SECTION F

GENERAL CONDUCT OF THE WORK AND SPECIAL REQUIREMENTS

F-01 General

A. This section contains special instructions relating to the execution of the work shown on the drawings and required by the specifications, and is applicable to all Contracts.

F-02 Definitions

A. Wherever the Contract Documents contain the terms "work," "building," "structure," "project," or words like import are used, it shall be understood to refer to and designate all construction materials and labor, complete and ready for use, within the limits of the contract lines as shown on the plot plan and specified.

B. "Provide" as used in the specification documents shall be understood to mean furnish and install complete and ready for use.

F-03 Project Coordination

A. The General Contractor shall be responsible for the overall coordination, control, and progress of the work for all of the other Prime Contractors, Subcontractors, and material suppliers involved in the project.

B. The General Contractor shall also be responsible for preparing the progress schedule indicating the sequence and time required for the varied disciplines of the work. The progress schedule shall be submitted by the General Contractor to the other Prime Contractors requesting their sequence and time requirement input. The Prime Contractors will be required to either approve the progress schedule submitted by the General Contractor or give comments for correction.  
  
After approval by all Prime Contractors, one progress schedule showing all disciplines shall be prepared. The completed progress schedule shall then be submitted to the Professional for review and approval. The approved progress schedule shall then be issued by the General Contractor to all Prime Contractors, the Professional, and the University.

F-04 Project Meetings

A. Preconstruction Conference. Prior to commencement of the work, the Contractors shall meet in conference with representatives of the Owner, to discuss and develop mutual understanding, relative to administration of the project, general conduct of the work, progress schedules, safety programs, labor provisions, and other contract procedures relating to the work.

B. The General Contractor shall provide a space to conduct a regularly scheduled, biweekly (every two weeks) meeting at the site for the purpose of coordinating the work. The General Contractor shall require representation from all Prime Contractors and by any Subcontractors upon request of the Professional or the University.

C. Contractors shall attend personally or be represented at such meetings. Should the Contractor elect to be represented, it shall be understood and agreed that the University and the Professional, in dealing with contractor's representatives, do so with full assurance that such representative's actions and commitments may be accepted the same as though the contractor who signed, and is bound by the contract, were itself present and personally made such agreements or commitments.

D. The Professional shall take and retain a verbatim record of the biweekly meeting and shall prepare and distribute summary minutes of each meeting within four (4) days to the University, the Contractors, and all other interested parties. Any corrections to the minutes are to be sent to the Professional within four (4) working days after receipt of same.

F-05 Order of Work

A. If in the judgment of the University, it becomes necessary at any time during construction to expedite the work or any part of it to conform with the approved project schedule, the Contractor shall cease work at any location, transfer its men to other locations, and execute other portions of the work as may be directed.

F-06 Parking for Contractors' Employees

A. Parking for one vehicle for each Prime Contractor will be provided at a designated area in the vicinity of the project site. The parking fee for these vehicles shall be established by the University's Parking Office. Each Contractor is advised to contact the Parking Office at (814) 865-1436 for rate information.

B. Parking for all other Contractor vehicles (either company-owned or employee-owned) will be provided in a parking lot designated by the University. The parking fee for these vehicles shall be established by the University's Parking Office. Each Contractor is advised to contact the Parking Office at (814) 865-1436 for rate information.

C. It will be each Contractor's responsibility to inform its employees that they cannot park at any location on the campus other than the assigned area. All existing University parking regulations shall be enforced.

D. Each Contractor shall arrange for transportation between the assigned parking area and the project site.

***OR***

F-06 Parking for Contractors’ Employees

1. Parking will be assigned by the University.
2. Each Contractor shall arrange for transportation between the assigned parking area and the project site.

F-07 Unclassified Excavation

A. All excavation work will be unclassified and will include (without limitation thereto) the excavation and removal of all soil, shale, rock or rock formations, boulders, existing foundations, fill, and any type of subsurface condition encountered.

B. The University will consider no claims for extra compensation or extension of time because of the nature and subsurface conditions encountered.

F-08 Blasting

A. Because of experimental work being done in certain buildings on the campus and because laboratory equipment can be damaged or destroyed by unexpected vibrations due to blasting operations, it will be necessary for the Contractor doing blasting to conform to an established procedure which is in effect on the campus. It is not anticipated that blasting will be required on this project; however, should this event occur, the procedure will be made available to the Contractor.

F-09 Protection of Property

A. Protect all trees, shrubs, lawn areas, curbing, walks, roadways, and ground areas from damage during the course of the construction. Protect the existing structures and Contractors shall use care in the work in general in, on, and around the structures. Repair all damage to the satisfaction of the University at the responsible party's cost and expense.

F-10 Warning Lights

A. Where warning lights are required, they shall be the blinker type, battery or electrically operated. Open-flame-type torches are not permitted.

F-11 Access

A. Each Contractor shall maintain unobstructed pedestrian and automobile traffic lanes on the campus roads, service drives, and parking areas.

B. Protect existing buildings and structures from damage. Take all precautions to avoid damaging utilities.

C. The General Contractor shall cover all stairs, treads, and risers, immediately after erection with heavy building paper, on top of which shall be placed boards, securely fastened in place, until project completion.

D. Each Contractor shall provide constant protection against rain, wind, storms, frost, or heat so as to maintain his work, materials, apparatus, and fixtures free from damage. At the end of each day's work, cover work likely to be damaged. During cold weather, protect work from damage by freezing and provide such enclosures and heating apparatus as may be necessary to prosecute the work without stoppage for reason of unfavorable weather.

E. Each Contractor, in all areas of operations, shall provide barricades, guard lights, and other appurtenances for the protection of workmen and public as required by applicable regulations and for the protection of roads, lighting, hydrants, walks, curbs, and adjacent grounds and planting for the duration of such operations. The Contractor shall bear the costs of damage caused by it and/or its Subcontractors.

F-12 Construction Fence

A. The Contractor shall abide by all project fencing requirements located within Appendix B of the most current Contractor Safety Requirements document.

F-13 Temporary Facilities

A. Offices. The General Contractor may erect a temporary office where directed. It shall be adequate in size for conducting the work, accommodating project meetings, and shall contain a plan-table and plan-rack available for use by the University's representative(s).

B. Sheds. The Contractor may provide and erect temporary sheds, as directed, for the storage of tools, equipment, and materials.

C. Toilets. The Contractor shall provide, erect, and maintain adequate toilet facilities for the convenience of workmen and others employed on the work. The University shall approve the type of facility and location.

D. Scaffolding and Staging. The Contractor shall furnish and erect all ladders, staging, and scaffolding required.

E. Design. The University shall approve ***t***he design and appearance of offices, sheds, and toilets prior to erection.

F. Removal. Prior to completion of the work, the Contractors shall completely remove the temporary buildings, offices, sheds, toilets, scaffolding, etc., and all other items of temporary facilities and construction provided by them, and restore the area to the original condition acceptable to the University.

F-14 Existing Underground Utilities

A. The existence and locations of underground utilities indicated on the drawings are not guaranteed. The Contractor shall investigate and verify in the field before starting any work.

B. All excavation within three (3) feet of any existing underground utility line shall be accomplished by hand labor. Extreme caution shall be used in this area to prevent any damage to existing facilities.

C. The Contractor shall adequately protect from damage (including shoring, if necessary), all underground utilities uncovered or exposed. The Contractor shall be responsible for all damage to existing underground utilities caused by its work and shall repair by a method approved by the University.

D. Utilities serving existing buildings, installation, or facilities shall not be interrupted until the Contractor has made the necessary arrangements with and has received approval from the University.

E. In the event that interruption of any existing utility service is necessary, the responsible Contractor shall be required to make all arrangements for shutdown and start-up of such service with the University representative.

F. The University Park campus is traversed by a 12” high pressure gas transmission line. The Contractor must follow precautions and requirements as outlined on the plan set. The routing of the gas line is available in the Pennsylvania State University, Design and Construction Standards, Division 00, Sub-section 00 03 00.

The Contractor must review the project location relative to the gas routing and coordinate all requirements with Columbia Gas.

F-15 Temporary Utility Services

A. Each Contractor shall, at its own cost and expense, install, operate, protect, and maintain the respective temporary services as hereinafter specified, during the construction period of the entire project. These temporary services shall include water supply, electric light and power, temporary heat, material hoists, sanitary facilities, access roads, and any other services as may be stipulated in the General Conditions, Special Requirements, and/or specifications.

B. Temporary or permanent connections made by any Contractor to existing University systems shall be approved by the University, as to location and the manner and time of the connections to such systems. Where such connections require shutdown of an existing University system, at the University Park Campus the shutdown will be made by University personnel. At other locations, the shutdown will be performed by the Contractor. A written advance notice of at least fourteen (14) days shall be given to the University by the Contractor requesting the shutdown. Directly after the final connection by the Contractor, at the University Park Campus, reinstatement of the service shall be performed by University personnel. At other locations, reinstatement will be done by the Contractor.

C. Temporary connections to new and/or existing permanent service lines shall be made at locations as directed by the University, protected while in use, and when the temporary service lines are no longer required, they shall be removed by the Contractor. Any part or parts of the permanent service lines, grounds, and buildings, disturbed or damaged by the installation and/or removal of the temporary service lines shall be restored to their original condition by the Contractor responsible for the temporary installation, by a method approved by the University.

D. At the University Park Campus, University personnel must be used to shut down and start up all University services which require interruption for temporary or permanent connections. All underground utilities or service lines uncovered or exposed by the operations under this contract shall be adequately protected by the Contractor, who shall be responsible for the repair of any damage to such services. Services and utilities in and to existing buildings must not be connected to or interrupted without making the necessary written requests to the University and receiving written permission. All interruptions to University services must be scheduled two (2) weeks in advance and will generally be made outside of normal working hours.

E. The General Contractor shall pay all costs for water, electric power, and fuel required for the operation of temporary services.

F. Any Contractor who fails to carry out its responsibility in supplying temporary services, as set forth in its contract, shall be held responsible for such failure and the University shall have the right to take such action as it deems proper for the protection and conduct of the work and shall deduct the cost involved from the amount due the Contractor.

G. All services furnished by the University will be metered by meters furnished by the respective Contractors. The services will be charged at the verified current rates.

1. Prior to a Contractor's use of steam, electricity, or water from the University's distribution systems, a meter shall be installed by the Contractor to measure the consumption.

a. In the case of steam, condensate shall not be wasted and shall be returned to the University system.

2. When meters are installed at the University Park Campus, metering connections will be inspected and readings obtained by the University prior to any usage and periodically thereafter until the Contractor's liability for this cost ends.  
  
Piping for all condensate and water meters shall include all valving and hose bibs necessary to permit field checks of those meters, as well as confirm to any other requirements as might be imposed by these specifications.

3. At the University Park Campus, the University shall be notified when any meter is removed or disconnected, for any reason during this period of Contractor liability. A record shall be maintained by the Contractor relative to the length of time such meters are inoperable. If other meters are installed permanently or temporarily to replace existing meters, meter readings and serial numbers shall be recorded, appropriate record changes made, and the University's designated representative notified.

4. Reasonable access to all metering in the Contractor's area shall be provided for inspection of meter connections and periodic meter reading by the University.

H. Temporary Water Supply

1. The Plumbing Contractor shall, at its own cost and expense, install, meter, operate, protect, and maintain an adequate water supply for the use of all Contractors on the project during the period of construction, either by means of the permanent water supply or by the installation of a temporary water supply line. This water supply line shall be made available within fifteen (15) days after being so directed by the University. All Contractors shall notify the University twenty (20) days prior to the time that they will require water supply.

2. The Plumbing Contractor will be required to bring the temporary water supply to a point approximately ten (10) feet from the building. The actual location of the point to which the water is brought shall be in close proximity to the point of entrance of the permanent water supply. From this point each Contractor shall install, valve, maintain, and protect such temporary waterlines as it will require to perform the work under its contract.

3. The Plumbing Contractor shall be responsible for the removal of a temporary water supply line, if installed, and restoration which may be required because of same.

I. Telephone Services. The Contractor shall obtain and pay for all expenses associated with temporary telephone, fax, etc., services. Service shall be arranged by calling the Office of Telecommunications (OTC) Business Office at (814) 863-7096. The Contractor shall inform OTC of the company name, services desired, location, contact name, billing address, and telephone and fax numbers. OTC will initiate the service order and all one-time, ongoing, and disconnect charges shall then be billed directly to the Contractor. The Contractor shall notify OTC when service is required to be disconnected.

J. Temporary Heat

1. The temporary heat requirements are divided into two categories; i.e., (1) temporary heat required prior to the enclosure of the structure, structures, or portions thereof; (2) temporary heat required subsequent to the enclosure of the structures.

2. A structure shall be considered to be enclosed when (a) the roof is on and tight; (b) the exterior walls have been completed to the extent that heat will be retained within the structure; and (c) when openings, doors, and windows are closed with permanent closures, or with substantial temporary closures which will affect the retention of heat within the structure.

3. Where projects are multistory, which are more than three levels or stories above grade, a building shall be defined as "enclosed" when all of the requirements of the preceding paragraphs have been met, except that the stipulation that the roof shall have been complete, shall not apply as long as the floor construction of the level above the proposed working area is complete, and as long as all stairs or other openings, which penetrate or project through the ceiling or the floor above the proposed working area have been protected.

4. Prior to enclosure of structures, or portions thereof, and when official local weather predictions indicate below freezing temperatures, the General Contractor shall provide, maintain, operate, and pay all costs including fuel for a sufficient number of approved portable heaters so that the progress of the work of all Contractors is not impeded, and proper protection of all work from freezing is maintained. Self-contained oil-fired portable heaters, which release the products of combustion inside the structure, may be used only in areas where finish work has not been started and there, only if, in the opinion of the Professional, the possible deposit on the structure interior will not have an adverse effect on the finish work to be installed.

5. Temporary heat in the enclosed structures will be required on a twenty-four hour basis when the ambient temperature is officially predicted or is actually at 35°F, or lower.  
  
Temporary heat may be required at times other than above in order to maintain job progress and will be the responsibility of the respective Contractors to supply and pay all costs thereof.

6. After the structure is enclosed and temporary heat is required for proper construction as determined by the Professional or the University, the Heating Contractor, at his own cost and expense, shall provide the equipment and heating personnel for temporary heat. The Heating Contractor may install gas or oil-fired portable heating units provided the products of combustion are totally vented outside the building. The Heating Contractor, upon approval by the University, may utilize the permanent system or portions thereof or may install temporary steam or hot water radiation or convection or a combination of both. If the permanent system is used and water treatment equipment is to be installed as part of the contract, then such equipment is to be installed and operated to protect the system. The Heating Contractor shall operate portable steam or hot water generating equipment for supply to permanent or temporary structure heating facilities unless steam is available from University lines. The Heating Contractor may install, valve, meter, operate, protect, and maintain a temporary steam heating system through connections to existing University steam lines, but may do so only if the University will state, in writing, that the existing steam system can supply sufficient quantity of steam to meet the Professional's estimate of the quantity that will be needed to maintain adequate temporary heat. The University, within its facilities, will furnish steam for temporary heat under a specified schedule of charges.

7. Temporary heating system shall be of sufficient capacity to heat the interior of the building to 50°F, when the outside temperature is 0°F. Temperature at all times must be 50°F or above. This service shall be continued until the entire project is completed.

8. Where electricians or plumbers are required to install, operate, supervise, or maintain equipment used in the provision of temporary heat, the payment for the services of such personnel shall be the responsibility of the Electrical or Plumbing Contractor, respectively.

9. The General Contractor, at its own cost and expense, shall remove all soot, smudge, and other deposits from walls, ceilings, and exposed surfaces which are the result of the use of any temporary heating equipment, including the use of the permanent heating system for temporary heating purposes. The Contractor shall not do any finish work until all such surfaces are properly cleaned.

10. All permanent heating equipment used to supply temporary heat shall be completely cleaned and reconditioned as necessary by the Heating Contractor prior to final acceptance by the University. All permanent heating equipment such as radiator trap seats and diaphragms, valve seats and discs, strainer internals, or any other equipment found to be damaged due to being used for temporary heat shall be replaced. All such replacements must be checked and approved by the University.

11. The use of either temporary or permanent electric resistance heating will not be permitted for temporary heat. Where permanent electric resistance heating is specified, temporary heat shall be independent of the permanent system.

K. Construction Light and Power

1. All references made herein to the Electrical Contractor shall refer to the Electrical Contractor performing the work under the contract.

2. The Electrical Contractor shall contact the University and make all arrangements for the electric service. The Electrical Contractor shall install a KWH demand plus KWH metering and billing meter for all construction light and power taken from the University system as specified above.

3. The Electrical Contractor shall arrange with the University for service from the existing lines. Electrical Contractor shall furnish and install a circuit breaker or fused switch of sufficient capacity to handle the construction

load at the building. Electrical Contractor shall also furnish secondary service for lighting only to each Contractor's office. The current transformers and metering will be installed by the Electrical Contractor.

4. At University Park Campus, where temporary electric service is secured from the University's 5 KV or 12 KV distribution system, the Electrical Contractor shall install the system in the same manner as if the system were permanent. This includes fused disconnects installed as close as possible to the tap to the University's system, 5 KV or 15 KV shielded cable as required, proper termination of cable including stress cones, grounding, lightning arresters on overhead lines and proper insulators and adequate clearance for overhead lines. Transformer bank shall be connected for a balanced 120/240 V distribution except when directed otherwise.  
  
When this installation is complete and before connections may be made, the University shall be notified so that arrangements can be made for testing, inspection, and approval by the University before final connection is completed.  
  
It will be the University's option to waive the test.  
  
All interruptions to University services must be scheduled two (2) weeks in advance. In order to keep the downtime to a minimum, the Electrical Contractor shall complete as much of the work as possible prior to the interruption.

5. The temporary service distribution points shall be located as near as possible to the building and shall not cause an obstruction or interference to other Contractors in the performance of this work.

6. The Electrical Contractor shall furnish and install the temporary electrical services for construction light and power for all Contractors, maintain and operate the services as long as required during the entire period of construction for the project. Temporary electrical service shall be supplied during normal daily working hours based upon a forty-hour work week. When any Contractor requires service beyond the above, that Contractor shall be responsible for the cost thereof.

7. The Electrical Contractor shall provide all wiring, safety switches, panels, poles, supporting structures, lamps, and weatherproof sockets, all of which shall be properly and safely installed.

8. The Electrical Contractor shall provide LED work lights (equivalent to 100W incandescent) and 120-volt power receptacles approximately every fifty (50) feet on the lines in weatherproof sockets. These facilities shall be installed so as to light all exitways, stairway landings, and to provide one light and one receptacle for each 1,000 square feet in all spaces which exceed 1,000 square feet. Lights shall be provided with protective cages.

9. Where temporary electrical service is required at the Commonwealth Campuses, and this service is secured from the high-voltage distribution system, the Electrical Contractor shall make all arrangements with the local electric utility company for obtaining temporary electric service. As a minimum, the temporary service installation shall meet all requirements of the utility company. Where the utility company requirements are less stringent than the requirements herein specified, at the option of the University, the more stringent requirements shall be applied.

10. The Electrical Contractor shall provide three (3) 208-volt, single-phase power receptacles, each rated at 4,000 watts, outside the building. The maximum size motor to be used by any Contractor shall be limited to five (5) horsepower. Where a service of a type other than that herein specified is required, each Contractor requiring same shall furnish and install and pay all costs for special services. If special service is not available, the Contractor requiring same shall furnish, install, and maintain separate internal-combustion engine-generator sets. Electrical power will not be made available for welding machines or electric heating equipment.

***OR***

F-15 Temporary Utility Services

A. Each Contractor shall, at its own cost and expense, install, operate, protect, and maintain the respective temporary services as hereinafter specified, during the construction period of the entire project. These temporary services shall include water supply, electric light and power, temporary heat, material hoists, sanitary facilities, access roads, and any other services as may be stipulated in the General Conditions, Special Requirements, and/or specifications.

B. Temporary or permanent connections made by any Contractor to existing University systems shall be approved by the University, as to location and the manner and time of the connections to such systems. Where such connections require shutdown of an existing University system, at the University Park Campus the shutdown will be made by University personnel. At other locations, the shutdown will be performed by the Contractor. A written advance notice of at least fourteen (14) days shall be given to the University by the Contractor requesting the shutdown. Directly after the final connection by the Contractor, at the University Park Campus, reinstatement of the service shall be performed by University personnel. At other locations, reinstatement will be done by the Contractor.

C. Temporary connections to new and/or existing permanent service lines shall be made at locations as directed by the University, protected while in use, and when the temporary service lines are no longer required, they shall be removed by the Contractor. Any part or parts of the permanent service lines, grounds and buildings, disturbed or damaged by the installation and/or removal of the temporary service lines shall be restored to their original condition by the Contractor responsible for the temporary installation by a method approved by the University.

D. All underground utilities or service lines uncovered or exposed by the operations under this contract shall be adequately protected by the Contractor, who shall be responsible for the repair of any damage to such services. Services and utilities in and to existing buildings must not be connected to or interrupted without making the necessary written requests to the University and receiving written permission. All interruptions to University services must be scheduled two (2) weeks in advance and will generally be made outside of normal working hours.

E. Temporary heat shall be provided by each Contractor as required for its use and at its cost and expense. Electric power from University sources shall not be used for temporary heat.

F. Water will be available to all Contractors at no cost, at a hose bib located near the job site. Contractors shall provide, at their own cost and expense, all required extensions of existing facilities.

G. Temporary construction power and lighting shall be provided by each Contractor for its use at its own cost and expense.

H. Any Contractor who fails to carry out its responsibility in supplying temporary services, as set forth in its contract, shall be held responsible for such failure, and the University shall have the right to take such action as it deems proper for the protection and conduct of the work and shall deduct the cost involved from the amount due the Contractor.

1. Telephone Services. The Contractor shall obtain and pay for all expenses associated with temporary telephone, fax, etc., services. Service shall be arranged by calling the Office of Telecommunications (OTC) Business Office at (814) 863-7096. The Contractor shall inform OTC of the company name, services desired, location, contact name, billing address, and telephone and fax numbers. OTC will initiate the service order and all one-time, ongoing, and disconnect charges shall then be billed directly to the Contractor. The Contractor shall notify OTC when service is required to be disconnected.

F-16 Electric Power Equipment

A. Due to the limited capacity of electric distribution on the Campus, the use of A.C.-powered welders and electric heaters is prohibited.

F-17 Temporary Sanitary Facilities

A. Sanitary facilities will not be provided by the Owner. The use of Owner's facilities is prohibited (unless prior approval is granted by the Owner).

B. The General Contractor shall, at its own cost and expense, provide, operate, and maintain in a clean and sanitary conditions, adequate sanitary facilities as approved by the Owner.

1. All sanitary facilities shall be fully enclosed buildings, screened against insects.

2. Open-pit type facilities will not be permitted.

3. The Plumbing Contractor shall install and maintain in operation a sufficient number of nonfreeze-type fixtures in a manner approved by the Owner.

4. When directed by the Owner, the Contractor shall dismantle and remove these facilities and leave the premises clean as required.

5. As soon as permanent soil lines have been installed inside the building, the Plumbing Contractor shall install two temporary water closets and two lavatories. These shall be kept in working order by the Plumbing Contractor and shall be maintained in a clean and sanitary condition by the General Contractor.

6. The use of self-contained "Job-Johnny" units will be permitted upon approval by the Owner.

F-18 Existing Underground Service and Utility Lines

A. Notification to Public Utilities Prior to Excavation or Demolition Work When Using Powered Equipment or Explosives.

1. All Contractors shall comply with all requirements of the Act of December 10, 1974 (P.L. 852, No. 287), referred to as the Underground Utility Line Protection Law, as amended by the Act of December 12, 1991 (Act No. 1991-38), prior to excavation or demolition work when using power equipment or explosives.

B. At all locations, all underground utilities or service lines uncovered or exposed by the operations under the contract shall be adequately protected by the Contractor, who shall be responsible for the repair of any damage to such services. Contractor shall be responsible to the Owner for all costs resulting from the Contractor's damage to University lines. These include, but are not limited to material cost, wages, supervisory professional costs, disruption of services, research, and overhead costs. Contractor must notify the University immediately of any damages to utility lines and street lighting. Repairs shall be made by a method approved by the University.

F-19 Interruption of Existing Services

A. Utilities serving existing buildings, installations, or facilities shall not be interrupted until the Contractor has made the necessary arrangements with and has received approval from the University.

B. In the event that interruption of any existing utility service is necessary, the responsible Contractor shall be required to make all arrangements for shutdown and start-up of such service with the University representative, and shall pay all costs for such interruption and service restoration.

C. University crews must be used to shut down and start up all services which require interruption for temporary or permanent connections, with the exception of electrical related interruptions and/or shutdowns. In these instances of electrical related interruptions and/or shutdowns, Contractor shall abide by the protocols and requirements as outlined in the most current Contractor Safety Requirements document located within Division 00 of the University’s Design & Construction Standards.

D. All planned interruptions to University services must be scheduled two (2) weeks in advance and the work will generally be done outside of normal working hours.

F-20 Laying Out the Work

A. The General Contractor shall employ a competent, experienced engineer and have the engineer determine all lines and grades and certify same from time to time during the progress of the work.

1. The General Contractor shall establish bench marks referenced to finished grade lines and critical elevations.

2. Each Prime Contractor or Subcontractor shall provide a competent engineering service to lay out its work in accordance with lines and grades established by the General Contractor.

F-21 Measurements

A. Before ordering material or proceeding with the work, the Contractors shall verify all measurements at the site. No extra compensation will be allowed because of differences between actual measurements and dimensions shown, but such differences shall be referred to the Professional for consideration before proceeding with the work.

F-22 Clearing of Roads, Parking Areas, and Traffic on Campus

A. The General Contractor shall daily clean all mud, dirt, and debris resulting from all Contractors' operations from the adjacent streets, sidewalks, drives, and parking areas, and shall repair all damage caused by the cleaning. If the Contractor fails to clear mud and construction debris from roads and walks, the University will clear this mud and debris and bill the Contractor(s) at cost.

B. All traffic will be subject to the rules and regulations and penalties of its University and applicable local laws. All hauling and construction traffic shall use only those roads designated by the University. The use of Jake Brakes on campus is prohibited.

C. Contractors shall carefully schedule delivery and installation of its work so to cause the least interruption of normal rush-hour traffic.

D. The General Contractor shall maintain streets, sidewalks, and driveways free of encumbrance at all times for pedestrian and automotive traffic. When necessary to block these off, do so only with prior approval of the University and only at designated time. Each closing must have the prior approval of the University.

E. Parking for Contractors' employees is prohibited on campus roads, drives, and courts.

F. Where mud, snow, ice, or other hazardous conditions exist, the General Contractor shall remove the hazards or shall provide and maintain such temporary pathways as are required for safe and expeditious prosecution and inspection of the work of all trades.

F-23 Cleanup

A. The General Contractor shall take precautions against the presence of rats, mice, and other pests. The General Contractor shall exterminate them if they are observed, engaging a reputable exterminating firm to give regular service as necessary.

B. Each Contractor shall keep the premises clean at all times of dirt, rubbish, and debris resulting from the work of all contracts, and shall remove all rubbish and debris in metal containers at the end of each working day. Each Contractor shall remove all rubbish and cartons resulting from the installation of fixtures and equipment. Disposal of materials by burning at the site is expressly prohibited. The Contractor will not use the University's trash collecting containers.

C. Prior to substantial completion of the work, each Contractor and Subcontractor shall do the final cleaning of the surfaces of all the Contractor's installations as may be required by the various specification sections.

D. Each Contractor, in addition, shall employ a professional cleaning organization to remove all paint and stains from glass and to wash all glass throughout the work, to clean and polish the finished surfaces of all fixtures, equipment, and accessories and to vacuum clean all floors.

E. All permanent equipment used to supply temporary services shall be completely cleaned and reconditioned by the appropriate Contractor prior to final acceptance by the University. Filters shall be in clean condition, interiors of all strainers shall be replaced or cleaned and seats on all valves and diaphragms on all traps of all sizes of the used portions shall be examined, cleaned, and replaced as necessary to the satisfaction of the University. Costs of cleaning, reconditioning, and replacement of parts of the permanent systems shall be at the expense of the responsible Contractor.

F. If a Contractor fails to clean up, the University may do so and the cost thereof shall be charged to the Contractor as provided in the General Conditions.

F-24 Existing Facilities

A. The University will maintain activities and normal office hours in the building during the course of this construction project. Difficulties of working in an existing operational building are recognized; however, the Contractor must cooperate to keep noise, dirt, and other interferences to a minimum. Housekeeping shall be such to assure no disruption of the University's operations and the Contractor shall schedule his work well in advance and give notice to all building occupants of any disruption.

B. Existing facilities must be maintained watertight and dust free at all times. The Contractors shall make all necessary provisions to this end and shall be responsible for any damage resulting from noncompliance with this requirement.

F-25 Requirements During Construction

A. Fence open ditches. Where walks cross such ditches, bridged walkways must be provided with rails on both sides. Bridged walkways must be adequately lighted at night.

B. Service temporary walks and roads with No. 2 crushed stone if they are to be in public use.

C. Walks and roadways used by both Contractor and the public shall be kept in repair and cleared by the Contractor at least once each day and more often as conditions require.

D. Place no obstructions on or within fifteen (15) feet of fire hydrants. Hydrants must be accessible for fire fighting purposes.

E. Protect and attend any type of temporary heating units used.

F. Where walkways, roadways, or entrances used by the public are adjacent to or pass under construction scaffolding or near building edge, the Contractor shall provide an adequate covering for such area to protect passersby from falling objects.

G. All temporary construction sheds, trailers, and flammable liquid storage areas belonging to Contractors shall be so placed on the construction site to minimize any danger to University property and the public.

H. The University Department of Environmental Health and Safety is available for consultation regarding the above items and any other safety matter.

F-26 Protective Barricades

Contractors shall be aware that the University community includes many people with disabilities (visually impaired, wheelchair-bound, etc.), requiring extra attention on the part of the Contractor to assure that construction work is properly identified and protected. The following provides minimum protective measures to be followed by Contractors doing work beyond the main project construction fence in order to protect the general public from hazards created by open excavations, manholes, etc.:

A. Any excavations outside the project fence shall be adequately protected to prevent falls, injury, or other hazard to the general public and University population, as follows:

1. Excavations for the purpose of constructing/installing manholes, meter pits, valve pits, or similar appurtenances must be completely surrounded by a rigid fence (not flagging tape or plastic netting) of sufficient height and strength to prevent individuals from crossing into the excavated area. Such fencing shall incorporate toeboards around the bottom and must be positioned and sufficient distance from the top of excavation to provide adequate protection against undermining or sloughing off of the excavation slopes.

2. Ditch excavations, such as for electrical, water, sewer, steam, gas, or other underground utility lines, shall, as a minimum, be protected on all sides with snow fencing or similarly strong material; fencing shall be positioned a safe distance away from the top of slope of the excavation.

B. Construction equipment used for hoisting men or materials (e.g., cranes and "cherrypickers," construction line trucks, mobile platforms, etc.) must be surrounded by appropriate protective barricades, safety lines, and signage to alert passersby of the presence of overhead loads and to provide adequate clearance around all boom swing areas, tail swing areas, overhead loads, and operating machinery. Passersby shall not be permitted to travel beneath suspended loads under any circumstances. If necessary, Contractor shall provide a flagman to assure safe passage of pedestrian and vehicular traffic.

C. Open manholes must be protected at all times by a rigid, fence-type barricade around the opening.

D. Flagging tape and traffic cones are not, under any circumstances, suitable or permissible barricading materials.

E. Contractors shall notify--and receive approval from--the University's Construction Inspection Office prior to beginning any excavation or opening of any manholes outside the project fence. The Inspection Office will then advise the appropriate University office of the hazardous condition, including location, approximate starting time, and expected duration of the situation.

F. Contractors shall report immediately to the University's Construction Quality Representative any accident or other incident, no matter how minor, which involves any member of the general public. The telephone number of the University's Construction Inspection office is (814) 863-3316.

F-27 Delivery and Storage

A. On-Site. All materials and equipment shall be delivered to the site and stored at locations approved by the University. Each Contractor shall be responsible for proper care and protection, and shall protect and be responsible for any damage to its work or materials from the date of the Agreement until final payment is made, and shall make good without cost to the University any damage or loss that may occur during this period. All cement, lime, and other materials which may be affected by the weather shall be covered and protected to keep them free from damage while they are being transported to and stored on the site. Should any materials be found defective or in any way contrary to the Contract, this material, no matter in what stage of completion, may be rejected by the Professional and/or the University and shall be removed from the site at once.

B. Inside Building. In no case shall any materials be stored in mechanical and electrical spaces, nor shall any paint or other combustible supplies, tools, or equipment be stored in the building, except in tightly sealed metal containers, in well-ventilated spaces, and in a quantity limited to that day's need.

C. Provisions for Large Items. The General Contractor shall make provisions for bringing into the building large items of equipment by leaving temporary openings for them as determined to be required. After the equipment is set in place, the General Contractor shall close the opening as required.

D. Materials must be stored in such a way as not to damage existing structures or surrounding area. Any material or equipment stored on the roof of any building must be placed on dunnage and not directly on roof surface.

F-28 Fire Protection

A. Each Contractor shall maintain and enforce regulations covering all fire hazards, including smoking, and shall provide during construction, the required number of suitable fire extinguishers in the proper locations.

B. No fires for any purpose shall be permitted on the project. Remove all refuse from University property.

C. No welding, cutting by torch, or work utilizing or causing inflammable wastes shall be done unless adequate fire protection is provided and maintained for the duration of the work in the area of operations. University welding/cutting permits will be required and shall be issued at no cost to the Contractor by the University.

F-29 Job Site Security

A. The University will not provide job site security.

B. The University assumes no responsibility for damage or loss to the Contractors' property.

F-30 Dewatering

A. The General Contractor shall assume responsibility for continuous removal of all water, including surface and rainwater, by the use of pumps, drains, and other approved methods necessary to keep the excavation and site free from water at all times until completion.

B. All water must be directed away from existing structures, shall cause no erosion and shall prevent foreign material from backing up existing drains or entering into the sewers.

F-31 Fastening Devices

A. Fiber, plastic, lead plugs and shields, and any devices using wood screws are not acceptable as fastening devices to plaster, tile, concrete, or masonry. Use expansion bolts or driven devices in solid construction, and toggle bolts in hollow construction.

F-32 Welding

A. All welding and cutting shall be done by qualified and certified welders. Certificates shall be filed with the Professional and the University prior to commencement of any welding.

F-33 Noise Control

A. In most instances, noise control will be a matter of prime concern. It is, therefore, mandatory that all equipment such as compressors, generating equipment, etc., shall be fitted with mufflers or other noise abatement attachments.

B. It may become necessary to schedule some operations during periods of low occupancy of neighboring buildings.

F-34 Provision for People with Disabilities

A. All structures designed for general use, shall comply with all local, state, federal, and University regulations for facilities to accommodate people with disabilities.

F-35 Asbestos Removal

A. The University has an ongoing asbestos identification and removal program. On renovation projects where the possibility exists that material containing asbestos fibers may be encountered, the situation will be reviewed by the University and a course of action determined.

B. Possible asbestos removal situations will be discussed between the Professional and the University on a project-by-project basis.

C. If asbestos is found to be present after construction is underway, the University Construction Inspection Office is to be notified immediately so that proper removal work can begin promptly. Removal or repairs will then be initiated following all applicable EPA and OSHA regulations.

F-36 Advertising Signs

A. Neither the Professional nor Contractor shall erect advertising signs.

F-37 Project Sign

1. On projects funded solely by the University, **one** project sign may be prepared and erected by the General Contractor to inform the public of the construction activity in progress. The sign shall conform to the following specifications:
   1. Size: no sign shall exceed a total of 32 square feet.
   2. Material:
      1. Vinyl mesh as defined in F12.2 (Construction Fence)
      2. Suitable exterior rigid sign substrate.
      3. Project signs must be attached to the ground or construction fence using suitable fasteners
   3. Location
      1. The sign shall be placed in a location visible to primary flow of vehicular or pedestrian traffic.
      2. No project sign shall obstruct the vision of drivers or pedestrians.
      3. No project sign may be mounted at a height in excess of 15 feet from the ground.
2. Sign Content shall be limited to the following information:
   1. Project name as defined by the university.
   2. Anticipated construction completion date.
      1. Example: “Named Classroom Building Opening Fall 2013”
   3. University approved architectural rendering.
   4. University identification mark per the graphic identity system
3. Project signs shall not include references to design consultants, contractors, suppliers, or other construction related entities.
4. The Contractor is responsible for maintaining the sign in good condition throughout the construction period.

F-38 Warranty Period

A. During warranty periods, the University will respond to emergency situations, that is, situations determined to be potentially harmful to the surrounding personnel, equipment, or environment. In cases where work is performed by University employees, the Contractor will be charged for all labor and material needed to complete emergency repairs, if the repairs are determined to be the result of faulty material or workmanship. The performance of these repairs shall not void any Contractor's warranties.

B. The University will begin preventive maintenance programs immediately following final inspections. Preventive maintenance activities shall not relieve the Contractor from any equipment warranties.

F-39 Schedules and Reports

A. Refer to General Conditions of the Contract, Article 11, for a detailed breakdown of information required.

B. Together with each monthly application for payment, the Contractor shall forward to the University a summary report of the progress of the divisions of the work.

F-40 Confined Spaces

A. All Contractors will have a written OSHA compliant permit-required confined space program.

F-41 Demolition Work

1. Contractor is responsible for PA DEP/EPA notifications required for demolition work. Paperwork must be submitted to the Owner for review prior to submission to the proper agencies. Notification form templates are available from the Owner.
2. Demolition Contractor performing work requiring notifications must be prequalified by the Owner.