

SECTION 01300

SUBMITTALS

1 GENERAL

1.1 Equipment Delivery and Construction Schedule

Not later than ten (10) consecutive calendar days after the issuance of the "Notice to Proceed," the Contractor shall submit to the ENGINEER for review a detailed schedule of major equipment delivery and installation and general construction operations, indicating the sequence of the work, the estimated dates of starting each task, and the estimated time of completion of each task. The schedule shall be broken down with respect to individual structures and facilities, indicating when existing structures or equipment would be taken out of service (if applicable). The form and content of the schedule shall be satisfactory to the ENGINEER.

1.2 Shop Drawings and Product Data

- A. The Contractor shall submit to the ENGINEER for review, for design concept, complete drawings and ENGINEERING data for all equipment, materials, and products to be incorporated into the work. Shop drawings and engineering data shall be provided and the ENGINEER'S review will be conducted in accordance with the requirements of the General Provisions. Shop drawings and/or engineering data, as appropriate, shall be submitted for the following items, including, but not limited to:
1. All piping, pipe fittings, pipe supports, hangers, couplings, and insulation including mill tests if requested by the ENGINEER.
 2. Miscellaneous iron castings and gratings, manhole frames and covers, curb inlets, manhole steps.
 3. All concrete and masonry accessories and steel reinforcement, including bending diagrams and bar schedules, ties, spreaders, chairs, inserts, form coatings, waterstops, curing and sealing compounds, and epoxy bonding agents.
 4. Premixed grouts and mortars.
 5. All paints and protective coatings.
 6. Grass seed, fertilizer, and commercial mulches.
 7. Precast concrete manholes, Sections, Frames and covers, steps, junction boxes, etc., inclusive of manhole boots and joint material, etc.
 8. Portland Cement Concrete design mix for Class A and Class B Concrete.

9. Paving mix design inclusive of sieve analysis and bituminous content.
- B. Shop drawings and engineering data for equipment supplied as a pre-engineered or pre-assembled system shall include complete shop drawings and engineering data on each component of that system. In all cases, the information provided shall be sufficient to determine if the material or product conforms with the requirements of the specifications.
 - C. Shop drawings and engineering data shall be prepared by the original equipment vendors or fabricators, as applicable. Purchased specifications by the Contractor or his Supplier shall not be acceptable as a substitute for actual vendor drawings and data.
 - D. All shop drawings shall include a legend or other suitable means to identify all symbols and abbreviations used on the drawing. Where an accepted, industry-wide drafting symbol or standard has been established for a particular item, information depicted on the shop drawings shall conform to that standard.
 - E. Shop drawings shall be dimensioned using the U.S. standard unit of measurement (feet and/or inches). Size of drawing shall not exceed 24 inches by 36 inches. All scaled drawings and details shall have the scale clearly noted on the drawing or detail. All information shall be clear and legible.
 - F. Each shop drawing and each item of engineering data shall bear the Contractor's APPROVED stamp indicating that the Contractor has reviewed the drawing or data for conformance with the Contract Documents.
 - G. All design calculations and drawings for foundation and footings, sheeting and shoring, and concrete formwork shall bear the signed and dated stamp of a licensed professional engineer.

1.3 Miscellaneous Submittals

- A. The Contractor shall submit to the ENGINEER miscellaneous information, procedures, test data, samples, etc., in the manner and at the time specified in these Specifications and Contract Documents. Miscellaneous submittals shall include, but not be limited to, the following:
 - 1. Procedures for handling and disposing of sewage flows during construction.
 - 2. Factory test data and results where specified for specific items of equipment.
 - 3. Preliminary concrete mix design reports.
 - 4. Satisfactory written evidence in the form of laboratory or mill test reports indicating that all cement, aggregate, masonry, structural steel, fencing, castings, steel reinforcement, conduit, pipe, grout, waterproof materials,

grass seed and other items incorporated into the work are in compliance with the requirements of these Specifications.

5. Project record documents.
6. Copies of original invoices of all equipment delivered to the site.
7. When requested, analysis and design data on concrete formwork and sheeting and shoring.
8. Drawings and details of erosion and sediment control structures, if significantly different from Drawings approved by the Stormwater Division of the Department of Public Works.
9. Written evidence of equipment warranties.

1.4 Schedule of Work

Contractor shall submit a SCHEDULE OF WORK in sequential order by dates in which he expects to perform the contract specifying the areas or locations in the order the work is anticipated beginning with work commencement date.

"The Work" may include related sections or items (individually or grouped) such as, Clearing and Grubbing, Gradework (cut & fill), Storm Sewers, Relocation of Sanitary & Related Culvert Construction, Erosion Control, Base, Paving, etc., as examples.

1.5 Samples

At the ENGINEER'S request, the Contractor shall furnish certified samples of materials utilized in the fabrications or production of equipment, materials and products supplied under these Contract Documents. Cost of all such samples shall be borne by the Contractor. The samples will be tested by a qualified, independent, testing laboratory selected by the OWNER to determine if the mechanical and chemical properties of the materials supplied are in accordance with the requirements of these Specifications and Contract Documents. The OWNER shall pay for the laboratory testing of material samples provided by the Contractor. The Contractor shall pay for all retests made necessary by the failure of materials to conform to the requirements of these Specifications and Contract Documents.

1.6 Schedules, Reports and Records

- A. The Contractor shall submit to the Engineer such schedule of quantities and costs, progress schedules, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the Work to be performed.
- B. Prior to the first partial payment estimate, the Contractor shall submit construction schedules showing the order in which the Contractor proposes

to carry on the Work, including dates, at which the various parts of the Work will be started, estimated date of completion of each part, and, as applicable:

1. The dates on which special detail drawings will be required. Submittal must allow sufficient time for review by the Engineer. Final approval must be obtained prior to commencement of construction of that portion of work to which they pertain.
 2. Respective dates for submission of shop drawings, the beginning of manufacture, the testing and the installation of materials, supplies, and equipment.
- C. The Contractor shall also submit a schedule of payments that the Contractor anticipates will be earned during the course of the Work.

END OF SECTION