

CLEARING AND GRUBBING - Section 201

Clearing and grubbing is basically a surface operation for the cutting and removing of timber, logs, brush, stumps and debris within or encroaching onto the right-of-way. The term also covers excavating and removing stumps, roots, submerged logs, snags, and other perishable or objectionable material not covered under other contract items. The contractor is to identify the clearing limits of the project as shown on the plans and is not to operate outside of those limits.

EQUIPMENT The contractor is responsible for providing adequate equipment and personnel to perform the work within the time limits of the contract and in accordance with specification requirements. Personnel must be familiar with the operation of the equipment and trained to operate it safely.

CONSTRUCTION PRACTICES

Prior to the beginning of clearing or grubbing activities, the project engineer or the certified inspector is to inspect the area to determine if these activities are likely to cause damage or require access to adjacent private property. Typical damage that may occur to adjacent properties includes cutting through tree roots, pushing excavated material onto adjacent lands, and damaging septic systems or public utilities. Erosion may become a problem after ground cover is disturbed. The contractor is to install erosion control devices or procedures to protect the project limits, the environment, and private property. These operations shall be in accordance with the plans or as directed. For more details on erosion control, refer to **TEMPORARY EROSION CONTROL**.

If damage occurs to private property during construction operations, the contractor is responsible for making restitution. The project engineer must be certain that the contractor's work arrangements are designed to prevent damage to private property. If access to private property will be required, the contractor must obtain written permission from the land owner prior to operating on property outside the right-of-way. The project engineer shall not allow the contractor's forces to operate on private property until a copy of the owner's written permission is in the possession of the project engineer.

The contractor is to check the location of all utility lines, both overhead and underground, prior to bidding and before beginning clearing and grubbing operations. The contractor is to call LA 1 Call or make other appropriate contacts before grubbing or performing any excavation in an area where utilities could be disturbed. When grubbing or performing any work involving excavation, underground utilities are not to be disturbed. When felling, topping or trimming trees, broken or cut limbs are not to fall on or damage overhead wires. Personnel climbing trees in the vicinity of overhead utilities are to be trained in appropriate safety precautions and exercise extreme caution when working in the vicinity of overhead utilities.

Unless the area is to be further excavated, the contractor shall backfill holes left in the natural ground from the removal of stumps or other obstructions with usable soil

conforming to Specification Section 203 and compact the area to at least the density of the surrounding ground.

The specifications require that low hanging branches and unsound or unsightly branches on trees or shrubs designated to remain shall be removed as directed. Branches of trees extending over the roadbed shall be trimmed to a height of 20 feet above the pavement surface. All trimming shall be done in accordance with accepted horticultural and tree surgery practices published by the American Association of Nurserymen. It shall be the responsibility of the contractor to obtain a written agreement with the owner of the property upon which such trees are located to access the property, if necessary, and to perform necessary surgery to the trees. The contractor shall provide the project engineer with a copy of this agreement prior to trimming trees located off the right-of-way.

VEGETATION ON PRIVATE PROPERTY

Representatives of both the contractor and the department are to be aware that there are legal ramifications involved in trimming trees rooted on private property that overhang the right-of-way. The project engineer is to check the right-of-way agreements with reference to trees on adjacent property that may be affected by construction activity. No tree rooted on private property is to be trimmed without the written permission of the property owner. The contractor is responsible for obtaining such written permission and for providing a copy to the project engineer.

If a tree or any portion of a tree rooted on private property is dead or so severely damaged that it will be a hazard to the traveling public, that portion must be removed even without written permission of the owner. Should such a situation develop, the project engineer is to notify the District Construction Engineer. The department's Right-of-Way Section, Construction Section, and Legal Section are to be notified before any cutting is performed.

The project engineer or inspector is to inspect the project area for any trees or other vegetation located on private property near enough to the right-of-way to be in danger of damage from construction activity. The situation is then to be assessed and appropriate arrangements made to prevent such damage or to compensate the property owner for the damage.

DISPOSAL OF EXCESS MATERIAL

The disposal of all cleared or grubbed materials is the responsibility of the contractor. Such materials must be removed from the right-of-way and disposed at locations off the project outside the limits of view of the traveling public. The disposal of such material shall be in conformance with all federal, state and local regulations and Specification Section 202. If the disposal area is not owned by the contractor, the contractor shall obtain a written agreement with the property owner allowing the placement of excess material on the property and specifying the type(s) of material to be disposed. The contractor shall provide the project engineer with a copy of this agreement with the property owner prior to the removal of any material from the right-of-way. If the contractor owns the disposal area, the contractor shall provide the project engineer with a letter indicating the location and ownership of the disposal area and relieving the

department of any responsibility. **Excess material is not to be buried within the right-of-way.**

INSPECTIONS FOR HAZARDOUS SUBSTANCES AND ARCHAEOLOGICAL OR PALEONTOLOGICAL REMAINS

HAZARDOUS MATERIALS Prior to the contractor's operations, the project engineer or certified inspector is to inspect the area to be cleared and grubbed for evidence of hazardous materials, both surface and subsurface. Evidence of subsurface hazardous materials includes dying vegetation, abandoned pits or levees, discolored soils, odors, abandoned disposal containers (e.g., 55-gallon drums), cattle dipping vats, garbage dumps, standing liquids other than water, and powdery residues. If such items are present or the history of the area leads to concerns about the presence of hazardous waste materials, the project engineer is to contact the Materials and Testing Section's Environmental Unit. No work is to begin until a complete evaluation has been made and any hazardous materials removed. If evidence of hazardous materials is uncovered during clearing or grubbing operations, operations in the immediate area shall be stopped at once. The project engineer is to contact the Environmental Unit of the department's Materials and Testing Section. Operations shall not be restarted in the area until an evaluation has been completed and any hazardous material removed. If no hazardous materials are located during the department's evaluation of the site, operations may restart when the project engineer receives a release from the Environmental Unit of the department's Materials and Testing Section.

Inspection for hazardous materials is to continue throughout all excavation activities. If evidence of hazardous materials is uncovered at any point during construction, activity in the area shall be discontinued immediately. Construction shall not be resumed in the affected area until all contamination has been removed and a release received from the Environmental Unit of the Materials and Testing Section.

Hazardous materials are to be removed from the project right-of-way and disposed in accordance with Specification Section 202.

ARCHAEOLOGICAL OR PALEONTOLOGICAL INSPECTIONS

Prior to grubbing or excavation and continually during operations, the contractor, project engineer, and certified inspector are also to inspect the construction zone for areas of archaeological or paleontological significance or endangered plant or animal species, cemeteries, etc. Areas of archaeological or historical significance are those showing evidence of past civilizations. Such evidence would be burial grounds, isolated graves, building remains, pottery shards, arrow heads, Indian middens (rather small hill elevated above the surrounding surface, may occur in both hilly and coastal terrain throughout the state), or dark discoloration of the soil with visible artifacts. Middens may be composed of shell as well as soil.

Paleontological sites are areas where evidence of preexisting fauna or flora are located. Such evidence will be in the form of fossils of either prehistoric animal or plant remains. Fossils may be either the imprint of remains in soil or rock or the minerally replaced

remains of preexisting life forms. If deposits of paleontological remains are uncovered, the contractor is to discontinue excavation and notify the project engineer. The project engineer is to notify the department's Public Hearings and Environmental Impact Section and headquarters Construction Section. All work is to cease in the affected area until a proper evaluation has been made and the appropriate authorities have removed any significant finds.

Inspections for hazardous materials, archaeological and historical significance are also required for borrow pits. The contractor is to investigate the proposed pit area prior to any clearing, grubbing or excavation. The initial investigation of these areas by the department is the responsibility of the district laboratory engineer. The project engineer will receive a report of the laboratory findings regarding archaeological cultural or historical finds, in accordance with EDSM III. 1. 1. 22. A copy of the report form from the EDSM is reprinted in the Appendix on page A-37. During construction, project personnel are to continue to inspect the material removed from borrow pits as it is placed on the project. Any findings shall be reported immediately to the Department's Materials Environmental Unit or Public Hearings and Environmental Impact Section, as applicable. The excavation of the affected borrow pit shall be discontinued until an evaluation has been made.

BURNING VEGETATION

The contractor may dispose of vegetation by burning. The burning of such material on the right-of-way shall be in accordance with all applicable laws and ordinances, including, but not limited to the current regulations of the Louisiana Department of Environmental Quality and Subsection 107. While materials are being burned, they shall be under the constant attention of watchmen provided by the contractor. The burning of perishable materials shall not damage anything designated to remain on the right-of-way, surrounding forest cover or other adjacent property.

Burning of vegetation can take place only between the hours of 8:00 a.m. and 5:00 p.m. Material to be burned is to be stacked in piles that can be completely reduced during this time period. All burning must be controlled so that no traffic hazard is created. The amount of dirt contained in the material being burned must be minimal. Materials which may produce unreasonable amounts of smoke, such as oils, asphaltic materials, rubber tires, etc., may neither be burned nor used to start a fire. Piles of material to be burned must be at least 1,000 feet (305 m) from any dwelling, other than a dwelling located on the property on which the burning is being conducted. Prevailing winds must be blowing away from any nearby town or city while material is being burned. If the wind direction shifts while material is being burned, so that smoke will be blown toward a municipality or across a roadway, the fire is to be put out and not restarted until safe conditions are available. If material is to be burned on private property, the contractor is responsible for meeting all regulations. Regulations for burning material on private property may differ from those governing burning material within the right-of-way. Additionally, the contractor shall obtain a written agreement from the property owner giving permission for burning and stating the type and quantity of material(s) to be burned. The contractor shall provide a copy of this agreement to the project engineer prior to removing materials to be burned. If the contractor owns the property on which the burning will take place, the contractor shall provide the project engineer with a letter indicating the location and ownership of the disposal area and relieving the department of any responsibility.

The project engineer is responsible for monitoring the disposal of vegetation and for ensuring that the contractor is in conformance with applicable regulations.

SELECTIVE CLEARING

Whenever any vegetation is scheduled to remain in-place, selective clearing techniques shall be employed. Project engineer's personnel are to clearly mark each tree, shrub or other greenery scheduled to remain on the right-of-way. The contractor shall notify the project engineer at least two weeks in advance of the planned beginning of clearing operations, so that all vegetation scheduled to remain can be flagged and an inspector made available.

Contractor's personnel are not to damage remaining shrubs, trees or their root systems during selective clearing or subsequent construction operations. Personnel must remember that tree roots extend at least to the limits of the tree canopy (drip line). Disturbing the ground under a tree, either by removing or adding dirt, or damaging the bark on a tree leads to a weakened condition from which many trees cannot recover. Any activity that may damage a tree's root system will be prohibited. Some common construction activities that can damage a root system are:

- ◆ Hitting trees or shrubs with equipment.
- ◆ Using heavy equipment over the roots, resulting in excessive soil compaction in the root area and/or damage to the roots.
- ◆ Placing soil around trees over the root zone.
- ◆ Exposing roots or disturbing their soil cover.
- ◆ Disturbing the vegetation's environment, altering water quantities or patterns.
- ◆ Spilling hydraulic fluids or any petroleum substance in the root zone.
- ◆ Disking in the vicinity of the roots of trees or shrubs when preparing soil for seeding operations.

There is a Roadside Development Specialist available to assist the project engineer in identifying and evaluating the condition of vegetation scheduled to remain on the right-of-way. The Roadside Development Specialist can also be of assistance in identifying activities that could damage vegetation.

QUALITY ASSURANCE DOCUMENTATION

QUALITY CONTROL

The contractor will keep detailed records of all activities, permits, correspondence, and related documents until the department has accepted the clearing and grubbing as required by the contract and plans.

INSPECTION AND ACCEPTANCE

Project personnel will document clearing and grubbing operations in a field book in accordance with standard department practice.