PART 1 - GENERAL

1.1 PROJECT MANAGEMENT AND COORDINATION

A. Project Coordination:
   1. Project designation for this Project is <Insert Project Designation>.
   2. This Project designation will be included on documents generated for Project by Contractor and Subcontractors, or be present on a cover letter accompanying such documents.

B. Multiple Contract Coordination:
   1. Contractor shall be responsible for accurately maintaining and reporting schedule of The Work from Notice to Proceed to date of Substantial Completion.
   2. Contractor shall be responsible for providing Temporary Facilities And Controls for those who perform work on Project from Notice to Proceed to date of Substantial Completion.
   3. Contractor shall be responsible for providing Construction Waste Management And Disposal services for those who perform work on Project from Notice to Proceed to date of Substantial Completion.
   4. Contractor shall be responsible for Final Cleaning for entire Project.

C. Project Meetings And Conferences:
   1. Preconstruction Conference:
      a. Attend preconstruction conference and organizational meeting scheduled by Architect at Project site or other convenient location.
      b. Be prepared to discuss items of significance that could affect progress, including such topics as:
         1) Status of permits.
         2) Construction schedule.
         3) Critical Work sequencing.
         4) Designation of responsible personnel.
         5) Procedures for processing interpretations and Modifications.
         6) Procedures for processing Payment Requests.
         7) Distribution of Contract Documents.
         8) Submittal of Product Data, Shop Drawings, Samples, Quality Assurance / Control submittals.
         9) Preparation of record documents and O & M manuals.
         10) Use of the premises.
         11) Office, work, and storage areas.
         12) Equipment deliveries and priorities.
         13) Security.
         14) Project cleanup.
         15) Working hours.
         16) Current problems.
         17) General schedule of inspections by Architect and its consultants.
         18) General inspection of tests.
      c. Architect will record minutes of meetings and distribute copies to Owner and Contractor within three working days.
   2. Progress Meetings:
      a. Attend progress meetings at Project site at regularly scheduled intervals determined by Architect, at least once a month.
      b. Progress meetings will be open to Owner, Architect, Subcontractors, and anyone invited by Owner, Architect, and Contractor.
      c. Be prepared to discuss items of significance that could affect progress, including following -
1) Progress since last meeting.
2) Whether Contractor is on schedule.
3) Activities required to complete Project within Contract Time.
4) Labor and materials provided under separate contracts.
5) Off-site fabrication problems.
6) Access.
7) Site use.
8) Temporary facilities and services.
9) Hours of work.
10) Hazards and risks.
11) Project cleanup.
12) Quality and Work standards.
13) Status of pending modifications.
14) Documentation of information for Payment Requests.
15) Maintenance of Project records.

d. Architect will prepare minutes of progress meetings and distribute copies of minutes to Owner and Contractor within three working days.

3. Pre-installation Conferences -
   a. Attend pre-installation conferences specified in Contract Documents as scheduled by Architect.
   b. Be prepared to discuss following items:
      1) Requirements of Contract Documents.
      2) Completed work is necessary for installation of items or systems.
      3) Conditions not in compliance with installation requirements.
      4) Installation and inspection schedule.
      5) Coordination between trades.
      6) Space and access limitations.
      7) Testing.
   c. Architect will prepare meeting minutes and distribute minutes to Owner and Contractor within three working days.

1.2 CONSTRUCTION PROGRESS DOCUMENTATION

A. Scheduling of Work:
   1. Bar Chart Schedule:
      a. Submit horizontal bar chart schedule before Preconstruction Conference. Provide separate time bar for each construction activity listed on Owner’s payment request form. Within each time bar, show estimated completion percentage. Provide continuous vertical line to identify first working day of each week. Show each activity in chronological sequence. Show graphically sequences necessary for completion of related portions of The Work. As The Work progresses, place contrasting mark in each bar to indicate actual completion.
      b. Provide copies of schedule for Architect and Owner and post copy in field office.
      c. Revise schedule monthly. Send copy of revised schedule to Owner and Architect and post copy in field office.

B. Network Analysis Schedule:
   1. General Requirements:
      a. Submit and maintain Critical Path Method (CPM) schedule for the Work. Computerized network diagram will serve as ‘Master Construction Schedule’ for Project, giving mathematical analysis (printout) of that network, which verifies and validates logic and planning and defines critical path. Display accepted schedule in site construction office at all times.
      b. Utilize CPM schedule for planning, organizing, and directing the Work, for reporting progress, and for requesting payment for work completed. Review schedule each month in progress meeting.
      c. Clearly explain abbreviations used in CPM schedules in legend of symbols, either separate or attached.
2. Schedule Requirements:
   a. CPM schedule will clearly show sequential interdependencies, with activity duration and float clearly represented. Sequence(s) of activities with no float will be clearly identified as Critical Path(s).
   b. Scheduling system will be capable of baseline comparison analysis. Upon development and acceptance of schedule, 'freeze' initial schedule as baseline schedule. As work progresses, provide graphics displaying actual progress bars versus baseline or target bars.
   c. Activity durations will be in workdays.
   d. Activity Content:
      1) CPM schedule will include but not be limited to following activities as they apply to Project.
         a) Construction tasks (Maximum 20 day duration for any activity).
         b) Shop drawings submittal and approval process.
         c) Ordering, fabrication, and delivery of major materials and equipment.
         d) Checkout, start-up, and test and balance of major equipment.
         e) Submittals of record drawings and maintenance manuals.
         f) Cleanup and punch out tasks.
         g) Critical coordination activities required to insure timely support and inspections.
         h) Owner purchased/installed items and Owner's separate contract work.
         i) Pre-final, final inspections and substantial completion.
         j) Final payment.
         k) Owner occupancy.
      2) Schedule submittal activities to allow sufficient time for work to be procured and installed, even if submittal is unacceptable and re-submittal is required.

3. Submittals:
   a. Submit initial submittal, complete revisions, and periodic reports in three hard copies, one reproducible and two prints or plots, and one copy on 3.5 inch floppy discs or on CD.
   b. Submit completed network program consisting of PERT, GANTT, and mathematical analysis prior to preconstruction meeting.
   c. Review development status of network CPM schedule with Owner and Architect during preparation period.

4. Report Formats:
   a. Standard set of reports submitted each month including initial submittals will consist of following:
      1) Graphics:
         a) GANTT chart of entire project. Progress bar chart will include target or baseline comparison bars. Bar positions will be early start / early finish with float clearly defined.
         b) Time-scaled logic diagram or time-scaled network, also called PERT chart, with critical path clearly defined.
         c) PERT and GANTT charts will include tabulation of each activity. Furnish following information for each activity on PERT and GANTT charts. Sequencing of columns on GANTT chart will match following:
         d) GANTT Chart Column Layout:
            (1) Activity / Task Description.
            (2) Estimated duration of activity / task.
            (3) Start status.
            (4) Status.
            (5) Start date by calendar date.
            (6) End date by calendar date.
            (7) Latest start date by calendar date.
            (8) Latest end date by calendar date.
            (9) Total slack or float time in calendar days.
            (10) Percentage of activity achieved.
         e) Program or means used in making mathematical computation will compile total value of completed and partially completed activities. Program will also accept revised completion dates as modified by Change Order time adjustments and accompanying recomputations of float dates.
f) PERT Chart Box Layout:
   (1) Task / Activity Name.
   (2) Duration.
   (3) Start Date.
   (4) End Date.
   (5) Status (critical task).

b. Graphics outlined above will comply with following criteria unless noted otherwise:
   1) Sheet size of diagram will be 24 by 36 inches minimum and time scaled in weeks unless approved otherwise.
   2) On each page include title block containing as minimum following information:
      a) Project Title.
      b) Project Number.
      c) Contractor's Business Name.
      d) Date of Submittal and/or Revision.
      e) Progress Computation Date.
      f) Legend of Symbols and Abbreviations as applicable.

3) Prepare and submit to Architect upon request additional charts, reports, and current copy on disk of Project program.

5. CPM Schedule Implementation And Monitoring:
   a. Where Contractor is shown to be behind schedule, provide accompanying written summary, cause, and explanation of planned remedial action.
      1) CPM schedules will reflect those instances, Modifications or other alterations to schedule, which have impact on final completion or interim target dates within schedule.
      2) Owner may withhold payments or portions of payments upon failure to maintain scheduled progress of the Work as shown on accepted CPM schedule.
   b. Float time belongs to Project, not to Contractor or to Owner, and may be utilized by both parties.

6. Schedule Changes And Updates:
   a. Update CPM Schedule prior to each submittal to Owner and Architect. Correlate Schedule of Values graphically with CPM schedule for evaluation of monthly Payment Request.
   b. Include additional activities added to CPM schedule by Contractor submitted schedule charts. It is Owner's intent that Project be managed and operated by CPM schedule.

7. Approved Project Management Software Programs:
   a. Time Line 5.0 Project Management or Timeline 6.0 for Windows by Symantec Corp.
      Egghead Software, 1192 East Draper Parkway #442, Draper, UT (800) 659-3447, Rob Codo FAX 800-598-3447 - Tech Support (503) 465-8600
   b. Primavera P3 Project Planner by Primavera Systems Inc, Two Bala Plaza, Bala Cynwyd, PA 19004 (215) 667-8600
   c. Suretrak 2.0 Project Scheduler by Expedition CMT Consulting, P O Box 1184, Sandy, UT 84091 (801) 501-0945
   d. Mac Project II or Mac Project Pro by Claris Corp, P O Box 58168, Santa Clara, CA 95052-8868

C. Daily Construction Reports:
   1. Prepare daily reports of operations at Project including at least following information:
      a. List of Subcontractors at site.
      b. Approximate count of personnel at site by trade.
      c. High and low temperatures, general weather conditions.
      d. Major items of equipment on site.
      e. Materials, equipment, or Owner-furnished items arriving at or leaving site.
      f. Accidents and unusual events.
      g. Site or structure damage by water, frost, wind, or other causes.
      h. Meetings, conferences, and significant decisions.
      i. Visitors to the job including meeting attendees.
      j. Stoppages, delays, shortages, losses.
      k. Any tests made and their result if known.
      l. Meter readings and similar recordings.
      m. Emergency procedures.
n. Orders and requests of governing authorities.
o. Modifications received, carried out.
p. Services connected, disconnected.
q. Equipment or system tests and start-ups.
r. Brief summary of work accomplished that day.
s. Signature of person preparing report.

2. Submit daily reports to Architect at least weekly.
3. Maintain copies of daily reports at field office.

1.3 SUBMITTAL PROCEDURES

A. General:
1. Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently before performance of related construction activities to avoid delay.
   a. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   b. Coordinate transmittal of different types of submittals required for related elements of The Work so processing will not be delayed by need to review submittals concurrently for coordination. Architect reserves right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
   c. Allow sufficient review time so installation will not be delayed by time required to process submittals, including time for resubmittals.
      1) Allow 21 days for initial review. Allow additional time if processing must be delayed to allow coordination with subsequent submittals. Architect will promptly advise Contractor when submittal being processed must be delayed for coordination.
      2) If an intermediate submittal is necessary, process same as initial submittal.
      3) Allow 10 days for reprocessing each submittal.
      4) No extension of Contract Time will be authorized because of failure to transmit submittals to Architect in sufficient time before work is to be performed to allow processing.
2. Place permanent label or title block on each submittal for identification. Include name of entity that prepared each submittal on label or title block.
   a. Provide space approximately 4 by 5 inches on label or beside title block on Shop Drawings to record Contractor's review and approval markings and action taken.
   b. Include following information on label for processing and recording action taken:
      1) Project name.
      2) Date.
      3) Name and address of Architect.
      4) Name and address of Contractor.
      5) Name and address of Subcontractor.
      6) Name and address of supplier.
      7) Name of manufacturer.
      8) Number and title of appropriate Specification Section.
      9) Drawing number and detail references, as appropriate.
3. Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using transmittal letter. On transmittal, record relevant information and requests for data. Include Contractor's certification that information complies with Contract Document requirements, or, on form or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations.
4. Submittals received from sources other than Contractor or not marked with Contractor's approval will be returned without action.

B. Submittal Schedule:
1. Furnish submittal schedule within 20 days after receipt of Notice to Proceed, listing items specified to be furnished for review to Architect including product data, shop drawings, samples, and quality assurance / control submittals.
a. Coordinate submittal schedule with Contractor’s construction schedule.
b. Enclose the following information for each item:
   1) Scheduled date for first submittal.
   2) Related Section number.
   3) Submittal category.
   4) Name of Subcontractor.
   5) Description of part of the Work covered.
   6) Scheduled date for resubmittal.
   7) Scheduled date for Architect’s final release or approval.

2. Print and distribute copies to Architect and Owner and post copy in field office. When revisions are made, distribute to same parties and post in same location.
3. Revise schedule monthly. Send copy of revised schedule to Owner and Architect and post copy in field office.

C. Product Data:
   1. Submit Product Data, as required by individual Sections of the Specifications.
   2. Mark each copy of each set of submittals to show choices and options used on Project. Where printed Product Data includes information on products that are not required for Project, mark copies to indicate information relating to Project.
   3. Certify that proposed product complies with requirements of Contract Documents. List any deviations from those requirements on form or separate sheet.
   4. Submit five copies of each required submittal unless otherwise required. Architect will return three copies marked with action taken and with corrections or modifications required.

D. Shop Drawings:
   1. Submit newly prepared graphic data to accurate scale. Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches. Highlight, encircle, or otherwise show deviations from Contract Documents. Include following information as a minimum:
      a. Dimensions.
      b. Identification of products and materials included.
      c. Compliance with specified standards.
      d. Notation of coordination requirements.
      e. Notation of dimensions established by field measurement.
   2. Do not reproduce Contract Documents or copy standard information as basis of Shop Drawings. Standard printed information prepared without specific reference to Project is not acceptable as Shop Drawings.
   3. Review and designate (stamp) approval of shop drawings. Unless otherwise specified, submit to Architect six copies of shop drawings required by Contract Documents. Shop drawings not required by Contract Documents, but requested by Contractor or supplied by Subcontractor, need not be submitted to Architect for review.

E. Samples:
   1. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
      a. Mount, display, or package Samples so as to ease review of qualities specified. Prepare Samples to match samples provided by Architect, if applicable. Include following:
         1) Generic description of Sample.
         2) Sample source.
         3) Product name or name of manufacturer.
         4) Compliance with recognized standards.
         5) Availability and delivery time.
      b. Submit Samples for review of kind, color, pattern, and texture, for final check of these characteristics with other elements, and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
1) Where variations in color, pattern, texture or other characteristics are inherent in material or product represented, submit set of three samples minimum that show approximate limits of variations.

2) Refer to other specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.

3) Refer to other Sections for Samples to be returned to Contractor for incorporation into The Work. Such Samples shall be undamaged at time of use. On transmittal, indicate special requests regarding disposition of Sample submittals.

c. Where Samples are for selection of color, pattern, texture, or similar characteristics from a range of standard choices, submit full set of choices for material or product. Preliminary submittals will be reviewed and returned with Architect's mark indicating selection and other action.

d. Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit three sets. One will be returned marked with action taken.

e. Samples, as accepted and returned by Architect, will be used for quality comparisons throughout course of construction.

1) Unless noncompliance with Contract Documents is observed, submittal may serve as final submittal.

2) Sample sets may be used to obtain final acceptance of construction associated with each set.

F. Quality Assurance / Control: Quality Assurance / Control submittals are design data, test reports, certificates, manufacturer's instructions, manufacturer's field reports, and other documentary data affirming quality of products and installations. Submit five copies to Architect immediately upon receipt.

1.4 SPECIAL PROCEDURES

A. Acceleration of Work

1. Complete The Work in accordance with Construction Schedule. If Contractor falls behind schedule, take such actions as are necessary, at no additional expense to Owner, to bring progress of The Work back in accordance with schedule.

2. Owner may request proposal for completion of The Work at date earlier than expiration of Contract Time. Promptly provide requested proposal showing cost of such acceleration of The Work. Consult with Owner and Architect regarding possible options to decrease cost of such acceleration. If Owner determines to order acceleration of The Work, change in Contract Sum and Contract Time resulting from acceleration will be included in a Change Order.

B. Environmental Procedures:

1. Asbestos:

a. For demolition activities where allowable Asbestos Containing Material (ACM) is to be left in place, or where Contractor is allowed to remove Category I Non-friable ACM, following requirements apply:

1) Prepare and submit notifications and permit applications required by law or by Owner.


3) Comply with local and State regulations regarding asbestos removal and demolition of structures.


a) Conduct required exposure assessments and monitoring.

b) Ensure that a ‘Competent Person’ supervises abatement work.

c) Provide required employer information, training, and personal protective equipment.
d) Demolition activities involving non-friable ACM is considered ‘Unclassified Asbestos Work.’ However, be responsible for using wet methods and controlling emissions that may contain ACM fibers, if necessary.

PART 2 - PRODUCTS  -  Not Used

PART 3 - EXECUTION  -  Not Used

END OF SECTION