The Schematic Design Phase or approximately 20% of design should clearly indicate the improvements and construction anticipated for the project or provide sufficient information and alternatives so that a clear direction for subsequent phases can be determined. The Schematic Design should incorporate all items outlined in the Scope of Work. The Schematic Design documents may be submitted in booklet form or as plans with other narrative materials, whichever best presents and conveys the necessary information. The Schematic Design should be presented with sufficient information to allow a reviewer to fully understand the main design concepts and orientation. All consultants are to produce their schematic plans following the same format, scale and drawing positioning as the architectural drawings. Designer shall insure all sub-consultant work is coordinated.

Objective: To define the general scope, scale, functional relationship, traffic flow and cost of the Project components. The conceptual design is documented in sufficient detail to convey a clear and comprehensive image of the designer’s solution. The documents will identify area allocations, conceptual organization of exterior and interior spaces, conceptual image and building massing, usage of feature interior and exterior materials, selection of structural, mechanical, plumbing and electrical system concepts. Upon acceptance of the Schematic Design Package, the owner will approve the conceptual direction for further development in subsequent phases.

SCHEMATIC DESIGN DRAWINGS

Checked by Consultant

Initial Date

A. Civil Site Plan

Provide the following:

1. Site plan of the project showing location of all buildings, roads, parking and landscape elements.
2. Clear delineation of the project limit lines
3. Preliminary spot elevations
4. Existing utilities noted
5. Proposed utilities noted
6. Site drainage, storm water removal or detention noted
7. Identify number of parking spaces and code/zoning requirements
8. Provisions for trash disposal and removal by truck dock, compactor etc.
9. Conformance to zoning restrictions for easements and setbacks, etc.
10. Results of preliminary soils and boring surveys.
11. If needed environmental impact study
12. Site disturbance permit (erosion control) for more than 1 acre.
13. Off-site borrow and spoils permit (Federally funded).

B. Conceptual Building Floor Plans

Provide the following:

1. Plans of all floors showing structural grid, vertical circulation elements, core elements, vertical shafts, interior partitions, door and window locations, floor elevations
2. Key dimensions, bay sizes and overall dimensions
3. Plan indicating major extent of materials and any special conditions or equipment
4. Room names
SCHEMATIC DESIGN DELIVERABLES LIST

Checked
by Consultant

Initial Date

___ ___  5. Preliminary finish schedule for typical areas
___ ___  6. Area summary
___ ___  7. Accessibility routes
___ ___  8. Solar orientation diagrams
___ ___  9. Sketches of alternative approaches considered.
___ ___ 10. Owner occupant report explaining design rational and assumptions regarding operational and functional issues

C. Roof Plan

Provide the following:

___ ___  1. Structural grid
___ ___  2. Roof material
___ ___  3. Preliminary drains and slope
___ ___  4. For re-roof projects, indicate roof cores results.

D. Conceptual Building Sections

Provide the following:

___ ___  1. Major sections through building to show relevant conditions
___ ___  2. Structural grid
___ ___  3. Building to grade relationship
___ ___  4. Floor to floor and floor to ceiling height
___ ___  5. Material designations

E. Conceptual Building Elevations

Provide the following:

___ ___  1. Major elevations with extent of glazing and mullion spacing indicated
___ ___  2. Major materials identified
___ ___  3. Floor lines, roof line and top of parapets indicated with dimensions
___ ___  4. Finished grades clearly shown

F. Conceptual Details

Provide the following:

___ ___  1. Typical wall sections

G. Structural

Provide the following:

___ ___  1. Design criteria narrative
___ ___  2. Structural system description including alternates considered
___ ___  3. Single line floor and roof framing plans
SCHEMATIC DESIGN DELIVERABLES LIST

Checked by Consultant

Initial Date

___ ___ 4. Typical bay and member sizes noted
___ ___ 5. Description of foundation system, compare with geotechnical report

H. MEP

Provide the following:

___ ___ 1. Preliminary HVAC system description to include central plant, duct chases, single lines showing major duct runs
___ ___ 2. Design criteria for HVAC narrative including ("U" factors, temperature range, air changes, humidity controls, etc.)
___ ___ 3. Energy sources identified, entrances noted on architectural drawings
___ ___ 4. Mechanical rooms sized and located on architectural drawings
___ ___ 5. Vertical shafts and risers spaces sized and indicated on architectural drawings
___ ___ 6. Special features noted (UPS room, etc)
___ ___ 7. Plumbing fixture count complies with code/program (Drinking fountains, lavatories, urinals, water closets, etc)
___ ___ 8. Location of cooling tower, mechanical rooms, electrical equipment shown on elevations, roof and/or site plans.
___ ___ 9. Fire protection codes and standards narrative
___ ___ 10. General description of fire suppression
___ ___ 11. Power requirements stated
___ ___ 12. Substation and switch gear room sized and located on plans
___ ___ 13. Gas, water, sewer, etc., service points
___ ___ 14. Telephone and electrical room requirements shown on plans
___ ___ 15. Lighting outlined in plan
___ ___ 16. Design criteria for electrical services, including voltage, number of feeders and whether feeders are overhead or underground. Provide a specific description of items to be served by emergency power and describe consideration for special areas.

I. Specialty Consultants

Provide the following:

___ ___ 1. Design criteria defined
___ ___ 2. One line plans as appropriate (kitchens, labs, etc)
___ ___ 3. If applicable, include the asbestos lead lab analysis report in the Construction Documents. If asbestos abatement is not part of the project – state so in the Specification Book.

J. Code Analysis

Provide the following:

___ ___ 1. Land use restrictions
___ ___ 2. Code footprint (Will be on cover sheet of plans, example attached)
Schematic Design Deliverables List

Checked by Consultant

Initial Date

   ___ ___

   a. Identify building area limitations, construction classification, occupancy use, including multiple and special usage’s, occupancy load and egress capacity
   b. Means of egress
   c. Site (ADA) accessibility

   ___ ___

3. Identify seismic requirements for project location.

K. Outline Specification

Provide the following:

   ___ ___

1. Identify specification sections and major building material systems and finishes

L. Estimates

Provide the following:

   ___ ___

1. Major component cost estimate, verify inclusion of elements by cross-checking against outline specification for omissions and compare with budget.
   2. Identify escalation factors to mid-point of construction
   3. Estimate construction period, identify any phased work and any long-lead time for special item.
   4. Sole source items identified and justified
   5. Provide life cycle cost analysis of proposed roofing system
   6. Area tabulation gross SF to net SF.

M. Energy Report

Provide the following:

   ___ ___

1. Life cycle cost analysis of energy conservations measures
   2. Annual energy consumption/SF of building space
   3. Energy report – Furnish an energy consumption report consisting of calculations (including any computer printouts) and a written summary of the results (clearly indicate assumptions made and used).

   ___ ___

   a. Identification of analysis methods. Including loads and building systems analysis.

      ___ ___

      1) Building energy consumption
      2) Energy budget determination

   ___ ___

   b. Methodology of life cycle costing analysis.

   ___ ___

   c. Description of the major energy conservation features selected, such as building envelope U-values (or R-values), type of fenestration and percent of gross wall area, type of air handling system, reheat systems, automatic system control features, lighting levels and controls, etc.

   ___ ___

   d. Estimates of building energy consumption (see below for energy
SCHEMATIC DESIGN DELIVERABLES LIST

conversion values) is subdivided as follows:

1) Energy consumption per month by energy type. Including maximum demand per month.
2) Total monthly and annual energy consumption (BTUs).
3) Annual energy consumption (BTUs) per building system, i.e., lighting, HVAC, hot water, equipment, etc.
4) Annual energy consumption per square foot of building space (BTU/GSF/year)

N. Submittals
Provide the following:

1. 2 complete sets of submittals for review plus extras required as discussed in Pre-Proposal meeting.