

## SECTION 31 11 00

### CLEARING AND GRUBBING

#### PART 1 – GENERAL

##### 1.1 DESCRIPTION

###### A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals required to perform clearing and grubbing as shown and specified in the Contract Documents.
2. The Work includes removing from the Site and disposing of trees, stumps, brush, roots, shrubs, vegetation, logs, rubbish, and other objectionable material.
3. Pay all costs associated with transporting and disposing of debris resulting from clearing.
4. Limits of Clearing and Grubbing: Clear and grub the areas shown or indicated on the Drawings.

###### B. Related Sections:

1. Section 01 57 05, Temporary Controls.

##### 1.2 QUALITY ASSURANCE

###### A. Professional Arborist Qualifications:

1. Engage an accredited professional arborist, acceptable to ENGINEER, skilled, trained and with successful and documented experience in the protection and restorative care of trees, certified by the International Society of Arboriculture or American Society of Consulting Arborists; who agrees to employ only tradesmen with specific skill and successful experience in this type of Work.
2. Submit names and qualifications to ENGINEER along with the following information on a minimum of three successful projects.
  - a. Names and telephone numbers of owner, architects or engineers responsible for projects.
  - b. Approximate contract cost of the tree protection and trimming.
  - c. Amount and kinds of tree protection and trimming performed.

###### B. Regulatory Requirements:

1. Laws and Regulations applying to the Work under this Section include, but are not necessarily limited to, the following:
  - a. Article 11.6 Site Preparation, Restoration, and Related Work. Paulding County GA Development Regulations.
2. For permits required for the Work under this Section, refer to:

- a. Article 3.2.1 Land disturbance permits. Paulding County GA Development Regulations.

### 1.3 SUBMITTALS

- A. Action Submittals: Submit the following
  - 1. Shop Drawings:
    - a. Plan for removing trees and other large vegetation not explicitly shown or indicated for removal in the Contract Documents.
    - b. Plan showing proposed limits of clearing and grubbing, if different from clearing and grubbing limits shown or indicated in the Contract Documents.
- B. Informational Submittals: Submit the following:
  - 1. Certificates:
    - a. Certification by professional arborist that trees shown to remain were protected during the course of construction in accordance with recognized standards of the industry, as specified.
    - b. Certification that where damage did occur, trees were promptly and properly treated, or replaced.
  - 2. Qualifications Data:
    - a. Professional arborist.

### 1.4 WARRANTY

- A. CONTRACTOR shall warrant that Work performed under this Section will not permanently damage trees, shrubs, turf, and plants designated to remain, or other adjacent work, facilities, or property. If damage resulting from CONTRACTOR's operations becomes evident during the correction period, CONTRACTOR shall replace damaged items and property at no additional cost to OWNER.

## PART 2 – PRODUCTS (NOT USED)

## PART 3 – EXECUTION

### 3.1 PREPARATION

- A. Protection:
  - 1. Throughout the Project, protect existing site improvements, including streets, drives, and Underground Facilities to remain (if any), and adjacent property and structures. Repair damage caused by CONTRACTOR to original condition or replace in kind, to satisfaction of ENGINEER, at no additional cost to OWNER.
  - 2. Protect trees, shrubs, vegetation, and grassed areas to remain by providing temporary fencing, barricades, wrapping, or other methods shown, specified, or accepted by ENGINEER. Correct at CONTRACTOR's

expense damage caused by CONTRACTOR outside the limits of clearing Work.

3. Do not remove trees without approval of ENGINEER, unless shown or indicated for removal.
  4. Do not locate construction equipment, stored materials, or stockpiles within drip line of trees and vegetation to remain.
- B. Site Preparation:
1. Obtain, pay costs associated with, and comply with applicable permits required for clearing and grubbing Work.
  2. Delineation of Clearing and Grubbing Limits:
    - a. Locate and clearly flag trees and vegetation to remain, and other materials to remain in the clearing and grubbing limits. Locate and clearly flag salvable vegetation to be relocated.
    - b. Provide flagging to delineate limits of areas to be cleared or grubbed. Review at Site with ENGINEER before commencing removal of trees, vegetation, and other materials to be removed.
    - c. Replace flagging that is lost, removed, or destroyed, until clearing and grubbing Work is complete and ENGINEER allows removal of flagging.
  3. Erosion and Sediment Controls:
    - a. Provide applicable erosion and sediment controls before commencing clearing and grubbing Work.
    - b. Comply with Section 01 41 26, Stormwater Pollution Prevention Plan and Permit
    - c. Comply with erosion and sediment control requirements of Section 01 57 05, Temporary Controls.
    - d. Continue providing erosion and sediment controls as clearing and grubbing Work progresses to previously uncleared, ungrubbed areas of the Site.

### 3.2 CLEARING AND GRUBBING

- A. Remove and dispose of all trees, shrubs, stumps, roots, brush, logs, rubbish, and debris within limits of clearing and grubbing shown or indicated in the Contract Documents, unless otherwise shown or indicated.
- B. Trees and Shrubs Improperly Destroyed or Damaged:
  1. For each tree or shrub to remain that is destroyed or damaged beyond repair by CONTRACTOR, provide two replacements of the same species at locations to be designated by ENGINEER.
- C. Trees and shrubs to remain that have been damaged or require trimming shall be treated and repaired under the direction of a qualified arborist, or other professional with qualifications acceptable to ENGINEER. Trees and shrubs intended to remain, that are damaged beyond repair or that are removed, shall be replaced by CONTRACTOR at no additional cost to OWNER.

D. Salvable Vegetation:

1. Trees, shrubs, and other vegetation requiring removal to facilitate the Work, and that will be transplanted elsewhere at the Site, shall be carefully balled and burlapped or placed in temporary pots, and stored at the Site in an acceptable area. Work involving removing and relocating trees, shrubs, and other vegetation shall be under the direction of qualified arborist acceptable to ENGINEER, or other professional acceptable to ENGINEER, hired by CONTRACTOR.

E. Disposal of Cleared and Grubbed Materials:

1. Dispose at appropriate off-Site location trees, stumps, rubbish, debris, and other cleared and grubbed material. Cleared or grubbed materials may remain at the Site only when allowed in the Contract Documents or when approved by ENGINEER in writing. Do not use cleared or grubbed material as fill, backfill, or in embankments.
2. Dispose of cleared and grubbed material in accordance with Laws and Regulations.
3. Do not burn clearing debris at the Site, unless approved by OWNER and authorities having jurisdiction. If burning is permitted, comply with requirements of authorities having jurisdiction and Laws and Regulations. If burning is permitted at the Site, also comply with OWNER's requirements.

### 3.3 TOPSOIL REMOVAL

- A. Existing topsoil to be removed is defined as friable, clay loam, surface soil present in depth of at least four inches. Topsoil shall be free of subsoil, clay lumps, stones, and other objects over two-inch diameter and other objectionable material.

B. Stripping:

1. Strip topsoil to depths encountered, in manner that prevents intermingling of topsoil with underlying subsoil or other objectionable material. Remove heavy growths of grass and vegetation from areas before stripping.
2. Do not strip topsoil from within drip line of each tree to remain as part of the completed Project.

- C. Stockpile topsoil in storage stockpiles in areas shown, or where otherwise accepted by ENGINEER. Construct storage piles so that surface water drains freely. Stabilize large topsoil piles with a cover crop and mulch, and provide silt fencing around perimeter of pile to prevent topsoil erosion and sedimentation; silt fencing shall be in accordance with Section 01 57 05, Temporary Controls. Cover smaller topsoil stockpiles, when used, with reinforced fabric to prevent windblown dust. Topsoil in excess of the quantity required for the finished Project shall remain property of OWNER.

### 3.4 ENVIRONMENTAL PROTECTION AND RESTORATION

- A. Article 11.6 Site Preparation, Restoration, and Related Work. Paulding County  
GA Development Regulations.

++ END OF SECTION ++