codes.
- d. Information in the SD submittal may include but not be limited to:
 - i. Floor plans, typical cross sections, elevations, and general site development
 - ii. Preliminary FFE requirements and confirmation of programmatic requirements including preliminary furniture plans and typicals
 - iii. A utility site plan with all connections to existing utilities/proposed new utilities
 - iv. A campus site plan, indicating relationships between existing campus features and the new development. This site plan should indicate accurately all significant existing features of the site, including buildings, trees, paths, roads, etc.
 - v. An eye level color rendering representing the most typical exterior view and character sketches necessary to describe the project. Interior views as appropriate. Exact requirements should be discussed with the University's Project Manager
 - vi. Written description of subsurface investigation results (if available), structural systems, and mechanical and electrical utilities.
 - vii. Descriptive information of unusual design characteristics not documented elsewhere.
 - viii. Outline specification for project
 - ix. Tabulation of building areas--net and gross square feet.
 - x. Statement of Probable Construction Costs.

- xi. High level project schedule.
- xii. Project Summary Statement. This is a brief review of the entire project and may include the purpose of the project and key design elements incorporated to achieve the intended purpose, special site considerations and building areas, outline of materials and any special methods of construction to be employed (prefabricated elements, long lead time pre-ordering, etc.). Include exterior and interior finishes, construction techniques, mechanical and electrical systems, and site work. Describe any unique building systems to be employed, energy conservation methods contemplated, special maintenance requirements (window washing, wall and floor maintenance, etc.), etc. c. Description of construction operations (such as phased construction), special temporary or permanent traffic routing, utility provisions, and overall project schedule. Include any other special project features not otherwise noted
- xiii. Other Requirements: Schematic diagrams of mechanical systems, including air distribution, plumbing, process piping, and control systems, electrical single-line distribution diagrams, schematic data for lighting system, design calculations for mechanical, plumbing and electrical systems, narratives for security and IT, outline Commissioning Strategy Plan (if applicable), and strategies for meeting EUI & WUI targets for the project.
- xiv. Exceptions Noted: Itemize all differences which takes exception from the University's Design Manual

2. DESIGN DEVELOPMENT SUBMISSIONS

- a. At THIS STAGE THE PROJECT IS 35% COMPELTE Notice to Proceed to the next project phase is given by the Project Manager.
- b. Architectural and structural drawings indicating foundation and structural requirements, Floor plans, room finishes, elevations, cross sections, fixed equipment layout, etc
- c. Advanced FFE requirements and final confirmation of programmatic requirements to include keyed furniture plans, furniture typical footprints/layouts in 2D and 3D and representative materials and finishes.
- d. A utility site plan all connections to utilities shown.
- e. Mechanical, Plumbing, HVAC, Special Process Piping showing extent of all utility systems with preliminary sizing information and design calculations for mechanical and plumbing systems.
- f. Electrical with preliminary drawings, including plans and diagrams that indicate types of fixtures (generally all LED) locations, and photometrics, primary and secondary switch gear, sizes and locations of power and lighting distribution panels, special systems (e.g. public address systems, fire alarm, smoke detection, television, etc.) that can be indicated in the specifications and by notes on the drawings with preliminary sizing information and design calculations and a preliminary power systems study per Division K. Include furniture layouts in light line weight on power/data plans and indicate furniture power/data feeds (floor boxes, wall feeds and/or power poles) on power/data plans.
- g. Site Development drawings indicating all exterior appurtenances (for example: bike racks, pathways, parking, patios, benches, etc.) within the project envelope
- h. Structural calculations appropriate to the design phase. Boring data or knowledgeable information of sub-surface conditions within the project envelope
- i. Updated outline or program specifications, indicating special systems, fixed equipment requirements, and extent and type of all systems.
- j. Updated tabulation of Building Areas.
- k. DD Phase Detailed Cost Estimate.

- l. Statement of Probable Furniture Costs.
 - m. Construction schedule with phasing, if applicable,
 - n. Annotated Basis of Design.
 - o. Final Commissioning Strategy Plan (if applicable)
 - p. Anticipated EUI & WUI Targets
 - q. Responses to University comments from SD submittal, in writing
 - r. Exceptions Noted: Itemize all differences which take exception to the University's Design Manual
2. CONSTRUCTION DOCUMENTS SUBMISSIONS
- a. Definitions:
 - i. GMP Documents – 75% completed design documents (generally equates to 50% complete construction documents phase)
 - 1. For CM & Risk delivery, required
 - 2. For Design/Bid/Build, at the PMs discretion
 - ii. 95% completed design documents (generally equates to a pre-final submission, suitable for permitting)
 - iii. 100% completed design documents is intended to provide the University with a final check that all review comments have been incorporated from the 95% review. Any remaining comments will be incorporated by addendum.
 - b. Minimum Submission Data:
 - i. Requirements for a GMP deliverable in a CM @ Risk procurement shall be defined at the SD phase by the Project Team (University, Professional and CM) and may include, but not be limited to all, of the elements below for a CD submittal.
 - ii. Standard Contract Documents and specifications for all disciplines completing all requirements from previous submittals including any alternates or base bids required for bid
 - iii. Complete all disciplines of design work
 - iv. Complete material binders and final finish and furniture selections (see Division C)
 - v. Final calculations for EUI and WUI's
 - vi. Division B checklist
 - vii. Tabulation of parking impacts, storm water impacts, and reforestation requirements
 - viii. Detailed Cost Estimate
 - ix. Construction schedule with phasing, if applicable
 - x. Final tabulation of building areas
 - xi. Responses to University comments from DD submittal and any CD submittal, in writing
 - xii. Exceptions Noted: Itemize all differences which takes exception from the University's Design Manual

A.12 CONSTRUCTION REQUIREMENTS

- A. During construction, the Design Professionals are responsible for the following services:
 - 1. Administration of job meetings: this will include recording and distribution of Minutes of the Meeting (except in CM @ Risk).
 - 2. Review, approve, and keep logs of the shop drawings, including warranties required at the end of a job. Inspect materials, equipment, workmanship for

conformance to drawings, specifications, addendums, schedules, regulations, codes and applicable standards. Use of Owner's Project Management software is required by Contractor.

3. Review and approve of Request for Payments, Requests for Information, and preparation for Change Orders. Change Orders will be handled as required. All changes, whether there is a cost involved or not, must have a Change Proposal Request (CPR) form prepared and approved (sample will be given), keep log of CPR's for Change Orders approved or denied. , We expect a minimum of 60% of the COR cost to be verified by Means, prior project, or other acceptable method.
4. Provide complete Record drawings to the University based on the information provided by individual contractor's As-Built drawings. If required by the contract, full BIM model, CAD drawings and CAD and PDFs of floor plans, including furniture, walls, doors, windows, fixed items and room numbers with area NSF calculations required.
5. The Professional shall produce the punch list document in conjunction with the Owner, and provide follow-up to ensure all items are completed to the satisfaction of the Owner before any Final Completion approval is issued.
- .7. The Professional must participate in the warranty inspection process as outlined in Division B
8. The Professional must be available throughout the entire project for consultation.

A.13 BASE BIDS AND ALTERNATES

- A. The University at its discretion may work with the Professional to identify multiple Base Bids and/or add/deduct alternates in the best interest of the project.

END OF DIVISION