

II. Design Procedures

A. General Requirements

1. Owner Provided Information

- 1.1 The Director of Physical Plant will provide, or make available, the following project information to the design professional, as appropriate:
- a. The current issue of this document is available from the Design Office of BYU-Idaho.
 - b. A copy of the General Conditions of the Contract for Construction. See Section IV, Materials Use and Specifications, Division 0 – Bidding Requirements, Contract Forms, Conditions of Contract, and General Conditions.
 - c. The current university product requirements.
 - d. A written preliminary program for the project.
 - e. Information technology and telecommuting standards to be incorporated into the project.
 - f. A physical, topographical, and boundary survey and legal description of the project site (in consultation with the design professional).
 - g. Geotechnical borings and reports, with recommendations (in consultation with the design professional).
 - h. The name of the university representative.
 - i. A copy of asbestos and hazardous materials report(s).
 - j. Other appropriate documents requested in writing by the design professional.
 - k. The design process is an iterative one following the general industry sequence of schematic design, design development, and construction document phases. There are requirements for submittals at each phase, which must be approved by the owner before the next phase begins. Specific requirements of each submission are described in the "Submittal Requirements" section of this document.

2. Owner Reviews

- 2.1 Each phase of a project is reviewed by the owner and the owner's consultants as needed. Each phase of the design must meet BYU-Idaho design standards and university requirements before the next phase begins.
- 2.2 Variances to these standards must be requested in writing by the designer and authorized in writing by the Director of Physical Plant or his designee prior to

incorporation of the proposed variance into the documents. The variance request must be made as early as possible but no later than completion of the design development phase.

- 2.3 A schedule for reviews will be prepared and agreed to by the design professional and the owner. The owner in consultation with the design professional will determine the amount of review time needed for each phase of each project. The scheduled review time contemplates that each phase requires no more than one review and revision to bring the documents into conformance. The schedule will include time to verify comment incorporation from each review and prior to issuing the documents for bidding. Additional time for follow-up reviews will extend the schedule.

3. Contracts

- 3.1 Contract and construction documents will normally be organized for single prime contracts, unless separate prime contracts or other project delivery methods are approved in writing by the owner.

4. Quality Assurance and Quality Control

- 4.1 The design professional and the owner shall develop a quality assurance plan specific to the project's needs that address building codes requirements for construction testing and observations, design review, construction testing, and construction observations. Refer to Appendices 01400 and 01410.
- 4.2 In addition, the contractor will be responsible for a quality control plan to assure quality during the construction process, which includes coordination and cooperation with the owner's testing and inspection consultants.
- 4.3 The general intent of the design process is that the quality standards for the building not be compromised.
- 4.4 Quality assurance work will usually be contracted directly by the owner.

5. Products

- 5.1 The owner prefers to limit products specified to 2 or 3 high quality, comparable products. Consult with the owner concerning the product approval process. Do not specify "and/or", "or equal" and similar language. During and after bidding, no substitutions will be approved for:
- a. Brick

- b. Waterproofing
 - c. Roofing system materials
 - d. Flashing
 - e. Joint sealers
 - f. Metal doors and frames
 - g. Windows and curtain walls
 - h. Door closers and latches/locksets
 - i. Temperature and energy management controls
 - j. Major mechanical and electrical equipment
- 5.2 Tables containing specific materials, manufacturers, and models are included under the specific divisions in section IV, Materials Use and Specifications.

6. Hazardous Materials

- 6.1 The design professional must receive approval from the owner before planning work in areas known to contain hazardous materials. The owner, separate from the project, unless otherwise provided, will normally handle hazardous materials abatement.
- 6.2 No materials that may contain asbestos shall be specified or used.
- 6.3 Hazardous materials survey(s) shall be included in the project manual/specifications as information available to the bidders.

7. Site Survey

- 7.1 The design professional shall define the scope and required features of the site survey. The owner will contract with a registered surveyor.

8. Geotechnical Investigation

- 8.1 The Owner will engage the geotechnical engineer to conduct the drilling, soils testing, and preliminary excavation.
- 8.2 The design professional shall recommend the number and location of soil borings to be taken.
- 8.3 The geotechnical consultant will review the design professional's recommendations as to number and location of soil borings and prepare a project approach report.
- 8.4 The geotechnical engineer will engage the field crews necessary to complete the investigation under the oversight of the Owner.
- 8.5 The geotechnical engineer will prepare a report the addresses:
- 8.5.1 Generalized Site Conditions
 - 8.5.2 Findings of note or concern

- 8.5.3 Conclusions
- 8.5.4 Recommendations
- 8.6 The Owner will provide the report to the design professional.
- 8.7 The entire geotechnical report shall be included in the project manual/specifications as information available to the bidders.

9. Utilities

- 9.1 The design professional shall coordinate design with utility companies and the campus for connections to steam, water, sewer, gas, electric, and other utilities.
- 9.2 Specify that the General Contractor will pay for plant steam and campus electricity at a rate to be determined prior to the bidding process. The General Contractor will be responsible for installing meters on both systems.
- 9.3 The design professional shall review with the owner what existing utilities are underneath the proposed building and building loading zone. Existing utilities should be re-routed outside the new construction soils loading zone.

10. Temporary Facilities

- 10.1 Consult the owner to determine how the specifications shall be written for all temporary facilities, such as construction heat, phone, toilets, parking, site access, materials storage, food service access facilities, and requirements for office space for the sole use of owner's representatives, with the contractor responsible for all costs.

11. Estimated Construction Cost

- 11.1 Should the design professional's estimated base bid construction cost exceed the budgeted construction cost, immediately notify and consult with the owner to be within budget. Funds in addition to those appropriated are neither authorized nor available.

12. Contingency

- 12.1 The design professional and the owner shall develop a bid contingency plan, tailored to the specific project, that provides for a clear, defensible contract award that is in the best interests of the owner.

B. Submittal Requirements

1. Schematic Design

1.1 Objectives

- 1.1.1 Define each building space, the infrastructure it requires, and its relationship to others so that the university's written program is satisfied within the budgeted construction cost.
- 1.1.2 Produce a written report and drawings that, in lay terms, describe all the major building systems.
- 1.1.3 Provide one set of poched drawings for presentation purposes. Set to include site plan, floor plans, elevations and sections. Drawings shall be in color and mounted on foam core art board.

1.2 Written Report Requirement.

- 1.2.1 The Schematic Design written report shall include the following information:
 - a. Separate owner approval sheet with signature blocks. See Appendix 00001 for sample.
 - b. Table of contents.
 - c. Overview of existing conditions. Include:
 - 1. Response to all soils report issues, such as but not limited to excavation, expansive soils, bearing capacity, differential settlement, perched water, water table, building separation/expansion joints, cold-weather protection.
 - 2. Describe how the site plan is responsive to existing or proposed traffic, parking, pedestrian, bicycle, and utility patterns.
 - 3. Capacity and feasibility of extending utilities and other services from existing campus structures to service new construction.
 - d. Discuss program and design issues. Include:
 - 1. Building configuration, structure, and fit with existing buildings.
 - 2. List of space requirements including function, size, and relationship to other spaces. Occupant comfort and acoustics must be addressed.
 - 3. Design parameters for spaces having special mechanical and electrical needs, such as science labs, photo labs, copy/duplicating, kitchens, and swimming pools. Identify applicable codes and standards used as a basis for the design, as well as limitations of the design that will affect the use of the space.
 - 4. Discuss ecclesiastical acoustic treatment for offices.
 - e. Discuss systems. Include:

1. Description of all architectural, structural, mechanical (plumbing, HVAC, fire protection) and electrical systems by Construction Specifications Institute 16- division format.
 2. Report areas within construction work that are known or suspected to contain asbestos, based on review of the asbestos survey report. Inquire and account for abatement time in the overall scheduling.
 3. Describe floor-to-ceiling and floor-to-structure clearances vis-à-vis mechanical, electrical, and other requirements. Certify that ceiling and mechanical room space is sufficient for installation and service of equipment, corresponding ductwork, and conduit.
- f. Discuss schedule and costs. Include:
1. Statement of estimated construction cost broken down by 16 divisions.
 2. The project schedule from design through construction completion.
 3. Review the affect of schedules of required appropriation process.
- g. Include the following in appendices:
1. List of all applicable codes and standards.
 2. Geotechnical investigation.
 3. Documentation of preliminary review by state and local building officials and local fire marshal.
- h. Include a quality assurance plan for all testing, observation, and quality control needed for the project. Use standard chart format supplied by the owner.
- i. Include written authorization from the Director of Physical Plant for all variances.

1.2.2 Acoustical Consultation

- a. The architect shall obtain the service of an acoustical consultant on projects involving auditorium acoustics, unusual sound and vibration isolations, or other related problems. The Owner shall approve this consultant. If additional fees are necessary, they will be negotiated.
- b. Mechanical Rooms will be isolated and located so as to isolate sound and vibrations from offices and classrooms.
- c. Offices used for ecclesiastical meetings shall receive special acoustical attention to maintain confidentiality of meetings.

1.3 Drawing Requirements

1) Drawing sizes

- a. Submit drawings for initial review in full size format. Final submittal for the schematic design report shall be 11" x 17" drawings folded into 8.5 X 11 size bound at end of written report in single document. Full size sheets are also required for the owner and the owner's consultants to review.

- b. Drawings will be at a conventional architect scale suitable for the building size and the paper format. 1/16" = 1'-0" is the minimum size for architectural drawings of the floor plans and elevations.
- 2) Title Sheet
- a. Name of professionals and their firms involved in the design, index of drawings, code analysis, and building statistics (number of floors, gross square feet (GSF)/floor, total GSF, net area square feet (NASF)/floor, total NASF, roof area, and building height).
- 3) Existing Site Survey
- a) The architect will assist the BYU-Idaho project manager in establishing the information required for each site development plan.
 - b) The basic information will include
 1. Topographical Survey, 1 foot contours to the City of Rexburg Datum.
 2. Identify shape, location and elevation of all permanent structures, such as fences, walls, boulder groupings, decks, walks and other paving, and water features.
 3. Draw all permanent structures
 4. Identify and draw all lawn areas and planting areas.
 5. Locate and identify all trees by type (conifer or deciduous) and caliper. Locate and identify all trees by type (conifer or deciduous) and caliper.
 6. Shrub beds shall be identified for locations and size. Individual plants will not be noted.
 7. Locate utilities; water mains, power, data, and sewer
 8. Extend survey beyond the building lines to the nearest existing building.
 9. Establish 3 permanent survey benchmarks around the garden based on City of Rexburg datum.
- 4) Site Plan
- a. Provide site plans showing utility connections, routings, sewage systems, and storm drains. Show where existing utilities will be relocated beyond the new construction soils loading zone.
 - b. Include north arrow, construction limits, walks, streets, parking, contours, drainage, grading characteristics, utilities, landscaping, and handicapped access. Show relationship of new to existing.
 - c. The drawings will be at 1"=20' or larger.
 - d. Show prevailing winds, existing land contours with elevations, proposed land contours, and locations and types of existing trees.
 - e. Trash enclosures and circulation for collecting truck.
 - f. Bike racks at entrances to the building.
 - g. A separate plan will be prepared noting demolition on the site.
- 5) Architectural Floor Plans
- a. Identify room functions, provide furniture or equipment layouts where appropriate, clearly illustrate access including handicapped and exiting.

- b. For all lecture halls, auditoriums, and spaces with fixed seating, indicate location of the wheelchair space.
 - c. For all rooms with sloped floors, indicate location of wheelchair space.
- 6) Roof Plans
- a. Indicate drainage (high and low points roof membrane surface and slopes); identify drains and overflows; show roof access and equipment expected, control joints, expansion joints, roof penetrations, and curbs.
 - b. Show fresh air intakes and building exhaust locations.
- 7) Exterior Elevations
- a. Illustrate features, materials, control joints, expansion joints, and relationship to existing structures.
 - b. Show fresh air intake locations in relation to building exhaust, auto exhaust, cooling towers, loading docks and other pollutant sources. Show air intake elevations and their relation to grade.
- 8) Major Building Sections
- 9) Wall Sections and Other Details
- a. Illustrate foundations, structural systems, wall construction (including thru-wall flashings), waterproofing, roof system, vapor barriers, interior partitions, exterior door, and window types. Show wall details at 3"=1'-0". Provide 3"=1'-0" isometric details of all non-right angle and curved construction.
- 10) Mechanical and Electrical Plans
- a. Provide schematic layout of mechanical equipment showing adequate space for general access and for removal, repair, and maintenance.
 - b. Show locations of supply air and exhaust air terminal points in conjunction with each other, loading dock vent lines, engine exhaust stacks, plumbing vents, exhaust fans, and other contamination sources.
 - c. Show the locations of all system equipment, pumps, boilers, chillers, cooling towers, transformers, switchgear, etc.
- 1.4 Accessibility
- a. Provisions shall be made in the design of buildings and equipment to accommodate individuals with disabilities. Architects and engineers are referred to the following publications for guidelines:
 - 1. "Accessibility," Chapter 11, 2000 Edition, International Building Code as prepared by the International Code Council
 - 2. "Americans With Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities," prepared by U. S. Architectural and Transportation Barriers Compliance Board.
 - 3. "Uniform Federal Accessibility Standards."
 - 4. "American National Standard, Accessible and Usable Buildings and Facilities." CABO/ANSI No. A117.1, 1992.

1.5 Specification Analysis

- a. A short specification analysis will be prepared to indicate general appearance, materials, and finishes.

1.5 Energy Conservation

- a. Building projects involving heating and cooling shall be designed to minimize energy consumption and shall have maximum operating efficiency. The Architect and the Engineers shall present energy saving proposals in the schematic presentations.
- b) Owner's Schematic Plan Review Process
 - i) The Owner's representative and all persons directly concerned will review the schematic submittal drawings and outline specifications. The architect and engineers will be invited to a review meeting at which time they will be given copies of the comments and suggested changes to be made to the plans and specifications. This critique will contain a compliance column for the architect to state compliance or to give reasons for not complying. This must be completed and returned to the owner's representative as soon as possible.
 - ii) A floor area comparison shall be included, showing footage recommended for each facility in the Owner's building program compared to the preliminary drawing square foot floor area. Table B.1-A is an example of how this comparison may be set up. Square foot floor area shall be calculated by the AIA definition of architectural space.
 - iii) The architect is responsible for reviewing plans and specifications with the City of Rexburg Building Official and Fire Marshal to ensure that all applicable codes and ordinances are complied with. In this schematic design phase, the architect should visit with the city personnel and review the proposed facilities.
 - iv) In the next drawing phase (Preliminary Phase), a copy of the plans will be sent to the city authorities requesting their comments and inviting them to the plan review meetings.
 - v) The Architect shall submit 5 sets full size drawings and 2 sets half size drawings.

BUILDING PROGRAM – SCHEMATIC DESIGN

FLOOR AREA COMPARISON

Program Facility Number	Program Net Floor Area	Preliminary Net Floor Area	Over Program Net Sq. Ft.	Under Program Net Sq. Ft.

SUMMARY

Program Total Net Sq. Ft. _____

Schematic Design Drawing Total Net Sq.Ft. _____

Over Program Total Net Sq. Ft. _____

Under Program total Net Sq. Ft. _____

Program Total Gross Sq. Ft. Floor Area _____

Schematic Design Total Gross Sq. Ft. Floor Area _____

Over Program Gross Sq. Ft. Floor Area _____

Under Program total Gross Sq. Ft. Floor Area _____

Table B.2-A

2. Design Development

2.1 Objectives

- 2.1.1 Refine the schematic design in the context of the university's program, owner's review of the schematic design, these design standards, and the budgeted construction cost.
- 2.1.2 Communicate clearly the technical criteria, characteristics, and quality of each material, system or space identified in the Schematic Design phase.
- 2.1.3 List all appropriate quality control standards.
- 2.1.4 Produce a written report and drawings that describe all major building materials and systems.

2.2 Written Report Requirements

- 2.2.1 The Design Development written report shall include the following information:
 - a. Separate owner approval sheet with signature blocks for Director of Physical Facilities and the university to be inserted immediately following the cover sheet. See Appendix 00001 for sample.
 - b. Table of Contents.
 - c. Changes from the schematic design submittal.
 - d. Record of the variances granted by the Director of Physical Plant.
 - e. Conformance of design with applicable codes.
 - f. Narrative for each type of building space, indicating the technical solutions to design issues, i.e. acoustical control methods, occupant comfort, communications, HVAC, lighting, security, special requirements.
 - g. Room finish schedule.
 - h. Outline specification including manufacturers and standards. Provide complete sections for quality control, interior and exterior waterproofing, paint, and exterior windows/curtain walls. List particular installation procedures essential to quality control.
 - i. Mechanical & electrical issues:
 - 1. Provide a separate 8 ½ x 11 report containing a complete copy of all calculations performed for sizing building equipment. The report shall be retained as a permanent record of the design requirements. The data shall include all assumptions and design parameters used as a basis for performing the calculations.
 - 2. Provide completed calculations and design data that demonstrate that published IAQ guidelines and ASHRAE design standards have been followed.
 - 3. List the number of building occupants served by each air handling system and specify minimum outside air quantity in

- CFM for each supply fan connected to an outdoor air louver.
Demonstrate the balance between exhaust air and the minimum volume of mechanically supplied fresh air.
4. Identify each instance where equipment size or design has led to limitations on equipment installation or service; and identify each instance where equipment, duct, and piping configurations have been compromised by raised ceilings, large glass areas, atriums, mezzanines, or other design conditions. Where M & E solutions require deviations from preferred practice, these deviations shall be reviewed and approved by the owner in writing.
 5. Verify the HVAC unit filtration sequence: pre-filter, heating coil, secondary filter, cooling coil, fans. Provide reasons if altered from this sequence.
 6. Description of lighting design and list of interior and exterior light levels.
 7. Light fixture schedule including lamp type, size, and service life.
 8. Verify with owner if existing transformers contain PCB's.
 9. Describe the energy management system sequence of operation.
- j. Include local fire marshal's approval for this phase.
- k. Scheduling:
1. Include reviews, completion of documents, recommended bidding time and construction. Discuss seasonal limitations for excavation work, enclosure, and roofing. If applicable, discuss phased owner occupancy.
 2. Describe coordination with hazardous materials abatement if required.
- l. Costs:
1. Statement of estimated base bid construction cost broken down by 16 divisions, and statement of the expected cost of each deduct alternate. Also provide cost per gross square foot.
 2. List of proposed deduct alternates, preferably in order of acceptance approved by the university.
 3. Estimated base bid construction cost plus any add alternates must not exceed the owner's budgeted construction cost.
- m. Quality Assurance:
1. Meet with the owner and the owner's testing consultants prior to design development submittal.
 2. Include an updated and refined quality assurance plan in required chart format, with a complete description of all testing and observations procedures and level of observations for each appropriate section. Quality assurance testing shall also be indicated in each specification division defining the type of test and the method, test frequency, test pass/fail tolerance, and action required for failed tests. Refer to Appendices 01400 and 01410.
 3. Brick prequalification testing shall be completed during the schematic and/or design development phase of the project.
 4. Provide response to owner's consultants' schematic review items.

2.3 Drawing Requirements

2.3.1 Title Sheet

- a. Include index of drawings, code analysis, building statistics, (number of floors, GSF/floor, total GSF, NASF/floor, total NASF, roof area, building height), approval block, name of professionals and their firms involved in the design.

2.3.2 Site Survey¹

- a. Include on the drawing, relations with adjacent buildings, streets, walks, and landscaping
- b. Show topographical survey.

2.3.3 Civil Plan

- a. Include utility work.
- b. Show the scope of the storm water sewer system.
- c. Show the scope of the storm water pollution prevention requirements.

2.3.4 Site Plan(s)

- a. Include north arrow. Show new and existing: walks, streets, parking, parking striping, contours, drainage, utilities and utility connections, utility tunnels, construction limits, landscaping, handicapped access. Show relationship of new to existing.
- b. Show the entire scope of horizontal waterproofing (exterior and interior).

2.3.5 Demolition Plans

2.3.6 Architectural Floor Plans

- a. Minimum 1/8" scale of all areas, 1/4" for areas where clearances are critical, i.e. bathrooms, toilets, and stairs.
- b. In existing buildings, identify areas of work that may require asbestos abatement to precede construction. If this is not feasible, include a narrative in the design development written report and refer to the Hazardous Material Survey.
- c. Provide a furnishings plan showing room arrangements and multimedia locations.

2.3.7 Roof Plans

2.3.8 Reflected Ceiling Plans

- a. Show areas of finishes, soffits, and changes in height, lights, and diffusers.

¹ All three site plans may be included as a single drawing or a combination that will present the required information.

- b. Identify all areas that do not utilize lay-in ceilings. Access panels shall be noted to indicate size and equipment to be serviced.

2.3.9 Building Elevations

- a. Show as many flashing locations (including end dams) as possible.
- b. Show mechanical louvers.

2.3.10 Engineering Floor Plans

- c. Submit plumbing plans with fixture layout, fixture types, plumbing chases, and service for water and waste.
- d. Submit mechanical plans showing heating and cooling zones, probable equipment sizes and types, cooling towers, cost benefit analysis for cooling approach, and electrical requirements.
- e. Submit electrical drawings showing service location, probable size, sub-panels, general layout of outlets, general layout of lights, and special electrical needs
- f. Submit telecommunications plans showing location of data and telephone ports, telecommunications room layout, cable tray routes, and service location.

2.3.11 Building Sections

- a. Show excavation sub-cut elevation, drain tile, and footing elevations.

2.3.12 Interior and Exterior Wall Sections

2.3.13 Details

- a. Show all the following details at 3" = 1'-0":
 1. Interior and exterior waterproofing systems and terminations.
 2. Drain tile system.
 3. Roof details at roof edges, mechanical curbs, and other roof penetrations.
 4. Control and expansion joint details.
 5. Wall flashing details at each type of wall opening and relief angle. Flashing details for all typical conditions, unique conditions, terminations, different system interfaces. Tie-in to existing systems or different configurations and materials, inside and outside corners and end dams.
 6. Sills, thresholds, jambs, and heads of each window and door type. The window details shall illustrate the window relationship to the wall section, thermal breaks, weeps, anchorage, vapor barrier, and thru-wall flashing.
- b. Provide isometric details of all non-right angle and curved construction.

2.3.14 Foundation Plan

2.3.14 Foundation Drainage Plan

2.3.15 Framing Plan

- a. Include location and size of primary members.

2.3.16 Roof Framing Plan

- a. Include location and size of primary members and location and amount of structural slope.

2.3.17 Mechanical Floor Plans

- a. Include plan for each major system, at $\frac{1}{4}'' = 1'-0''$ scale, showing clearances for repair and maintenance in mechanical rooms. Show thermostat control zone areas. Mechanical Distribution and Riser Diagrams

2.3.18 Electrical Site Plan

- a. Include exterior lighting.

2.3.19 Electrical Floor Plans

- a. Include overall floor plans and typical room layouts. Plans should include power, light, emergency lighting, computer, communication and alarm systems. Show emergency lighting design calculations: approximate watts per square foot and total square feet.

2.3.20 Electrical Distribution Plan and Riser Diagrams

2.3.21 Presentation Drawings

- g. One framed perspective rendering in color of the building shall be furnished.
- h. The specific method or medium of rendition is left to the choice of the architect.
- i. The rendering will be suitable for viewing at a distance of 20'.
- j. Mount drawing on foam core artist's board.
- k. The owner may request a model of the project in place of a rendering or a rendering and a model.

2.3.21 Floor Area Comparison

- 2.3.21.1 A floor area comparison shall be included, showing footage recommended for each facility in the Owner's building program compared to the preliminary drawing square foot floor area. Table B.2-A is an example of how this comparison may be set up. Square foot floor area shall be calculated by the AIA definition of architectural space.

2.3.22 Outline Specifications

- a. The outline specifications shall describe the general type of materials and equipment for each trade classification.
- b. This specification shall include a section on firestopping.

2.4 Owner's Preliminary Plan Review Process

- 2.4.1 Preliminary drawings and related materials will be carefully studied and reviewed by the owner. A/E shall submit three sets full size drawings and 3 sets ½ size drawings.
- 2.4.2 The Owner will prepare a written critique and schedule a plan review meeting where the various questions can be discussed and resolved.
- 2.4.3 The written critique will contain a compliance column for the Architect to state compliance to the critique or to give reason for not complying. This must be completed and returned to the Owner as soon as possible.
- 2.4.4 Until written approval is received by the architect, he should not proceed with working drawings.
- 2.4.5 The Owner will require 7 working days for review from submittal of the Preliminary Drawings to the plan review meeting.
- 2.4.6 The Owner will submit the Preliminary drawings to the University Board of Trustees for approval prior to commencing working drawings. This will require 3 – 4 weeks depending on the architects submittal date.
- 2.4.7 The architect will submit 7 full size sets of drawings and 2 half size sets of drawings.

BUILDING PROGRAM – DESIGN DEVELOPMENT

FLOOR AREA COMPARISON

Program Facility Number	Program Net Floor Area	Preliminary Net Floor Area	Over Program Net Sq. Ft.	Under Program Net Sq. Ft.

SUMMARY

Program Total Net Sq. Ft. _____

Design Development Drawing Total Net Sq.Ft. _____

Over Program Total Net Sq. Ft. _____

Under Program total Net Sq. Ft. _____

Program Total Gross Sq. Ft. Floor Area _____

Design Development Drawing Total Gross Sq. Ft. Floor Area _____

Over Program Gross Sq. Ft. Floor Area _____

Under Program total Gross Sq. Ft. Floor Area _____

Table B.2-A

3. Construction Documents

3.1 Objectives

- 3.1.1 Refine the design development documents into a coordinated package considering the review comments, these standards, program and budget.
- 3.1.2 Produce comprehensive, unambiguous construction documents with complete information so that the understanding of bid, award, and construction requirements will be the same for all bidders.

3.2 Written Requirements

- 3.2.1 Statement of Probable Construction Cost
 - a. Provide a statement of probable base bid construction cost by 16 divisions. Probable base bid construction cost must not exceed the owner's budgeted construction cost. Include all bidding alternates.
- 3.2.2 City of Rexburg Building Code Plan Review
 - a. Submit copy of the working drawings to the City of Rexburg Building Official for review and comment.
 - b. Prepare and submit a Building Permit Application.
- 3.2.3 Local Fire Marshal Review
 - a. Submit copy of the local fire marshal's approval.
- 3.2.4 Geotechnical Engineer Review
 - a. The geotechnical engineer shall review the construction documents and provide a written report that states the soils recommendations have been incorporated into the construction documents, and/or suggest changes to be implemented.
- 3.2.5 Statement of Code Compliance
 - a. Submit a letter to the owner stating the design conforms to the applicable building codes.
- 3.2.6 Statement of Changes
 - a. Submit a letter to the owner explaining changes from the approved design development documents.
 - b. Provide response to owner's previous design development review items and owner's review items for construction documents.

3.3 Complete Set of Construction Documents

- a. The design professional shall prepare and provide any and all drawings and specifications necessary to convey the exact scope of the work and full intent of the construction documents.

3.3.1 Drawings and Graphical Presentations

- a. Shall include the necessary schedules, notes, details, and isometric drawings so that all materials and work are described and all components are coordinated.

3.3.2 Project Manual

- a. Include a separate title page with signature block for approval.
- b. Include a table of contents and a drawing schedule.
- c. Provide a complete project manual expanded from the design development submittal.
- d. Provide technical specifications for each division and section with particular emphasis on language so that the prescribed quality of all materials, products, components, and workmanship requirements throughout the project are clear and unambiguous.

3.3.3 Floor Area Comparison

- a. A floor area comparison shall be included, showing footage recommended for each facility in the Owner's building program compared to the preliminary drawing square foot floor area. Table B.3-A is an example of how this comparison may be set up. Square foot floor area shall be calculated by the AIA definition of architectural space.

3.3.4 Structural Design Information

- a. The gravity and lateral load resisting structural systems and their connections shall be clearly shown on the drawings. The allowable floor and roof loads shall be indicated on the drawings. The structural engineer shall submit complete calculations to the Owner and the City of Rexburg Building Department. The calculations must include a cover sheet and table of contents.
- b. The plans shall include a dimensioned concrete foundation plan.

3.3.5 Working Drawing Plan Review

- a. Working drawings and related materials will be carefully studied and reviewed by the owner. A/E shall submit three sets of full size drawings and 3 sets 1/2 size drawings.

- b. The Owner will prepare a written critique and schedule a plan review meeting where the various questions can be discussed and resolved.
- c. The written critique will contain a compliance column for the Architect to state compliance to the critique or to give reason for not complying. This must be completed and returned to the Owner as soon as possible.
- d. Until written approval is received by the architect, he should not issue the drawings to bid.
- e. The Owner will require 7 working days for review from submittal of the Working Drawings to the plan review meeting.

BUILDING PROGRAM – WORKING DRAWING

FLOOR AREA COMPARISON

Program Facility Number	Program Net Floor Area	Preliminary Net Floor Area	Over Program Net Sq. Ft.	Under Program Net Sq. Ft.

SUMMARY

Program Total Net Sq. Ft. _____

Working Drawing Total Net Sq.Ft. _____

Over Program Total Net Sq. Ft. _____

Under Program total Net Sq. Ft. _____

Program Total Gross Sq. Ft. Floor Area _____

Working Drawing Total Gross Sq. Ft. Floor Area _____

Over Program Gross Sq. Ft. Floor Area _____

Under Program total Gross Sq. Ft. Floor Area _____

Table B.3-A

DRAFT