

SECTION 201 CLEARING AND GRUBBING

201.01 DESCRIPTION.

This work consists of clearing, grubbing, removing, and disposing of all vegetation and debris within designated limits of the Right of Way and Easement area. Vegetation and objects designated to remain shall be preserved from damage or defacement.

201.02 CONSTRUCTION REQUIREMENTS.

- A. **General.** The Engineer will establish Right of Way and construction lines and designate all trees, shrubs, plants, and other items to remain. If trees or shrubs selected for retention are cut or scarred during construction activities, any loose bark shall be removed and broken branches shall be pruned.
- B. **Clearing and Grubbing.** Clearing and Grubbing includes the removal and disposal of trees, shrubs, stumps, roots, brush, and other surface objects from the excavation and embankment areas.

Trees located within the boundaries of the new grade shall be removed to a depth of 18 inches below the finished ground line or 3 feet below the final dirt grade, whichever is lower. Trees located outside the boundaries of the new grade shall be removed to a depth of 18 inches below the finished ground line. Existing stumps shall be removed to the same depth specified for tree removal.

Except in areas to be excavated, all cavities resulting from the removal of obstructions shall be backfilled and compacted with suitable material. Compaction shall be obtained by the passage of construction equipment over the backfill.

Perishable material may be burned if burning is permitted by, and done under applicable laws and ordinances. Burning shall be done under the care of competent watchpersons at such times and in a manner that does not jeopardize surrounding vegetation and adjacent property.

Materials and debris may be disposed of at locations off, and out of view of, the Project. Suitable disposal locations shall be obtained from property owners and the cost shall be included in the unit price bid for Clearing and Grubbing. A copy of the written agreement with the property owner shall be furnished to the Engineer. Disposal will not be allowed in wetlands areas.

When permitted by the Engineer, dense perishable material such as logs or tree trunks may be buried at acceptable locations on the right of way outside of construction limits. The material shall be buried to a depth which allows at least two feet of cover material.

All salable timber in the clearing area shall become the Contractor's property.

Low hanging, unsound, and unsightly branches on remaining trees or shrubs shall be removed. Tree branches extending over the roadbed shall be trimmed to give a clear height of 20 feet, or according to local ordinances. All trimming shall be done using good tree surgery practices.

- C. **Topsoil Removal.** Removing, salvaging, stockpiling, and spreading of topsoil shall be as specified in Section 203.02 B.

201.03 METHOD OF MEASUREMENT.

Measurement will be by one or more of the following alternate methods:

- A. **Area Basis.** Measurement will be by the number of acres and fractions of acres acceptably cleared and grubbed within the limits shown on the Plans or staked by the Engineer. Areas not shown on the Plans, or not staked for Clearing and Grubbing, will not be measured for payment.

- B. **Lump Sum Basis.** When the bid schedule contains a Clearing and Grubbing Lump Sum item, no measurement of area will be made.

When the removal and disposal of trees, shrubs, stumps, roots, brush, etc., in excavation and embankment areas is not specified on an individual unit basis, removal and disposal will be included in the Lump Sum price bid for Clearing and Grubbing.

- C. **Linear Basis.** When the linear unit quantity is shown on the bid schedule, the length will be measured along the construction centerline in Stations or Miles.

- D. **Individual Unit Basis.**

1. The diameter of trees shall be measured at a height of 24 inches above the ground. Payment for Stump Removal shall only be made for removing existing stumps. Stumps shall be measured by the average diameter of the stump at ground level. Trees or stumps 8 inches or less in diameter are classified as brush.
2. When the bid schedule indicates measurement of trees and stumps by individual unit basis, they will be designated and measured according to the following schedule of sizes:

Diameter at Height of 24 inches	Pay Item Designation
Over 8 inches to 12 inches	10-inch size each
Over 12 inches to 24 inches	18-inch size each
Over 24 inches	30-inch size each

201.04 BASIS OF PAYMENT.

Payment will be made at the Contract Unit Price for the following:

Pay Item	Pay Unit
Clearing and Grubbing	Acre, Stations, Miles, Lump Sum
Tree Removal	Each
Stump Removal	Each

This payment will be full compensation for all labor, equipment, and materials necessary to complete the work.

Exclusions. When the Bid Schedule does not contain an estimated quantity or a Lump Sum item for Clearing and Grubbing, the work will not be paid for directly but will be included in other Contract items.

SECTION 202 REMOVAL OF STRUCTURES, OBSTRUCTIONS, SURFACING, AND MISCELLANEOUS ITEMS

202.01 DESCRIPTION.

This work consists of razing, removing, salvaging, and disposing of all buildings, foundations, fences, structures, abandoned pipelines, culverts, pavements, manholes, inlets, sidewalks, driveways, curb and gutter, and other obstructions or items on the right of way or easement areas which are not designated or permitted to remain. It shall include salvaging designated materials, and backfilling resulting cavities. Material shall not be disposed of in wetlands areas. Proper disposal of inert waste is covered in Section 107.10.

202.02 CONSTRUCTION REQUIREMENTS.

- A. **General.** All designated salvageable material shall be removed without damage and transported in sections or pieces to specified storage locations. All removed material not designated to be salvaged or disposed of at specified locations, shall become the property of the Contractor and shall be disposed of in a manner satisfactory to the property owners and governing agencies. Copies of all agreements with property owners and governing agencies shall be furnished to the Engineer.

Except in areas to be excavated, basements or cavities left by structure removal shall be backfilled to the level of the surrounding ground. Before backfilling, any remaining concrete slabs shall be broken so that water does not get trapped in the cavity. Cavities located within the area between the toes of the inslopes shall be backfilled and compacted under the same Specifications as the embankment. Cavities located outside these areas shall be compacted to the same level as the surrounding undisturbed ground. There will be no separate payment for excavating or for backfilling and compacting the remaining cavity resulting from the removal of structures and obstructions.

- B. **Removal of Bridges and Box Culverts.** Bridges and box culverts shall not be removed until satisfactory arrangements have been made to accommodate traffic.

Existing substructures shall be removed to the natural stream bottom, and those parts outside of the stream shall be removed one foot below natural ground surface.