

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.1 SCOPE OF SECTION:

This section contains the requirements relating to earthwork. This generally includes: the University's Dig Permit process; and the excavating, backfilling, and compacting of earth, which includes the addition of borrow and the disposal of excavated material.

1.2 DIG PERMIT:

A. **REQUIREMENT FOR PERMIT:** Prior to commencing any excavation, grading, trenching, boring (jacking or directional), or other related activity that involves penetration of the ground surface on all of UF Campus, persons (including Constructor) performing such operations are required to obtain a Dig Permit from the Physical Plant Division, Operations Engineering Department (UF Bldg. 702, Phone: 352-392-5050, 352-392-5781). Refer to PPD website for forms. (www.ppd.ufl.edu) Sunshine State Dig Permit 1-800-432-4770.

B. **APPLICATION PROCESS:** To initiate the process to obtain a Dig Permit, the applicant must visit PPD Operations Engineering (in UF Bldg. 702) at least 3 working days (5 working days is suggested) prior to when the digging is planned. The purpose of the visit is to initiate the Dig Permit application, review the University's utilities maps, and arrange for the locating of known underground utility lines by the University and any outside utility companies having underground lines in the immediate area.

To accomplish the locating of known underground utility lines, the applicant is required to place a telephone call to Sunshine State One-Call during the application visit. Once utilities locations have been made (usually 2 working days later), the applicant may be required to return to PPD Operations Engineering to complete the permitting process.

The service of locating the known underground utilities is initially performed free of charge. Constructor-requested "re-locates" (locating utilities a second time) of University-owned utilities will be charged to the Constructor.

For larger projects, depending on the project's size and duration, more than one Dig Permit may be required. This determination is made by PPD Operations Engineering at the time of permit application and is based on whether a need exists to subdivide or phase the location of utilities.

C. **RESPONSIBILITY FOR DAMAGE:** The Dig Permit process is a service provided by the University with the intent of protecting existing underground utility systems and promoting Constructor safety. Although the Dig Permit process includes University involvement in the identification and location of underground utilities, successful completion of the process by the Constructor in no way transfers any responsibility or liability for the Constructor's actions to the University. The Constructor remains responsible for any and all expenses associated with the repair of utility lines damaged by the Constructor and is responsible to fully restore all landscape features such as pavement markings, turf, mulch, trees, shrubs, curbs, sidewalks, roads and irrigation to original condition.

D. **ARCHAEOLOGICALLY SENSITIVE AREAS:** There are certain areas on campus that have been determined to be of archeological significance and certain areas that have a high potential for containing items of archaeological significance. A map showing the

locations of these areas is available for inspection in the PPD A/E Department Plan Room (Bldg. 700, Room 111) and should be consulted before digging on the University of Florida Campus. Because the Dig Permit process does not identify these areas to individual applicants the UF Project Manager shall assist in obtaining information regarding presence of archaeologically significant items. However, it is the Project Architect/Engineer's responsibility to ensure that construction documents address the possibility of encountering archaeologically significant items and instruct the Constructor in the appropriate procedure to follow should the need arise. When archaeologically sensitive items are encountered, all work shall be stopped, and the UF Project Manager shall be contacted immediately.

1.3 EXCAVATING, BACKFILLING, AND COMPACTING:

A. GENERAL:

1. All underground piping and electrical systems shall be inspected and PPD Operations Engineering shall witness all hydrostatic pressure testing before backfilling. The Constructor must make requests for PPD Operations Engineering inspection and witnessing at least 24 hours in advance directly to Operations Engineering at (352) 392-5050.

Constructor must, at the same time, also contact the Architect/Engineer and the UF Project Manager.

The Construction Administration and Substantial Completion Guide shall be used for all owner-required inspections. For more information refer to www.facilities.ufl.edu.

2. The University of Florida, Physical Plant Division shall be given the option of receiving soil, which is otherwise scheduled for removal from the campus. Contact PPD Grounds Division at (352) 392-1148 or (352) 392-1149.
3. Adequate measures shall be taken as per the UF Design Services Guide and the UF Campus St. John's Water Management Storm Permit to retain sediment on-site and prevent soil erosion (by wind or rain) from becoming a problem. The St. Johns River Water Management Permit is available from the PPD Senior Engineer at (352) 392-1405 ext.412 and (www.ppd.ufl.edu)

B. MATERIALS:

1. Sand and gravel shall be clean; all backfill products shall be free from foreign matter.
2. Specify mortar grade sand; gravel size should range from No. 4 screen retention to 1".

C. EXECUTION:

1. Specify pipe bedding procedures designed to prevent beam failure.
2. Sand backfill shall be compacted in layers to 12" above pipe.
3. All underground utilities and piping shall have identifying marker tape. All non-metallic pipe installed underground (except pipe containing electrical lines) shall have a tracer wire attached to the pipe. Refer to other sections for the requirements relating to the identification of underground utilities and piping.

4. All trenches **and similar excavations** shall be filled, compacted, and permanently resurfaced within, and not to exceed, **72 hours of completion** of all work, testing, and inspections, unless exception is made by UF Project Manager.

D. SAFETY:

1. Comply with all OSHA requirements.
2. It is the Constructor's responsibility to install and maintain adequate barricades to protect the public; simple stanchions are not adequate for unmanned sites. Excavation left unattended for any length of time are required, at a minimum, to have mesh orange safety fencing surrounding the working area. Excavations left overnight require lighting (flashing or steady burn) at each corner of safety fence and every 25 feet (or less) as applicable.
3. The UF Project Manager and EH&S shall be contacted in the event of potential safety issues and violations.
4. Provide all submittal and cost data, on payment breakdown, as required by the Trench Safety Act.

END OF SECTION