

## **SECTION 205 ROADWAY AND DRAINAGE EXCAVATION**

### **205.1 Description**

- (1) This section describes excavating and disposing of material taken from within the right-of-way for project construction.
- (2) This section does not include material obtained from borrow pits outside the right-of-way limits, excavation for structures, or other excavation that separate bid items and specific measurement and payment are specified elsewhere in the specifications and contract.

### **205.2 Materials**

#### **205.2.1 Classification**

- (1) The department classifies excavation as common, rock, stone piles and stone fences, or marsh excavation. If the contract contains the Excavation Common and Excavation Rock bid items, the engineer will classify that excavation as either common or rock, based on unfrozen material, as the contractor performs the work.
- (2) The department classifies all EBS outside of marshes as common or rock.

#### **205.2.2 Common Excavation**

- (1) Under the Excavation Common bid item, excavate all materials not classified as rock, stone piles and stone fences, or marsh excavation. For contracts without the Excavation Rock bid item, remove boulders having volumes of one cubic yard ( $1 \text{ m}^3$ ) or more under the Excavation Common bid item.

#### **205.2.3 Rock Excavation**

- (1) Under the Excavation Rock bid item, excavate all hard, solid rock in ledges, bedded deposits, and unstratified masses, and all conglomerate deposits or any other material so firmly cemented they present all the characteristics of solid rock, and the engineer determines it is not practical to excavate this material without blasting or using rippers. Rock excavation also includes removing all rock boulders having a volume of one cubic yard ( $1 \text{ m}^3$ ) or more.
- (2) The classification of rock excavation does not apply to crushed aggregate or asphaltic base or surface courses, or to portland cement base or surface courses.

#### **205.2.4 Stone Piles and Stone Fences**

- (1) Under the Excavation Stone Piles and Stone Fences bid item, remove and dispose of stones, boulders, and rock fragments found assembled on the right-of-way in piles so that the engineer can make collective measurements by volume or by weight. If the contract includes a bid for this bid item, the classification is applicable to all portions of the piles or assembled stone masses found on the right-of-way that are removed and disposed of as specified. This applies regardless of whether this material occurs entirely above or partially below the ground surface. Do not classify stones in groups or piles of less than one cubic yard ( $1 \text{ m}^3$ ) in volume under stone piles and stone fences.

#### **205.2.5 Marsh Excavation**

- (1) Under the Excavation Marsh bid item, perform all required excavation below the original ground level of marshes and swamps underlying proposed embankments, within the limits indicated on the plans or as the engineer determines, and necessary or desirable to ensure a stable foundation for embankment or to accelerate the subsidence of unstable material under embankment load. If old road embankment cores are encountered in areas involving marsh excavation, salvage the portions of old road cores as designated on the plans and use them in the construction of embankments. This bid item also includes all material of whatever nature encountered below the original ground elevations in areas designated for this work, exclusive of portions of old road cores designated for salvage and used in construction of embankments.
- (2) On contracts containing the Excavation Marsh bid item, excavate any marsh areas not indicated on the plans but encountered during construction as marsh excavation if the engineer orders removing these areas.

### **205.3 Construction**

#### **205.3.1 General**

- (1) Excavate materials as the plans show or the engineer allows from within the right-of-way. Use excavated material in the work to the extent that it is practical. Use excavated material with suitable engineering properties to construct the roadway, roadbed, embankments, earth subgrade and shoulders, intersections, side ditches and dikes, channels, and waterways. Dispose of surplus or unsuitable material as specified in 205.3.12.
- (2) Grade entrances, approaches, ditches, and channels beyond the right-of-way.
- (3) Unless specified otherwise, remove and dispose of surface and base, embankment surcharge, masonry walls, foundations of buildings, or other miscellaneous structures that lie within the right-of-way. Also, remove and dispose of stone fences, stone piles, and surplus and unsuitable materials.
- (4) Replace unsuitable material with satisfactory material. Trim and finish the roadway. Maintain the work done under section 205 in a finished condition until acceptance.

### **205.3.2 Preparing Roadway Foundation**

- (1) Remove vegetation taller than one foot (300 mm) before excavating or placing embankment. Remove heavy sod, perishable material, unstable topsoil, muck, peat, and other undesirable material from the roadway foundation as defined in 101.3. Also remove frozen material from the roadway foundation unless the engineer approves otherwise. Dispose of removed material as specified in 205.3.12 unless the contract or the engineer directs otherwise.
- (2) Salvage topsoil, as specified in 625.3.2, from excavation areas and the roadway foundation. Remove excess unstable topsoil from the roadway foundation as EBS as specified in 205.3.4.
- (3) Compact, or prepare otherwise as required, the existing ground within the roadway foundation as necessary to support the embankment and attain the specified embankment density.
- (4) If placing embankment on side slopes 10 feet (3 m) high or higher and steeper than one vertical to 3 horizontal, provide vertically faced horizontal steps or benches in the slopes to support the embankment. The contractor may cut or form the steps or benches while placing the embankment.
- (5) Completely remove all pavement, asphaltic surface, and rigid base from within the roadbed slopes and underlying proposed embankments to a depth of 2 feet (0.6 m) or more below the finished grade line, or to the depth the plans show.

### **205.3.3 Drainage During Construction**

- (1) During construction, maintain roadway, ditches, and channels in a well-drained condition at all times by keeping the excavation areas and embankments sloped to the approximate section of the ultimate earth grade. Perform blading or leveling operations when placing embankments and during the process of excavation except if the excavation is in ledge rock or areas where leveling is not practical or necessary. If it is necessary in the prosecution of the work to interrupt existing surface drainage, sewers, or under drainage, provide temporary drainage until completing permanent drainage work.
- (2) If storing salvaged topsoil on the right-of-way during construction operations, stockpile it to preclude interference with or obstruction of surface drainage.
- (3) Seal subgrade surfaces as specified for subgrade intermediate consolidation and trimming in 207.3.9.
- (4) Preserve, protect and maintain all existing tile drains, sewers, and other subsurface drains, or parts thereof, that the engineer judges should continue in service without change. Repair, at no expense to the department, all damage to these facilities resulting from negligence or carelessness of the contractor's operations.

### **205.3.4 Excavation Below Subgrade**

- (1) Remove deposits of frost-heave material, unstable silty soils, wet and unstable soil, material salvaged from old road cores in marshes, topsoil containing considerable amounts of humus or vegetable matter, rocks, or other undesirable foundation material to the depth below finished grade as the plans show or the engineer directs. If possible, slope and drain the excavation bottoms to prevent water accumulation.
- (2) Dispose of humus bearing soils and other excavated materials not suitable for embankment construction as specified for disposal of surplus or unsuitable material in 205.3.12.
- (3) Use selected materials from roadway and drainage excavation having suitable engineering properties, borrow, or granular backfill, as the plans or special provisions show or as the engineer directs, to backfill excavated areas.

### **205.3.5 Grading the Roadway, Intersections, and Entrances**

- (1) Use all material with suitable engineering properties removed from excavation, to the extent that it is practical, to construct the roadway. Use excess excavated material in other locations the plans show.
- (2) Undercut or under fill to the necessary depth, all excavated slopes or areas and all embankment slopes or areas designated to receive topsoil or salvaged topsoil in order to provide for placement and finish of the specified amount of topsoil or salvaged topsoil to the required grade lines and section.
- (3) Perform excavation to avoid removing or loosening any material outside the required slopes. Replace and thoroughly compact any material removed or loosened to the required cross-section.
- (4) Grade all intersecting roads, approaches, entrances, and driveways as the plans show or as the engineer lays out. Construct intersections and private entrances, trim shoulders and slopes, finish and blade the earth subgrade, and complete the ditches to the proper alignment, grade, and cross-section closely following the rough grading.

### **205.3.6 Constructing Ditches, Dikes, and Channels**

- (1) Construct inlets, outlets, swamp, berm and intercepting ditches, dikes, or intercepting embankments and channels where and as the plans show or where and as the engineer directs. Maintain inlets, outlets, swamp, berm and intercepting ditches, dikes, or intercepting embankments and channels to the required section until acceptance. Perform the work in proper sequence with other work to provide adequate drainage and to minimize erosion and siltation.
- (2) The department will include excavation from ditches and channels with the pertinent bid items classified under roadway and drainage excavation.
- (3) Use all material with suitable engineering properties excavated from ditches and channels, to the extent that it is practical, to construct the roadway and backfill abandoned ditches and channels. Dispose of unused excavated material as the plans show or as the engineer directs.
- (4) Do not deposit waste or surplus excavation within 3 feet (1 m) of the edge of ditches or channels or within a greater distance as required to ensure stability of the side slopes. Spread waste or surplus material in thin, neatly shaped, uniform layers. Remove roots, stumps, logs, and other objectionable material in the slopes and bottoms of ditches and channels. Backfill the holes with suitable material, or cut the holes to conform to the cross-section the plans show. If necessary, provide sufficient openings in spoil banks to allow surface drainage of adjacent lands.
- (5) Provide suitable outlets or flumes from intercepting ditches to roadway ditches where necessary as the plans show.

### **205.3.7 Excavating Rock**

#### **205.3.7.1 General**

- (1) Remove rock, if encountered in excavation, to a depth of approximately 6 inches (150 mm) below the earth subgrade between limits of the shoulder slopes. If the plans show design details covering the depth of rock excavation, perform the work according to the details. If the plans or special provisions do not require specific materials, then use selected material obtained from roadway and drainage excavation to backfill areas of EBS in rock excavation. If excavation methods leave undrained pockets in the rock surface, drain the depressions properly. If the engineer allows, the contractor may fill the depressions with engineer-approved impermeable material, at no expense to the department.
- (2) Excavate rock cuts using methods and equipment so that the resulting backslopes substantially conform to the slopes the plans show or to the slopes established from the stakes set for excavation. Avoid creating depressions in or substantial displacement of material outside the lines, limits, or slope planes defined by the stakes. Scale the backslopes in rock cuts to dislodge loose rock. Dispose of removed material in the manner specified for other excavation.
- (3) Undercut the slopes of rock cuts if designated to receive topsoil, or salvaged topsoil to the depth necessary to allow placing the specified amount of topsoil or salvaged topsoil, and finish to the required section.

#### **205.3.7.2 Presplitting Rock**

- (1) If the plans show or the engineer authorizes, employ the presplitting technique to split the face of the rock cut in a relatively smooth plane along the designated backslope, before removing the interior portion of the cut by blasting.

- (2) Remove all soil, loose, or decomposed rock overlying the surface of the rock to be split to the elevation the engineer designates or approves before drilling the presplitting holes.
- (3) At the beginning of the presplitting operation or if encountering material of different geologic characteristics, drill, blast, and excavate short test sections, up to 100 feet (30 m) in length, to determine the optimum spacing, size, and loading of the holes. Do not perform testing until the engineer approves a contractor-prepared plan of the test section. After presplitting the test section, expose the presplit face to allow the engineer to examine and evaluate the results. If the results are unsatisfactory, make adjustments in hole size and spacing, size and spacing of charges, and other aspects of the plan to produce an acceptable split face.
- (4) Drill holes not larger than 3 1/2 inches (90 mm) in diameter at a spacing determined from the test section, but not less than 24 inches (600 mm) and not more than 42 inches (1100 mm).
- (5) Drill holes on the required slope line and at the required slope inclination to the full depth of the cut or to a predetermined stage elevation. If the depth of cut is greater than is practical to maintain the required alignment of the drilled holes, drill, blast, and excavate the cut in 2 or more lifts. If the cut is too deep for presplitting to the full-required depth in one operation, the engineer will allow a maximum offset of 12 inches (300 mm) at the bottom of each lift for use in drilling the next lower presplitting pattern. Plan the offset benches so the toe of the completed rock slope coincides with the toe of slope the plans show.
- (6) Carefully charge all drill holes for presplitting with manufactured cartridge-type explosives, fully stem each hole, and detonate the charges simultaneously.
- (7) Before blasting the interior portion of the excavation area, presplit rock slopes, either by separate operations or by time delay fuses that fracture the slope line before the charges detonate in the interior portion.
- (8) Position drill holes for production blasting to avoid damage to the presplit face. Do not place the bottom of the production holes below the bottom of the presplit holes. Do not drill portions of production drill holes within 4 feet (1.2 m) of a presplit plane except as the engineer approves.
- (9) Use explosive charges, detonating cord, spacing, and other items necessary for the blasting operation conforming to the explosive manufacturer's recommendations and instructions.

#### **205.3.8 Marsh Excavation and Disposal**

- (1) If encountering muck or peat marshes, complete excavation of the marshes as soon as it is practical to obtain maximum settlement before proposed base and surface construction.
- (2) Begin excavation of wet marshes with relatively unstable side slopes at one end and proceed in one direction to the full width across the entire marsh immediately ahead of backfilling. Ensure the method and sequence of excavating and backfilling result in the complete removal or displacement of all peat or muck from within lateral limits the plans show or as the engineer staked, and to the bottom of the marsh or to firm support. Excavate all displaced peat or muck accumulating ahead of the advancing embankment toe. Construct embankments as specified for placing in marsh in 207.3.3.
- (3) Completely excavate, to the extent that it is practical, dry marshes having relatively stable side slopes and firm bottoms to the width the plans show or as the engineer staked, and to the bottom of the marsh. Backfill the area in layers as specified for placing layers in 207.3.2.
- (4) Unless the contract specifies otherwise, the contractor may temporarily deposit the excavated material outside the toe of the slope of the proposed embankment but not over marsh or wetlands. After completing the embankment, place the excavated material against the fill slopes, and spread the material between the fill and marsh ditch if not placing over marsh or wetlands. Dispose of left over material as unsuitable material, or use it as the plans show. If disposing of excavated material by hauling to other locations, complete hauling before construction of any subbase, base, or surface course.

#### **205.3.9 Removing Embankment Surcharge**

- (1) Remove and dispose of excess fill placed above the elevation for earth grade over deposits of unstable material to secure displacement or settlement. Remove surcharge only after the engineer determines that the fill has reached stability or the required settlement.

#### **205.3.10 Removing Masonry Walls, Foundations of Buildings, or Other Structures**

- (1) Unless the plans show otherwise, remove masonry walls or foundations of buildings or other structures as follows:

1. Within the roadbed, to a depth at least 2 feet (0.6 m) below the subgrade.
  2. Outside the roadbed, to a depth at least 2 feet (0.6 m) below the finished grade.
  3. At any location, to the extent required to avoid interfering with the work.
- (2) Break holes in basement floors to allow drainage. Backfill those portions of all basements or other openings resulting from removing buildings or other structures, or openings resulting from removing walls or foundations of buildings or structures, lying within the shoulder lines of the new roadway, subgrade elevation with suitable material from roadway excavation, unless the contract specifies granular backfill. Backfill similar openings lying outside the ditch lines of the new roadway with material secured from roadway excavation.

#### **205.3.11 Incorporating or Disposing of Stones, Broken Rock, and Boulders**

- (1) Incorporate all stones, broken rock, and boulders not required for other construction included in the contract, to the extent that it is practical, in embankments outside the limits of any proposed structure or structure piling. Completely fill the voids between them with satisfactory soil. Dispose of material not incorporated in the work at no expense to the department, either by burying in the ground within the right-of-way in an engineer-approved manner or by placing off the right-of-way and out of sight from a public highway. If placing material outside the right-of-way, comply with all regulations relating to disposal of solid waste. Obtain written permits for disposal from the owner of the property where placing the material, unless disposing of the material at a licensed waste disposal operation. Furnish permits, or copies of permits, to the engineer before disposal. Do not deposit waste in wetlands.

#### **205.3.12 Incorporating or Disposing of Surplus or Unsuitable Material**

- (1) Dispose of all vegetation as specified for clearing and grubbing under 201.3. Save material containing humus or of a nature suitable to support vegetation but unsatisfactory for constructing embankments. Use this material in salvaged topsoil operations. The contractor may, if the engineer approves, use surplus humus-bearing soils, and other excavated materials not suitable for embankment construction but suitable to uniformly widen embankments, to flatten slopes, and to fill low places in the right-of-way for these purposes, unless specified otherwise.
- (2) Do not deposit excavated material along the roadsides above the elevation of the adjacent roadbed, unless the plans show or the engineer allows.
- (3) Dispose of surplus excavation that is not, or cannot be, disposed of by flattening slopes or filling in low places on the right-of-way, at no expense to the department. Locate disposal sites outside the right-of-way, and comply with all regulations relating to disposal of solid waste. Ensure that disposal sites are neatly constructed. In performing these operations, do not create a nuisance or cause pollution or siltation of natural watercourses, streams, lakes, wetlands, or reservoirs. Furnish written permits to the engineer as required from the owner of the property under 205.3.11 before disposal. Do not deposit waste in wetlands.

#### **205.3.13 Approving Areas of Yielding Subgrade**

- (1) After rough grading on all or a portion of the subgrade in cut areas is complete and the grade is ready for blue tops, point out areas of yielding subgrade to the engineer. The engineer will evaluate the subgrade to determine if corrective work or EBS is required.
- (2) If the engineer requests, provide loaded trucks and run the subgrade as the engineer directs to confirm yielding areas. Perform EBS in yielding areas and backfill as the engineer directs.
- (3) If satisfied that an area requires no EBS, the engineer will approve that area for subsequent operations.

#### **205.3.14 Finish Grading**

- (1) Complete the grading, trimming, and finishing before constructing the subbase, base, or surface courses.
- (2) Make gradual adjustment in slopes to avoid injury to standing trees or to harmonize with existing landscape features, especially at the intersection of cuts and fills.
- (3) Round the crests of earth cut banks as the plans show or as the engineer directs.
- (4) Merge all constructed earth slopes with adjacent terrain and substantially conform to the plan cross-sections. Use blading or other operations, to partially smooth the horizontal serrated condition of slopes ordinarily left by excavating equipment. Produce slopes that are slightly rough and irregular and have a general contour of the required slope.

- (5) Flatten, round, or modify the slopes and banks of existing ditches, channels, berms, and dikes within the clear zone to the extent necessary to remove obstacles or obstructions encountered by vehicles leaving the adjacent traveled way.
- (6) During grading operations and pending acceptance of grading or placement of subbase, base, or surface course, provide continuous maintenance of the entire roadbed and perform all blading and repair work necessary to keep the grade smooth and to the required grade and cross-section specified. The contractor is not required to maintain or restore the minimum required density in the graded roadway after completing shaping, trimming, and finishing operations, except as specified for preparing the foundation in section 211 before placing subbase or base under the contract.
- (7) Refill and compact washouts caused by erosion.

#### **205.3.15 Preserving Trees and Shrubs**

- (1) Protect trees and shrubs designated for preservation from scarring or other injury during grading operations.
- (2) If excavating around trees to be preserved, do not disturb the original ground around the trees within a minimum distance of one foot (300 mm) or twice the diameter of the tree, whichever is the greater distance. Cleanly cut exposed roots resulting from excavation, and cover them with humus-bearing soil.
- (3) If the plans, special provisions, or the engineer requires, construct tree wells to protect trees or shrubs surrounded by excavation or embankment.

#### **205.3.16 Dust Control**

- (1) Minimize dust dispersion from the subgrade during grading and maintenance operations, until the work is accepted, by applying water or other engineer-approved dust control materials as the contract specifies or the engineer requires.

#### **205.3.17 Overhaul**

- (1) All the bid items under part 2 include hauling. The department will make no allowance under the Overhaul bid item, except if during construction the quantity of roadway and drainage excavation within balance points or divisions is insufficient to make the required embankment, and no borrow excavation is specified to make up this deficiency, the engineer may require that the contractor secure additional excavation outside the balance division but within the limits of the right-of-way.

### **205.4 Measurement**

#### **205.4.1 Excavation**

- (1) The department will measure all classes of roadway and drainage excavation by the cubic yard acceptably completed as computed using the method of average end areas, with no correction for curvature, except as follows:
  1. The engineer and contractor mutually agree to an alternate volume calculation method.
  2. The method of average end areas is not feasible.
  3. Other methods are specified here in 205.4.1.
- (2) For minor quantities, the engineer may elect to measure Excavation Common by the cubic yard in the vehicle. The engineer will determine the capacity of each haul vehicle to the nearest 0.1 cubic yard (0.1 m<sup>3</sup>).
- (3) The department will measure Excavation Rock in ledges and solid masses by the cubic yard acceptably completed. The department will perform this measurement by making vertical measurements for determining end areas within the limits of the roadbed as defined by the shoulder slopes. These vertical measurements will extend from the surface of the rock to an elevation 6 inches (150 mm) below the subgrade or ground surface, or to the depth indicated on the plans, or to the bottom of the solid ledge or mass if the rock does not extend downward to the elevation specified, or indicated below the established grade.
- (4) The department will measure boulders and surface stone with a volume of one cubic yard (1 m<sup>3</sup>) or more individually and compute the volume from average dimensions taken in 3 directions, except as specified below for Excavation Stone Piles and Stone Fences.
- (5) If the contract includes a separate bid item for Excavation Stone Piles and Stone Fences, the department will measure the stone piles or portions of stone piles removed in cubic yards in their original position,

computed by the method of average end areas, with no correction for curvature, or, if the engineer elects, by the method of truncated prisms. Measurement under Excavation Stone Piles and Stone Fences includes all stones, regardless of size; located in the stone piles and stone fences, and the department will make no classification of stone size for material measured under this bid item.

- (6) If undercutting designated slopes to provide for placing topsoil or salvaged topsoil, the undercut is incidental to the Topsoil or Salvaged Topsoil bid items.
- (7) The department will measure Excavation Marsh in its original position, by the average end area method, within the limits of excavation. The department will use this method if the contractor excavated and formed a reasonably well-defined trench of required cross-section, with relatively stable side slopes, and a bottom that is the bottom of the marsh or a satisfactory support for the backfill and embankment. In cases that the excavation does not result in a reasonably well-defined measurable trench with relatively stable side slopes, the department will measure the cross-section area based on the lateral limits of the excavation shown by the typical section in the plans and as the engineer staked in the field. The department will determine the depth between the original marsh surface and the bottom of the placed fill by taking soundings during the marsh excavation or by taking borings through the completed fill. The department will not measure any marsh material from outside the lateral limits defined above that may be excavated or may be displaced by the fill.
- (8) If it is not possible to compute volumes of the various classes of roadway and drainage excavation by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternate methods involving 3-dimensional measurements.
- (9) The department will not measure for payment materials excavated in forming benches or steps in preparing the foundation for embankments placed on slopes.
- (10) The department will not measure excavated material used for purposes the contract does not designate, except as specified for use of materials found on the project in 104.8. The department will not measure material excavated beyond the limits of the required slopes unless the engineer allows overbreak in rock cuts and that overbreak was beyond the contractor's control. In this case the department may measure this overbreak.
- (11) The department will measure erosion control, fertilizing, and seeding for material disposal sites as specified for material disposal sites in 628.4.1.1.

#### **205.4.2 Overhaul**

- (1) The department will determine the limits of free haul for roadway and drainage excavation from a mass diagram. Prepare this diagram by fixing on the volume curve 2 points, one on each side of the neutral grade point, one in excavation and the other in embankment, so that the distance between them equals 2000 feet (600 m) and the included quantities of excavation and embankment balance. The department will eliminate all materials within this free haul limit from further consideration. The distance between the center of gravity of the remaining mass of excavation and the center of gravity of the remaining embankment, less the limit of free haul as above described, equals the overhaul distance for roadway and drainage excavation.
- (2) The department will calculate the quantity of Overhaul as the product of the overhaul distance, in miles, multiplied by the quantity of overhaul material in cubic yards.
- (3) The engineer will determine the necessity for Overhaul. The contractor shall give the engineer ample time to take the necessary cross-sections and measurements to determine the volume of excavation for which Overhaul is paid.
- (4) The engineer will not measure overhaul for the disposal of surplus or unsuitable material.

#### **205.4.3 Presplitting Rock**

- (1) The department will measure Presplitting Rock by the linear foot of drill holes, including test section holes, drilled along the face of acceptable presplit rock slopes. The department will take the measurement from the top of the drill hole at the rock surface to the elevation of the roadway ditch, to a predetermined bench elevation or to the bottom of the rock ledge or mass where the rock does not extend to the roadway ditch or predetermined bench elevation. The department will not include overbreak quantities in the measurement of Excavation Rock where presplitting is used.

### **205.5 Payment**

#### **205.5.1 General**

- (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>
205.0100	Excavation Common	CY
205.0200	Excavation Rock	CY
205.0300	Excavation Stone Piles and Stone Fences	CY
205.0400	Excavation Marsh	CY
205.1200	Overhaul	YDMI
205.1300	Presplitting Rock	LF

### **205.5.2 Excavation**

- (1) Payment for the Excavation bid items under this section is full compensation for all work specified for those excavation classes under section 205 for which no separate unit prices are included in the contract, except as specified otherwise in section 203 and section 204 for removing concrete structures, and below for performing EBS after the engineer approves the subgrade in cut areas. The cost of removing walls, foundations, etc., the satisfactory disposal of resulting material, and the backfilling of basements or openings resulting from removing walls, foundations, etc., for which no separate unit prices are included in the contract, is included in the contract unit price for the Excavation bid items, except for removing concrete structures. The department will not make additional payment for this work, except the department will pay separately for providing the required granular backfill under the Backfill Granular bid item, and, except as specified above for removing concrete structures, and EBS performed after the engineer approves the subgrade in cut areas. The contract unit price shall include all haul except as outlined for overhaul in 205.3.17.
- (2) The department will only pay for engineer-approved EBS to correct problems beyond the contractor's control. Work performed under 105.3 to correct unacceptable work is the contractor's responsibility. For EBS work performed where the engineer did not approve the subgrade for subsequent operations, the department will pay for EBS at the contract price under the pertinent excavation and backfill bid items, or absent those bid items as extra work. For EBS work performed where the engineer approved the subgrade for subsequent operations, the department will pay for EBS as follows:
1. Up to a maximum of \$25,000 per contract, the department will pay as follows:
    - 1.1 For excavation; 3 times the contract unit price for the Excavation Common bid item under the EBS Post Grading administrative item.
    - 1.2. For backfill with the materials the engineer directs; at the contract unit price for the bid items of each material used to fill the excavation.
    - 1.3. For excavation or backfill without contract bid items; as extra work.
  2. After exceeding \$25,000 per contract, the department will pay for additional EBS in engineer-approved areas as determined under 109.4.
- (3) If the contract does not include the Excavation Rock bid item, the department will pay 5 times the contract bid price of the Excavation Common bid item to remove boulders having volumes of one cubic yard (1 m<sup>3</sup>) or more. The department will pay for these boulder removals under the Removing Large Boulders administrative item.
- (4) Constructing and removing all temporary drainage installations as specified under 205.3.3 is incidental to the work under this section.
- (5) The department will pay for erosion control, fertilizing, and seeding of material disposal sites as specified for material disposal sites in 628.5.1.
- (6) The department will pay for refilling and compacting washouts caused by erosion under the contract bid item for the additional volume of material used, or as extra work according to 107.14, except that if the erosion is caused by the contractor's negligence then the contractor performs refilling and compaction at no expense to the department.

### **205.5.3 Overhaul**

- (1) Payment for Overhaul on roadway and drainage excavation, agreed upon in writing by the contractor and engineer before the work is started, is full compensation for all labor, equipment, tools, and incidentals necessary due to the additional haul or transportation involved beyond free haul limits as defined in 205.4.2.

- (2) The department will not pay for overhauling surplus or unsuitable materials from roadway and drainage excavation that the contractor disposes of.
- (3) If the engineer requires the contractor to secure additional excavation outside the balance division, but within the limits of the right-of-way, the department will measure and pay for this material under the appropriate Excavation bid items in the contract, and pay for all transportation and hauling of this material over a distance of 2000 feet (600 m) under the Overhaul bid item.

#### **205.5.4 Presplitting Rock**

- (1) Payment for Presplitting Rock is full compensation for all drilling, charging, stemming, and blasting; and for providing all materials, including explosives.