

Contract Name: Benzer Stwd

K-C.1.1# - TIMBER SUBJECT TO AGREEMENT (09/2004)

In addition, there is within Contract Area an unestimated quantity of:

Species	Product
Softwood Other	Grn Bio Cv

that shall be Included Timber upon written agreement.

K-C.3# - RESERVE TREES (09/2004)

Notwithstanding the designations for cutting under C.3.1, C.3.2, C.3.3, or C.3.4, live or dead Genetic reserve trees or groups of reserve trees within such cutting units or clearings shall be left uncut. Reserve trees are identified by an orange paint band at or near 4.5 feet above the ground and/or have a painted orange "ST" and shall be protected in accordance with K-G.3.2#. Units with reserve trees are shown on Contract Area Map.

K-C.3.5.5# - DESIGNATION BY PRESCRIPTION (05/2015)

Within Subdivision(s) or Cutting Unit(s) 042, 048, 068, 635, 638, 639, 645, 655, 661, 662, 665, 674, 675, 677, 680, 682, 683, 685, 686, 687, 690, 693, 697, 887, as shown on Contract Area Map, the following criteria shall be used by Contractor to designate trees and other products for cutting and removal:

- (a) 1/ See following pages for Designation by Prescription criteria and Specifications (b) Additional trees to be cut, if any, are marked by Forest Service with 2/ Green tracer paint.
- (c) Cutting unit boundaries and other trees that shall be left uncut are marked by Forest Service with 2/ Orange tracer paint.

Contractor may select cut trees in cutting unit(s) 3/ 048, 665, 675, 677, 683, 697 without pre-harvest marking in accordance with the criteria in (a). If specified in (a), Contractor shall mark leave trees in cutting unit(s) 4/ 042, 068, 635, 638, 639, 645, 655, 661, 662, 674, 680, 682, 685, 686, 687, 690, 693, 887 with Contractor's non-tracer 2/ Orange paint for inspection and approval by Forest Service prior to cutting.

Prescriptive Criteria/Associated Cutting Units

## Designation by Prescription

Marking to Meet Commercial Thinning (HITH) and Commercial Thinning with Dwarf Mistletoe reduction (HPST) Prescriptions

End result is to retain the best available trees to attain the stocking level, spatial pattern of leave trees and other desired condition as summarized in the DxPre Table. Create spatial variability in each subdivision by retaining a mosaic of individual trees and tree clumps of different sizes while creating tree canopy openings (Churchill et al., 2014). Reduce the amount and severity of dwarf mistletoe infection in all species and isolate infections in large and legacy Douglas-firs, especially in HPST prescription subdivisions. Retain trees over the entire subdivision to attain residual stocking comprised of approximately 35% individual trees (located more than 20 feet from other leave trees) and 65% in tree clumps (trees are located within 20 feet of at least one other leave tree) ranging in size from 2 to 7 or more trees.

Designated leave trees shall be marked with (non-tracer) orange paint to Forest Service specifications. All lodgepole pine 18.0 inches DBH and larger and all conifers greater than 20.9 inches DBH shall be marked and left standing. All legacy ponderosa pine, western larch, and Douglas-fir 18.0 inches DBH and larger; with an estimated age of 150 years and older as determined by scoring keys in *Identifying Old Trees and Forests in Eastern Washington* by Robert Van Pelt September 2008; shall be marked and left standing. Paint is to be supplied by the contractor at their expense. Sufficient quantities of orange paint should be purchased by the contractor to assure color consistency on all treatment subdivisions. Black paint is to be used when the contractor adjusts or changes a tree designation to make all orange paint not visible. The Contract Administrator will review and approve the marking prior to harvest.

DxPre Subdivisions (1052 acres):

HITH50 (97 acres): Subdivision 674.

HITH40 (769 acres): Subdivisions 042, 048, 068, 635, 638, 645, 655, 665, 675, 677, 680, 682, 683, 685, 686, 690, 693, and 697.

HITH30 (38 acres): Subdivision 687.

HPST35 (148 acres): Subdivisions 639, 661, 662, and 887.

Marking Specifications

Project 002- The contractor shall mark the entire area (810 acres) in subdivisions 042, 068, 635, 638, 639, 645, 655, 661, 662, 674, 680, 682, 685, 686, 687, 690, 693, and 887 prior to harvest. Partial marking of these subdivisions will not be permitted.

Subdivisions 048, 665, 675, 677, 683 and 697 do not need to be marked prior to harvest and are not part of Stewardship Project 002. Contractor may elect to mark these Subdivisions prior to cutting with approval by the Forest Service.

All subdivisions are required to be in compliance with this prescription post-harvest to meet the end results stated above.

Leave Tree Guidelines:

Abbreviations: TPA (trees per acres), WL (western larch), PP (ponderosa pine) ES (Engelmann spruce), DF (Douglas-fir), LP (lodgepole pine), AF (subalpine fir), QA (quaking aspen), dbh (diameter at breast height).

## I. Leave Tree Marking

- A. The **stump mark** shall be a minimum of 6 inches long and 1 inch wide. It shall be placed on the downhill side at the base of every leave tree, placed in crevices, and extend onto the forest floor.
- B. A horizontal **band** at least 2 inches wide must encircle the tree between 5 feet and 7 feet above the ground.
- C. Paint marks shall be visible for a distance of at least 25 feet in all directions until harvest operations are complete.
- D. Leave tree marking applies to conifer trees  $\geq 7.0$  inches dbh, except Ponderosa pine. Ponderosa pine will be marked at  $\geq 9.0$  inches dbh. Hardwood trees shall not be marked.

## II. Leave Trees to Mark:

- A. All LP 18.0 inches dbh and larger and all other conifers greater than 20.9 inches dbh.
- B. All legacy PP, DF, and WL 18.0 inches dbh and larger; with an estimated age of 150 years and older as determined by scoring keys in *Identifying Old Trees and Forests in Eastern Washington* by Robert Van Pelt September 2008.
- C. All dead WL 16.0 inches dbh and larger with bark and branches attached that do not pose a hazard to operations as defined by the Washington State Labor and Industry standards (mark with a "W" on at least 2 sides of the bole plus an orange band and stump mark).
- D. All trees with historic "Stock Driveway" signs attached to the bole.
- E. All trees with telephone line insulators attached to the bole.
- F. To meet the Stocking Level and Spatial Pattern of leave trees, first leave all live mandatory leave trees described above (II. A, B, D., and E.), followed by trees among the largest and most vigorous present in the subdivision defined as Most Desirable (F-1) followed by Less Desirable (F-2). All mandatory leave trees except dead WL 16 inches dbh and larger count toward Stocking Level and Spatial Pattern of Leave Trees attainment.

### 1. Most Desirable Leave Trees/Suitable: Trees that possess the following characteristics shall be the first choice for desirable leave trees:

- a. *Dominant and Co-dominant Preferred Species:* These trees are taller on the average when compared to other trees in the subdivision that are in the *intermediate* and *suppressed* crown classes. Preferred Species in descending order of preference is WL, PP, DF, ES, and LP. When the preferred species does not possess desirable tree characteristics, *vigor* and *growth* is given preference.
- b. *Health and Vigor:* With the exception of WL, mature foliage shall be dark green in color. The live crown ratio shall be 40% or greater and be distributed all the way around the bole. A healthy WL will have long straight limbs all the way around the tree bole for 30% or more of the tree height. Healthy trees are free of severe insect and disease damage and do not appear stressed.
- c. *Bole:* The bole or stem of the tree shall be relatively straight and have a single terminal leader.
- d. *Physical Damage:* Trees shall not have physical damage from fire, equipment, animals, falling trees, or weather on more than one-fourth of the bole circumference or more than three feet of the length of the bole.
- e. *Free of Disease Damage:* Trees shall not have disease damage including dwarf mistletoe, laminated root disease, and western gall rust. Dwarf mistletoe is common in DF, WL, and LP. Disease damage symptoms are described under V. Definitions.

- f. Free of Insect Damage: Trees shall not have recent damage from mountain pine beetles, western pine beetles, Ips beetles, and Douglas-fir beetles. Douglas-firs shall not have dead tops caused by western spruce budworm defoliation. Insect damage symptoms are described under V. Definitions.
- g. Up to two green wildlife trees per acre 14.0 inches dbh and larger with defects at stem diameter > 10" including forks, dead or broken tops, bird holes, or evidence of stem decay. PP and WL
- h. with dead tops are the preferred green wildlife trees. Mandatory leave trees (II. A., B., D., and E.) with green wildlife tree characteristics will count toward meeting this requirement.

2. Less Desirable Leave Trees/ Also Suitable: When Stocking Level and Spatial Pattern of Leave Trees cannot be achieved with trees that possess most desirable leave tree characteristics, the Contractor shall select leave trees with less desirable characteristics in the descending priority order listed below:

- a. Minor Defect: Preferred species with most desirable leave tree characteristics except for a minor defect such as a minor bole crook, a small amount of animal damage, or forked trees with two or more terminal leaders.
- b. Dominant or co-dominant AF with most desirable leave tree characteristics.
- c. Dwarf Mistletoe

**HITH50, HITH40, HITH30, and HPST35 prescription subdivisions:**

WL, PP, DF, and LP 12.0 inches dbh and larger with a 50% or greater live crown ratio and most desirable leave tree characteristics with the exception of dwarf mistletoe infection described as follows:

- i. DF with Hawksworth dwarf mistletoe infection rating of less than 2.
- ii. WL, PP, and LP with Hawksworth dwarf mistletoe infection rating of less than 3.

**HPST35 prescription subdivisions only:**

WL, PP, and DF 18.0 inches dbh and larger with a 50% or greater live crown ratio and most desirable leave tree characteristics with the exception of dwarf mistletoe infection described as follows:

- iii. DF with Hawksworth dwarf mistletoe infection rating of 2.
- iv. WL, PP, and LP with Hawksworth dwarf mistletoe infection rating of 3.

- d. Physical Damage: Preferred species with most desirable leave tree characteristics with the exception of physical damage on less than one half of the bole circumference and less than three feet in length. Physical damage may be caused by fire, equipment, animals, falling trees, or weather.
- e. Insect Damage: Douglas-firs with most desirable leave tree characteristics except for a dead top or sparse tree top foliage caused by western spruce budworm defoliation at stem diameter less than 5 inches.
- f. Intermediate crown class trees of preferred species with most desirable leave tree characteristics. Intermediate crown class trees are approximately two thirds to one half the height of dominant and co-dominant crown class trees.
- g. Other Live Trees: Trees without insect or disease damage with a live crown ratio of 30% or greater and a height to diameter ratio  $\leq 80:1$ .

- II. **Do Not Mark Leave Trees described in A-I below:** These are unsuitable trees; however, an exception shall be made for mandatory required leave trees
- III. (II. A., B., D., and E.), green wildlife trees (II. F.1.g), logging feasibility (IV. F.), and canopy openings (IV. H.).

**All tree spacing distances listed below are to be measured from tree face to tree face at DBH.**

- A. Dead trees except WL 16.0 inches dbh and larger (as described in II. C.) and hardwood trees.
- B. Live conifers less than 7.0 inches dbh.
- C. Dwarf mistletoe infected trees less than 12.0 inches DBH.
- D. Trees not expected to live for 10 years.
- E. Trees with severe insect and disease damage.
- F. Trees with a poor height to diameter ratio (> 80:1).
- G. Other species (DF, ES, LP, and AF) located within 25.0 feet of WL and PP greater than 20.9 inches dbh with suitable leave tree characteristics. Dominant and co-dominant WL and PP with 40% and greater live crown ratios and suitable leave tree characteristics may be marked within 25.0 feet.
- H. Trees less than 18.0 inches dbh located within 25.0 feet of DF and ES greater than 20.9 inches dbh with 40% and greater live crown ratios and suitable leave tree characteristics. Dominant and co-dominant WL, PP, DF, and ES 18.0 inches dbh and larger with 40% and greater live crown ratios and suitable leave tree characteristics may be marked within 25.0 feet.
- I. DF located within 30.0 feet of dwarf mistletoe infected DF greater than 20.9 inches dbh (II. A) and dwarf mistletoe infected legacy DF 18.0 inches dbh and larger (II. C). Other species with suitable leave tree characteristics may be marked within 30.0 feet.

IV. **Stocking Level and Spatial Pattern of Leave Trees:** Leave trees will be marked to create spatial variability in each subdivision by retaining a mosaic of individual trees and tree clumps of different sizes while creating tree canopy openings (Churchill et al., 2014). Clumps are defined by a maximum distance between tree boles, based on the average distance at which mature and old trees have interlocking crowns. Individual leave trees and leave tree clumps will be marked and tracked over an entire subdivision to attain the desired Stocking Level and Spatial Pattern of leave trees. Openings will be created primarily by focusing on marking tree clumps and removing trees which do not meet suitable (II. F.) leave tree criteria. Mark leave trees based on the following guidelines to achieve the desired Stocking Level and proportions of individual leave trees and leave tree clump sizes (Spatial Pattern) over the entire area of each subdivision:

**All tree spacing distances listed below are to be measured from tree face to tree face at DBH.**

- A. Individual leave trees will be located greater than 20.0 feet from all other leave trees.
- B. Clumps will be comprised of trees located 20.0 feet or less from at least one other leave tree.
- C. Retain the following proportion of individual trees and clump sizes averaged over the entire subdivision based on the desired Stocking Level of leave trees:

<b>HITH50</b> Stocking Level: 50 TPA (45-55 TPA acceptable range)	Individual Trees	Small Clumps (2-4 trees)	Medium Clumps (5-7 trees)	Large Clumps (8-11 trees)
Target proportion	35%	50%	15%	
Acceptable range	25%-40%	45%-60%	10%-25%	
Approximate average per acre* to attain target	18	8.3	1.3	

\* Based on 50 TPA retained with an average of 3 trees per small clump and 6 trees per medium clump.

<b>HITH40</b> Stocking Level: 40 TPA (36-44 TPA acceptable range)	Individual Trees	Small Clumps (2-4 trees)	Medium Clumps (5-7 trees)	Large Clumps (8-11 trees)
Target proportion	35%	50%	15%	
Acceptable range	25%-40%	45%-60%	10%-25%	
Approximate average per acre* to attain target	14	6.7	1	

\* Based on 40 TPA retained with an average of 3 trees per small clump and 6 trees per medium clump.

<b>HITH30</b> Stocking Level: 30 TPA (27-33 TPA acceptable range)	Individual Trees	Small Clumps (2-4 trees)	Medium Clumps (5-7 trees)	Large Clumps (8-11 trees)
Target proportion	35%	50%	15%	
Acceptable range	30%-40%	45%-55%	10%-20%	
Approximate average per acre* to attain target	11	5	0.8	

\* Based on 30 TPA retained with an average of 3 trees per small clump and 6 trees per medium clump.

<b>HPST35</b> Stocking Level: 35 TPA (30-40 TPA acceptable range)	Individual Trees	Small Clumps (2-4 trees)	Medium Clumps (5-7 trees)	Large Clumps (8-11 trees)
Target proportion	35%	50%	15%	
Acceptable range	25%-40%	45%-60%	10%-25%	
Approximate average per acre* to attain target	12.3	5.8	0.9	

\* Based on 35 TPA retained with an average of 3 trees per small clump and 6 trees per medium clump.

- D. Large size clumps may be retained, even though there is no assigned target. Leave trees retained in large clumps will be tracked and included in the calculation of stocking level and medium size clump proportion attainment.
- E. With the exception of mandatory leave trees (II. A., B., D., and E).and green wildlife trees (II. F.1.g), individual leave trees shall be comprised

primarily of the largest and most vigorous dominant and co-dominant crown class trees present. Intermediate preferred species crown class trees may occasionally be retained.

- F. With the exception of mandatory leave trees (II. A., B., D., and E) and green wildlife trees (II. F.1.g), the majority of trees (80% or greater) retained in clumps shall be comprised of vigorous, dominant or co-dominant crown class trees. Do not try to force clumps by leaving > 20% of intermediate crown class trees (II. F. 2f) or Other Live Trees (II. F. 2g).
- G. Take advantage of existing arrangement and condition of trees to construct clumps. Retain a mix of tree species in clumps if they are the most vigorous trees present.
- H. With the exception of mandatory leave trees (II. A., B., D., and E) leave tree guidelines may be adjusted when necessary for logging feasibility in the following situations:
1. When an unmarked tree cannot reasonably be removed by mechanical equipment without damaging a leave tree.
  2. When trees (described to be marked) have a spatial pattern preventing access to unmarked trees, mark trees in a manner that enables access or removes the need for access.
- I. With the exception of mandatory leave trees (II. A., B., D., and E) leave tree guidelines may be adjusted in the following situation to meet Stocking Level and Spatial Pattern targets:
1. When two or more vigorous dominant or co-dominant trees with 40% or greater live crown ratio and suitable leave tree qualities (except a live crown which extends all the way around the bole) have crowns which have developed together and complement each other, leave or cut them all to avoid leaving trees with one sided crowns.
- J. **HITH50, HITH40, and HITH30 prescription subdivisions only:**  
Canopy openings created by the removal of trees will not exceed one half acre in size provided that all mandatory leave trees (II. A., B., D., and E.) are marked and Stocking Level and Spatial Pattern targets are met for the subdivision. An opening is defined as an area where leave trees are greater than 60 feet apart (leave tree stocking is less than 12 TPA). If insufficient suitable or mandatory leave trees exist in an area larger than one half acre, mark the best available unsuitable trees as needed to maintain a maximum opening size of one half acre.

**K. HPST35 prescription subdivisions only:**

Canopy openings created by the removal of trees will not exceed one acre in size provided that all mandatory leave trees (II. A., B., D., and E.) are marked and Stocking Level and Spatial Pattern targets are met for the subdivision. An opening is defined as an area where leave trees are greater than 60 feet apart (leave tree stocking is less than 12 TPA). If insufficient suitable or mandatory leave trees exist in an area larger than one acre, mark the best available unsuitable trees as needed to maintain a maximum opening size of one acre.

**V. Definitions:**

- A. Best Available Trees: The best available tree is one with best vigor, health, and or growth. Given a choice between two trees with equal vigor/health/growth the best available tree is the most preferred species.
- B. Disease Damage Symptoms:
1. Dwarf Mistletoe: Witches brooms or swellings on the branches or boles of WL, DF, LP, and occasionally PP. Make sure you identify dwarf mistletoe plants on PP.

2. *Laminated Root Disease*: Resin flow at the tree base; stunted leader growth; short, sparse, and chlorotic needles; and distress cone crops on DF.
3. *Western gall rust*: Cankers on the bole or branches of LP.

C. Insect Damage Symptoms:

1. *Douglas-fir Beetles*: Pitch streamers on DF tree boles or reddish-orange boring dust in bark crevices or around the base of trees.
2. *Mountain Pine Beetles*: Cream-colored to reddish pitch tubes or orange-red boring dust on the bark and around the base of LP and PP trees.
3. *Ips Beetles*: Reddish-orange boring dust around bark entrance holes, bark crevices, or around the base of PP and LP trees.
4. *Western Pine Beetles*: Reddish boring dust on the bark and around the base of PP trees or large patches of the outer bark flaked off by woodpeckers.
5. *Western Spruce Budworm*: Chewed and discolored current-year foliage. Affected trees take on a scorched appearance as the summer progresses. Defoliation usually is most severe in the
6. upper crown, outer branch tips, and on small understory trees. Trees recovering from previous years defoliation will have sparse foliage in the upper crown and near the tree top.

- D. Hawksworth Dwarf Mistletoe Rating (DMR): Divide the live crown of the tree into thirds. Rate each third separately. Each third should be given a rating of (0) for no visible sign of infection, (1) if half or less of the total branches in the third are infected, or (2) if more than half of the total branches in the third are infected. Add the ratings of the thirds to obtain the total rating of the tree.

- E. Height to Diameter Ratio: The relationship between dbh and height. Trees that excessively tall for their bole diameter generally have a high (poor) height to diameter ratio (> 80:1) and are likely to bend over or break when nearby trees are removed. A tree with 67' height and 10" dbh has a ratio of 80:1.

F. Severe insect or disease damage:

1. DF with dwarf mistletoe infection in half or more of the crown (Hawksworth DMR > 2).
2. LP, PP, or WL with dwarf mistletoe infection in more than half of the crown (Hawksworth DMR > 3).
3. DF affected by laminated root disease.
4. DF with Douglas-fir beetle attacks exhibiting orange-red boring dust or numerous pitch streamers on boles. PP or LP exhibiting recent attacks by mountain pine beetles, Ips beetles, or western pine beetles.

- G. Thin from Below: Removal of suppressed, intermediate, and some co-dominant crown class trees (which generally are smaller, less vigorous, and/or less preferred species) while retaining larger, dominant and co-dominant crown class trees with suitable and mandatory leave tree characteristics.

- H. Trees not expected to live for 10 years: Trees with red needles, few live branches or other indicators of recent or expected tree mortality.

- I. Vigor/Growth: Relative health and growth of trees. Leave tree preference shall favor trees possessing relatively high vigor/growth, free of disease and damage over trees with relatively poor vigor and growth regardless of species preference. For example, a DF with a relatively healthy crown will be favored over a similarly sized PP with a fading crown. If the two trees

possessed similar vigor/growth characteristics, the PP shall be the preferred leave tree.

**Monitoring:**

**I. Contractor Quality Control Plan**

The Contractor is to take plots and collect listed information to determine compliance with end results. The contractor is to install 4 plots for units <20 acres, 1 plot for every 5 acres in units 20 to 100 acres in size, and 1 plot for every 10 acres in units >100 acres in size. Due to the desire of the prescription to meet tree per acre targets the plots will be of a fixed radius of 58.9 feet (1/4 acre). Plots may be taken as marking (if applicable) is occurring but all area covered by the plot area should be completely marked.

Contractor is to describe how the placement of plots will be determined to have the required number of plots in each unit. This will be approved by the Forest Service.

Required data obtained from the plot(s) will include the following:  
Subdivision Number, Plot number, Tree Number (start with #1 on the first tree right of north from plot center and following in a clockwise direction), Tree species, DBH measured at 4.5 feet above forest floor on the uphill side of the tree (in 2 inch increments for trees less than 18 inches and for trees 18 inches or higher measurements will be to the nearest tenth of an inch), whether the tree is an individual or part of a clump (if the tree is in a clump what category- small or medium).

Data is to be entered into an Excel spreadsheet compatible with Forest Service computers. Completed plots will be given to the Contract Administrator at the end of each week.

**II. Contractor Quality Control Inspection**

This is the next higher level of supervision, i.e. how will the Contractor's Rep (CR) type supervise the Field Rep's work? How often can we expect the CR to be there? Will the CR do a sample inspection as well, e.g. "once a week the Contractor's Rep will review the results of the quality monitoring for that week (written or verbal) with the Field Rep and do a walk through sample inspection of the completed area to discuss and verify quality control inspections". If there are problems that were not identified by the Field Rep what will be done?

**III. Government Quality Assurance Surveillance Plan**

The Government will conduct inspections of each subdivision to determine work quality. For subdivisions larger than 60 acres, the contractor may request initial inspection of 30 to 60 acre portions of a subdivision prior to completion of marking of the entire subdivision. Initial inspections will normally consist of a 100% visual inspection preferably in conjunction with the contractor or the contractor's field representative and will be based on adherence to contract technical inspections. If visual inspection shows that the work is inadequate, final inspections and acceptance will not be made until the deficiency has been corrected by the contractor. It is clearly defined here to be the complete responsibility of the contractor to monitor all work and to request final inspections based upon their knowledge that the work has been complete to the contract defined specifications.

The Government will review the Contractor's Quality Control Inspection results and install a series of fixed area plots or by sampling contiguous areas of approximately five acres in size to determine final results. The Government may review the contractor's quality control inspection plots or other inspection methods on the ground as part of this process. Plots or contiguous sampling areas will be randomly located throughout each subdivision to obtain a representative sample of the work. Plots or contiguous sampling areas may be established within subdivisions that are being worked on at the option of the Government if needed to determine if work is actually within the contract defined limits. If these plots or contiguous sampling areas are found to be acceptable, they may be added to sampling conducted after the remaining portion of the subdivision is completed and used to determine acceptance for the subdivision.

**IV. Re-inspection Upon Contractor Request:**

If original inspection results are unacceptable to the Contractor and a second inspection is requested without rework, the same inspection procedures will be used following a different plotline or contiguous sampling area locations.

**References:**

Churchill, D.J.; Dahlgreen, M.C.; Larson, A.J.; Franklin, J.F. 2014. *The ICO approach to restoring spatial pattern in dry forests: Implementation guide. Version 2.2 June 2014.* Stewardship Forestry, Vashon, WA, USA.

Hawksworth, F.G. 1977. *The 6-class dwarf mistletoe rating system.* USDA Forest Service. Research Note RM-48. 7p.

Van Pelt, R. 2008. *Identifying old trees and forests in eastern Washington.* Washington State Department of Natural Resources.

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K-C.3.5.7# - INDIVIDUAL TREE DESIGNATION (OPTION 1) (06/2008)

All coniferous species not marked with Orange paint above and below stump height within all LTM Subdivisions, and all trees marked with Blue paint above and below stump height in ITM Subdivisions on the Contract Area Map. which meet the minimum tree diameter stated in A.2 are designated for cutting. Additional timber to be cut, if any, will be designated for cutting in accordance with C.3.7.

Leave trees, Marked with Orange paint above and below the stump height, or identified by, N/A, are not to be cut, unless designated by the Forest Service.

K-D.4.7# - ABNORMAL DELAY (05/2005)

Unless otherwise agreed, felled timber meeting Utilization Standards shall be removed by Contractor pursuant to C.2 and shall be presented for Scaling within the time period indicated in the following removal schedule. The number of days shown are consecutive calendar days.

Failure to remove and present such timber for Scaling within the required time limits will be considered abnormal delay, subject to D.4.7.

See attached removal schedule.

REMOVAL SCHEDULE PURSUANT TO K-D.4.7# - ABNORMAL DELAY (05/2005)

<u>Included Timber</u>	<u>Time Limits</u>
ALL.	180 Days after felling is started.
All timber decked during construction clearing.	180 Days after felling on each Specified Road constructed by Contractor is initiated.
Timber decked during road construction.	180 Days after Forest Service authorizes Contractor to use roads pursuant to F.2.

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K-E.2.1.5 - DEPOSITS WHEN PAYMENT GUARANTEED (05/2010)

To the extent payment guarantee is provided under E.3, requirements for advance cash deposits under E.2.1.2 shall be waived for the value of Included Timber removed except for:

- (a) Base Rates,
- (b) associated charges, and
- (c) the value of Included Timber exceeding the sum of stewardship credits that have not been established under E.2.2 for mandatory stewardship projects listed in A.4.3 plus optional stewardship projects listed in A.4.3 authorized by Contracting Officer.

Charges for (a), (b) and (c) shall be waived for not more than a monthly billing period, subject to the provisions of E.4.

K-E.2.2 - CHANGES IN STEWARDSHIP CREDITS (06/2008)

The Contracting Officer may at any time, by written order, make changes within the general scope of this contract in any one or more of the following:

- (1) Specifications for Stewardship Projects listed in K-G.9#.
- (2) Quantities of Stewardship Projects listed in A.4.3.
- (3) Prices for Stewardship Projects listed in A.4.3.
- (4) Place of performance of the Stewardship Projects as shown on the Contract Area Map.

In addition, by written agreement, new Stewardship Projects may be added to K-G.9# and A.4.3 as long as they are within the general scope of this contract. Contract Area may be expanded to add new stewardship projects.

If a written change order causes an increase in the time required for performing any part of the work under this contract, the Contracting Officer shall make an adjustment in the Contract Termination Date and shall modify the contract accordingly.

The Contractor must assert their right to equitable adjustments under this provision within 30 days from receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before contract closure.

If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

Failure to agree to an adjustment under this provision shall be considered a dispute under J.2. However, nothing in this provision shall excuse the Contractor from proceeding with the contract as changed.

In addition, by written modification of the contract, new Stewardship Projects may be added to K-G.9# and A.4.3, with or without expanding the Contract Area, as long as they are within the general scope of this contract.

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K-E.4 - PAYMENTS NOT RECEIVED (08/2012)

(a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Contractor's Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:

- (i) Slash disposal, road maintenance, and contract scaling deposits;
- (ii) Cooperative work at rates established by specific agreement under E.2.1.8;
- (iii) Damages pursuant to J.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to E.2.2;
- (vi) Periodic payments pursuant to E.2.1.3;
- (vii) Extension Deposits pursuant to E.2.1.7; and
- (viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under J.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

(c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:

(i) Simple interest shall be assessed at the Current Value of Funds Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.

(ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.

(iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c) (i) and (c) (ii). The penalty charge shall accrue from the date of issue indicated on the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c) (i) and (c) (ii).

(iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.

(d) Forest Service remedies for Contractor's failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Contractor's Operations, and administrative offset, shall be stayed for so long as:

- (i) A bona fide dispute exists as to Contractor's obligation to make such payment and
- (ii) Contractor files and prosecutes a timely Claim.

Contract Name: Benzer Stwd

K-F.1.0.1# - TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/2010)

In addition to the requirements of F.1 and G.6.3, Contractor and Forest Service will agree to the design, construction, maintenance, closure, and obliteration of all Temporary Roads.

Construction of Temporary Roads in areas shown on Contract Area Map shall be in accordance with the attached plans or criteria.

Unless otherwise agreed, if Contractor's Operations require more than N/A cubic yards of rock for Temporary Roads, landings, or other temporary uses, such rock shall be obtained from commercial sources.

See attached Plans and/or Criteria.

PLANS AND/OR CRITERIA PURSUANT TO K-F.1.0.1# - TEMPORARY ROAD AND LANDING CONSTRUCTION (OPTION 1) (06/2010)

Landings

Landings are not authorized in aspen stands greater than 0.25 acres unless approved by the Forest Service.

Landings will not be constructed in RHCA's (Riparian Habitat Conservation Areas) unless other practicable locations outside the RHCA are not available. If landings are constructed within the RHCA's, they will not be constructed on slopes greater than 5 percent. Landings constructed within the RHCA's shall be placed on the opposite side of the road relative to the stream, and suitable erosion control measures such as: silt fences, slash around the perimeter of the landing, or other soil retention methods. Erosion Control Measures will be installed prior to construction and remain in place during harvest operations.

Utilize existing landings or locate landings outside of 300 feet of the nearest open road in the following subdivisions: 60, 61, 65, 70, 79, 91, 92, and 560.

Landings will be constructed 200 feet away from the powerline.

Landings shall not be within 300 feet of state or private property if feasible.

Temporary Roads

In addition to the erosion control and stabilization requirements of G.6.3, the following Temporary Roads constructed pursuant to F.1 shall be effectively closed after Contractor's use to preclude further vehicular use along the entire length of road. The Purchaser shall, unless otherwise agreed, use the following road closure methods.

<u>Road Description</u>	<u>Closure Method</u>
All Temporary Roads	Decommission according to the following specifications:

Work Description - The work shall consist of decommissioning roads and landings and restoring drainage facilities to the original hydrological function. Specific work activities are listed below.

Specific Work Activities

1. Clearing and Slash Treatment - Clearing of trees and slash may be necessary. The work shall consist of removing vegetation from fill slope, road surface, ditch lines and back slope as necessary prior to decompaction of the road surface and excavation and placement of excavated material. When clearing is needed, it shall be accomplished as follows:
  - a. Unless otherwise agreed to, the materials generated will not need to be limbed and lopped.
  - b. Clearing slash shall be scattered on disturbed areas and shall not be incorporated in embankment material unless otherwise agreed to by the Forest Service.

PLANS AND/OR CRITERIA PURSUANT TO K-F.1.0.1# - TEMPORARY ROAD AND  
LANDING CONSTRUCTION (OPTION 1) (06/2010)

- c. Materials shall be positioned in a stable position to prevent rolling.
  - d. Generated Materials that create such a deep or thick mat that they will prevent seeding, ripping, or other ground surface treatments called for shall be further scattered or moved off disturbed areas.
2. Drainage - The work shall consist of filling and removing ditches and shaping the road surface to drain. Eliminate all ruts and low spots that could hold water.
3. Decompaction - The work shall consist of using an excavator to loosen the soil across the entire width and length of the existing roadbed or landing surface area to a minimum depth of 18 inches. Equipment shall not be operated on decompacted areas.
4. Removal of Culverts - The work involves removing all culverts or drainage structures and associated fills. Channels, following removal of drainage structures, shall be reshaped. Excavation limits shall be as follows:
  - a. The width of the excavated channel shall match the width of the natural stream valley or channel, whichever is wider.
  - b. The elevation of the excavated channel shall approximate the average channel gradient of the natural stream upstream and downstream of the site.
  - c. Stream banks shall be sloped to match the natural stream bank contours adjacent to the site upstream and downstream. Rocks over 12 inches may be placed along edges of channel for erosion control, but shall not narrow the required width of the channel. Finish slopes to provide gradual transitions in slope adjustments without noticeable breaks.
5. Waste Areas - Excavated material shall be placed on cut sections of the road prism against back slopes along the roadbed near the excavation area unless otherwise agreed to. Waste areas shall be treated as follows:
  - a. Any road segment or surface area where embankment is to be placed shall be decompacted prior to placement.
  - b. Excavated material shall be shaped to drain in a manner that precludes sediment from entering the stream and left in an uncompacted condition.
  - c. Keep excavated material within the original construction limits.
6. Disposal of Culverts - All removed culverts shall become property of the Purchaser and shall be removed from Government land.
7. Road Closure Barriers - Road Closure Barriers shall be constructed at locations specified by Forest Service. Cover at least 100 ft. of the decompacted road surface beyond the barrier with slash and cleared material to screen the decommissioned road.
8. Seeding - Seed shall be applied to all areas disturbed under this contract and on any other areas specified in accordance with K-G.6.0#.

Contract Name: Benzer Stwd

K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

Contractor's use of existing roads identified on Contract Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Contractor's use of roads coded R, A, or W shall be in accordance with the following restrictions:

See Restricted Road List Table.

## TABLE PURSUANT TO K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

## Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
All		0.00	End	R	Log Haul prohibited on weekends from Friday 6 p.m. until Monday 2 a.m., and Federal Holidays.
4100000		Junction of WA-20	Subdivision 68	R	Hauling will be restricted from December 1 through April 1.
4100715		Subdivision 68	Jct. 4100615	R	Hauling will be restricted from December 1 through April 1.
4100750		Beginning Termini	Ending Termini	R	Hauling will be restricted from December 1 through April 1.
4100775		Beginning Termini	Ending Termini	R	Hauling will be restricted from December 1 through April 1.
4200000		Junction of WA-20	Subdivision 82	R	Hauling will be restricted from December 1 through April 1.
4200135		Jct. 4200000	Subdivision 82	R	Hauling will be restricted from December 1 through April 1.
4200100		Jct. 4200000	Subdivision 95	R	Hauling will be restricted from December 1 through April 1.

TABLE PURSUANT TO K-F.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)  
 (Continued)

4200105		Jct. 4200100	Subdivis ion 95	R	Hauling will be restricted from December 1 through April 1.
4100425		1.30	1.40	P	Hauling will be prohibited on Washington Department of Natural Resources Land.

Title and Date of Governing Road Rules Document:

Okanogan-Wenatchee National Forest  
 Road Use Rules

July 1, 2010

Commercial Road Rules

Effective Date

Contract Name: Benzer Stwd

K-F.1.3# - ROAD COMPLETION DATE (09/2004)

Construction of Specified Roads shall be completed no later than 08/13/2018; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station		Completion Date
		From	To	

N/A

Completion date is binding on the party that constructs road, whether Contractor or Forest Service. Contracting Officer may modify the completion date in writing to conform to the Technical Proposal under G.3.1.1 at the request of Contractor.

When Contractor elects Forest Service construction of Specified Roads shown in contract advertisement, Forest Service may adjust construction completion date when road construction is delayed or interrupted for causes that qualify for an adjustment of the completion date of Forest Service's road construction contract. When qualifying delays or interruptions of road construction occur, Forest Service shall evaluate such occurrences and document any findings. The current status of any adjustment shall be available to Contractor on request. Promptly after the end of Normal Operating Season in which qualifying days occur, Forest Service shall give Contractor written notice of (a) number of qualifying days claimed, and (b) new construction completion dates. After all road construction is complete, Forest Service shall grant Contract Term Adjustment. Such adjustment shall be limited to road completion date delays that occurred during Normal Operating Season.

If Forest Service is responsible for road construction and the actual date of road completion is 1 year or more after the completion date stated above, Contractor may request a rate redetermination under D.3 for remaining volume. Such request must be made within 30 days of notification that road construction has been completed. Upon receipt of such request, Forest Service shall redetermine rates using standard methods in effect on the completion date of road construction. Rates to be established shall apply to all timber removed from Contract Area after the effective date of the rate redetermination.

Forest Service shall in no way be responsible for any delay or damage caused by road contractor in performing the road construction, except such delay as may be the fault or negligence of Forest Service.

When Contractor constructs Specified Roads and requests Contract Term Adjustment, completion dates shall be adjusted by number of days that qualify for such adjustment, provided such qualifying days occur before specified construction completion date. When Contractor desires to construct an alternate facility under F.2.6, Forest Service and Contractor shall agree, in writing, on a construction completion date for alternate facility. Contract Term Adjustment as noted above will apply. Completion date shall be adjusted where a Design Change or physical changes necessitate a modification of Specified Road construction work that increases the scope or magnitude of the required work.

If Contractor fails to complete construction of any or all Specified Roads by applicable completion date, as adjusted, Contract Term Extension shall not be granted.

As used in this provision, construction of a road is completed when:

(a) Contractor constructs Specified Roads and Forest Service furnishes Contractor with written notice of acceptance under G.3.6 or

Contract Name: Benzer Stwd

(b) Forest Service constructs road and furnishes Contractor with written notice authorizing use of road.

Notwithstanding F.1, Contractor shall not use a road that Contractor has elected for Forest Service to construct, until construction is completed and Forest Service furnishes Contractor with written notice authorizing use of road.

K-F.2.1.3# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (09/2004)

Contractor shall make a cash deposit for engineering services (preconstruction and construction) provided by Forest Service for reconstruction of National Forest system roads necessary to accommodate Contractor's use under this contract, pursuant to 16 USC 537.

The total amount to be deposited by Contractor for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is \$ \$25,031.42. Contractor shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue indicated on the initial bill for collection, pursuant to E.4.

The amount of the required deposit will be shown as an associated charge on Contractor's Integrated Resource Account. Forest Service shall retain any unexpended deposit for reconstruction related engineering services.

The deposit for reconstruction related engineering services shall be commensurate with project need and Contractor's road use. Forest Service shall complete reconstruction related engineering services on the following schedule unless a different completion schedule is agreed in writing:

Road or Facility No.	Termini From	To	Engineering Services Completion Date
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N/A

Reconstruction related engineering services may consist of some or all of the engineering work and expense of: preparing, setting out, controlling, inspecting, and measuring the reconstruction of a National Forest system road.

Contract Name: Benzer Stwd

K-F.2.2.1# - MATERIAL SOURCES (09/2004)

Sources of local materials are designated on Plans and Contract Area Map. Forest Service assumes responsibility for the quality and quantity of material in designated sources. Contractor shall determine the equipment and work required to produce the specified product, including the selection of acceptable material that is reasonably available in the source that meets specifications. The designation of source includes the rights of Contractor to use certain area(s) for plant site, stockpiles, and haul roads.

Should the designated source, due to causes beyond the control of Contractor, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with F.2.5.3.

When Contractor elects not to use designated sources, Contractor shall furnish the specified product with no adjustment in unit rates. Quality testing shall be the responsibility of Contractor. Test results shall be furnished to Forest Service.

When Contractor elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under F.2.5.3 when Forest Service determines the work will not be required.

When materials are subject to a weight measurement, the specific gravity or weight/volume relationship used as a basis for determination of estimated quantities shall be:

Source I N/A, Source II N/A, and Source III N/A.

Contractor may, when agreed in writing, use on the project such suitable stone, gravel, and sand, or other material found in the excavation, and will earn a cost allowance for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Contractor shall replace, without additional cost allowance, sufficient suitable materials to complete the portion of the work that was originally contemplated to be constructed with such material. Contractor shall not excavate or remove any material, except that which is within the excavation limits, without written authorization from Forest Service.

When material is appraised from non-National Forest designated sources, owner charges for the material in terms of unit cost for royalties, purchase of raw materials, or finished products shall be as follows until N/A:

See Material Source Table.

Should quantity vary from that estimated, payment to owners shall be for units actually obtained. Contractor shall make arrangements with owner(s) for measurement and payment for royalties, purchase of raw materials, or finished products, as shown above.

Materials produced or processed from National Forest lands in excess of the quantities required for performance of this contract are the property of Forest Service, unless prior written agreement has been obtained to use excess material on other National Forest contracts. Forest Service is not obligated to reimburse Contractor for the cost of their production.

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, approved by Forest Service, may be used for storage purposes and for the placing of Contractor's

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plant equipment. All storage sites provided by Forest Service shall be restored at Contractor's expense. Contractor shall be responsible for making arrangements for storage on other than Forest Service administered lands.

When the construction of the portion of the project for which Temporary Roads used for hauling materials is completed, all such Temporary Roads shall be restored as nearly as practicable to their original ground profile, unless otherwise agreed in writing.

MATERIAL SOURCE TABLE PURSUANT TO K-F.2.2.1# - MATERIAL SOURCES (09/2004)

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
N/A						

Contract Name: Benzer Stwd

K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

See Contract Road Maintenance Requirements Summary Table.





TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Pre-haul Road Maintenance Specifications							
	From	To		T-803	T-811	T-831	T-834	T-836	T-838	T-839	
4200105	0.00	0.21	0.21							P	
4205110	0.00	1.45	1.45	P							
4100100	0.00	1.22	1.22	P				P			
4100705	.77	1.40	0.63							P	
4100040	0.00	0.25	0.25	P							P
4100488	0.00	0.31	0.31	P							P
4100486	0.00	1.15	1.15	P							P
4100776	0.00	0.21	0.21								P
4100760	0.00	0.34	0.34								P
4150180	.47	0.70	0.23	P							P

P = Purchaser Performance Item, POPT) = Purchaser Performance Item if Optional Unit(s) Selected, D = Deposit to Forest Service, D3 = Deposit to Third Party

TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable During-haul Road Maintenance Specifications							
	From	To		T-803	T-811	T-831	T-834	T-836	T-838	T-839	
4100000	12.33	16.87	4.54			P	P				
4100000	11.25	13.68	2.43	P		P	P				
4100000	0.00	5.49	5.49	P		P	P				
4100110	0.00	1.14	1.14	P							P
4100115	0.00	0.8	0.80	P							P
4100150	0.00	1.4	1.40	P					P		
4100175	0.00	0.8	0.80	P							P
4100185	0.00	2.06	2.06	P							P
4100195	0.00	1.07	1.07	P							
4100200	0.00	0.6	0.60	P					P		
4100400	0.00	1.23	1.23	P							
4100425	0.00	2.3	2.30	P							P
4100485	0.00	0.95	0.95	P					P		
4100487	0.00	0.19	0.19	P							P
4100489	0.00	0.2	0.20								P
4100493	0.00	0.29	0.29	P							P
4100495	0.00	0.33	0.33	P							P
4100500	0.00	1.2	1.20	P							
4100515	0.00	0.2	0.20	P							P



TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable During-haul Road Maintenance Specifications									
	From	To		T-803	T-811	T-831	T-834	T-836	T-838	T-839			
4205110	0.00	1.45	1.45	P				P					
4100100	0.00	1.22	1.22	P				P					
4100705	.77	1.40	0.63							P			
4100040	0.00	0.25	0.25	P									P
4100488	0.00	0.31	0.31	P									P
4100486	0.00	1.15	1.15	P									P
4100776	0.00	0.21	0.21										P
4100760	0.00	0.34	0.34										P
4150180	.47	0.70	0.23	P									P

P = Purchaser Performance Item, P(OPT) = Purchaser Performance Item if Optional Unit(s) Selected, D = Deposit to Forest Service, D3 = Deposit to Third Party

TABLE PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Post-haul Road Maintenance Specifications								
	From	To		T-803	T-811	T-831	T-834	T-835	T-836	T-838	T-839	
4100000	12.33	16.87	4.54			P	P					
4100000	11.25	13.68	2.43	P		P	P					
4100000	0.00	5.49	5.49	P		P	P					
4100110	0.00	1.14	1.14	P								P
4100115	0.00	0.8	0.80	P								P
4100150	0.00	1.4	1.40	P							P	
4100175	0.00	0.8	0.80	P								P
4100185	0.00	2.06	2.06	P								P
4100195	0.00	1.07	1.07	P				P				
4100200	0.00	0.6	0.60	P								P
4100400	0.00	1.23	1.23	P				P				
4100425	0.00	2.3	2.30	P								P
4100485	0.00	0.95	0.95	P								P
4100487	0.00	0.19	0.19	P								P
4100489	0.00	0.2	0.20									P
4100493	0.00	0.29	0.29	P								P
4100495	0.00	0.33	0.33	P								P
4100500	0.00	1.2	1.20	P				P				
4100515	0.00	0.2	0.20	P								P
4100600	0.00	2.75	2.75	P				P				



TABLE PURSUANT TO K-F-3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Post-haul Road Maintenance Specifications										
	From	To		T-803	T-811	T-831	T-834	T-835	T-836	T-838	T-839			
4100705	.77	1.40	0.63											
4100040	0.00	0.25	0.25	P										P
4100488	0.00	0.31	0.31	P										P
4100486	0.00	1.15	1.15	P										P
4100776	0.00	0.21	0.21											P
4100760	0.00	0.34	0.34											P
4150180	.47	0.70	0.23	P										P

P = Purchaser Performance Item, POPT) = Purchaser Performance Item if Optional Unit(s) Selected, D = Deposit to Forest Service, D3 = Deposit to Third Party



ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE  
PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/04)

Road No.	1		2		3		4		5		6		7	8	9	
	Termini From	Termini To	Special Project Specification	Travel Way X Slope	Width	Comp	Brushing And Log Out	Surfacing	Dust Abatement Product	Rate	Width	Seasonal Maintenance	Snow Removal	Block	Treat	
4100200	0.00	0.6	T-803-01F	EX	AI								W	TS		D
4100400	0.00	1.23	T-803-01F	EX	AI								W	TS		PR
4100425	0.00	2.3	T-803-01F T-835-04F	EX	AI								W	TS		PR
4100485	0.00	0.95	T-803-01F	EX	AI								W	TS		PR
4100487	0.00	0.19	T-803-01F T-835-04F	EX	AI								W	TS		PR
4100489	0.00	0.2	T-835-04F	EX	AI								W			PR
4100493	0.00	0.29	T-803-01F T-835-04F	EX	AI								W	TS		PR
4100495	0.00	0.33	T-803-01F T-835-04F	EX	AI								W	TS		PR

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE  
 PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/04)

Road No.	1		2		3		4		5		6		7		8		9		
	Termini From	Termini To	Special Project Specification	Travel Way X Slope	Brushing And Comp Log Out	Surfacing	Dust Abatement Product	Applic. Rate	Width	Seasonal Maintenance	Snow Removal	Block	Treat	Post Haul	Block	Treat	Post Haul	Block	Treat
4100500	0.00	1.2	T-803-01F	EX AI										W	TS				PR
4100515	0.00	0.2	T-803-01F T-835-04F	EX AI										W	TS				PR
4100600	0.00	2.75	T-803-01F	EX AI										W	TS				PR
4100615	0.3	0.5	T-835-04F	EX AI										W					PR
4100630	0.00	0.48	T-803-01F	EX AI										W	TS				PR
4100715	0.00	0.4	T-835-04F	EX AI										W					PR
4100750	0.00	0.82		EX AI										W					PR
4100770	0.00	0.36	T-835-04F	EX AI										W					PR
4100775	0.00	0.24	T-835-04F	EX AI										W					PR
4100810	0.00	0.42	T-803-01F	EX AI										W	TS				PR
4150000	0.00	5.38	T-803-01F T-834-01F	EX AI		D								W	TS				PR

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE  
PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/04)

Road No.	1		2		3		4		5		6		7		8		9	
	Termini From	Termini To	Special Project Specification	Travel Way Width	Travel Way Slope	Comp	Brushing And Log Out	Surfacing	Dust Abatement Product	Dust Abatement Rate	Seasonal Maintenance	Snow Removal	Block	Treat	Post Haul			
4150100	0.00	0.25	T-803-01F	EX	AI						W	TS						PR
4150300	0.00	0.62	T-803-01F	EX	AI		D					TS						PR
4150310	0.00	0.75	T-803-01F T-835-04F	EX	AI						W	TS						PR
4150400	0.00	0.54	T-803-01F	EX	AI						W	TS						PR
4200000	0.00	1.20	T-834-01F	EX	AI		D											PR
4200100	0.00	0.82	T-834-01F	EX	AI		D											PR
4200103	0.00	0.16		EX	AI						W							PR
4200104	0.00	0.16		EX	AI						W						D	
4200105	0.00	0.21		EX	AI						W							PR
4205110	0.00	1.45	T-803-01F	EX	AI						W	TS						PR
4100100	0.00	1.22	T-803-01F	EX	AI						W	TS						PR
4100705	.77	1.40		EX	AI						W							PR

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE  
PURSUANT TO K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/04)

Road No.	1		2		3		4		5		6		7	8	9	
	Termini From	Termini To	Special Project Specification	Travel Way X Slope	Width	Comp	Brushing And Log Out	Surfacing	Dust Abatement Product	Applic. Rate	Width	Seasonal Maintenance	Snow Removal	Block	Treat	
4100040	0.00	0.25	T-803-01F T-835-04F	EX	AI								W	TS		PR
4100488	0.00	0.31	T-803-01F T-835-04F	EX	AI								W	TS		PR
4100486	0.00	1.15	T-803-01F T-835-04F	EX	AI								W	TS		PR
4100776	0.00	0.21	T-835-04F	EX	AI								W			PR
4100760	0.00	0.34	T-835-04F	EX	AI								W			PR
4150180	.47	0.70	T-835-04F	EX	AI								W			PR

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	Explanation
	Any	Blank	Except as otherwise described, no entry indicates Purchaser is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of sale related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Purchaser shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Purchaser shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Purchaser shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Purchaser may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
K-F.3.1# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	Explanation
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
		D	Purchaser is to make deposits for listed road maintenance, including surface rock replacement.
6	Dust abatement	OPT	Product selection is Purchaser's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Purchaser is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Purchaser shall abate dust on the existing width
		Numbers	Purchaser shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Purchaser prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Purchaser's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	PR	PR denotes that work is Purchaser's Responsibility to perform.

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K-F.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE (08/2012)

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Contractor's performance of road maintenance, Contractor shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Contractor's commensurate use of each road listed in the Road Maintenance Plan in K-F.3.1#.

Contractor and Forest Service may agree in writing on adjustment of such rates. If Contractor uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Contractor's use of such roads.

The Required Deposits for Forest Service work in lieu of Contractor performance are \$.31 per Ton for recurrent maintenance, and N/A per Ton for deferred maintenance.

The following table lists who Contractor will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The Road Maintenance Agreement is available for inspection at the Forest Supervisor's Office.

Deposit Made To	Rate	Unit of Measure
N/A		

K-G.2.2# - PROTECTION OF IMPROVEMENTS (05/2008)

Unless otherwise agreed to in writing, Contractor shall move or relocate the improvements listed in the following table to locations and in a manner as specified in drawings or in specifications attached hereto. Improvements shall be returned to their original locations following Contractor's operations.

See attached table for improvements to be moved.

TABLE PURSUANT TO K-G.2.2# - PROTECTION OF IMPROVEMENTS  
(05/2008)

Type of Improvement

Move or Relocate to

Barb wire fence in or adjacent to Subdivisions:  
040, 042, 048, 061, 065, 079,  
080, 082, 091, 095, 168, 560,  
565, 644, 645, 680, 682, 685,  
768, 968.

Cut fence as needed for operations. Fence will be repaired by Contractor at their expense following operations. Contractor shall leave fence in existing condition as found prior to operations.

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K-G.2.4# - SITE SPECIFIC SPECIAL PROTECTION MEASURES (09/2004)

Special protection measures needed to protect known areas identified on Sale Area Map or on the ground include:

Cultural Resource Protection Measures: No timber felling or mechanical operations are permitted within the Special Measures Area in Subdivision 662. Directionally fall trees away from this Special Measures Area.

Wildlife and Botanical Protection Measures: Special Measure Area in Subdivision 638 has been marked with Orange paint and boundary tags. Landings are prohibited in this area.

Cave Resource Protection Measures: N/A

K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

Unless otherwise agreed to between Contractor and Forest Service, Contractor's Operations shall be performed in accordance with the following schedule.

See attached schedule.

SCHEDULE PURSUANT TO K-G.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

<u>Subdivision</u>	<u>Operation Conditions</u>	<u>Purpose</u>
040, 042, 048, 051, 052, 060, 061, 065, 070, 079, 091, 092, 548, 551, 560, 565, 635, 638, 639, 641, 642, 643, 644, 645, 655, 656, 661, 662, 663, 664, 665, 666, 668, 673, 674, 675, 676, 677, 680, 682, 683, 684, 685, 686, 687, 690, 693, 697, 698, 844, 861, 865, 866, 886, 887	Winter Logging Required  Winter harvesting operations are required when snow pack or a combination of snow pack and frozen ground is sufficient to prevent soil damage. Rutting, mixing of soil and snow, or visible displacement of soil are signs that soil compaction or displacement are taking place.  As a guideline, 8 inches of either compacted snow, hard frozen ground, or a combination of compacted snow and frozen ground can provide adequate protection.  In order to maintain the strength of this bearing surface, air temperatures should generally average less than 25 degrees Fahrenheit overnight and be no more than 35 degrees Fahrenheit during the day. Afternoon temperatures can exceed 35 degrees Fahrenheit for short periods if previous night temperatures were below 20 degrees Fahrenheit.	Reduce soil compaction, disturbance, and protect water quality.
068, 073, 080, 082, 095, 168, 568, 580, 768, 968	Logging operations required during summer conditions.	Reduce conflicts with winter recreational traffic and provide additional public safety during peak vacation periods.
068, 079	Harvest during the first logging season.	Minimize volume loss by root rot.
Project 005	Noxious Weed Spraying shall be done between June 01 and June 30.	Minimize the spread of Invasive Weeds.

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K-G.3.2# - PROTECTION OF RESERVE TREES (09/2004)

Contractor's damage or destruction of reserve trees described in K-C.3# will cause serious and substantial silvicultural or other damage to the National Forest. It will be difficult if not impossible to determine the amount of such damage. Therefore, Contractor shall pay as fixed, agreed, and liquidated damages \$ 500 for each Genetic reserve tree and \$ N/A for each N/A reserve tree damaged or destroyed by Contractor's Operations, in addition to amounts payable under D.4.5 and D.4.6.

Damage, as used herein, includes any injury to the living crown, bole, or roots of reserve trees. If areas are marked on the ground around such reserve trees, operation of heavy equipment or skidding of products within the area shall be considered to be damage to the tree.

K-G.4.0.5 - ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)

Contractor and Forest Service may agree to alternate removal requirements of Included Timber contained in A.2. Alternate removal requirements are to be set forth in an agreement signed by both Contractor and Contracting Officer. The terms of the agreement binds both parties and becomes part of the stewardship contract.

The development and execution of the agreement is based upon the determination by the Contracting Officer that removal of Included Timber is economically impractical if Contractor has no ready market for such logs in the tributary area. A tributary area is defined as the area in which the Contractor and competitors regularly deliver saw logs, or 200 miles from the Contract Area, whichever distance is greater.

The agreement for alternate removal requirements shall be executed prior to removing any timber from the Subdivisions included in the agreement. Alternate removal requirements shall apply only to whole units and not to portions of units. All material meeting alternate removal specifications shall be cut and removed to locations designated in the agreement.

Volumes of material with alternate removal requirements will be determined from the National Cruise report for the project. Contractor will be charged for the following:

- a) stumpage value at current contract rates of the alternatively removed timber;
- b) plus the cost of other work required by the Forest Service to dispose of alternatively removed material;
- c) plus the difference between the appraised transportation cost of the Sawtimber and/or Nonsawtimber material involved and the appraised transportation cost of the alternative;
- d) minus any work required to be completed by the Contractor associated with alternate removal requirements.

Charges will be debited to the Contractor's Integrated Resource Account.

Upon acceptance of the alternate removal requirements, the Subdivision will be removed from the Contract Area under G.3.6.

Title to material included in the alternate removal agreement shall remain with the Forest Service.

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K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

Notwithstanding G.4.1, G.4.1.1, G.5 and G.6.1, felling objectives shall be accomplished by the type of felling methods and equipment listed herein. Methods or equipment other than those specified may be approved. For Subdivisions shown in the following table, Contractor shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

See attached Table.

TABLE PURSUANT TO K-G.4.1# - SPECIFIC REQUIREMENTS (05/2005)

FELLING METHODS

SUBDIVISIONS

Directional fell away from private property	680, 682, 693
Directional fell away from Washington Department Natural Resources Land	040, 048, 068, 168

FELLING EQUIPMENT

SUBDIVISIONS

The processor shall place unmerchantable tops and limbs evenly in the processor trail as it proceeds and must operate on that slash. Operations are allowed on slopes up to 35%, except for pitches up to 150 feet on steeper ground.	Subdivisions where the Contractor, in their Technical Proposal, has proposed to use a Cut-To-Length/Fowarder system, and is accepted by the Forest Service.
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The mechanical felling equipment is permitted to operate off designated skid trails for limited passes and will be confined to slopes that are 35% or less, except for pitches up to 150 feet on steeper ground.	Subdivisions where the Contractor, in their Technical Proposal, has proposed to use a Feller-Buncher system or a Cut-To-Length/Fowarder system, and is accepted by the Forest Service.
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Hazard Trees felled within the RHCA shall be left in place after felling.	048, 051, 052, 061, 065, 080, 095, 168, 580, 638, 655, 656, 664, 665, 666, 673, 680, 685, 686, 690, 697, 886
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K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

Contractor shall submit for Forest Service approval a Yarding/Skidding Plan prior to the start of felling operations. Requirements other than those specified in the following table may be approved. When appropriate, such approval shall include adjustments in Current Contract Rates and revision of the Contract Area Map. In no such case shall the adjustments result in Current Contract Rates less than Base Rates.

Location of all skid roads and trails, tractor roads, skyline corridors, mechanized harvester trails, forwarder roads, and other log skidding facilities, shall be approved prior to their use or construction.

See attached table for requirements.

TABLE PURSUANT TO K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

YARDING/SKIDDING REQUIREMENTS

SUBDIVISIONS

Leave tops attached to the last logs and remove to the landing.

040,042,048,  
051,052,060,  
061,065,070,  
079,091,092,  
548,551,560,  
565,635,638,  
639,641,642,  
643,644,645,  
655,656,661,  
662,663,664,  
665,666,673,  
674,675,677,  
680,682,683,  
684,685,686,  
687,690,693  
697,861,865  
866,886,887

When necessary to cut benched skid trails within the Riparian Habitat Conservation Areas (RHCA's), the trails will be recontoured.

048,051,052,  
080,638,645,  
655,656,664,  
665,673,680,  
685,690,697,  
866,886

Whole tree yarding is prohibited; branches and tops will be left in the unit to provide a slash bed for burning.

668,676,  
698,844

Whole tree yarding is prohibited; branches and will be left in the unit to provide a slash bed for forwarding.

Subdivisions where the Contractor, in their Technical Proposal, has proposed to use a Cut-To-Length forwarder system and is accepted by the Forest Service

TABLE PURSUANT TO K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)  
(Continued)

YARDING/SKIDDING REQUIREMENTS

SUBDIVISIONS

Tractor Skidding

Winter skidding operations are allowed when a snow pack or a combination of snow pack and frozen ground is sufficient to prevent soil damage. Rutting, mixing of soil and snow, or visible displacement of soil are signs that soil compaction or displacement are taking place.

As a guideline, 8 inches of either compacted snow, hard frozen ground, or a combination of compacted snow and frozen ground can provide adequate protection.

In order to maintain the strength of this bearing surface, air temperatures should generally average less than 25 degrees Fahrenheit overnight and be no more than 35 degrees Fahrenheit during the day. Afternoon temperatures can exceed 35 degrees Fahrenheit for short periods if previous night temperatures were below 20 degrees Fahrenheit.

Single and multiple pass skid trails will be placed a minimum of 40 feet apart except where they converge at the landing. Skidding equipment is not allowed off of designated skid trails.

Skid trails will be located on old skid trails wherever possible.

Adequate rub trees that are Included Timber will be used to protect leave trees. They are to be left standing until other Included Timber has been skidded.

Skid trails shall not exceed 12 feet.

Keep leading end of log suspended during skidding.

All Subdivisions where the Contractor proposes Tractor skidding in their Technical Proposal, as accepted by the Forest Service

TABLE PURSUANT TO K-G.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)  
(Continued)

YARDING/SKIDDING REQUIREMENTS

SUBDIVISIONS

Fowarder Yarding

Fowarder trails will be at least 40 feet apart.  
The fowarder is not allowed off designated trails.

Fowarder trails will be located on old skid trails  
wherever possible.

Log fowarding operations are allowed in summer  
conditions and will minimize soil compaction during  
periods of time when soils are saturated or  
standing water is present. Operations will avoid  
areas where these seasonal conditions exist.

Subdivisions  
where the  
Contractor  
proposes  
Fowarder  
skidding in the  
Technical  
Proposal, and is  
accepted by the  
Forest Service.

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K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (04/2014)

Erosion prevention and control work required by G.6, shall be completed within 15 calendar days after yarding/skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Contractor's Operations due to causes beyond Contractor's control. Such on the ground designation shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground. After September 15, and as long thereafter as operations continue, the work shall be done as promptly as practicable. Damage resulting from Contractor's Operations due to failure to perform required work shall be repaired by Contractor.

On slopes greater than 35 percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Contract Area by Contractor's Operations and where measures described in G.6 will not result in satisfactory erosion control or where subsoiling is shown on Contract Area Map, the following shall be performed. If applicable, timing of the work shall be coordinated with required scarification or subsoiling.

(a) Where staked or otherwise marked on the ground by Forest Service, seed, fertilizer, and mulch will be applied as indicated in the attached seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from August 15 to November 15, unless otherwise agreed to. Applications shall be done only during favorable conditions. If Contractor and Forest Service agree, seed can be applied and covered within 10 days of ground disturbance, and may be done outside the required periods.

(b) Where shown on Contract Area Map, landings, Temporary Roads and/or skidtrails/roads shall be scarified to a depth of 20 inches to provide a seedbed for grass seed, fertilizer, and mulch. Seed, fertilizer, and mulch shall be spread evenly at the rates shown in the table. When the seed, fertilizer, and mulch are applied in separate operations, the second or third operations shall be within 10 days of the first or second.

(c) Where shown on Contract Area Map, landings, Temporary Roads, and skid trails/roads used by Contractor shall be subsoiled to a minimum depth of 20 inches, except that Forest Service may agree to lesser depths. Each subsoiler shank shall be equipped with a shoe and wings which has a total width of at least 18 inches. The design of the shank and wings will be such that the treated, compacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. The distance between subsoiler shank passes shall not exceed 36 inches. Treated areas shall span the total width of compaction. Subsoiling shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

(d) When agreed to, Contractor may use alternate methods of erosion control.

Seed shall meet current Forest Service requirements, with the additional requirement that no seed containing any noxious weed seed in excess of established state limitations as listed in the current "State Noxious Weed Requirements Recognized in the Administration of the Federal Seed Act" publication will be used (commonly referred to as the "all states" noxious weed seed list). Seed shall be furnished separately or in mixture in standard containers clearly marked with: (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed); (5) percentage of weed seed content; and (6) certification that no noxious weed seeds in excess of established state standards are present. The contractor shall furnish the Government duplicate signed copies of a certificate, signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysis or the Society of Commercial Seed Technologists), certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts Standards within 12 months prior to date of application. This certificate shall include (1) name and address of

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laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of germination, (6) percentage of purity, (7) percentage of weed seed content, and (8) certification that no noxious weed seeds in excess of established state limitations are present in any kind of seed.

Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer.

No seed may be applied without prior written approval by the government.

(e) Contractor may be required to seed areas disturbed by harvest activities to prevent the spread of noxious weeds, or the establishment of new areas.

See attached application schedule.

APPLICATION SCHEDULE PURSUANT TO K-G.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (04/2014)

SUBDIVISION OR UNIT NUMBER	AREAS A) SKID TRAILS B) FIRELINES C) TEMP. ROADS D) LANDINGS E) OTHER	SEED		FERTILIZER		MULCH	
		APPLICATION		APPLICATION		APPLICATION	
		SPECIES <u>1</u> / MIXTURE	LBS/AC	TYPE <u>2</u> / LBS/AC	LBS/AC	TYPE <u>3</u> / LBS/AC	LBS/AC
All	A, C, D, E	Mountain Brome	7				
All	A, C, D, E	Yarrow	1				
All	A, C, D, E	Bluebunch wheatgrass	2				
All	A, C, D, E	Blue Wildrye	6				
All	E Within 100 feet of skid trail stream channel crossing					Weed-free, non-toxic straw or similar	Sufficient to cover a depth of 2 inches

The Contractor will be required to pay a co-op deposit of \$.02/Ton for the cultivation and harvest of replacement seed of native species for use on future contracts.

1/ For projects in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:

1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

For projects in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The Contractor shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

Legumes must be inoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the inoculant.

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

2/ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.

3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's records.

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K-G.7 - SLASH DISPOSAL (06/2008)

As used in the following Subsections, the term "slash" is vegetative debris including, but not limited to, cull logs, blasted or pushed-out stumps, chunks, broken tops, limbs, branches, rotten wood, damaged brush, damaged or destroyed reproduction, saplings or poles, resulting from Contractor's Operations, including construction of roads or other improvements under this contract. Slash resulting from the construction of Specified Roads shall be disposed of as provided for in Section 201 of the Standard and Special Specifications and as shown in Drawings.

Any burning of slash or refuse by Contractor is subject to K-H.2.0.1.

Forest Service may enter into a written agreement with Contractor for the Contractor to remove slash from landings, subject to D.4.1. Brush disposal deposits paid by the Contractor for the Forest Service to burn landing piles will be credited to the Contractor's integrated resource account in the amount shown in the brush disposal plan, less the amount needed by the Forest Service for final cleanup of the landings following removal of the landing slash piles by the Contractor. The credit will be made following the final removal of all Included Timber, and slash piles, from the Contract Area.

K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008)

Contractor shall pile, burn, yard, construct firelines or otherwise treat slash defined in K-G.7, within designated areas. Work required of Contractor shall be in accordance with the following slash plan and specifications, and the Contract Area Map.

Unless otherwise agreed, or shown in the attached slash plan or specifications, when Included Timber is removed during Normal Operating Season, required slash work shall be completed within 30 days of removal of approximately three-quarters of the volume in the unit. When Included Timber is removed outside Normal Operating Season, required work will be completed within 30 days of the beginning of the next Normal Operating Season.

See following specifications.

SPECIFICATIONS PURSUANT TO K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION  
2) (06/2008)

GENERAL SLASH TREATMENTS

Where designated for Machine Piling on the Contract Area Map, machine piling will treat the slash created by activities associated with this stewardship contract as specified under "Operations". Piles will be located so that burning will cause minimal damage to standing green trees and snags.

In accordance with K-F.1.0.1#, Contractor shall dispose of slash created by the construction of temporary roads, as agreed to by the Forest Service.

Slash shall not be buried beneath temporary roads.

LANDING AREA SLASH

During landing slash piling operations, the Contractor shall minimize the amount of soil in slash piles.

Tops less than 6" dib shall be bucked in less than 10' lengths and placed in the landing pile. (Intent is to make a compact landing pile.)

Size and location of the pile shall not impair road use or result in damage to residual timber.

Leave a small uncompacted pile of slash within 25 feet of each landing pile so that this material is available to scatter on the landing pile burn area following burning. Pieces left should be small enough to be moved by one or two people. Preferred slash pieces are 2 to 6 inches in diameter and 4 to 8 feet in length, but pieces from 1 inch diameter and from 2 feet in length to 10 feet in length are acceptable. Approximately 2 to 3 tons will be needed for a landing 1/4 acre in size. If landing pile burn area is larger than 1/4 acre, provide additional pieces as needed. This slash material should not be left in close proximity to the landing pile(s) to avoid ignition when the landing pile(s) is(are) burned. Existing or new landings used by the Contractor within RHCA's will require an additional 3 to 4 tons of slash for scattering over the entire landing area.

SPECIFICATIONS PURSUANT TO K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION  
2) (06/2008) (Continued)

MACHINE PILING REQUIREMENTS

Machine piling equipment must have the ability to lift activity fuels, and have a minimum reach of 15 feet.

Machine Piling is required in the following subdivisions: 040, 051, 052, 079, 091, 551, 635, 638, 644, 662, 663, 664, 674, 675, 677, 680, 682, 683, 684, 685, 686, 687, 887.

Machine piling is to occur in Subdivisions where the remaining amount of coarse woody debris is >10 tons per acre following timber removal.

Machine piling will not occur during the winter season. Refer to K-G.3.1.5#.

Operations:

1. Piling equipment shall operate on existing skid trails or slash to limit detrimental soil effects.
2. 3.1" - 6" diameter slash within a 15' reach of established skid trails, except:
  - a. Areas of greater than 35 percent slope will not be included in the piling operation.
  - b. Logs embedded in soil will be left in place.
3. Minimum machine pile size is 4 feet long by 4 feet tall by 4 feet wide. Pile size may increase by one-half foot for each additional foot the pile is away from the canopy drip line of any reserve tree, as shown in Table 1. No machine pile shall be greater 20 feet wide and 20 feet high.
4. Machine piles shall be constructed as compactly as possible. Piles must be a minimum of 4 feet outside of the canopy drip line (refer to Table 1 for pile dimensions allowed by distance from canopy tree line).

SPECIFICATIONS PURSUANT TO K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008) (Continued)

TABLE 1. MACHINE PILE DIMENSIONS & DISTANCE FROM CANOPY DRIP LINE

Distance from canopy drip line	Adjusted pile size (in feet)
4 feet	4 x 4 x 4
6 feet	5 x 5 x 5
8 feet	6 x 6 x 6
10 feet	7 x 7 x 7
12 feet	15 x 15 x 15
15 feet	20 x 20 x 20

5. No machine piles will be created within 30 feet of any snag, genetic tree, or live tree greater than or equal to 20" DBH.
6. Machine piling operations will be conducted during periods of sufficient (but not excessive) soil moisture to provide adequate soil stability.
7. Within aspen patches greater than 1/4 acre, machine piles will be a minimum of 6 feet from the bole of the nearest aspen tree and shall not exceed 8 feet in diameter.
8. Where possible, piles shall be constructed upslope from trees. Piles shall not be constructed on top of logs, in drainage ditches, within channel bottoms, or above culvert intakes. No dirt other than that which adheres to the bark of piled material shall be included in the piles. All material placed into a pile shall be contained within the general contour of that pile.
9. Piles shall be constructed such that the long axis of the pile is perpendicular to the contour of the slope. Piles shall be constructed with vertical sides and a base wide enough to keep them from toppling.
10. Machine piles are allowed within RHCA's as specified in RHCA Restrictions (Table 2) and as shown on the Contract Area Map.
11. Activity fuels created by operations performed under this contract which fall outside the subdivision boundaries shall be pulled back into the subdivision(s).
12. Piles created by operations performed under this contract shall be pulled back a minimum of 6 feet from the edge of all existing transportation system roads as shown on the Contract Area Map.

SPECIFICATIONS PURSUANT TO K-G.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2008) (Continued)

13. Piles created by operations performed under this contract shall be pulled back a minimum of 6 feet from fences and 25 feet in all directions from culverts or water developments which may exist in the contract area.

Slash Treatments

Slash treatments required in RHCA's (Riparian Habitat Conservation Areas) are listed in TABLE 2. Subdivisions not listed in Table 5 have no requirements for slash treatments in Riparian Habitat Conservation Areas (RHCA's). Machine Piling is permitted in the outer 50 feet of Riparian Habitat Conservation Area. Felled hazard trees are not to be included in machine piles.

TABLE 2. SLASH TREATMENT REQUIREMENTS WITHIN RHCA'S.

Required Slash Treatment Method	Restrictions	Subdivision(s)
Machine	1. Do not place machine piles directly in the low point of ephemeral draws.  2. No refueling activities are to be within the Riparian Habitat Conservation Area.	680
Hand or Machine	Harvest debris created in Riparian Habitat Conservation Areas (RHCA's) will be scattered such that the highest point of debris is $\leq$ 1 foot height.  Debris will be scattered by hand unless an existing adjacent skid trail outside of the RHCA allows piling equipment to reach into the Riparian Habitat Conservation Area.	051, 685

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K-G.8.1.5 - THIRD PARTY SCALING SERVICES (09/2004)

Notwithstanding the requirement for Forest Service or parties under contract to Forest Service to provide Scaling services under G.8.1, Scaling designated in A.10 shall be conducted by a third party Scaling organization approved by Forest Service. Scaling shall be done in accordance with A.9 and Contractor shall bear costs for Scaling service.

In the event third party Scaling service is suspended for causes such as strikes, termination of third party's approval to Scale National Forest logs by Forest Service, or Contractor's failure to pay third party Scaling costs, hauling operations shall be suspended until agreed alternate Scaling services are provided or service by third party is resumed.

When an approved alternate Scaling location pursuant to G.8.1.1 does not have an approved third party scaling organization as a commonly used Scaling services provider, Forest Service or parties under contract to Forest Service shall provide Scaling services at the approved alternate location. In such an event, the cost of waived third party Scaling listed in A.10 shall be charged to Integrated Resource Account.

If Forest Service and Contractor agree in writing that another party under contract to Forest Service will perform Scaling, the contract will be modified to include K-G.8.1.6 and Integrated Resource Account will be charged for such Scaling.

K-G.8.4 - USE OF PAINT BY CONTRACTOR (OPTION 1) (06/2006)

Notwithstanding G.8.4.2, use of paint by the Contractor within the Contract Area in the same color(s) used by the Forest Service in the preparation and administration of the contract will be by written approval of the Forest Service.

K-G.8.4.0 - ACCOUNTABILITY (04/2014)

Notwithstanding G.8.4, when Weight scaled contracts offer products at different rates in A.4.2, each product must be completely removed from a landing or decking area before another product can be removed, unless otherwise agreed to in writing by the Contracting Officer.

K-G.8.5.1 - WEIGHT OF LOST LOADS (04/2014)

Contractor shall present all loads for weighing and shall furnish a weight ticket for each load pursuant to a weighing services agreement. Any load for which a weight ticket is not provided, or the weight ticket is incomplete or unreadable, or does not include the Forest Service load receipt number, shall be considered a lost sample load with a net weight equal to the load with the heaviest net weight presented during the billing period, as established by the Forest Service.

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K-G.9# - STEWARDSHIP PROJECTS (09/2004)

Performance of stewardship projects shall be in accordance with the following specifications.

Stewardship Projects

K-G.9# - STEWARDSHIP PROJECTS. (9/04) Performance of stewardship projects shall be in accordance with the following specifications.

Project Number 001 - Pre-Harvest Road Decommissioning, Attachment A

Project Number 002 - Additional Marking to Meet Prescription, Refer to K-C.3.5.5# for Specifications

Project Number 003 - Machine Fireline Construction, Attachment A

Project Number 004 - Harvest Road Decommissioning, Attachment A

Project Number 005 - Noxious Weed Spraying, Attachment A

Project Number 006 - Aspen Restoration, Attachment A

Project Number 007 - Non-Harvest Road Decommissioning, Attachment A

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K-H.1 - PLANS (05/2005)

The plan shall state how Contractor's representative or alternates will be contacted in a fire emergency, both during periods of operation and at other times such as evenings or weekends. Contractor shall certify compliance with specific fire precautionary measures included as Subsections under K-H.2 - Specific Fire Precautions, before beginning operations during Fire Precautionary Period (closed season) and shall update such certification when operations change.

If helicopter yarding is required, the plan shall include a schedule of rates mutually agreed to for computing Contractor costs incurred toward meeting Contractor's obligations under A.14, or for paying for helicopters controlled by Contractor and used under Forest Service direction for suppressing Operations Fires or other fires on Contract Area, excluding Negligent Fires.

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K-H.2 - SPECIFIC FIRE PRECAUTIONS (05/2005)

When the industrial fire precaution level is I or higher, unless waiver is granted under K-H.2.2, specific required fire precautionary measures are as follows:

A. Fire Security.

Contractor shall designate in writing a person or persons who shall perform fire security services listed below on Contract Area and vicinity. The designated person will be capable of operating Contractor's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of Contractor's personnel on Forest fires. Such person must report any fire detected to Forest Service within 15 minutes of detection. In lieu of having the designated person perform the required supervisory duties, Contractor may provide another person meeting the qualifications stated above to direct the activities of Contractor's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time Contractor's Operations are shut down. For the purposes of this provision, personnel servicing equipment, and their vehicles, who are not engaged in cutting or welding metal are excluded.

Fire security services shall consist of moving throughout the operation area or areas constantly looking, reporting, and taking suppression action on any fires detected. Where possible, the designated person shall observe inaccessible portions of helicopter operating areas from vantage points within or adjacent to Contract Area.

Contractor shall furnish fire security services based on the predicted industrial precaution level, obtained by Contractor from the appropriate Ranger District Headquarters. If predictions made after 6:00 p.m. local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in fire security services are indicated.

B. Fire Extinguisher and Equipment (on Trucks, Tractors, Power Saws, etc.).

(a) Each yarder or loader equipped with an internal combustion engine or other spark emitting source shall be equipped with a readily accessible fire extinguisher, with an Underwriter's Laboratory (UL) Rating of at least 5 B,C.

(b) All power-driven equipment operated by Contractor on National Forest land, except portable fire pumps, shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C and one "D" handled or long handled round point shovel, size O or larger. In addition, each motor patrol, truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 3-1/2 pounds or larger.

(c) Equipment required in (a) and (b) shall be kept in a serviceable condition and shall be readily available.

(d) Each gasoline power saw operator shall be equipped with a pressurized chemical fire extinguisher of not less than 8-ounce capacity by weight, and one long handled round point shovel, size O or larger, except at a landing where a suitable fire extinguisher and shovel are immediately available. The extinguisher will be kept in possession of the saw operator at all times. The shovel shall be accessible to the operator within 1 minute.

(e) Each helicopter shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C mounted inside the aircraft within reach of the pilot's operating position.

(f) One refill for each type or one extra extinguisher sufficient to replace each size extinguisher required on equipment shall be safely stored in the fire tool box or other agreed upon place on Contract Area that is protected and readily available.

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(g) At each area where helicopters are being serviced or supplied, a carbon dioxide fire extinguisher with a UL rating of at least 20 B,C will be provided on the site and placed where it is available for immediate use.

C. Spark arresters and mufflers.

Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard 5100-1a as shown in the National Wildfire Coordination Group Spark Arrester Guide, unless it is:

(a) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.

(b) A multi-position engine, such as on power saws which must meet the performance levels set forth in the Society of Automotive Engineers (SAE) "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended.

(c) A passenger carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory designed muffler complete with baffles and an exhaust system in good working condition.

(d) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this Subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

D. Fire Tools.

Contractor shall furnish serviceable fire fighting tools in a readily accessible fire tool box or compartment of sound construction with a hinged lid and hasp so arranged that the box can be secured or sealed. The box shall be red and marked "Fire Tools" in letters at least 1 inch high. It shall contain a minimum of:

(a) Two axes or Pulaskis with a 32 inch handle.

(b) Three adze eye hoes. One Pulaski may be substituted for one adze eye hoe.

(c) Three long handled, round point shovels, size 0 or larger.

E. Tank Truck.

Contractor shall provide a tank truck or trailer, containing not less than 300 gallons of water, during yarding, skidding, loading, land clearing, right-of-way clearing, mechanical falling, and mechanical treatment of slash. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each operating side during Fire Precautionary Period (closed season), except as provided under H.2.1.

The tank truck or trailer shall be equipped with a pump capable of discharging 20 gallons of water per minute, using a 1/4 inch nozzle tip, through a 50 foot length of poly or rubber lined hose. In addition, 500 feet of serviceable hard rubber poly or rubber lined or FJRL hose of not less than 1 inch outside diameter, fitted with a nozzle capable of discharging a straight stream of 1/4 inch diameter and a spray pattern shall be immediately available for use. The tank, pump, nozzle and at least 250 feet, of the total 500 feet of hose, shall be connected and ready for use at all times. Synthetic hose may be used by

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agreement.

If a trailer is used, it shall be equipped with a hitch to facilitate prompt movement. A serviceable tow vehicle shall be immediately available for attachment to the trailer and must meet the time requirements stated above. Such truck or trailer shall be equipped to operate for a minimum of 8 hours.

Where designated on Contract Area Map, Contractor shall provide a tank trailer or water source and pumping equipment, including accessories, which can be lifted and transported by the yarding system. The component parts shall meet all specifications above. The tank trailer or water supply and pumping accessories shall be deliverable to a fire, in area of operations, within 15 minutes of detection.

In lieu of the above tank trailer or water supply for helicopter operations, Contractor may provide a suitable helicopter water bucket with a 300 gallon capacity. When Contractor provides a water bucket, a water source shall be provided within 5 minutes round trip flight time from operating side.

#### F. Communications.

During Contractor's Operations, excluding powersaw falling and bucking, Contractor shall provide adequate two-way communication facilities to report a fire to Forest Service within 15 minutes of detection. Citizen Band radios (CB's) are not considered adequate two-way communications because FCC Regulations prohibit commercial use.

#### G. Smoking and Open Fire Restrictions.

Smoking and fires shall be permitted only at the option of Contractor. Contractor shall not permit open fires on Contract Area without advance permission in writing from Forest Service.

#### H. Blasting.

Blasting shall be permitted only for road construction purposes unless advance permission is obtained from Forest Service.

Whenever the Industrial Fire Precaution Level is II or greater, a fire security person equipped with a long handled round point No. 0 or larger shovel and a 5 gallon backpack pump can filled with water, will stay at location of blast for 1 hour after blasting is done. Blasting may be suspended by Forest Service, in areas of high rate of spread and resistance to control.

Fuses shall not be used for blasting. Explosive cords shall not be used without permission of Forest Service, which may specify conditions under which such explosives may be used and precautions to be taken.

#### I. Compliance with State Fire Laws.

Listing of specific fire precautionary measures in the foregoing Subsections is not intended to relieve Contractor in any way from compliance with State fire laws covering fire prevention and suppression equipment, applicable to Contractor's Operations.

#### J. Aircraft Communications.

Every aircraft used in conjunction with Contractor's Operations shall be equipped with an operable radio system. The radio system shall be capable of transmitting and receiving on VHF frequency 122.85 Megahertz (MHz) with a minimum output of 5 watts at the transmitter. The system shall be located and installed so that the pilot can operate it while flying. A shielded all-weather broad-band antenna shall be part of the system. Radio and antenna shall be properly installed and maintained.

Upon discovery or notification of a fire on Contract Area, all aircraft pilots controlled by Contractor

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shall monitor VHF frequency 122.85 MHz when within 5 miles of a fire and broadcast their intentions.

K. Logging Block Equipment.

Contractor shall provide a serviceable 5 gallon backpack pump full of water, one axe, and one long handled round point shovel, size 0 or larger, at each haulback block through which a running line passes.

The area below such blocks must be kept clear of all flammable debris under 4 inches in diameter for a distance of 6 feet in all directions. Material larger than 4 inches that poses a fire risk, such as punky logs, must also be removed.

Contractor shall avoid line-rub on rocks or woody material which may result in sparks or sufficient heat to cause ignition of fire.

K-H.2.0.1 - BURNING BY CONTRACTOR (06/2006)

Notwithstanding the Fire Precautionary Period limitation of H.2, Contractor is required to obtain written permission from Forest Service prior to any burning on the National Forest Lands.

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K-H.2.2 - EMERGENCY FIRE PRECAUTIONS (05/2005)

Contractor shall restrict operations in accordance with the Industrial Fire Precaution Levels attached. Forest Service may change the Industrial Fire Precaution Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Industrial Fire Precaution Levels when such changes are necessary for the protection of the National Forest. When sent to Contractor, the revised Industrial Fire Precaution Levels will supersede the attached levels.

INDUSTRIAL FIRE PRECAUTIONS SCHEDULE

LEVEL INDUSTRIAL FIRE PRECAUTION

I. Closed Season - Fire precaution requirements are in effect. A Fire Watch/Fire Security is required at this and all higher levels unless otherwise waived.

II. Partial Hootowl - The following may operate only between the hours of 8 p.m. and 1 p.m. local time:

power saws, except at loading sites;  
cable yarding;  
blasting;  
welding or cutting of metal.

III. Partial shutdown - The following are prohibited:

cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m. local time when all blocks and moving lines are 10 feet or more above the ground, excluding the line between the carriage and the choker.

power saws - except at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m. local time.

In addition, the following are permitted between the hours of 8 p.m. and 1 p.m. local time:

tractor, skidder, feller-buncher, forwarder, or shovel logging operations where tractors, skidders or other equipment with a blade capable of constructing fireline are immediately available to quickly reach and effectively attack a fire start;  
mechanized loading and hauling;  
blasting;  
welding or cutting of metal;  
any other spark-emitting operation not specifically mentioned.

IV. General shutdown - All operations are prohibited.

The following definitions shall apply to these Industrial Fire Precaution Levels:

Cable yarding systems: A yarding system employing cables and winches in a fixed position.

Closed Season (Fire Precautionary Period): That time period each year when a fire hazard exists and as described in A.12.

Hauling: Where hauling involves transit through more than one shutdown zone/regulated use area, the precaution level at the woods site shall govern the level of haul restrictions, unless prohibited by other than the Industrial Fire Precaution Level system.

Loading sites/woods site: A place where any product or material (including but not limited to logs,

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firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

Advance written waiver of the above precautions may be issued by the Contracting Officer or Forest Service Representative.

Such waiver, or substitute precautions under H.2.1, shall prescribe measures to be taken by Contractor to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer or Forest Service Representative shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. Contractor shall assure that all conditions of such waivers or substitute precautions are met.

Contractor shall obtain the predicted Industrial Fire Precaution Level from the appropriate Ranger District headquarters. If predictions made after 6:00 p.m., local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in restrictions or industrial precautions are indicated.

K-H.3.1 - ADDITIONAL AREA OF FIRE RESPONSIBILITY (05/2005)

The area within 200 feet slope distance of the center line of any road constructed or reconstructed under this contract on National Forest lands outside of Contract Area shall be considered as a part of Contract Area in connection with responsibilities under H.3 and H.4 until the road has been accepted in writing by Forest Service.

K-I.1.0 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (05/2005)

Contractor and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Contractor will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Contractor hereby acknowledges the acceptance of the risk that this contract is subject to interruption or termination as a result of litigation associated with the environmental analysis process used by the Forest Service in the planning of this project. If such interruption or termination occurs due to litigation, Contractor agrees to accept as full compensation for such interruption remedies pursuant to I.3.3, or for termination remedies pursuant to I.3.4.

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K-I.2.1.2 - MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in A.20. Contractor will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Contractor's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Contractor's written request for a market-related contract term addition before the expiration of this contract.

No more than 3 years shall be added to a contract's term by market-related contract term addition unless the following conditions are met:

(i) The contract was awarded after December 31, 2006; and

(ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

For each qualifying quarter meeting the criteria in paragraphs (i) and (ii) of this provision, the Forest Service will, upon the Contractor's written request, add an additional 3 months during the normal operating season to the contract, except no single 3-month addition shall extend the term of a contract by more than 1 year.

In no event shall a revised contract term exceed 10 years as a result of market-related contract term addition.

Additional contract time may not be granted for those portions of the contract that have a required completion date or for those portions of the contract where Contracting Officer determines that the timber is in need of urgent removal or that timber deterioration or resource damage may result from delay.

K-I.3.1# - CONTRACT CHANGES (OPTION 1) (05/2005)

Contract changes involving volumes and/or values will use a weight ratio of 3.2463 to convert net CCF cruise volumes to Tons.

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K-I.6.8# (Option 1) - USE OF TIMBER (09/2004)

(a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, et seq.).

(b) Except for NONE determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor or any person as defined in the Act (16 USC 620e).

(c) Timber in the following form will be considered unprocessed:

(i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;

(ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and

(iii) Aspen or other pulpwood bolts exceeding 100 inches in length.

(d) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.

(e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Contractor shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Contractor or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Contractor shall require each buyer, exchangee, or recipient to execute an acceptable agreement that will:

(i) Identify the Federal origin of the timber;

(ii) Specify domestic processing for the timber involved;

(iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;

(iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and

(v) Otherwise comply with the requirements of the Act (16 USC 620d).

(g) No later than 10 days following the execution of any such agreement between Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.

(h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.

(i) For breach of this Section, Forest Service may terminate this contract and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Section, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.