

**SECTION 311000
SITE CLEARING**

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**SECTION 311000
SITE CLEARING**

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Disconnecting, capping or sealing, and removing site utilities or abandoning site utilities in place.
7. Temporary erosion- and sedimentation-control measures.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

1.2 DEFINITIONS

- A. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow.
- D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

- E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and indicated on Drawings.
- F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by a circle concentric with each tree with a radius 1.0 times the diameter of the drip line unless otherwise indicated.
- G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.3 MATERIAL OWNERSHIP

- A. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.4 INFORMATIONAL SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or video recordings.
 - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.
- B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.5 FIELD CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- B. Utility Locator Service: Notify Call Before You Dig for area where Project is located before site clearing.
- C. Do not commence site clearing operations until temporary erosion and sedimentation control and plant protection measures are in place.

- D. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging, unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- E. Do not direct vehicle or equipment exhaust towards protection zones.
- F. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.
- G. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

1.6 PREPARATION

- A. Protect and maintain benchmarks and survey control points during construction.
- B. Prior to commencing clearing activities, areas designated by the plans to be cleared shall be demarcated using survey ribbon, stakes, or other suitable means.
- C. Revise first paragraph below to suit regional standards or office practices; coordinate with Section 015639 "Temporary Tree and Plant Protection."
- D. Verify that trees, shrubs, and other vegetation designated to remain or to be relocated have been flagged or identified. Flag each tree trunk at 48 inches above the ground.
- E. Identify a waste or salvage area for placing removed materials.
- F. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.
 - 2. All damaged trees over three (3) inches in diameter shall be repaired by an experienced nursery expert.

1.7 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control drawings and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.

1.8 EXISTING UTILITIES

- A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
 - 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
- B. Locate, identify, disconnect, and seal or cap utilities indicated to be or abandoned in place. Protect all utilities that remain.
- C. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Owner and Engineer not less than two (2) days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Owner's written permission.

1.9 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction and execution of Work.
 - 1. Prior to commencing clearing activities, areas designated by the plans to be cleared shall be demarcated using survey ribbon, stakes, or other suitable means.
 - 2. In areas to be cleared, all trees, stumps, buried logs, brush, grass and other unsatisfactory materials shall be removed.
 - 3. Use only hand methods for grubbing within protection zones.

4. Trees to remain in or near work area shall be protected from clearing activities.
5. Taproots and other projections exceeding 1-inch in diameter shall be grubbed out to a depth of at least 18 inches.
6. All holes remaining after grubbing activities shall be filled with suitable material and properly compacted in layers to density required for in-place backfill.
7. All materials cleared and grubbed shall be disposed of off-site in accordance with applicable local, state, and federal regulations.
8. Burning of any material or debris shall not be permitted on County property without written authorization from Owner.
9. Prior to and upon completion of clearing and grubbing activities, install erosion control and sedimentation measures as identified on the Erosion Control and Sedimentation Plan prepared by the Design Engineer.
10. Prior to commencing any other job site activity, installed erosion control and sedimentation measures shall be inspected and approved by Owner or their designated representative.

B. Protection

1. All trees on site will be saved except those within the clearing limits, marked specifically on the site for removal during construction. No trees, neither those marked for removal on the site nor any other tree, may be removed from the site prior to the preconstruction conference. All trees not to be removed will be protected from injury to their roots and to their top to a distance of three (3') feet beyond the drip-line and no grading, trenching, pruning or storage of materials may go in this area except as provided by a stakeout by an Owner's representative. The Contractor will pay a penalty for any tree removed from the site that has not been marked specifically for removal. The Contractor will also pay for any tree that dies due to damage during construction. This applies to all trees on the site whether or not they are shown on the plans.
2. The Contractor shall not be held accountable for damage to trees resulting from placement of fill or removal of soils where such action is required by the Contract Documents. Any tree, the trunk of which is within 10 feet of any trench, shall be exempt from these penalties except that the Contractor shall exercise all reasonable precautions to preserve even these trees. The Contractor agrees to pay penalties as established below in the event that he or any of his subcontractors cause the loss or removal of trees designated to be saved under the provisions of the Agreement.

The penalty is as follows:

Tree Diameter at a Point

<u>4 Feet Above Existing Grade</u>	<u>Penalty</u>
6" – 7"	\$ 300.00
7" – 8"	\$ 375.00
8" – 11"	\$ 550.00
12" – 20"	\$ 800.00
21" and larger	\$ 1,000.00

3. Trees to be graded by the Owner's representative as to variety, condition and site importance with the above figures acting as a maximum penalty with the lowest assessment amount to be not less than one-half of the above penalty figures.
4. Clearing operations shall be conducted to prevent damage by falling trees to trees left standing, to existing structures and installations, to those under construction and to provide for the safety of employees and others.

C. Removal

1. Where indicated or directed, trees and stumps shall be removed from areas outside those areas designated for clearing and grubbing. The work shall include the felling of such trees and the removal of their stumps and roots. Trees shall be disposed of as hereinafter specified.
2. Remove debris, rock and other extracted plant life from site.

1.10 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to depth of 8 inches in a manner to prevent intermingling with underlying subsoil or other waste materials.
 1. Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other objects more than 2 inches in diameter; trash; debris; weeds; roots; and other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
 1. Limit height of topsoil stockpiles to 72 inches
 2. Do not stockpile topsoil within protection zones.
 3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
 4. Stockpile surplus topsoil to allow for respreading deeper topsoil.

1.11 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal of trees, branches, snags, brush, stumps, etc., resulting from the clearing and grubbing shall be the responsibility of the Contractor and shall be disposed of by removal from the site of this work. All costs in connection with disposing of the material will be at the Contractor's expense.
- B. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
- C. Burning of waste and debris is prohibited. No material will be burned on-site.
- D. All liability of any nature resulting from the disposal of the cleared and grubbed material shall become the responsibility of the Contractor.
- E. The disposal of all materials cleared and grubbed will be in accordance with the rules and regulations of the State of Georgia.

1.12 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 - 1. Unless the existing full-depth joints coincide with line of demolition, neatly saw-cut along edge of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
 - 2. Where recycling programs exist and recycling facilities can accept materials such as concrete or asphalt paving, coordinate with Section 017419 "Construction Waste Management and Disposal."

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION – Not Used

END OF SECTION 311000