

SECTION 010100

GENERAL REQUIREMENTS

1. Salvage:

All materials and equipment removed from the site will become the property of the Contractor unless noted otherwise and shall immediately be removed from the Owner's property.

2. Progress:

The Contractor shall carry out the work as expeditiously as possible, planning ahead and scheduling work with his sub-contractors and material suppliers to avoid conflicts and delays. Samples, shop drawings, etc., shall be submitted in sufficient time to permit checking, returning for correction, if necessary, and re-submitting and ordering of materials.

3. Conferences:

A pre-construction conference will be scheduled by the Engineer. Representatives of the Contractor and his major sub-contractors are encouraged to attend this meeting.

Throughout the construction period, monthly meetings will be held at the project site to assess job status and progress, and to plan remedial steps if necessary to meet the scheduled completion date. See General Conditions. Attendance by Contractors is mandatory.

Contractor's field superintendent shall attend all conferences and monthly meetings.

4. Unforeseen Conditions:

Should unforeseeable conditions be found which would require additional work and expense on the part of the Contractor, the Owner will reimburse the Contractor for the actual additional cost involved in accordance with provisions the General Conditions. The Contractor shall notify the Engineer immediately upon encountering such conditions and shall not continue work at that location until the Engineer has made an inspection or has instructed him to proceed.

5. Initial Submittals:

Not more than 14 days after the award of contract, the Contractor shall submit the following schedules to the Engineer for approval and comment:

Construction Schedule, Breakdown of Payment Estimate, Material Schedule, List of Material & Equipment Supplier, List of Sub-Contractors.

6. Project Records:

The Contractor shall keep at the job a set of prints on which he shall record, in contrasting colored ink, the location of underground utilities uncovered during excavation, and all changes or deviations from the shop drawings in the installation of equipment, routing of lines, etc. No work shall be permanently concealed until it has been checked off or recorded on these drawings. At the conclusion of the project, these drawings shall be turned over to the Engineer.

The Contractor shall furnish to the Engineer at the conclusion of the work a list of names and addresses of his sub-contractors and major material suppliers, with list of work performed and materials furnished by each.

7. Testing Laboratory Services:

Tests shall be made by an approved independent testing laboratory. The laboratory shall send direct to the Engineer copies of all test reports. Reports shall state whether or not the materials tested conform to the requirements of the specifications.

The testing laboratory will be responsible for making or taking and handling field samples.

Tests will be paid for directly by the Owner unless stated otherwise. If tests are called for on materials proposed as substitutes to materials specified, these tests shall be paid for by the Contractor. If any material in place is suspected of being faulty or substandard, tests will be called for to determine its compliance with specification requirements; if it does not comply, subsequent tests shall be paid for by the Contractor.

8. Standards:

Certain materials and equipment are specified by name to establish the standard of quality and type to be used. Unless specifically otherwise noted, this is not intended to restrict competition or preclude the use of competitive products of quality and characteristics equal to those named in the specifications.

If the Contractor wishes to use products other than those specified, a list of proposed substitutions, as called for in the "General Conditions of the Contract" shall be presented to the Engineer for approval.

The Contractor shall bear the burden of proof of equality of materials and equipment proposed for substitution and shall submit, when requested, reports on the material in question from an approved independent testing laboratory. Such reports shall cover the material originally specified as well as the material proposed for substitution. Manufacturer's data and samples shall be furnished when requested. These laboratory reports will be at the Contractor's expense.

Consideration of materials proposed for substitution will not be made during the bidding period, except as previously indicated in the General Conditions.

9. Care of Materials:

All materials and equipment delivered to the job shall be stored and maintained in such manner as to protect them from damage. The Contractor shall provide suitable sheds or enclosures for all materials subject to damage from exposure or shall store them inside the building at locations approved by the Owner. All materials shall be placed in orderly piles or stacks, and shall not be so placed as to damage other materials or completed work.

Cement and aggregate, reinforcing steel and other ferrous metal items shall be kept under waterproof cover. Materials shall not be allowed to become contaminated with foreign substances. Any materials which are not in proper condition for use in the construction shall be removed from the site.

10. Campus Use:

Parking - Contractor: All automobile parking on the site is restricted. Delivery trucks, Contractor's vehicles, workmen's auto, and all other parking connected with the project shall be only in areas specifically designated for that purpose by the Owner.

Resident Traffic: The Contractor shall maintain traffic routes for resident pedestrian and vehicular traffic and resident parking. Provide temporary walkways with handrails and temporary roadways as required. Coordinate with Owner's Physical Plant.

Fire Lanes and Fire Hydrants: Contractor shall maintain clear lanes to fire hydrants through the construction and storage areas within the Project Limits. Coordinate routing of fire lanes with the Physical Plant.

Storage of Materials: Materials shall be stored only in areas designated by the Owner.

If Contractors require access to existing buildings or areas, which are secured, keys will be issued to them by the Physical Plant Director.

11. Openings:

The Contractor shall lay out and provide for the necessary openings in floors, walls, and other parts of the building where required for his work, but in no case shall the strength or stability of the structure be impaired by such openings nor shall adjacent work be damaged.

12. Existing Underground Utilities, Services:

The Contractor shall exercise extreme care when working in areas where underground utilities and services exist. The location of existing underground water, gas, steam, electric, telephone, sewers, etc. shown on the plans is approximate and must be verified before proceeding. The Contractor is responsible for maintaining the existing services without interruption. The Physical Plant personnel shall be contacted for assistance in locating underground utilities. Hand excavation is to be expected in various locations.

13. Utility Outages:

Interruption of Utilities: Any necessary shutdowns of electrical or other utilities shall be approved at least 30 days in advance by the University's project manager, and work shall be done (if necessary) at night or over the weekend or during holidays to avoid interruption during normal hours. No extra payment will be made for such work. Interruption of heating, cooling, or ventilation to a building shall be considered a utility shutdown.

The Physical Plant personnel will perform certain functions in connection with utility outages, such as operating electrical switches, operating water and steam valves, placing existing building systems and equipment back in operation, etc. The Owner will bear these expenses; however, when the Contractor requires extra outages because of shortage of material, improper material, shortage of labor, poor coordination, etc., the Contractor shall pay the Owner all expenses incurred in the use of Physical Plant personnel for the extra outages. Where utility services cannot be interrupted for the length of time required, the Contractor shall make provisions for temporary service at the Contractor's expense.

14. Safety Regulations:

The Contractor shall adhere to the rules, regulations, and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction industry, latest edition, which are hereby incorporated in these requirements. Also, Contractors are referred to the latest OSHA requirements regarding "Standards for Excavation" for compliance.

15. Visiting Site:

By submitting a proposal for this work, Contractor will be held to have examined site and satisfied himself as to existing conditions under which he will be obliged to operate or that will in any manner affect work under this contract. No allowance shall be made subsequently in this connection in behalf of Contractor for any error or negligence on his part. Visits to the job site shall be by appointment only scheduled with the Physical Plant Director.

16. Nature of Plans:

The plans are diagrammatic and not intended to show each and every fitting, valve, pipe or pipe hanger, or a complete detail of all the work to be done, but are for the purpose of illustrating the type of system, pipe sizes, etc. and special conditions considered necessary for the experienced mechanic to take off his material and layout his work. Contractor shall be responsible for taking such measurements as may be necessary at the job, and adapting his work to the local conditions. Systems as described are intended to be complete and operational in a satisfactory manner and are to be provided as such by the Contractor at no additional cost.

17. Drawings and Specifications:

Contractor is to do all work called for in these specifications and accompanying drawings, and must provide all work complete in every respect. Anything called for on the drawings and not called for in the specifications, must be furnished by Contractor.

Plans are diagrammatic, and it sometimes occurs that conditions exist which require certain changes in drawings and specifications. In event that such changes are necessary, the same are to be made by Contractor without additional expense, provided however that such changes do not require furnishing more material or performing more labor than the true intent of the drawings and specifications demand. Refer to "Nature of Plans" Section hereinbefore.

It is understood that while the drawings are to be followed as closely as circumstances will permit, Contractor is held responsible for the work according to the true intent and meaning of drawings. Anything not entirely clear in drawings and specifications will be fully explained if application is made to Engineer. Should, however, conditions arise where in the judgment of the Contractor certain changes would be advisable, Contractor will communicate with Engineer and secure his approval of the changes before going ahead with the work.

18. Contractors Personnel:

All construction personnel shall respect all members of the campus community. Any kind of harassment, unwelcome comments or advances from any construction personnel toward any member of the campus community shall constitute sufficient grounds for the Physical Plant to request removal of specific individuals from this project. This shall not constitute grounds for a delay claim. The Owner will not be responsible for any delays caused to the project due to any individual being removed from the project. Project superintendents shall be held accountable for any incident of this nature. Contractor shall post a sign that indicates that no firearms are permitted on site.

19. Project Completion:

When the Contractor considers that his work is complete in all respects, per drawings and specifications, he shall conduct an inspection of the project with office and field supervision personnel which shall include reviewing all specified documentation, certificates, warranties and close-out information; and prepare a punchlist of all deficient or incomplete items of work.

When the Contractor considers above punchlist to be completed or corrected, he shall then provide in writing to the Engineer a copy of the above punchlist, stating that he now considers his work complete and ready for a final inspection. Upon receipt of above written notice, the Engineer will schedule an inspection to determine if the Contractor's work is substantially complete and acceptable under contract documents.

The Contractor is advised to allow adequate time in his project schedule to complete all work, and above referenced check-out by the scheduled completion date and before it is necessary for the Owner to occupy the facility.

20. Applicable Specifications and Standards:

In addition to the standards listed in the specifications, the latest issue of the following standards form a part of these specifications and shall be complied with unless otherwise stated:

1. Standards of Underwriters Laboratories, Inc.
2. National Fire Protection Association
3. National Electrical Manufacturer's Assn.
4. American National Standards Institute
5. North Carolina State Building Code, 2012 Edition.

21. Cleaning

Prior to final acceptance, Contractor shall thoroughly clean work and work area and lubricate all equipment.

22. Maintenance of Local Service Organization

The Contractor shall maintain sufficient forces to respond promptly to any problems, which occur during construction and during the warranty period. The Contractor shall provide the Owner and the Engineer with reliable and prompt means of contacting the Contractor. In the event that after an attempt to contact the Contractor, the Contractor does not respond appropriately to any problem, the Owner and/or Engineer will without further notice address the problem. All costs associated with this will be borne by the Contractor including all risk of damage to equipment except that caused by gross negligence of other.

23. Barricades

The Contractor shall barricade and protect areas of the site that are in the project work. Protection shall

be as required to prohibit the occupied areas of the building access to the work areas. All barricades or protection of work area referred to in these documents shall be the responsibility of the Contractor.

24. Operating and Maintenance Data

- A. General: Before final acceptance of the system, the Contractor shall submit to the Owner three copies of a manual containing the following, complete and at one time, in loose-leaf ring binders with permanent covers, identified, and indexed. Manual shall be arranged in an easy-to-follow manner.
- B. Maintenance Data
 - 1. Descriptions of operation of each system, including required settings for use of the operator.
 - 2. Detailed and check-out procedures to insure operation of systems and gear.
 - 3. Complete list of diagnostic and troubleshooting procedures for systems and major equipment.
 - 5. Information required for proper maintenance of equipment and systems.
 - 7. As-built material list.
 - 8. Catalog brochures for all components with specific parts used, marked clearly.
 - 9. Suppliers and manufacturer's conformance certificates.
 - 10. Test reports.
 - 11. Manufacturer's directions.
 - 12. Guarantee and warranties.
 - 13. Inspection certificates.
- C. Parts List Data
 - 1. Contractor's part number.
 - 2. Complete description of part.
 - 3. Manufacturer.
 - 4. Manufacturer's part number.
 - 5. Quantity in system

25. Alternates

The Contractor shall state on the Form of Proposal, the amount to be added to the Base Bid for each of the Alternates as listed in the Form of Proposal.

26. Allowances

The contractor shall include in the base bid the following allowances for this project. At the end of the project, the contract amount will be adjusted by change order for all unused portions of the allowances.

- A. The contractor shall include in the base bid a cost of \$10,000.00 for unforeseen utility repair.
- B. The contractor shall include in the base bid a cost of \$5,000.00 for unforeseen rock removal.

27. Site Construction Debris Recycling

Waste Management Goals

The **University of North Carolina at Charlotte** has established that this project shall generate the least amount of waste possible. Processes that generate as little waste as possible shall be employed by the Contractor.

As many of the waste materials as economically feasible shall be reused, salvaged or recycled.

The University of North Carolina at Charlotte has established a goal of diverting 20% (by weight) of all construction and demolition waste from landfill disposal. Of waste going to landfill, construction and demolition waste must go to an approved construction and demolition landfill. Other waste shall go to a municipal solid waste landfill.

With regard to these goals the contractor shall develop a Waste Management Plan for this project for review and approved by the Office of Waste Reduction and Recycling.

Waste Management Plan

Copies of example waste management plans and waste management reports can be found in Annex B, Section 3 of the University of North Carolina at Charlotte Design and Construction Manual

- a) **Draft Waste Management Plan:** Within 30 (Thirty) days after the Notice to Proceed the Prime Contractor shall submit to the Office of Waste Reduction & Recycling a draft waste management plan containing the following.
 - I. Analysis of the proposed jobsite waste to be generated, including types and quantities.
 - II. List of landfills to be used for waste disposed of, the applicable landfill tipping fees and the projected cost of disposing of all project waste in the landfill(s).
 - III. Alternatives to land-filling: A list of each material proposed to be salvaged, reused, or recycled during the course of the project, the proposed local market for each material, and the estimated net¹ cost savings or additional costs resulting from separating and recycling (versus land-filling) each material.
 - IV. Meetings: A description of the regular meetings to be held to address waste management. See section 6.
 - V. A description of the means by which any waste materials identified in item III above will be protected from contamination. A description of the means to be employed in handling

I. ¹ "Net" means that the following have been subtracted from the cost of separating and recycling: a) revenue from the sale of recycled or salvaged materials and b) landfill tipping fees saved due to diversion of materials from the landfill.

the above materials consistent with requirements for acceptance by designated disposal/recycling facilities

- VI. A description of the means of transportation of recyclable materials and waste (whether materials will be site-separated and self-hauled to designated facilities, or whether mixed materials will be collected by a waste hauler and removed from the site) and destination of materials.
- VII. A list of recyclable materials from construction & demolition, not exhaustive:

Examples of recyclable Materials
Cardboard
Glass bottles
Aluminum cans
Paper
Wood
Land clearing debris
Concrete
Metal
Ceiling tiles
Carpet/floor tiles
Sheetrock
Brick
Insulation
Asphalt
Damaged pallets
Sinks/toilets
PVC

- b) **Final Waste Management Plan:** The owner will review the draft Waste Management Plan within 10 (ten) working days and return it to the Contractor as approved or provide comments for changes and improvements in the Plan. The Contractor will resubmit within 10 (ten) working days. Once the Plan is approved it becomes the Project Waste Management Plan.
- c) **Waste Management Plan Implementation**
 - I. The Contractor shall designate an on-site party (or parties) responsible for instructing workers, overseeing and documenting results of the Waste Management Plan for the project. This contact will notify Office of Waste Reduction and Recycling immediately should any deviance from the Waste Management plan be necessary.
 - II. The Contractor shall distribute copies of the Waste Management Plan to the Job Site Foremen, Subcontractors, and the Owner.

- III. The Contractor shall provide on-site instruction regarding appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- IV. The Contractor shall designate and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials.
- V. Hazardous wastes shall be separated, stored, and disposed of according to Federal and State regulations.
- VI. Documentation: The Contractor shall submit a monthly waste management report (see Annex B Section 3.5). Failure to submit this information shall render the Application for Payment incomplete and shall delay Progress Payment. The Summary shall be submitted on a form acceptable to the Owner and shall contain the following information:
 - i. The amount (in tons or cubic yards) of material land filled from the project, the identity of the landfill, the total amount of tipping fees paid at the landfill, and the total disposal costs and copies of weight tickets.
 - ii. For each material recycled, reused, or salvaged from the Project, the amount (in tons or cubic yards), the date removed from the jobsite, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material, and the net total cost or savings of salvaged or recycling each material. Attach weight tickets.

Project Meetings:

Waste management goals and reporting will be discussed at:

- Pre Bid Meeting
- Pre Construction Meeting
- Regular Job site Meetings

See Annex B Section 3 for other supporting documentation in relation to the above.

END OF SECTION 010100