

SECTION 01 73 00
EXECUTION

PART 1 - GENERAL

1.1 EXAMINATION OF AND ACCEPTANCE OF EXISTING CONDITIONS

- A. The Contractor, its subcontractors shall inform themselves of existing conditions before submitting his bid, and shall be fully responsible for carrying out all work required to completely and properly execute the work of the Contract, regardless of the conditions encountered in the actual work. No claim for extra compensation or extension of time will be allowed on account of actual conditions inconsistent with those assumed, except those conditions described in the General Conditions.
- B. Prior to commencement of selective demolition work, inspect areas in which work will be performed. Photograph existing damage to structure surfaces, equipment, or to surrounding proper ties which could be misconstrued as damage resulting from selective demolition work; file with Architect prior to starting work.

1.2 SURVEYING AND FIELD ENGINEERING

- A. Employ a Land Surveyor or Professional Engineer registered in the Commonwealth of Virginia and acceptable to the Architect.
 - 1. Submit evidence of Surveyor's Errors and Omissions (E&O) Insurance coverage in the form of an Insurance Certificate.
- B. Submittals
 - 1. Submit name, address, and telephone number of at least three proposed Land Surveyors and obtain Architect's acceptance before starting survey work.
 - 2. On request, submit documentation verifying accuracy of survey work.
 - 3. Submit a copy of registered site drawing and certificate signed by the Land Surveyor, that the elevations and locations of the Work are in conformance with the Contract Documents.
- C. Examination
 - 1. Verify locations of survey control points prior to starting work.
 - 2. Promptly notify Architect / Engineer of any discrepancies discovered.
- D. Survey Reference Points
 - 1. Contractor shall locate and protect survey control and reference points.
 - 2. Control datum for survey is that established by Owner provided Survey.
 - 3. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
 - 4. Promptly report to Architect/ Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
 - 5. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to the Architect.
- E. Survey Requirements
 - 1. Provide field engineering services. Utilize recognized engineering survey practices.
 - 2. Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer and water service piping.
 - a. The existence and location of underground utilities and construction indicated on Drawings as existing are not guaranteed. Before beginning site work, verify the existence and location of underground utilities and other construction.

3. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
 - a. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
 - b. Grid or axis for structures.
 - c. Building foundation, column locations, and ground floor elevations.
 4. Periodically verify layouts by same means.
- F. Project Record Documents
1. As-built survey, progress submissions: Surveyor shall develop an as-built survey for the work-in-place. Copies of survey shall be submitted a long with request for payments for foundation work, site utilities and paving work.
 2. Surveyor's log: Maintain a complete and accurate surveyor's log of control and other surveys, as required by Owner and authorities having jurisdiction. Make this log available for reference.
 3. Submit Final Property Survey and log under the provisions of Section 01 78 00 – CLOSEOUT SUBMITTALS.

1.3 PROTECTION OF ADJACENT ELEMENTS

- A. Protect installed Work and provide special protection where called for in individual specification Sections.
- B. Protect existing facilities and adjacent properties from damage from construction and demolition operations. Provide temporary and removable protection for installed products and occupied areas.
- C. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials. Coordinate with requirements under individual specification sections.
- D. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- E. Protect all existing landscape areas not indicated to be cleared. Do not deface, injure, or destroy trees or other plant life. Do not remove or cut trees or other plant life, without authorization from the Owner. Do not attach any anchorages, ropes, cables or guys to any trees scheduled to remain.
 1. Prohibit traffic from landscaped areas.
- F. Protect non-owned vehicles, stored materials, site and structures from damage.
- G. Refer to respective Sections for other particular protection requirements.

1.4 EXECUTION REQUIREMENTS FOR INSTALLATION, APPLICATION AND ERECTION

- A. Inspection of conditions: The Installer of each component shall inspect the substrate and conditions under which Work is performed. Do not proceed until unsatisfactory conditions have been corrected.
- B. Recheck measurements and dimensions, before starting installation.
- C. Manufacturer's instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that they are more stringent than requirements in Contract Documents.

- D. Inspect material immediately upon delivery and again prior to installation. Reject damaged and defective items.
- E. Install each component during weather conditions and project status that will ensure the best results. Isolate each part from incompatible material as necessary to prevent deterioration.
- F. Coordinate temporary enclosures with inspections and tests, to minimize uncovering completed construction for that purpose.
- G. Limiting exposures: Supervise operations to ensure that no part of construction, completed or in progress, is subject to harmful or deleterious exposure.
- H. Provide attachment and connection devices and methods necessary for securing each construction element. Secure each construction element true to line and level. Allow for expansion and building movement.
- I. Visual effects: Provide uniform joint widths in exposed Work. Arrange joints to obtain the best effect. Refer questionable choices to the Architect for decision.
- J. Mounting heights: Where mounting heights are not indicated, review heights with Architect, prior to commencement of Work.
- K. Cleaning and protection: During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- L. Clean and maintain completed construction as often as necessary through the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

1.5 PROGRESS CLEANING AND DISPOSAL OF WASTE MATERIALS

- A. General: Maintain site in a clean and orderly condition. Maintain work and surrounding areas free of waste materials, debris, and rubbish; remove from site on a on-going basis throughout the term of construction.
 - 1. Adjacent Areas: Keep adjacent areas, neighboring properties, public ways, and all nearby areas clean and free of construction debris and dirt including wind blown debris.
- B. Control accumulation of waste materials and rubbish; periodically dispose of off-site. The Contractor shall bear all costs, including fees resulting from such disposal.
- C. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on site.
 - 2. Do not dispose of volatile waste s such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 3. Do not dispose of wastes into streams or water ways.
 - 4. Comply with requirements of authorities having jurisdiction including, without limitation, requirements related to fire prevention, rodents, pests, vermin, waste storage, waste trucking, waste removal, waste disposal, street cleaning, truck tire cleaning, and other requirements.
- D. Clean interior areas prior to start of finish work and maintain areas free of dust and other contaminants during finishing operations.
- E. Maintain project in accordance with all local, Commonwealth of Virginia, and Federal Regulatory Requirements.

- F. Store volatile wastes in covered metal containers, and remove from premises daily.
- G. Prevent accumulation of wastes which create hazardous conditions.
- H. Provide adequate ventilation during use of volatile or noxious substances.
 - 1. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
 - 2. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- I. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
- J. Use only those cleaning materials and methods recommended by manufacturer of surface material to be cleaned.
- K. Execute cleaning to ensure that the buildings, the sites, and adjacent properties are maintained free from accumulations of waste materials and rubbish and windblown debris, resulting from construction operations.
- L. Provide on-site containers (dumpsters) for collection and containment of, waste materials, debris and rubbish.
 - 1. Trash Barrels and Containers: Use containers with tightly fitting lids. Use only steel containers and lids when there is any evidence of rodent or pest activity.
 - 2. Returnables: Provide special, labeled containers for deposit returnables such as soda cans.
- M. Remove waste materials, debris, and rubbish from site at least once weekly, and dispose off-site. Comply with NFPA 241 for removal of combustible waste.
- N. Handle material in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights.
- O. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not damage surrounding surfaces.

1.6 SITE MAINTENANCE AND CLEANING

- A. Maintain traffic and parking areas in a sound condition, free of excavated material, construction equipment, products, mud, snow, and ice.
 - 1. Provide means of removing mud from vehicle wheels before entering public streets and Owner's parking areas and access.
 - 2. Architect shall have designated parking space, which shall not be used by others. Space shall be broom swept prior to Architect's arrival at site.
- B. Maintain existing paved areas used for construction.
 - 1. If any street or private way shall be rendered unsafe by the Contractors operations, the Contractor shall make such repairs or provide such temporary ways or guards as shall be acceptable to the governing authority.
 - 2. Promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

1.7 FINAL CLEANING

- A. Scheduling: Perform final cleaning immediately prior to the Architect's review of the project for issue of the Certificate of Substantial Completion.

1. Re-clean all surfaces, materials and products of the Work immediately prior to Owner's occupancy of the Project.
 - a. Should the Owner occupy any portion of the Work prior to completion of the Contract, the responsibilities for interim and final cleaning shall be in accordance with the General Conditions.
- B. Qualifications: Commercial cleaning firm, with a minimum of 3 years experience specializing in the post-construction cleaning of critical facilities.
- C. Protection: During the operation of final cleaning, protect surrounding materials and finishes against undue damage by the exercise of reasonable care and precautions. Clean, or repair all products and surfaces which are soiled or otherwise damaged by Work of this Section, to match original profiles and finishes. Materials and finishes which cannot be cleaned, or repaired shall be removed and replaced with new work in conformance with the Contract Documents.
- D. General cleaning requirements:
 1. Control accumulation of waste materials and trash. Recycle or dispose of off-site at intervals approved by the Owner and in compliance with waste management procedures specified in Section 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.
 2. Remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste.
 3. Remove all advertising matter and temporary instructional material from exposed surfaces throughout.
 4. Use only methods and cleaning materials which are compatible with and as recommended by the manufacturer of the material being cleaned.
 5. Finished surfaces: Remove paint smears, spots, marks, dirt, mud and dust and similar disfigurement created by the Work, from all exposed to view existing or new interior and exterior finished surfaces.
 6. Polished surfaces: Apply the polish recommended by the manufacturer of the material being polished.
 7. Cleaning Materials: Only non-hazardous cleaning materials shall be used in the final cleanup.
 8. All surfaces in computer room and infrastructure spaces shall be "white glove" clean.
- E. Waste Management and Recycling during Final Cleaning:
 1. Recycle, salvage, and return construction and demolition waste from Project in accordance with requirements in Section 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.
 2. Arrange for pick -up of salvageable materials in accordance with the Waste Management Plan.
 3. Disposal Operations: Promptly and legally transport and dispose of all trash. Do not burn, bury, or otherwise dispose of trash on the Project site.
- F. Exterior building surfaces:
 1. Visually inspect exterior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter.
 2. Remove all traces of splashed materials from adjacent surfaces.
 3. If necessary to achieve a uniform degree of cleanliness, hose down the exterior of the structure.
 4. In the event of stubborn stains not removable with water, the Architect may require light sand blasting or other cleaning at no additional cost to the Owner.
 5. Concrete: Clean exposed concrete free of all foreign matter. If, in the opinion of the Architect, further cleaning of specific areas is required, they shall be scrubbed with water or other cleaning agents. Acid cleaners shall not be used, except as may otherwise specifically permitted in the trade sections.

- G. Bright metal: Clean metal surfaces, hardware, fixtures, appliances, equipment, and similar items free of all foreign matter. As required, lightly scrub specific stains with clean water, mild soap, and soft rags, thoroughly rinsed and wiped with clean, soft white rags. Do not use abrasive cleaners.
- H. Glass: Replace broken, chipped and defective glass. Remove from glass: stains, spots, marks, paint smears; dirt and foreign materials. Clean and polish both surfaces of all interior and exterior glass. Clean and polish mirrors.
- I. Carpet: Vacuum clean carpet and remove all spots and stains.
- J. Hardware: Clean and polish finished hardware, remove marks, stains, scratches and blemishes.
- K. Raised Floor System: Thoroughly HEPA vacuum sub-floor slab, piping, conduits, etc. after all miscellaneous debris and materials have been removed.
- L. Tile: Clean and polish floor and wall tile, remove grout film and excess grout.
- M. Woodwork: Dust and clean architectural woodwork and finish woodwork items, remove all stains, spots, and foreign matter using methods and cleaning agents which will not harm the various finishes.
- N. Site: Sweep exterior paved surfaces broom clean; rake clean unpaved surfaces.
- O. Equipment: Thoroughly clean all items of mechanical and electrical equipment; remove dust, oils and grease from exposed surfaces.
 - 1. Clean permanent filters and replace disposable filters if ventilating units were operated during construction.
 - 2. Clean ducts, blowers and coils, if units were operated without filters during construction.

1.8 PROTECTING INSTALLED WORK

- A. Floor and Finished Surfaces Protection: After installation, provide coverings to protect products from damage due to traffic and construction operations. Replace protective coverings which may become wet, torn, or ineffective. Remove coverings when no longer needed.
 - 1. Save plastic covering. At completion of Project, reuse if practical; if not, then recycle if local market exists.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION