



## Division 31 Earthwork

### 31 05 00 Common Work Results for Earthwork

#### *31 05 10 General Requirements for Earthwork*

1. Earthwork for all UW Madison facilities shall comply with all of the provisions of the latest version of the Division of Facilities Development & Management (DFDM) Civil, Site, and Utility Design Guidelines, which is available from the DFDM website.
2. References within the DFDM Guidelines regarding the DFDM Project Manager shall apply to the UW-Madison Project Manager on UW-Madison Managed Projects.
3. Project Specifications shall use as their basis all appropriate sections of the latest edition of the DFDM Master Specifications.
4. Deviations from DFDM's Minimum Design Guidelines or the DFDM Master Specification sections shall be made only upon approval from the UW-Madison Project Manager.
5. The Guidelines for Planning and Design of UW-Madison Facilities shall take precedence over DFDM Guidelines, but the A/E shall discuss all conflicts within the guidelines and specifications with the UW-Madison Project Manager.
6. The goals and guiding principles of the UW-Madison Campus Master Plan (latest edition) shall be considered and referenced as part of the planning, design, detailing, and material section for every project.

### 31 10 00 Site Clearing

#### *31 13 00 Selective Tree and Shrub Removal and Trimming*

##### **31 13 13 Selective Tree and Shrub Removal**

1. Identify all existing trees and shrubs on site plan documents. Identify which trees will be protected, which trees will be removed, and which trees will need clearance pruning. Prepare the trees for construction prior to any work taking place on the site. All tree removal, pruning and protection are the responsibility of the contractor. Fence all trees and landscapes to be preserved by the project according to DFDM specifications and UW Guidelines
2. Consult with Campus Planning and Landscape Architecture and UW-Madison Grounds as early as possible in the design phase to determine if there are any trees or shrubs on site that are deemed significant and need be protected throughout the project.

##### **31 13 16 Selective Tree and Shrub Protection and Trimming**

1. All tree protection zones are to be approved by the UW-Madison Project Manager and UW-Madison Grounds before construction activities begin on site.
2. Existing trees that are to be preserved may need to be pruned, watered, and fertilized by a licensed arborist prior to any construction. All such work shall be coordinated with UW-Madison Grounds. Any pruning of existing material to remain on site is to be approved by the UW-Madison Project Manager and UW-Madison Grounds before work begins.



## 31 20 00 Earth Moving

### 31 20 00 Earthmoving

1. See *Section 32* for more requirements related to grading design and plan preparation.
2. Stockpiling: At no time shall any gravel, excavated soils, topsoil, fill materials or other construction materials be stockpiled outside designated areas within the project limits or outside the project limits. There are no facilities on the UW-Madison campus and the Lakeshore Nature Preserve for stockpiling and storage.
3. Excess Topsoil: During preliminary design, the AE designer shall inquire with UW-Madison Grounds if they want to retain any excess topsoil from the construction project and where to store it.

### 31 03 00 Rock Removal

Explosive removal of subsurface rock during excavation is not permitted on campus or in the City of Madison.

### 31 23 16 Trenching for Utilities

Use DFDM Standard Specification for all applicable utility work.

### 31 23 19 Dewatering for Utilities

Use DFDM Standard Specification for all applicable utility work.

### 31 25 00 Erosion Controls

1. See *Section 32* for more requirements for Erosion Control and plan preparation.
2. Proper erosion control procedures shall be maintained throughout the course of construction.
3. All guidelines outlined in the DFDM specifications on erosion control shall be closely followed throughout construction.
4. Erosion control measures shall be provided for the site including silt fence, gravel construction entrance, inlet filters, etc. Erosion control details shall be provided on a detail sheet. Base all erosion control detail drawings on Dane County or City of Madison standard detail drawings.
5. Tracking pads shall be provided for all construction site entrances. Tracking pad shall be minimum 50 feet long.
6. All erosion control devices shall be removed in accordance with DFDM specifications when there is no longer exposed soil on the project site.
7. Construction fencing shall be provided at the perimeter of the construction limits. The construction fencing shall be chain link per the UW-Madison Guidelines and shall completely close off the site to pedestrians. If the construction limits fluctuate through the term of the project, a phasing schedule shall be provided for moving the fencing / construction limits through the project.
8. Type D inlet protection is preferred but it must be appropriate for the inlet size and depth. The design shall indicate the type of inlet protection at each inlet.



- 
9. All designs of storm water devices, systems, or practices shall include formal written maintenance plans for both short term establishment of vegetation and long term perpetual maintenance.
  10. For all projects involving site construction, the A/E or landscape architect shall submit electronic PDF copies of the storm water management plan, maintenance plan, pipe and inlet design, runoff computations, pre & post development runoff rates/volumes, Notice of Intent, USLE worksheet, and other storm related documents and computations to UW-Madison FP&M, CP&D, prior to issuing Bid Documents.
  11. All site plans shall include proposed spot grades and contours for all new or replaced concrete and asphalt as well as grades of adjacent existing to remain. Calling out “replace in kind” is not sufficient. Grades must be shown.
  12. See *Division 32* for additional erosion control design requirements and notes to include on the Erosion Control Plan.