NORTHWEST
MISSOURI STATE UNIVERSITY

SCHEMATIC DESIGN DELIVERABLES LIST

The Schematic Design Phase (approx. 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. A/E 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.

The following represents the minimum deliverables under this phase of the project, unless specifically struck out during fee negotiations. The A/E shall submit this checklist with each item checked/initialed as a representation that all minimum deliverables have been satisfied.

A. Site Plan

- ☐ Site plan of the project showing location of all buildings, roads, parking and landscape elements.
- ☐ Clear delineation of the project limit lines
- ☐ Preliminary spot elevations
- ☐ Existing utilities noted
- ☐ Proposed utilities noted
- ☐ Site drainage, storm water removal or detention noted
- ☐ Identify number of parking spaces and code/zoning requirements
- ☐ Provisions for trash disposal and removal
- ☐ Conformance to zoning restrictions for easements and setbacks, etc.
- ☐ Results of preliminary soils testing and surveys.
- ☐ Environmental impact study, if needed
- ☐ Site disturbance permit (erosion control) for more than 1 acre, if needed.

B. Conceptual Building Floor Plans

- ☐ Plans of all floors showing structural grid, vertical circulation elements, core elements, vertical shafts, interior partitions, door and window locations, floor elevations
- ☐ Key dimensions, bay sizes, and overall dimensions
- ☐ Plan indicating major extent of materials and any special conditions or equipment
- ☐ Room names
- ☐ Preliminary finish schedule for typical areas
- ☐ Area summary
- ☐ Accessibility routes
- ☐ Sketches of alternative approaches considered
- ☐ Owner occupant report explaining design rational and assumptions regarding operational and functional issues

C. Roof Plan

- ☐ Structural grid and dimensions
- ☐ Roof access locations and types
- ☐ Roof material
- ☐ Preliminary drains and slope
- ☐ For roof replacement projects, indicate results of roof cores

D. Conceptual Building Sections

- ☐ Major sections through the building to show relevant conditions
- ☐ Structural grid
- ☐ Building to grade relationship
- ☐ Floor to floor and floor to ceiling height
- ☐ Major materials identified

E. Conceptual Building Elevations

- ☐ All four major elevations with extent of glazing and mullion spacing indicated
- ☐ Major materials identified
- ☐ Floor lines, roof line and top of parapets indicated with dimensions
- ☐ Finish grades clearly shown

F. Conceptual Details

- ☐ Typical wall sections

G. Structural

- ☐ Design criteria narrative
- ☐ Structural system description including alternates considered
- ☐ Typical bay and member sizes noted
- ☐ Single-line floor and roof framing plans
- ☐ Description of foundation system, compared with geotechnical report recommendations

H. MEP/FP/IT

- ☐ Preliminary HVAC system description to include central plant, duct chases, single lines showing major duct runs
- ☐ Design criteria for HVAC narrative including ("U" factors, temperature range, air changes, humidity controls, etc.)
- ☐ Energy sources identified, entrances noted on architectural drawings
- ☐ Mechanical rooms sized and located on architectural drawings
- ☐ Vertical shafts and riser spaces sized and indicated on architectural drawings
- ☐ Special features noted (UPS room, Generator, etc.)
- ☐ Plumbing fixture count complies with code/program (Drinking fountains, lavatories, urinals, water closets, etc.)
- ☐ Location of cooling tower, mechanical rooms, electrical equipment shown on elevations, roof and/or site plans.
- ☐ General description of fire suppression
- ☐ Power requirements stated
- ☐ Substation and switch gear room sized and located on plans
- ☐ Gas, water, sewer, etc. service points
- ☐ Telephone and electrical room requirements shown on plans
- ☐ Lighting outlined in plan
- ☐ 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

- ☐ Defined design criteria
- ☐ One-line plans (kitchens, labs, etc.)
- ☐ Hazardous materials lab analysis report. If not part of the project, state so in the Project manual.

J. Code Analysis

- ☐ Land use restrictions
- ☐ Seismic requirements for project location
- ☐ Code footprint (include on cover sheet of drawing sheets
    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

K. Outline Specifications

- ☐ Identify specification sections and major building material systems and finishes (TOC is not acceptable)

L. Cost Estimates and Schedule

- ☐ Major component cost estimate, verify inclusion of elements by cross-checking against outline specification for omissions
- ☐ Identify escalation factors to mid-point of construction phase
- ☐ Estimate construction period, identify phased work and long-lead times for special items
- ☐ Sole source items identified and justified
- ☐ Provide life cycle cost analysis of proposed roofing system
- ☐ Area tabulation gross SF to net SF.

M. Energy Report

- ☐ Life cycle cost analysis of energy conservation measures
- ☐ Energy consumption report consisting of calculations and a written summary
    a. Identification of analysis methods, including loads and building systems analysis.
        i. Building energy consumption
        ii. 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.
- ☐ Estimates of building energy consumption
    a. Energy consumption per month by energy type, including maximum demand per month.
    b. Total monthly and annual energy consumption (BTUs).
    c. Annual energy consumption (BTUs) per building system, i.e., lighting, HVAC, hot water, equipment, etc.
    d. Annual energy consumption per square foot of building space (BTU/GSF/year)

N. Submittals

- ☐ Two (2) complete sets of submittals for review
- ☐ Electronic thumb drive of all submittals