

201 Clearing and Grubbing

201.1 Description

(1) This section describes cutting and disposing of trees, brush, windfalls, logs, and other vegetation occurring within the clearing limits; and removing and disposing of roots, stumps, stubs, logs, and other timber occurring within the grubbing limits.

201.2 (Vacant)

201.3 Construction

(1) Clear and grub areas within the clearing and grubbing limits defined as follows:

1. Between lines 5 feet outside the grading limits of roadway cuts and fills, including intercepting embankments, channels, ditches, borrow pits, and marsh or waste disposal areas.
2. Other parts of the right-of-way the plans or special provisions designate.
3. Designated clear zone and clear vision areas.
4. With the engineer's approval, areas with vegetation that interferes with excavation, embankment, marsh, or waste disposal.
5. The contractor does not have to grub the following:
 - Areas designated for occupation by earth embankments 6 feet or more in height.
 - Areas used for marsh excavation disposal for which the State has obtained easements.

(2) Preserve vegetation within the clearing limits as the plans show or the engineer directs. Cut off and dispose of other trees, brush, shrubs, or other vegetation occurring within the clearing limits. Within the grubbing limits, remove debris not suitable for the roadway foundation, stumps and associated roots, logs, timber, brush, and matted roots to the following minimum depths:

1. In cut areas, one foot below final subgrade.
2. In embankment areas, one foot below the existing grade.

(3) Do not remove trees and shrubs located beyond the clearing limits unless the engineer specifically authorizes their removal. If clearing where grubbing is not required, cut shrubs and brush to within 3 inches of the ground surface. Cut trees as nearly flush with the ground surface as practicable with tools ordinarily used for these operations.

(4) Prevent the spread of oak wilt by treating cut surfaces and abrasions sustained between April 1 and September 30 by healthy oak trees and saplings with a thorough application of tree paint immediately upon discovering a wound. Between these dates, also paint the cut surfaces of the stumps of healthy oak trees and saplings immediately after cutting, whether remaining in place or grubbed.

(5) If feasible, fell trees toward the center of the area being cleared. If this is not possible due to danger to traffic or injury to other trees, structures, or property, cut them into sections from the top down.

(6) Do not injure or damage trees and shrubs left in place on the right-of-way. Symmetrically trim lower limbs or branches of trees left in place and overhanging the roadbed to at least 20 feet above the finished grade. Trim using generally accepted horticultural practices.

(7) Unless the contract specifies otherwise, the contractor owns timber salvaged from the required clearing of right-of-way acquired by the highway authority in fee simple title, or from clearing of trees acquired by and for the public in the acquisition of easement of the right-of-way. Set aside logs and timber greater than 4 inches in diameter to the extent feasible for commercial or fuel use. Do not burn or bury this material on the right-of-way or lands adjacent to the right-of-way without first making it available for commercial or fuel use. If it is not possible to dispose of this material for commercial or fuel use, dispose of the salvaged logs as specified for waste logs in [201.3\(10\)](#).

(8) Private owners holding underlying title to lands acquired or reserved for highway purposes by easement or by use have a prior right to timber from trees standing or lying, except timber required for construction of the work, and except timber from trees acquired by and for the public in the acquisition of the right-of-way. Consult with the private owners about disposing of trees cut on their land. Remove from the right-of-way and dispose of trees, or portions of trees, claimed by the owners. Ensure that timber disposal sites are neatly constructed.

(9) Dispose of stumps, roots, brush, waste logs and limbs, timber tops, and debris resulting from clearing and grubbing or occurring within the clearing and grubbing limits by burning, chipping, burying, or removing from the right-of-way.

(10) For disposal by open burning, burn within the clearing limits when and in a way that does not harm trees or shrubs left in place, create a nuisance, pose a hazard to traffic, or damage public or private property. Take care to avoid burning poison oak, poison ivy, poison sumac or other materials posing a health hazard when burned. Obtain burning permits required under local and state fire protection

regulations and provide copies to the engineer before burning. Comply with WDNR rule NR 429 regulating open burning that prohibits open burning in the Southeast Wisconsin Intrastate Air Quality Control Region (Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha counties). Do not use oily substances or other materials prohibited under NR 429 to start or maintain fires.

http://docs.legis.wisconsin.gov/code/admin_code/nr/400/429.pdf

- (11) If open burning is not allowed and the engineer approves, the contractor may bury material in engineer-approved locations on the right-of-way outside the construction limits. Minimize the bulk of the material and cover it with at least one foot of earth. If the engineer approves, the contractor may dispose of the debris from open burning in this same manner.
- (12) For disposal by mechanical chipping, recover material as it leaves the chipping machine. Stockpile and use this material as specified for mulch under [627](#), dispose of it off the right-of-way, or bury it as specified in [201.3\(11\)](#).
- (13) Dispose of material off the right-of-way according to applicable solid waste disposal regulations. Obtain written permits for this disposal from the owner of the property where placing the material, unless disposing of this material at a licensed waste disposal operation. Provide copies of permits to the engineer before disposal begins.
- (14) Chip, burn, or bury under not less than one foot of earth elm wood consisting of trees, logs, stumps, stubs, branches, or windfalls with adhering bark, and elm bark and debris within clearing and grubbing limits or resulting from clearing and grubbing operations.
- (15) Debark elm logs salvaged, and elm wood or stumps not disposed of by chipping, burning, or burying; and chip, burn, or bury the bark. For clearing and grubbing operations performed between April 1 and September 30, perform final disposal of elm wood, bark, or debris within 30 days. For clearing and grubbing operations performed between October 1 and March 31, perform final disposal of elm wood, bark, or debris before the succeeding May 1.
- (16) Dispose of clearing and grubbing debris before proceeding with grading operations. If the contractor intends to burn debris but cannot secure burning permits on schedule, do not delay removing clearing debris from areas affected by other operations. While waiting to secure burning permits, pile clearing and grubbing debris beyond the limits affected by other work. Do not leave elm debris beyond the limits specified in [201.3\(15\)](#).

201.4 Measurement

201.4.1 General

- (1) The department will measure Clearing and Grubbing separately, either by the station, inch of diameter, square yard, or acre as the contract indicates.
- (2) The department will measure Clearing and Grubbing required for the excavation of channels and ditches, occurring outside the limits of the roadway clearing and grubbing. If measured by the station, the department will measure along the centerline of these channels and ditches.
- (3) The department will measure Clearing performed on marsh disposal or waste disposal areas of the right-of-way and on easements furnished by the State. If measured by the station, the department will measure along the roadway centerline.
- (4) The department will not measure incidental clearing and grubbing operations required to perform the work as follows:
 1. Clearing areas of light brush, shrubs, and other vegetation that the contractor can cut with a brush scythe or mowing machine.
 2. Clearing areas containing logs, tree roots, roots of brush and shrubs, and other vegetation having a woody structure that the contractor can remove with a rooter.
 3. Clearing small trees of less than the minimum number and size specified for measurement.
 4. Trimming overhanging limbs and branches to provide required clearance.
 5. Clearing and grubbing borrow pits.

201.4.2 By the Station

- (1) The department will measure Clearing and Grubbing by the full 100-foot station acceptably completed, measured along the roadway centerline or reference line with each full 100-foot station starting and ending at a +00 station. If 2 or more roadways occur, the department will measure along the centerline or reference line of each roadway. For divided highways, the department will extend measurement units for each roadway, in width, from 5 feet outside the grading limit of that roadway to a line mid-way between the reference lines or centerlines for each roadway.

(2) The department will only include stations with a total of 12 inches or more of diameter determined as specified under [201.4.5](#). The department will include each station conforming to this criterion as a full station.

201.4.3 By the Square Yard

(1) The department will measure Clearing and Grubbing by the square yard acceptably completed within the designated limits. The department will calculate the horizontal area bounded by the line of trunks cut or grubbed. The department will not measure outside the right-of-way limits or acquired easements. The department will include only areas containing trees or stumps with a 3-inch or greater diameter. The department will determine diameters as specified under [201.4.5](#).

201.4.4 By the Acre

(1) The department will measure Clearing and Grubbing by the acre acceptably completed within the designated limits. The department will calculate the horizontal area bounded by the line of trunks cut or grubbed. The department will not measure outside the right-of-way limits or acquired easements. The department will measure separate areas or isolated stands of less than 1/5 acre as 1/5 acre. The department will include only areas containing trees or stumps with a 3-inch or greater diameter. The department will determine diameters as specified under [201.4.5](#).

201.4.5 By the Inch of Diameter

(1) The department will measure Clearing and Grubbing by the inch of diameter acceptably completed. The department will determine tree diameter by measuring the circumference approximately 4 1/2 feet above the existing ground level, but above the ground swell, and dividing by 3. The department will determine stump diameter, for stumps not resulting from the contractor's clearing operations, by computing the average diameter of the stump top. The department will include only those in-place trees or stumps with a 3-inch or greater diameter. The department will round circumference measurements and diameters to the nearest inch.

201.5 Payment

(1) The department will pay for measured quantities at the contract unit price under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
201.0105	Clearing	STA
201.0110	Clearing	SY
201.0115	Clearing	ACRE
201.0120	Clearing	ID
201.0205	Grubbing	STA
201.0210	Grubbing	SY
201.0215	Grubbing	ACRE
201.0220	Grubbing	ID

(2) Payment for Clearing and Grubbing is full compensation for the following:

- Clearing and grubbing required under this section and performed within the clearing and grubbing limits, as defined in [201.3\(1\)](#).
- Handling, hauling, piling, burning, burying, trimming, chipping, wound treatment, rehandling, and disposing of waste and debris.
- Excavations made to bury clearing and grubbing material, backfilling these excavations, and disposing of excess excavated material.

(3) The department will pay for clearing and grubbing ordered and performed beyond the clearing and grubbing limits, as defined in [201.3\(1\)](#), at the contract unit price per square yard, acre, or inch of diameter. If the contract does not contain Clearing and Grubbing bid items using those units, the department will pay for this additional clearing and grubbing as extra work.

(4) The incidental clearing and grubbing described in [201.4.1\(4\)](#) is incidental to the Excavation bid items of [205](#) or to other contract bid items.