K-C.3.5# - DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES, AND SUDIVISION/PAYMENT UNIT BOUNDARIES *(06/2012)*

Trees are designated for cutting under B.3.5# only if designated as shown in the Timber Designation table below. The boundaries of Subdivisions/Payment Units and Cutting Units are designated as shown in the Boundary Designation table below. Trees used for boundary designation are not to be cut.

SPECIFICATIONS PURSUANT TO K-C.3.5# - DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES, AND SUBDIVISION/PAYMENT UNIT BOUNDARIES

SPECIFICATIONS PURSUANT TO K-C.3.5# - DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES, AND SUBDIVISION/PAYMENT UNIT BOUNDARIES

Timber Designation Table

Cutting Unit/ Subdivision/Area/ Payment Unit	Tree Paint Color	Designation or Specification
All Cutting Units and road zones within the Contract Area	**White**	Hazard Tree. Notwithstanding C.3.2 all dead and unstable live trees which are leaning towards a road or are otherwise hazardous to a road, and are sufficiently tall to reach Contractor's landings or the roadbed of National Forest System roads within Contract Area, shall be felled by Contractor when Marked in the specified paint color above and below stump height by Forest Service in advance of felling any other timber in the vicinity. Pieces meeting Utilization Standards from such dead and unstable live trees shall be removed unless Contractor is notified in writing that removal would cause unacceptable damage to areas requiring special protection such as residual timber, roads, administrative sites, streamside management zones, and areas identified on Contract Area Map or on the ground.
N/A	N/A	Individual Tree Mark. Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color.
N/A	N/A	Leave Tree Mark. All live < > are designated for cutting unless Marked as leave trees. Leave trees are Marked above and below stump height with the specified paint color. Contract Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.
Contract Area	**Orange**	Wildlife Trees. Notwithstanding the designation for cutting under B.3.1, B.3.3, B.3.4,or B.3.5, trees which are identified by standard Forest Service metal wildlife tree sign or painted with the specified paint color on the uphill and downhill side, shall be left uncut. In event such trees are destroyed in Contractor's Operations, Forest Service may designate alternate trees to be saved.
N/A	N/A	Marked Out Trees. When it is necessary to delete previously marked trees, an unique tree marking paint color will be Marked over or adjacent to the original mark, but will not obscure the original marking. Trees Marked with the original marking paint color and the unique tree marking paint color are not Included Timber.

		Designation by Spacing K-C.3.5.1#
		Designation by Species and Diameter, K-C.3.5.2#
All Units		Designation by Damage Class, K-C.3.5.3#
		Designation by Row Spacing, K-C.3.5.4#

Subdivision/Payment Unit and Cutting Unit Boundary Designation Table

Subdivision/Payment Unit	Boundary Paint Color	Boundary Designation
Cutting Unit	Boundary Paint Color	Boundary Designation
Conventional Units	**Orange**	3 Orange Paint stripes and a stump mark and/or Blue flagging
Shovel Units	**none**	Green(chartruese) and white flagging

K-C.3.5.3# - DESIGNATION BY DAMAGE CLASS *(09/2004)*

Within Subdivision(s) or cutting unit(s) **ALL (except in equipment exclusion zones as identified on Contract Area Map)** , as shown on Sale Area Map, the following criteria are used to designate trees and other products for cutting and removal:

(a) **In all cutting units except 203a, 306a, 532c, 900, 901, 902 and 902a, all coniferous trees with no green foliage as viewed from the ground (100% brown foliage or no foliage) and meets the minimum specs in A.2 are designated for cutting. In addition, notwithstanding K-C.3.5# Hazard Trees, all coniferous and hardwood trees greater than 6 inches DBH with no green foliage as viewed from the ground (100% brown foliage or no foliage) and are sufficiently tall to reach the road bed of National Forest System roads within the Contract Area are designated for cutting.**

In units 203a, 306a, 532c, 900, 901, 902 and 902a, all coniferous and hardwood trees greater than 6 inches with no green foliage as viewed from the ground (100% brown foliage or no foliage) and are sufficiently tall to reach the road bed of National Forest System roads within the Contract Area are designated for cutting. Trees that will not reach the road are NOT designated in these units.

(b) Additional trees to be cut, if any, are designated for cutting if Marked with **White** paint.

(c) Cutting unit boundaries and trees that shall be left uncut are Marked with **Orange** paint.

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.

K-F.1.1# - REQUIREMENTS OF RIGHTS-OF-WAY AND LAND USE AGREEMENTS *(05/2008)*

Contract requirements for Rights-of-Way and land use agreements are listed in the following table.

See Table A.

SPECIFICATIONS PURSUANT TO K-F.1.1# - REQUIREMENTS OF RIGHTS-OF-WAY AND LAND USE AGREEMENTS

RIGHTS-OF-WAY CONSTRUCTION CLEARING: Provisions of C.1 and C.2 notwithstanding, timber on listed rights-of-way is not Included Timber.

Grantor	Road Name & Number	Termini	Timber Requirements
N/A			

REQUIREMENTS OF RIGHTS-OF-WAY. Contractor's obligations under F.1.1 shall apply to roads or road segments listed below

Road Number	Road Name	Termini	Grantor
13N73A	Grizzly Terrace	Approx. .73 miles west of 13N73 intersection	Simorg West Forests, LLC

ENCROACHMENT CONSTRUCTION: N/A

REQUIREMENTS OF TEMPORARY LAND USE AGREEMENT: N/A

K-F.1.2.5# - SHARE COST ROAD LIABILITY INSURANCE *(02/2005)*

Contractor is authorized to use cooperative roads constructed under provisions of **Simorg West Forests, LLC, Forest Investment Associates, and Mason Bruse and Girard, Inc** , Cooperator, and Forest Service, and subsequent easements, supplements, and agreements thereto, available for inspection at the Forest Supervisor's Office, **Forest Supervisor's Office, Placerville, CA** , California, and subject to the following liability insurance requirements.

Contractor shall provide a satisfactory certificate of insurance covering Contractor's and all subcontractor's operations on cost share roads referred to above.

Contractor shall present the certificate of insurance to Forest Service prior to use of cost share roads.

Insurance shall be of the following form and limits:

Comprehensive Automobile Bodily Injury/Property Damage Liability Insurance covering all owned, leased, hired and non-owned automobiles.

Minimum limits: $1,000,000 per person bodily injury or death
$1,000,000 per occurrence bodily injury or death
and $1,000,000 per occurrence property damage or a
combined single limit of $1,000,000

In addition to above, Contractor and Contractor's assigns shall carry the following limits of insurance for the purpose of covering fire suppression expense, property damage to timber land due to fire, and property damage to non-owned automobiles and equipment due to fire.

Minimum limits: $1,000,000 per person bodily injury or death
$1,000,000 per occurrence bodily injury or death
and $1,000,000 per occurrence property damage or a
combined single limit of $1,000,000

Such Comprehensive General Liability policy shall include an endorsement covering fire suppression expense, property damage to timber land due to fire, and property damage to non-owned automobiles and equipment due to fire. Said endorsement shall have minimum property damage limits of **1,000,000** and be designated separately on the Certificate of Insurance.

The Certificate of Insurance shall require insurance carrier to notify Cooperator by mail ten (10) days prior to cancellation or expiration of above coverage. The Certificate of Insurance shall also name **The Cooperator** as additionally insured solely as respects operations conducted by or on behalf of the Contractor involving use of the cost shared roads referred to above.

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

Construction of Specified Roads shall be completed no later than **12/31/2017** ; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station From	Station To	Completion Date
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 accep-tance under G.3.6 or

(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.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 A - K-F.3.1# - Road Maintenance Requirements. (09/04)

Contract Road Maintenance Requirements Summary

Road	Termini From	Termini To	Miles	Applicable Prehaul Road Maintenance Specifications 806	809	810	811	831	834	835	837	851	
All Native or Aggregate Surface Roads				P	P	P	P	P	P	P	P	P	
All Chip Seal/Paved Surface Roads except 14N08 and ELD-63				P		P						P	

P = Contractor Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Road	Termini From	Termini To	Miles	Applicable During Haul Road Maintenance Specifications 806	808	809	810	811	812	815	831	834	837	854	891
All Native or Aggregate Surface Roads				P	P		P	P	P		P	P	P	P	P
All Chip Seal/Paved Surface Roads except 14N08 and ELD-63				P	P		P			P				P	

P = Contractor Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Road	Termini From	Termini To	Miles	Applicable Post Haul Road Maintenance Specifications 806	808	809	810	811	812	815	831	834	835	837	854	891
All Native or Aggregate Surface Roads				P	P	P	P	P	P		P	P	P	P	P	P
All Chip Seal/Paved Surface Roads except 14N08 and ELD-63				P	P		P			P					P	

P = Contractor Performance Item D = Deposit to Forest Service D3 = Deposit to Third Party
Maximum 20 cubic yards slide and slump repair

K-F.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE *(09/2004)*

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 and for deferred maintenance is: $ **$2.94** per **MBF** .

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-F.3.5# - ROAD AND WATER SUPPLY USE *(05/2008)*

National Forest water supply locations, access, method of filling trucks, period of water availability and procedures designed to maintain water quality at each location shall be agreed in advance of use. Such use shall at no time reduce water supplies to the level that further use may be detrimental to aquatic resources or other established use. Waterholes and other improvements relating to said water supplies shall be put into condition, prior to expected seasonal periods of precipitation or runoff, to avoid resource damage.

Damage to resources at such locations caused by Contractor's Operations, other than fire suppression activities, shall be repaired by Contractor in a timely and agreed manner to the extent practicable to restore and prevent further resource damage.

Unless otherwise agreed, Contractor's use of roads and other water supply requirements shall conform to the following table.

See Table A.

SPECIFICATIONS PURSUANT TO K-F.3.5# - REQUIREMENTS OF ROAD AND WATER SUPPLY USE

Load Limitations	Contractor shall notify Forest Service in writing of the planned size and load distribution for equipment which exceeds the State of California Vehicle Code legal size and weight, and the National Forest System roads to be used. Such notice may be part of plan of operation under G.3.1.1. Within 15 days after receipt of the written notice Forest Service shall notify Contractor in writing of any regulations or restrictions that may be needed to protect National Forest Transportation Facilities. A written permit shall be required for moving any vehicle which is in excess of the established legal size and weight which is not listed in the above plan, except as may be authorized in prior written agreements.
Existing Non-National Forest System Roads	Roads not shown on Contract Area Map may be used as Temporary Roads if there is agreement before use is started.
Snow Removal	If Contractor removes snow from roads, such work shall be done with Forest Service approval and in a manner that will protect roads and adjacent resources. Snow berms shall be removed or placed to avoid accumulation of melt water on the road and prevent water concentration on erosive slopes or soils. Snow must not be removed to the road surface. A minimum 6 inch snow depth must be left to protect the roadway. If the road surface is damaged, Contractor shall replace lost surface material and repair structures damaged in blading operations prior to hauling, unless climatic conditions prevent necessary work from being accomplished or as otherwise agreed in writing. Single lane roads shall be plowed full width including turnouts. In event double lane roads are not plowed to full width, warning signs shall be required and plowing shall be no less than single lane (12 feet) with intervisible turnouts.

<table>
<tr><td>Water Supply Deposits</td><td>N/A</td></tr>
<tr><td>Surface Replacement Deposits</td><td>Contractor shall make Required Deposits for deferred surface replacement (16 U.S.C. 537) for use of existing surfaced roads. If applicable, such deposits shall be based upon the volume and distance hauled on the roads and at the applicable rates listed in the table below titled Surface Replacement Deposit Schedule. If Contractor uses surfaced roads under jurisdiction of Forest Service other than those listed, Forest Service may establish applicable rates for such surfaced roads.

SURFACE REPLACEMENT DEPOSIT SCHEDULE

<table>
<tr><th>Road No.</th><th>From</th><th>To</th><th>Miles</th><th>Rate</th></tr>
<tr><td>14N08</td><td></td><td></td><td>20.90</td><td>.60</td></tr>
<tr><td>14N10</td><td></td><td></td><td>5.91</td><td>.60</td></tr>
</table>
Contract Area Average Rate: $ 6.49/MBF</td></tr>
</table>

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: **Unless noted below, no operations are permitted within zones flagged in Lime Green and White or Lime Green and White candy striped flagging and shown on Contract area Map (CA-1). Any trees felled in close proximity to said areas will be directionally felled away from site.**

Units 101a, 101b, 312a, 331a, 510a, 568b, 667a and 901a will be harvested in accordance with K-G.4.2# Ground Based Skidding and K-G.3.1.5# Project Operations Schedule.

Wildlife and Botanical Protection Measures: **No operations permitted within zones flagged in Pink and Green flagging (CA-2) or orange flagging with "noxious weed" printed on it (CA-3) unless approved by a Forest Service Botanist. Any trees felled in close proximity to said areas will be directionally felled away from site.**

Cave Resource Protection Measures: **N/A**

K-G.3.1.5# - PROJECT OPERATIONS SCHEDULE *(12/2006)*

Unless otherwise agreed in writing, Contractor's Operations shall be performed in accordance with the following schedule:

See Table A.

SCHEDULE PURSUANT TO K-G.3.1.5# - PROJECT OPERATIONS SCHEDULE (12/2006)

Subdivision/ Area/Unit	Conditions of Operation	Purpose
Contract Area	Purchaser shall schedule and conduct operations so that they do not conflict with operations being conducted under existing timber sale contracts. In the event that an operating conflict occurs, Purchaser shall adjust operations to immediately eliminate the conflict. The adjustment in operations shall be documented by a modification of Purchaser's Plan of Operations under G.3.1.	To facilitate coordination of operations with other sales that are operating in the vicinity.
Units 303, 304, 515, 532, 532a, 532b, 532c, 539, 540, 547, 556, 556a, 563, 564, 565, 667, 667a, 667b, and 901	For the 2016 operating season, in portions of units listed, all harvest, stewardship projects and road/landing reconstruction are prohibited during the LOP (Limited Operating Period) from contract award through the completion of surveys or August 15th, whichever is earlier. LOP's may be lifted by Forest Service wildlife specialists if surveys in a given area show that there are no nesting birds. For the 2017 operating season the Limited Operating Period is March 1st through August 15th in areas where owls are discovered.	Protect sensitive nesting species
Units 403, 404, 901, 902 and 902a	For the 2016 operating season, in portions of units listed, all harvest, stewardship projects and road/landing reconstruction are prohibited during the LOP (Limited Operating Period) from contract award through the completion of surveys or September 15th, whichever is earlier. LOP's may be lifted by Forest Service wildlife specialists if surveys in a given area show that there are no nesting birds. For the 2017 operating season the Limited Operating Period is February 15th through September 15th in areas where goshawks are discovered.	Protect sensitive nesting species
Unit 306, 310, 515, 547 snd 568	There are fifteen 5.0 acre areas shown as CA-4 on Contract Area Map. Any trees painted with orange paint in these zones are to be retained. Boundaries have pin flags in the ground and corners are identified. Five of the fifteen plots are located within areas shown as "Leave Islands" on the Contract Area Map. **All** trees within the "Leave Islands" are painted in orange and shall be retained. There should be no skidding within or falling into these "Leave Islands".	Protect sensitive nesting species

Units 101a, 101b, 312a, 331a, 510a, 568b, 667a and 901a	Forest Service Shall be notified 5 days prior to any operations within units listed and shown as orange on the Contract Area Map. In addition equipment is not allowed to operate off of designated skid trails.	Coordination and control of operations in controlled areas
All Units	All operations are prohibited within areas flagged in Red and Black striped flagging. Boundaries of these areas have trees painted with orange stripes. Trees within these areas are not designated for cutting. These areas are desgnated on the Contract Area Map as "Leave Islands".	To retain a minimum number of standing snags in any given unit.
All Sites	All water sources must be approved before use. Forest Service will be given 5 days notification prior to using waterhole sites for drafting water. Unless otherwise agreed, in perennial and intermittent streams, pump intake screens shall have openings not exceeding 3/32 inch and be sized according to pump intake capacity. Pump shall be a low velocity pump. Hose shall be placed in a bucket at the deepest part of the pool.	Minimize removal of aquatic species

K-G.3.3.1 - LOG TRUCKING *(02/2005)*

To promote safe operations on National Forest roads and on Specified Roads, loads shall be safely secured before trucks move from the landing or loading location.

K-G.3.7 - SUBSTITUTE METHODS *(02/2005)*

Notwithstanding other provisions herein, for minor changes such as changes in logging systems for areas smaller than 5 acres, Contractor and Forest Service may agree in writing that use of substitute methods or equipment will achieve Forest Service objectives under this contract and may be used in lieu of those specified for Contractor's Operations.

K-G.4.1# - FELLING, BUCKING, AND LIMBING *(08/2007)*

Unless otherwise agreed in writing, Contractor's felling, bucking, and limbing operations shall be conducted as specified in the table below.

See Table A.

SPECIFICATIONS AND TREATMENTS PURSUANT TO K-G.4.1# - FELLING, BUCKING AND LIMBING

Treatment Method	Felling, Bucking and Limbing Specifications
Limbing	Outside of construction clearings, Clearcutting Units and regeneration units, unless otherwise provided by G.4.1.4, Purchaser shall, prior to skidding/yarding operations, cut exposed limbs from products which are to be skidded/yarded. Such limbing of stems shall be done to a top diameter of approximately 6 inches, at which point the top shall be cut from the remainder of the stem.
No Lop "No Lop"	N/A
Whole Tree Yarding "Whole"	N/A
Directional Felling	Within areas designated DF on Contract Area Map, Included Timber shall be directionally felled away from roads, private land, gates, **leave islands,** streamcourses, trails, land survey monuments and other controlled areas with the use of specialized equipment. Such directional felling shall not be required when in the faller's judgment it is unsafe to do so, and shall be left standing.
Treatment of Stumps	N/A
Maximum Log Length	N/A
Minimum Stump Height	N/A

K-G.4.2# - GROUND BASED SKIDDING *(12/2006)*

Unless otherwise agreed in writing, the method of skidding Included Timber shall be as shown on the Contract Area Map, by areas, with symbols defined in the following table:

See Table A.

Table A - Ground-Based Skidding Table - K-G.4.2#

Map Symbol	Requirements
TRAC	Skid road pattern shall be agreed in advance of felling and main skid roads shall be flagged on the ground in advance of felling. Contractor shall stage-log by felling and skidding Included Timber in two or more separate operations when necessary to prevent undue damage to the resources or residual stand. Needed tractor trails shall be constructed in advance of skidding. Products shall be end-lined as needed to protect resources or residual timber from unnecessary damage. The number of chokers shall be limited as necessary to avoid unnecessary damage to resources or residual timber. By agreement, tractors may be used to separate products to prevent stain.
SUSP	Products shall be skidded with leading end clear of ground.
SPACE	Skid roads will average 100 feet from center to center, except where converging.
ENDL	Endlining shall not be required for distances in excess of 60 feet uphill, and 120 feet downhill.
MAX	Tractors used for skidding outside Clearcutting Units, regeneration units or other authorized clearings, shall be of the type (rubber-tired or track-laying) shown on the Contract Area Map and shall not exceed the overall width designated on Contract Area Map.
MH	Contractor shall cut Included Timber and move it to designated skid trails using equipment with a boom having an operating radius of at least 20 feet for bunching trees, capable of severing, lowering and placing trees up to 24 inches diameter at stump height on the ground prior to skidding. Such equipment must be capable of operating on slopes up to 35 %. Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage. Trees which exceed capability of specified equipment may be felled, bucked and skidded in a manner consistent with the requirements of G.4.1 - Felling and Bucking, K-G.4.1# - Felling, Bucking, and Limbing Requirements and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.

CTL	Included Timber shall be felled, limbed and bucked by a self-propelled mechanical harvester capable of producing finished sawlogs or chippable boles. Limbs of Included Timber shall be placed evenly in the machinery skid trail prior to product removal. The harvester shall be an all-wheel drive machine with at least 3 axles and a processing head mounted on a boom having a minimum-operating radius of 20 feet. Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources or residual timber from unnecessary damage. All Products shall be removed by an all-wheel drive forwarder with at least 3 axles capable of self-loading and unloading. The forwarder shall carry all products free of the ground during removal. The loading crane shall have a minimum-operating radius of 15 feet. Log landings and transfer points shall be agreed in advance of harvesting. Included Timber exceeding the harvester's capability may be felled by conventional chainsaw methods, forwarded to nearest skid trail and processed into a finished Product with harvester or chainsaw, consistent with the requirements G.6.1 - Meadow Protection, G.4.1 - Felling and Bucking, K-G.4.1# - Felling, Bucking, and Limbing and the above "TRAC", "SUSP", "SPACE", "ENDL", and "MAX" requirements.
PB	Contractor shall cut Included Timber and move trees to pre-approved skyline corridors to facilitate skyline yarding using equipment with a boom having an operating radius of at least ___ feet for bunching trees, capable of severing, lowering and placing trees up to _____ inches diameter at stump height on the ground prior to yarding. Such equipment must be capable of operating on slopes up to ____ %. Bundles shall not exceed yarder capability or cause unnecessary damage to residual stand. Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources from unnecessary damage. Such trees shall be felled away from the corridor in a manner that minimizes residual stand damage during yarding. Included Timber exceeding the feller's capability may be felled by conventional chainsaw methods

HCTL	Included Timber shall be felled, limbed and bucked by a self-propelled mechanical harvester capable of producing finished sawlogs or chippable boles. Such equipment must be capable of operating on slopes up to ___ %. The harvester shall be an all-wheel drive machine with at least 3 axles, or track mounted, and a processing head mounted on a boom having a minimum-operating radius of 20 feet. Notwithstanding above, hand felling using chainsaws may be required in or adjacent to sensitive areas to protect resources or residual timber from unnecessary damage. Included Timber exceeding the harvester's capability may be felled by conventional chainsaw methods
SL	**Contractor shall hand fall timber and then swing Included Timber along designated skid roads to designated landings or other agreed upon locations using a heel-boom loader or hydraulic excavator with grapple head. Equipment shall be equipped with with a boom having an operating radius of at least 35 feet for moving logs. Equipment must be capable of operating on slopes up to 35 %.**

K-G.5 - STREAMCOURSE PROTECTION *(02/2005)*

Unless otherwise agreed in writing, wheel or track laying equipment shall not operate within "Buffer Strips" except as necessary for fire suppression activities. "Buffer Strips" are areas marked on the ground or are within the distances identified on the Contract Area Map measured from the apparent high water mark of streamcourses. Boundaries of Buffer Strips may be modified by agreement in writing to meet unforeseen operating conditions.

Culverts, bridges, or other suitable structures shall be required on skid roads and trails only at points where it is necessary to protect Stream courses. The type of crossing structures, method of installation and removal shall be determined by agreement. Contractor in accordance with K-G.6# - Erosion Prevention and Control, shall remove such structures and associated fills.

Damage to Stream course or Buffer Strips caused by unauthorized Contractor's Operations shall be repaired by Contractor in a timely and agreed manner to the extent practical as determined by Forest Service to restore and prevent further damage to Stream courses.

K-G.6# - EROSION PREVENTION AND CONTROL *(05/2008)*

Erosion prevention and control work, including Streamcourse protection, required by K-G.5 and G.6 shall be completed within 15 calendar days after 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.

Notwithstanding other provisions in this contract and unless otherwise agreed in writing, any hay, straw, or mulch used in this contract shall be State of California certified weed free.

Additional erosion control requirements of this contract are listed in the following table.

See Table A.

SPECIFICATIONS PURSUANT TO K-G.6# - EROSION PREVENTION AND CONTROL.

Vegetative Soil Stabilization N/A

Special Erosion Prevention Measures Contractor shall give adequate treatment by spreading slash or wood chips or by agreement giving other treatment to portion of tractor roads, skid trails, landings, cable yarding corridors, tractor-end lined corridors and Temporary Road fills where necessary to supplement other erosion prevention measures required elsewhere in this contract. In no event shall Purchaser be required to treat more acres than that shown in the legend of Contract Area Map. The specific locations to be treated shall be designated on the ground by Forest Service. These special erosion prevention measures are to be done within the same date and time periods as stated above.

Soil Scarification. In addition to meeting the requirements of G.6.3 and G.6.4, Contractor shall scarify the following areas; unless otherwise agreed:

(a) Traveled Way of National Forest System roads used by Contractor and listed in the legend of Contract Area Map.

(b) Roadbeds of any Temporary Roads used for log hauling by Contractor.

(c) Landings or portions thereof located outside Roadbed limits of National Forest System roads not designated for scarification.

Scarification shall be to a depth of 6 inches, with intervals between striations not to exceed 12 inches, unless otherwise agreed.

Backblading Within recreation development sites and public use areas designated on Contract Area Map, Purchaser shall, at Forest Service request, backblade skid trails in lieu of cross ditching.

Tillage N/A

K-G.7# - SLASH TREATMENT *(12/2006)*

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

All vegetative debris associated with construction of Specified Roads such as unutilized timber, brush and grubbed stumps is Construction Slash. Measures to be taken by Contractor for treatment of Construction Slash are set forth in the attached road construction specifications and in the attached slash treatment specifications.

Vegetative debris larger than 1 inch in diameter outside bark and 3 feet long resulting from Contractor's Operations, other than Construction Slash, is Logging Slash. Measures to be taken by Contractor for treatment of Logging Slash are set forth below unless otherwise agreed in writing.

Forest Service and Contractor shall jointly develop a schedule for completion of slash treatment on the various portions of Project Area prior to Contractor's Operations.

Removing may be substituted for treatment of any other specified method.

By agreement in writing, certain slash may be left for fuelwood. When the specified treatment is by a combination of methods, Logging Slash not treated by one of the methods shall be treated by the other(s).

See the slash treatment specification table below.

See Table A.

SPECIFICATIONS PURSUANT TO K-G.7# - SLASH TREATMENT *(12/2006)*

Specified slash treatment methods shall be shown on Contract Area Map or listed in the following tables by the following symbols:

Slash Treatment Methods

Symbol	Method	Definition
Buck-L	"Bucking Large Logging Slash"	Tops and limbs over 4 inches diameter outside bark (d.o.b.), not to be otherwise treated, shall be bucked into lengths not to exceed 6 feet, unless agreed otherwise.
Buck-P	"Bucking and Piling"	Logging Slash smaller than < > inches and larger than 4 inches in large end d.o.b. shall be bucked into lengths not to exceed <> feet and left in place. Logging Slash 4 inches and smaller in large end d.o.b. shall be hand Piled within Required Disposal Strip for Forest Service disposal.
Bury	"Burying"	Logging Slash shall be buried where agreed in borrow areas, pits, trenches, or other locations reasonably near the area of origin. Logging Slash shall be matted down in layers and shall be covered with at least 2 feet of rock and soil so that the final surface is sloped to drain and relatively smooth.
Chip	"Chipping"	Chippable Logging Slash up to 4 inches in d.o.b. shall be processed through a chipping machine. Chips shall be scattered to a loose depth not exceeding 6 inches.
Deck	"Decking" large material	Logging Slash 10 inches or larger in large end d.o.b. and 10 feet or more in length shall be Decked for disposal by Forest Service by piling pieces parallel to each other.
Mach	"Machine Piling"	Concentrations of Logging Slash, excluding scattered individual pieces, shall be Machine Piled by tractor equipped with brush rake for disposal by Forest Service.
Pile	"Piling" small material	Logging Slash smaller than <> inches in large end d.o.b. and <> feet long shall be hand Piled for disposal by Forest Service.

Remove	"Removing"	Logging Slash shall be moved or hauled to locations shown on Contract Area Map and designated on the ground where it shall be piled for disposal by Forest Service.
Scat 18" Scat 30"	"Scattering"	Logging Slash shall be scattered to reduce slash concentrations with slash being generally left within 18 or 30 inches of the ground as shown on Contract Area Map. Logging Slash shall be scattered into openings away from and without unnecessary damage to residual trees. All scattered logs shall be limbed, placed away from trees and positioned so they will not roll. When Scattering is specified, another method may be used by agreement.
Stack	"Stacking" small material	Logging Slash <> inches or smaller in large end d.o.b. and <> feet or more in length shall be stacked for disposal by Forest Service by piling pieces parallel to each other.
View	"Visible Slash Treatment"	Designated on Contract Area Map with boundaries posted on the ground are <> with distance limitations for visible slash treatment. Within such units and the area of visible Logging Slash adjacent thereto, Logging Slash shall be treated by Contractor. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these means unless a method is specified or prohibited on Contract Area Map. Logging Slash not readily treated by the selected or specified method shall be removed to designated areas or treated as agreed.
YUMD	"Yarding Unutilized Material-Decking"	All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized material shall be Yarded to landings and Decked. Where this is impractical, or other reasons, other locations shall be agreed upon.

Unit	Large End d.o.b. (in)	Length (feet)

YUME "Yarding Unutilized Material-Exterior Boundary"

All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized material shall be yarded to locations a minimum of 50 feet slope distance within the exterior boundaries of such units and positioned so the yarded material will not roll.

Unit	Large End d.o.b. (in)	Length (feet)

YUML "Yarding Unutilized Material-Landing"

All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized shall be yarded to locations within 100 feet slope distance of landing. Where this is impractical, or other reasons, other locations shall be agreed upon.

Unit	Large End d.o.b. (in)	Length (feet)

YUMR "Yarding Unutilized Material-Removal"

All unutilized material developed by Contractor's Operations shall be treated by the d.o.b. and length specifications as shown in the unit specification table. All unutilized shall be removed to locations shown on Contract Area Map and designated on the ground, or other agreed locations, and Decked.

Unit	Large End d.o.b. (in)	Length (feet)

Cover "Covering Piles"

All piles shall be covered with a durable waterproof covering as approved by Forest Service. The material shall be at least six feet in width. Piles shall not be less than fifty percent covered, with the covering extending not less than half way down all sides. Pieces of burnable material shall be placed on top of the durable waterproof covering to keep the covering from blowing off the pile.

Fell	"Damaged Small Tress"	Unless treated under other provisions, all trees smaller than the minimum d.b.h. in A.2, over 5 feet in height, and damaged beyond recovery by Contractor's Operations shall be felled. Such trees shall be limbed to a stem diameter outside bark of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and shall be bucked into lengths not exceeding 20 feet.
Fire-L	"Firelines"	Shown on Contract Area Map and to be flagged on ground after logging by Forest Service are firelines to be constructed by Contractor unless otherwise agreed in writing. Contractor shall construct not more than <> chains of fireline by hand and not more than <> chains of fireline by tractor. Firelines constructed by hand shall be cleared of all vegetative debris larger than one inch in d.o.b. and three feet long. The width of firelines shall be at least <> feet, except across the top of cutting units where the width shall be at least <> feet. At least <> feet shall be scraped to mineral soil. In areas where there is potential for burning material to roll, the fireline shall be constructed in a trenched manner on the downhill side. Tractor lines shall be cleared of all vegetative debris, larger than one inch in diameter and three feet long, to a width of at least <> feet, with at least <> feet to mineral soil. No slash, brush, or other vegetative debris shall be buried in or under berms created in the construction of firelines. All limbs overhanging into the fireline, shall be removed to a minimum height of 8 feet. Firelines shall be completed on each unit in accordance with G.3.1.1 unless otherwise agreed in writing. In subdivisions <> and shown on Contractor Area Map, Logging Slash shall be scattered within <> feet slope distance of the inside edge of firelines.

Fuel-B	"Fuelbreaks"	Shown on Contract Area Map, with boundaries designated on the ground, are "Fuelbreaks" of varying width. Within such Fuelbreaks all Logging slash and Construction slash shall be treated by Contractor. Primary treatment shall be by Removing, Burying, Chipping, Piling, Machine Piling, or a combination of these methods unless a method is specified or prohibited on Contract Area Map. Slash larger than treatment size requirements of selected or specified methods shall be scattered outside Fuelbreak, or treated as agreed.

PILING SPECIFICATIONS. All piles shall be reasonably compact and free of soil to facilitate burning and shall be constructed of such size and at such distance from trees so that burning shall not result in unnecessary damage to residual timber. Such Logging Slash shall be bucked into lengths not exceeding ten feet prior to piling. Maximum width of tractor, with brush rake attached, shall not exceed (Not Applicable) inches. Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed <> percent. Piles shall be located a distance of at least twice their height in feet from the outer edge of tree crowns or snags. Piles shall be no less than four feet in height or greater than <> feet in height. Material extending three feet or more outside the edge of a pile shall be trimmed. An eight foot fuelbreak shall be cleared of all but fine material around each Machine Pile and an 18 inch wide fireline shall be cleared to mineral soil around the outer ring of the fuelbreak. For hand piles, Contractor shall construct a fireline cleared to mineral soil and at least 3 feet wide around each pile. In areas where there is a potential for burning material to roll, firelines, including those for Machine Piles, shall be trenched on the downhill side of each pile to adequately prevent material from crossing firelines. Trenches shall be constructed by hand unless otherwise agreed.

UNIT AND SUBDIVISION.SLASH TREATMENT SPECIFICATIONS.

	SLASH TREATMENT	
Subdivision or Unit No	***Specified Method***	***Prohibited Method***

LANDINGS AND DISPOSAL SITES. Unutilized logs accumulated at landings and disposal sites shall be Decked by Contractor for disposal by Forest Service. The maximum height of decks is shown in the following table. Other slash accumulated at landings and disposal sites shall be kept separate from unutilized logs and treated by the method shown in the following table.

		SLASH TREATMENT	
	Subdivision or Unit No.	**Specified Method**	**Maximum Height of Decks**
Landings			
Unutilized logs	*All Units*	*Deck*	*12 feet*
Other landing slash	*All Units*	*Mach*	*N/A*
Disposal Sites			

TREATMENT ALONG PERMANENT ROADS Permanent roads that require roadside slash treatment are listed in the attached table and shown on Contract Area Map. All Logging and Construction Slash within Required Disposal Strips shall be treated by Contractor. "Required Disposal Strips" are those areas adjacent to permanent roads where slash treatment is required for resource objectives. The width of Required Disposal Strips is shown in the attached table and is measured in slope distance from Roadbed edges of permanent roads. By agreement, in Clearcutting Units and regeneration units slash from Required Disposal Strips may be treated with other Logging Slash. By agreement the location of Required Disposal Strips may be adjusted from side to side without materially changing the total work required.

Slash treatment in Required Disposal Strips shall be accomplished without affecting the proper functioning of channels leading to and from drainage structures.

Logging Slash larger than treatment size requirements of the specified method shall either be Scattered outside Required Disposal Strip, within Required Disposal Strip or Decked at agreed locations as shown in the attached table.

			SLASH TREATMENT	
Road No.	**Subdivision and/ or Unit No. or Road Juncitons (From To)**	**Width of Required Disposal Strip**	**Specified Method**	**Slash Larger Than Treatment Size Requirements of Specified Method**

TREATMENT ALONG TEMPORARY ROADS. Outside of Clearcutting Units or regeneration units, all trees felled or pushed over and trees damaged beyond recovery by Temporary Road construction shall be felled, limbed to a stem d.o.b. of approximately 3 inches, at which point the top shall be cut from the remainder of the stem, and stem shall be bucked into lengths not exceeding <> feet. Such slash shall be Scattered free of soil to reduce concentrations unless treatment is required by another specified method.

ADDITIONAL SLASH TREATMENT REQUIREMENTS. Within areas shown on Contract Area Map, Contractor shall perform work according to the specifications in the attached Table, unless otherwise agreed in writing.

Subdivision, Payment Units, Roads and or Road Segments	Additional Slash Treatment Requirements
N/A	Yard all stem material to a top d.o.b. of 1 inch, from timber designated for cutting, with the following exception: broken portions of logs and tops less than 4 feet in length need not be yarded. Broken ends of merchantable logs shall not be bucked off in the units. Slash and Substandard Material accumulated at the landings shall be Decked or Machined Piled, in accordance with specifications above. Material accumulated at landings shall be considered as Timber Subject to Agreement under K-C.1.1#, described as Substandard Material and may be removed and paid for at Contractor's option.

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.9# - STEWARDSHIP PROJECTS *(09/2004)*

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

Stewardship Projects

K-G.9# - STEWARDSHIP PROJECTS.

Unit Number	Logging Type	Acres	Project 1 - Mandatory Biomass Cutting and Removal	Project 2 - Mandatory Machine Piling by the Hour	Project 3 - Optional Biomass Cutting and Removal	Project 4 - Optional Grapple Piling by the Hour
24	Conventional	2	--	--	2	--
42	Conventional	3	--	--	3	--
43	Conventional	13	--	--	13	--
52	Conventional	16	--	--	--	--
101	Conventional	163	--	--	163	--
104	Conventional	15	--	--	15	--
203	Conventional	189	--	--	189	--
301	Conventional	52	--	--	52	--
303	Conventional	14	--	--	--	--
304	Conventional	39	--	--	39	--
306	Conventional	119	--	--	119	--
310	Conventional	127	--	--	127	--
312	Conventional	96	96	--	--	--
318	Conventional	10	10	--	--	--
320	Conventional	17	17	--	--	--
323	Conventional	54	54	--	--	--
325	Conventional	11	11	--	--	--
326	Conventional	35	35	--	--	--
330	Conventional	39	--	--	39	--
331	Conventional	8	--	--	8	--
332	Conventional	85	--	--	85	--
333	Conventional	97	--	--	97	--
403	Conventional	13	--	--	13	--
404	Conventional	4	--	--	4	--
510	Conventional	77	--	--	--	--
512	Conventional	13	--	--	--	--
515	Conventional	277	--	--	--	--
527	Conventional	7	7	--	--	--
530	Conventional	8	--	--	--	--
532	Conventional	11	--	--	--	--
537	Conventional	26	--	--	26	--
539	Conventional	29	29	--	--	--
540	Conventional	54	--	--	54	--

Unit Number	Logging Type	Acres	Project 1 - Mandatory Biomass Cutting and Removal	Project 2 - Mandatory Machine Piling by the Hour	Project 3 - Optional Biomass Cutting and Removal	Project 4 - Optional Grapple Piling by the Hour
541	Conventional	7	--	--	7	--
547	Conventional	36	36	--	--	--
554	Conventional	6	--	--	6	--
555	Conventional	4	--	--	4	--
556	Conventional	10	--	--	10	--
563	Conventional	56	--	--	56	--
564	Conventional	6	--	--	--	--
565	Conventional	25	--	--	--	--
568	Conventional	49	--	--	49	--
663	Conventional	33	--	--	33	--
666	Conventional	52	52	--	--	--
667	Conventional	6	--	--	6	--
669	Conventional	94	94	--	--	--
900	Conventional	12	--	--	--	--
901	Conventional	87	--	--	--	--
902	Conventional	24	--	--	--	--
101a	Swing (SL)	0.9	0.9	--	--	--
101b	Swing (SL)	0.3	0.3	--	--	--
203a	Conventional	7	--	--	--	--
306a	Conventional	21	--	--	--	--
312a	Swing (SL)	4	4	--	--	--
331a	Swing (SL)	12	12	--	--	--
510a	Swing (SL)	11	11	--	--	--
532a	Conventional	4	--	--	--	--
532b	Conventional	6	--	--	--	--
532c	Conventional	8	--	--	--	--
556a	Conventional	2	--	--	2	--
568a	Conventional	9	--	--	9	--
568b	Swing (SL)	5	5	--	--	--
666a	Conventional	2	--	--	2	--
667a	Swing (SL)	0.8	0.8	--	--	--
667b	Conventional	10	--	--	10	--
901a	Swing (SL)	2	2	--	--	--
902a	Conventional	37	--	--	--	--
	Totals	2372	477	100	1242	50

Project # 1 Mandatory - Biomass Cutting and Removal

1. Unless otherwise agreed, within all specified conventional harvest units designated in the above table, the contractor shall cut and remove all dead conifer trees, greater than 10" DBH and less than 20" DBH not identified as leave trees. Unless otherwise agreed, Biomass Cutting and Removal requirements shall be done concurrently with the logging activities. No biomass tree cutting shall occur within streamcourse buffer strips shown on Contract Area Map and leave islands identified on the ground and shown on Contract Area Map.

2. Unless otherwise agreed, within all specified swing logging harvest units (101a, 101b, 312a, 331a, 510a, 568b, 667a and 901a) designated in the above table, the contractor shall cut and remove all dead conifer trees, greater than 10" DBH and less than 20" DBH not identified as leave trees in accordance with K-G.4.2# Ground Based Skidding (Swing logging). Unless otherwise agreed, Biomass Cutting and Removal requirements shall be done concurrently with the logging activities. No biomass tree cutting shall occur within streamcourse buffer strips shown on Contract Area Map and leave islands identified on the ground and shown on Contract Area Map.

3. Unless otherwise agreed, within all units designated in the above table, tree bole material greater than 10 feet in length from all hardwood and conifer trees required to be cut, including that material associated with the felling of hazard trees, shall be removed to landings or agreed upon disposal sites within the units and machine piled or decked in accordance with K-G.7# - Slash Treatment with the following exception. Leave two of the largest trees per acre that are greater than 15" large end diameter and 30' long.

4. All stump heights, shall meet the requirements as stated in A.6

Project #2 Mandatory - Machine Piling by the Hour

1. Forest Service shall designate areas after completion of logging within cutting units, on slopes generally <35%, concentrations of Logging Slash, which shall be Machine Piled by tractor equipped with brush rake for disposal by Forest Service. Contractor shall leave two of the largest trees per acre that are greater than 15" large end diameter and 30' long scattered throughout the unit

2. Unless otherwise agreed, Machine Piling in each unit shall be completed within 90 days of acceptance of logging requirements by Forest Service.

3. Payment method shall be on an hourly basis. Contractor shall keep a daily log of piling hours by unit. Log book shall be made available for inspection upon request by the Forest Service to verify hours worked and payment amounts.

Project #3 Optional - Biomass Cutting and Removal

5. Unless otherwise agreed, within all specified conventional harvest units designated in the above table, the contractor shall cut and remove all dead conifer trees, greater than 10" DBH and less than 20" DBH not identified as leave trees. Unless otherwise agreed, Biomass Cutting and Removal requirements shall be done concurrently with the logging activities. No biomass tree cutting shall occur within streamcourse buffer strips shown on Contract Area Map and leave islands identified on the ground and shown on Contract Area Map.

6. Unless otherwise agreed, within all units designated in the above table, tree bole material greater than 10 feet in length from all hardwood and conifer trees required to be cut, including that material associated with the felling of hazard trees, shall be removed to landings or agreed upon disposal sites within the units and machine piled or decked in accordance with K-G.7# - Slash Treatment with the following exception. Leave two of the largest trees per acre that are greater than 15" large end diameter and 30' long.

7. All stump heights, shall meet the requirements as stated in A.6

Project #4 Optional - Grapple Piling by the Hour

1. Forest Service shall designate areas after completion of logging within cutting units, on slopes generally <35%, concentrations of Logging Slash, which shall be piled using equipment with a boom having an operating radius of at least 20 feet and equipped with a grapple. Contractor shall leave two of the largest trees per acre that are greater than 15" large end diameter and 30' long scattered throughout the unit

2. Unless otherwise agreed, Grapple Piling in each unit shall be completed within 90 days of acceptance of logging requirements by Forest Service.

3. Payment method shall be on an hourly basis. Contractor shall keep a daily log of piling hours by unit. Log book shall be made available for inspection upon request by the Forest Service to verify hours worked and payment amounts.

GOVERNMENT QUALITY ASSURANCE PLAN

Inspection (General): Government inspections are for the purpose of satisfying the Government that the services are acceptable and do not relieve the Contractor of the responsibility for maintaining quality control. The Contractor shall conduct inspections on all units in accordance with the Contractor's Quality Control Plan included in the Contractor's technical proposal which is made part of this contract.

Inspection (Specific):

Project 1 and 3: Biomass Cutting and Removal (Conventional and Swing Harvest Units)

Measurable Performance Standards

- Cutting of all conifers as specified above
- Removal of cut trees to disposal sites as specified above
- Piling or Decking of removed material in accordance with Piling and Decking contractual specifications.
- Height of stumps after cutting

Project 2 Machine Piling By the Hour

Measurable Performance Standards

- Compactness and size of pile and pile placement relative to residual vegetation, improvements, streamcourses/riparian reserves
- Avoidance of slopes >35%, streamcourses/riparian reserves, and other protected areas
- Amount of soil displacement; maintenance of duff and litter largely intact
- Amount of soil in piles

Project 4 Grapple Piling By the Hour

Measurable Performance Standards

- Compactness and size of piles
- Pile placement relative to residual vegetation, improvements, streamcourses/riparian reserves
- Avoidance of slopes >35%, streamcourses/riparian reserves, and other protected areas
- Amount of soil displacement; maintenance of duff and litter largely intact
- Amount of soil in piles

K-H.2# - SPECIFIED FIRE PRECAUTIONS *(06/2012)*

Contractor or a designated Contractor's Representative shall certify compliance with specific Contract and California Public Resources Code (CPRC) fire precautionary measures in H.1 Plans, K-H.2# and K-H.2.2#. Certification shall be provided prior to starting operations during Fire Precautionary Period and shall be updated as needed.
Listing of specific fire precautionary measures in the following 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.
Upon request of Forest Service, Purchaser shall permit and assist in periodic testing and inspection of required fire equipment.
The following definitions shall apply to H.2# and K-H.2.2#:

Active Landing: A location Contractor is skidding logs into, or performing other operations such as delimbing, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiled chips only on a cleared landing does not constitute an Active Landing.

Hot Saw: A harvesting system that employs a high-speed (>1100 rpm) rotating felling head (i.e., full rotation lateral tilt head).

Mechanical Operations: The process of felling, skidding, chipping, shredding, piling, log processing and/or yarding which requires the use of motorized power which includes, chainsaws, chippers, motorized carriages, masticators, stroke delimbers, skidders etc.

Specific equipment requirements and fire precautionary measures are shown in the following table and in K-H.2.2#:

Table A

SPECIFICATIONS PURSUANT TO K-H.2# - SPECIFIED FIRE PRECAUTIONS.

A. Fire Tools and Equipment

Contractor shall meet applicable parts of Section 4428 of the CPRC.

Unless agreed otherwise, Fire tools kept at each Active Landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Contractor's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. Fire tools shall be kept in a sealed fire tool box adjacent to the Active Landing and readily accessible in event of fire.

Where cable yarding is used, Contractor shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a serviceable 5 gallon backpack pump filled with water or a fire extinguisher bearing a label showing at least a 4-A rating must be within 25 feet of each tail and corner block.

Trucks, tractors/skidders, pickups and other similar mobile equipment shall be equipped with and carry at all times a size 0 or larger shovel with an overall length of not less than 46 inches and a 2-1/2 pound axe or larger with an overall length of not less than 28 inches.

All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

B. Fire Extinguishers

Contractor shall equip each internal combustion yarder, fuel truck, and loader with a (4-A:60-B:C) fire extinguisher for oil and grease fires.

Skidders and tractors shall be equipped with a minimum 5-BC fire extinguisher.

Fire extinguishers shall be mounted, readily accessible, properly maintained and fully charged.

Contractor shall equip all mechanized harvesting machines and log processors with hydraulic systems, powered by an internal combustion engine (e.g. masticator, chipper, feller/buncher, harvester, forwarder, Hot Saw, stroke delimber, etc), with at least two 4-A:60-B:C fire extinguishers or an acceptable CAFS substitute identified in Section K.

C. Spark Arresters and Mufflers

Except for tractors and other equipment with exhaust-operated turbochargers, Contractor shall equip each operating tractor and any other internal combustion engine with an approved spark arrester. There shall be no exhaust bypass on any system.

Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the National Wildfire Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be properly mounted and maintained according to manufacturer's specifications.

Every motor vehicle subject to registration shall at all times be equipped with an adequate exhaust system meeting the requirements of the California Vehicle Code.

D. Power Saws

Each power saw shall be equipped with a spark arrester approved and maintained in effective working order as identified in the Spark Arrestor Guide in Section C. above and according to applicable parts of CPRC Section 4442 or 4443. An Underwriters Labortories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating saw.

A size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can, but not more than 300 feet from each power saw when used off cleared landing areas.

E. Fire Supervisor & Fire Patrolperson

Contractor shall designate in the fire plan required by H.1 and furnish on Contract Area during operating hours a fire supervisor, named in writing and authorized to act on behalf of Contractor in fire prevention and suppression matters.

Unless agreed otherwise, Contractor shall furnish and designate in writing, a Fire Patrolperson each operating day when Project Activity Level C or higher is in effect. When on duty, the Fire Patrolperson is required to patrol the operation for the prevention and detection of fires, to take suppression action where necessary and to notify Forest Service as required under Sections I. Reporting Fires and L. Communications. This Fire Patrol is required on foot, unless otherwise agreed.

By written agreement, one Fire Patrolperson may provide patrol on this and adjacent projects or sales. No Fire Patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

F. Seasonal Permits

Contractor shall obtain written permits from Forest Service before allowing welding, warming fires or burning, subject to K-H.2.2# - Emergency Precautions.

G. Clearing of Fuels

Contractor shall clear away, and keep clear, fuels and logging debris as follows:

Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law:	10 feet slope radius
Tail or corner haulback blocks:	All running blocks on a cable yarding operation shall be located in the center of an area that is cleared to mineral soil at least 15 feet in diameter.
Lines near, between or above blocks:	Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material.

H. Smoking

All smoking shall be confined within a car, truck, crew rig or other enclosed cab after 1:00 PM on Ev days and all hours on E days (K-H.2.2#). At other times, any smoking shall be done while sitting in an area at least 3 feet in diameter, cleared of flammable materials. Burning tobacco and matches shall be extinguished before they are properly disposed.

I. Reporting Fires

As soon as feasible, but no later than **15 minutes** after discovery, Contractor shall notify Forest Service of any fires on Contract Area or along roads used by Contractor.

J. Tank Truck

Contractor shall provide a water tank truck or trailer on or in proximity to Contract Area during Contractor's Operations hereunder during Fire Precautionary Period unless otherwise agreed.

Tank truck or trailer shall contain at least 300 gallons of water and comply with the following requirements:

(1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Contract Area by Forest Service using a 5/16 inch orifice with a one inch in line test kit and shall meet or exceed the pressure values identified in the following table for nearest temperature and elevation:

Temp	Sea Level		1000 Feet		2000 Feet		3000 Feet		4000 Feet		5000 Feet		6000 Feet		7000 Feet		8000 Feet		9000 Feet		10000 Feet	
55	179	23	174	23	169	23	165	22	161	22	157	22	153	22	150	21	146	21	142	21	139	21
70	175	23	171	23	166	22	162	22	158	22	154	22	150	21	147	21	143	21	139	21	136	20
85	171	23	168	23	163	22	159	22	155	22	151	21	147	21	144	21	140	21	136	20	133	20
100	168	23	164	23	159	22	155	22	152	22	148	21	144	21	141	21	137	20	133	20	131	20
	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM	PSI	GPM

The pump outlet shall be equipped with 1-1/2 inch National Standard Fire Hose thread. A bypass or pressure relief valve shall be provided for other than centrifugal pumps.

(2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than 50 feet, when measured to the extreme ends of the couplings. Hose shall have reusable compression wedge type 1-inch brass or lightweight couplings (aluminum or plastic). One end of hose shall be equipped with a coupling female section and the other end with a coupling male section. The hose shall, with the nozzle closed, be capable of withstanding 200 PSI pump pressure without leaking, distortions, slipping of couplings, or other failures.

(3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

	G.P.M.	Horizontal Range
Straight Stream	10	38 feet
Fog Spray	6 - 20	N/A

(4) Sufficient fuel to run pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

(5) When Contractor is using Hot Saws or Masticators an additional 250 feet of light weight hose, approved by Forest Service, shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above.

(6) This equipment and accessories shall be deliverable to a fire in the area of operations and is subject to the requirements for each specific activity level identified in K-H.2.2#.

K. Compressed Air Foam System (CAFS)

A fire suppression system where compressed air is added to water and a foaming agent. By agreement, Contractor may substitute a CAFS or functional equivalent in lieu of the tank truck, trailer or fire extinguishers, provided it meets or exceeds the following specifications and requirements:

1. Variable foam expansion ratio - 10:1 to 20:1.
2. Units shall be kept fully charged with air; water and foam concentrate as recommended by the manufacturer and have the appropriate tools to service the system.
3. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellent.
4. The unit shall be capable of being completely recharged within 10 minutes.
5. When used on cable yarding landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section B. above may be substituted with a 3 gallon CAFS.

Tank truck, trailer or equivalent may be substituted with a 30 Gallon CAFS with at least 550 feet of one inch hose and an adjustable nozzle with enough water, air and foam concentrate for at least one recharge.

This equipment and accessories shall also be deliverable to a fire in the area of operations and subject to the requirements for each specific activity level identified in K-H.2.2#.

L. Communications

Contractor shall furnish a serviceable communications system such as a telephone, radio-telephone, radio system or satellite phone connecting each operating side within the Contract Area with Contractor's headquarters, and capable of notifying Forest Service within **15 minutes** of discovery of any fires on the Contract Area or along Contractor's haul route. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may agree to a reasonable alternative notification method.

A Citizen's Band (CB)radio is not acceptable communications.

M. Cable Yarding Tank Unit

When all or part of Included Timber will be harvested by a long span (over 1,500 feet)cable yarding operation, Contractor shall provide at each active cable yarding landing a tank truck, trailer or acceptable CAFS substitute which can be lifted and transported by the carriage.

The unit shall meet the same requirements as specified for the tank truck, trailer or approved CAFS substitute.

N. Helicopter Yarding Fire Precautions

Contractor shall provide and maintain fire equipment as follows:

1. The fire tool box required under this provision shall be equipped for attachment to the helicopter long line so that it may be hauled to needed locations. Such attachment device shall not interfere with access to fire tools. Unless agreed otherwise, the fire tool box shall be located at the Active Landing ready for immediate dispatch.
2. An external helibucket readily attachable to the helicopter, with a capacity of at least 500 gallons, and having a remote control door mechanism adequate for rapid dropping of water. The helibucket shall be located at the helicopter service landing and shall be filled with water ready for immediate dispatch unless otherwise agreed.
3. All aircraft used in conjunction with Contractor's Operations shall be equipped with an operable radio system capable of meeting Region Five avionics requirements.
4. For protection of fuel servicing operations, fire extinguishers which have the following ratings based on the open hose discharge capacity, i.e., "broken hose," of the aircraft fueling system shall be readily available:
   a. Where said capacity does not exceed 200 gallons per minute, at least one approved extinguisher having a minimum rating of 20-B;
   b. Where said capacity is in excess of 200 gallons per minute, but not over 350 gallons per minute, one approved extinguisher having a minimum rating of 80-B;
   c. Where said capacity is in excess of 350 gallons per minute, two approved extinguishers, each having a minimum rating of 80-B.
5. By agreement, a suitable CAFS may also be used in lieu of the above extinguishers.
6. Extinguishers of over 50 pounds gross weight shall be of wheeled type or be mounted on carts to provide mobility and ease of handling.

K-H.2.2# - EMERGENCY PRECAUTIONS *(06/2012)*

Contractor's Operations shall conform to the limitations or requirements in the Project Activity Level (PAL) table below. Unless otherwise agreed in writing, Project Activity Levels applicable to this project shall be the predicted levels for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Contract Area Map legend.
Forest Service, in its sole discretion, may change the predicted activity level if the current fire suppression situation, weather and vegetation conditions warrant an adjustment. If practicable, Forest Service will determine the following day's activity level by 6:00 PM. Contractor shall obtain the predicted Project Activity Level from the appropriate Ranger District Office before starting work each day. Forest Service may change the Project Activity Level Table to other values upon revision of the National Fire Danger Rating System. When Contractor is notified, the revised Project Activity Levels will supersede the levels in the Project Activity Level Table below.

PROJECT ACTIVITY LEVEL (PAL) - K-H.2.2# - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL (PAL) - K-H.2.2# - EMERGENCY PRECAUTIONS

PROJECT ACTIVITY LEVEL TABLE

Level	***Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.***
A	Minimum required by K-H.2#.
B	1. Tank truck, trailer, or approved CAFS substitute shall be on or adjacent to the Active Landing.
C	1. When Hot Saws or Masticators are operating, a tank truck, trailer or approved CAFS substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire Patrol is required for two hours.
D	1. Immediately after Hot Saw or Masticator operations cease, Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3. No Welding or cutting of metal after 1:00 PM, except by special permit.

Ev	1. The following activities may operate all day: a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. **4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are:** • **Rubber Tire Skidding** • **Chipping on Landings** • **Helicopter Yarding** • **Fire Salvage** When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).
E	The following activities may operate all day: 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. All other activities are prohibited.

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.