

STATE UNIVERSITY CONSTRUCTION FUND

PROGRAM DIRECTIVES

DIRECTIVE 1A-3

Issue date: March 2012

ARCHITECTURAL CONCEPT PHASE

NOTE: For projects of special or simpler nature, contact SUCF Project Coordinator for specific minimum requirements of the contents for submission.

1. General Instructions

- a. Present at least three viable options for the project. Present drafts of options and revise each to reflect comments made by the Fund and the campus. Present revised drafts of options and revise the selected option to reflect comments made. Prior to finalizing the Concept Phase deliverables, present the revised, selected option to the Fund and the campus for approval.
 - (1) In consultation with the campus and the Fund and using an iterative process, provide analyses of the options to determine whether the possible options fit the funds available for the project.
 - (2) In addition to the options for the overall project approach, present options for significant project components, equipment, systems and materials.
 - (3) Consider constructability issues continuously throughout the design effort and make recommendations concerning the impact of the contractor's work on Campus operations.
 - (4) Present analyses of project execution and the potential construction contract options to determine the desirable option(s) for sequencing the work in phases that fit the capabilities of the available bidders, the potential need to defer construction of portions of the project due to funding restrictions, the availability of work areas and other factors requested by the Fund and campus.
 - (5) To assist the campus in reaching a consensus on decisions required to complete the Concept Phase, develop a brief written summary of each issue using an iterative process to incorporate campus and Fund input. Use the format preferred by the campus and list factors, benefits, detriments and impacts applicable to the issue.

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- b. The phase submission must satisfy all comments made on the previous phase report, if any. Responses to previous review comments are required. The response must clearly describe the action taken and fully address all questions raised; Reference the drawing number or specification section where appropriate.
- c. Review a draft of the report with the Fund before the formal submission. The Concept Phase checklist is to be completed and submitted with the draft report.
- d. The formal submission shall include the cost estimate in CSI format identifying the quantities and unit prices. Submit an editable electronic version to the Fund Coordinator.
- f. The Consultant and each sub-consultant shall provide a letter on company letterhead, signed by a principal member of the firm that certifies that the quality and completeness of the documents has passed their review and the quality of the documents submitted meet the requirements of the Fund.

2. Concept Report

- a. The following information is to appear on the cover sheet: Project No., Project Name, Name of Campus, Name of Consultant, and issue date.
- b. Six (6) copies (pages to be numbered) - Confirm actual number of sets and delivery points with the Fund Coordinator.
- c. Graphics. (Paper deliverables should be consistent with models, perspectives, and/or computer-generated walk-through used to present the concepts to the campus)
 - (1) Site Development, as applicable.
 - (a) Key plan showing project site in relation to Campus Plan.
 - (b) Basic Site Plan at a minimum scale of 1" = 50' showing:
 - (i) Proposed site features such as sidewalks, roadways, parking areas, loading docks, site amenities, etc.
 - (ii) Materials for pavements.

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- (iii) Utility systems including existing utilities and connection points.
 - (iv) Plant materials.
 - (v) Grading - existing and proposed, especially at walls, stairs, etc.
 - (vi) The identification of major outdoor spaces and demonstrating relationship/coherence to established campus vocabulary.
 - (vii) Contract Limit Line, anticipated staging area and resolution of conflicts from Program Report findings.
- (c) Sections necessary to show relationships of major items in vertical dimension.
- (2) Building, as applicable
 - (a) Floor plans: At appropriate scale ($1/8" = 1'$), indicating functional relationships of major spaces.
 - (b) Provide a minimum of three concept designs illustrating a different design approach in each.
 - (c) Elevations: at appropriate scale, indicating materials and fenestration.
 - (d) Sections: Sections indicating vertical relationship and floor-to-floor heights of major elements, and relationships to grade and adjacent buildings if there is a direct physical relationship or code requirement.
 - (e) The graphics shall include a reasonable allowance of space for mechanical and electrical equipment.
- d. Report (may be noted on the drawings or in a separate report)

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- (1) Brief description of design concept for both site and building.
- (2) Brief description of structural system and foundation. Describe the design approaches considered.
- (3) Describe the alternatives (where available in the Directives) considered for significant mechanical, electrical, plumbing, fire protection and other systems. Typically, consider only system types permitted by the Directives. Provide an comparison for each proposed mechanical system. This comparison shall include the following:
 - (a) A brief description of each design alternative (where available).
 - (b) A brief description of the pros and cons of each alternative (where available), including its estimated relative construction and operation cost and a brief life cycle cost comparison.
 - (c) Recommendation of the alternate (if any) for each system.
 - (d) In cases where more than one alternative is appropriate and a life cycle cost analysis is required to determine which is more cost effective, provide a life cycle cost analysis per Directive 15H-1. (Unless included in the lump sum fee or the Schedule B of the Consultant's Agreement, the services and fees related to providing a life cycle cost analysis in the detail recommended by the National Institute of Standards and Technology may be provided through extra compensation when approved by the Fund.)
- (4) Indicate approach to comply with Executive Order 111 and achieve LEED Silver certification, and briefly describe the energy conservation features.
- (5) Project Cost Estimate: Estimate summary (follow formats as shown in SUCF Publication "*Project Cost Reporting*"); separating site, rehabilitation, and new construction costs, as applicable.
- (6) Brief statement that the scheme as shown can be accomplished within the SUCF Budget. If any discrepancies or uncertainties are known, they should be listed.

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- (a) For new buildings, additions and Alteration Level 3 projects, provide a list of viable value management deductions equal to at least 10% of the total construction cost estimate (or other percentage, when approved by the Fund, that is more appropriate to the project size, type, the level of design completion, etc.)
- (b) The purpose of the value management deductions is to facilitate timely decisions on scope and cost by providing a viable alternative to adding funds to the budget. Viable value management deductions are ones that can be realistically implemented in terms of the level of design completion, program constraints, operational constraints, schedule constraints, code compliance, constructability and other factors requested by the campus and the Fund.
- (c) For other projects not covered by 2d(6)(a) above, when requested by the Fund or when the estimate exceeds the budget, provide a list of viable value management deductions, if any, that can be realistically implemented when considering the project scope.

- (7) Identify extent of field investigation required (survey, testing, borings, as-builts, etc.).
- (8) Investigate and confirm the need for utility connections, site improvements, central system upgrades and all other work required to integrate this project into the existing campus infrastructure.
- (9) For new or renovated building spaces, area analysis shall include:

	<u>Program</u>	<u>Design</u>	<u>Deviation</u>
Total Net Area	_____	_____	_____
Total Gross Area	_____	_____	_____

e. Code Compliance: Provide the following items:

- (1) Code narratives:
 - (a) For existing buildings, provide a narrative articulating the code history for the building. As an example;

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'Academic Hall was built in 1985 under the 1984 NYS Uniform Fire Prevention and Building Code and the west wing addition was added in 2005 under the 2003 NYS Uniform Fire Prevention and Building Code. Academic Hall is used predominantly as a classroom building (Group B) with many administrative offices (Group B) and a 200-fixed-seat auditorium (A-1). The main 1985 building is a 2-story 20,000 sq. ft. steel-framed building, construction type matching IIB. The 1-story 3,000 sq. ft. addition housing the auditorium also has a construction type matching IIB. There is no separation between the 1985 and 2005 construction. Only the auditorium has a sprinkler system.'

- (b) To address any renovation effort, provide a narrative articulating the code intentions for the renovation work. As an example;

'The renovation work within the existing building will comply with the 2010 Existing Building Code of NYS and the 2010 Energy Conservation Construction Code of NYS.'

- (c) To address an addition or a new building, provide a narrative articulating the code intentions for the new construction. As an example,

'The proposed elevator addition will comply with the 2010 NYS Uniform Fire Prevention and Building Code, in particular, the 2010 Existing Building Code of NYS, and the 2010 Energy Conservation Construction Code of NYS.'

- (d) For additions, provide a site plan / diagram at an appropriate scale, showing the existing building and the proposed addition up to 100 ft in all directions. The site plan / diagram shall include dimensions to all buildings, property lines, pavements and extreme topography.
- (e) For new construction, including any additions, provide narratives and diagrams demonstrating General Building Height, Area and Construction Type Determination. These shall include;

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- (i) A series of plan / diagrams for all levels with blocks of color or tone demonstrating occupancy types with the addition in place.
- (ii) Square footage calculations of the building, per level.
- (iii) A diagram showing the extent of each construction type if there is more than one type within an existing building.
- (iv) A narrative stating the construction types available for the new construction based on the occupancy and size of the building. This narrative shall include the Consultant's recommendation for construction type.
- (v) A narrative addressing separated or non-separated use of the building for multiple occupancy types.

3. Agenda for the Architectural Concept Presentations

a. Introduction by the Fund.

b. Presentation by Consultant:

- (1) Summarize highlights of the Program Report and report deviations, if any, from Program requirements.
- (2) Graphics on Site Design.
- (3) Graphics on Massing and Building Design, including substantial code implications.
- (4) Summarize specific design concepts and special features proposed, including code implications.
- (5) Review building systems and energy conservation.
- (6) Summarize all problem areas to be resolved and parties responsible for resolution.
- (7) Comments by the Campus.
- (8) Comments by the Fund (also cover schedule and budget status).
- (9) Discussion relative to construction cost versus available budget.

c. Conclusion by the Fund:

- (1) Decisions made at the presentation.

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- (2) Actions to be taken in the next phase development (by whom and when).
- 4. Concept Approval: The Concept is a possible solution or direction in planning to be further developed toward fulfilling the program, schedule and budgetary requirements for a facility. Acceptance of the Concept is contingent upon:
 - a. Final Schematic Design adhering to the accepted scheme or to an approved alternate.
 - b. Confirmation of proper functional relationships within spaces and adjacencies to related spaces.
 - c. Scheme can be constructed within budget.
 - d. Conformance with codes, construction standards and schedule.

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